

Waitemata Harbour Foreshore



Reserves Management Plan



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Reserves Management Plan

This document is a Management Plan for the reserves in Waitakere City that border the Waitemata Harbour. This Plan is intended as a guide for the future protection, use and development of these reserves and considers the reserves and their values in combination, as part of an integrated natural system that acknowledges the inter connectivity between land and harbour environments. This plan also responds to and guides the individual management of the reserves and the sensitive coastal environment in which they exist.

The project team is appreciative of the interest shown by the residents of Waitakere throughout the development of this Reserve Management Plan, and thanks to those who took the time to be involved.

Adopted

September 2007

By the

**Waitemata Harbour Foreshore Reserves Management Plan Joint
Subcommittee**

Prepared by

Waitakere City Council

Parks Planning Section



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PART ONE

INTRODUCTION AND BACKGROUND

“ We paddled seawards through the afternoon, ..., until the creek widened to an estuary and we had broad banks of mud and mangrove swamps at either side. Launches and yachts were moored in side creeks, at wooden jetties....Seagulls turned lazily overhead. At last we saw the sea. It was wide and silver, running into the mud.”

Maurice Gee

Summary

The Waitemata Harbour Foreshore Reserves span the western edge of the sparkling Waitemata Harbour, from Whenuapai in the north to Kelston in the south east. The Reserves cross three wards, Massey, Henderson and New Lynn. The Reserves include local purpose esplanade reserves, and recreation reserves.

The Waitemata Harbour Foreshore Reserves provide value to the residential neighbourhoods of Whenuapai, Herald Island, Hobsonville, West Harbour, Massey, Royal Heights, Te Atatu Peninsula, Te Atatu South, Glendene, Kelston and New Lynn.

The majority of the Reserves are narrow strips that follow the western edge of the Waitemata coastline, some adjoining areas of wide open space. The landscape character within the Reserves varies greatly, as does the surrounding landuse, across the length of the Waitemata coastline.

The reserves provide physical and visual connections to the coastal environment. The reserves are a buffer zone, between varying densities of urban residential/industrial development, and the dynamic coastal processes found operating in the sensitive harbour environments. The values of the reserves are numerous, in a cultural, social, recreational and ecological sense.

This Reserves Management Plan outlines Objectives and Policies for the management of the Waitemata Harbour

Foreshore Reserves. This plan has been produced within the context of Waitakere's wider Goals and Objectives and within the framework of Waitakere's Parks and Open Space Strategy.

This Reserves Management Plan is intended as a guide for the future protection, use and development of the reserves. It considers the reserves and their values in combination, as part of an integrated natural system that encompasses terrestrial, riparian, harbour and estuarine environments.

This Reserves Management Plan also guides and responds to the individual management of the reserves in the context of the sensitive coastal environment in which they lie.

Key objectives of the Reserve Management Plan are outlined below:

- To increase the use and enjoyment of the Reserves and their social and recreational opportunities in a way that is consistent with the purposes and values of the reserves;
- To manage the Reserves in a way that ensures the protection and enhancement of the natural ecosystems at the Waitemata Harbour Foreshore, in particular, give priority to those ecosystems with outstanding or significant vegetation. To encourage revegetation of areas where appropriate;



- To restore and enhance the life-supporting capacity of Harbour and its tributaries;
- To promote reserve values where appropriate;
- To ensure that the potential adverse effects of structures and physical processes on the natural character and landscape values of the Waitemata Harbour are avoided, remedied or mitigated;
- To minimise obstacles to free access, parking and circulation to reserves without compromising the values of the reserves and their role within the local communities;
- To ensure the reserves are managed in terms of their reserve classifications for the enjoyment and use of the local and regional community, now and in the future.
- To increase opportunities for people to enjoy nature on the reserves;
- To recognise, protect and, as appropriate, promote the Maori cultural and historical values of the reserves together with the wider harbour environment, and to work in partnership with Iwi on the management of issues of significance on the reserves;
- To recognise, protect and, as appropriate, promote all cultural and historical values of the reserves.

1.0 CONTEXT

1.1 Waitemata Harbour Environment

The form of the Waitemata Harbour is described as a sheltered, narrow and enclosed estuary. The enclosed nature of the harbour determines the absence of swell waves. This in turn determines the glassy, flat and tranquil appearance of the waters surface at high tide.

This harbour form was generated by past geological processes, where a rise in sea level drowned an ancient river valley. This process, along the associated sedimentation, created the harbour we see today.

The Waitemata Harbour is tidal, with broad open mud flats and channels of varying depths and widths. Shell banks are evident in the harbour, and although limited, are considered as important ecologically. The interface between the land and sea along the Waitemata coastline consists of estuarine and harbour/mangrove ecosystems.

The overall landscape condition of the Auckland Region is the isthmus form. The Waitemata is one harbour that makes up this form, the Manukau is the other.

There are many rivers and streams that flow overland through reserves, and discharge into the Waitemata Harbour. Among these are the Huruhuru Stream, Swanson Stream, Oratia and Opanuku Streams that converge into the Henderson Creek, and the Whau River. The stream and river systems interact with the tides of the harbour, and through sediment transportation and deposition, helps to form the mudflats integral to the nature and function of the Waitemata Harbour.



Chapman Strand - Te Atatu Peninsula

WAITEMATA HARBOUR FORESHORE RESERVES



1.2 The Purpose of the Reserves Management Plan

The purpose of this Reserve Management Plan is to provide for the enjoyment of ecological, social and recreational opportunities for the community, while taking into consideration the unique character of the Waitemata Harbour environment.

This Reserve Management Plan integrates the 74 reserves that lie adjacent to the Waitemata Foreshore, that are administered by the Waitakere City Council. This excludes reserves that are classified as Citywide reserves in the draft Parks and Open Space Strategy, namely, Moire Park, Brains Park, McLeod Park, Harbourview - Orangihina, and Luckens Reserve. The definition of a Citywide park is included in section 1.6 of this Reserves Management Plan.

This Reserves Management Plan outlines the values of the Reserves, in Part One. Part Two responds to these reserve values, through the development of Objectives and Policies, to guide the management of the Reserves. Part Three contains a Table of Works and Concept Plans, for future implementation.

The works prioritised in this Reserves Management Plan through the Table of Works and Concept Plans, are subject to budget allocations. The process for allocating budget is through the Waitakere City Council Long Term Council Community Plan Process.

1.3 The Reserve Management Plan Process

The process that was followed in the production of this Reserve Management Plan was in accordance with the provisions of the Reserves Act, 1977 and included extensive community consultation.

Below is a table outlining the steps taken in this process.

November 2005

Council reports and selection of representatives for Council Subcommittee.

February 2006

Public Notification of intention to prepare draft Reserves Management Plan.

February/March 2006

Background research and initial discussions and contact with interest groups. Issues identified and evaluated and included in draft Reserves Management Plan.

March/April 2006

Public workshops on Reserve Management Plan issues and suggestions.

Preliminary submissions close.

May - November 2006

Draft Reserves Management Plan prepared.

January 2007

Draft Reserves Management Plan prepared.

February 2007

Preliminary draft Reserves Management Plan to Advisory Group.

Amendments to preliminary draft Reserves Management Plan.

March 2007

Presentation of preliminary draft plan to Advisory Group.

Amendments and completion of preliminary draft Reserves Management Plan.

April 2007

Presentation of preliminary draft plan to Advisory Group.
Amendments to Preliminary Draft Plan.

May 2007

Draft Plan presented to subcommittee for approval to publicly notify.

May /June 2007

Draft Plan publicly notified for submissions.

August/September 2007

Submission period for draft Reserve Management Plan closes.

Hearing of submissions to draft Plan by Subcommittee.

Discussion of submissions with Advisory Group.

Proposed amendments to the Reserve Management Plan based on submissions to the Subcommittee.

October 2007

Modification of Plan according to decisions of Subcommittee and adoption of final Reserves Management Plan on behalf of Council.

November onwards 2007

Plan kept under continual review by Waitakere City.



Spinnaker Strand, Te Atatu Peninsula



1.4 How to use this Reserve Management Plan

This Reserves Management Plan is presented in three Parts:

Part One includes a brief explanation of the Statutory and Strategic framework within which this Reserve Management Plan is prepared. Part One also contains an index to the reserves, their legal classification and describes the values of the reserves.

Part Two contains detailed objectives for the management of the reserves and an explanation of these. It outlines policies which will enable the objectives to be met and the method of their implementation.

Part Three includes Concept Plans and Design Guidelines for the reserves, that outlines how future development is to be implemented in specific detail.

1.5 Summary of Existing Reserve Management Plans

Waitakere City Council has previously prepared individual Reserve Management Plans for four reserves along the Waitemata Harbour Foreshore. These reserves are now included as part of this combined Reserves Management Plan for the local esplanade reserves on the Waitemata Foreshore. The main findings from these previous Reserve Management Plans are described below.

Any management objectives from these plans that are relevant to current issues facing the Reserves will be considered as part of this Reserves Management Plan. This current Reserves Management Plan will also incorporate any work that has not been implemented on the reserves, that was previously recommended.

Taipari Strand Reserve Management Plan Te Atatu Peninsula

The Taipari Strand Reserve Management Plan was

adopted by Waitakere City Council in March 1994.

The main management objectives from this plan were;

- The importance of retaining water quality of the stream;
- To enhance and protect flora and fauna habitats;
- To protect the open space character of the Strand while providing for native restoration, and
- A tree planting programme to replace trees that die, and to provide for passive recreation.

Reserve History

Taipari Strand was previously a tip, reclaimed from the Henderson Creek. Reclamation occurred in 1963, and the tip became known as the Taikata Road Tip. The tip was in action until 1968, and was used again in 1970 until it was closed in 1974. The process of covering the compacted rubbish with topsoil took one year, after which Taipari Strand was vested as a recreation reserve (gazette 1975 pg.2528).

Taipari Strand was zoned under the Draft District Scheme at that time as Recreation 2 Activity Grounds, to which local residents objected. This particular group of local residents became the Taipari Strand Association.

The Taipari Strand Association felt that a zoning of Recreation 2 did not reflect the unique character of Taipari Strand, and felt that the zoning did not fulfil Council's promises regarding the future of the reserve, after the tip had ceased operating. The Association felt that Recreation 1 (playground and amenity) would be a more appropriate zoning for the Strand.

This notion went to the Planning Hearings Committee, which agreed that the Strand should be zoned as recreation 1, as,

"the strand has a special character due to its wilderness nature and waterside location. To ensure that this character is retained, a zoning which permits minimal development should be imposed, this is recreation 1"

A Council Resolution from a 1974 meeting of importance to the local residents reads,

" Moved by Cr. Davies, seconded Cr Batt that Council record its appreciation of the co-operation received from the

residents and ratepayers in the vicinity of Taikata Road Tip during the reclamation work which has now produced a very valuable asset in the form of 21 acres of land which will be used as a passive recreation reserve.”

At the time of the writing of the 1994 Management Plan for Taipari Strand, local residents expressed concern that the park had not been fully developed, according to previous council promises. A group of council officers was formed with the main aim to liaise closely with the Taipari Strand Association. Roy Ranby is the remaining spokesperson from that association. At a meeting in 1987, it was passed that passive development would occur on the reserve, as a basis for future development. Local residents were adamant that Taipari Strand would not be considered as a location for formal sports grounds.

Policies from Taipari Strand Reserve Management Plan

- Create a walkway linkage as shown on the landscape development plan;
 - Use natural materials where possible;
 - Provide for play equipment;
 - Native revegetation;
 - No planting that will impede views to Henderson Creek;
 - Eradicate noxious weeds.
-
- To improve the qualities of the Strand by implementing the landscape development plan as included in the management plan;
 - To ensure that the changes to facilities and new developments conform to the concept plan;
 - Any new park furniture, buildings or alterations to buildings be approved if of a high standard and is sensitive to the surrounding landscape;
 - Provide for off-street parking, but create an attractive facility on the reserve;
 - Additional car parks only to be provided where it is deemed necessary;
 - Planting to screen and soften parking areas;
 - Restrict unnecessary signs on the reserve;
 - Signage be provided for educational benefit;
 - Permit temporary signage in accordance with council's signage policy on reserve;



Taipari Strand - Te Atatu Peninsula



Riverpark Reserve Management Plan, Henderson

Reserve Development History

A draft Reserve Management Plan for Riverpark Reserve in Henderson, was prepared in 1982.

The land acquisition required to purchase land to form Riverpark Reserve took place in 1924. The main development of this reserve occurred between 1971 and the 1980s. The toilet block was built in 1971, and the footbridge over the Huruhuru Creek was built in 1974. This connects to Sunline Esplanade on the opposite bank of the Huruhuru Creek. The footbridge over the Paremuka Stream, connecting to Woodside Road, was replaced in 1984. The parking area at the Bittern Place entrance of the reserve was built in 1975, as was the boat ramp. The Marina Licence to operate as a boat ramp existed until 1988. Other park facilities include, a children's playground, and concrete footpaths leading to reserve entrances.

Management Objectives

Management objectives for Riverpark Reserve at the time of this Reserve Management Plan was to,

- Preserve areas of open space for passive recreation in consultation with the community;
- Encourage the use of boat ramps for active recreation;
- Tree planting for aesthetic appeal and
- To replace the relocatable hall with a new scout den for Lincoln Scout Group that will incorporate community facilities.

Implementation

- Council will plant trees on the banks of the Huruhuru and the Taikata Inlet;
- Applications for galas and fetes will be

considered on the reserves if the use does not affect the activity of the reserve, and the degree to which the activity will affect other reserve users;

- Consent be granted for the scout den, Lincoln Scout Group and community facilities.



Riverpark Reserve - Henderson

Chapman Strand Reserve Management Plan - Te Atatu Peninsula

A draft Reserve Management Plan was prepared in 1981 for Chapman Strand in Te Atatu Peninsula.

Reserve Development History

Chapman Strand was developed mainly by the Taikata Sailing Club who carried out two reclamations from mud and mangroves, and developed a beach area for which council supplied the sand. One of the ambitions of the club at this time was to form a picnic area for families using the beach area, to help with the congestion that was caused between swimmers and sailors. The existing seawall was constructed in 1882. Council has provided for toilets and a car parking area, but no changing sheds at Chapman Strand, at the time of the writing of this Reserves Management Plan.

Management Objectives

The management objectives for Chapman Strand were to,

- Cooperate with the community to maintain areas for passive recreation,
- Encourage the use of ramps and beaches for active recreation,
- Prevent erosion .

Implementation

- To develop a foreshore walkway to encompass the whole of Te Atatu Peninsula

Lowtherhurst Reserve Management Plan - Massey

A draft Reserve Management Plan for Lowtherhurst Reserve in Massey, was prepared in 1984.

Reserve Development History

Development at Lowtherhurst Reserve has been limited, due to existing vegetation patterns. The reserve was used at the time the Reserve Management Plan was written for passive recreation, including swimming in the stream. Play equipment existed near waterfalls. A footbridge was developed in 1977 across the stream in the middle of the park, with a concrete footpath connecting Huruhuru Road with Redwood Drive via the footbridge, giving pedestrians a meandering scenic and easily graded walkway.

Management Objectives

- Cooperate with the community to improve and extend existing facilities;
- Protect the natural and tranquil qualities of the reserve ;



Lowtherhurst Reserve - Massey



- Maintain native bush and revegetate to encourage bird life;
- Administer council bylaws so that users of the reserves do not disturb neighbouring residents,
- Construct foreshore walkways to improve accessibility adjoining Ruawaru Inlet,
- Street reserve Lot 3 DP 64552 to be changed to recreation reserve and added to the reserve,
- Add surplus motorway area to the reserve.

Implementation

- Continued maintenance,
- Monitor health of the Ruruwaru Stream,
- Identify erosion and plant areas where erosion is prevalent.

1.6 Citywide Reserves on the Waitemata Harbour Foreshore

Reserves in Waitakere have been classified into different categories, according to the role they play within the wider reserve network. These categories are outlined in the draft Parks and Open Space Strategy, which is explained further, in section 4.4 of this Reserves Management Plan.

The reserves included in this Reserves Management Plan are identified in the draft Parks and Open Space Strategy as a collective of local reserves that are of importance to the Green Network. The Green Network is explained in section 4.2.1 of this Reserves Management Plan.

This Reserves Management Plan excludes reserves that are classified as Citywide in the draft Parks and Open Space Strategy, although they too lie adjacent to the Waitemata Harbour. These reserves are, Moire Park, Brains Park, McLeod Park, Harbourview - Orangihina, and Luckens Reserve. These reserves all have current Reserve Management Plans, apart from McLeod Park, which is due 2010. All Citywide parks are

allocated individual Reserve Management Plans.

Citywide reserves are defined in the draft Parks and Open Space Strategy as,
“Large individual parks or groups of parks that combine to provide significant areas of native ecosystems, and a variety of landscapes and recreation opportunities”.

Citywide reserves are seen as the key method of meeting the needs of Waitakere in the future, and for providing a unique recreational, social and ecological function within the wider Citywide reserves network.

Despite the fact the Citywide reserves have individual Reserve Management Plans, these reserves and their values are considered in conjunction with the values of the local reserves included in this Reserve Management Plan. This is to ensure a holistic approach to management is undertaken across the length of the Waitemata Harbour Foreshore.

Harbourview - Orangihina Open Space Management Plan

Harbourview – Orangihina is particularly integral to this Reserve Management Plan, as this reserve covers a large land area and has numerous reserve values. These values include both ecological and cultural values.

Archeological sites on Harbourview - Orangihina include,

- Auckland Brick and Tile Company;
- Shell midden sites;
- World War II Anti Aircraft Gun Emplacement;
- Brick House;
- Small Wooden Cottage.

This reserve therefore shares management strategies with the adjacent foreshore reserves in Te Atatu Peninsula, and the other reserves included in the Waitemata Harbour Foreshore Reserve Management Plan. The Policies and Objectives of the Harbourview – Orangihina Open Space Management Plan have been considered in the development of the Waitemata Harbour Foreshore Reserves Management Plan.

For more details of the above, please refer to the Harbourview-Orangihina Open Space Management Plan.

1.7 Purpose of Esplanade Reserves

The purpose of an esplanade reserve is outlined in the Resource Management Act 1991 (RMA). This states that the esplanade reserve has one or more of the following purposes,

- (a) *to contribute to the protection of conservation values by, in particular-*
 - (i) *maintaining or enhancing the natural functioning of the adjacent sea, river or lake; or*
 - (ii) *maintaining or enhancing water quality; or*
 - (iii) *maintaining or enhancing aquatic habitats; or*
 - (iv) *protecting the natural values associated with the esplanade reserve or esplanade strip; or*
 - (v) *mitigating natural hazards; or*
- (b) *to enable public access to or along any sea, river, or lake; or*
- (c) *To enable public recreational use of the esplanade reserve or esplanade strip and adjacent sea, river, or lake, where this use is compatible with conservation values.*

This Reserve Management Plan considers the above purposes of esplanade reserves, giving particular regard to, protecting the values of the adjacent coastal environment, the recognition of the esplanade reserve as a mitigation tool against natural hazards such as erosion, and to enable public access and recreational use of the harbour through the reserves.

2.0 STATUTORY REQUIREMENTS

The following sections contain the background information relating to the statutory framework within which this Reserves Management Plan has been prepared.

2.1 Reserves Act 1977

The current legislation for administering reserves in New Zealand is the Reserves Act, 1977 (Reserves Act). The purpose of the Reserves Act is outlined in Section Three of that Act, and is quoted below. The Act is administered in the Department of Conservation, for the purpose of,

- (a) *Providing, for the preservation and management for the benefit and enjoyment of the public, areas of New Zealand possessing –*
 - (i) *Recreational use or potential, whether active or passive; or*
 - (ii) *Wildlife; or*
 - (iii) *Indigenous flora or fauna; or*
 - (iv) *Environmental and landscape amenity or interest; or*
 - (v) *Natural, scenic, historic, cultural, archaeological, biological, geological, scientific, educational, community, or other special features or value:*
- (b) *Ensuring, as far as possible, the survival of all indigenous species of flora and fauna, both rare and commonplace, in their natural communities and habitats, and the preservation of representative samples of all classes of natural ecosystems and landscape, which in the aggregate originally gave New Zealand its own recognisable character:*
- (c) *Ensuring, as far as possible, the preservation of access for the public to and along the sea coast, its bays and inlets and offshore islands, lakeshores and riverbanks, and fostering and promoting the preservation of the natural character of the coastal environment and of the margins of lakes and rivers and the protection of them from unnecessary subdivisions and development.*

All reserves are required under the Reserves Act to have a current Reserve Management Plan. The process for preparing



a Reserve Management Plan is outlined in the Reserves Act. This includes a public consultation process, including two rounds of public submissions. The second round of submissions is to a draft Reserve Management Plan where submitters have the opportunity to speak at a hearing. The Council Committee deliberates on proposed amendments to the draft Plan, based off submissions both received and heard. Pending amendments, the plan is adopted.

Once this Plan has been adopted, it is subject to continuous review, so that it adapts to changing circumstances or increased knowledge about the reserve. The review procedure is outlined in the Reserves Act and requires a public notification and submission process.

The Reserves Act also requires that all reserves be classified and gazetted according to the classifications outlined by the Act. Appropriate classification for the majority of the reserves included in this Reserve Management Plan would be Local Purpose (esplanade) reserve. This excludes the occasional reserve such as Pahiki Reserve where the esplanade is not the primary purpose being classified, so is a recreation reserve.

The Reserves and their classifications and purposes are described in detail in the Reserve Index section 3.0, in Part One of this Reserve Management Plan.

2.2 Resource Management Act 1991

The purpose of the Resource Management Act (RMA) is to

“promote the sustainable management of natural and physical resources.”

The RMA requires this Reserves Management Plan to consider the following “matters of national importance”:

- (a) *The preservation of the natural character of the coastal environment, wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development;*
- (b) *The protection of outstanding natural features and*

landscapes from inappropriate subdivision, use, and development;

- (c) *The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna;*
- (d) *The maintenance and enhancement of public access to and along the coastal marine area, lakes and rivers;*
- (e) *The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga.*

2.3 Historic Places Act 1993

The purpose of the Historic Places Act 1993 is described below.

- (1) *The purpose of this Act is to promote the identification, protection, preservation, and conservation of the historical and cultural heritage of New Zealand.*
- (2) *In achieving the purpose of this Act, all persons exercising functions and powers under it shall recognise—*
 - (a) *The principle that historic places have lasting value in their own right and provide evidence of the origins of New Zealand’s distinct society; and*
 - (b) *The principle that the identification, protection, preservation, and conservation of New Zealand’s historical and cultural heritage should—*
 - (i) *Take account of all relevant cultural values, knowledge, and disciplines; and*
 - (ii) *Take account of material of cultural heritage value and involve the least*

- possible alteration or loss of it; and
 - (iii) Safeguard the options of present and future generations; and
 - (iv) Be fully researched, documented, and recorded, where culturally appropriate; and
- (c) The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, wahi tapu, and other taonga

The definition of a Historic Site under the Historic Places Act 1993 is,

Archaeological site means any place in New Zealand that—

- a) *Either—*
 - (i) *Was associated with human activity that occurred before 1900; or*
 - (ii) *Is the site of the wreck of any vessel where that wreck occurred before 1900; and*
- (b) *Is or may be able through investigation by archaeological methods to provide evidence relating to the history of New Zealand;*

The listing of any other type of heritage site on the register of archaeological sites (NZAA) does not mean the site is protected. Waitakere City Council has the responsibility to protect historic areas and places by listing items and rules within the District Plan. The reserves along the Waitemata Harbour that have listed heritage items in the District Plan are mentioned below, under section 2.4. The reserves that have archaeological sites listed in the NZAA are discussed in section 6 of this Reserve Management Plan, and an inventory of all Cultural Heritage Sites on the reserves are listed in Appendix 3.

2.4 Waitakere City Council District Plan

The Waitakere District Plan classifies Waitakere into two zones, the Human Environment and Natural Areas. The Human Environment classification is based on characteristics of the land in terms of human use and development. Under this, Waitakere's reserves are identified as Open Space Environment, which has policies and rules affecting factors

such as the location and design of buildings and structures on reserves.

The Natural Area identification is based on the natural characteristics of the landscape, such as the quality of native vegetation and the presence of streams. There are six different Natural Areas, and individual areas, (including parks) may have more than one Natural Area.

The Protected Natural Areas are the very best areas of native vegetation, or landforms that are considered to be 'outstanding' (in terms of section 6(b)) of the Resource Management Act. Several reserves covered by this Management Plan contain the Protected Natural Area classification, and it is important that these areas are given a high degree of protection.

The Managed Natural Area are areas of native vegetation considered to be significant (in terms of section 6(c) of the Resource Management Act). Clearance or disturbance of this vegetation should be avoided as much as possible.

The Coastal Natural Area are areas which are considered to have high coastal natural character, and it is important that development does not reduce this coastal characteristic;

The Riparian Margins/Coastal Edges Natural Area are the margins of streams and the coast where strict development restrictions are imposed. Most of the reserves covered by this Reserves Management Plan have a 20m Coastal Edge Natural Area.

The Restoration Natural Area is where there is vegetation with a native component, but is not considered to be 'significant'. Nevertheless, this vegetation has ecological and landscape value, and its retention and enhancement should be considered where appropriate.

The General Natural Area is where there are no particular natural features, and the most appropriate location for any development.

Additionally, there are areas identified as Ecological Linkage Opportunities, or Restoration Natural Areas, where it could be appropriate to revegetate to establish linkages



between areas of existing native vegetation. These areas make up the 'Green Network' that is protected through policies and rules under the District Plan.

District Plan maps A10 and B9 indicate heritage sites and items within the reserves in the Waitemata Harbour Foreshore. These are protected under the district plan rules, and are listed below;

Listed tree 91 – Pohutukawa, Christmas Beach

Archaeological Site 330 – Carders Brickworks, Wiseley Esplanade

Listed Tree 24 – Wiseley Esplanade, Oak Tree

The policies within this Reserve Management Plan are consistent with the District Plan Rules. This Reserve Management Plan will be used to manage impacts and effects of activities through the provision of a management and planning framework that relates and identifies the specific qualities and values of the reserves.

2.5 Auckland Regional Plan : Coastal

Auckland Regional Council (ARC) is required under the Resource Management Act 1991 (RMA) in section 64 (1) to prepare a Regional Coastal Plan (the Plan). The main purpose of which is to provide a framework to promote integrated and sustainable management of Auckland's Coastal Environment.

The Plan provides Objectives and Policies that relate to the coastal environment, and includes rules for the Coastal Marine Area. The plan classifies areas according to Coastal Protection Areas (CPA). CPA's are used to define areas of regional, national or international significance due to the ecological, landform or geological characteristics of an area. The two types of CPA's are CPA 1 and CPA 2.

Areas classified as CPA 1 are considered to be the most vulnerable to any adverse effects of development, and usually contain rare habitat types. Areas classified CPA 2 are of significance and still require management and protection, but

are considered to be more robust ecologically. The Auckland Regional Plan : Coastal states that there is little known about the subtidal areas in Auckland, but these areas are known to have a rich diversity of species. The Upper Waitemata Harbour for example, is an example of one of these areas.

The Plan recognises the Waitemata Harbour Foreshore as having the following Coastal Protection Areas; Herald Island to Lucas Creek – CPA 2 (57) (Sheet 27) (within ASCV 30)

"This area is the best example of the muddy, mangrove filled inlets of the upper Waitemata Harbour. The diversity and productivity of the flora and fauna is generally large.... Gradations between the marine environment and either natural freshwater or natural terrestrial systems are a major characteristic of the ramifying arms of the system...."

(Schedule 3)

Hobsonville Peninsula – CPA 1 (56 a – b) (Sheet 27) (ASCV 56) (within ASCV30)

"At the mouth of Nimrod Inlet and Bomb Bay is a shell bank (56b) that is one of the two major roosts on the Waitemata Harbour for wading birds, including threatened species. ...On the southern coast of the Hobsonville Peninsula is a geological exposure of primary tephra from the Taupo volcanic zone both above and below mean high water springs...It was not extensively modified by estuarine processes during deposition and is therefore considered to be nationally important. The Department of Conservation has selected this area as an Area of Significant Conservation Value (ASCV)"

(Schedule 3)

Te Atatu – Henderson Creek – CPA 1, 2 (55 a – d) (Sheets 26 to 29) (within ASCV 30)

"This is an area of saltmarsh, mangroves, shellbanks and estuarine and harbour intertidal banks forming a complex community for a variety of animal and plant communities. The intertidal area to the east of the Te Atatu Peninsula (55a) is a major wading bird feeding ground offer a high tide roost for some of these wading birds and a variety of coastal

birds, as do a series of small shellbanks off the north end of the Te Atatu Peninsula (55c). The latter are considered to be a major roosting area for waders in the Waitemata Harbour and are also a major breeding ground used by a range of coastal and wading birds, including a number of threatened species.

...At Te Atatu North (55c) there is a larger area in which there is either pure mangrove swamp or bare sand flat. Saline vegetation also grows in the shelter of Henderson Creek. ...In one place (55d) there is an important gradation between saline vegetation in the intertidal area and native Towhai forest on the slopes above.

On part of the coast at Te Atatu North (55c) are found remnants of swamp and vegetation of the Pleistocene age now exposed at intertidal levels..."

Whau River - CPA 2 (54)

"The Whau River contains substantial quantities of saline vegetation. There are around 40 hectares of mangroves with the taller trees growing in the lower intertidal areas and mangroves of a smaller stature growing in the firmer high intertidal regions. These in turn grade into a fringe of saltmarsh lining the coast. The saline vegetation is an important habitat for threatened secretive coastal fringe birds, particularly where it abuts terrestrial vegetation which provides roots for the birds at high tide and potential nesting sites."

The Auckland Regional Plan Coastal lists Cultural Heritage Sites for Preservation, in Schedule 1. Below are the Cultural Heritage Sites listed along the western edge of the Waitemata Harbour.

Site No. 20, Site type - Hulks, Name - Herald Island Hulks, Location - Christmas Beach, Herald Island. (Adjacent to Christmas Beach Reserve).

Site No. 181, Site type - Brickworks Site/Wharf Site, Name - Clark's Brickwork Site, Location - Limeburner Bay, Hobsonville, Waitemata Harbour (not currently on reserve land, will be classified as reserve land in conjunction with the Hobsonville developments)

Site No. 330, Site Type - Brickworks Site/Jetty Site/Hulks, Name - Carders Pottery Site, Limeburners Bay, Upper Waitemata Harbour (Wiseley Esplanade).

Site No. 345, Site Type - Brickworks Site, Name - Robert Holland Brickworks Sites.

Site No. 333, Site Type - Brickworks/Wharf Site, Name - Auckland Brick and Tile Company Brickworks and Wharf Site, Location - Whau River Waitemata Harbour.

Mean high water springs is the administrative boundary that divides management responsibility within the coastal environment. Land below mean high water springs is the responsibility of the ARC. Land above this mark is the responsibility of the territorial authority. For the reserves discussed in this plan the territorial authority is Waitakere City Council.

2.6 Coastal Hazard Strategy /Coastal Erosion Management Manual

The ARC Coastal Hazard Strategy outlines strategies and guidelines related to coastal hazards within the Auckland region. The manual was produced through the recognition of coastal hazards that arise when coastal process and human intervention interact.

2.7 Hauraki Gulf Marine Park Act 2000

The purpose of the Hauraki Gulf Marine Park Act is to –

- (a) *Integrate the management of the natural, historic and physical resources of the Hauraki Gulf, its islands and its catchments;*
- (b) *Establish the Hauraki Gulf Marine Park;*
- (c) *Establish objectives for the management of the Hauraki Gulf, its islands and catchments;*
- (d) *Recognise the historic, traditional, cultural and*



spiritual relationship of the tangata whenua with the Hauraki Gulf and its islands;

- (e) *Establish the Hauraki Gulf Forum.*

The Act divides the Gulf into three areas in which to manage. These are, the Hauraki Gulf, its islands and its catchments.

The catchment is interpreted in the Act as, “any area of land where the surface water drains into the Hauraki Gulf “ Catchments therefore incorporate the reserves that are part of this Reserve Management Plan.

In order to recognise the natural significance of the Gulf, its islands and catchments, objectives have been outlined. The objectives to which this Reserves Management Plan relates are listed below.

- (a) *The protection and, where appropriate, the enhancement of the life – supporting capacity of the environment of the Hauraki Gulf, its islands and its catchments;*
- (b) *The protection and, where appropriate the enhancement of those natural, historic, and physical resources (including kaimoana) of the Hauraki Gulf, its islands and its catchments with which Tangata Whenua have an historic, traditional, cultural and spiritual relationship;*
- (c) *The protection of cultural and historic associations of people and communities in and around the Hauraki Gulf with its natural, historic and physical resources;*
- (d) *The maintenance and, where appropriate the enhancement of the contribution of the natural, historic and physical resources of the Hauraki Gulf, its islands and catchments to the social and economic wellbeing of the people and communities of the Hauraki Gulf and New Zealand;*
- (e) *The maintenance and where appropriate the*

enhancement of the natural, historic, and physical resources of the gulf, its islands and catchments, which contribute to the recreation and enjoyment of the Hauraki Gulf for the people and communities of Hauraki Gulf and New Zealand.

Section 8 of the Hauraki Gulf Marine Park Act refers to Management of the Hauraki Gulf. Of importance to this Reserve Management Plan is (b) of this section which states,

- (b) *the protection and, where appropriate, the enhancement of the natural, historic, and physical resources of the Hauraki Gulf, its islands, and catchments...*

This Reserves Management Plan will attempt to recognise the interaction between terrestrial and harbour environments which the Hauraki Gulf Marine Park Act promotes. It will investigate how management strategies on land in the Waitemata Harbour Foreshore Reserves can influence estuarine and harbour ecosystems, both locally and at a wider scale, through the provision of a management and planning framework that relates and identifies the specific qualities and values of the reserves.



Herald Island, Upper Waitemata Harbour

3.0 RESERVE INDEX

Reserve Name (Alphabetical Order)	Legal Description	Area	CT/Gazette ref:	Reserves Act Status
Akatea Park	Lot 90 DP 65745	0.5741m2		Local Purpose
	Lot 89 DP 73965	0.0306		Local Purpose
	Lot 13 DP 75336	0.1110		Local Purpose
	Lot 26 DP 78576	1.5378		Recreation
	Lot 25 DP 78583	0.1544		Recreation
Aronui Esplanade	Lot 87 DP 49992			
	Lot 19 DP 49992			
Berneckers Landing	Lot 3 DP 95734	0.4240		
	Lot 74 DP 125401	0.1046		Recreation
	Lot 77 DP 125401	0.0041		Access Way
	Lot 70 DP 115886	0.1874		
Brighams Esplanade	Lot 4 DP 100663	1.1659		Local Purpose
Bridge Avenue Esplanade	Lot 48 DP 43466	0.6475		Local Purpose
	Lot 1 DP 133949	1.6900		
	Lot 1 DP 92355	0.6624		
Brigham Creek Road Recreation Reserve	Lot 3 DP 86524			
Bristol Road Esplanade Reserve	Lot 3 DP 100359			
Chapman Strand	Lot 18 DP 38280	0.3662		Local Purpose
	Lot 35 DP 43922	0.3845		Local Purpose
	Lot 1 DP 57287	0.4722		Local Purpose
	Lot 5 DP 57287	0.1212		Recreation
	Lot 8 DP 57287	0.0278		Recreation
	S.O 47952	0.1652		reclaimed
	S.O 47952	0.0517		reclaimed
Chorley Reserve	Lot 56 DP 46606	0.6849		Local Purpose
	Lot 51 DP 50352	0.6778		Local Purpose
	Lot 22 DP 49354	0.1189		Local Purpose
	Lot 8 DP 67512	0.1998		Local Purpose
	Lot 26 DP 76247	0.2351		Local Purpose
	Lot 20 DP 49354	0.0273		Accessway
Covil Park	Lot 89 DP 39914	0.6829		Local Purpose
	Lot 90 DP 39914	1.5176		Recreation
Christmas Beach	Lot 108 DP 31409	0.1214		Local Purpose
	Lot 109 DP 31409	0.1619		Local Purpose
	Pt Lot 178 DP 31409	0.0969		Local Purpose
	Lot 1 DP 31681	0.0438		Local Purpose
	Lot 8 DP 39775	0.0230		Recreation

Reserve Name (Alphabetical Order)	Legal Description	Area	CT/Gazette	Reserves Act Status
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Cobham Reserve

Lot 156 DP 48920	0.5018		
Lot 161 DP 48920	1.2849		

Recreation
Local Purpose

Colwill Esplanade

Lot 1 DP 41697	0.1644		
Lot 10 DP 51589	0.1825		
Lot 11 DP 51589	0.4072		
Lot 5 DP 54328	0.1255		
Lot 4 DP 57008	0.0632		
Lot 3 DP 58106	0.0615		
Lot 3 DP 67234	0.0759		
Lot 4 DP 67234	0.0182		
Lot 6 DP 72600	0.0735		
Lot 7 DP 72600	0.0786		
Lot 2 DP 73350	0.0117		
Lot 4 DP 80146	0.0635		
Lot 2 DP 113667	0.0604		
Lot 4 DP 97013	0.1665		
Lot 5 DP 97013	0.0830		
Lot 8 DP 137352	0.0775		
Lot 27 DP 169183	3.673		

Local Purpose
Scenic
Local Purpose
Local Purpose
Local Purpose
Local Purpose
Local Purpose
Recreation
Local Purpose
Local Purpose
Recreation
Local Purpose
Local Purpose
Local Purpose
Scenic
Local Purpose
Recreation
Local Purpose

Dawnhaven Esplanade

Pt Lot 56 DRO WHAU 14	0.1189		
Lot 8 DP 40623	0.1771		
Lot 5 DP 47804	0.1416		
Lot 14 DP 50426	0.1953		
Lot 20 DP 50426	0.4290		
Lot 12 DP 52068	0.0592		
Lot 30 DP 59518	0.8144		
Lot 34 DP 59518	0.0946		
Lot 33 DP 59518	0.0118		

Local Purpose
Local Purpose
Local Purpose
Local Purpose
Recreation
Local Purpose
Recreation
Local Purpose
Recreation
Local Purpose

Daytona Strand

Lot 65 DP 44311	0.3996		
Lot 48 DP 44872	0.3288		
Allot 585 SO 47427	0.607		
Allot 586 SO 47427	0.0607		
Allot 589 SO 47427	0.0177		
Allot 590 SO 47427	0.0076		
Lot 50 DP 65919	0.3612		
Lot 52 DP 65920	1.0041		
Lot 5 DP 84307	0.0910		
Lot 6 DP 90886	0.2220		

Local Purpose
Local Purpose
Recreation
Local Purpose
Local Purpose
Local Purpose
Recreation
Local Purpose



Reserve Name (Alphabetical Order)	Legal Description	Area	CT/Gazette ref:	Reserves Act Status
Glen Marine Esplanade - Laurieston Park	Lot 181 50887	0.5691		Local Purpose
	Lot 183 DP 51355	0.3187		Local Purpose
	Lot 167 DP 51793	1.7073		Recreation
	Lot 185 DP 52097	0.0632		Local Purpose
Harbour Reserve	Lot 3 DP 85737	0.1500		
	Lot 72 DP 108308	0.0279		
	Lot 44 DP 76275	0.0794		
	Lot 37 DP 76275	0.0877		
	Lot 4 DP 73484	0.1100		
	Lot 3 DP 73484	0.1850		
	Lot 38 DP 76275	0.0157		
Hepburn Esplanade Reserve	Lot 14 DP 40379			
Harmel Reserve	Lot 137 DP 131771	0.2183		Local Purpose
	Lot 139 DP 131771	0.5273		Local Purpose
	Lot 120 DP 131771	0.9669		Recreation
	Lot 160 DP 131771	0.0236		Local Purpose
	Lot 138 DP 131771	0.0329		
Hobsonville Esplanade	Lot 4 DP 206311	44537		
Helena Park	Pt Lot 3 DP 4070	0.7350	26p/1375	Recreation
	Pt Lot 14 DP 20202	0.3146		Recreation
	Pt Lot 154 DP 53325	1.2800		Recreation
Hughes Esplanade	Lot 2 DP 40193	0.3667	753/31	Local Purpose
	Pt Lot 23 DEEDS PLAN WHAU 14			Local Purpose
	Lot 11 DP 36292	0.1568		Local Purpose
Huruhuru Esplanade Reserve	Lot 3 DP 200174	0.1610		
Jaemont Strand	Lot 100 DP 43867	0.3288		Local Purpose
	Lot 5 DP 45459	0.1340		Local Purpose
	Lot 19 DP 51907	0.0379		Local Purpose
Kauri Esplanade	Lot 5 DP 38514	0.1770		Local Purpose
	Lot 5 DP 39598	0.0410		Local Purpose
	Lot 3 DP 39665	0.0549		Local Purpose
	Lot 7 DP 41031	0.2074		Local Purpose
	Pt 5 DP 43122	0.0580		Local Purpose
	Lot 5 DP 46816	0.1113		Local Purpose
	Lot 4 DP 50324	0.0336		Local Purpose
	Lot 5 DP 51925	0.1492		Local Purpose
	Lot 4 DP 104718	0.0957		Recreation
Kingsway Reserve	PT Lot 120 DP 31409	0.3083	Gaz 1956 p 270	Recreation
	Lot 20 DP 33203	0.0936		Recreation



Reserve Name (Alphabetical Order)	Legal Description	Area	CT/Gazette	Reserves Act Status
Kiernan Esplanade	Lot 159 DP 48313	0.6082		Local Purpose
Kowhai Beach Reserve	Lot 5 DP 31681	0.3594		Local Purpose
Lagoon Way Reserve	Lot 113 DP 128337	0.4813		Recreation
	Lot 134 DP 116471	0.5583		Recreation
	Lot 135 DP 111287	0.9726		Recreation
	Lot 5 DP 139629	0.6617		Recreation
	Lot 5 DP 153935	0.0145		Recreation
	Lot 4 DP 165657	0.1790		Recreation
Landing Esplanade	Lot 15 DP 31409	0.0751		Recreation
Lowtherhurst Reserve	Pt Lot 6 DP 1468	0.1517		Recreation
	Lot 22 DP 74938	0.0111		Accessway
	Lot 1 DP 64552	1.3615		Recreation
	Lot 2 DP 64552	0.6070		Local Purpose
	Lot 64 DP 47652	7335		
	Lot 3 DP 64552	607	Gaz 1977 p 2933	
	Allot 703 SO 56988	6539		
	WAIPAREEIRA	8386		
	PT lot 25 DP 43421	1239		
	Lot 4 DP 64552	0.7588		Local Purpose
	Lot 62 DP 47652	0.9510		Scenic
	Lot 35 DP 118365	0.5311		Local Purpose
	Lot 3 DP 52744	0.2673		
	Lot 7 DP 50663	0.0936		
	Lot 8 DP 50663	0.6539	Gaz 1985 p 2986	Local Purpose
	Pt Lots 12 – 24 DP 43421			
Marina Esplanade	Lot 143 DP 96079	0.2277		Recreation
	Lot 153 DP 96079	0.3298		Local Purpose
	Lot 154 DP 96080	0.9260		Local Purpose
	Lot 300 DP 107699	0.3140		Local Purpose
	Lot 4 DP 161924	0.1536		Local Purpose
	Lot 301 DP 110282	0.9500		Local Purpose
	Lot 53 DP 118891	0.561		Local Purpose
	Lot 54 DP 118891	0.516		Recreation
	Lot 6 DP 139628	0.293		Recreation
	Lot 3 DP 161924	0.0036		Accessway
	Lot 44 DP 169319	0.0162		Accessway
	Lot 48 DP 169319	0.3510		
Marina View Reserve	Lot 21 DP 91598	0.2001		Recreation
McLeod Esplanade	Lot 7 DP 96619	0.1975		Local Purpose
	Lot 8 DP 96619	0.0052		Local Purpose
	Lot 3 DP 41273	0.2037		Local Purpose
	Lot 3 DP 45083	0.0463		Local Purpose



Reserve Name (Alphabetical Order)	Legal Description	Area	CT/Gazette ref:	Reserves Act Status
Meadow Glade	Lot 30 DP 47819	0.2205		Recreation
	Lot 31 DP 47819	0.3035		Local Purpose
	Lot 15 DP 79704	0.0628		Local Purpose
	PT Allott 90waikomiti Parish	0.1445		Local Purpose
Nimrod Esplanade	Lot 5 DP 114439	1.6510		Local Purpose
Pahiki Reserve	Lot 11 DP 39775	0.0971	CT 1140/86	Recreation
	Lot 17 DP 39775	0.2388		Recreation
	Lot 19 DP 39775	0.0273		Recreation
Pohutukawa Esplanade n 1	Pt Lot 3 DP 8224	0.0203		Local Purpose
	Pt Lot 6 DP 60363	0.0203		Local Purpose
	Lot 3 DP 77451	0.0842		Local Purpose
Pohutukawa Esplanade n 2	Lot 5 DP 94696	0.2380		Local Purpose
Realm Esplanade	Lot 3 DP 61451	0.9669	Gaz 80 p550	Local Purpose
	Lot 37 DP 62911	0.0051		Local Purpose
	Lot 100 DP 73300	0.7227		Local Purpose
	Allot 667 SO 53982	0.1047		Local Purpose
Reflection Reserve	Lot 44 DP 138394	0.0111		Access Way (L.P)
	Lot 55 DP 118890	0.5067		Recreation Reserve
Renata Esplanade	Lot 62 DP 43389	0.0551		Local Purpose
	Lot 63 DP 43389	0.9376		Local Purpose
	Lot 15 DP 4463	0.0050		Local Purpose
Riverpark Reserve (formally Taikato Domain, name change Gaz 1980 p 2849)	Allot 353 Waipareira Parish	1.4366	CT 46d/1127	Local Purpose
	C.L road S.O 47131	0.4404		Recreation
	Lot 56 DP 47394	0.4353		Local Purpose
	Lot 4 DP 50290	0.0589		Local Purpose
	Lot 5 DP 50290	0.20945		Recreation
	Lot 9 DP 51589	0.0807		Recreation
	Lot 82 DP 58080	0.2276		Recreation
	Lot 85 DP 60135	0.2732		Local Purpose
	Lot 125 DP 61688	0.7006		Local Purpose
	Lot 126 DP 61688	0.5673		Local Purpose
	Lot 127 DP 61687	1.6390		Recreation
	Lot 128 DP 61687	0.9700		Local Purpose
	Lot 788 DP 63236	0.1292		Recreation
Roberts Feild	Lot 13 DP 45335	0.2504		Recreation
	Lot 13 DP 47729	1.1179		Recreation
	Lot 32 DP 48041	0.0113		
	Lot 33 DP 48041	0.0430		



Reserve Name (Alphabetical Order)	Legal Description	Area	CT/Gazette ref:	Reserves Act Status
Rurawaru Esplanade	Lot 4 DP 62854	0.2757		Recreation
	Crown Land (Section 58 Land Act 1948	0.3033		Local Purpose
	Lot 3 DP 105226	0.7050		
Scott Esplanade	Lot 3 DP 128652	0.2875		Local Purpose
	Lot 3 DP 91914	0.1958		Local Purpose
	Lot 4 DP 89750	1.2813		Local Purpose
Span Farm Esplanade	Lot 4 DP 75335	0.0880		Local Purpose
	Lot 14 DP 75335	0.4850		Local Purpose
	Lot 15 DP 15335	0.0930		Local Purpose
	Lot 14 DP 75336	0.3400		Local Purpose
	Lot 59 DP 89863	0.0275	CT46/d1127	Local Purpose
	Lot 1 DP 97255	0.0191		Local Purpose
Spinnaker Strand	Lot 53 DP 90241	3.0765		Recreation
	Lot 261 DP 101504	0.7123		Recreation
Springbank Esplanade	Lot 73 DP 57906	0.1399		Local Purpose
	Lot 182 DP 38305	0.1568		Local Purpose
	Lot 79 DP 55125	0.2074		Local Purpose
	Lot 71 DP 56347	0.4234		Recreation
	Lot 72 DP 56347	0.3129		Local Purpose
Sunline Esplanade	Lot 83 DP 74255	0.6780		Local Purpose
	Lot 83 DP 74256	0.3790		Local Purpose
	Lot 83 DP 74257	0.5960		Local Purpose
	Lot 84 DP 74257	0.0061		Accessway Reserve
Taipari Strand	Lot 3 DP 38223	0.3237	Gaz 1979 p 3243	Esplanade
	Lot 3 DP 38692	0.2504		Esplanade
	Lot 6 DP 40734	0.2378		Recreation
	Lot 5 DP 40789	0.3111		Esplanade
	Lot 2 DP 41755	0.2352		Esplanade
	Lot 14 DP 42725	0.2251		Esplanade
	Lot 9 DP 46232	0.3136		Esplanade
	Lot 43 DP 49173	0.5919		Esplanade
	Lot 44 DP 49173	0.0083		Accessway
	Lot 42 DP 52440	0.9409		Esplanade
	Lot 9 DP 81390	0.3480		Recreation
	Allot 608 Waipareira Parish	0.0943		Recreation
	Allot 608 Waipareira Parish	0.0233		Recreation
	Pt Bed Henderson Creek SO 50170(reclaimed)	10.9837		Recreation
	Pt Bed Henderson Creek SO 50170(reclaimed)	10.9837		

Reserve Name (Alphabetical Order)	Legal Description	Area	CT/Gazette ref:	Reserves Act Status
Taitapu Park	Lot 31 DP 77891 Pt Lot 28 DP 24437	2.7188 0.1012	Gaz 1978 p 3210	Local Purpose
Tawa Esplanade	DP 40961 Lot 14 DP 44663 Lot 3 DP 50387 Allot 588 S.O 46782	0.6070 0.5489 0.0822 0.1973		Local Purpose Local Purpose Local Purpose Local Purpose
The Concourse Strand	Allot 664 S.O 55375 Lot 101 DP 71514 Lot 102 DP 71512 Lot 4 DP 80649 Lot 1 DP 81037 Lot 2 DP 81036 Lot 3 DP 81036 Allot 666 SO 55122 Allot 668 SO 55122	0.5100 0.1093 0.1250 0.3000 0.4610 0.3728 0.0483 0.1380 0.0780	Gaz 1982 p 188 Gaz 1982 p 190 Gaz 1982 p 190	Recreation Recreation Esplanade Local Purpose Local Purpose Local Purpose Local Purpose Local Purpose Local Purpose
Tiroroa Esplanade	Pt Lot 166 DP 46774 Allot 679 SO 48981 Lot 2 DP 69306 Lot 24 DP 71926 Lot 6 DP 57160	0.5440 0.0149 0.0333 0.1910 0.2579		Local Purpose Local Purpose Local Purpose Local Purpose Local Purpose
Totara Esplanade	Lot 2 DP 50045 Lot 5 DP 71365	0.5048 0.9687		Local Purpose Local Purpose
Valron Esplanade	Lot 8 DP 41055 Lot 19 DP 41055 Lot 4 DP 42089 Lot 5 DP 45742 Lot 2 DP 55853 Lot 32 DP 55853 Lot 4 DP 78964	0.2731 0.0101 0.1659 0.2478 0.2731 0.0078 0.2264		Local Purpose Local Purpose Local Purpose Local Purpose Local Purpose Local Purpose Local Purpose
West Harbour Esplanade	Lot 234 DP 84520 Lot 1 DP 96511 Lot 2 DP 96512 Lot 20 DP 113197 Lot 21 DP 113197 Lot 2 DP 126343 Lot 79 DP 102998 Lot 185 DP 131878 Lot 185 DP 138942 Lot 1 DP 99404 Lot 242 DP 103862 Lot 204 DP 103861 Lot 239 DP 103861 Lot 241 DP 96512 Lot 237 DP 103860 Lot 238 DP 103860	1.8240 1.3790 0.8470 0.0961 0.1820 0.6016 1.1903 0.7813 0.4426 0.4500 0.5084 0.0094 0.0138 0.1037 0.0164 0.2858	PT.CT 70/179 PT.CT 110/402 PT.CT 80/1282 PT.CT 70/179 PT.CT 80/1282	Recreation Recreation Local Purpose Recreation Local Purpose Local Purpose Local Purpose Recreation Recreation Recreation Recreation Recreation Recreation Recreation Recreation Recreation

Reserve Name (Alphabetical Order)	Legal Description	Area	CT/Gazette ref:	Reserves Act Status
Wiseley Reserve	Lot 142 DP 98521	0.2194		Recreation
Wickstead Strand	Lot 3 DP 51966 Lot 3 DP 180204 Lot 10 DP 64141 Lot 5 DP 67054 PT Allot 5a DP 27899 Waipareira	8481.010		Recreation
Woodside Reserve	Lot 4 DP 186406 Lot 3 DP 186406 Lot 2 DP 126342 Lot 2 DP 126824 Lot 8 DP 87417 Lot 5 DP 50290	10010064		Recreation
Waimanu Bay Reserve	Lot 300 DP 181724 Lot 300 DP 315143	59911.960		Recreation



View of the Upper Waitemata Harbour from Pahiki Reserve. Herald Island

4.0 STRATEGIC CONTEXT

This Reserve Management Plan has been prepared in the context of the Waitakere City Council draft Parks and Open Space Strategy. The Objectives and Policies and any concept plans developed as part of this Reserve Management Plan will also be in accord with Waitakere City Council's draft Leisure Strategy, draft Heritage Strategy, and Plant and Animal Pest Strategy.

The Waitemata Foreshore Reserves collectively have been classified as local reserves with great importance for Green Network Ecological Linkage Opportunities. The reserves also link together, and provide access to areas of historical significance. Because of this, a large number of both strategic and local issues influence this Plan.

4.1 Greenprint

This document contains the overall strategic framework within which Waitakere City operates. The Greenprint identifies key changes and actions required for Waitakere to become an eco-city and targets a number of key focus areas to realise this vision, some of which can be progressed through Reserve Management Plans.

Key Focus Areas are:

- Communities
- City form and design
- Transport and communication
- Economic development
- Taonga
- City well – being
- Energy, resources and waste

4.2 Waitakere City Council Strategic Platforms

Waitakere City Council has developed Nine Strategic Platforms for council that provide an overarching vision for 2020, in key areas. The platforms that relate to this Reserve Management Plan are, Urban and Rural Villages, Strong Communities and the Green Network.

4.2.1. Green Network

The objective of the Green Network is to link existing open space, streams and bush remnants into an ecologically continuous, vegetated, green network, extending from the ranges, along the stream and road networks, across open spaces and through urban areas, to the sea. Within this corridor, which includes both private and public land, the full natural progression of coastal to mountain vegetation, habitats and processes is able to take place.

This Reserve Management Plan will promote the Green Network. The goals of the Green Network that are promoted in this Reserve Management Plan are to: provide ecosystem protection, form ecological corridors, enhance the landscape, enhance public access to natural areas, mitigate hazards and protect water quality.

The Green Network Strategic Platform will be used:

- To protect significant natural vegetation and wildlife habitats;
- To develop ecological corridors which will allow for the movement of wildlife, and the slow migration of plants;
- To protect significant landforms;
- To protect water quality in streams and waterways bordered by the network;
- To make the city a more attractive place visually;
- As a flood protection tool;
- To provide public access to and along the coast; streams, lakes and other waterways;
- To help integrate the City's natural and urban environments; and
- To help create a new city form...separated by the Green Network but also linked by means of walkways and cycle ways.

The Waitemata Harbour Foreshore Reserves therefore provide a significant and high profile opportunity to implement the Green Network along one of the cities major harbours. The Waitemata Harbour Foreshore includes areas of ecological significance, and offer opportunities for public use. They provide



for physical and visual access to the harbour. This Reserve Management Plan also offers opportunities for education in regard to the Green Network.

4.2.2 Urban and Rural Villages

The 2020 vision in regard to Urban and Rural Villages is, *“for Town Centres to be thriving, providing exciting options for people to work, live and play. Public facilities, streets and places are alive and busy.”*

The Waitemata Harbour Foreshore Reserves provide Waitakere with areas of green open space. Such areas are an important part of the enhancement of the overall fabric of the city. The Reserves will be enhanced to strengthen access opportunities, in order to provide the opportunity for Waitakere people to recreate in the reserves.

4.2.3 Strong Communities

The 2020 vision in regard to Strong Communities is, *“that people are active, healthy and content. They feel safe and there is a strong sense of community. We enjoy our diversity and lifestyles of people.”*

The reserves are of importance to this Strategic Platform as they have the potential to provide for a community focus and offer many recreational opportunities. The reserves can reflect community identity, contribute to sense of place, and also provide opportunity for community stewardship of reserves.

4.2.4 Three Waters

The 2020 vision is in regard to ensuring that, *“Waitakere takes an innovative approach in managing drinking water supply, wastewater and stormwater together, under the heading of the Three Waters.”*

The reserves are important to this Strategic Platform, as the reserves carry stormwater into the coastal environment. There exists potential in the reserves to design innovative management approaches in regard to stormwater and outfall

structures.

4.3 North - West Wildlink

The purpose of the North West Wildlink is to provide a healthy and safe habitat from the Hauraki Gulf Islands and the Whangaporoa through to the Waitakere Ranges. Also, to link community, agency and individual effort along the Wildlink. The Wildlink focuses on existing natural areas and restoration projects that can contribute to an overall patchwork of habitats. This encompasses much of the Waitemata Harbour Foreshore Reserves, as esplanade reserves and coastal fringe areas.

Goals of the Wildlink are to:

- 1) *Increase the ecological health and connectivity of native habitats throughout the area;*
- 2) *Increase meaningful community participation in environmental care;*
- 3) *Increase collaboration and communication between agencies, groups and individuals.*

4.4 Waitakere City Council draft Open Space Strategy

The draft Open Space Strategy has been developed in accordance with Waitakere City's Greenprint and provides guidelines for the management of open space within Waitakere, including reserves. The Strategy outlines an integrated vision for the future of Waitakere's reserves and proposes ten objectives to provide a framework for overall park management.

The Objectives and Policies outlined in this Reserve Management Plan will be developed in accordance with the objectives of the Open Space Strategy, which aims to improve the quality of reserves and provide reserve services in a fair and equitable way for Waitakere people, within financial constraints.

Some objectives of the draft Open Space Strategy are:

- *To increase the use and enjoyment of parks;*
- *To extend and improve the city's natural ecosystems;*
- *Increase the opportunities for people to enjoy nature on parks;*
- *Sustainably manage parks as part of the wider landscape and urban fabric;*
- *Increase the use, range and quality of sports facilities within the city;*
- *Protect the heritage values within the city;*
- *Provide quality local and neighbourhood parks that are within walking distance throughout the city;*
- *Work in partnership with iwi on the management of Waahi Tapu;*
- *Involve communities in the design and management of parks;*
- *Improve the management and administration of parks.*

All Waitakere reserves have been classified into different categories according to the particular role they play within the overall strategy. The Waitemata Harbour Foreshore Reserves are identified in the draft Open Space Strategy as a series of local reserves that are important to the Green Network as a collective. Local Reserves are defined as medium sized parks that provide a community focus. Local reserves may provide for areas for casual recreation, walking opportunities, landscaped areas and ecological values.

The Foreshore Reserves have the potential to be developed and enhanced in a manner that would reclassify the reserves under the Open Space Strategy as a collective Citywide park in the future.

Parks are also discussed in the Open Space Strategy in regard to the social element they play within the city. Social aspects are divided into categories of art, heritage, culture, community, and promotion and education. This Reserve Management Plan will relate these categories into its discussion of reserve values, which will manifest into Objectives and Policies in Part Two.

4.5 Waitakere City Council Plant and Animal Pest Strategies

The goal of the Council's Plant and Animal Pest Strategies is, the "Protection of the quality, resilience, biodiversity and ecological integrity of Waitakere City's natural habitat from the impacts of environmental weeds".

The Strategies directs Council's approach to the management of environmental weeds, and animal pests. It describes Council's long term goals and objectives, and provides a framework to guide the Council in carrying out its roles and responsibilities with regard to identifying, prioritising and managing pest impacts.

4.6 Waitakere City Council Draft Leisure Strategy

This document outlines the Council's goals for improving leisure opportunities in Waitakere in the future. The Council aims to improve the happiness and health of the City's people and communities by promoting:

- *The enjoyment of life and leisure time that comes from taking part in fun activities which build self-confidence, skills, physical health or fitness;*
- *Opportunities for outdoor recreation in our*



abundant green natural settings;

- *A sense of belonging, and 'community' and City identity.*

The Strategy offers these guidelines as a way of achieving the goals:

- *Diversify leisure services to focus and improve provision for different groups and communities.*
- *Improve natural amenity by building on the unique 'green' and 'blue' images of Waitakere City.*
- *Develop community focal points near where people live and shop, with an atmosphere of enjoyment and availability of low-cost casual leisure activities.*

4.7 Waitakere City Council Biodiversity Strategy and Action Plan

The purpose of the Biodiversity Strategy is to collate and re focus actions already adopted by the Council and the community. This strategy responds to the fact that despite the many community projects around restoration of the urban areas of Waitakere City, these do not consider biodiversity outcomes for the city. The Biodiversity Strategy drafts specific objectives and outcomes, as well as a biodiversity Action Plan for the City.

4.8 Te Kawerau A Maki Trust Resource Management Statement

In 1840, John White, a travelling European in the west, observed that,
"...in the produce of the land and sea, Kawerau do not pay tribute to any chief, nor could they be commanded by any adjoining tribe or hapu to assist in any act whatever, nor could

a chief go to any of the Kawerau fishing grounds without the express permission of the Kawerau people" (Rules Section, District Plan 1998 p3).

The Resource Management Statement outlines the concerns and goals of Te Kawerau A Maki Trust with regard to the sustainable management of the Taonga within the tribal area of Te Kawerau A Maki. Resource management issues are addressed by Te Kawerau A Maki Trust within the context of achieving a balance between:

- the maintenance of spiritual and cultural values;
- environmental and heritage protection and enhancement ; and
- social and economic development.

4.9 Ngati Whatua

Ngati Whatua exercises kaitiakitanga over the material and non-material resources of their tribal area through their relationship with Council (see section 6 RMA91). Ngati Whatua customary rights are sourced in the continued occupation and use of resources within this area. Implicit in the Maori resource management principle (kaitiakitanga) is reciprocity. Tangata Whenua is therefore obligated to protect and restore the natural and cultural resources of the same area. These ancestral resources since 1840, the time of European settlement, have declined dramatically. Ngati Whatua through their relationship with Council therefore seeks:

- the restoration of the mauri and protection of the Harbour;
- the restoration and protection of bio-diversity;
- the restoration and protection of customary practices such as food gathering, and traditions associated with the Harbour.

5.0 MANAGEMENT PLAN OBJECTIVES

5.1 An Integrated Vision for the Reserves

The 74 Waitemata Harbour Foreshore Reserves are viewed in this Reserves Management Plan in a holistic fashion. Also, individuality and variations in the Reserves have been taken into consideration.

The coastal environment in which the reserves exist is dynamic, diverse and sensitive and forms an integral part of Waitakere's landscape. This coastal location adds greatly to the significance and value of the reserves, even in highly modified (ecologically) and industrial areas. The primary focus of this Reserve Management Plan therefore is; the preservation of natural areas, vegetation restoration of the highly modified areas, enhancing public access opportunities through the reserves, to promote and provide for the recreational and social values of the coast, and to manage and preserve cultural heritage values found in the reserves.

5.2 Approach to Preparing Policies

This Reserve Management Plan considers the above integrated vision for the reserves and presents generic policies that view the reserves as a holistic, integrated system, managing the issues that the reserves share. This approach ensures the reserves are viewed at an 'all encompassing' perspective, of the Waitemata Harbour as a whole.

Within this overall framework, the reserves have also been viewed individually through a process of mapping reserve characteristics, which give rise to the reserves' inherent values. The characteristics that were taken into consideration during the mapping process were vegetation patterns, topography, access limitations and opportunities, reserve facilities, archaeological – heritage sites, landscape pattern and surrounding landuse.

As a result of mapping evaluation, the reserve types, diversity and inherent values were apparent. Policies have

therefore been drafted in a manner that reflects these diverse reserve types, to ensure all aspects of the reserve values are managed.

The drafting of policies has revealed that in some instances there are development opportunities that are specific to particular reserves. These issues are addressed in Part 3 of this Reserve Management Plan, by way of the Concept Plans and Table of Works, showing specific proposals for each reserve.

This plan acknowledges in Part Two, Policies and Implementation section, the cross boundary issues associated with reserves that abut water springs.

5.3 Community Expectations for the Reserves

The process of preparing this Reserve Management Plan began with public notification of the submission period in February 2006. During the 3 month period, 37 written submissions were received. During this period, 2 public workshops were held, (in March and April 2006), and there was individual consultation with identified interest groups during November and December 2006.

A Subcommittee consisting of members of the Henderson, New Lynn and Massey Community Boards, and a member from the City Development Committee, and Te Taumata Runanga was established to oversee the process of the preparing the plan.

An Advisory Group consisting of members of both the Henderson, New Lynn and Massey Community Boards, Te Taumata Runanga, Forest and Bird, and Council staff was established to facilitate both the public consultation and the development of this Reserves Management Plan.

The draft Waitemata Harbour Reserves Management Plan was prepared in 2007. A second submission period was advertised during May 2007. 13 Submissions were received during that submission period. Comments raised in both submission periods are summarised in Appendix One of this Reserves Management Plan.



6.0 RESERVE VALUE DESCRIPTIONS

6.1 Natural Environment

6.1.1 Geology and Soils

The Waitemata Harbour is one of the two harbours that form the Auckland Isthmus. The harbour form of the Waitemata is described as a narrow, enclosed estuary, which was formed by past geological processes.

The harbour was generated through a rise in sea level, which drowned an ancient river valley. The harbour then overtime filled in with mud, sand and shell deposits. These are known as the Waitemata Group of sediments.

The geology of the Waitemata Harbour is varied. The age of the rocks that make up the Waitemata Harbour date back to 200 million years ago. The oldest rocks are the basement Greywacke argillite rocks that were uplifted during the 'Rangitata Orogeny'. This was a geological event that created the first landforms of New Zealand. At this time, New Zealand was part of the 'super continent' 'gondwana'. New Zealand separated from Gondwana when the Tasman Sea opened.

Te Atatu Pleistocene Plant Beds

In Kelvin Strand, Te Atatu Peninsula, there are significant remains of swamp and estuarine vegetation from the Pleistocene Geological Age. The plant beds are described as plant fragments, of leaves and weed, that are exposed at the high tide mark. These are considered as an important geological site in the Auckland Region. This is listed in the Auckland Regional Plan : Coastal, in section 2.5 of this plan.

6.1.2 Vegetation

"...those tracts in the vicinity of Auckland which formally were covered with dense Kauri forests, and where large masses of Kauri gum are dug from the earth, present now nothing but waste, dreary, sunburnt heaths of notorious sterility, upon the white or yellowish clay soil of which nothing but dwarfish mānuka shrubs (Leptospermum scoparium), and scanty ferns (Pteris esculenta) can grow."

Dr Hochstetter 1859

The Waitemata Harbour Foreshore Reserves exist within the coastal zone of the Tamaki Ecological District. This describes the area that stretches from the edge of the foreshore to the first inland ridge, thus encompassing all of the Waitemata Harbour Foreshore Reserves.

Prior to human impact, this zone of the Tamaki Ecological District would have exhibited vast tracts of coastal podocarp broadleaf forest.

However, human impact in the form of industrial and residential development has impacted greatly on indigenous coastal podocarp broadleaf forest. This impact has been mainly through vegetation clearance and modification, which has resulted in the current depleted state of native forest along the Waitemata Foreshore.

This is a vegetation structure typical of the Tamaki Ecological District, where indigenous vegetation is sparse, reduced to fragmented pockets dominated by exotic species. Therefore, any indigenous vegetation that remains along the foreshore is considered outstanding and significant. Such consideration is reflected in the Waitakere City Council District Plan.

A substantial stand of kauri forest in Akatea Park in Glendene is an example of outstanding vegetation along the foreshore. Also, Colwill Esplanade and Lowtherhurst Reserve in Massey have established tracts of pohutukawa-

puriri-kanuka-kowhai, and kauri/kanuka-towai-kowhai-tawa forest. There is also a remnant towai forest north of Clearwater Cove, Westharbour.

Ecological restoration planting will take into consideration such areas of outstanding and significant vegetation, linking areas to form ribbons of indigenous vegetation along the coastline.

The predominant vegetation pattern of the foreshore reserves is an exotic native mix. Species common to this vegetation type exhibit combinations such as monkey apple, kanuka, karamu, ponga, privet, pine, eucalyptus and kauri. The species within the exotic native mix pattern varies across the reserves.

Other vegetation patterns exhibited within the foreshore reserves is a regenerating mānuka/kanuka mix. This vegetation pattern is representative of a disturbed ecosystem.



Regenerating Kauri Forest in Akatea Park, Glendene

Weed infestation and garden encroachment is also a common theme found in the vegetation structure of the reserves. Weedfield areas contain species such as pink bindweed, honeysuckle, pampas grass, blue morning glory, tradescantia and periwinkle. Established weed forest areas are comprised of species such as black wattle, crack willow, tree privet and brush wattle. The extent of weed infestation varies across the reserves, with reserves such as the Concourse Strand having a vegetation structure made up entirely of weed forest. The above weed species have the potential to smother any revegetating species, choking surrounding vegetation and preventing the natural successional process. In some instances however, a canopy structure made up of weed species can provide shade and shelter for a regenerating native understorey.

The intertidal areas adjacent to the reserves, are home to large areas of mangrove forest. These are dotted with patches of saltmarsh species, that lie between the terrestrial vegetation and the mangrove forests. Saltmarsh vegetation is comprised mostly of oioi and sea rush. These are highly productive and ecologically important areas. The Upper Waitemata Harbour for example contains ecologically significant estuarine habitats. There are also examples of freshwater wetland that contains species such as raupo.

6.1.3 Fauna

Birds

The area for native fauna habitat is reduced, due to the lack of native vegetation along the Waitemata Harbour Foreshore. The range of native birds found on the reserves is, tui, kaka, kereru, fantail, grey warbler, silvereye, pukeko, spur winged plover, morepork and kingfisher. In the urban area there is a high rate of introduced birds.

The Waitemata Harbour itself is used for feeding and roosting for wading bird species. Shellbanks at the end of Te Atatu Peninsula and the paddocks around Whenuapai are key roost sites for the wading birds of the Waitemata Harbour, and are used in large numbers. Common waders found on the Waitemata Harbour are knots, godwits, and turnstone. Migratory species such as the South Island pied oyster catcher,

banded dotterel, wrybill, and pied stilts, and the threatened NZ dotterel also uses the Waitemata Harbour.

Sitings and recordings have discovered oystercatchers, red billed gulls, black backed gulls, white faced heron, mallard duck, black swan, pied shag, little shag, little black shag, white fronted terns, and the rare caspian tern. These are found in the estuarine habitats that are adjacent to the reserves.

Within the mangrove and saltmarsh habitat exists introduced native species such as, finches, redpolls, mynas, starlings, shining cuckoo and Australasian harrier. The native species that inhabit the mangrove area are kingfisher and silvereye, shag species and white faced heron.

In addition to the above sightings of fauna within the reserves, the following species list has been compiled by Forest and Bird. The list mentions, other than the species above, bar tailed godwit, blackbird, goldfinch, greenfinch, hedge sparrow, house sparrow, pied stilt, skylark, thrush, variable oystercatcher, welcome swallow and yellowhammer.

Estuarine Fauna

On the harbour side of the Waitemata Harbour Reserves exists extensive areas of mudflats, sand and shell banks, and mangrove/saltmarsh ecosystems. These support a diversity of fauna habitats, have a high level of productivity, and support a complex food chain.

The intertidal mudflats provide habitat for polychaetes (worms) and shellfish such as mud snails, cockles, pipis and whelks. Mangroves and their pneumatophores, the breathing roots of the mangrove, support algae, oysters, barnacles, mussels, crabs and small crustaceans.

Mud snails, mud crabs, estuarine barnacle, and estuarine mussel, snapping shrimp, sea lice and pacific oyster are found in the estuarine area, along with bristle worm, amphipoda and

polychaete worm. Amphipods are found beyond the high tide mark, beyond the mangroves. There are also shellfish such as cockles, pipis and whelks to be found in the estuarine area.

Terrestrial fauna

Terrestrial vegetation such as mānuka shrubland has the potential to provide important habitat for invertebrates and potentially lizards. As explained in 6.1.2, manuka/kanuka shrubland is a dominant vegetation pattern along the foreshore reserves. Several lizards may be present locally, which include forest gecko and the Auckland green gecko. Skink species may also be discovered living in terrestrial vegetation. Future revegetation will increase the value of wildlife found in terrestrial vegetation.

Animal pests post a significant threat to terrestrial fauna, in particular domestic dogs and cats. Auckland Regional Council have identified the following pest species; mustelids, hedgehogs and rodents.



*Salt Marsh Vegetation in Tawa Esplanade
Te Atatu Peninsula*

Fish

Fish have been recorded in the Upper Waitemata Harbour, and are permanent and semi permanent. Species recorded were, yellow eyed mullet, dab flounder, yellow belly flounder, snapper, smoothhound, jack mackerel, kahawai, grey mullet, and school shark.

Freshwater fish habitat has also been recorded in the reserves, with fourteen indigenous species found in catchments within the project area, and one introduced species was discovered.

Potential whitebait spawning sites have been detected on the Reserves. These are outlined in the report, Ecological Assessment of Waitemata Harbour Foreshore Reserves in Waitakere City. A summary of this report is in Appendix 2 of this Reserves Management Plan.

6.1.4 Landscape

The reserves are bounded on one side by varying degrees of residential and industrial development. The density of this urban character varies considerably across the Waitemata coastline, ranging between rural land use, to urban residential and industrial development. At the harbour side of the reserves, sedimentation due to the tidal nature of the harbour has formed low-lying mudflats, enveloped with the associated mangrove growth.

The reserves themselves range in character between undefined highly modified fragmented strips, with some having no landward public access. Quite often these reserves do not appear to be public land. This character of the reserves transforms along the coastline from steep, densely vegetated banks with pockets of outstanding and significant vegetation, to industrial and weedy strips of land. The reserves extend the entire length of the foreshore, for the most part.

The majority of these reserves are undeveloped in terms of public access and reserve facilities. There are also reserves that contain large areas of flat or gently sloping open space, some containing park facilities and clubrooms, bridges and

coastal walkways. The narrow reserve strips run along the majority of the coastline.

Quality of access within the esplanade reserves varies across the span of the foreshore. Some larger reserves have adequate road frontage, along with adequate signage indicating the reserve entrances. Other reserves are difficult to access from adjacent roads and the status for public access is unclear. Only few of the larger reserves have formed pathways that link together various park features. Other reserves have no circulation within the reserve at all, and access through reserves is impeded by adjacent neighbour garden or other forms of encroachments on reserve land.



Connecting Bridge, Realm Esplanade and West Harbour Esplanade



Overgrown access way to Wickstead Strand

6.1.5 Water



Huruhuru Stream

The landscape features found within the reserves are numerous and consist of waterfalls, streams, beaches, and significant native vegetation. Views on offer from most reserves are panoramic, of the wider harbour framed in the foreground by mangroves in the tidal area, or terrestrial vegetation on the reserves themselves.

The topography of the reserves along the coastal edge generally slopes down towards the tidal area to varying degrees and steepness. The exception to this is if the reserve has been reclaimed, for example Taipari Strand. Some reserves in West Harbour namely Colwill Esplanade and West Harbour Esplanade contain areas of steep scarp or headland, blanketed in native vegetation.

The areas between Whenuapai and Westharbour have a landscape quality rating of 5, where there are significant coastal and marine ecosystems that lie adjacent to these areas. This is outlined in the Auckland Regional Policy Statement.

There are many stormwater outfalls that flow through and into reserve land which carry stormwater through to the coastal environment. In many cases, stormwater transports contaminants into the coastal environment. High zinc levels have been recorded in the Whau River, and Henderson Creek.

Stormwater outfalls into riparian areas can increase rates of erosion of streamsides within the reserves. The outfall structure itself, can also detract from the overall amenity values of the reserves.

There are many rivers and streams that flow through reserves, into the Waitemata Harbour. Among these are the Huruhuru Stream, Swanson Stream, Oratia and Opanuku Streams that converge into the Henderson Creek, and the Whau River. All of these stream and river systems interact, depositing sediment and forming the mudflats that make up the Waitemata Harbour environment.



Beach at Kelvin Strand, Te Atatu Peninsula

Chapman Strand.

6.2 Social and Recreational Values

6.2.1 Recreation And Use

The Waitemata Harbour Foreshore Reserves offer both formal and informal recreation opportunities. This ranges from passive recreation such as coastal walkways, picnic tables and playgrounds to the reserves being a base for formalised sports clubs and groups. There are two beaches used in the summer for passive recreation, in Herald Island and Te Atatu Peninsula.

The recreational values of the reserves are in the opportunity they provide for public access to the coastline and waterways, which is a matter of national importance under the Resource Management Act 1991. The reserves connect the land with the sea, and are of utmost importance for water access.

Among the formalised sports groups are recreational facilities based around water sports, such as sailing, water skiing and rowing. These are on reserves with boat ramps and easy access to the shore, such as Chapman Strand and Taipari Strand on Te Atatu Peninsula. The tidal nature of the harbour dominates these activities, although there are well established clubs on the foreshore reserves. These are, Waitemata Canoe Club, Kenly Waterski Club, Endeavour Sea Scouts, Waitemata Rowing Club, Taikata Sailing Club, Te Atatu Boating Club, Lincoln Scout Group, Sensation Yachts and Waitemata Bridge Club.

Taikata Sailing Club

This club was formed in 1957, having started as an informal group of six friends, who towed their yachts down the then metal, dusty Chapman Road, carried them over the mud into the water for a race. Since the clubs establishment it has enjoyed grants from various parties for improvement and facilities to grow the club. The Club has documented the story of the formation of Taikata Sailing Club, in honour of the clubs 25th Anniversary, in 1983. Summarised below are the key dates and events that led to the establishment of the club, and its relationship with

In November 1958 a wooden ramp was built from packing cases, so members would no longer have to trudge through the mud to access the water. The ramp ran from the shore line into the water, extending for 8m.

In 1965 a permit was granted from council to build a clubhouse. Prior to this the club was operating out of a shed. The Club held a working bee to dig the foundations for the new building, in anticipation for its completion to be in October, ready for the opening day races. In 1970 changing rooms were constructed, and the club enjoyed its busiest year in 1974 with 55 – 65 yachts on the water.

In recent years, members have been extremely successful in events. Taikata Sailing Club now is a key feature and part of Chapman Strand. The Taikata Sailing Club building is listed in the Auckland Regional Councils Cultural Heritage Inventory, as a heritage item.

6.2.2 Cultural Heritage and History

Historical patterns of human habitation of the Auckland area have depicted an affinity with coastal areas. This is true of the Waitemata Harbour, where both māori and pākehā have had strong associations with the coastal environment. The reserves along the foreshore are of great significance to māori today due to this association, and the archaeological record of the reserves reflects this important history of both māori and pākehā.

It is important that the knowledge and location of archaeological sites is recorded, to ensure these special areas are managed. Archaeological sites are subject to erosion due to the coastal processes operating along the foreshore reserves, and are also confronted with other threats that are associated with people being unaware that these sites exist. The Cultural Heritage Inventory in Appendix 3 lists known archeological midden sites on reserves included in this Reserve Management Plan.

6.2.3 Maori Heritage and Archaeological Sites

This cultural heritage assessment has been prepared by Saul Roberts on behalf of Te Kawerau A Maki, with input from Te Warena Taua, Hariata Ewe (kuia) and heritage consultant Graeme Murdoch.

HE MIHI A GREETING

Karanga mai Tainui waka Karanga mai ko Te Kawerau A Maki
E ki ana te korero Ko Te Wao nui a Tiriwa Mai Te Korekore ki
Nga Tai a Rakataura

Greetings from the Tainui canoe Greetings from the people
of Te Kawerau A Maki Greetings from the land known as
the "Great Forest Of Tiriwa" From Te Korekore (Pulpit
Rock, Muriwai) to Nga Tai a Rakataura (the tidal currents of
Rakataura – the Manukau Harbour

STATUTORY AND POLICY CONTEXT

Among other things, this assessment addresses "matters of national importance" relating to historic and cultural heritage as set out under sections 6(e) and 6(f) of the Resource Management Act 1991. Section 6 of the RMA 1991 states that *"In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance: (e) The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga, and (f) The protection of historic heritage from inappropriate subdivision, use and development."*

THE 'TANGATA WHENUA' OR 'PEOPLE OF THE LAND'

Before outlining some of the Te Kawerau A Maki issues surrounding the Waitemata Harbour Foreshore Reserves Management Plan, it is essential to give a brief outline of

the history of the area to stress the length of occupation and its continuity until modern times. The tangata whenua of the Waitakere district are the people of an iwi or tribal group known as Te Kawerau A Maki. Although they are no longer in permanent occupation of their ancestral domain, they are regarded in Maori terms as still holding mana whenua or traditional ownership of the land. Te Kawerau A Maki have existed as a distinct tribal entity since the early 1600's, when their eponymous ancestor Maki and his people conquered and settled the district. Through prior ancestral links, and subsequent intermarriage with those they conquered, they have genealogical links that extend back to all of the preceding tribal groups that occupied the Waitakere area, traditionally known as Nga Rau Pou A Maki. While the history pertaining to these early ancestors and iwi has often been the subject of misinterpretation by European historians, it is very much part of the oral traditions of Te Kawerau A Maki.

Te Waatarauhi Tawhia, the Kawerau rangatira or chieftain from Waitakere explained in 1860, "Ki ta korero i mua he ika tenei whenua: ko te tangata nana i huti ko Maui". That is, "the talk of old tells us that this land is a fish, the man who fished it up was Maui". The first inhabitants of this land were a people known as the Turehu or literally the people from the earth. To the Kawerau people these were their earliest ancestors in the Waitakere district, the most famous being a rangatira known as Tiriwa. From these people come several place names that are described later in this essay. Te Kawerau A Maki also descend from another tribal group who migrated into the Tamaki Makaurau area or the Auckland Isthmus. These people were the Tini o Maruiwi who had migrated north from the Taranaki coastline. Some of them settled in Waitakere, where they conquered and absorbed the Turehu. Several of the most famous place names in the Waitakere district came from this conquest and the subsequent occupation of the area by the Maruiwi people under their rangatira Panuku.

NGAOHO & NGAIWI

The people who came to be known as Te Kawerau A Maki developed their tribal origins on the coastline between northern Taranaki and Kawhia in the 13th and 14th centuries.

They are the descendants of the famous ancestor Maki and his younger brother Mataahu. They were of highborn lineage being able to trace their ancestry from the leading rangatira of the Tokomaru, Kahuitara, Aotea, Kurahaupo and Tainui canoes. As descendents of Awanui-A-Rangi and the former Kaipara resident Titahi they were also part of the large descent group known collectively as “Ngati Awa”.

Maki and Mataahu were part of the wider Tainui descent group known as “Ngaoho”, and of the specific tribal group known as “Ngaiwi”. This latter iwi took its name from Ngaiwi, a rangatira who held sway over much of the land between South Auckland and Mokau. He was the great grandfather of Maki and Mataahu.

THE MIGRATION FROM KAWHIA

Maki, sometimes referred to as Makinui, was a renowned warrior in the coastal area between Taranaki and the south-western Waikato area. Because of his illustrious descent and his prowess as a warrior, Maki commanded a large following among the southern hapu of the Ngaiwi peoples who then occupied the area between Mokau and Kawhia. Maki lived for some time at Te Rau O Te Huia north of Waitara and then at a place of the same name beside Aotea harbour. He later lived at Tiritiri Matangi and Kaikai on the shore of the Kawhia Harbour.

In the 17th century Kawhia was a major centre of population. The natural resources of the area were coming under growing pressure from an expanding population and there were an increasing number of disputes between hapu over resource use. This led to arguments over cultivations in particular and to some important migrations out of the district. Most notable were the migration of Hotunui, and later his son Marutuahu to Hauraki, and the migration of Maki and his people to Tamaki Makaurau (Auckland) and Kaipara. After successive arguments with his relatives over cultivations, Maki decided to leave Kawhia with his hapu in order to seek a new home amongst his Ngaiwi and Ngaoho relatives to the north. In the mid 1600's Maki left the Kawhia district with two of his wives, Rotu and Paretutanganui, their children Manuhiri, Ngawhetu, and Maraeariki. They were accompanied by Mataahu the younger brother of Maki and three hundred followers.

After an unsuccessful attempt to settle in the Waikato, Maki moved northward to Karahea near the Waikato River mouth to visit his sister Kaka who had married a rangatira of Ngati Tahinga. He and his people then crossed the Waikato River, making temporary homes at Purapura and Tirangi at the southern end of the Awaroa portage near the Waikato River mouth. After some time they moved to Tirangi and Manurewa, and later to Rarotonga (Mt. Smart).

In settling in the Tamaki Makaurau area, Maki and his people had not migrated into someone else's tribal territory. They had moved to live with whanaunga or relatives. Maki was a descendent of Hoturoa, and was thus related to many Tainui hapu (collectively known as Ngaoho) who at that time occupied the Auckland region. As noted previously he was also part of the tribal grouping known as Ngaiwi who occupied the Auckland Isthmus and the area to the southwest. His great grandparent Kiripakoko of Ngaiwi had been a dominant figure in the Tamaki area, as had been his grandfather Haumia. His granduncle Pohatu was the leading Ngaiwi chief in the Tamaki Makaurau area in his day. In this sense Maki and his people were returning to an ancestral home.

TE KAWERAU A MAKI

The specific tribal name Te Kawerau A Maki has its origin in another migration and conquest that took place in the early 1600's. Maki was a member of the Ngati Awa iwi from Taranaki who had settled near Kawhia. As previously discussed he and a large group of followers migrated northward through the Waikato initially settling at Waiuku then moving to live near Rarotonga (Mt Smart). Ultimately Maki and his people conquered the Tamaki Isthmus and land as far north as Kaipara Harbour where they settled at Mihihanui near Te Awaroa (Helensville). Maki later fought several battles in Waitakere and some of his people settled in the area and intermarried with the Ngaoho people.

From an event involving Maki during the conquest of Kaipara came the tribal name Te Kawe rau a Maki, or 'the carrying strap of Maki'. Often shortened to Te Kawerau, this name was adopted by the now descendants. The descendants



in Waitakere also took the name from Te Kawerau A Maki from a son who was born to Maki after he settled in Kaipara. From this ancestor comes the name for the northern foothills of the Waitakere Ranges that extend from Pukematekeo to the Muriwai Valley. They are known as Nga Rau Pou a Maki or literally 'the numerous posts belonging to Maki'. His great grandson Te Au o Te Whenua came to control all the land between Muriwai and the Manukau Harbour. One of his main homes was Puketotara, the impressive pa on Jonkers property in the Wairere Stream Valley.

UPPER WAITEMATA HARBOUR FORESHORE

The 74 local esplanade reserves that line the shoreline of the Waitemata Harbour within Waitakere City are of considerable significance to Te Kawerau A Maki.

These narrow linear esplanade strips have ecological value in many cases, and they provide public access to the coastline and waterways which is a matter of national importance under section 6(d) of the Resource Management Act (RMA (1991)). Their cultural, historical, spiritual and environmental significance to Te Kawerau A Maki is also a matter of national importance under sections 6(e) and 6(f) of the RMA (1991).

These reserves are collectively significant to Te Kawerau A Maki for a number of reasons. As the archaeological site record shows they were the dwelling place of our ancestors, in particular as they were engaged in the harvest of the rich resources of coastal environment. These resources included sea and shorebirds, many species of fish and eels, and a wide range of shellfish. It should be noted that this relationship and practice has continued down to present generations.

This long ancestral relationship is also reflected by the fact that many of these places also carry traditional names of importance to Te Kawerau A Maki. These names are an integral and fundamental part of the mana and identity of Te Kawerau A Maki.

The Waitemata Foreshore Reserves are of major environmental significance as they provide the interface between the land and the sea, and the ecosystems of the

realms of Tanenui a Rangi and Tangaroa. The remnants of the indigenous ecology that remain are therefore of great importance in their own right, and also as they form a basis for the restoration of former indigenous biodiversity.

The foreshore reserves, and in fact the whole coastal margin that lines the western shores of the Waitemata Harbour, are of particular significance to Te Kawerau A Maki as they mark the eastern boundary of the Iwi.

This eastern boundary extends from Rangitopuni, the rapids at the head of the harbour (Riverhead) down the western shores of Te Wairoa o Kahu (the Upper Waitemata Harbour) and Wai te mata o Kahu (the Waitemata Harbour proper), to the tidal river of Wai Pareira (Henderson Creek) and Wai Te Whau (the Whau River). Then on down the shores of the Whau River as far as the canoe portage at Te Kotuitanga near New Lynn, across to Te Whau Pa (Blockhouse Bay) and Motu Karaka (Green Bay).

In spite of some recent assertions to the contrary, this land has remained under the mana of Te Kawerau a Maki over many centuries down to the present. In regard to this coastline, Te Kawerau a Maki have ancestral relationships that extend back eight centuries to Toi te huatahi and his niece Pareira, and over three centuries to the Kawerau ancestors Te Au o Te Whenua and Rangihina.

It is important to note that this kaitiakitanga relationship does not just belong in the historical past. It extends down to the present as many of these sites have been visited, their resources harvested, and their stories retained by present generations.

The Kawerau A Maki place names of the upper Waitemata harbour area and its environs reflect the area's thousand-year history of human occupation. These names not only describe the topography of the land, its natural resources and their usage, but they also commemorate specific ancestors, events and traditions. To those familiar with them and their historical associations, these names are landmarks that act as a constant reminder of the past. They act as tohu or symbols providing proof of traditional ownership to Te Kawerau A Maki

people today, just as they did to their ancestors before them. Landmarks and their names are central to the identity of all Maori tribal groups. This is certainly the case with Te Kawerau A Maki, who continue to use the more famous place names in whaikorero or traditional speechmaking to establish their identity and to express their emotional ties with their ancestral home. This identity is expressed in the following pepeha:

Ko Puketotara te maunga Ko Waitakere te awa Ko Te Au o Te Whenua te tangata Ko Te Kawerau a Maki te iwi,
Puketotara is the mountain Waitakere is the river Te Au o Te Whenua is the person Te Kawerau a Maki is the tribe.

WAHI TAPU

Wahi tapu are cultural sites of spiritual value which can be loosely classed as 'sacred' sites. However, the word 'sacred' does not fully convey the spiritual value of wahi tapu - 'windows to the past' - which provide genealogical links for Maori and often merge recent history into the stories of creation. The Treaty of Waitangi of 1840 assured Maori of tino rangatiratanga, or full authority, over their taonga (treasures, including wahi tapu) but most Maori land, including wahi tapu, has since been alienated and is now in crown or private ownership. The issue of wahi tapu has recently had a higher profile as Maori try to clarify, and assert, their treaty rights, especially tino rangatiratanga, which the Crown has an obligation to 'actively protect'. Increased Maori political participation in the last two decades has catalyzed an increased crown role in the protection of wahi tapu, including the Treaty of Waitangi Act 1975, which established the Waitangi Tribunal to hear Maori treaty grievances and to make non-binding recommendations to the government.

There is a range of legislation which affects wahi tapu, but the Maori Affairs Act 1953 and the Historic Places Act 1980 are the two which have been most commonly used. Events in the last few years have highlighted their protective inadequacy and added to pressure for new legislation which facilitates assertion of rangatiratanga. The Resource Management Act 1991 and a proposed new Historic Places Act has increased the ability of Maori to protect wahi tapu, but it can be argued that the need still exists for a comprehensive act explicitly drafted to enable

Maori to assert their full treaty rights - the control and protection of wahi tapu.

Historical Background

It is not feasible to talk about Maori sacred sites in New Zealand without first referring to the genesis of the problems which Maori face today when trying to assert control and protection of their cultural sites. That genesis dates back to the signing of the Treaty of Waitangi in 1840. In 1840 the British Crown sought to treat with the indigenous people of Aotearoa (New Zealand), the Maori. Various motives have been ascribed to the Colonial Office's desire for a treaty: a response to importunate missionaries and traders who sought some measure of control of lawless Europeans; fears that the French would claim sovereignty; and reports that land speculators were pre-empting crown acquisition by buying up large tracts of land.

The treaty was signed in 1840 between representatives of the Queen of England and about 500 Maori chiefs. It contained three main parts: Article 1: The chiefs ceded sovereignty (kawanatanga or 'governorship') to the Crown. Article II: The Crown guaranteed to protect the chiefs' absolute authority (tino rangatiratanga) over their lands, villages, and all possessions including their taonga, or treasures, as long as they wished to retain them. Article III: Accorded Maori all of the rights and privileges of British subjects. History has shown that the two parties had differing expectations about how they would exercise power after the signing. As it transpired, the Crown used the treaty as the first step to substantive sovereignty, which soon evolved into a constitutional settler government. The Maori chiefs, on the other hand, relied heavily upon missionary interpretation and advice, and may have viewed the treaty as morally, rather than legally binding. Clearly the chiefs did not anticipate that rangatiratanga would be subsumed by kawanatanga. Some Maori scholars have suggested that the chiefs, already well-versed in Christian teachings, may have anticipated a situation analogous to the Middle East at the time of Christ. That is, the local chiefs and kings preserved their autonomy (rangatiratanga) but ceded governorship (kawanatanga) to imperial Rome. The prevailing attitude of the Maori signatories is probably exemplified by the famous



comment of the chief Nopera Panakaraeo at Waitangi: 'The shadow of the land passes to the Queen, but the substance remains with us.'

Alienation Of Maori Land

Whatever the intentions of the signatories, the reality was less than joyous from the Maori point of view. In the decades that followed the signing of the treaty, most Maori land was alienated by a variety of means. Although alienation included willing sale by Maori, there were a number of less happy alienation processes. The most infamous of these was the confiscation of large tracts of land after the suppression of 'rebel' uprisings which had often been orchestrated by the colonial government. Not only did the Crown fail to protect rangatiratanga, but the colonial government worked deliberately in violation of the treaty to acquire Maori land for European settlers. By the end of the nineteenth century most of the prime land in New Zealand was in Pakeha (European) ownership. That land contained a large number of Maori cultural sites which have since been desecrated or destroyed under the onslaught of economic development, for there has been limited Maori control and protection of sites on private and crown land. Indeed, those cultural sites which have survived intact have tended to be in areas where developmental pressure has been minimal, rather than through any Pakeha design or sensitivity.

The Waitangi Tribunal

Maori have been expressing their grievances almost continuously since soon after the treaty was signed, but the inertia and indifference of the dominant Eurocentric society treated Maori grievances as mere background noise. By the 1970s, however, the renaissance of Maori culture, and reassertion of grievances dating back to 1840 forced society to reappraise the treaty. As part of government response to those increased Maori demands for participation in the political process, particularly redress of grievances, the Labour Government loosened the lid of Pandora's Box and passed the Treaty of Waitangi Act 1975, the preamble of which states: An Act to provide for the observance, and confirmation, of the principles of the Treaty of Waitangi by establishing a Tribunal

to make recommendations on claims relating to the practical application of the Treaty and to determine whether certain matters are inconsistent with the principles of the Treaty. In 1985 the government threw away the lid of Pandora's Box altogether when it amended the act to allow the Tribunal to hear claims backdated to 1840. The Tribunal has since reported its findings and recommendations on a number of claims, but under the act, there is no obligation upon the government to implement them. Redress still relies upon the degree of 'good faith' and 'partnership' which the incumbent Government chooses to interpret from the treaty. But the Crown has crossed the Rubicon, and raised Maori expectations, and it could be argued that it would not be in the long-term interest of Aotearoa for governments to ignore any Waitangi Tribunal recommendations.

It is important to note that the claims process can only be applied to Crown, and not to private land. Considerable anxiety has been generated by misinformation which has led many Pakeha landowners to believe that their title was under a potential threat. This attitude has persisted in the face of constant government, and mainstream Maori reassurances that one injustice should not be replaced with another.

Principles Of The Treaty

The findings and recommendations of the Waitangi Tribunal began to refer to Treaty 'principles', and in 1987 a special Court of Appeal unanimously confirmed that the Treaty had established a partnership. Implicit in that partnership was the duty of Maori and the Crown to act 'reasonably and in the utmost good faith' towards each other.

In 1989, in an attempt to find a way of redressing grievances, the government sought to redefine the role of the Crown as a treaty partner in Principles for Crown Action on the Treaty of Waitangi. Prime Minister David Lange said in the introduction: These principles are consistent with the Treaty of Waitangi, and with observations made by the Courts and the Waitangi Tribunal. They are not an attempt to rewrite the Treaty of Waitangi. These Crown principles are to help the government

make decisions about matters related to the Treaty. For instance, when the government is considering recommendations from the Waitangi Tribunal.

The principles, as well as stating the Crown's interpretation of the three articles, include the Principle of Redress: "The government is responsible for providing effective processes for the resolution of grievances in the expectation that reconciliation can occur." Treaty 'purists' claim that the Treaty stands on its own and does not need government-initiated reinterpretation of 'principles'. Nevertheless, these principles have profound long-term implications for Maori cultural sites.

Definition Of Cultural Sites

Wahi tapu may be classed into two broad categories: 'everyday' sites and wahi tapu (sacred places). The everyday cultural sites include marae (the modern usage means the total village compound which still serves as a focal point for Maori communal events), pa sites (formerly fortified villages), quarries, and mahinga kai (specific fishing and other food gathering areas). The literal translation of wahi tapu is 'sacred place', but the modern translation of tapu as 'sacred' fails to capture its full essence, for the deep spiritual value of wahi tapu transcends mere sacredness.

Whereas urupa (burial grounds) are the most obvious examples of wahi tapu, there is a wide range of sites which may qualify, and these include: ana tupapaku (burial caves), pa where battles have occurred, other sites where blood has been spilt, tauranga waka (sites where ancestral canoes have been beached) and some mountains.

Intricate and indissoluble bonds link the most important wahi tapu sites to their appropriate tribes. These sites may be associated with the creation stories of the local people and form one end of a continuum which moves from prehistory to the present and links the people genealogically to their past. Their whakapapa (genealogy) and history are identified by reference to land features with names that recall the tupuna (ancestors) who preceded them, and the events which shaped their lives. For example Hikurangi, the sacred mountain of the Ngati Porou, is the resting place of the canoe of Maui, the demi-

god who is credited with catching the North Island (Te Ika a Maui - the Fish of Maui) while fishing, and drawing it to the surface.

The hierarchy and complexity of wahi tapu classification is compounded by the people of each iwi, hapu or whanau (tribe, sub-tribe or extended family) having their own definition which is valid only to them. No iwi, hapu or whanau would be so presumptuous as to define wahi tapu for another group. In many instances the existence and/or location of wahi tapu is known only to the local tribe, subtribe or family, who would not consider making that information public. Furthermore, within each group the location of some wahi tapu may only be known to a few kaumatua, or elders, and wahi tapu have been lost because kaumatua have died before their knowledge was passed on.

Rangatiratanga

To recapitulate, in the Treaty of Waitangi the Crown has a duty to protect rangatiratanga '... the unqualified exercise of their chieftainship over their lands, villages and all their taonga'. In the century which followed the Treaty, the Crown manifestly failed in that protective duty and Maori lost ownership and control of innumerable cultural sites to Crown and private ownership. Without question, many sites have vanished from collective memory.

There are three levels of difficulty in assertion of rangatiratanga over wahi tapu and other cultural sites:

Maori land: Maori are only able to assert rangatiratanga, to an approximation of its full extent, over cultural sites which are on Maori land.

Crown land, including national parks and protected areas: it may be apparent that if the Treaty relationship of good faith or partnership between Maori and the Crown is reaffirmed, then Maori should be in a position to negotiate with the Crown to gain greater control and protection of cultural sites on Crown land. The last decade has witnessed a greater willingness by the Crown to participate in this negotiation process.

Private land: Assertion of rangatiratanga over wahi tapu on private land presents an infinitely more intractable problem for Maori. Private land titles may have been in non-Maori ownership



for generations and in many cases the current owners will have little sympathy for Maori who are concerned with a wahi tapu site, especially if there is any possibility of monetary pain to the landowner.

Legislative Protection of Cultural Sites

The range of legislation which protects wahi tapu, usually in an indirect manner, is administered by several government agencies. Yet no specific act exists to protect wahi tapu or to enable Maori to assert rangatiratanga over these sites. In other words, kawanatanga is still ascendent over rangatiratanga.

The Historic Places Act 1980

The principal protective legislation is the Historic Places Act 1980, but its mechanisms have proved to be insufficient from a Maori point of view. The Waitangi Tribunal was moved to comment: *'Bluntly put, there is one standard for sites of significance to New Zealanders as a whole, and another lesser standard for sites of significance to Maori people'* (The Report of the Waitangi Tribunal on the Manukau Claim, July 1985:62).

A review of the Historic Places Act in 1989 found it to be inadequate in its approach to protection of Maori heritage values, and to provisions for Maori decision-making. The review recommended that these deficiencies be rectified, with due weight being given to Maori wishes, especially regarding Maori land.

The Maori Affairs Act 1953

The main legislation which Maori have used to protect Cultural sites is the Maori Affairs Act 1953. Section 439 provides for the creation of a Maori reservation for communal purposes, including a: village site, marae, meeting place, recreation ground, sports ground, bathing place, church site, building site, burial ground, landing place, fishing ground, spring, well, catchment area or other source of water supply, timber reserve, or place of historic or scenic interest, or for any other specified purpose whatsoever.

A later amendment, Section 439A, reflects the Crown's increased recognition of the importance of Maori cultural sites, and refers to any piece of land 'by reason of its historical significance or spiritual or emotional association with the Maori people'.

Section 439 evolved at a time when it seemed possible that all Maori land could be alienated in the near future. The use of trusts to administer 439 reserves prevents the covert or 'accidental' alienation of Maori land and is a particularly effective way of protecting new urban marae which have often been built on newly acquired General land. Legislation enabled 439 reserves which are less than 2.63 hectares to avoid paying rates. This is an important measure as Maori land had often been alienated in the past because the Maori owners could not meet rate debts.

There are about 200 new applications annually to the Maori Land Court for 439 reserves, usually to protect urupa and marae. Applications are increasing at a rate of 2-3% per annum and are another reflection of Maori determination to protect taonga, especially urupa, before they are lost. Most 439 reserve applications are for sites on Maori land but the Act does not exclude 439 reserves on general land. These would be very difficult, however, because the private landowner would have to assent to the application.

Reference to Wahi Tapu in Legislation

Explicit mention of wahi tapu in legislation did not even occur until the State Owned Enterprises Act 1986 was amended by the Treaty of Waitangi (State Enterprises) Act 1988. The 1986 act sought to transfer certain crown lands to the new state-owned enterprises. In the landmark Appeal Court case in 1987, the New Zealand Maori Council sought a judicial review of the act because they believed that the transfer process would be a breach by the Crown of Section 9 of the 1986 Act. Section 9 states that nothing in that Act permits the Crown to act in a manner that is inconsistent with the principles of the Treaty of Waitangi. As discussed earlier, the Court's unanimous decision was that the treaty partners had a duty to act 'reasonably and in the utmost good faith'.

New safeguards were included in the Treaty of Waitangi (State Enterprises) Act 1988; including power for the Waitangi Tribunal to make a binding recommendation for the return to Maori ownership of land or interests in land transferred to State enterprises under the Act, and requiring the Waitangi Tribunal to hear any claim relating to any such land as if it had not been so transferred.

The Act recognises the importance of revesting alienated wahi tapu to the appropriate iwi rather than transferring to the state-owned enterprise. Section 27(d) refers to wahi tapu as 'being land of special spiritual, cultural, or historical tribal significance. The word 'tribal' indicates that legislators are beginning to understand that values relating to wahi tapu are shaped by local custom and history and will vary from iwi to iwi.

Three other Acts, the Crown Forest Assets Act 1989, New Zealand Railways Corporation Restructuring Act 1990 and the Education Amendment Act 1990, have been passed to take account of Maori land claims when crown lands are transferred to state-owned enterprises. Although these Acts signal government's belated recognition of the importance of wahi tapu, they relate to a relatively limited number of events over a fairly short time span. Their importance, historically, may be that they were the forerunners of more comprehensive legislation which enables Maori to assert rangatiratanga over their wahi tapu.

National Parks and Protected Areas

Only a small proportion of the thousands of wahi tapu are located in the 12 national parks. Ironically, New Zealand's first national park, Tongariro was gifted to the nation 'for the use of both Maoris and the Europeans' by Te Heuheu Tukino IV, Horonuku, paramount chief of the Ngati Tuwharetoa tribe in 1887. Tongariro is the ancestral mountain of Ngati Tuwharetoa and, at the time of gifting, held the remains of Horonuku's father, Te Heuheu Tukino H, Mananui, a chief of great rank. Because Ngati Tuwharetoa had supported Rewi Maniapoto's struggle against General Cameron's forces at the battle of Orakau, there was a risk that the wahi tapu sites would be confiscated by

the colonial government. To avert this possibility Horonuku, on counsel from his son-in-law Lawrence Marshall Grace, gifted the peaks of the three mountains to the Crown as a national park. A condition of this gift, however, was that the paramount chief was to be one of the trustees - a condition that persists in legislation today. The original gift was but a fraction of today's national park, which grew to its present size by the inevitable colonial process of accretion. Two other parks, Mount Egmont (Taranaki) National Park and Whanganui National Park each have legislative provision that one of the 12 members of their controlling Conservation Board shall represent local tangata whenua (the Maori tribes who have an historical association with the area) interests. No such legislative provision exists for the other 14 conservation boards although they have an average of about three Maori members per board.

The Conservation Boards and the national New Zealand Conservation Authority were established by the Conservation Law Reform Act 1990. The authority's functions extend over the whole conservation estate, and include national parks. Two of the 12 members are appointed after consultation with the Minister of Maori Affairs. The conservation boards have kept the functions of the national parks and reserves boards which includes the recommendation and approval of conservation management strategies and plans.

The Resource Management Act 1991

The Resource Management Act 1991 provides for heritage protection authorities, which can require that a heritage order be included in a territorial authority's district plan (see Appendix A 'Creation of Heritage Orders' and Appendix B 'Heritage Protection Authorities'). Tribal authorities can become heritage protection authorities on approval from the Minister for the Environment, or can recommend to the Minister of Maori Affairs or to a local authority, that they act as heritage protection authorities on behalf of the tribe. Although this is a significant step towards Maori protecting their sacred sites, these mechanisms do not fully enhance rangatiratanga for they do not enable tribal authorities to become heritage protection authorities directly as of right.

A heritage protection authority can ask local government



to include a heritage order in a district plan for the purpose of protecting any place 'of special significance to the tangata whenua (Maori) for spiritual, cultural, or historical reasons'. This would include, in tribal terms, any wahi tapu site. Although these sections of the Resource Management Act do provide a potential protective mechanism, there are several appeal processes available to persons or organisations affected by that heritage order. The end result of a long, litigious and costly process could be that a tribe fails in its attempt or, if it is determined to protect a site, is forced to purchase the site under the Public Works Act 1981. It may be self-evident that this prospect would be so daunting that, in many cases, Maori would be reluctant to pursue this means of protecting wahi tapu.

Historic Places Legislation

As discussed earlier, a review of the Historic Places Act 1980 identified major weaknesses in its ability to protect Maori cultural sites. It has since been proposed that a new Historic Places Act serve as a complement to the Resource Management Act 1991.

In preparing a new Historic Places Act officials have been asked to consider a number of options for increasing Maori participation and representation in the protection of historic places. Among these options is a Maori Heritage Council to stand alongside the existent Historic Places Trust Board. This Council, composed of Maori members appointed by the Minister of Conservation, after consultation with the Minister of Maori Affairs and the Maori members of the Historic Places Trust Board, would have a status more consistent with the partnership principles of the Treaty of Waitangi. The Council could ensure that the Historic Places Trust met the needs of Maori in the protection of cultural sites; would help develop relevant programs to identify and protect cultural sites; and could advise and assist the trust board on all issues relating to Maori cultural sites.

It is likely that heritage covenants will be carried over from the old Act. Heritage covenants are voluntary, low-cost, non-confrontational agreements with private landowners to

covenant a section of a land title for protection purposes. This covenant would be tied to the title and could not be removed on the sale of a property. This mode of protection might be particularly useful in situations where the wahi tapu is on a part of a title which would not affect the resale value of a property. Clearly, if a wahi tapu were located where it might have an adverse effect on resale value, the imposition of a heritage covenant would rely upon an owner who was especially benevolent, or who planned to keep the property within the family.

Silent Files

As has been noted, many iwi are reluctant to reveal the presence of wahi tapu to outsiders. The use of a 'silent file' or register is a means of maintaining the secrecy of the site but still providing a protective mechanism. A silent file, kept in confidence by the appropriate tribe, sub-tribe, or family, lists the location of that group's wahi tapu. Land titles, which Maori know to contain wahi tapu, could be marked in Council plans, to show that some part of the property was recorded in a silent file as having a wahi tapu. The precise location would not need to be recorded on the Council's plan. If any development was planned on that title, then Council would have the responsibility to check with the holders of the silent file to ensure that wahi tapu were not threatened before approval was given for development to proceed.

The use of silent files has already been documented in a comprehensive resource management plan prepared by the Ngai Tahu tribe Te Whakatau Kaupapa - Ngai Tahu Management Strategy for the Canterbury Region, November 1990: There are sites known to most Ngai Tahu and these are described with particularity. Other sites may be the wahi tapu of smaller groups - sometimes as small as an extended family. In these cases, the groups or families will make their own decisions as to what, if anything, should be revealed at the time when any development affecting that site is proposed. In an attempt to assist in the resolution of problems at this level, the Ngai Tahu Maori Trust Board has offered its services as an intermediary between the planners, the developers and those to whom the sites are sacred.

Of course, silent files and any iwi resource management plans are dependent upon the degree of compliance and cooperation of local government with iwi authorities. To this end, the Resource Management Act states that when Councils are preparing and changing any management plans they should have regard for any iwi plans. A regional council also should consider the need to prepare a plan whenever any significant need or demand for the protection of natural and physical resources or of any site, feature, place, or area of regional significance is identified. There is no doubt that this submission to the Waitemata Harbour Foreshore Reserves Management Plan applies in this instance.

The Act also provides that Council may protect information in a consent application for a variety of issues if withholding the information is required to avoid disclosure of the existence, or location, of a wahi tapu (section 42a). This includes holding the relevant meeting in private. This part of the Act recognises the importance of respecting Maori wishes that wahi tapu are not disclosed to the general public, and possible depredations and desecration by souvenir hunters. It must be noted, however, that it is Council that will decide whether the location and particulars of a wahi tapu will be made public, by weighing iwi values against 'public interest'.

Other Legislation

Recent legislation has been a substantial move, compared with the first 150 years, towards Maori control and protection of cultural sites, including wahi tapu. As has been pointed out, however, the Crown still remains the dominant partner in almost all contexts. Maori will not be appeased until a situation exists where iwi, hapu and whanau have rangatiratanga over their wahi tapu. To this end, an option favoured by some Maori would be a discrete wahi tapu Act which addresses the issues of wahi tapu on Maori, crown and private land. Although the concept of such an Act has been aired, there is little prospect of a wahi tapu Act materialising in the short to medium term. It would also be unrealistic to expect any substantive change from the status quo for wahi tapu on private land. Some Maori will always claim, and history justifies it to some extent, that the Anglo legal system will never be capable of recognising

rangatiratanga. The only appropriate mechanisms to protect wahi tapu, from that point of view, would be extra-legal mechanisms based upon Maori law.

WAHI TAPU - UPPER WAITEMATA HARBOUR FORESHORE RESERVES MANAGEMENT PLAN

What follows in this section of the report is a summary of the cultural, historical and environmental values that relate to the many specific individual foreshore reserve areas. The upper Waitemata Harbour foreshore is located on part of the ancestral land of Te Kawerau a Maki who have been directly associated with the area as an iwi since the mid 1600s as discussed earlier, and for many centuries more through intermarriage with the earlier Ngaoho people.

It is important to note that Te Kawerau a Maki do not see the upper Waitemata Harbour Foreshore reserves in isolation, but as part of the greater whole which makes up their whenua tupuna or ancestral domain. It is the view of Te Kawerau a Maki that if one part of the land is affected by development then the whole surrounding environment is also affected. It is also important to note that irrespective of the provisions of statute and the district plan, the present generation of Te Kawerau a Maki have a responsibility of kaitiakitanga or traditional guardianship over their ancestral land, whatever its current tenure.

TE WAO NUI A TIRIWA

The whole upper Waitemata Harbour Foreshore area is of spiritual significance to Te Kawerau a Maki at a number of inter-related levels. Firstly it is of spiritual and cultural significance as part of the vast forested tract known traditionally as Te Wao nui a Tiriwa – the great landbase of Tiriwa. The area also lies at the very foot of the mountain ranges known traditionally as 'Hikurangi', but now referred to as the Waitakere Ranges. The remnant kauri groves that remain on the reserves are seen as a treasured part of Te Wao nui a Tiriwa which is finally recovering after 150 years of massive modification.



THE FORESHORE ESPLANADE RESERVES - RESERVES IN THE VICINITY OF BRIGHAM'S CREEK WAI WHAKATARATARA

A small reserve at the head of the Totara Creek, more correctly Wai Whakataratara, is of significance to Te Kawerau A Maki. The area included a kainga or settlement that was located at the eastern end of an overland pathway that extended inland to Pukewhakataratara (Massey) and westward to the Waitakere River Valley and Te Henga. This occupation is indicated by the shell middens recorded in the vicinity of the esplanade reserve. This is also the case for the esplanade reserve extending north from Dale Road, Whenuapai, along the eastern shoreline of Brigham's Creek.

TAHUNAPUPU

At the eastern entrance to Brigham's Creek is another small esplanade reserve in a locality known to Te Kawerau A Maki as Tahunapupu. This reserve is significant as it was used as a camping place when shellfish, including pupu, were being harvested from the adjoining sandbank of (Tahunapupu). The area around the entrance to Brigham's Creek was also significant as it was traditionally a roosting place of the kawau or shag. This bird is seen as a kaitiaki or spiritual guardian by Te Kawerau A Maki.

RESERVES ON THE WHENUAPAI COASTLINE BETWEEN BRIGHAM'S CREEK AND THE HOBSONVILLE PENINSULA WAIONOKE

At the end of Riverlea Road, Whenuapai is a small inlet known traditionally to Te Kawerau a Maki as Waionoke. This area again is significant as it was a place used by ancestors over many generations while harvesting the resources of the adjoining coastline.

TE RARAWARU

To the east of Waionoke is a large inlet known traditionally as Te Rarawaru. The esplanade reserve at the head of this inlet is again significant as an ancestral dwelling place. The significance of this place is reflected in the fact that the whole

land block that now makes up the Whenuapai area was named Te Rarawaru after this place. The name Te Rarawaru is associated with the processing of large numbers of fish caught in this area.

WAIKOTUKUTUKU

There are several small esplanade reserves extending along the foreshore from the Te Rarawaru Inlet to the Kotukutuku Inlet which is traditionally known as Waikotukutuku. The reserve behind Whenuapai Village Hall was a significant ancestral occupation site associated with the seasonal gathering of kaimoana. A particularly treasured resource gathered from Waikotukutuku was a species of dark coloured eels known as 'kiripauri'. A feature of this inlet and its riparian margins in pre European times were the groves of kotukutuku or the native tree fuchsia which gave the inlet its name. This area of esplanade reserve extending eastwards toward the end of Waimarie Road contains a relatively extensive area of regenerating coastal scrub land including coastal species like mapou, kanuka and karo. The sheltered landward margins could be enhanced through the planting of kotukutuku, and the more exposed areas through the planting of pohutukawa.

ONETAIPU

The coastal margin between the boat ramp at the end of Waimarie Road and the eastern end of Pohutukawa Road is known traditionally as Onetaipu. It takes its name from the sand and shell banks built up by the tide at the eastern near the entrance to the Te Turerenga Inlet.

This whole coastal area, which is largely in esplanade reserve, is important to Te Kawerau a Maki as an ancestral occupation site which gave access to the main channel, a wide variety of kaimoana and the kainga on the opposite shores at Paremoremo. Te Kawerau A Maki stayed at the marae known as Te Marae o Hinekakea at the head of the Paremoremo Creek until just prior to World War I. Until this time the resources of the Waikotukutuku – Onetaipu coastal margin were harvested.

TE TURERENGA

This large mangrove covered inlet at the northern end of Kauri Road, Whenuapai is important to Te Kawerau A Maki because of ancestral associations and because of its natural qualities. The two small esplanade reserves both contain shell midden that indicates ancestral occupation. Both reserves however are not currently well managed and do not reflect the ecological intactness of the adjoining inlet. They could be enhanced through weed control and the planting of appropriate native coastal tree species.

MOTU PAKIHI (HERALD ISLAND)

The esplanade reserve extends right around the island which is important in its entirety to Te Kawerau A Maki because of its associations with the Ngati Poataniwha ancestors Te Poataniwha and Rangihina from whom all of Te Kawerau A Maki descent. The most significant area of esplanade reserve is that section which extends along the northern side of the island as far as the wharf reserve. This latter area is known traditionally as Te Pahi o Te Poataniwha – the camping place of Te Poataniwha. This area of coastline contains shell midden and other sites of cultural significance to Te Kawerau a Maki, although they have been desecrated by development over the last century. A particularly significant feature of the coastal margin between Christmas Beach and Herald Island Wharf are a significant number of mature pohutukawa trees. These older of these trees are spiritually and culturally important to Te Kawerau a Maki as they pre date European settlement and are associated with early ancestors.

WAIAROHIA

A narrow but relatively long esplanade reserve extends along the western edge of the Waiarohia Inlet. The importance of this inlet and stream to Te Kawerau A Maki has been described in several Waitakere City studies including during the development of the recent Management Plan for the Waiarohia Catchment.

The correct traditional name for this inlet and the stream that flows into it is Wai arohia o Ngariki – the beloved stream of Ngariki. The Ngariki people were a sub tribal group within the

larger Ngaoho iwi which descended from the crew of the Tainui canoe. Maki the founding ancestor of Te Kawerau a Maki was himself of the Ngariki people.

The Waiarohia Inlet, Stream and tributaries were collectively seen as a waitapu or sacred waterway by Te Kawerau a Maki. Of particular importance was the punawai or spring which gave the waterway its name Wai arohia o Ngariki. The upper part of the Waiarohia inlet was defiled through its use as a landfill. It is important that the esplanade reserve in this area is returned to as natural a state as possible through weed control and the planting of appropriate native plant species.

RESERVES ON THE HOBSONVILLE PENINSULA (ONEKIRITEA) TE OKORIKI

On the eastern side of the southern approaches to the Upper Harbour Bridge there is a small esplanade reserve that adjoins the mangrove covered inlet known traditionally as Te Okoriki – the little basin

Although it has been modified through recent motorway development, this reserve contains a number of mature pohutukawa trees that are significant to Te Kawerau a Maki. This coastal margin, including the area occupied by the present RNZAF Hobsonville Base, was an ancestral kainga of Te Kawerau a Maki.

ONEKIRITEA

On the Hobsonville Peninsula between Catalina Bay and Bomb Bay there is a relatively long esplanade reserve that is of significance to Te Kawerau a Maki. As indicated by the extensive shell midden found along this piece of coastline, this peninsula was occupied for generations by Te Kawerau A Maki in association with the harvest of the rich resources of Te Wairoa o Kahu (the Upper Waitemata Harbour). The name Onekiritia originated from the whitish clay soils found in this area. This clay was used as a pigment and as a form of soap. It is important that any development of this esplanade reserve is undertaken carefully so that ancestral sites are not disturbed.



TAHINGAMANU

To the immediate south of Onekiritia there are several esplanade reserves on both the northern and southern sides of Scott Point. This is an area of considerable significance to Te Kawerau a Maki. It is known traditionally as Tahingamanu. This name comes from the adjoining intertidal flats which were named Tahinga manu because of the huge number of seabird and shorebird species that alighted, fed and roosted in this area. This area was occupied in association with the harvest of the rich shellfish resources including pipi, tuangi (cockles), pupu (catseye) and tipa (scallops). The importance of shellfish gathering in this area is indicated by the numerous shell middens which are found on this stretch of coastline. This area remains an important shellfish gathering place to this day. Tahingamanu was also especially treasured for the kuaka (godwits) that were caught on the shell banks in autumn at a time when huge numbers of kuaka gathered prior to the annual northern migration. It is important that the natural qualities of this coastal area are protected and enhanced, in particular in relation to the sea and shorebird species found in the area. This would mean that public access would not be promoted and that dogs would be banned within these reserves.

RESERVES ADJOINING HENDERSON CREEK (WAI PAREIRA) - EXCLUDING THE TE ATATU PENINSULA WAIPAREIRA

The extensive esplanade reserve that extends from Limeburner's Bay to the south of the Westpark Marina, is located in the area known traditionally as Wai Pareira. This coastal margin has been considerably modified by the development of extensive brickworks in the nineteenth and early twentieth centuries, and by ongoing development associated with the marina and adjoining housing development.

This coastal area is still however of considerable significance to Te Kawerau A Maki as it is associated with early ancestors who came to the area over eight centuries ago. The bay takes its name from Pareira an illustrious ancestress who was the niece of the renowned Polynesian navigator and

ancestor Toi te huatahi. After exploring the Hauraki Gulf and the Waitemata Harbour, Pareira and some of her followers decided to settle at Wai Pareira – the bay of Pareira. In time this name also became applied to the Henderson Creek. It is important that this ancestral association is honoured in any development of this esplanade reserve.

KOPUPAKA

Immediately south of Wai Pareira in the Lucken's Reserve – Lucken's Point area is another esplanade reserve of considerable significance to Te Kawerau a Maki. This area was known traditionally as Kopupaka. (Note – Kopupaka is sometimes mistakenly located at the head of Brigham's Creek on the basis of maps prepared by George Graham and Leslie Kelly in the 1940s).

Located strategically at the entrance of Wai Pareira (Henderson Creek), this permanent kainga was associated with the harvest of the rich resources of the adjoining harbour and inter tidal flats. This is indicated by the extensive shell midden still found throughout this area. Kopupaka was occupied by Te Kawerau A Maki until after European settlement began in the 1850s. This area contains an important remnant of regenerating coastal forest which should be protected and enhanced through the planting of pohutukawa and other appropriate coastal species.

MANUTEWHAU

The southern half of West Harbour Esplanade and the esplanade reserve extending south to Realm Reserve extend around an inlet that is traditionally known as Manutewhau. This area was a former kainga or settlement of Te Kawerau A Maki and is therefore of particular significance to the Iwi. The area takes its name Maanu te whau from the practice of netting for fish in this inlet and its immediate environs. The name Maanu te whau refers specifically to the sight of the whau wood net floats seen on the surface of the inlet in the past. Also of significance in this area are the remnant areas of regenerating coastal forest which include kowhai and totara. These trees provide a tangible unbroken link with the ancestral past. There is an opportunity to recreate an area of

coastal forest within this esplanade reserve and the adjoining Moire Park Reserve. This also applies to the esplanade reserve extending from Spargo Reserve south to Colwill and Lowtherhurst Reserves.

WAI HURUHURU MANAWA

The Huruhuru Creek and its environs are of considerable significance to Te Kawerau a Maki as has been described for the Waitakere City Twin Streams Project. The creek is traditionally known as Wai huruhuru manawa – so named because the deeply incised creek is lined by mangroves (manawa) with prominent aerial roots (huruhuru).

This creek provided an important ancestral inland accessway over many centuries. At the head of the creek, in the vicinity of Woodside Reserve, was a kainga or settlement known as Te Huruhuru. Any development in this area needs to be undertaken carefully in consultation with Te Kawerau A Maki. Another area of significance is the esplanade reserve land in the vicinity of Taitapu Reserve, which was also an old seasonal kainga.

The esplanade reserve area between Chorley Reserve and Helena Park on the northern side of Wai Huruhuru Manawa is particularly important as it contains the best preserved remnant of indigenous forest located within the Waitemata Harbour Foreshore Reserves area. This area should be the subject of intensive animal and plant pest control as an important part of the Twin Streams and North West Wildlink projects.

RESERVES ON THE TE ATATU PENINSULA

The Te Atatu Peninsula was an important ancestral dwelling place of Te Kawerau A Maki and the related hapu known as Ngati Poataniwha. Its coastal margins are lined with shell midden which indicate generations of occupation and resource gathering.

ORUKUWAI

The northern tip of the peninsula is known traditionally as O

- Rukuwai, or the dwelling place of Rukuwai, an ancestor of Te Kawerau a Maki. This area, including Chapman Strand and Dawnhaven Esplanade, was occupied and gardened until post European times and is of particular importance to Te Kawerau A Maki. Any development of this esplanade reserve should be undertaken carefully with archaeological sites including kumara storage pits and shell midden being avoided.

TAIMATA

The lower reaches of Wai Pareira (Henderson Creek) were known traditionally as Taimata. This name has been corrupted over recent generations to Taikata. The coastal esplanade strip between Chapman Strand and Taipari Strand borders the channel known as Taimata.

Although the Taipari Strand consists of a reclaimed rubbish landfill, the rest of this esplanade strip retains an important remnant of regenerating coastal forest. Of particular significance to Te Kawerau a Maki are the relatively large numbers of mature pohutukawa found in this area. They need to be protected and enhanced through further plantings of locally sourced pohutukawa trees.

KOTUKU

The area in the vicinity of Springbank Esplanade and Gloria Park is of special significance to Te Kawerau a Maki because of its traditional association with the rare kotuku or white heron which migrated to the area annually. Again any development in this area should promote the naturalness of the area rather than recreation.

ORANGIHINA

The area between Spinnaker Strand and Harbour View Reserve was traditionally known as Orangihina, which was a large kainga located on the Orangihina Reserve. This area is of special significance to Te Kawerau A Maki as it was occupied for many generations, and as it carries the name of the ancestress Rangihina. This woman was a leader of Ngati Poataniwha and was the wife of the renowned Te Kawerau a Maki rangatira, Te Au o Te Whenua who controlled all of what is now Waitakere City in his day. This extensive esplanade reserve contains a large



number of shell middens which indicate intensive settlement. An issue with the management of this area is the process of coastal erosion which is taking place. Any development of this area should be undertaken carefully with archaeological sites being avoided.

RESERVES ADJOINING THE WHAU RIVER (WAITEWHAU)

The Whau River, or as it was traditionally known Wai Te Whau, is of immense significance to Te Kawerau a Maki who have been associated with it for many centuries. All of the inlets on the western banks of the Whau River were occupied over the generations in association with the gathering of the fish, eel and shellfish resources of the river. Almost all of these occupation sites have however been considerably modified or damaged by development over the last 150 years. This was particularly the case when brickworks were constructed along the Whau River from the 1850s to the 1920s, and when landfills were developed in the 1950s and 1960s. Nevertheless the riparian margins of the Whau River remain of considerable importance to Te Kawerau a Maki as their restoration will enhance the ecological health of the river itself.

TE PUAHA

A place of significance to Te Kawerau a Maki was the kainga located on the headland on the northern edge of Bridge Avenue Reserve. It was occupied in conjunction with the kainga known as Rangimatariki which was located on the opposite side of the river.

The locality was traditionally known as Te Puaha as it was located at the mouth of the Whau River. This old occupation site was sadly destroyed by housing development in the 1960s. What remains however, including several old pohutukawa, is of significance and should be conserved and enhanced. The coastal margins around Covil Park, McLeod Park and Laurieston Park include shell midden which indicates ancestral occupation and they should be developed carefully.

WAIRAU

The Wairau inlet is of significance to Te Kawerau a Maki as it has several old occupation sites, and as it is an area that retains some important ecological remnants. These include the mangrove forest within the inlet itself, and the remnant pohutukawa and kauri located in the vicinity of Akatea Reserve.

TE TAI AO THE ENVIRONMENT

For Te Kawerau A Maki, the physical and spiritual worlds are seen to be intimately linked. They are two sides of a coin and cannot be usefully separated. Ultimately, all elements of the physical world share the same spiritual parents, Ranginui and Papatuanuku. Therefore, in the Maori view, humanity is a part of, rather than apart from, the natural world in both a physical and spiritual sense.

Ranginui and Papatuanuku are the male and female gods out of which all things are derived. Out of their union many offspring were born, including the gods of the sky, forest, sea, wind, and sun. Tane, the god of the forest, mated with several female personifications, none of whom were human, and produced many species of trees, birds, insects, rocks etc., but failed to produce human life. He asked Papatuanuku for guidance and she advised him to go to a particular beach and mould the red clay there into a figure. He did this with the help of his brothers and then breathed hau ora (life) into the figure, which came to life with a sneeze (tihei mauri ora). This first woman was named Hine-ahu-one, and the offspring of Tane and Hine were human. Thus, in the Maori worldview, humanity is linked by whakapapa (genealogy) to all other species. Huia is an area of particular significance to Te Kawerau A Maki as it is part of the treasured area known traditionally as 'Te Rau o Te Huia'. This name, which literally means 'the tail feather of the huia bird', was bestowed by Maki the founding ancestor of Te Kawerau a Maki. It was named after his earlier home at Kawhia and it expressed the collective value placed on this area which was so rich in natural resources. The name applies to the high hill sometimes referred to as Mt. Donald Mclean, and also to the whole surrounding area. The huia feather is seen by Maori as a symbol of mana or spiritual

authority and as a symbol of rangatiratanga or chiefly authority.

Te Rau o Te Huia (Huia) was particularly valued over the centuries by Te Kawerau a Maki as it contained a vast array of the resources of both the land and the sea. The names of the two headlands on both the eastern and western sides of Huia Bay symbolically reflect this fact. The eastern headland is known as Kaitarakihi, literally 'to eat the fish known as tarakihi', thus symbolising the rich resources of the surrounding sea. The western headland is known as Kaitieke, literally 'to eat the bird known as the saddleback', thus symbolising the food resources of the forest which then covered the Huia area.

This collective richness of resources associated with a particularly special place such as Te Rau o Te Huia, is reflected in the following traditional whakatauki or proverbial saying – "He wha tawhara ki uta, he toka tamure ki tai" The flowering bracts of the kiekie vine on the land, and the snapper rock in the sea".

The fact that the huia is now extinct, that the tieke (saddleback) is no longer found in the Waitakere Ranges, and the fact that tarakihi is not often caught in the Manukau Harbour, are all symbolic to Te Kawerau A Maki of the loss of their ancestral land and the degradation that the environment has suffered over the last one and a half centuries. It is for this reason that Te Kawerau a Maki look closely at any significant new development on their ancestral land to see how it might affect the environment, both in the short and long term. Such developments are viewed both in isolation and cumulatively. This knowledge of the workings of the environment and the perceptions of humanity as part of the natural and spiritual world is expressed in the concept of mauri and kaitiaki. Mauri can be described as the life force that is present in all things. Mauri generates, regenerates and upholds creation, binding physical and spiritual elements of all things together. Without mauri things cannot survive. Practices have been developed over many centuries to maintain the mauri of all parts of the world. Observing these practices involves the ethic and exercise of kaitiakitanga.

The root word is 'tiaki' which includes notions of

guardianship, care, respect and wise management. The kaitiaki is the tribal guardian and can be spiritual or physical, human or non-human. The human kaitiaki must be a member of the local iwi holding customary authority of manawhenua. The role of kaitiaki continues in current resource management. Kaitiaki responsibilities include, but are not limited to:

- The protection and maintenance of waahi tapu and other heritage sites;
- The placing of rahui to allow replenishment of harvested resources;
- Directing development in ways which are in keeping with the environment;
- Observing the tikanga associated with traditional activities;
- Providing for the needs of present and future generations.

RESOURCE MANAGEMENT ISSUES

The following summarises matters set out in Te Kawerau A Maki's Resource Management Statement.

WATER

Te Kawerau A Maki concerns include the protection of the mauri of all natural waterways, and that the food producing capacity of natural waterways is protected and enhanced, as is their life supporting capacity.

Te Kawerau A Maki advocates water conservation and efficient use of water, opposes the direct disposal of any waste into waterways and requires that waste pass through the soils before discharge. Te Kawerau A Maki prefers waterways to be managed to a level that ensures their use as a food source and supports active restoration programmes, including stream edge planting. Above all Te Kawerau A Maki require spiritual and cultural concepts to be recognised as key issues in water management.



COASTAL MARINE AREA

- Te Kawerau a Maki's insist protection of all heritage sites (Pakeha and Maori).
- The quality and availability of kaimoana (seafood)
- To limit the disposal of wastes from boats and to manage any development and use of coastal space
- To avoid adverse effects on water quality and coastal character.

In particular Te Kawerau a Maki has an interest in any increase in access to areas on the coast that may impact on significant heritage sites; ensuring that spiritual and cultural concepts are recognised as key issues in managing this area; supporting active programmes to enhance the coastal area and the ecology of the Waitemata Harbour Foreshore.

WASTE MANAGEMENT

As stated above, direct disposal of wastes into waterways is opposed by Te Kawerau A Maki. Te Kawerau A Maki is also concerned that in the selection of sites for wastewater and solid waste treatment or disposal, cultural and spiritual values of the land water and air shall be maintained. Te Kawerau A Maki opposes the generation, entry or disposal of toxic or hazardous waste within their tribal area. More particularly, Te Kawerau A Maki advocates the treatment of stormwater before it is discharged into waterways and/or coastal marine areas.

LAND AND LANDSCAPE

Te Kawerau A Maki are concerned with the promotion of sustainable land management and the protection of its productive capacity ensuring that native bush and fauna are protected and that the cultural meaning, amenity and aesthetic values of the landscape are protected.

In terms of landscape, the protection of important sites and places associated with ancestors is of the utmost importance. Te Kawerau A Maki has as a paramount concern, that a land-base and marae complex supporting Te Kawerau a Maki is re-established more particularly at Orangihina Reserve.

FLORA AND FAUNA

Te Kawerau a Maki's key concerns in relation to native plants and wildlife are:

- Having access to flora and fauna for cultural harvest and craft;
- Protecting and enhancing indigenous flora and fauna and their ecosystems;
- Eradicating exotic plants and animals that are damaging, destroying or competing with native species or their ecosystems;
- Participating in decisions on the introduction of new plants and animals to the country;
- Ensuring that property rights (patents, licenses) are not given to native species in breach of Treaty rights.

Te Kawerau A Maki supports the protection of regenerating bush and regulations that limit native vegetation clearance during development to the minimum necessary for an allowed activity.

HERITAGE SITES

In terms of heritage, Te Kawerau A Maki wishes to: ensure protection without necessarily prohibiting all use and development in areas associated with the iwi's heritage; ensure recognition of and provision for, cultural and spiritual values in decision-making; to have opportunities to manage, enhance and monitor heritage concerns relating to wahi tapu.

CONCLUSION AND RECOMMENDATIONS

The entire eastern coastline of Waitakere City, including the Waitemata Harbour Foreshore Reserves, is of significance to Te Kawerau a Maki for ancestral, historical, cultural, spiritual and environmental reasons. These esplanade reserves have collective significance as they mark the eastern boundary of the traditional tribal rohe of Te Kawerau a Maki.

They are also collectively significant as they have been associated with the ancestors of Te Kawerau a Maki for eight centuries down to the present. This long ancestral association is reflected by the archaeological record which has been recorded in part only within the esplanade reserves.

The esplanade reserves carry traditional names which are an integral part of the mana and identity of Te Kawerau a Maki. The esplanade reserves are environmentally significant to Te Kawerau a Maki as they provide the interface between the realms of Tanenui a Rangi and Tangaroa. They also contain taonga of significance to Te Kawerau a Maki. This includes valuable remnants of coastal biodiversity that provide the basis for the enhancement of the coastal margins of Waitakere City. These reserves also border the inter tidal zone, which contains kaimoana resources of significance to Te Kawerau a Maki, and which is home to a wide variety of shore and seabirds.

The management of these esplanade reserves is part of the kaitiakitanga role exercised by Te Kawerau a Maki over its traditional tribal rohe. That the management of the Waitemata Harbour Foreshore Reserves is approached holistically and collectively with ongoing input from Te Kawerau a Maki.

- That wherever possible the traditional Maori names for these reserves are used, at very least in conjunction with the existing names.
- That the individual reserves are managed in a manner that is consistent with the values ascribed to them by Te Kawerau a Maki as described in this report.
- That the history and ecology of the esplanade

reserves is interpreted sensitively and appropriately in consultation with Te Kawerau a Maki.

- That appropriate plant and animal pest control is undertaken throughout the esplanade reserves.
- That dogs are excluded from areas containing important sea and shorebird roosting and breeding areas like Tahingamanu and Orangihina (Te Atatu Peninsula).
- That appropriate ecological restoration planting programmes take place in a manner which builds on the existing indigenous biodiversity of the reserves.
- That the coastal pohutukawa forest of the esplanade strips be restored as outlined within this report.
- Any proposed comprehensive landscape plans be developed in association with Te Kawerau A Maki for the Waitemata Foreshore reserves
- A carved pou and associated interpretation be commissioned and established on each of the Waitemata Foreshore reserves in recognition of the Kawerau A Maki dimension to the land.

The information shared in this analysis is significant particularly for purposes of maintaining the recognition, protection and promotion of Maori cultural and historical values in the Waitemata Foreshore Reserves Management Plan. There is a level of expectation that this study offers some insight to the world of Te Kawerau A Maki and their historical associations with the upper Waitemata.

This place remains a special part of the greater Wao nui a Tiriwa and although there has been many a face change to this area, there still exists today the tapu, mana, and ihi of former times. As is traditional, this discussion must end with a waiata. In this case it is a Kawerau lament pertaining to the northern



edge of the Manukau Harbour:

Aue, aue, Kei nga wai karekare Taku huia kua riro e Haere ra a Mana, koutou ko o tupuna. Waiho ake au ki te tihi o Hinerangi, Kia kite au i nga tai whakatu a Kupe. Kei Te Kaiwhakaara te ipu a Pare, te toki a Nuku. Aku kuru pounamu, taku ipo kahurangi, Kua ngaro ki te po e, i. Alas, alas, my beloved chieftain has gone on beyond the waters of Waikarekare. Go on Mana, along with your ancestors. Leave me here, I will remain on the summit of Hinerangi. So that I may look out to the upraised seas of Kupe. There at Kaiwhakaara rests the sacred calabash of Pare, and the axe of Nuku. My treasured greenstone pendants, my beloved jewel, have been lost to the night.

6.2.4 European Heritage and Archaeological Sites

The manner in which pākehā settled and utilised the land in West Auckland in many ways reflect the way in which the landscape was valued.

In many reserves along the Waitemata Foreshore exists archeological remains that are reminders of life in Waitakere for the early settler. Brickwork sites are tangible examples of these archeological remains. As well as brickworks, kauri milling was another economic industry that formed the beginnings of a society out west. What follows is a historical account of individuals and stories associated with archeological remains that exist in the reserves of the Waitemata Harbour. A list of heritage sites on reserves included in this Management Plan, is included at Appendix 3, Cultural Heritage Inventory.

Brickwork Sites

Historical accounts of the visual appearance of the landscape was closely tied to the economic potential of that land. Many historical accounts of some areas adjacent to the Waitemata Harbour describe a dark, dull and repetitive landscape, void of any features of value or significance, particularly along the Whau. The below quote from Colenso, on a journey west of Auckland, describes the landscape.

"We travelled on, over open and barren heaths, in a northerly direction until sunset. Observed nothing new in

these dreary and sterile wilds (save a handsome shrubby Dacophyllum) Bivouacked for the night in a little dell, nestling among the close growing Leptospermum (mānuka), not a stick being anywhere ken large enough to serve as a tent pole." William Colenso

"From Auckland to Riverhead there is nothing of interest to note. The country is extremely tame, the soil sterile beyond anything, perhaps, to be found in the province. There are occasional patches of alluvial soil and scoria, and these are fruitful; but the general characteristic of the district north of the scoria belt, ending at the Great Northern Hotel, three miles from Auckland, is stiff clay on which it would be folly to expend capital and labour in a new country. In fact it would be both capital and labour thrown away."

Daily Southern Cross – special correspondent.

As expressed in the second quote, the capacity of the soil to grow crops was deemed a favourable landscape attribute to form the basis for further development. The clay deposits in the soil on the west side of the Waitemata was not conducive to a thriving farming based economy.

The clay soils of the Waitemata Harbour soon became useful through the development of Brickworks. Brickwork sites soon became established on the banks of the Whau River.

Hobsonville was discovered soon after as having clay soils and was thus considered as a site worthy of settlement. Here began the connection between the settler and the landscape, in the previously perceived barren environment of this land adjacent to the western side of the Waitemata Harbour.

Initially, bricks were made for building purposes, and were hand moulded. Clay was extracted from the dirt, wheeled to a moulding table, and kneaded with the addition of water. The clay was placed into a mould, then stacked in piles so any moisture retained in the clay would evaporate. The bricks were fired in a clamp kiln. This type of kiln consisted of a floor with a system of tunnels that led to a central area. Wood was placed in the tunnels to provide fuel to heat the kiln. This method of firing the clay bricks did not allow for temperature control. This meant that not all bricks were suitable for use in building facades, due to irregular shapes caused by lack of temperature control.

Many clay ventures, particularly on the banks of the Whau were unsuccessful. Clay was extracted from some sites, fired, and the result of the firing process would determine whether the clay in that area was suitable. The venture would move on to another site if the clay was found unsuitable.

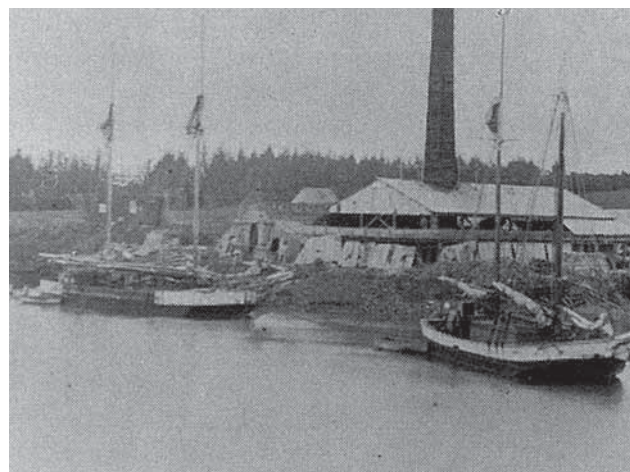
During the 1860s and 1870s machinery was invented to process different types of clay. Such machine types were grinding mills and clay mixers. This development of new technologies significantly helped the clay industries out west.

Along with this new technology, more efficient kilns were invented for brick making. In 1858 the Hoffman, a continuously firing kiln was introduced. These were circular kilns with a centrally placed chimney stack. The firing zone moved in sequence from chamber to chamber around the interior of the kiln. These kilns were used by Malams Brickyard, and Laurie Brothers Brickyard, explained below.

Malams Brickyard, Glendene
Laurie Brothers Brickyard - Laurieston Park,
Hepburn Esplanade Reserve

Dr Daniel Pollen a surgeon who arrived in New Zealand in 1840, was the first to invest money into a kiln venture on the banks of the Whau. Among those he employed was John Malam who in turn set up a brickyard and a kiln at the end of Hepburn Road in 1861. Malam operated the kiln until 1879, when it was taken over by the Laurie Brothers, who kept the kiln in operation until 1919. Bricks from this operation were used in prominent Auckland buildings such as the Chelsea Sugar Works and Auckland Public Library at Wellesley Street in Auckland City.

The Whau River was of great importance to the pottery industries located there. Although tidal it was used for transportation of supplies for workers, as well as for shipping the clay products out for sale. Waterways of the Whau at this time were bustling and busy, filled with vessels of a great variety. The tidal nature of the Whau dominated operations however. If high tide was at night, the unloading and loading of the vessels occurred in the dark.



Typical kiln on the banks of the Whau

It is said that although those unloading and loading the vessels were sober, working on the evening tide, there were still the odd accidents. The worker, usually supporting a wheelbarrow while balancing on a plank that connected the vessel to the shoreline, would fall and plunge into the muddy and watery depths of the Whau, to be retrieved as quickly as possible.

Carders Brickworks - Wiseley Esplanade
Clarks Brickworks - Hobsonville

Another area along the Waitemata Harbour with clay deposits in the soil was Hobsonville. Again, clay was seen to be impeding the value of the land, making life difficult for the first settlers with the desire to farm the land. Like New Lynn and the aforementioned areas bordering the Whau River, Hobsonville was described as having a dreary and sterile landscape. Felton Mathews, a land surveyor involved in the planning of Auckland City, is recorded to have described the area around Hobsonville as,

"Sterile and desolate and totally unfit for the site of principle settlement, and indeed ill adapted for a settlement at all"

This statement put a halt to Hobson's sentiments, who after having visiting the area, declared it as a favoured site for the nations capital. This sentiment was short-lived, but is significant as it was the way in which the name Hobsonville was coined.

Clay deposits in the Hobsonville area were described



as being fine in texture, and incorporating many other characteristics that would make the clay worthy of establishing a fine ceramics industry. This fact was discovered by Hobsonville's first European settler, Rice Owen Clark. Clark moved to Auckland with his wife Louisa and his one year old daughter. He purchased 139 acres of land on the waters edge at Hobsonville.

Clark was a religious man, and is reported to have led home services, preaching in settlers drawings rooms. He also donated money for a church to be built. This church still remains in Scott Road.

The first clay products developed by Clark were clay pipes. The first attempts to create these pipes were somewhat primitive. The moist clay was worked into balls, that were flattened and cut into strips. The strips were wrapped around small tree trunks, which dried and formed pipes. The pipes were fired, and were used to drain his land, to fulfil his desire to make the land productive, and to become a farmer.

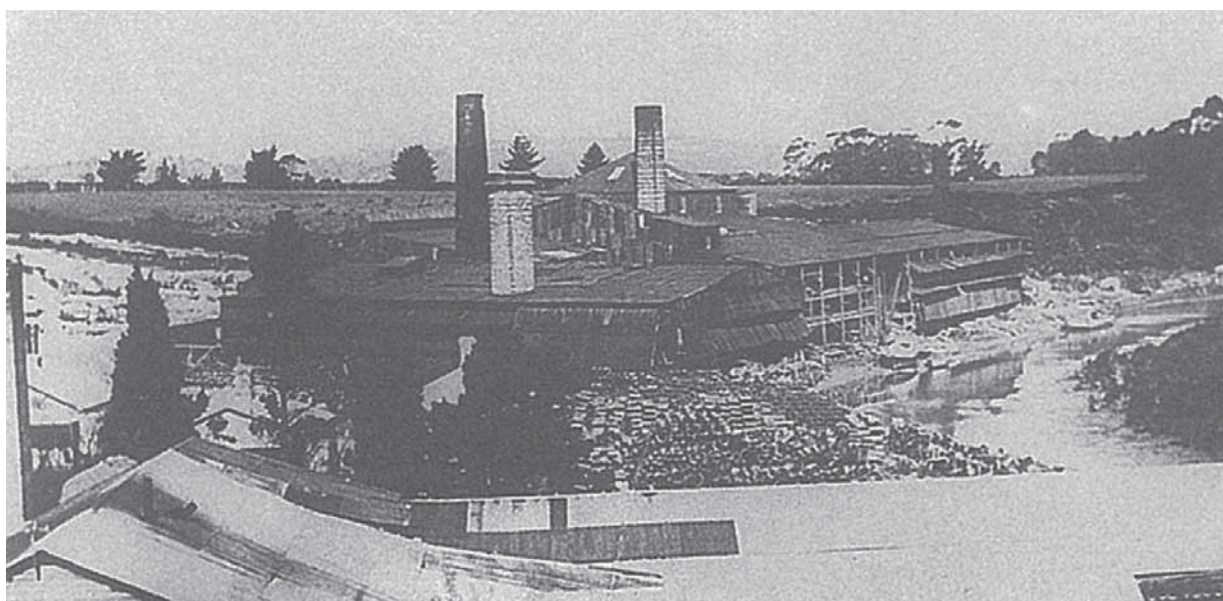
This venture started in 1862, and prompted Clark to send to England for a pipe making machine. The pipe operation continued successfully, with neighbours of Clark also wanting well drained, arable land.

Clark's son later took over the business. Hobsonville's

location and isolation meant the whole business needed to be self sufficient. In Hobsonville, there were no engineering services, no general store, and no public transport. Despite such difficulties, works at Clarks Brickworks expanded while other brickworks had to be shut down. To cope with the demand for pipes, Clark set up a yard and office in Auckland. Schooners transported pipes to Auckland from Hobsonville.

Clark (junior) maintained a successful company that started with pipes, and also experimented with ceramic building blocks. The building experimentation was to compete with the brick industry. To test his new blocks, Clark built a two storey house. His blocks were used in foundations, exterior walls, interior partitions, and door and window frames. This house still stands, in Clark Road.

In 1864, Joshua Carder purchased land in the same area, and opened a clay pit. With the help of his sons, he ran a successful operation. In 1887 P.S Tongariro was taken up pottery creek and was used as a hold for fresh water, while a wooden vessel further south served as a wharf. The Clark and Carder operations were not in competition with one another despite being in close proximity. Carders operation continued until the 1920s.



Clarks Brickworks

Hartshorne Brickworks - Chapman Strand
Auckland Brick and Tile Company - Tawa Esplanade
Te Atatu Peninsula

Smaller operations of clay manufacture operated on the upper reaches of the Whau, around the foreshore of Te Atatu Peninsula.

Hartshorne Brickworks was one of these which operated on Chapman Strand. During the 50s and 60s locals were reported to say that they had removed bricks from the area, and an aerial photo from the 1960s shows an outline of a borrow pit, although there are no remains to be seen today.

The Auckland Brick and Tile Company operated during the 1880s also in Te Atatu Peninsula. The company was formed in 1883. A significant area of land was reclaimed for a landing and working area for the operations in Tawa Esplanade.

The Auckland Brick and Tile Company had significant financial issues, which prompted the company to change its name in 1886 to The Brick and Pottery Company.

The Brickwork side of the business operated out of Te Atatu Peninsula. By the 1900's, all brick operations ceased due to further financial issues, and all machinery was destroyed.

Harbourview-Orangihina was another site for the Auckland Brick and Tile Company, where some remains of the operation exist. For more information, please refer to the Harbourview - Orangihina Open Space Management Plan.

Timber Holding Dam – Swanson Stream, Woodside Reserve, Henderson

A rapidly developing Auckland after 1840 required timber for its growth. The vast tracts of Kauri forest growing on the Waitakere Ranges were soon noticed. The Kauri ridden Ranges, streams, creek and harbour systems out west were integral to the history and development of Auckland. In turn, the timber milling industry, helped to formulate the history and settlement of West Auckland. William Swanson and Swanson Stream is one story within of the history of the milling of Kauri

that occurred in West Auckland, relevant to this Reserve Management Plan.

William Swanson was granted a licence in 1854 to remove timber on Crown Land in an area that was described at the time as “near Henderson Creek”. The more specific location of this area of land is at the end of what is now Tram Valley Road in Swanson. Swanson was a Scotsman, who left his mark on West Auckland. He was both a timber miller and a politician. Swanson has been described as being of, *“Humble origins, bluntness, a certain lack of polish, and no doubt his three Maori marriages (not all formalised according to European custom) contributed to keeping out of established circles.”*

The area of land that Swanson was granted his licence, was part of the Henderson and MacFarlane original land claim, where in 1844, Thomas Henderson realised the vast potential in the Kauri forest that grew west of the newly developing Auckland town. In 1844, Henderson entered in a bartering agreement with Ngāti Whātua, where he swapped a schooner, named Lucy Dunn, for 17,784 acres of land, the location described at that time as, *“The Manukau Ranges and the Waitemata River”*.

The schooner, as Henderson described in the Supreme Court, *“had just been put through repair and had received a new set of sails and new gear”*

Henderson estimated the worth of his vessel to be around 500 pounds. This in effect means he purchased 17,784 acres of land for sixpence, three farthings an acre.

However, the full deal was not to be realised as Governor FitzRoy put a halt to private transactions such as these. Henderson then took his schooner from the Ngati Whatua chiefs, which started to cause conflict, among local iwi and Government. For this reason, the purchase went ahead, with Henderson and MacFarlane securing a 9,000 acre block, and the Government retaining the balance of the original 17,174 acres. Sir George Grey was FitzRoy's successor. He withdrew Hendersons title, but in 1847, granted a licence to Henderson to cut timber there.



Henderson's Mill was constructed in 1848, later to be taken over by 'Long' John McLeod. The names of Henderson, Swanson and McLeod are familiar and are kept alive, due to their use in naming places out west. (For more information on Henderson's Mill, and the Henderson and McFarlane Block, please refer to Henderson Creek Reserves Management Plan).

Henderson did have the power to deny Swanson and other millers the use of the three streams in his area, which were the Oratia, the Opanuku and the Swanson Streams. However, Henderson put no obstacles in Swanson's way.

Swanson by all accounts was a kind and generous man. The Observer of 1888 said of Swanson,

"Some curious anecdotes are related by old hands of Mr Swansons forethought and kindness in these days. In fine weather he would stroll along the creek and plant bottles of grog in suitable spots. When a fresh came and the men were exhausted with working in water and pushing down the logs, these bottles were unearthed at opportune times to stimulate their flagging energies."

Also in this article were accounts of Swanson's generosity with the wealth derived from timber. Swanson opposed the New Zealand Wars of the 1860's, that caused great depression in Auckland. A soup kitchen was established by Provincial Government, who lacked funds to continue the venture. Swanson put much of his own money into this, to feed the struggling Aucklanders. This kindness was not generally known, and it was said donations were by,

"a man who had just emerged from the bush and who might have been seen on Queen Street at all hours in the plainest of garbs, without even a waistcoat".

Two years after William Swanson was granted his licence, he purchased from the Crown, Lot 11, 171 acres at the end of Tram Valley Road. On this property was a tributary to the Swanson Stream, named Cassel Stream. Here Swanson built a driving dam, to drive the felled Kauri logs down Swanson Stream. To catch the driven logs, Swanson built a holding

dam where the saline water of the Huruhuru Creek meets the fresh water of the Swanson Stream (Woodside Reserve). The logs were trapped here at the dam, and then were rafted off into Auckland via the Waitemata Harbour. Some of Swanson's logs were cut at Henderson's Mill and some were cut at Freemans Bay.

Priors Landing – Riverpark Reserve and Woodside Reserve

One of the first recorded accounts of William Prior of Priors Landing was from evidence given at a murder trial that occurred at Henderson's Mill in 1855. The person charged with the murder was Charles Marsden, who was an employee of Henderson's Mill. Evidence from that trial indicates that William Prior lived in a house near Henderson's Mill.

One person who gave evidence that references William Prior was a 10 year old boy named Arthur Walton.

"On Saturday before breakfast I was down at Henderson's Mill; saw a woman lying dead; did not stop too look at her; was to frightened; ran away to Mr Priors; - a bullock driver; he lives about a quarter of a mile from where the body was."

This and other evidence given at that trial alludes to Prior living quarter of a mile from Marsden's. This has been estimated as the area of land that is the ridge where Buscomb Ave now runs. This area has been described as bring the location of mill cottages. The fact that Prior resided in the mill cottages is reinforced by the fact that in court he was described as a bullock driver. As Henderson's Mill had under 'Long John' McLeod's supervision, expanded, Prior could well have worked at the mill in a bullock drivers capacity.

Historical opinion states that this William Prior was the same Prior of Priors Landing.

A map of G.O.Ormsby from 31 December 1859 shows that at the end of Woodside Road a garden and a reserve existed on the eastern bank of the Paremuka Stream. This area is now Riverpark Reserve. Two buildings on either side of what is now known as Woodside Road is also shown. Printed in between these buildings is the word "Priors". This

was thus the location of Priors Landing, at the confluence of the Swanson and Paremuka Streams, that converge into Huruhuru Stream.

This all could indicate that Priors activities up to 1859 were confined to the landing at Huruhuru Creek and another he may have run further down the Waitemata coastline at the Wairau Creek. His teams of bullocks would have transported logs to Henderson's Mill from the Landings. It seems that between 1855 and 1860, Kauri felling was at its most productive in the Oratia, Opanuku and Swanson Stream areas of the Ranges.

After 1860, the timber was fast depleting, and Long John McLeod left Henderson's Mill. Prior at this time would have needed to obtain a new venture. It is said that Prior's next venture was to run a hotel. The location of this hotel was around the area that is now Glen Road. William Prior is said to have began his hotel, which was possibly a rough establishment, after 1859 and before 1864. The distance between the hotel and Priors Landing was half a mile.

Archeological Remains within reserves

Reserves which were the location of these important sites will be incorporated into the concept designs and future management of the reserves where possible.

Malams brickyards and Laurie Brothers brickyards operated from Laurieston Park. There are some remains on the reserve, and also remains outside of the reserve area.

Carder's Brickworks were situated on Wiseley Esplanade, Hobsonville. Significant remains of these brickworks exist, including pits and holes, ribs and bricks, kiln debris and pipes.

There are also significant remains of Clarks Brickworks. This is not currently on reserve land, however will be classified as such in the near future. This Reserve Management Plan proposes a heritage coastal trail to link and interpret these important heritage areas. Please refer to Part Three of this Reserve Management Plan, for locations of the proposed Heritage Trail.

In Te Atatu Peninsula, Tawa Esplanade the home of the Auckland Brick and Tile Company has significant remains, and it is noted by the Auckland Regional Council Cultural Heritage Inventory that the sub surface remains are also likely to be intact.

Hartshorne Brickworks on Chapman Strand, Te Atatu Peninsula is an example of a completely destroyed archaeological site.



Clay pipe remains on Wiseley Esplanade



Rusting hulk on Wiseley Esplanade



Remains on Tawa Esplanade

There are no visible remains; which has occurred through residential subdivision and the building of the Taikata Sailing Club.

Despite there being no physical remains in this particular site, it is considered appropriate to recognise these sites also, in order to highlight the potential there in losing these important heritage sites.

The holding dam built by Swanson was constructed in the area between Woodside Reserve and Helena Park. There are remains of this dam to be seen from the reserves today. Holes are evident in the stream bank, and a gap to the south of the stream could be the location in which the dam was anchored to the stream bank. There are also long narrow cuts in the stream bed.

There was also a 1m deep pool behind the holding dam, that was a popular swimming hole for many years. There were also a series of informal steps cut into the bank, leading from Helena Park to the swimming hole. For safety reasons, this swimming hole has been filled and these areas on both stream banks have been fenced off.

Please refer to the Cultural Heritage Inventory for a full account of archeological sites on reserves.



Cuts in the Stream Bank - Swanson's Holding Dam, Swanson Stream, between Woodside Reserve and Helena Park



Inside Clarks Pottery

6.2.5 Community and Cultural Values

The reserves on the Waitemata Harbour Foreshore contribute greatly to the sense of place for the communities that surround them. The reserves add to community identity and belonging, and through their function, play an important role in the overall fabric of the city. The reserves also play an important role in contributing to the values of lives in the city, through providing attractive areas of green relief. Potentially, the reserves are places for people to meet, to engage with views and the harbour environment, to engage with ecological values, and are places where a community spirit can be gained.

There exists in the reserves potential to strengthen the characteristics that contribute to sense of place in communities, through strengthening the inherent social value of the reserves. Reserves are under utilised in many areas along the foreshore.

Ways to explore the strengthening of the reserves inherent social values are outlined in the Parks and Open Space Strategy, and this Reserve Management Plan is where these ideals can be realised.

The Reserves have the potential to be inspirational, or a canvas upon which the community can express what is important to them about where they live. This can be achieved through art projects and working with communities. This can strengthen sense of place and ownership, incorporating reserves, this is particularly important in places that are lacking in a community identity.

Other ways community identity can be realised, through the existing and potential ecological values on the reserves. One clear aim of this Reserve Management Plan is to increase opportunities for people to enjoy nature on reserves. This can be achieved through encouraging community ownership of reserves, through the establishment of community groups to undertake weed management and revegetation of these sites.

How communities use the parks currently, can reveal how the reserves are valued. A number of different cultural groups live in the suburban areas that surround the parks. The

needs of such communities need to be reflected in the future management and design of the reserves.

6.2.6 Promotion and Education of Reserve Values

It is desirable that reserve values discussed in this section need to be promoted in both communities and within reserves along the Waitemata Harbour Foreshore, where possible.

Working with and establishing community groups, and working with local schools is one way to achieve this. Many reserves along the foreshore are lacking in main reserve signage. Provision should be made for signage within the street network that indicates the reserves, and wider street connections through the reserves.

Interpretation within reserves that indicate points of interest and reserve values, such as, heritage features and ecological values in and adjacent to reserves is desirable. Exploring art to explore representation of such values is an option, where budget allows.



Wharf Road Esplanade, Herald Island



PART TWO

OBJECTIVES AND POLICIES

I have seen beautiful Kauri woods in the coast range west of Auckland, on the Waitakerei, in Henderson bush and in the Huia on the Manukau Harbour...the crowns of the Kauri pine rise far above the rest of the forest trees, and produce dark shades upon the slopes and in the valleys, here and there intersected by the light green shapes of the fern tree".

Dr Hochstetter

Part Two of this Reserve Management Plan identifies the major issues arising from the investigation of the Context and Background in Part One. Part Two outlines the Objectives and Policies required to effectively guide the future development and management of the reserves in response to those issues.

Part Two of this Reserve Management Plan identifies the major issues arising from the investigation of the Context and background in Part One. Part Two outlines the Objectives and Policies required to effectively guide the future development and management of the Reserves in response to those issues. Details of how the Objectives and Policies are to be implemented are included in Part Three of this Reserve Management Plan.

Design Guidelines and Concept Plans are included in Part Three of this Reserve Management Plan.

1.0 VISION STATEMENT

The Waitemata Harbour Foreshore Reserves will be managed to enhance and restore the ecology and landscape character of the coastal environment, and managed to protect and acknowledge the cultural heritage of the reserves. Also, the reserves will be managed to provide for appropriate access, use, recreation, education and enjoyment.

Natural and Built Environment

2.0 VEGETATION, SOILS AND FAUNA

The coastal environment in which the reserves exist is complex and dynamic. However, much of the coastline has been highly modified through urban development. Therefore any fragments of indigenous vegetation remaining in the reserves is considered as significant, and has been identified as such in this Reserve Management Plan. A sustainable management approach of these areas requires this Reserve Management Plan to implement Policies around enhancing and conserving these areas.

There are two known contaminated sites on the Waitemata Foreshore at the time this Reserve Management Plan was prepared. Taipari Strand in Te Atatu Peninsula was previously a landfill, in operation from 1963 to 1974. Waiarohia Esplanade in Whenuapai has a landfill located adjacent to the reserve. It is considered desirable to rehabilitate these areas where possible.

The Waitemata Harbour's extensive areas of mudflats, sand and shell banks and mangrove/salt marsh ecosystems support a diversity of fauna habitats. These areas adjacent to the reserves are used for feeding and roosting by wading bird species. The shellbanks at the end of Te Atatu Peninsula and areas in Whenuapai are examples of such areas.

Objective:

To restore, enhance and protect natural ecosystems, and to extend and connect areas of indigenous vegetation where appropriate, in order to support significant harbour habitats, birds, invertebrates and lizards.

Policy 2.1

To restore, protect and enhance areas of regenerating outstanding and significant indigenous vegetation on the reserves.

Implementation:

- Prioritise and rank areas of outstanding and significant vegetation utilising the following list of reserves

High Priority Reserves with pockets of outstanding vegetation:

Akatea Park
Chorley Reserve
Colwill Esplanade
Lagoon Way Reserve
Lowtherhurst Reserve
Sunline Esplanade
West Harbour Esplanade

Medium Priority Reserves with pockets of significant vegetation:

Harbour Reserve
Harmel Reserve
Helena Park
Aronui Esplanade
Hughes Esplanade
Kauri Esplanade
McLeod Esplanade
Meadow Glade
Pahiki Reserve
Roberts Field
Spinnaker Strand
Springbank Esplanade



Sunline Park
 Taipari Strand
 Tawa Esplanade
 Totara Road Esplanade
 Valron Esplanade
 Wiseley Esplanade
 Woodside Reserve

- Undertake weed control and removal of weed species that are threatening to the local ecosystem, in accordance with priorities in the Waitakere City Council Weed Strategy.
- Undertake indigenous revegetation in identified reserves to enhance existing vegetation, and to provide a buffer zone to protect areas of significant and outstanding vegetation.
- Develop detailed planting plans for buffer zones and enhancement areas, that comply with Waitakere City Councils Native to the West - Harbour Coastline Ecosystems.
- Ensure planting plans retain and form windows through new planting where the harbour/riparian area is visible from the reserves.
- In areas of significant view shafts from residential areas, low growing species should be planted at the highest points, taller species at the foot of the banks.
- Species should be selected to ensure potential erosion is reduced and stability of coastal banks is maximised where possible.
- Seek the involvement of the local community to assist in vegetation management of the reserves, weed control and planting.
- Ensure, wherever possible, all new restoration planting is derived from propagated ecosourced species appropriate to the site, in accordance with Waitakere City Councils ecosourcing policy.
- Restore coastal margins where appropriate to buffer

against significant adjacent estuarine habitats.

- Liaise with the community in order to minimise the illegal pruning of natives on the reserves in areas of outstanding and significant vegetation.

Policy 2.2

To create ecological corridors linking areas of outstanding and significant vegetation, to strengthen the North West Wild Link.

Implementation:

- Identify areas lacking in native vegetation cover that creates a gap between pockets of outstanding and significant vegetation in the reserves, utilising the following lists.

High Priority Ecological Linkage Opportunity Reserves:

Span Farm Esplanade
 Harbour Reserve
 Sunline Esplanade
 Chorley Reserve
 Taitapu Park

Medium Priority Ecological Linkage Opportunity Reserves:

Laurieston Park
 Kelvin Strand
 Taipari Strand
 Daytona Strand
 Penfold Park
 Riverpark Reserve
 Wickstead Strand
 Realm Esplanade
 Hobsonville Esplanade
 Kauri Esplanade

- Undertake weed control in identified reserves, and removal of weed species in accordance with priorities in the Waitakere City Council Weed Strategy.

- Develop detailed planting programmes and plans for planting carried out in identified reserves, in accordance with Waitakere City Council Native to the West.
- Ensure, wherever possible, all new restoration planting is derived from propagated ecosourced species, in accordance with Waitakere City Councils ecosourcing policy.
- Species should be selected to ensure potential erosion is reduced and stability of coastal banks is maximised where possible.
- In areas of significant view shafts from residential areas, low growing species should be planted at the highest points, taller species at the foot of the banks.
- Ensure planting plans retain and form windows through new planting where the harbour/riparian area is visible from the reserves.
- Identify reserves along the Waitemata Foreshore that are potentially key to the purposes of the North West Wild link, and restore as appropriate.
- Seek the involvement of the local community to assist in vegetation management of the reserves, weed control and planting.

Policy 2.3

To ensure a programme is implemented that controls and manages weed infestation on the reserves in identified areas, in accordance with the Waitakere City Council Weed Strategy, and the Regional Pest Management Strategy.

Implementation

- Identify reserves consisting of weed species, utilising the below lists, that are a threat to the cities local ecology.
- Incorporate areas of weed infestation on the Waitemata Harbour Foreshore, as outlined in the Waitakere City Council Weed Strategy.

Reserves on the Waitemata Foreshore listed as containing environmental weeds:

High Priority (due to proximity to outstanding and significant vegetation)

Lowtherhurst Reserve
Taitapu Park
Akatea Park
Sunline Esplanade

Medium Priority

Riverlea Road Reserve
Woodside Reserve
Spinnaker Strand
Bridge Avenue Reserve
Cobham Reserve
Meadow Glade
McLeod Esplanade
Roberts Field
Covil Park
Bridge Avenue Reserve
Springbank Esplanade
The Concourse Strand
Daytona Strand
Penfold Park
Taitapu Park
Totara Esplanade
Ruawaru Esplanade
Brigham Esplanade

- Undertake weed control in these areas, and removal of weed species in accordance with priorities in the Waitakere City Council Weed Strategy.
- Discourage and remove areas of garden encroachment and organic waste dumping from neighbouring properties, also investigating the possibility of signage in appropriate locations highlighting the threats of garden waste dumping.
- Establish a programme of native restoration and ongoing maintenance in areas of weed control, to inhibit the



possibility of weed species regenerating.

- In addition to the Waitakere City Council Weed Strategy, the Auckland Regional Plant Pest Management Strategy 1 July 1997-30 June 2002 may be referenced to aid in identifying weed pests.

Policy 2.4

To protect and support ecologically and geologically significant habitats adjacent to the reserves and protect these areas from animal pests.

Implementation:

- Identify areas of significant estuarine and harbour habitat adjacent to reserves, as documented in the Auckland Regional Plan : Coastal.
- Provide a buffer zone to such habitat through the planting of appropriate species on the reserves.
- Ensure, wherever possible, all new restoration planting is derived from propagated ecosourced species, in accordance with Waitakere City Councils ecosourcing policy.
- Ensure planting plans retain and form windows through new planting where the harbour/riparian area is visible from the reserves.
- Ensure public awareness in regard to the threat posed by household pets on indigenous fauna.
- Investigate the exclusion of dogs from areas where there are waders and ground nesting birds.
- Undertake pest management where appropriate to protect the waders and other native fauna that use this habitat.

Policy 2.5

To monitor contaminated sites caused by past land use practices.

Implementation:

- Create an inventory of known contaminated sites, such as Taipari Strand and Waiairohia Esplanade.
- Monitor levels of contamination on site where practicable, in liaison with Auckland Regional Council.
- Investigate, in conjunction with existing Waitakere City Council aftercare strategies, to use Taipari Strand as a case study for rehabilitation of a contaminated site through wetland design and bio remediation planting strategies, at the Taioma Street end of the reserve.
- Investigate options for providing appropriate methods for planting on contaminated and boggy sites, such as Mounding. Liaise with aftercare in regard to this.

3.0 FURNITURE AND FACILITIES

There are a number of buildings and utility services located within the reserves along the Waitemata Foreshore. These are generally public facilities including clubrooms, halls and toilets, sewer pumping stations and telephone lines. As the provision of such facilities in the reserves has the potential to adversely affect the reserve character, these should be located so they do not detract from the recreation and amenity values of the reserves.

Objective:

To ensure that there is a range of park furniture and facilities to enhance the recreational and social use of the reserves, while protecting the natural character and ecology of the Waitemata Harbour.

Policy 3.1

Ensure that utility services are only located on the reserve if required for some function of the reserves.

Implementation:

- Ensure, where possible and appropriate, that existing poorly located utility services are better integrated into the reserves environment, through design techniques such as planting, if these are unable to be relocated.
- Ensure that utility services are only located in the Waitemata Harbour Foreshore Reserves if required for some function of the reserves.
- Do not allow any telecommunication towers or aerals (including cell sites) on the reserves unless they are for the exclusive benefit of the reserves and have no adverse effects on the reserves environment.
- Ensure any design for development of the parks includes involvement from Te Kawerau a Maki and Ngāti Whatua, as outlined in Policy 9.3.

Policy 3.2

To ensure that the existing buildings on reserve land are maintained to a standard that does not lower the character and amenity value of the reserve

Implementation:

- Ensure damage, vandalism and graffiti is cleared from facades of buildings on reserves, working in conjunction with leaseholders.

Policy 3.3

To ensure that any new structures or additions to existing structures are designed to complement the open space character of reserves while not compromising the natural character and ecology of the coastal environment. Ensure that any new structures or addition to existing structures are approved through an appropriate Waitakere City Council process, and as listed below,

Implementation:

- Any proposal for addition of or extension to a building or structure within a reserve must meet the following criteria;
- The need for the structure to be within the reserve, in terms

of the structure serving the purpose for which the reserve is classified under the Reserves Act 1977.

- The need for the structure to be sited in the location identified;
- The protection of archaeological or heritage areas from disturbance (refer Appendix 4, Cultural Heritage Inventory);
- The protection of public views;
- The maintenance of the reserves character;
- The contribution of the structure to the quality and experience of the reserve;
- The public benefit obtained from the structure;
- A minor impact on the immediate neighbourhood;
- An ability to meet relevant District Plan requirements;
- An ability to meet the objectives and policies of this plan;
- Effects on landscape when viewed from the harbour;
- Utilise appropriate design guidelines and building materials, including utilising permeable and semi-permeable paving options wherever possible so as to reduce the quantity of stormwater runoff.
- Meet relevant Auckland Regional Plan: Coastal requirements.
- Allow for the future extension of the Taikata Sailing Club building on Chapman Strand if proposal abides with the above conditions.

Policy 3.4

Park furniture, including litterbins, seats, signs, playgrounds and barbeques will be provided at an appropriate level to cater for local community use.

Implementation:

- Where possible, signs will be amalgamated in order to



reduce the overall number of signs and all signs will be in accordance with the WCC Code of Practice, Parks Guidelines.

- All signage in reserves should comply with policy 3.5 below.

Policy 3.5

To adopt a unified approach to the design of site furniture, facilities and signs ensuring that the design and location of park furniture will be provided in a way that minimises visual impact on the reserves.

Implementation

- The design of park furniture should be in accordance with Council's Parks Code of Practice Design Guidelines.
- Apply high standards of design and materials to all site furniture and facilities.
- Ensure all new signage is themed in terms of its unique Waitemata Harbour location, while remaining consistent with standard parks signage on other Waitakere City reserves.
- Ensure signage is placed sensitively in the reserves in terms of visual impact, and access.

Policy 3.6

To allow for signage warning of coastal hazards particular to the Waitemata Harbour where appropriate

Implementation

- Utilise international symbols for communicating hazards
- Signage should be designed in a manner that is unique and is themed to reflect the unique Waitemata Harbour Environment.
- Ensure all signage abides with policy 3.4 and 3.5.

Policy 3.7

Ensure that where possible, new or upgraded/renewed structures including roads, furniture and buildings, are set back from the coastal edge.

Policy 3.8

To protect the coastal edge of the Waitemata Harbour.

- Prevent activities being carried out which will compromise the natural formation and stability of coastal cliffs, beaches and estuarine areas.
- As far as is practicable, seek implementation of soft engineering solutions to erosion problems as identified within the ARC Technical Bulletins – Coastal Hazard Strategy and the Coastal Erosion Manual.
- Avoid reserve development which has significant adverse effects on the coastal edge landscape, particularly when viewed from the sea.
- Avoid reserve development in areas of cultural significance, in particular, where there are midden sites. Refer Appendix 3, Cultural Heritage Inventory.
- Refer to Policy 2.4.

Policy 3.9

To ensure that new/and or upgraded structures within the park and new park facilities are designed in a manner that takes advantage of sustainability initiatives such as energy efficiency, renewable energy, water reuse and recycling, waste minimisation and other sustainable building initiatives.

- Identify and incorporate opportunities for energy efficiency and water efficiency to reduce the resource requirements for buildings and structures of the park.
- Identify and incorporate opportunities for renewable energy (such as solar and wind power) to contribute

towards meeting the energy needs for the park facilities.

- That all opportunities are taken to reduce, reuse and recycle waste that is generated in the park.

4.0 COASTAL EROSION STRUCTURES

Sea walls and groins are forms of coastal structures, used to mitigate against erosion. There are instances within the reserves where these are in a state of disrepair and are requiring upgrade. Policies in regard to boat ramps and jetties are considered in Section 7.0.

Objective:

To rationalise, access and upgrade where appropriate coastal structures on the reserves in liaison with Auckland Regional Council.

Policy 4.1

To assess coastal structures in relation to criteria set out in the Auckland Regional Council Coastal Hazard Strategy and employ the most appropriate methods for maintenance, repair and replacement of those structures.

Implementation:

- Ensure that for all existing structures identified for retention, an application will be made to the Auckland Regional and Waitakere City Councils for appropriate resource consents.
- Ensure continued liaison with Auckland Regional Council on issues of impacts of structures below mean high water springs.

Policy 4.2

To prevent private coastal structures in reserves unless they are subject to an existing easement or lease.

Implementation:

- Identify all privately owned coastal structures and those not allowed for by existing easement/lease agreements and facilitate their removal in association with Auckland Regional Council or change their status to public structures if they are elements to be kept.
- Ensure that any actions are consistent with the Waitakere City Council Draft Encroachment Policy.

5.0 WATER

There are many stormwater outfalls that flow through and into reserve land which carry stormwater through to the coastal environment. In many cases, stormwater transports contaminants into the coastal environment. High zinc levels have been recorded in the Whau River, and Henderson Creek.

Stormwater outfalls into riparian areas can increase rates of erosion of streambanks within the reserves. The outfall structure itself, can also detract from the overall amenity values of the reserves.

There are many reserves along the foreshore that have streams which flow through them and into the harbour. Many of these streams are highly modified, and are in need of restoration planting, and monitoring of water health.

Objective:

To ensure potential adverse effects of stormwater and associated infrastructure on natural coastal processes and landscape amenity of the reserves is avoided, remedied and mitigated, and to restore and enhance the life-supporting capacity of waterways running through the reserves.

5.1 Stormwater Outflow

Policy 5.1.1

To avoid further contaminants entering the streams and rivers that flow into the Waitemata Harbour.



Implementation:

- Investigate and monitor water quality and health of streams running through the reserves and rivers that lie adjacent to reserves.

High Priority reserves adjacent to the Whau River and Henderson Creek:

The Concourse Strand
Span Farm Esplanade
Harbour Reserve
Akatea Park

- Provide for storm water quality devices on the above reserves as high priority. Type location, access and maintenance to be to the satisfaction of Waitakere City Council Parks and Ecowater.
- Continue liaison with Auckland Regional Council and Waitakere City Council Ecowater to discover sites of contamination along the foreshore.

Policy 5.1.2

To minimise the number of stormwater outflows discharging directly to the coastal marine area.

Implementation:

- Provide for continued liaison with Waitakere City Council Ecowater and the Auckland Regional Council on implementing a programme of outfall upgrades, including the aesthetic enhancement of relocated outfalls.
- Encourage and where possible, implement a reduction in the number of stormwater outfalls by linking them together in an integrated system with a reduced number of discharge points.

5.2 Streams and Estuarine Environment

Policy 5.2.1

To reduce the amount of rubbish that is evident in the waterways through management strategies in reserves, where possible.

Implementation

- Supply rubbish bins in areas of greatest use in all reserves.
- Work with local business to implement programmes to reduce and recycle waste.
- Work with neighbours to reduce the illegal dumping of inorganic rubbish over boundary fences.
- Support and implement education programmes to encourage responsible disposal of rubbish by local residents and members of the public.
- Work with the community in conjunction with the Phil Warren (Hayden's Harbour Clean) to undertake a cleanup of the rubbish and debris along the harbour edge to improve habitat quality and amenity values.

Policy 5.2.2

To restore and support the life sustaining capacity of streams, creeks and freshwater wetlands on the reserves

Implementation

- Identify and monitor the ecological health of waterways within the reserves.
- Develop where appropriate riparian plantings strategies to increase channel shading, reduce overall water temperatures and fluctuations and provide food and cover for native fish.
- Allow for fish passage along streams, ensuring any blocks

to flow are removed.

- Identify areas supporting whitebait spawning and manage them to enhance the available habitat, as listed in the Wildlands Ecological Assessment (appendix two)
- Locate, protect and restore as appropriate all freshwater wetlands on the reserves.

Social and Recreational Values

6.0 RECREATION AND USE

The Waitemata Harbour Foreshore Reserves offer both formal and informal recreation opportunities. This ranges from passive recreation such as coastal walkways, picnic tables and playgrounds to the reserves being a base for formalised sports clubs and groups. There are two beaches used in the summer for passive recreation, in Herald Island and Te Atatu Peninsula.

The recreational values of the reserves are in the opportunity they provide for public access to the coastline and waterways, which is a matter of national importance under the Resource Management Act 1991. The reserves connect the land with the sea, and are of integral importance to accessing the water.

Among the formalised sports groups are recreational facilities based around water sports, such as sailing, water skiing and rowing. These are on reserves with boat ramps and easy access to the water.

Objective:

To maintain and enhance the range of informal and organised recreational opportunities and to increase the use and enjoyment of the reserves appropriate to their coastal location, consistent with the purposes and values of the reserves

Policy 6.1

To provide for a variety of recreational pursuits while respecting the needs and values of all users

Implementation

- Increase opportunities for multisport rowing, running and

cycling on appropriate reserves, particularly around Te Atatu Peninsula where there is existing and future infrastructure for such activity.

- Create picnic areas and further provision for passive recreation.
- Investigate locations where further toilets and changing facilities may be needed and provide if abides by policy 3.3.

Policy 6.2

To provide for a wider range of facilities to cater for water recreational activities across the reserves.

Implementation

- Investigate potential of installation of low tide water access jetties and trailered/boat access activities.
- Investigate the need for additional low tide rowing and canoe access points and locate and provide where identified.
- Investigate provision of boat ramps and water access points in locations such as Hobsonville, Concourse Strand and the end of Kauri Road where there is deep water access.
- Indicate the location of water access facilities on main reserve signage.

Policy 6.3

To provide a safe environment for reserve users.

Implementation

- Implement "Safer Design for the Green Network: Design Guidelines" to ensure that buildings, facilities and plantings are designed and maintained in a way that minimises safety concerns and maximises passive surveillance from surrounding residential areas.
- Assess lighting requirements and install if required at key locations of high vandalism.



- Maintain all play equipment in accordance with NZS 5828 and Council Safety Standards and all buildings and structures shall comply with the Building Code.
- Follow CPTED guidelines for the future design and management of parks.
- Ensure walking tracks are well maintained.
- Allow sun shelters to be constructed above all play areas.
- Provide shade by way of trees or other structures around open grass spaces for reserve users.
- Investigate locking the Taipari Strand entrance or chaining off areas of the carpark to reduce vandalism after hours in the main carpark.

Policy 6.4

To increase the use and range of recreation facilities.

Implementation

- Encourage clubs leasing land and buildings to enter into joint arrangements in accordance with the Community Assistance Policy, to enable the efficient use of facilities by a range of groups to include youth, older people, women and all cultures.
- Provide for facilities such as picnic areas, tables, BBQs and seating for visitors to the reserves in appropriate places without impacting on their natural values.

Policy 6.5

To retain the open space area in Taipari Strand for passive recreational use.

7.0 STRUCTURES TO ACCESS THE WATER

There are a number of built structures along the foreshore that connect land to sea, and in some areas these structures are of historical significance.

Across the span of the foreshore, there are private structures on reserve land used to access the water. Most structures border both Waitakere City Council and Auckland Regional Council jurisdictions.

Objective:

To rationalise, assess and upgrade where appropriate coastal structures on the reserves in liaison with Auckland Regional Council, and reduce to a minimum necessary to encourage recreational water use

Policy 7.1

To create a system to rationalise and assess coastal structures and to ensure these are kept to a minimum.

Implementation

- Create an inventory of all coastal structures and associated infrastructure in liaison with Auckland Regional Council.
- Assess structures in terms of function, state of repair or disrepair, and water access capabilities with regard to policy 4.1.
- Acknowledge structures of potential historical significance and ensure these are retained, and are treated according to policy 4.1.
- Ensure facilities for water access cater for most recreational water sport users, rowing, canoeing, kayaking, sailing and boating, and can be accessed at low tide.

8.0 ACCESS, PARKING AND CIRCULATION

Quality of access within the reserves varies across the span of the foreshore. Some larger reserves have adequate road frontage, along with adequate signage indicating the reserve entrances. Other reserves are difficult to access from adjacent roads and the status for public access is unclear. Only few of the larger reserves have formed pathways that link together various park features. Other reserves have no circulation within the reserve at all, and access through

reserves is impeded by adjacent neighbour garden or other forms of encroachments on reserve land.

Few reserves have connections between them, however there is potential for linking reserves to form a coastal network of walkways, focusing on particular locations as a priority at present.

Many of the esplanade reserves provide public access to the water, where boat ramps and jetties are of utmost importance.

Larger reserves with clubrooms located on them have car parking integrated within the reserves in most instances.

Objective:

To minimise obstacles to free access to the Harbour Environment, circulation within and between reserves and parking provision, without compromising natural and cultural values of the reserves.

Policy 8.1

To establish guidelines for all commercial activity on the reserves to ensure the retention and enhancement of reserve values and use.

Implementation

- Commercial activity will not be permitted within the reserves unless it meets the following criteria:
 - a) is in accordance with all statutory regulations and local bylaws affecting the reserve;
 - b) will be in accordance with the Objectives and Policies of this Plan;
 - c) priority will be given to activities which take advantage or benefit from the natural coastal character values of the reserves and will not detract from the existing character and use of the reserves;
 - d) no commercial activities will be permitted in the reserves which have the potential to damage native flora and fauna;
 - e) the commercial activity will generally provide a benefit to the public which is greater than any adverse effects caused;
 - f) the commercial activity will not cater exclusively to any one

sector of the public except where this is provided for and is appropriate in terms of the objectives and policies of this Plan.

Policy 8.2

To facilitate public access between and through reserves and to provide logical linkages to the wider street network to enhance passive recreational opportunities.

Implementation:

- Provide safe walking tracks within reserves which do not compromise cultural or ecological values.
- Develop new walkway connections, where affordable, between esplanade reserves, linking strategic, ecologically and culturally significant reserve areas.
- Investigate the development of current informal pedestrian linkages and desire lines in and between reserves.
- Identify areas where neighbours are encroaching over reserve land and impeding public access around reserves. Work with neighbours to clarify boundary issues.
- Investigate providing a connection between Bridge Avenue Reserve in Te Atatu South to Harbourview and the other esplanade reserves in Te Atatu Peninsula.
- Improve and develop signage to parks at entrances, informing of any wider pedestrian connections, signage to comply with policies 3.4 and 3.5.

Policy 8.3

To provide for a variety of car park locations while managing vehicle parking so as not to compromise the natural character of the reserves.

Implementation:

- Provide additional formal carparking at those reserves with high usage recreational facilities only as required and as according to Council's Code of Practice.
- Provide formal parking in appropriate streets adjoining the reserves, as necessary, and at high usage areas.



- Utilise permeable surfaces for new carparking, or the upgrading of existing carparks or roads within the reserves and ensure that such works are in keeping with the natural character of the area.
- Undertake amenity planting where possible, to mitigate the adverse visual effects of carparking, and to provide shade in carparking areas.
- Implement soft engineering solutions and planting to mitigate the effects of any additional surface water flow resulting from the creation of carparking or roading within the reserves, where appropriate.
- Prevent public parking in amenity grass/open space areas through appropriate design techniques.

Policy 8.4

To ensure that there is no further encroachment into the reserve areas from adjacent private properties and that there is a progressive removal of existing encroachment features and practices.

Implementation:

- Identify the number, extent and form of encroachments and undertake progressive consultation with private land owners and establish a method of mutual agreement for removal of encroachment and/or maintenance of those areas if there is an agreed benefit to the wider public.
- Prioritise encroachment extent in terms of visual impact and extent of public access being impeded by encroachment, e.g. high priority is Span Farm Reserve and Harbour Reserve, Glendene.
- Undertake regular monitoring of reserve boundaries for encroachment and ensure appropriate enforcement action is undertaken, where necessary, according to the WCC Draft Encroachment Policy.
- Reserves at the end of private properties that are unable

to be accessed by public should be encouraged to be managed by way of stewardship, on the part of the private landowner. This is until the stage where Waitakere City Council has acquired reserves in the surrounding land area, to form a continuous coastal strip. These reserves can then be developed to cater for public access.

Policy 8.5

To ensure future accessways to esplanade reserves acquired through subdivision are considered where appropriate, in Whenuapai.

Policy 8.6

To facilitate and encourage public access to and along the harbour and coastal environment through the reserves where practicable.

Implementation:

- Liaise with ARC on future locations of water access as appropriate focusing on reserves with deep water access, for instance, at Hobsonville, end of Kauri Road Whenuapai and at the Concourse Strand.
- Acknowledge through education the importance of public access to the coastal areas.
- Maintain and clarify existing public access to beaches, boat ramps and jetties. Liaise with ARC on this issue.
- Enhance and provide for signage at existing connections from the street network to reserves where there is existing water access infrastructure.
- Ensure access to existing water access facilities are kept free from obstructions through reserves.

9.0 MAORI CULTURAL HERITAGE

The Waitemata Harbour Foreshore Reserves are of great significance to Te Kawerau A Maki, due to a long history of association to the foreshore. The archaeological site record conveys that the foreshore reserves were the dwelling

place of Te Kawerau A Maki ancestors. Any remains of the indigenous vegetation and vegetation restoration are of utmost importance to Te Kawerau A Maki, as the realm of Tanenui a Rangi and Tangaroa. The foreshore reserves also mark the eastern boundary of the iwi. Te Kawerau A Maki place names across the reserve area reflect the long history of the iwi and relate to all aspects of the landscape, which acts as landmarks and reminders of the past to Te Kawerau A Maki people.

Objective:

To recognise, protect and, as appropriate, promote the Maori cultural and historical values of the Reserves, together with the wider Harbour Environment and to work in partnership with Iwi on the management of sites of significance on the reserves.

Policy 9.1

To recognise and provide for the mauri of natural waterways and any site or place of significance associated with the Reserves.

Implementation:

- Liaise with iwi to identify all sites and areas on the Reserves that are of cultural value and significance.
- In consultation with iwi, undertake a process of applying correct spellings to Maori names of reserves and provide acknowledgement of historical Maori Place names throughout the reserves.
- Provide District Plan protection for all identified and recorded archaeological sites.
- In consultation with iwi, decide on the appropriate form of interpretation of Maori cultural values of the coast, and implement this strategy in a staged way over time.
- Discourage the introduction of additional elements or structures that detract from or degrade the existing Maori cultural values of the Reserves and the coastal environment as a whole.
- That a carved pou be commissioned and established on the foreshore reserves .

- Protect and enhance the food producing capacity of natural waterways, with spiritual and cultural concepts to be recognised as key issues in water management on the reserves.

Policy 9.2

To provide for the customary use of native flora and fauna by Te Kawerau A Maki and Ngāti Whatua and local Maori groups.

Implementation:

- Implement planting programmes, in consultation with Te Kawerau A Maki and Ngāti Whatua that include plants for customary use such as for arts, rongoa (medicinal), ceremonial and food purposes.
- Ensure that any cultural harvesting of plants is consistent with the draft Cultural Harvesting Protocols.

Policy 9.3

Involve iwi in the design and management of reserves.

Implementation:

- Liaise with iwi in regard to the recording of archaeological sites, significant events and ancestral associations on a database or on maps to ensure there is common awareness of culturally important reserves.
- Liaise with iwi in regard to establishing a system for both managing and interpreting such sites in regard to future design and potential development of reserves.
- Liaise with iwi on species selection for restoration planting strategies in the reserves.
- In consultation with Te Kawerau a Maki and Ngāti Whatua, highlight any areas of tapu and significant heritage sites; investigate possible options, where appropriate to discourage public access to those areas.
- Manage intertidal habitats adjacent to reserves to mark the importance of these areas for significant kaimoana



resources, investigate options to restrict public access to particular areas of significance.

Policy 9.4

Recognise and provide for the protection of any site or place of archaeological significance associated with the Reserves.

Implementation:

- Undertake archaeological assessments prior to any work involving terrain modification being undertaken within the Reserves, this includes planting, fencing and power under grounding.
- Liaise with Te Kawerau A Maki and Ngāti Whatua over any issues associated with Maori archaeological sites.

10.0 EUROPEAN CULTURAL HERITAGE

The manner in which pākehā settled and utilised the land in West Auckland in many ways reflect the way in which the landscape was valued.

In many reserves along the Waitemata Foreshore there exists archaeological remains that tell the story of life in early West Auckland for the early settler.

Objective:

To recognise, protect and, as appropriate, promote the European cultural and historical values of the Reserves.

Policy 10.1

To recognise and provide for the protection and interpretation of any site or place of historical significance associated with the reserves.

Implementation:

- Identify and locate historical sites and heritage trees located in reserves and ensure the appropriate protection of such sites in consultation with the Historic Places Trust and West Auckland Historical Society.

- Provide recognition and protection for heritage sites through the District Plan.
- Provide interpretation of historical and archaeological sites in the form of artwork/sculpture and or interpretation signage,
- Investigate potential of acknowledging sites that have no significant archaeological remains, in a theme consistent to the Waitemata Foreshore Reserves, to acknowledge the potential loss of such sites if not managed.
- Provide for further investigation and assessment of archaeological sites of significance as listed in appendix 3, Cultural Heritage Inventory.
- Prepare a Conservation Plan for the most significant sites on the reserves.
- In sites of archaeological significance future concept design and development should be themed to illustrate the heritage values specific to that reserve, e.g. – establishing a heritage trail at Limeburners Bay, based on the ceramics industry that occurred in that area. Refer to Part Three of this Reserve Management Plan for details of that proposal.

11.0 Community and Cultural Values

The reserves on the Waitemata Harbour Foreshore contribute greatly to the sense of place for the communities that surround them. The reserves add to community identity and belonging, and through their function, play an important role in the overall fabric of the city. The reserves also play an important role in contributing to the values of lives in the city, through providing attractive areas of green relief. Potentially, the reserves are places for people to meet, to engage with views and the harbour environment, to engage with ecological values, and are places where a community spirit can be gained.

Objective:

To encourage community empowerment, promote community ownership, and to increase opportunities for people to value,

connect to, and enjoy nature on reserves.

Policy 11.1

To encourage community stewardship and ownership of the reserves, to strengthen a sense of place in communities along the Waitemata Foreshore.

Implementation:

- To help facilitate community groups in areas where these are minimal, for instance in Massey, where the reserves have significant values, when undertaking projects on parks.
- Encourage community stewardship and ownership of reserves in projects on parks.
- Establish art projects in key reserves in conjunction with community groups where possible.
- Work with local schools in regard to potential reserve developments in key areas.
- Develop the reserves in a manner that will enhance community use in key areas, while taking into account reserve values where possible.
- Investigate development of the reserves in a manner that caters for all community groups.
- Recognise the community input of the Taipari Strand Association in Taipari Strand, and recognise their desire to see Taipari Strand developed as for passive recreation only.

Policy 11.2

To increase opportunities for people to value, experience, connect to and enjoy nature on reserves

Implementation:

- Involve the local community in programmes of weed control and restoration programmes along the coastline and at riparian edges
- Link into the green network community planting on parks

programme and economic incentives programme.

- Encourage ecological restoration programmes in conjunction with local schools.
- Encourage and facilitate community groups utilising ecological values, to help formulate a sense of place for communities.
- Collaborate with Project Twin Streams, in regard to community planting days
- Continue to work with the community to restore Harbour Reserve, as an example of restoration work in an industrial site, and of community/council partnerships.

Policy 11.3

To provide for short term special events in appropriate locations.

Implementation:

- Provide for events for all cultural groups

Proposals for special events will be assessed against the following criteria:

- Events must be of public interest and value;
 - There must be no conflict with the reserves values;
 - There must be no permanent occupation or utilisation of any part of the reserve;
 - There must be no conflict with any other Waitakere City Council policies, including bylaws;
 - At the conclusion of the event, the reserve shall be reinstated to its condition prior to the event.
- There must be full compliance with all the conditions Council attaches to any permit allowing the short term special event, otherwise a Resource Consent application will be required.



12.0 Promotion and Education of Reserve Values

Policy 12.1

Objective

To increase public awareness as to the potential and existing ecological values and processes of the reserves.

Implementation:

- Provide for signage or explore another form of interpretation for areas where there are areas of outstanding and significant vegetation, explaining habitat type and the aims of ecological restoration and ecological linkages/corridors
- Provide interpretation of areas of significant habitat adjacent to reserves, as listed in the Auckland Regional Plan: Coastal
- Open up and encourage access and views to areas of ecological significance and water where appropriate, and where providing access will not pose a threat to significant ecological areas.
- Investigate working with local schools, using reserves as a case study for ecological projects.
- Allow for signage to indicate wider pedestrian connections from the reserves, investigate the low bollard form of way finding, providing signage complies with policy 3.4 and 3.5.

13.0 Administration and Management

The structure for administration or day-to-day management of the reserves is primarily established in the context of the Reserves Act, 1977. Consideration also has to be given to the District Plan prepared under the Resource Management Act 1991.

The effectiveness of this Reserve Management Plan needs to be constantly monitored. The Auckland Regional Plan: Coastal

has a bearing on the management of the Reserves as most are located in the coastal environment and have strong links with the coastal marine area.

Council bylaws equally, need to be integrated within the intent of the Management Plan. This is particularly important in respect to the interface between Reserves and beach activity, dog control and public behaviour within the reserves.

Objective

To ensure the reserves are managed in terms of their reserve classifications for the enjoyment and use of the local and regional community, now and in the future.

Policy 13.1

To ensure that all reserves are classified according to their existing use and values for their continued protection and appropriate use.

Implementation:

- Ensure all park and beach areas which are currently classified as legal road and which have no current road infrastructure and which are not needed for roading purposes shall undergo a publicly notified road closure process to ensure the future protection of the area as reserve
- Re-classify Reserves which undergo road closure as esplanade reserve, or an appropriate classification under the Reserves Act.

Policy 13.2

Any activity or development not provided for under the Policies and Implementation in the Management Plan will not be permitted unless such an activity or development at least complies with the District Plan rules for Open Space Environment and the General By-laws 1990.

Policy 13.3

To achieve the implementation actions outlined within each Policy in this document, Waitakere City Council

will follow an Annual Plan process to allocate funds for these actions. The actions identified in the Policies are necessary to achieve the objectives of the Management Plan.

Policy 13.4

To provide for user concessions by way of permit for special events as detailed in Policy 11.3

Implementation:

- Permits for temporary concessions or events may be granted for the use of areas of the reserves that are compatible with the objective for the reserves and in accordance with policy or implementation under this Reserve Management Plan. Applications are made to the Manager of Parks, who may consult with the Community Board as required to assess such applications.
- Permits for special events may incur an additional bond or charge in respect to the potential for damage or the need for remedial works.
- Concessions may be granted in respect to refreshments and for wheeled transport compatible with the values of the reserves.

Policy 13.5

To use the control of lease agreements to ensure the most effective and equitable use of the Waitemata Harbour Foreshore Reserves.

Implementation:

- Provide for the continuation of leasing areas of land within the reserves to provide for community use and well-being. The leases of facilities such as buildings will be reviewed when the opportunity arises, to ensure maximum potential of the reserve is realised for the community.
- Ensure new applications for leases will have to conform to the criteria as set out in the Community Assistance Policy and Parks Strategy. In addition the applicant will need to satisfy the Waitakere City Council that the proposed use:

- Will be in accordance with the Objective and Policies of this Plan;
- Will be in accordance with the Reserves Act 1977;
- Will not detract from the existing environment and use of the park;
- Will generally provide a benefit (or benefits) to the public which is greater than any adverse effect caused by granting the lease;
- Is in an appropriate location;
- Will not cater exclusively to any one sector of the public, except where this is provided for and is appropriate in terms of the Objectives and Policies of this Plan.
- Revise and renew all existing leases in accordance with the criteria listed above.

Policy 13.6

To keep this Management Plan under regular review.

Implementation:

- Changes to the emphasis or specific policies of this Management Plan will need to be addressed following the Amendment to a Management Plan process as outlined in section 41(2) of the Reserves Act.
- Undertake a full review of the entire plan within ten years of this date of approval.



PART THREE

CONCEPT PLANS AND DESIGN GUIDELINES

Design Guidelines

In order to ensure a cohesive approach to the amenity values of the reserves along the Western edge of the Waitemata Foreshore, the following design standards are to be utilised in any design in reserves along the foreshore. These include, park furniture and signage in particular, that should be themed in a manner to reflect the unique Waitemata Harbour Foreshore Environment.

Concept Plans

Concept Plans have been developed for those reserves which require a more detailed explanation of features than those identified in Part Two.

The plans indicate implementation of particular elements which are related to the long term vision for the enhancement of the reserves, as outlined in Part Two. The plans are schematic only and require more detailed work based on the identified elements, prior to implementation.



1.0 PROPOSED WORK WITHIN RESERVES.

Provided below is the table of works, which outlines in detail the proposed works to considered for funding in the LTCCP programme for each reserve.

Reserve No.	Reserve Name	Proposed Development/Work to occur within the Reserve	Priority rating for Work
1	Akatea Park (refer concept plan)	Weed control and systematic removal of Privet species. Native ecological linkage planting to connect to existing Kauri Forest. New planting to be designed to retain windows of views to the Wairau Creek from Akatea Park. Ecological interpretation signage to indicate significance of coastal kauri forest ecosystems. Installation of storm water quality devices on reserve, in liaison with Waitakere City Council Ecowater. Investigate feasibility of a future coastal walkway, utilising any existing desire lines and tracks, to link to Harmel Reserve and Span Farm Esplanade. Install Parks standard bollard signage to indicate above linkages conjunction with walkway. Amenity shade tree planting in open space.	med
2	Aronui Esplanade (refer concept plan)	Weed control of giant reed and bamboo. Native restoration planting to enhance existing significant kanuka forest. Discourage and remove garden encroachment impeding pedestrian access through the reserve. Install signage at all reserve entrances. Retain views to kauri forest on the opposite bank of the Wairau Creek, at Akatea Park. Investigate feasibility of a future coastal walkway, utilising any existing tracks and desire lines, to link Rerewai and Kiernan Reserves. Install Parks Standard bollard signage to indicate linkages in conjunction with walkway.	med



Reserve No.	Reserve Name	Proposed Development/Work to occur within the Reserve	Priority rating for work
3	Berneckers Landing	Investigate the installation of a track as part of cultural heritage trail, from Marina Esplanade, to areas of cultural significance in the adjoining reserve, Wiseley Esplanade. Heritage trail to connect to development around Clarks Brickworks, adjacent to Wiseley Reserve. Interpretation signage/sculpture for heritage trail, and the cultural significance of the area. Liaise with iwi on protection and management of archaeological midden site. Discourage and remove garden encroachment impeding pedestrian access through the reserve.	high
4	Brighams Esplanade Reserve	Enhancement planting beneath pine forest. Weed control. Discourage and remove garden encroachment impeding pedestrian access through the reserve.	low
5	Bridge Avenue Reserve	Weed control of black wattle forest and bamboo. Native restoration planting to buffer adjacent sedgeland habitat, in the coastal margin. Investigate boardwalk/linking pedestrian track to Harbourview - Orangihina in Te Atatu Peninsula. Ecological interpretation signage to indicate significance of sedgeland adjacent habitat. Liaise with iwi on protection and management of archaeological midden site. Provide shelter for playground. Improve/formalise parking on Bridge Avenue. Archeological investigation of historical ketch site located on the reserve.	low
6	Brigham Creek Road Reserve	Riparian restoration planting along Brighams Creek.	low
7	Bristol Road Esplanade	Enhancement planting. Weed control. Liaise with iwi on the management and protection of archeological midden site.	low
8	Chapman Strand	Liaise with iwi on protection and management of	low

Reserve No.	Reserve Name	Proposed Development/Work to occur within the Reserve	Priority rating for work
		archaeological midden sites. Archeological assessment of Hartshorne Brickworks Install sculpture/interpretation indicating that the reserve was a location of historical brickworks. Improve toilet facilities. Signage at all reserve entrances. Enhancement planting at the Te Atatu Road entrance of the reserve. Amenity shade tree planting in open space. Install bollard signage at entrances indicating possible linkages through the reserve, to the surrounding street network. Acknowledge Taikata Sailing Club as a historic building (listed in the Cultural Heritage Inventory)	
9	Chorley Reserve	Native ecological linkage planting to connect to existing pohutukawa-puriri kanuka-kowhai forest and kauri/kanuka-towai-kowhai-tawa forest in Colwill Esplanade. Investigate for potential coastal walkway, utilising existing desire lines and tracks, to link to Triangle Road and Sunline Park. Ecological interpretation signage to indicate significance of pohutukawa-puriri kanuka-kowhai forest and kauri/kanuka-towai-kowhai-tawa forest. Install Standard Parks bollard signage in conjunction with the walkway, indicating the potential linkages through the reserve.	high
10	Covil Park	Liaise with iwi on protection and management of archaeological midden site. Weed control and native restoration planting. All vegetation restoration to retain windows for views to the Whau in the foreground and Auckland City in the background.	low
11	Christmas Beach	Investigate for potential coastal walkway, utilising	



Reserve No.	Reserve Name	Proposed Development/Work to occur within the Reserve	Priority rating for work
		existing tracks and desire lines to link to Wharf Road Esplanade. Liaise with iwi on protection and management of archaeological midden site. Investigate provision of second set of steps to beach.	
12	Cobham Reserve (refer concept plan)	Amenity/shade tree planting in open space. Picnic tables. Seating. Discourage and remove garden encroachment impeding pedestrian access through the reserve. Investigate for potential future coastal walkway, utilising existing tracks and desire lines to link to Archibald Park, and Keirnan Esplanade. In conjunction with walkway, install bollard signage indicating linkages through reserves. (refer concept plans) Planting of drainage ditch and boardwalk over, in open space. Planting of species to screen industrial area on the opposite bank of the Whau River. Liaise with iwi on protection and management of archaeological midden site. Weed control of pampas grass and canna lily.	med
13	Colwill Esplanade	Weed control. Clear existing weeds obstructing access through reserve. Ecological interpretation signage to indicate significance of coastal pohutukawa-puriri-kanuka-kowhai forest and kauri/kanuka-towai-kowhai-tawa forest ecosystems. Ecological buffer planting to protect adjacent saltmarsh habitat. Investigate development of a future coastal walkway to Realm Esplanade, and Lowtherhurst Reserve, utilising existing tracks and desire lines. Install Parks Standard bollard signage in conjunction with walkway.	low

Reserve No.	Reserve Name	Proposed Development/Work to occur within the Reserve	Priority rating for work
14	Dawnhaven Esplanade	Ongoing maintenance of seawall. Amenity and shade tree planting in open space. Update reserve signage. Install seating beside existing viewing platform. Weed control of bamboo.	low
15	Daytona Strand (refer concept plan)	Native ecological linkage planting to connect to existing kanuka/ponga forest in Sunline Esplanade. Weed control of black wattle forest, and crack willow forest. Investigate for potential coastal walkway, utilising existing tracks and desire lines, to link to Triangle Road and Penfold Park. Seating. Tables.	med
16	Ferry Parade Plantation Reserve	Native enhancement planting Weed control	low
17	Harbour Reserve	Native ecological linkage planting to connect to existing kauri forest at Akatea Park. Investigate future potential connections to Hepburn Esplanade Reserve.	high
18	Hepburn Esplanade Reserve	Potential coastal walkway to link to Laurieston Park when future reserves acquired form a continuous reserve link along the foreshore.	low
19	Harmel Reserve	Native restoration planting to enhance existing significant kanuka forest. Amenity/ shade tree planting in open space Seating. Picnic tables. Signage at all reserve entrances. BBQ area. Investigate for potential coastal walkway, utilising existing tracks and desire lines to link Akatea Park and Rerewai Reserve. Install Parks Standard bollard signage in conjunction with walkway indicating linkages through the reserve.	med



Reserve No.	Reserve Name	Proposed Development/Work to occur within the Reserve	Priority rating for work
20	Hobsonville Esplanade	Native ecological linkage planting to connect to existing kanuka forest. Liaise with iwi on protection and management of archaeological midden sites. Investigate as a site for a new boat ramp location.	med
21	Helena Park	Native restoration planting to enhance existing significant ponga and kanuka forest on Sunline Esplanade. Weed control of crack willow forest. Riparian restoration planting along tidal reaches of Swanson Stream. Amenity/shade tree planting in open space. Seating. Bins. Picnic tables. Investigate for potential coastal walkway, utilising tracks and desire lines to link Sunline Esplanade, to Sunline Park, and Chorley Reserve. Potential over bridge from connecting Helena Park to Woodside Reserve. Replace low fencing at reserve frontage. Interpretation signage/sculpture for Swansons Holding Dam on Woodside Reserve.	low
22	Hughes Esplanade	Native enhancement planting. Weed control.	low
23	Huruhuru Esplanade Reserve	Weed control. Native enhancement planting.	low
24	Jaemont Strand	Native enhancement planting. Weed control.	low
25	Kauri Esplanade	Native enhancement planting. Weed control. Investigate vesting of end of Kauri Road (paper road) as reserve land. Investigate as a potential location for water access, boat ramp or jetty. Investigate for potential coastal walkway, utilising	low

Reserve No.	Reserve Name	Proposed Development/ Work to occur within the Reserve	Priority rating for work
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existing tracks and desire lines, particularly when reserves form a continuous strip.
Discourage and remove garden encroachment impeding access through the reserve.
Liaise with iwi on management of archeological midden site.

26	Kelvin Strand	Native restoration planting to enhance existing revegetation. Weed control of black wattle forest. Native restoration planting to buffer adjacent sedgeland habitat in the coastal margin. Ecological interpretation signage indicating fossil remains of plant material from the Pliocene age. Liaise with iwi on the protection and management of the archeological midden site.	med
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27	Kelston Marginal Strip	Native enhancement planting. Weed control.	med
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28	Kiernan Esplanade	Weed control. Native enhancement planting. Discourage and remove garden encroachment impeding pedestrian access through the reserve.	med
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29	Kingsway Portal	Install reserve signage at all entrances. Enhancement planting to form an entrance feature to Herald Island.	low
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30	Kowhai Beach Reserve	Native enhancement planting Investigate for evidence of <i>Ranunculus acaulis</i> , may be present on site. Liaise with iwi on management of archeological midden site.	low
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31	Lagoon Way Reserve	Riparian enhancement planting on Waipareira Stream. Investigate installation of track to run alongside the stream.	low
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Reserve No.	Reserve Name	Proposed Development/Work to occur within the Reserve	Priority rating for work
		Ecological interpretation signage to indicate significance of riparian systems.	
32	Landing Reserve	Discourage and remove encroachments impeding access through the reserve.	low
33	Laurieston Park	Native ecological linkage planting to connect to existing Kauri forest in Akatea Park. Restoration to retain windows of views to Glendene Stream. Seating. Bins. Picnic tables. Discourage and remove encroachment impeding pedestrian access through the reserve. Installation of play equipment if in line with the Parks and Open Space Strategy. BBQ. Underplant existing gum trees, with specimen tree planting. Interpretation/sculpture for Laurie Brothers Brickworks following an archeological assessment. Investigate for purchase of adjoining land for reserve with remains of brickworks. Liaise with iwi on the protection and management of archeological midden site.	high
34	Lowtherhurst Reserve	Native restoration planting to enhance existing outstanding kauri/kanuka-towhai-tawa forest. Seats. Picnic table by stream and waterfall/rapids. Bins. Boardwalk over open drain Ecological interpretation signage to indicate location of outstanding vegetation on the reserve. Investigate for potential future coastal walkway, utilising existing tracks and desire lines, to link to Taitapu Park.	high

Reserve No.	Reserve Name	Proposed development/ work to occur in the reserve	Priority rating for work
		Riparian restoration planting along tidal reaches of Rurawaru Stream. Remedy undercut banks of Rurawaru Stream through riparian planting. Weed control of giant reed. Amenity/shade tree planting in open space Liaise with iwi on the protection and management of archeological site.	
35	Marina Esplanade Seating. (refer concept plan)	Investigate starting heritage trail/coastal walkway from Reflection Drive reserve road frontage, and develop as an entrance to the heritage trail. To link to proposed heritage trail at the Hobsonville Peninsula. Buffer planting for adjacent habitat of raupo/sea rush Weed control of pampas grass. Liaise with iwi on the protection and management of archeological midden site.	high
36	Marina View Reserve	Shelter for playground. Reserve signage at all entrances.	low
37	Marsh Esplanade	Investigate for a future link to McLeod Park. Enhancement planting.	low
38	McLeod Esplanade	Restoration/enhancement planting.	low
39	Meadow Glade	Restoration/enhancement planting. Weed control of black wattle forest. Amenity/shade tree planting in open space. Seating. Tables. Discourage and remove garden encroachment impeding access through the reserve.	low
40	Nimrod Esplanade	Native enhancement planting Weed control of crack willow forest.	med
41	Pahiki Reserve	Native enhancement planting.	low



Reserve No.	Reserve Name	Proposed development/ work to occur within the reserve	Priority rating for work
		Liaise with iwi on the protection and management of archeological midden site.	
42	Penfold Park (refer concept plan)	Weed control of black wattle forest and crack willow forest. Native ecological linkage planting to connect to existing Ponga Forest on Sunline Esplanade and Chorley Reserve. Seating. Amenity/shade tree planting in open space. Investigate for potential coastal walkway, utilising existing tracks and desire lines to link to Riverpark Reserve.	med
43	Pohutukawa Esplanade 1	Discourage and clear encroachment impeding access to and through the reserve.	low
44	Pohutukawa Esplanade 2	Native enhancement planting Investigate for potential coastal walkway when reserves form a continuous strip.	low
45	Realm Esplanade (refer concept plan)	Native ecological linkage planting to connect to existing kauri-kanuka-towhai-kowhai forest and pohutukawa-puriri-kanuka-kowhai forest in Colwill Esplanade. Liaise with residents to discourage pruning of pohutukawa trees in the reserve. Develop as part of an esplanade walkway, linking to the existing pedestrian bridge to West Harbour Esplanade and to the existing Manutewhau Walkway. Install bollard signage in conjunction with walkway, indicating linkages through the reserve. Investigate installing access to the water from the end of Royal Road. Discourage and remove garden encroachment impeding access through the reserve. Liaise with iwi on the protection and management of archeological midden sites.	med
46	Renata Esplanade	Native ecological linkage planting to connect to existing kanuka forest in Taipari Strand. Weed control.	

Reserve No.	Reserve Name	Proposed Development/ Work to Occur within the Reserve	Priority rating for Work
47	Rerewai Reserve	Native enhancement planting. Weed control. Undertake archeological assessment of industrial site.	low
48	Riverpark Reserve (refer concept plan)	Native ecological linkage planting to connect to existing ponga forest in Sunline Esplanade. Amenity/shade tree planting in open space. Weed control of black wattle forest. Seating. Tables. BBQ area. Install bollard signage indicating pedestrian linkages to Helena Street at Bittern Street entrance. Investigate potential to establish a track linking through to Penfold Park and Daytona Strand, named Huruhuru walkway. Establish a formed track linking to the Riverpark Hall and playground, from the Riverpark Crescent access point to the reserve. Install reserve signage at Bittern Place entrance, Install reserve signage where Bittern Place adjoins Universal Drive. Install bollard signage, indicating potential connections through the reserve to the surrounding street network. Redesign carpark, removing central garden for safety and site lines, restore potholes. New low fencing to side of carpark. Interpretation signage or sculpture indicating Priors Landing and the historical significance of that area.	high
49	Roberts Field	Native restoration planting Weed control of black wattle, and Sydney golden Wattle forest. Investigate for potential coastal walkway, utilising existing tracks and desire lines, to link, Bedford Street and Roberts Road. Provide for shade for playground. Potential BBQ area.	med



Reserve No.	Reserve Name	Proposed Development/ Work to Occur within the Reserve	Priority rating for Work
		Amenity shade tree planting in open space. Seating. Tables.	
50	Rurawaru Esplanade	Investigate site for traces of contamination. Weed control. Native restoration planting.	low
51	Scott Esplanade	Liaise with iwi on protection and management of archaeological midden site. Weed control of giant reed.	med
52	Span Farm Esplanade (refer concept plan)	Discourage and clear encroachment impeding access to and through the reserve. Native ecological linkage planting to connect to existing kauri forest in Akatea Park, and Kanuka Forest in Harmel Reserve. Investigate for future coastal walkway, utilising existing tracks and desire lines to link Harmel Reserve and Akatea Park. Clear access ways to reserve from Bancroft Crescent from encroachment. Install reserve signage at all reserve entrances.	high
53	Spinnaker Strand	On going maintenance of seawall and monitoring of success of groins. Liaise with iwi on protection and management of archaeological midden site. Investigate interpretation signage in regard to cultural heritage site. Liaise with iwi on this matter. Investigate formalising informal tracks and desire lines in the reserve. Restoration planting of wetland area. Weed control. Develop an area for picnics, including a table and specimen tree planting for shade.	med
54	Springbank Esplanade	Enhancement planting Weed control	low

Reserve No.	Reserve Name	Proposed Development/ Work to Occur within the Reserve	Priority rating for Work
55	Sunline Esplanade (refer concept plan)	Native ecological linkage planting to connect to ponga forest in the reserve, and in Chorley Reserve. Investigate for future coastal walkway, utilising existing tracks and desire lines to link Helena Park and Sunline Park. Install Parks Standard bollard signage, indicating linkages in conjunction with walkway.	high
56	Sunline Park	Amenity/shade tree planting in open space. Native ecological linkage planting to connect to ponga forest in Sunline Esplanade and to enhance existing native vegetation. Investigate as a future coastal walkway, utilising existing tracks and desire lines to connect to Sunline Esplanade and Chorley Reserve. Install Parks Standard bollard signage in conjunction with the walkway, indicating linkages through the reserve. Seating. Tables. Clear entrance to park from the end of Helena Street of weeds impeding reserve entrance.	high
57	Tawa Esplanade	Interpretation of historical site Auckland Brick and Tile Brickworks remains. Investigate the use of artwork/sculpture or signage for interpretation. Indicate pedestrian linkage opportunities from Wharf Road to Matipo Road through the reserve, using standard Parks bollard signage. Seating. Tables. Form connecting tracks in the reserve, formalising existing desire lines.	med
58	Taipari Strand	Native ecological linkage planting to connect existing kanuka forest. Shade for playground. Investigate utilising part of the open space in Taipari Strand at the Taioma street end of the reserve as a case study for the rehabilitation of a contaminated site through	

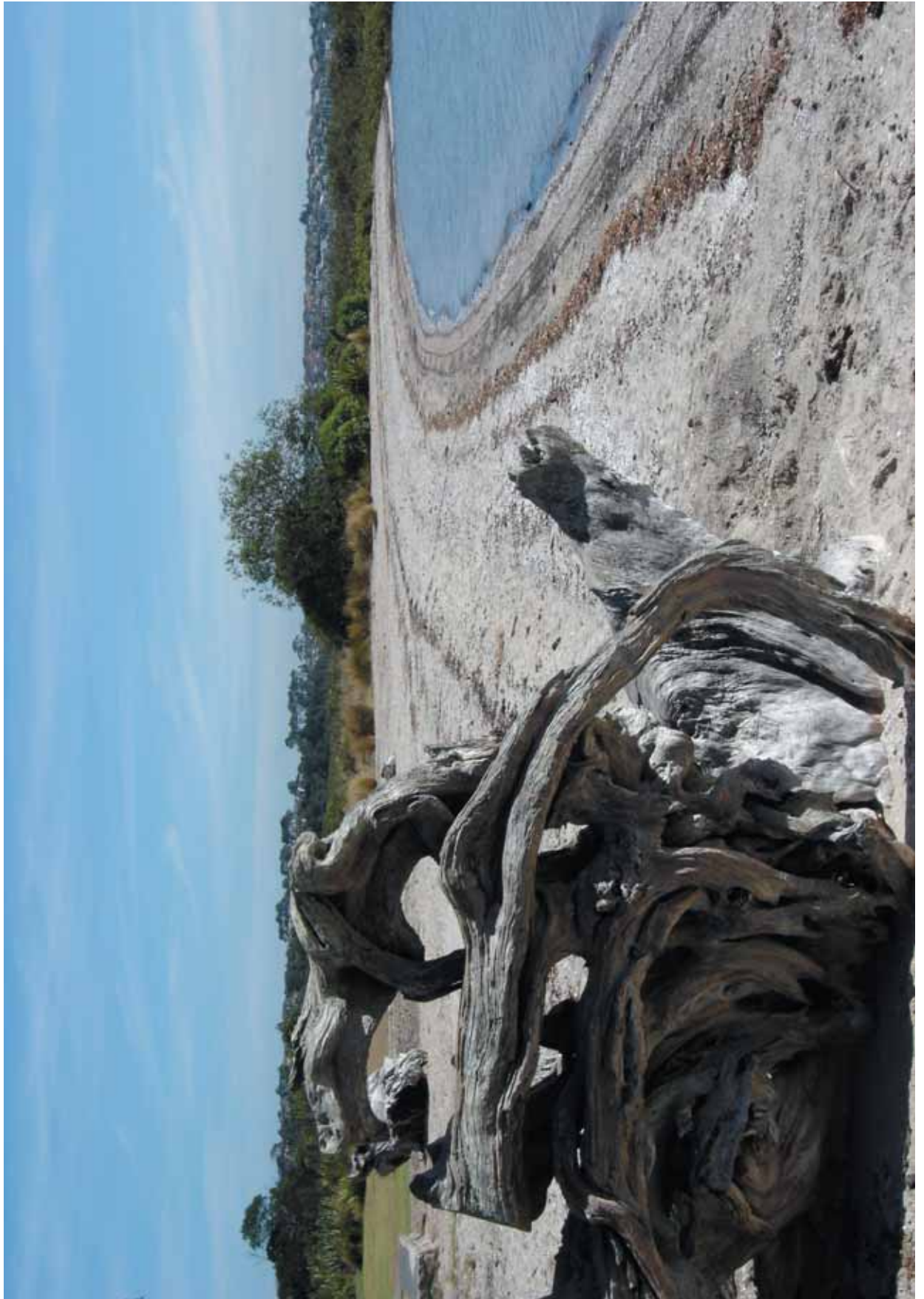


Reserve No.	Reserve Name	Proposed development work to occur within the Reserve	Priority rating for the reserve
		wetland design and bioremediation planting. Ensure this is designed with public access in mind for educational opportunities. Investigate in conjunction with any existing Waitakere City Council aftercare strategies. Acknowledge locals who were involved in the Taipari Strand Association, who worked in the past to rehabilitate the Strand into a reserve, through planting and signage, listing their names. For planting in the contaminated area, incorporate design techniques such as mounding. Liaise with iwi on protection and management of archeological midden site.	
59	Taitapu Park	Native ecological linkage planting to connect to existing pohutukawa-puriri-kanuka-kowhai forest and kauri-kanuka-towhai-kowhai-tawa forest in Colwill Esplanade. Amenity/shade tree planting in open space. Liaise with iwi on the management of historical midden sites. Formalise existing desire lines within the reserve linking park entrances. Picnic tables. Seating.	med
60	Tirimoana Road Esplanade	Weed control of black wattle forest. Native enhancement planting	low
61	Tiroroa Esplanade	Install bollard signage to indicate existing connections to Wairata Place and Roberts Road.	
62	The Concourse Strand	Native ecological linkage planting. Table and seating in open space. Weed control of tree privet and black wattle forest.	low
63	Totara Esplanade	Weed control. Riparian restoration planting. Native enhancement planting.	med
64	Totara Road Esplanade Reserve	Weed control. Native enhancement planting.	low

Reserve No.	Reserve Name	Proposed development work to occur within the Reserve	Priority rating for the reserve
65	Valron Esplanade	Native enhancement planting. Install bollard signage at reserve entrances indicating existing potential connections within the reserve.	
66	Waimanau Bay Reserve	Investigate and survey for historic house chimney Review rock retaining walls at sea edge Weed control	low
67	Waimare Beach	Install reserve signage at entrance. Weed control Council arborist to investigate possibility of staged removal of pine trees on the bank of the reserve. Replant with appropriate stabilising species, such as pohutukawa, <i>Metrosideros excelsa</i> . Investigate installation of a staircase leading to the inaccessible area of the reserve. Install seating here, where there are views available to the harbour. Install reserve signage at reserve entrance. Investigate installation of removable bollards or gates to the entrance of the reserve. Liaise with the local community in regard to the locking/unlocking of gates. Liaise with iwi on the protection and management of archeological midden sites.	
68	25 Waimaire Esplanade Reserve	Weed control.	low
69	Wairohia Esplanade	Enhancement planting. Weed control.	low
70	West Harbour Esplanade	Weed control. Retain open space area and implement planting in unmowable areas of West Harbour Esplanade with plants growing up to 3 meters, species taken from Harbour Coastline Ecosystems, Native to the West, Appendix 5. Liaise with iwi on management of midden sites	low

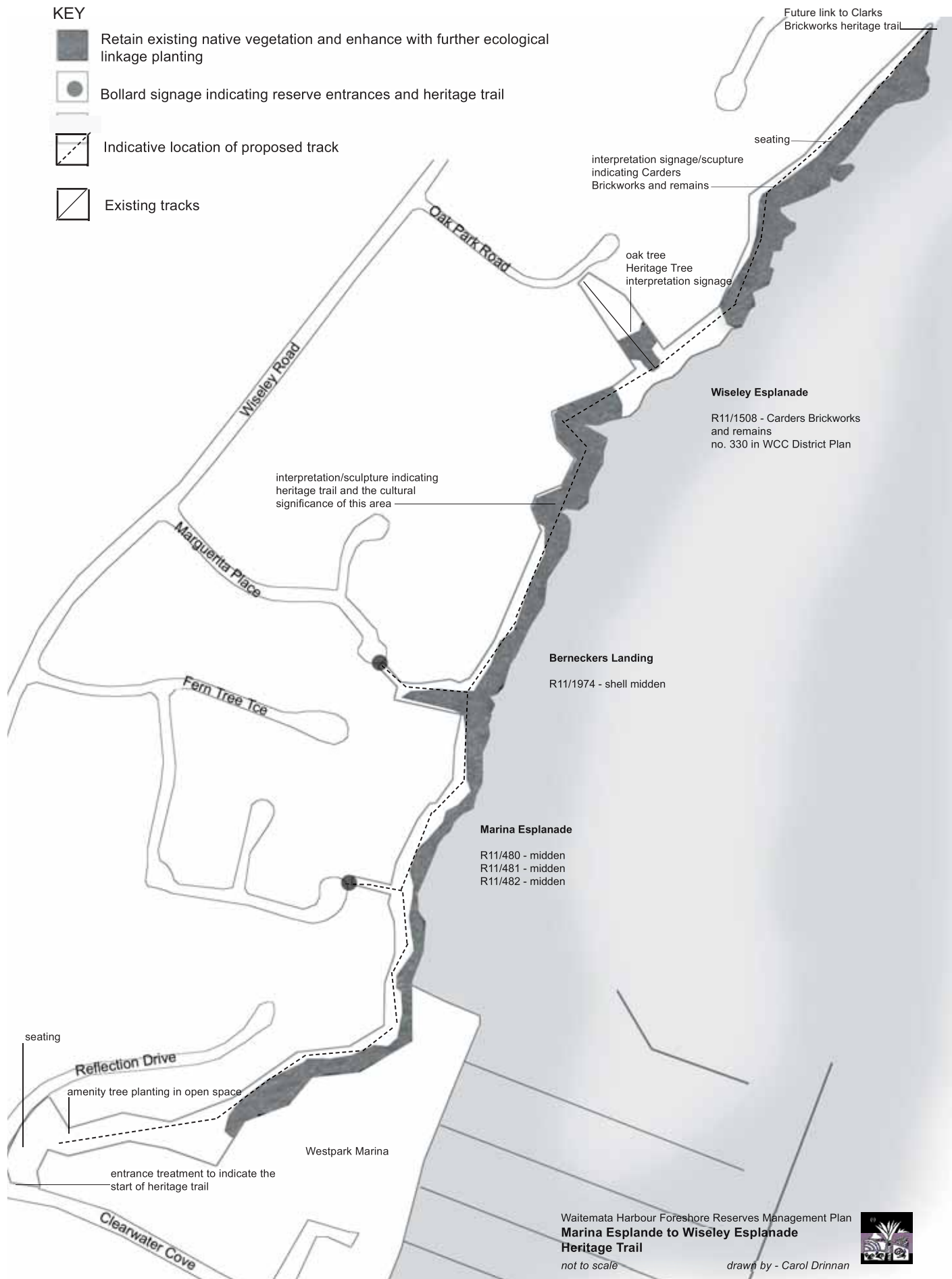


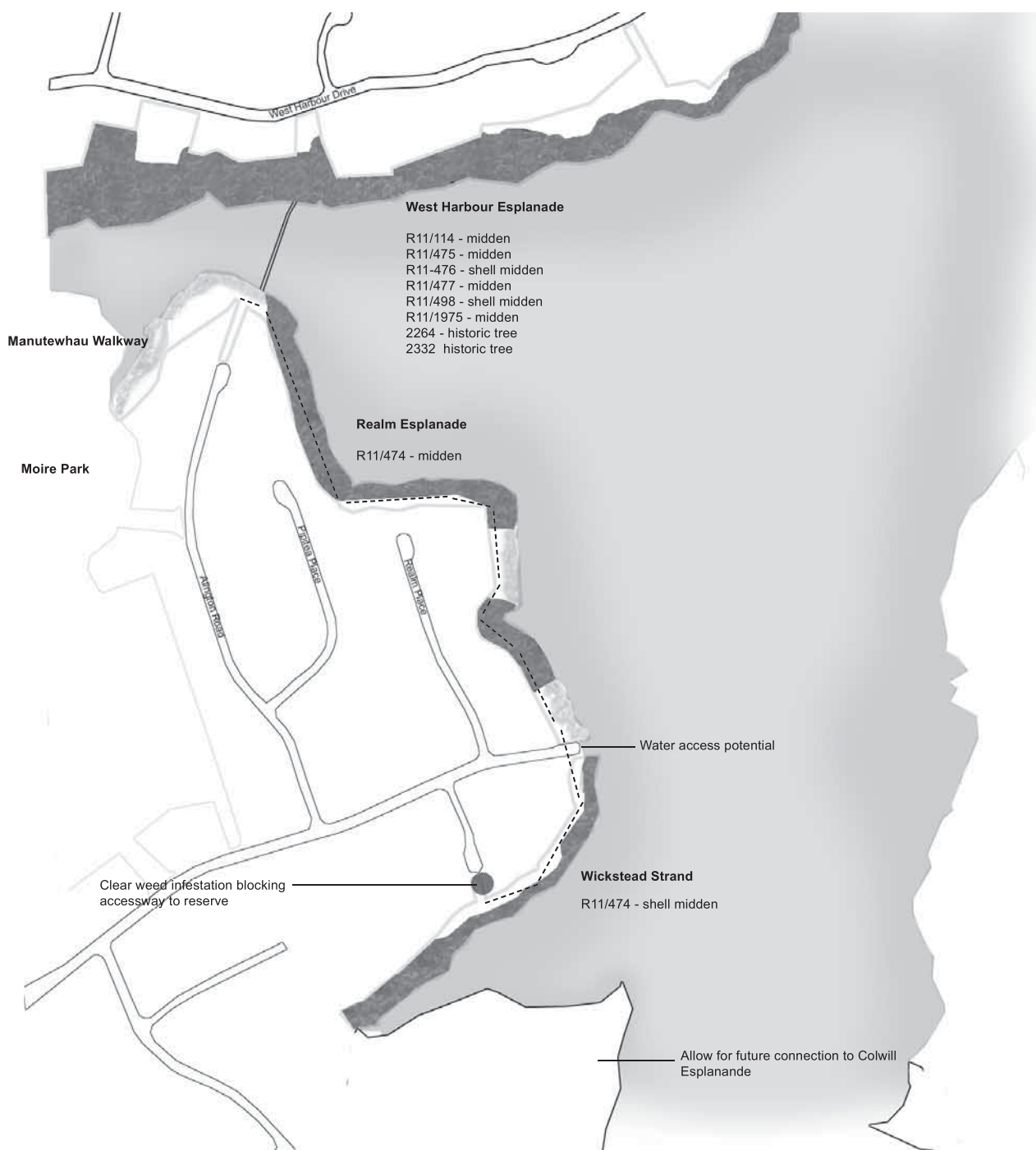
Reserve No.	Reserve Name	Proposed development work to occur within the Reserve	Priority rating for the reserve
		Ecological interpretation signage indicating significance of kanuka-towhai forest.	
71	Wharf Road Esplanade	Enhancement planting. Weed control.	low
72	Wickstead Strand (refer concept plan)	Clear garden encroachment and weed infestation blocking access to reserve from the end of Wickstead Strand. Install Standard Parks bollard signage indicating potential connections, in conjunction with walkway. Implement a track leading from this point to connect to Realm Esplanade and the existing pedestrian bridge to West Harbour Esplanade. Allow for a future connection to Colwill Esplanade through the remainder of the reserve.	high
73	Wiseley Reserve	Develop as part of a heritage trail, from Marina (refer concept Plan) Esplanade, incorporating Carders and Clarks Brickworks remains, with associated interpretation sculpture/signage. Seating. Interpretation signage indicating significance of heritage oak tree.	high
74	Woodside Reserve	Undertake an archeological assessment of Swanson's dam. Amenity planting in open space Seats Tables Investigate formation of track to form pedestrian linkage bridge over Swanson Stream, to Helena Park, to formalise existing desire line. Interpretation signage/sculpture indicating information on William Swansons Holding Dam.	high



KEY

-  Retain existing native vegetation and enhance with further ecological linkage planting
-  Bollard signage indicating reserve entrances and heritage trail
-  Indicative location of proposed track
-  Existing tracks





Retain existing native vegetation and enhance with further ecological linkage planting



Bollard signage indicating reserve entrances and potential connections



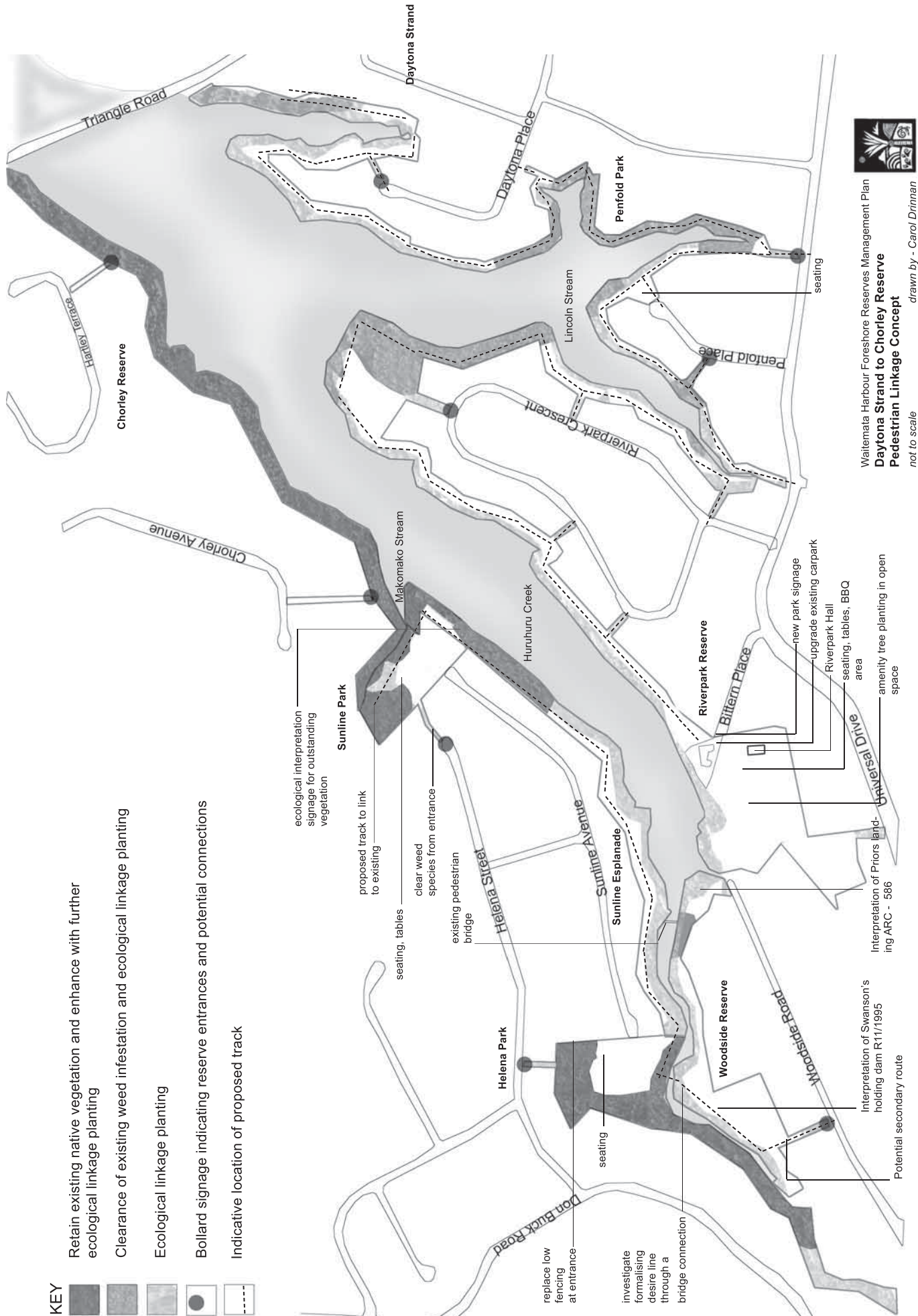
Ecological linkage planting



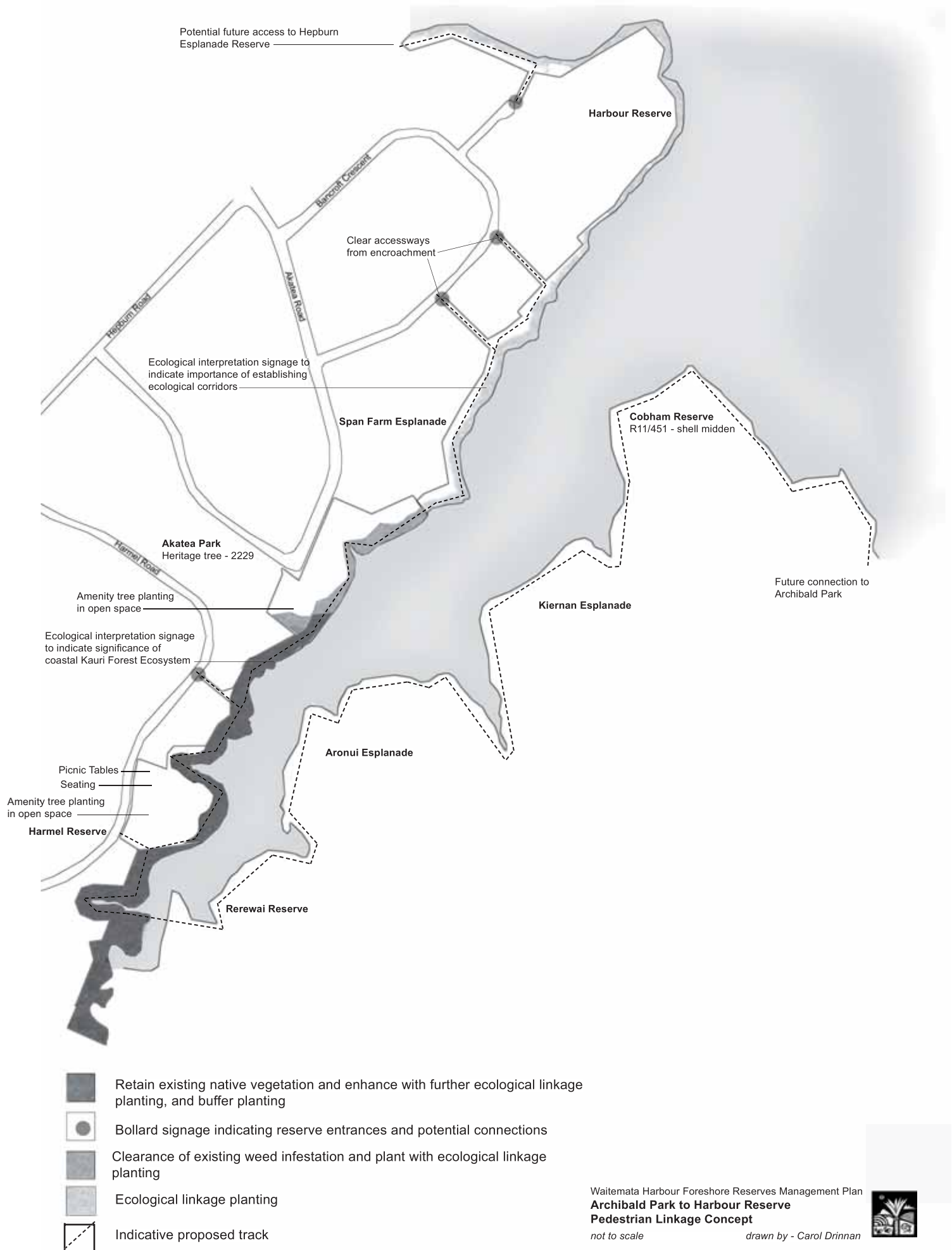
Indicative location of new track

Waitemata Harbour Foreshore Reserves Management Plan
Wickstead Strand to Manutewhau Walkway
not to scale
drawn by - Carol Drinnan





Waitemata Harbour Foreshore Reserves Management Plan
Daytona Strand to Chorley Reserve
Pedestrian Linkage Concept
 drawn by - Carol Drinnan
 not to scale



Akatea Park



Aronui Esplanade



Berneckers Landing



Chorley Reserve



Chapman Strand



Christmas Beach



Cobham Reserve



Colwill Esplanade



Dawnhaven Esplanade



Daytona Strand



Laurieston Park



Landing Reserve



Harbour Reserve



Harmel Reserve



Helena Park



Hughes Esplanade



Kauri Esplanade



Kingsway Reserve



Kiernan Esplanade



Kowhai Beach Reserve



Lagoon Way Reserve



Lowtherhurst Reserve



Marina Esplanade



McLeod Esplanade



Meadow Glade



Pahiki Reserve



Realm Esplanade



Renata Esplanade



Riverpark Reserve



Roberts Feild



Span Farm Esplanade



Spinnaker Strand



Sunline Esplanade



Taipari Strand



Taitapu Park



Tawa Esplanade



The Concourse Strand



Tiroroa Esplanade



West Harbour Esplanade



Wiseley Reserve



Wickstead Strand



Woodside Reserve



Appendix One

Summary of Public Submissions

Preliminary Submission Period

Reserve	Specific Issues
West Harbour Esplanade	Pine trees on the reserve are growing very tall and are shading out adjacent residents. Cull these trees and replace with natives.
Cobham Reserve	Noxious weeds need to be removed. Use of trail bikes needs to be controlled.
Waimaire Beach	The small boat ramp is in a bad state of disrepair, needs drainage and needs a concrete ramp. Sea wall is eroding. Remove noxious weeds. Better parking area and boardwalk is needed.
Taipari Strand	Access to water difficult due to mangroves and the mud, jetties should be built in Chapman Strand and Taipari Strand. Café. Congratulates community members who have been involved in the clean up crews. Contact of the group, the Taipari Strand Association, should be posted at the entrance of Taipari Strand. Any further building should be done north of the existing playground, and the remaining area be designated as a scenic reserve. Community spirit is high and would like to share in the ownership of Taipari Strand. Residents who border the reserve undertake small weed control but technical assistance is needed from council for pruning of larger trees.
Roberts Road Reserve	Needs a playground, as young children are playing on the road
Waimanu Bay Reserve	Between Harbour view road and Karemoana Drive there is seawall erosion. The embankment is weedy. Plant more natives on the foreshore embankment.
Spinnaker Strand	Access ways need to be created from the road to the beach. Success of groins needs to be monitored. Eradicate weeds. Picnic table. Sea Wall needs maintaining.

End of Beach road vandalism is common recommendation a security camera is installed.

General issues for all reserves

Suggestion to fence off reserves to control stray cats and dogs. Suggestion to pass a WCC bylaw to tighten control of fencing types that border esplanade reserves.

Leisure activities need to be encouraged on reserves.

Build floating pontoons into waterways for fishing at high tide.

Illegal dumping of inorganic rubbish, council needs an action plan to deal with this issue.

Suggestion that the WCC encourage residents to clear access ways through the mangroves to allow access to the water.

Status for public access to the water is unclear.

Where funds allow the development of public water access at the north end of Riverlea Road Whenuapai and at the north end of Waimaire Road Whenuapai, and Bridge Ave Te Atatu South, are improved.

There is a variety of potential access points to the water from Whenuapai Reserves.

Many of the reserves are a result of subdivision and are sometimes in accessible to the public

Whenuapai, Pohutukawa Road there are 5 reserves with no public road access and the land owners will not consider allowing public to walk over their land.

The only public access for Whenuapai residents is end of Waimaire Road Design new pathways as close to the waters edge as possible, would like to see a coastal pathway around Herald Island.

Retain all reserves for public use, encourage wildlife, build walkways, discourage dogs.

More dog friendly places.

Parking, bbq areas, clean water, gardens, safety, shelter, playgrounds, possible small mosque.

Low growing planting at waters edge is crucial for views.

Reserves are well managed, concerned about lose gravel in some places and the possibility of falling, make pathways solid.

Walkways cycle tracks to be extended and increase amounts of parks and reserves.

Recreational parks and beaches need to be developed, with more facilities.

Retain and protect recreational areas.



Second Submission Period

Reserve Name	Specific Issues
Waimaire Beach	Pine trees need to be removed. An area of the reserve is undefined and inaccessible to the public. Seawall needs to be maintained. There is currently an issue with honing and partying on the beach at night. Removable bollards and chains would be desirable; the community would lock and unlock the gates.
Spinnaker Strand	The gully area with native vegetation is a special area and needs to be protected. Spinnaker Strand need more tree planting for shade, and a seat for picnics.
Taipari Strand	More can be done in the Taipari Strand area to improve the reserve. The strand is boggy. Could raise plant in raised mounds so that trees survive. Planting trees on Taipari will help with the carbon sink, and soak up the nutrients (the area is still contaminated). Issues with sewer overflow into the Henderson Creek.
West Harbour Esplanade	The following changes to the Reserve Management Plan Table of Works: Delete amenity tree planting and replace with retain open space and plant difficult to maintain areas with grasses and shrubs. This is consistent with past weed management programmes, the 2005/06 Weed Management Revegetation Programme for West Harbour Esplanade.
Hobsonville Esplanade	Include Lot 4 DP206311 as part of Hobsonville Esplanade Ensure the Reserve Management Plan reflects the significant developments that will occur within and adjacent to the existing Esplanade Reserve
Harbour Reserve	March 2007 the council was approached to discuss Harbour Reserve as there were significant weeds on this reserve, and working with the council, sprayed weeds and restored the area with over 500 ecosourced plants. Harbour Reserve should be used as an example of ecological restoration on damaged industrial land. The reserve access way on the boundary of 10 Avenger Place, is not required for public access, would like to purchase access way,

General issues for all reserves

A walking track should be implemented in the paper road extension of Karaka Road to access the Foreshore Reserves.

The area of land that is 46 Puriri Road Whenuapai is under Resource Consent application to subdivide. It will comprise a long esplanade reserve as part of the application that will be inaccessible to the public.

The New Zealand Campavan Association requests the council to designate independent overnight parking at suitable formed car parks along the foreshore reserves for certified self-contained motor homes subject to certain conditions.

Permitting independent overnight parking will support policies 6.1 and 6.4 by extending recreational facilities to include local and international travellers promoting the coastal walkways and encouraging water activities as outlined in the management plan.

All foreshore land should be public and fully accessible to the public, need to stop people treating private land as public land.

The foreshore should have walkways so that the people can enjoy the harbour views.

Proposal for a fenced dog park and off leash exercise area, similar to that at Meola Reef Reserve. (ACC) We need one of these in Waitakere City Options, Hughes Esplanade, Bridge Avenue Reserve, Laurieston Park, Roberts Field.

Advertise walkways and reserves in schools and fitness clubs.

It is recommended that a group of council officers knowledgeable in this area, working with the local community on the preservation and restoration of reserves.

It is recommended that a group of council officers are formed to take ownership of the implementation of the Reserves Management Plan. For restoration of the foreshore reserves in Herald Island, it is requested that a list of the Herald Island Local Ingenious Plans list be given first priority.

This submission supports Policy 8.2 to develop signage to park entrances and to develop coastal walkways. It is suggested that these are appropriately named to reflect the Maori and European heritage of the area.



Appendix Two

Ecological Values Summary

Whenuapai

Vegetation present in these reserves comprises predominantly mixed native and exotic scrub with local pine (*Pinus radiata*, *P. pinaster*) forest, black wattle (*Acacia mearnsii*) forest, mixed native and exotic forest, kanuka (*Kunzea ericoides*) forest and several areas of garden encroachment. There are also some small local areas of weedfield, rank grass, crack willow (*Salix fragilis*) forest, amenity grass (with mixed specimen trees) and developed land.

The majority of the reserves are contiguous with a mostly narrow fringe of mangrove (*Avicennia marina* subsp. *australasica*) scrub, with small scattered patches of saltmarsh situated between the mangrove scrub and terrestrial sites. The saltmarsh vegetation comprises predominantly oioi (*Apodasmia similis*) and/or sea rush (*Juncus kraussii* subsp. *australiensis*).

Organic waste dumping was noted in Brighams Esplanade, Pohutukawa Esplanade 1 and Waiarohia Esplanade.

Garden encroachment (including pasture encroachment) was noted in Brighams Esplanade, Bristol Road Esplanade Reserve, Rurawaru Esplanade, Waimarie Beach, Pohutukawa Esplanade 1 and Kauri Esplanade.

Herald Island

The reserves on the north-western side of the island comprise mostly garden encroachment with some small local areas of revegetation, amenity grass (with specimen trees) and developed land. The reserves on the south-eastern side of the island comprise a mixture of pohutukawa (*Metrosideros excelsa*) forest, pine/pohutukawa forest and mixed native and exotic treeland.

There are some local patches of mangrove scrub, with associated small scattered patches of saltmarsh situated between the mangrove scrub and terrestrial sites. The saltmarsh vegetation comprises predominantly oioi and/or sea rush.

There is an historic record of a rare plant, *Ranunculus acaulis*, at Kowhai Beach Reserve, Herald Island (Rebecca Stanley, pers. comm.). The presence/absence of this species should be determined before undertaking any management works within the reserve (e.g. a field inspection of the site by a suitably experienced botanist would be required).

Organic waste dumping was noted in Kowhai Beach Reserve.

Garden encroachment (including pasture encroachment) was noted in Landing Esplanade Reserve, Wharf Road Esplanade and Kowhai Beach Reserve.

Hobsonville

Hobsonville Esplanade and Nimrod Esplanade comprise predominantly kanuka scrub. Hobsonville Esplanade also includes large areas of maintained grass and access roads for Defence purposes, along with some local areas of rank grass, manuka (*Leptospermum scoparium*) scrub wetland, flaxland and giant reed (*Arundo donax*) grassland. Nimrod Esplanade includes some local patches of rank grass and crack willow forest.

Scott Esplanade comprises mostly rank grass (pasture) and weed field with some local garden encroachment and coral tree (*Erythrina sykesii*) forest. The weedfield is dominated by brush wattle (*Paraserianthes lophantha*) and Japanese honeysuckle (*Lonicera japonica*), with local she-oak (*Allocasuarina littoralis*), poplar (*Populus* sp.), crack willow. Gorse (*Ulex europaeus*), pampas (*Cortaderia selloana*), tradescantia (*Tradescantia fluminensis*) and periwinkle (*Vinca major*) are common. Scott Road Reserve comprises amenity grass with exotic specimen trees.

There are some local patches of mangrove scrub, with associated small scattered patches of saltmarsh situated between the mangrove scrub and terrestrial areas of Hobsonville and Nimrod Esplanades. The saltmarsh vegetation comprises predominantly oioi and/or sea rush.

Inorganic waste dumping was noted in Nimrod Esplanade and Scott Esplanade.

Garden encroachment was noted in Scott Esplanade. A portion of Hobsonville Esplanade is utilised by The Ministry of Defence (Hobsonville Airbase adjoins this reserve).

West Harbour

Wiseley Esplanade, Berneckers Landing, Clearwater Cove Esplanade, and Marina Esplanade comprise mostly manuka-mapou (*Myrsine australis*) scrub with local kanuka and mahoe (*Melicytus ramiflorus*), with some local areas of revegetation. Marina Esplanade and Marina View Reserve include some large areas of amenity grass with footpaths. There is also a small remnant of towai (*Weinmannia silvicola*) forest north of Clearwater Cove that has unfortunately been topped, presumably to maintain an adjacent landowners view.

Lagoon Way Reserve comprises mostly kanuka forest with some small areas of amenity grass and revegetation.

West Harbour Esplanade comprises mostly kanuka forest with a moderate sized area of kanuka-towai forest in the western part of the reserve. This reserve also includes some areas of amenity grass, along with several footpaths and a footbridge across to Realm Esplanade.

There are some extensive stands of mangrove scrub adjacent to Wiseley Esplanade, Berneckers Landing and the western portion of West Harbour Esplanade, with associated small scattered patches of saltmarsh situated between the mangrove scrub and terrestrial sites. The saltmarsh vegetation comprises predominantly oioi and/or sea rush. There is also a moderate sized area of freshwater wetland situated between Marina Esplanade reserve and Clearwater Cove Esplanade. This wetland comprises a mosaic of raupo (*Typha orientalis*) reedland and Mercer grass (*Paspalum distichum*) - *Carex geminata* agg. grassland, with pampas dominated weedfield on the margins.



Organic waste dumping was noted in Wiseley Esplanade and Berneckers Landing.

Garden encroachment was noted in Berneckers Landing, Marina Esplanade and west Harbour Esplanade.

Royal Heights

Realm Esplanade, Wickstead Strand and the northern part of Colwill Esplanade comprises mostly kanuka scrub, with local patches of kanuka forest, pine forest and amenity grass. The majority of Colwill Esplanade and the north-eastern portion of Lowtherhurst Reserve comprises pohutukawa-puriri-kanuka-kowhai forest and kauri/kanuka-towai-kowhai-tawa forest.

Lowtherhurst Reserve comprises moderate sized areas of amenity grass with mixed specimen trees, giant reed weedfield and rank grass-weedfield, with some local kanuka scrub. Taitapu Park is dominated by exotic species and comprises areas of pine-macrocarpa-black wattle forest, black wattle forest, bamboo, weedfield and amenity grass.

There are some extensive stands of mangrove scrub adjacent to Realm Esplanade, Wickstead Strand and Colwill Esplanade, with associated small local patches of saltmarsh situated between the mangrove scrub and terrestrial sites. The saltmarsh vegetation comprises predominantly oioi and/or sea rush. There is also a small area of raupo reedland adjacent to the southern end of Wickstead Strand.

Organic waste dumping was noted in Realm Esplanade and Taitapu Park.

Garden encroachment was noted in Realm Esplanade, Wickstead Strand and Taitapu Park.

Massey

Chorley Reserve and the eastern part of Sunline Park and Sunline Esplanade comprises mostly pine/kanuka forest and ponga forest. Whilst the remainder of Sunline Park comprises amenity grass. The remainder of Sunline Esplanade comprises mixed native and exotic scrub (including Chinese privet, gorse, kanuka, mahoe and karamu) and amenity grass. Helena Park comprises predominantly pine/kanuka forest and kanuka forest with local amenity grass, crack willow forest and revegetation.

Woodside Reserve comprises mostly amenity grass with local revegetation, kanuka forest, weedfield (including Japanese honeysuckle, Chinese privet and pink bindweed), bamboo, and mixed native and exotic scrub (including gorse, karamu, harakeke and bracken). Riverpark Reserve comprises two large areas of amenity grass with a moderate sized stand of black wattle forest. The foreshore margin comprises mostly mixed native and exotic scrub (including gorse, karamu and ponga).

Penfold Park and Daytona Strand comprise a mixture of mixed native and exotic scrub (including Chinese privet, karamu, mapou and gorse) and black wattle forest, with local crack willow forest, amenity and rank grass.

There is a band of mangrove scrub adjacent to Chorley Reserve, Sunline Park, Riverpark Reserve, Penfold Park and Daytona Strand. These are small scattered patches of oioi and/or sea rush saltmarsh situated between the mangrove scrub and terrestrial sites.

Organic waste dumping was noted in Sunline Esplanade and inorganic waste dumping was noted in Penfold Park.

Henderson

The Concourse Strand Reserve comprises mostly weedfield and rank grass with local tree privet (*Ligustrum lucidum*)-black wattle forest, brush wattle-tree privet forest, pine-eucalyptus forest and amenity grass areas. There are also parts of the reserve which are developed land, being utilised by the adjacent industries, particularly in the northern part of the reserve.

There is an extensive area of mangrove scrub adjacent to the reserve.

Te Atatu Peninsula

Springbank Esplanade comprises mostly black wattle forest with a small area of manuka forest. Hughes Esplanade comprises mostly pine-macrocarpa forest with mixed native and exotic scrub. Taipari Strand comprises mostly amenity grass with local mixed specimen trees, native amenity plantings and developed areas (e.g. carpark, rowing club). There are also some moderate sized areas of revegetation on the margins of the reserve, along with local kanuka forest.

Renata Esplanade and Tawa Esplanade comprise mostly kanuka forest and mixed native and exotic scrub with local black wattle forest and amenity grass, along with patches of scattered exotic trees/shrubs and weeds.

Chapman Strand, Dawnhaven Esplanade, Kelvin Strand comprise some large areas of amenity grass and rank grass with local stands of kanuka forest, kanuka scrub, mapou scrub and saltmarsh ribbonwood (*Plagianthus divaricatus*) saltmarsh. There are also stands of mixed native and exotic specimen trees and mixed native and exotic scrub.

Spinnaker Strand and Waimanu Bay Reserve comprise large areas of amenity grass and rank grass with local areas of revegetation, including two constructed stormwater ponds in Waimanu Bay Reserve. There are local stands of manuka scrub and kanuka scrub, along with a moderate sized area of *Bolboschoenus fluviatilis* wetland in Spinnaker Strand.

There are some extensive patches of mangrove scrub adjacent to Springbank Esplanade, Hughes Esplanade, Dawnhaven Esplanade and Kelvin Strand, with a small patch of sea rush dominated saltmarsh adjacent to Kelvin Strand. There are local stands of mangrove scrub adjacent to the remainder of the reserves in this sub-ward.

No significant organic waste dumping was noted in these reserves.

Garden encroachment was noted in Renata Esplanade, Tawa Esplanade, Dawnhaven Esplanade and Spinnaker Strand.

Te Atatu South

Bridge Avenue Reserve is dominated by the Te Atatu Boating Club and associated hard areas for boat storage and maintenance. There is a small stand of black wattle forest north of the boating club. The part of the reserve to the west of the boating club comprises an area of amenity grass and associated mixed native and exotic amenity planting, extensive weedfield and local rank grass. Covil Park comprises a bowling club and areas of amenity grass with pine-black wattle forest along the foreshore margin.



Tiroroa Esplanade, Roberts Field, McLeod Esplanade, Tirimoana Road Esplanade Reserve and Meadow Glade comprise mostly mixed native and exotic scrub with local patches of amenity grass. There are also local patches of Japanese cedar (*Cryptomeria japonica*) forest, pine-Sydney golden wattle (*Acacia longifolia*) forest, pine forest, weedfield, kanuka-mamaku scrub, black wattle forest, pine-black wattle forest and garden encroachment.

McLeod Park comprises sports fields with a fringe of mixed native and exotic scrub around the foreshore with some revegetation on the margins of the sports field area. Marsh Esplanade comprises garden encroachment.

Valron Esplanade and the western part of Laurieston Park comprise predominantly mixed native and exotic forest including pine, eucalyptus, kauri (*Agathis australis*) emergent over kanuka and Sydney golden wattle. Chinese privet (*Ligustrum sinense*), mapou, ponga (*Cyathea dealbata*) and shining karamu (*Coprosma lucida*) are common. There is a stand of mixed native and exotic scrub in the northern part of Valron Esplanade, along with a stand of bamboo and a patch of jasmine (*Jasminum polyanthum*) vineland. The eastern part of Laurieston Park comprises kanuka forest and amenity grass with scattered exotic specimen trees. Some revegetation has been undertaken along the kanuka forest margin.

There are extensive patches of mangrove scrub, with associated small scattered patches of oioi and/or sea rush saltmarsh located adjacent to all these reserves, with the exception of Bridge Avenue Reserve which has some smaller local patches of mangrove adjacent to it.

Organic waste dumping was noted in Bridge Avenue Reserve, Covil Park and Laurieston Park.

Garden encroachment was noted in Bridge Avenue Reserve, Marsh Esplanade, Meadow Glade and Laurieston Park.

Glendene

Hepburn Esplanade Reserve comprises rank grass. Harbour Reserve and Span Farm Esplanade comprise a mixture of developed land (utilised by adjacent industrial properties), mixed native and exotic scrub (comprising Chinese privet, karamu, brush wattle and gorse) and weedfield (comprising brush wattle, Chinese privet, Japanese honeysuckle and blue morning glory).

Akatea Park comprises amenity grass and an area of Brazilian pepper tree (*Schinus terebinthifolius*)-tree privet-Chinese privet forest, kanuka forest and a stand of kauri forest. Harmel Reserve comprises kanuka forest, amenity grass and mixed native and exotic scrub with some revegetation on the margins of the scrub. Rerewai Reserve comprises predominantly kanuka forest with two local patches of exotic specimen trees.

There is a band of mangrove scrub, with associated small scattered patches of oioi and/or sea rush saltmarsh adjacent to most of the reserves.

Organic waste dumping was noted in Harmel Reserve.

New Lynn

Aronui Esplanade comprises a mix of kanuka forest, mixed native and exotic treeland, weedfield, giant reed, developed land

and bamboo. Keiman Esplanade and Cobham Reserve comprises mixed native and exotic scrub (including monkey apple (*Acmena smithii*), kanuka, karamu, ponga and Chinese privet), garden encroachment, pine forest, coral tree forest, revegetation, amenity grass and weedfield (including pampas and canna lily). Kelston Marginal Strip comprises an area of rank grass with local kohuhu (*Pittosporum tenuifolium*) and flax.

There is a band of mangrove scrub, with associated small scattered patches of oioi and/or sea rush saltmarsh adjacent to most of the reserves.

Garden encroachment was noted in Kieman Esplanade and Cobham Reserve.



Appendix 3

Inventory of Archeological sites on the Waitemata Harbour Foreshore Reserves

There are over 1000 recorded archeological sites within Waitakere. They provide a general indication of the nature of settlement, and the history of the region, both Maori and European.

For commercial industries, access to the harbour was the main means for transport, so was critical for survival. This is reflected in the European archeological sites that exist on the Waitemata Harbour Foreshore Reserves.

These sites range from coastal middens relating to Maori occupation through to remnant brickworks and timber milling industries. Most of the midden sites have been modified through erosion as a result of natural processes, and development.

Recorded sites have been gathered from the following sources,

- The New Zealand Archeological Association Site Record File (NZAA)
- Auckland Regional Council Cultural Heritage Inventory (ARC)

Key

Mi	=	Midden
SMi	=	Shell Midden
P	=	Preserved
D	=	Destroyed
M	=	Modified
H	=	Historic structure
E	=	Eroded
Da	=	Damaged
B	=	Brickworks
S	=	Settlement
HB	=	Historic Botanical
MA	=	Maritime
SR	=	Significant Remains

Reserve Name	State	Type	Site No.	Description
Akatea Park	P	HB	ARC - 2229	Kauri tree, <i>Agathis australis</i> , situated on banks of the Wairau creek.
Berneckers Landing	E	SMi	ARC - 12229 NZAA - R11/1974	Subject to continued natural erosion. Situated in the Esplanade Reserve and amongst a pocket of native bush. A single 150mm lens of shell midden eroding out and down western bank of a small stream, discharging into Limeburners Bay. (Cockle, pipi, oyster, and charcoal).
Bridge Avenue Reserve	D (some)	Mi	ARC - 5919 NZAA - R11/458	In grass beneath pohutukawa. Some damage due to persons trampling. Thin layer of shell over 10m by 3m area on gentle southern slopes of point. Mostly cockle.
	E(some)	SMi	ARC - 5920 NZAA - R11/459	1-2m above sea level, exposed in top bank, 100m south of motorway bridge. 5x0.5m exposure of shell layer on edge of natural terrace, 1-2m above small shelly beach. (choine, crassestrea, amphibela, and alcithse)
		M	ARC - 202	Ketch - Edith, 1905
Bristol Road Esplanade Reserve	Da	SM	ARC - 5562 NZAA - R10/230	1-5m above sea level in sea banks. 100x30x0.2 layer of shell contains chione, amphibola, crassotrea and pipi.
Cobham Reserve	D	SM	ARC - 5912 R11/451	On top and bank of point, west side of Whau River. Patches up to 10x10m up to 0.3m thick along 150m of coastline. Contains chione, ostrea, charcoal.
Covil Park	D(some)	SM	ARC - 5918 NZAA - R11/457	On slopes, 5-10m from edge of Whau Inlet. In grass, some mower damage. Shell, scattered, 0.2m thick, (cockle).
Chapman Strand	D	S	NZAA - R11/216	At the northeast end of Te Atatu Peninsula is an attractive sheltered bay, mostly sandy. Access down a right of way at the end of Te Atatu Road. There is a grassy area back from the beach, then the land rises up to the level top of the peninsula. Along the top of this rise at least 4 pits were located, size were about 5ft x8ft. Until about 1840 Maori families lived permanently at this bay, and one lady – Mrs Wipene was a model for a David Goldie painting. Several areas around the bay used for gardens in Maori times, as well as European times. The semi volcanic soil produced good kumera.



Reserve Name	State	Type	Site No.	Description
	P	HB	ARC - 2241	Loquat tree, unlikely to have historical significance.
	P	HB	ARC - 3292	Taikata Sailing Clubrooms.
	D	M	ARC - 1366 NZAA - R11/464	Situated around the Taikata Sailing Clubhouse. Destroyed through formation of building. patches of shell up to 0.2m thick, exposed in small cuttings on gentle slopes above back of beach. (cockle).
	D	B	ARC - NZAA - R11/1988	Hartshorne Brickworks. No visible remnants of the works remain. An outline of a borrow pit can be seen on an 1960's aerial.
Christmas Beach	Da	M	ARC - 5551 NZAA - R10/219	1m above sea level in top of low sea bank beneath large natural flat, 5 m east of concrete steps. 0.1m layer of shell beneath 0.2m soil, exposed for 10m. Mostly cockle.
	P	HB	ARC - 2269 NZAA -	Pohutukawa Trees, 12 in total behind 88 The Terrace.
		H	ARC - 3712 NZAA -	Historic Jetty, still standing but in a state of disrepair.
Ferry Parade	E	M	ARC - NZAA - R11/501	The midden is located at the rear of 59 Ferry Parade, in the lawn and foreshore scarp. A single lens of shell midden out of the foreshore cliff top 4m ASL. 300mm thick, exposed at the base of a large plane tree. Contains whole and fragmented shell, (cockle, pipi, dog cockle, oyster and charcoal).
Hobsonville Esplanade	Da	M	ARC - 5951 NZAA - R11/491	Active coastal erosion. 2-3m above sea level on sloping sea bank above shelly beach and mangroves.
	Da		ARC - 5949 NZAA - R11/489	2m at top of low cliffs, 3m outside perimeter of bomb dump. 1x0.2m shell layer exposed beneath 0.2m soil. Chione and amphibola.
	Da	SM	ARC - 5950 NZAA - R11/490	Near airbase bomb dump. 2m outside perimeter fence, and 3m behind foreshore noticeboard. 6 x 0.3m layer exposed on former sloping cliff on edge of large flat. Chione and

Reserve Name	State	Type	Site No.	Description
				crassostrea.
Kauri Esplanade	D	M	NZAA - R11/502	In the foreshore scarp of the Esplanade and lawns of 137 and 139 Kauri Road Whenuapai. Remnants are eroding out of track in gardens of 137 and 139. The owner reported that the foundations of 137 were poured into the midden. Mr Watts collected artefacts of stone and bone that he collected during the construction.
	D	M	R11/1976	Damaged during construction of landing with continued erosion. A single, 100mm thick lens of shell midden visible for 4m along the foreshore. Whole and fragmented shell, (cockle, mudsnail, oyster, pipi and charcoal).
Kelvin Strand	E	M	NZAA - R11/463	In top of 1m high sea bank behind shelly beach, beneath macrocapa tree. 0.3m thick layer of shell exposed for 20m. (chione, amphibola, crassostrea and pipi).
Kingsway Reserve		HB	ARC - 2275	Pohutukawa tree
Kowhai Beach Reserve	E	M	ARC - 5959 NZAA - R11/499	In the western corner of a small bay on the eastern side of the headland, at walkway behind 21/23 Ferry Parade. Site eroding out of the foreshore scarp. 300mm thick and visible for 10m along scarp. Contains whole and fragmented shell (cockle, mudsnail, oyster, whelk and charcoal).
	E	M	NZAA - R11/1994	Patches of a single lens of shell midden eroding out of the foreshore scarp. Whole and fragmented shell, (cockle, whelk, dog cockle, mudsnail, pipi, oyster and charcoal.)
Laurieston Park	E	SM	ARC - 5915 NZAA - R11/454	In cutting of track down to water, on edge of flat atop banks,. 5x0.3m layer exposed beneath 0.2m soil.
	P	B	ARC - 144 NZAA - R11/1989	Remains include cuttings, wooden piles, tramway and brick debris along the foreshore, and structural features, including rectangular platforms and an intact



Reserve Name	State	Type	Site No.	Description
				kiln floor. (some remains not currently on reserve land)
	D	H	ARC - 3279	Cemetery, all trace of them is lost. 1870s graves in the reserve on the bank were 2 graves of men who worked in the Laurie Brothers Brickyard.
Lowtherhurst Reserve	Da	M	R11/472	In foreshore scarp and amongst tree roots at mouth of small inlet immediately east of the falls. Whole and fragmented shell (cockle, whelk, pipi and charcoal).
Marina Esplanade	E	M	ARC - 4940 NZAA - R11/480	Eroding out of cliff face. Shell midden scatter exposed on surface. (pipi, cockle, scallop, mudsnail and oyster).
	Da	M	ARC - 11628 NZAA - R11/481	End of Seacreast Drive. Destroyed through landscaping. A single lens of midden eroding out of the foreshore scarp. 300mm thick in patches, visible for 12m along the foreshore. Contains whole and fragmented shell (cockle, mudsnail, oyster, whelk, pipi and charcoal).
	E	M	ARC NZAA - 482	Exposed in bank on south side of small inlet that forms in north boundary of peninsula, onto which Luckens Road leads. Layer of shell up to 0.2m thick exposed in two places on either side of low flat point. (chione and pipi).
Pahiki Reserve		HB	ARC - 2249	Moreton bay fig tree
	E	M	ARC - 5945 NZAA - R11/485	Exposed in top of cliff above long sandy beach, beside jetty and large puriri. 4m long exposure of shell up to 0.2m thick. (Chione, alcithce, crassotrae, amphibola, cstrea, pecten and pipi).
Realm Esplanade	D	M	R11/474	In front lawn of 361 Royal Road. Disturbed by development. Layer of shell up to 0.2m thick over

Reserve Name	State Type		Site No.	Description
				20x10m area. (chione, crassostrea, amphibola, and pipi).
Renata Esplanade	D	SM	ARC - 5927 NZAA - R11/466	Partly damaged by Wharf Road, cutting and natural erosion. In grass beneath pines. 10m length of exposure of shell layer up to 1m thick. (Chione, amphibola, crassostrea, charcoal, pipi and burnt stones).
Riverpark Reserve		MA	ARC - 586 NZAA -	Priors Landing. Wharf and landing for sailing cutters from 1840. refer Part three of this Reserve Management Plan.
Scott Esplanade	E	M	ARC - 5778 NZAA - R11/112	It is situated in a clump of bush (1965) about 200 yards from the road and on the banks above the sea shore. Cattle and sheep have trampled the area.
Spinnaker Strand	E	M	ARC - NZAA - R11/293	End of Spinnaker Drive. Follow track north east along side the small stream to the coast. The site is situated at the top of the bank and along the coastal foreshore at the end of the track. 40mx20m area of shell midden exposed at surface. A stepped pathway has destroyed part of the site. (cockle, oyster, pipi)
	P	M	ARC - NZAA - R11/290	End of Beach Road, right hand side, where the land starts to slope down toward the beach. Extensive midden and some possible terraces can be seen on the adjacent paddock.
Taitapu Park	D	M	ARC - 5931 NZAA - R11/470	Taitapu Road Massey, on point north of Huruhuru Creek. Appears that site was destroyed when the substation was constructed at the location.
		M	ARC - 5932 NZAA - R11/471	Over surface and down banks at the very tip of sharp point on west side of mouth of Huruhuru Creek and beyond end of Taitapu Road, Massey. Layer of shell up to 0.3m thick (chione, amphibola, pecten, cominella adpersa, cressostrea, and pipi).



Reserve Name	State	Type	Site No.	Description
Taipari Strand	E	M	ARC - 5928 NZAA - R11/467	On slopes of low point at the end of Matipo Road, Te Atatu Peninsula. 20-50m from end of road, on slopes below track to Henderson Creek. 2-5m ASL. In grass beneath karakas Patches up to 0.3m thick. (chione)
mangroves.	Da	M	ARC - 5929 NZAA - R11/46	1m above sea level in sloping bank behind SW side of creek, 250m n of motorway bridge.
Tawa Esplanade		SM	ARC - 5926 NZAA - R11/465	In bank and over edge of flat point, on north side of of Wharf Road. In grass beneath pines. 10m length of exposure of shell layer, 1m thick around edge. Contains chione, amphibola, crassotrea, charcoal, pipi and burnt stones.
	SR	B	ARC - NZAA - R11/1987	Auckland Brick and Tile Company. 1880s. concrete foundations remain, concrete floor slabs, large area reclaimed for working and landing area. Brick debris in foreshore. Large boggy area could be remains of pug mills.
Waimaire Beach	Da	SM	ARC - 5558 NZAA - R10/266	50m west of boat ramp at end of wharf road, west end of Whenuapai Point.
Waimanu Bay Reserve	Da	M	ARC - 263 NZAA -	
	Da	M	ARC - 5818 NZAA - R11/295	In low scrub, disturbed by tracks and rubbish dumping. On both sides of small gully towards south of former harbour board land.
	Da	S	ARC - 11276 NZAA - R11/1465	Historic house Chimney, at risk of severe damage
	Da	SM	ARC - 11277 NZAA - R11/1466	At risk of severe damage.
	M		ARC - 11278	At risk of severe damage.

Reserve Name	State	Type	Site No.	Description
West Harbour Esplanade	Da	M	ARC - 5779 NZAA - R11/1467	Partly damaged, at risk of severe damage.
	E	M	ARC - 5779 NZAA - R11/114	Luckens Beach, West Harbour. In foreshore scarp and grassed area above the beach on the northern side of Luckens Point, opposite West Harbour Marina. Midden is visible in patches for 15m along the foreshore scarp and a scatter of disturbed shell in the reserve. 200mm thick contains whole and fragmented shell. (cockle, mudsnail, oyster, pipi, charcoal, heat fractured rock).
	D	M	ARC - 5936 NZAA - R11/475	Opposite Da Vinci Place. Only surface scatter of shell remains, 6mx10m area. remnant of intact lens at the foreshore edge. (cockle, whelk, mudsnail, pipi and charcoal.
	D	SM	ARC - 5937 NZAA - R11/476	Area in clay and partly destroyed. Layer of shell up to 0.2m thick over a 50x30cm of gently sloping land above Henderson Creek. (Chione, amphibola, ostrea, crassostrea, pecten and pipi).
	E	SM	ARC - 5938 NZAA - R11/477	5m ASL above muddy Bay, eroding from sloping land 200m west of mainpoint forming west side of the mouth of the Henderson Creek north of Te Atatu Peninsula. 0.3 m exposure of layer of shell up to 0.3mm thick. (Chione, Crassostrea and pipi).
	SM		ARC - 5939 NZAA - R11/498	In foreshore scarp if sandy beach below Luckens Point, access down bulldozed track in south eastern corner of Luckens Reserve, West Harbour.



Reserve Name	State	Type	Site No.	Description
	D	SM	ARC - 12230 NZAA - R11/1975	West Harbour Esplanade, West Harbour. Situating at the base of a steep bank on the eastern side of Luckens Point, 3-4 m ASL and immediately above a stormwater manhole. 200mm thick lens of shell midden visible for 5m, and another lens above the track. Whole and fragmented shell. Amongst native regenerating bush. (cockles, pipis, whelk, charcoal).
		HB	ARC - 2264	Pine trees, 19a West harbour Drive, Hobsonville
		HB	ARC - 2332	Pine trees
Wickstead Strand E		SM	ARC - 5935 NZAA - R11/474	Royal Road Massey. At the eastern end of Royal Road, on the foreshore, and front lawn of 361 Royal Road. A single lens of shell midden eroding out of the foreshore scarp. Contains whole and fragmented shell, (cockle, mudsnail, pipi and charcoal).
Wiseley Esplanade	SR	B	ARC - NZAA - R11/1508	Carders Brickworks (including Clarks Brickworks). Site consists of a number of pits and excavated holes. Decaying hulks and barges related to the industry are located in the mangroves. Considerable modification of the shoreline has taken place, indicative of the industry. Other remains, settling tanks, wells, workshop floors, remains of 5 kilns, salt glazed flues, pipe extruders, other bits of machinery and, wasters pits and a myriad of drains and cobbled paths. The Clark end of the site has been extensively damaged through subdivision.
Woodside Reserve	SR	HS	ARC - 12245 NZAA - R11/1995	Timber Holding Dam, Remnants of a timber holding dam. Built in 1850s. 4 cill slots, 4x10 postholes in stream bed, some visible in western bank.

Kowhai • Kotare

harbour coastline ecosystem

Appendix 4

Plant Lists for Harbour Ecosystems

KEY ♥ Nurse plant ■ Main component ✚ rare ✕ toxic to toddlers 🌊 coastal sites only 🍄 epiphyte
For restoration, in this habitat: ●●● plant liberally ●● plant generally ● plant sparingly

Recommended planting sites

			Gully Head	Boggy Area	Coastal Escarpment	Sharp Ridge	Steep Slope	Valley Bottom	Broad Ridge	Gentle Slope	Alluvial Flat/Tce
Tall trees											
<i>Agathis australis</i>	kauri	■				●			●	●	
<i>Dacrycarpus dacrydioides</i>	kahikatea	■	●	●				●			●●
<i>Metrosideros excelsa</i>	pohutukawa	🌊	●				●		●	●	
<i>Phyllocladus trichomanoides</i>	tanekaha					●●	●		●	●	
<i>Podocarpus totara</i>	lowland totara								●	●	●
<i>Prumnopitys ferruginea</i>	miro		●						●	●	
<i>Prumnopitys taxifolia</i>	matali									●	●
Medium trees											
<i>Alectryon excelsus</i>	titoki		●				●	●		●	●
<i>Beilschmiedia tarairi</i>	tarairi [local]		●●					●		●	
<i>Beilschmiedia tawa</i>	tawa		●				●●			●	
<i>Corynocarpus laevigatus</i>	karaka	✕■	●				●●			●	●
<i>Dysoxylum spectabile</i>	kohekohe	■	●●				●●	●		●	
<i>Elaeocarpus dentatus</i>	hinau						●		●		
<i>Knightia excelsa</i>	rewarewa		●			●	●		●	●	
<i>Kunzea ericoides</i>	kanuka	♥■			●	●●●	●	●	●●●	●●●	●●●
<i>Laurelia novae-zelandiae</i>	pukatea			●●							●●
<i>Litsea calicaris</i>	mangeao					●	●		●		
<i>Metrosideros excelsa</i>	pohutukawa	♥■			●	●	●				●
<i>Nestegis lanceolata</i>	white maire						●		●	●	●
<i>Pittosporum eugenioides</i>	tarata, lemonwood								●	●	●
<i>Pittosporum tenuifolium</i>	kohuhu							●	●	●	
<i>Pouteria costata</i>	tawapou	🌊					●		●	●	●
<i>Sophora chathamica</i>	kowhai	✕■				●●	●●		●	●	●
<i>Sophora microphylla</i>	kowhai	✕■				●●	●●	●		●	●
<i>Vitex lucens</i>	puriri	■	●				●	●	●	●	●
Small trees/large shrubs											
<i>Alseuosmia macrophylla</i>	toropapa		●				●		●	●	
<i>Aristotelia serrata</i>	makomako, wineberry		●					●			
<i>Avicennia marina</i>	manawa, mangrove [estuary]										
<i>Brachyglottis repanda</i>	rangiora	✕♥■	●				●●	●		●●	
<i>Carmichaelia australis</i>	NZ broom					●	●		●		
<i>Coprosma arborea</i>	mamangi	♥■					●			●●	
<i>Coprosma lucida</i>	shining karamu	♥■			●	●●●	●●		●●●	●●	●●
<i>Coprosma macrocarpa</i>	coastal karamu		●			●	●		●●	●●	●●
<i>Coprosma robusta</i>	karamu	♥	●			●	●	●●●	●●●	●●●	●●●
<i>Coriaria arborea</i>	tutu	✕♥	●		●		●	●●			●
<i>Cordyline australis</i>	ti kouka, cabbage tree	■		●●●				●●			●●
<i>Cordyline banksii</i>	ti ngahere, forest cabbage tree						●	●	●	●	

Key: ● fully tolerant ◐ tolerates some ✕ not tolerant

◈ tolerates shade during establishment ◊ needs some shade to establish ○ shade needed at base

Tolerance							Comments
Sun	Shade	Dry	Moist	Boggy	Poor clay	Harsh wind	
○	◈	◐	●	✕	●	◐	
●	◈	✕	●	●	✕	✕	
●	✕	●	●	✕	◐	◐	
●	◐	●	●	✕	●	◐	
●	◐	●	●	✕	◐	◐	
○	◊	◐	●	✕	✕	◐	
●	◈	◐	●	✕	✕	◐	
●	◊	✕	●	✕	✕	✕	
●	◊	✕	●	✕	✕	◐	
○	◊	✕	●	✕	✕	✕	
●	◊	◐	●	✕	◐	✕	
●	◐	◐	●	✕	◐	◐	
●	◐	●	●	✕	●	●	
○	◊	✕	◐	●	✕	✕	
●	◊	●	●	✕	●	◐	
●	✕	●	●	✕	●	●	
○	◐	◐	●	✕	◐	✕	
●	◐	◐	●	✕	◐	●	
●	◐	◐	●	✕	◐	◐	Kowhai distribution:
●	◐	●	●	✕	✕	●	Sophora chathamica is found mostly on forest margins and
●	◈✕	◐	●	✕	✕	◐	lowland sites. Plant east of Scenic Drive and Cornwallis.
●	◈✕	●	●	✕	✕	◐	Sophora microphylla has a wide habitat range and occurs
●	◐	◐	●	✕	✕	✕	throughout Waitakere on terraces and hillslopes.
◐	●	✕	●	✕	✕	✕	
○	●	✕	●	✕	✕	✕	
●	◊	✕	●	●	✕	✕	Requires estuarine conditions
●	◐	◐	●	✕	●	◐	
●	◊	✕	●	◐	◐	✕	
●	◊	◐	●	✕	✕	✕	
●	◐	●	●	✕	●	●	
●	◐	◐	●	✕	◐	◐	
●	◈✕	●	●	✕	●	◐	
●	◐	●	●	✕	◐	◐	
●	◐	◐	●	●	◐	●	
●	◐	●	●	✕	◐	◐	

Kowhai • Kotare

harbour coastline ecosystem

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For restoration, in this habitat: ●●● plant liberally ●● plant generally ● plant sparingly

Recommended planting sites

Small trees/large shrubs continued			Gully Head	Boggy Area	Escarpment	Sharp Ridge	Steep Slope	Valley Bottom	Broad Ridge	Gentle Slope	Alluvial Flat/Tce
<i>Cyathea dealbata</i>	ponga, silver tree fern	■	●●				●●	●	●●	●●●	●●
<i>Cyathea medullaris</i>	mamaku, black tree fern		●●●				●●●	●●		●	●
<i>Cyathodes juniperina</i>	prickly mingimingi					●			●		
<i>Dicksonia squarrosa</i>	wheki										●
<i>Dodonaea viscosa</i>	akeake					●	●				
<i>Entelea arborescens</i>	whau	🌊	●					●			
<i>Geniostoma rupestre</i>	hangehange	♥■	●●●		●	●	●●●	●●●	●●●	●●●	●●●
<i>Griselinia lucida</i>	puka				●●	●					
<i>Hedycarya arborea</i>	pigeonwood		●●				●	●	●	●	●●
<i>Hoheria populnea</i>	houhere, lacebark	♥■	●●				●●	●●		●	
<i>Leptospermum scoparium</i>	manuka	♥■	●●	●●		●●●	●●	●●●	●●●	●●●	●●●
<i>Leucopogon fasciculatus</i>	mingimingi					●●●	●	●	●●●	●●●	●
<i>Macropiper excelsum</i>	kawakawa	♥■	●●●				●●	●	●	●●	●●
<i>Melicope ternata</i>	wharangi	🌊✚	●				●		●	●	
<i>Melicytus macrophyllus</i>	large leaved mahoe		●			●			●	●	
<i>Melicytus micranthus</i>	manakura									●	●
<i>Melicytus ramiflorus</i>	mahoe	♥■	●●●				●●	●	●	●●	●
<i>Mida salicifolia</i>	maire taiki							●		●	●
<i>Myoporum laetum</i>	ngaio	🌊✕				●	●				
<i>Myrsine australis</i>	mapou, red matipo	■				●●	●●	●	●●	●●●	●●
<i>Olearia furfuracea</i>	akepiro	♥■				●●	●●		●●●	●●	
<i>Olearia rani</i>	heketara		●●				●●	●			
<i>Olearia solandri</i>	coastal tree daisy	🌊♥		●							●
<i>Pittosporum crassifolium</i>	karo										●
<i>Pseudopanax arboreus</i>	whauwhaupaku, fivefinger		●				●	●	●	●●	
<i>Pseudopanax crassifolius</i>	horoeka, lancewood		●			●	●		●●	●●	
<i>Pseudopanax lessonii</i>	houpara	🌊	●			●	●		●●	●●	
<i>Schefflera digitata</i>	pate		●●				●	●●		●	●
<i>Sophora fulvida</i>	west coast kowhai	🌊✕■			●●●	●●					
<i>Streblus heterophyllus</i>	turepo		●					●		●	●●
<i>Rhopalostylis sapida</i>	nikau	■	●●	●●			●●	●●		●●	●●
<i>Toronia toru</i>	toru					●●			●●	●	
Shrub & flax-like plants											
<i>Brachyglottis kirkii</i> var. <i>angustior</i>	kohurangi, Kirk's daisy					●	●		●	●	
<i>Coprosma propinqua</i>	mingimingi			●							
<i>Coprosma rhamnoides</i>					●●●	●●		●●●	●●	●●	
<i>Coprosma spathulata</i>						●●	●		●●●	●●	●●
<i>Corokia buddleioides</i>	korokio					●				●	
<i>Corokia cotoneaster</i>	bluff korokio				●	●					
<i>Dracophyllum sinclairii</i>	spiderwood					●●			●●	●	
<i>Freyinetia banksii</i>	kiekie		●●	●●				●●			

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Tolerance							Comments
Sun	Shade	Dry	Moist	Boggy	Poor clay	Harsh wind	
○	◑	●	●	✕	●	✕	
○	◑	✕	●	✕	◐	◐	
●	●	●	●	✕	●	✕	
○	◑	✕	●	✕	✕	✕	
●	✕	●	●	✕	●	●	
●	◐	●	●	✕	✕	✕	
●	●	◐	●	✕	◐	◐	
●	◐	●	●	✕	◐	◐	
●	◐	●	●	✕	◐	✕	
●	◈	●	●	✕	◐	✕	
●	✕	●	●	◐	●	●	
●	◐	●	●	✕	◐	◐	
○	●	●	●	✕	◐	◐	
●	◐	●	●	✕	◐	◐	
●	◐	●	●	✕	◐	✕	
◐	◐	●	●	✕	◐	✕	
●	◐	●	●	✕	◐	✕	
◐	◐	●	●	✕	●	●	
●	◈	●	●	✕	●	●	
●	◐	●	●	✕	◐	●	
●	◐	●	●	✕	◐	◐	
●	✕	✕	●	✕	●	●	
●	◐	●	●	✕	◐	●	
●	◐	✕	●	✕	◐	✕	
●	◐	●	●	✕	◐	✕	
●	◐	●	●	✕	◐	●	
○	◈	✕	●	✕	◐	✕	Kopikahi distribution: Sophora fulvida grows on rock outcrops and bluffs west of Scenic Drive, including the West Coast and Manukau Harbour, from Whatipui to Cornwallis.
●	◐	●	●	✕	◐	●	
○	◐	✕	●	✕	◐	✕	
○	◐	✕	●	✕	◐	◐	
●	◐	●	●	✕	◐	◐	
◐	●	✕	●	✕	✕	✕	
●	✕	✕	●	●	◐	◐	
●	●	●	●	✕	●	●	
◐	●	●	●	✕	●	✕	
◐	●	●	●	✕	●	✕	
●	◐	●	●	✕	●	●	
●	●	●	●	✕	●	✕	
○	◑	✕	●	●	✕	◐	

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Recommended planting sites

Shrub & flax-like plants continued

			Gully Head	Boggy Area	Rock-land	Sharp Ridge	Steep Slope	Valley Bottom	Broad Ridge	Gentle Slope	Alluvial Flat/Tce
<i>Gaultheria antipoda</i>	bush snowberry					●					
<i>Hebe macrocarpa</i>	koromiko					●●	●		●		
<i>Hebe stricta</i>	koromiko	♥				●			●	●	
<i>Leionema nudum</i>	mairehau					●			●		
<i>Melicope simplex</i>	poataniwha					●			●	●	●
<i>Phormium cookianum</i>	wharariki, mountain flax	♥■			●●	●●	●●				
<i>Phormium tenax</i>	harakeke, flax	♥■		●●●				●			●
<i>Pimelea longifolia</i>	taranga, long-leaved pimelia					●			●		
<i>Pittosporum cornifolium</i>	tawhirikaro	🍄			●	●	●				
<i>Plagianthus divaricatus</i>	marsh ribbonwood	🐟					●			●	
<i>Pomaderris kumeraho</i>	kumerahou					●	●		●●	●	
<i>Pomaderris phyllifolia</i>	tauhinu				●	●●			●●		
<i>Rhabdodhamus solandri</i>	taurepo				●		●				
<i>Typha orientalis</i>	raupo			●							

Vines and trailers

	powhiwhi, convolvulus			●				●			●
<i>Clematis forsteri</i>	puataua, scented clematis				●						
<i>Clematis paniculata</i>	puawananga, bush clematis		●				●	●	●	●●	
<i>Metrosideros carminea</i>	akakura, carmine rata	✚			●		●			●	
<i>Metrosideros fulgens</i>	rata vine		●				●	●		●●	
<i>Metrosideros perforata</i>	akatea, small white rata		●		●●		●			●●	
<i>Parsonsia heterophylla</i>	kaiku, NZ jasmine						●			●●	●●
<i>Passiflora tetrandra</i>	kohia, NZ passion vine	🐟	●					●		●	●●
<i>Ripogonum scandens</i>	kareao, supplejack		●●	●			●●	●●		●	●
<i>Rubus australis</i>	bush lawyer						●	●	●	●	
<i>Rubus cissoides</i>	tataramoa, bush lawyer		●				●●	●	●	●●	●●

Ferns

<i>cunninghamii</i>	common maidenhair				●		●		●	●	
<i>Adiantum fulvum</i>	downy maidenhair									●	●
<i>Adiantum hispidulum</i>	rosy maidenhair				●		●				
<i>Adiantum viridescens</i>							●			●	
<i>Asplenium flabellifolium</i>	necklace fern				●		●				
<i>Asplenium flaccidum</i>	makawe, hanging splewort	🍄				●	●		●	●	●
<i>Asplenium lamprophyllum</i>	glossy asplenium						●		●		

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Tolerance							Comments
Sun	Shade	Dry	Moist	Boggy	Poor clay	Harsh wind	
●	◐	●	●	✕	●	●	
●	◐	●	●	✕	●	◐	
●	◐	●	●	✕	●	●	
●	●	●	●	✕	●	✕	
●	◐	●	●	✕	●	●	
●	◐	●	●	✕	●	●	
●	✕	◐	●	●	◐	●	
●	◐	●	◐	✕	◐	✕	
◐	◐	●	●	✕	✕	✕	
●	✕	✕	●	●	✕	●	Natural neighbours: plant marsh ribbonwood in the salt marsh zone, between mangroves and land shrubs, such as pōi and mingimingi (<i>Coprosma propinqua</i>)
●	✕	●	●	✕	●	◐	
●	✕	●	✕	✕	●	●	
◐	●	●	●	✕	✕	✕	
●	✕	✕	✕	●	✕	✕	
●	✕	◐	●	●	◐	✕	
●	◐	●	●	✕	✕	✕	
●	◐	✕	●	✕	✕	✕	
●	◐	✕	●	✕	✕	✕	
●	◐	✕	●	✕	✕	✕	
●	◐	✕	●	✕	✕	✕	
●	◐	✕	●	✕	✕	✕	
●	◐	✕	●	✕	✕	✕	
◐	●	◐	◐	✕	✕	◐	
✕	●	✕	●	✕	✕	✕	
●	◐	●	●	✕	✕	✕	
✕	◐	●	●	✕	✕	✕	
●	◐	●	●	✕	✕	✕	
✕	●	✕	●	✕	◐	✕	
✕	●	✕	●	✕	◐	✕	

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 ◆ tolerates shade during establishment ⬤ needs some shade to establish

Ferns continued

		Tolerance						
		Sun	Shade	Dry	Moist	Boggy	Poor clay	Harsh wind
<i>Asplenium oblongifolium</i>	huruhuruwhenua, shining spleenwort	✕	●	✕	●	✕	✕	✕
<i>Asplenium northlandicum</i>	leatherleaf asplenium	●	●	●	●	✕	✕	✕
<i>Asplenium appendiculatum</i> ssp. <i>maritimum</i>		◐	●	◐	●	●	✕	✕
<i>Azolla filiculoides</i>	floating fern			✕		●	✕	✕
<i>Blechnum chambersii</i>	rereti	✕	●	✕	●	✕	✕	✕
<i>Blechnum discolor</i>	piupiu, crown fern	◐	●	✕	●	✕	●	✕
<i>Blechnum filiforme</i>	thread fern	✕	●	✕	●	✕	✕	✕
<i>Blechnum fraseri</i>	hard fern	◐	●	✕	●	✕	✕	✕
<i>Blechnum membranaceum</i>		✕	●	✕	●	✕	✕	✕
<i>Blechnum novae-zealandiae</i>	kiokio	◐	●	✕	●	◐	●	◐
<i>Doodia australis</i>	pukupuku	●	●	●	●	✕	●	●
<i>Doodia mollis</i>	mokimoki	◐	●	●	●	✕	✕	✕
<i>Gleichenia microphylla</i>	waewaekaka	●	✕	◐	●	✕	●	◐
<i>Grammitis pseudociliata</i>		●	●	✕	●	✕	✕	✕
<i>Hymenophyllum</i> spp.	filmy ferns	✕	●	✕	●		✕	✕
<i>Lastreopsis glabella</i>		✕	●	✕	●	✕	✕	✕
<i>Lastreopsis hispida</i>	hairy legs	✕	●	✕	●	✕	✕	✕
<i>Lastreopsis microscora</i>		✕	●	✕	●	✕	✕	✕
<i>Lastreopsis velutina</i>	velvet fern	✕	●	✕	●	✕	✕	✕
<i>Lindsaea linearis</i>		●	◐	●	●	✕	✕	◐
<i>Lindsaea trichomanoides</i>		◐	●	◐	●	✕	●	✕
<i>Lygodium articulatum</i>	mangemange	◐	●	◐	●	✕	●	✕
<i>Paesia scaberula</i>	matata, ring fern	●	◐	◐	●	✕	◐	◐
<i>Pellaea rotundifolia</i>	tawawera, button fern	●	●	◐	●	✕	✕	✕
<i>Phymatosorus scandens</i>	moki, fragrant fern	✕	●	✕	●	✕	✕	✕
<i>Polystichum neozelandicum</i>	tutoke, shield fern	◐	✕	◐	●	✕	✕	◐
<i>Polystichum wawaranum</i>	tutoke, shield fern	◐	✕	◐	●	✕	✕	◐
<i>Pteridium esculentum</i>	bracken	●	◐	●	●	✕	◐	●
<i>Pteris macilentia</i>	sweet fern	✕	●	✕	●	✕	✕	✕
<i>Pteris tremula</i>	turawera, trembling brake	✕	●	✕	●	✕	✕	✕
<i>Pyrrosia eleagnifolia</i>	leatherleaf fern	◐	●	◐	●	✕	✕	◐
Low ground plants								
<i>Apium prostratum</i>	sea celery	●	✕	●	●	✕	✕	●
<i>Astelia banksii</i>	coastal astelia	●	◐	●	◐	✕	✕	●
<i>Astelia solandri</i>	kowharawhara, perching lily	●	●	●	●	✕	✕	●
<i>Astelia trinervia</i>	kauri grass	◐	●	◐	●	✕	✕	✕
<i>Calystegia soldanella</i>	nihinihi, shore bindweed	●	✕	◐	●	✕	✕	◐
<i>Celmisia major</i> var. <i>major</i>	Waitakere rock daisy	●	✕	●	✕	✕	✕	●
<i>Centella uniflora</i>	marsh pennywort	●	◐	●	●	✕	●	●
<i>Collospermum hastatum</i>	kahakaha	●	●	◐	●	✕	✕	◐

Kowhai • Kotare

harbour coastline ecosystem

ecosystem three

Key: ● fully tolerant ◐ tolerates some ✕ not tolerant ☞ epiphyte
 ♦ tolerates shade during establishment ⬆ needs some shade to establish

			Tolerance						
			Sun	Shade	Dry	Moist	Boggy	Poor clay	Harsh wind
Ferns continued									
<i>Asplenium oblongifolium</i>	huruhuruwhenua, shining spleenwort		✕	●	✕	●	✕	✕	✕
<i>Asplenium northlandicum</i>	leatherleaf asplenium		●	●	●	●	✕	✕	✕
<i>Asplenium appendiculatum</i> ssp. <i>maritimum</i>			◐	●	◐	●	●	✕	✕
<i>Azolla filiculoides</i>	floating fern				✕		●	✕	✕
<i>Blechnum chambersii</i>	rereti		✕	●	✕	●	✕	✕	✕
<i>Blechnum discolor</i>	piupiu, crown fern		◐	●	✕	●	✕	●	✕
<i>Blechnum tiliforme</i>	thread fern		✕	●	✕	●	✕	✕	✕
<i>Blechnum fraseri</i>	hard fern		◐	●	✕	●	✕	✕	✕
<i>Blechnum membranaceum</i>			✕	●	✕	●	✕	✕	✕
<i>Blechnum novae-zealandiae</i>	kiokio	♥	◐	●	✕	●	◐	●	◐
<i>Doodia australis</i>	pukupuku		●	●	●	●	✕	●	●
<i>Doodia mollis</i>	mokimoki		◐	●	●	●	✕	✕	✕
<i>Gleichenia microphylla</i>	waewaekaka		●	✕	◐	●	✕	●	◐
<i>Grammitis pseudociliata</i>			●	●	✕	●	✕	✕	✕
<i>Hymenophyllum</i> spp.	filmy ferns		✕	●	✕	●		✕	✕
<i>Lastreopsis glabella</i>			✕	●	✕	●	✕	✕	✕
<i>Lastreopsis hispida</i>	hairy legs		✕	●	✕	●	✕	✕	✕
<i>Lastreopsis microsora</i>			✕	●	✕	●	✕	✕	✕
<i>Lastreopsis velutina</i>	velvet fern		✕	●	✕	●	✕	✕	✕
<i>Lindsaea linearis</i>			●	◐	●	●	✕	✕	◐
<i>Lindsaea trichomanoides</i>			◐	●	◐	●	✕	●	✕
<i>Lygodium articulatum</i>	mangemange		◐	●	◐	●	✕	●	✕
<i>Paesia scaberula</i>	matata, ring fern		●	◐	◐	●	✕	◐	◐
<i>Pellaea rotundifolia</i>	tawawera, button fern		●	●	◐	●	✕	✕	✕
<i>Phymatosorus scandens</i>	moki, fragrant fern		✕	●	✕	●	✕	✕	✕
<i>Polystichum neozelandicum</i>	tutoke, shield fern		◐	✕	◐	●	✕	✕	◐
<i>Polystichum wawranum</i>	tutoke, shield fern		◐	✕	◐	●	✕	✕	◐
<i>Pteridium esculentum</i>	bracken		●	◐	●	●	✕	◐	●
<i>Pteris macilentia</i>	sweet fern		✕	●	✕	●	✕	✕	✕
<i>Pteris tremula</i>	turawera, trembling brake		✕	●	✕	●	✕	✕	✕
<i>Pyrrosia eleagnifolia</i>	leatherleaf fern	☞	◐	●	◐	●	✕	✕	◐
Low ground plants									
<i>Apium prostratum</i>	sea celery		●	✕	●	●	✕	✕	●
<i>Astelia banksii</i>	coastal astelia	☞	●	◐	●	◐	✕	✕	●
<i>Astelia solandri</i>	kowharawhara, perching lily	☞	●	●	●	●	✕	✕	●
<i>Astelia trinervia</i>	kauri grass		◐	●	◐	●	✕	✕	✕
<i>Calystegia soldanella</i>	nihinihi, shore bindweed		●	✕	◐	●	✕	✕	◐
<i>Celmisia major</i> var. <i>major</i>	Waitakere rock daisy		●	✕	●	✕	✕	✕	●
<i>Centella uniflora</i>	marsh pennywort		●	◐	●	●	✕	●	●
<i>Collospermum hastatum</i>	kahakaha	☞	●	●	◐	●	✕	✕	◐

Appendix 5

West Harbour Esplanade Management Details

2005/06 Weed Management Revegetation Programme West Harbour Esplanade

Thankyou for forwarding extracts from the weed management and planting plan relating to the above. We have reviewed the draft proposal.

We have also referred for guidance to the following:

1. Native to the West. A guide for planting and restoring the nature of Waitakere City by Waitakere City Council page 36-43 harbour coastline ecosystem and to
2. The Gardener's Encyclopaedia of New Zealand Native Plants by Yvonne Cave and Valdo Paddison

The options to ensure weed control and enhancement that we seek are either:

1. Restore the mowable areas to what they formally were. Plant the remaining unmowable area with items growing up to 3 metres.

We have ticked in the plant schedules sent to us and/or items selected from the Shrub & flax like plants

Low ground plants

Grasses Sedges Rushes

sections of Native to the West. A guide for planting and restoring the nature of Waitakere City by Waitakere City Council page 38-43 harbour coastline ecosystem

or

2. Plant the whole area shown on the plan with items growing up to 3 metres.

We have ticked in the plant schedules sent to us and/or items selected from the Shrub & flax like plants

Low ground plants

Grasses Sedges Rushes

sections of Native to the West. A guide for planting and restoring the nature of Waitakere City by Waitakere City Council page 38-43 harbour coastline ecosystem

We believe the reserve will be best enhanced by up to 3 metres in height shrub planting because:

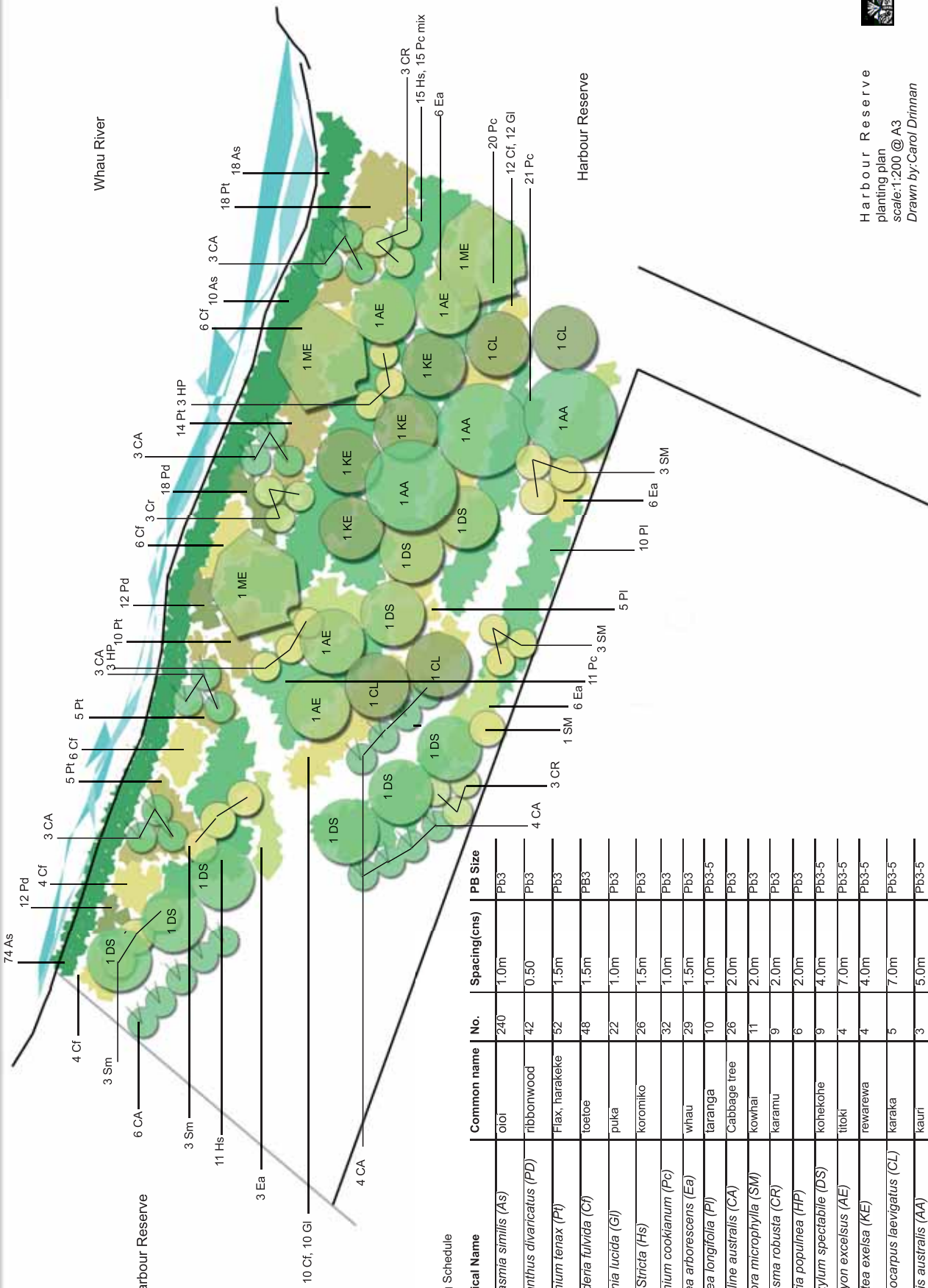
The reserve is already skirted by large trees therefore more, especially more manuka is not needed. Existing vegetated areas need a tidy fringe.

When in the reserve there are already large trees on one side and a vegetated steep bank on the other side which have the effect of enclosure.

Being a south facing slope sunlight in the grassed reserve is at a premium in the winter months and low height plantings will have less of an adverse impact.

We wish to maintain the views down into the reserve and beyond that we and others have always enjoyed.

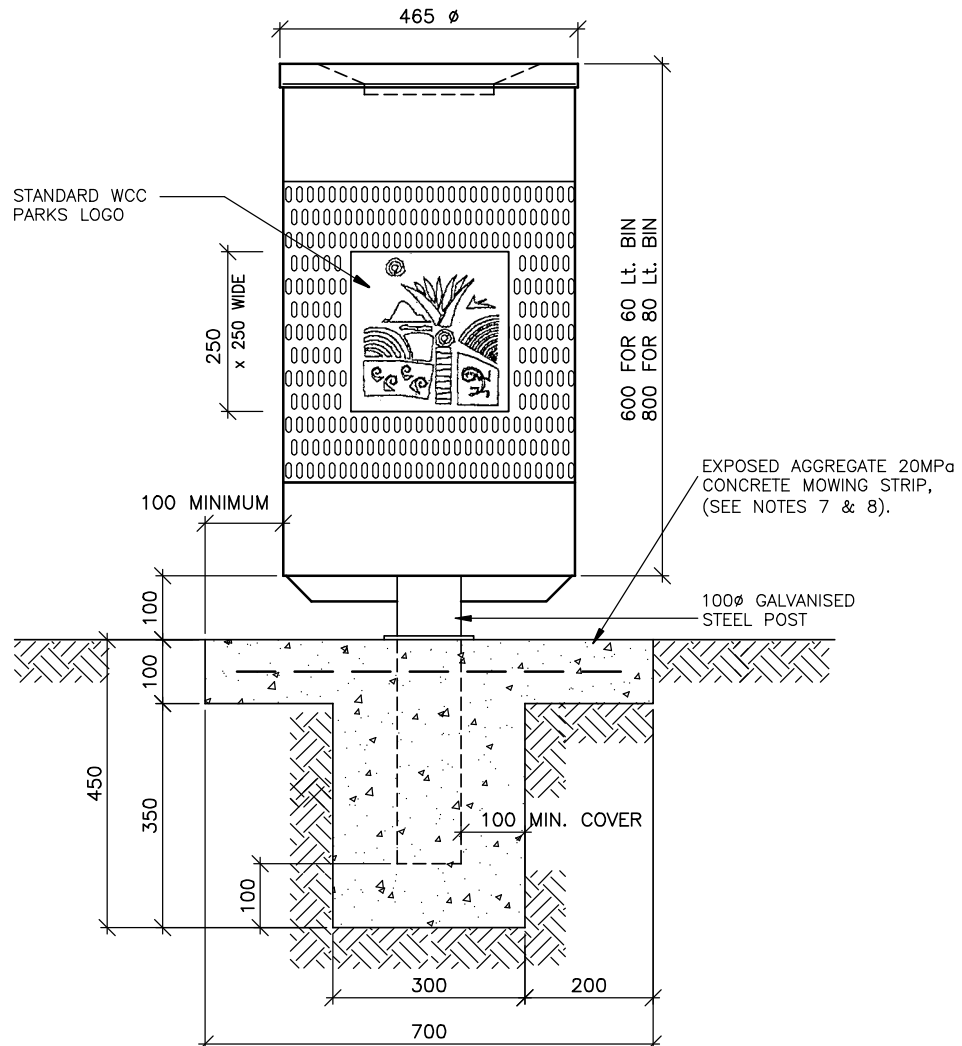
These options will achieve the objectives of weed control for the council, enhance the reserve for everyone and ensure the full support of residents who are the people most affected and most likely to contribute by eliminating weeds on their adjoining properties and taking an interest in the success of the project.



Harbour Reserve
planting plan
scale: 1:200 @ A3
Drawn by: Carol Drinnan

Appendix 6 Parks Standards

CODE OF PRACTICE FOR CITY INFRASTRUCTURE AND LAND DEVELOPMENT



FOOTING DETAIL
SCALE 1:10

NOTES / SPECIFICATIONS

1. Bins body manufactured from 1.5mm thick 304 stainless steel.
2. Lid 2.0mm thick spun 304 stainless steel, with 200 dia hole, hinged and fitted with SFNZ lock.
3. 100 dia galvanised post with groundlevel flange.
4. Standard Parks logo (square) on front of bin body.
5. Available in 60 litre or 80 litre options.
6. 60 lt. or 80 lt. galvanised liner p/c Tuscan Red.
7. Slab finish: 10–13mm aggregate, exposed using Rugasol to provide even aggregate finish and waterblasted to remove slurry & produce even exposed finish.
8. Reinforced 665 mesh centrally placed, supported on approved spacers/chairs, ensure min. 50mm coverage of concrete.
9. Reinstated with topsoil & grassing to be flush with concrete.

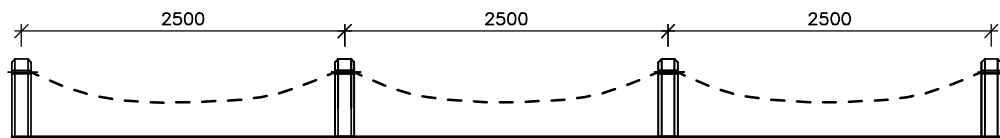
ENGINEERING
STANDARDS MANUAL

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LITTER BIN STAINLESS STEEL

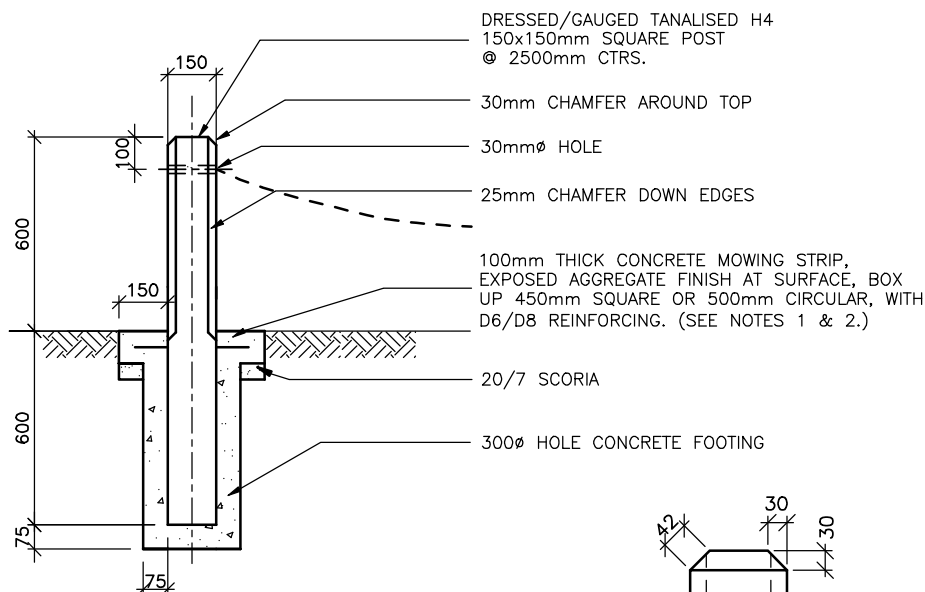
STANDARD DETAIL

SD7.03B

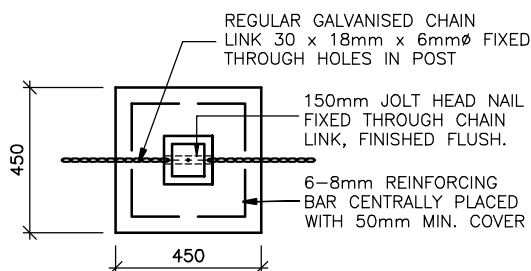


ELEVATION
SCALE 1:50

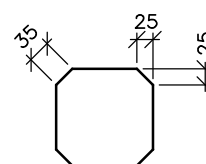
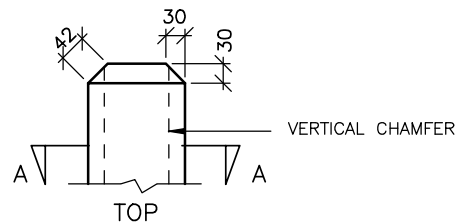
NOTE
WHERE BOLLARDS ARE USED WITHOUT CHAIN
THEY SHALL BE PLACED @ 1500mm CTRS,
(AND NO HOLES IN POSTS REQUIRED).



TYPICAL SECTION
SCALE 1:20



PLAN
SCALE 1:20



SECTION AA
CHAMFER DETAIL
SCALE 1:10

NOTES

1. Slab finish: 10-13mm aggregate, exposed using Rugasol to provide even aggregate finish and waterblasted to remove slurry and produce even exposed finish.
2. Reinforcing bar 6-8mm, centrally placed, ensure min. 50mm coverage of concrete.
3. Reinstate with topsoil & grassing to be flush with concrete.

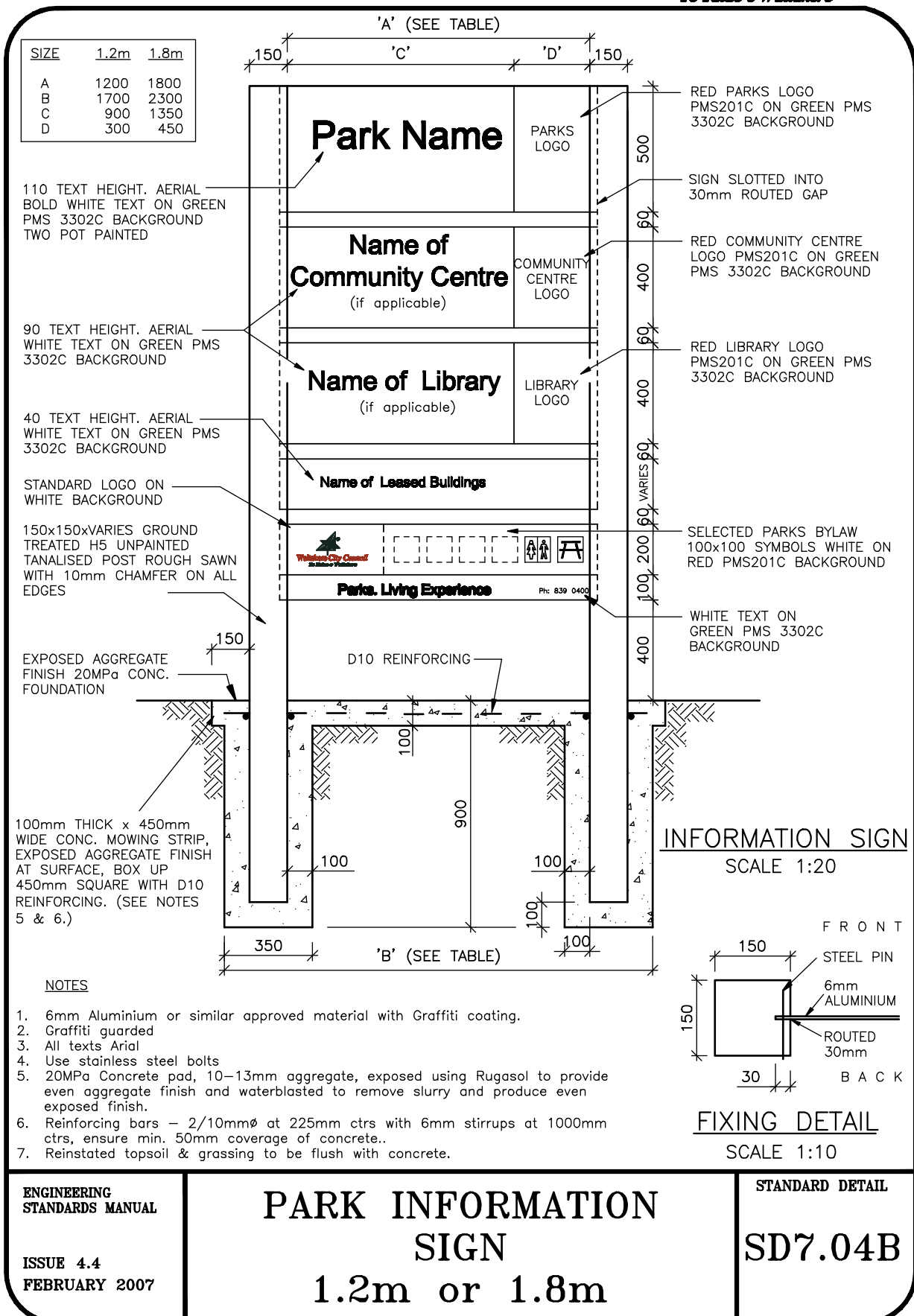
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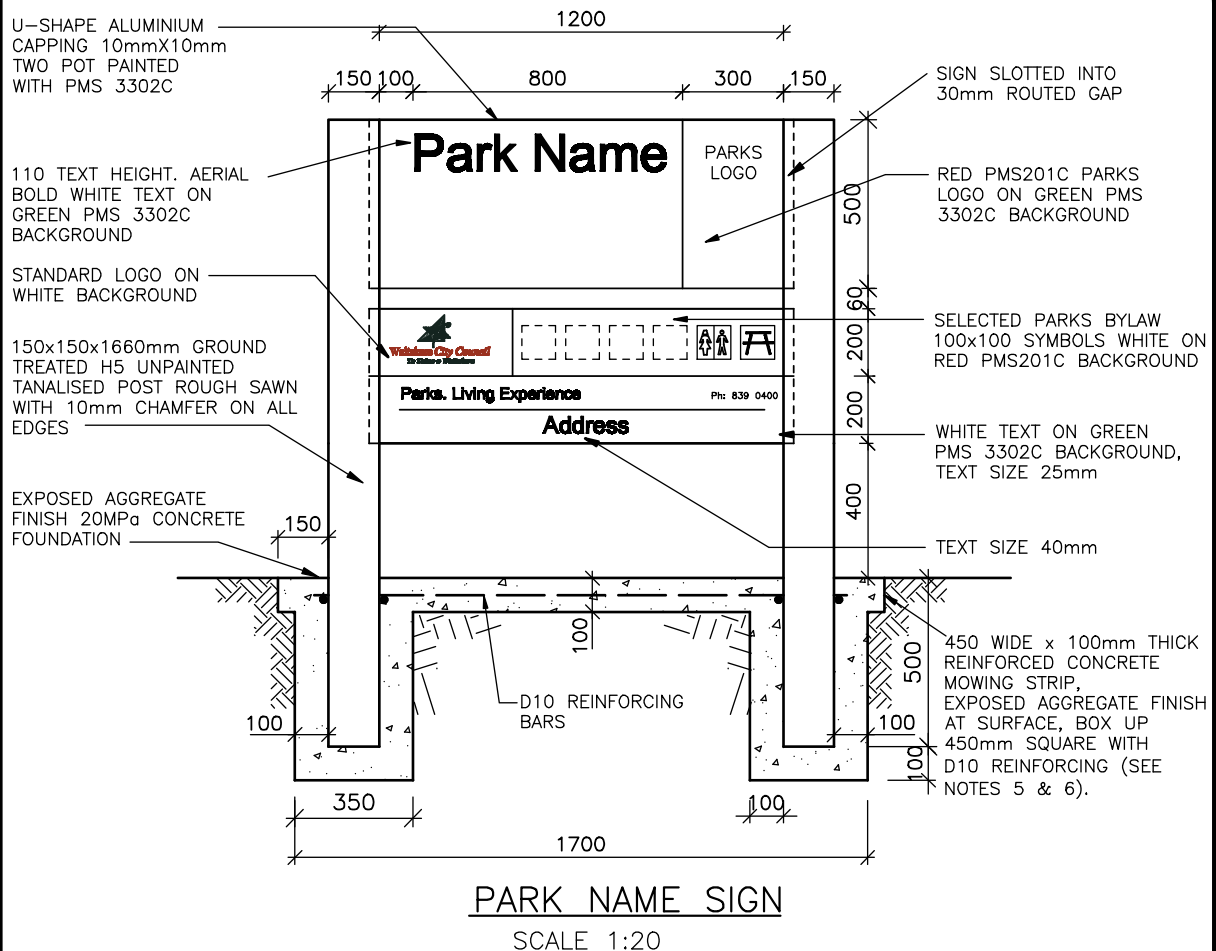
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WOODEN BOLLARD & CHAIN FENCE

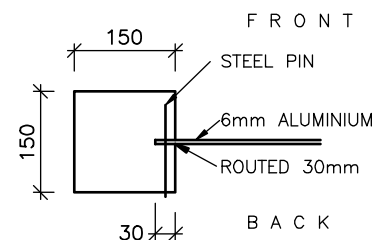
STANDARD DETAIL

SD7.05A



**NOTES**

1. 6mm Aluminium or similar approved material with Graffiti coating.
2. Graffiti guarded.
3. All texts Arial
4. Use stainless steel bolts
5. Concrete pad— 20MPa exposed aggregate.
10–13mm aggregate, exposed using Rugasol to provide even
aggregate finish and water blasted to remove slurry and produce
even exposed finish.
6. Panels are painted in each corner using 100mm long galvanised
steel pins. Holes are drilled thru, the rear of the post half way
through the aluminium. the steel pins are punched through the
aluminium into the front half of the post.
7. Reinforcing bars – 2/10mm ϕ at 225mm strs with 6mm stirrups
at 1000mm ctrs., ensure min. 50mm coverage of concrete.
8. Reinstated with topsoil & grassing flush with concrete.

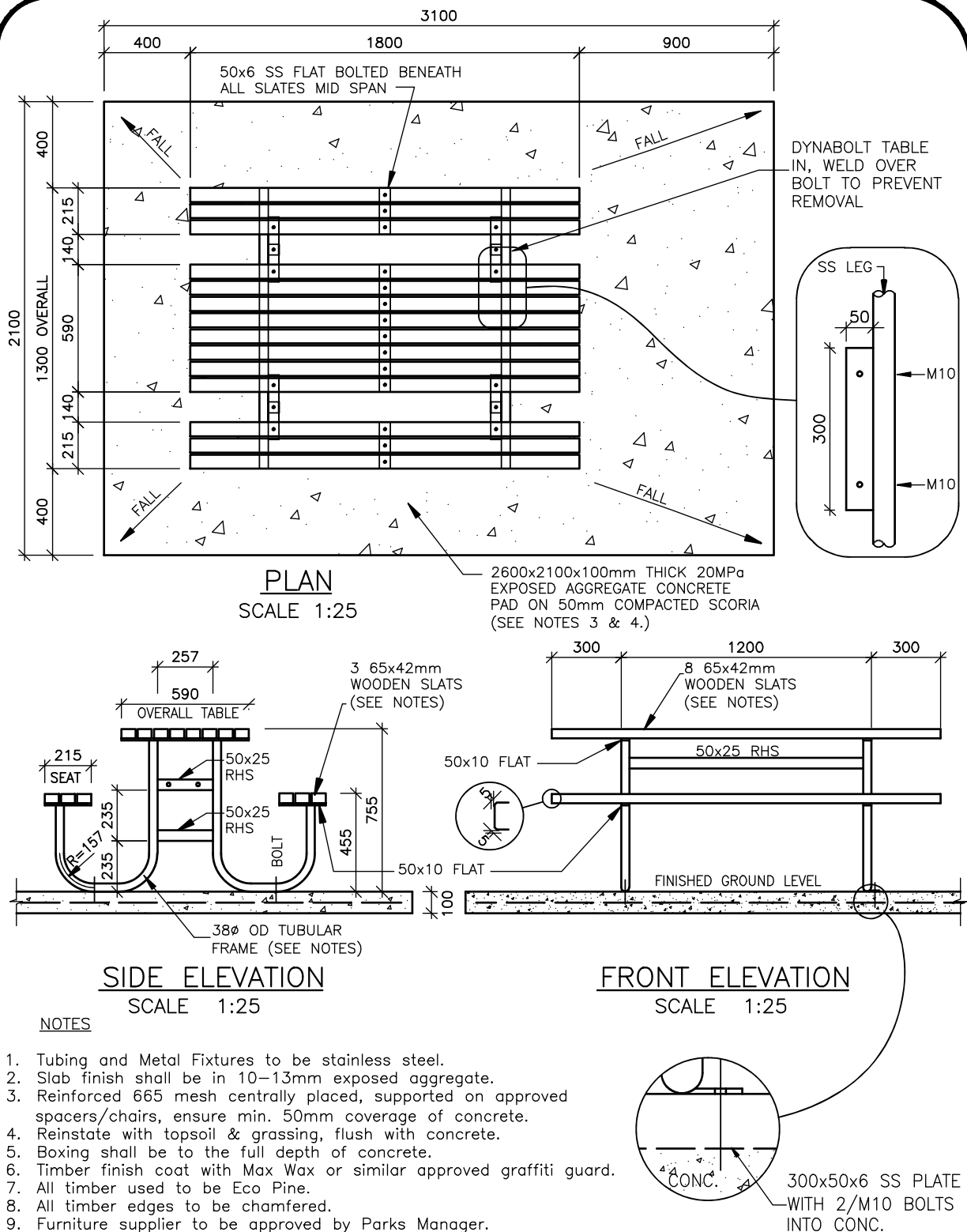
**FIXING DETAIL**

SCALE 1:10

ENGINEERING
STANDARDS MANUALISSUE 4.4
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SIGN**

STANDARD DETAIL

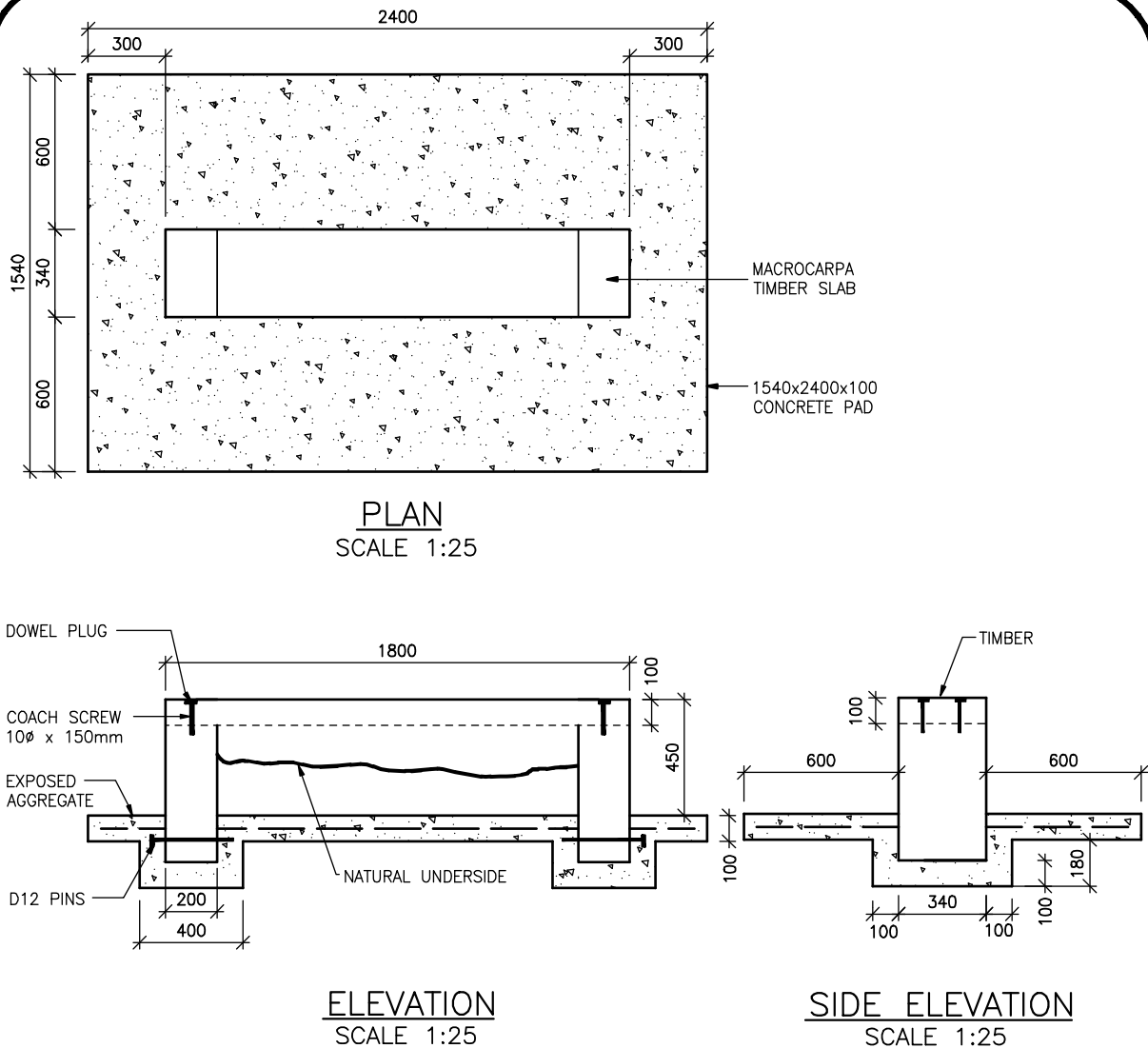
SD7.04A

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PICNIC TABLE

STANDARD DETAIL

SD7.02A

**NOTES**

1. Timber to be Macrocarpa or similar.
2. Concrete pad 1540x2400x100 20MPa exposed aggregate.
3. Seat square dressed 3 sides with underside left natural or dressed.
4. Underground portion of legs undercoated with suitable material as approved by Parks Manager.
5. Tapered dowel bungs fixed with 2 pot epoxy glue & sanded flush.
6. D12 pins fixed with two pot epoxy mortar.
7. Furniture supplier to be approved by Parks Manager.
8. Slab finish: 10–13mm aggregate, exposed used Rugasol to provide even aggregate finish and waterblasted to remove slurry and produce exposed finish.
9. Reinforced 665 mesh centrally placed, supported on approved spacers/chairs, ensure min. 50mm coverage of concrete.
10. Reinstate with topsoil & grassing flush with concrete.
11. Boxing must be to the full depth of concrete to be poured.
12. Timber finish with max wax or similar approved graffiti guard.

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**ISSUE 4.4
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SLAB SEAT

STANDARD DETAIL

SD7.01A

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