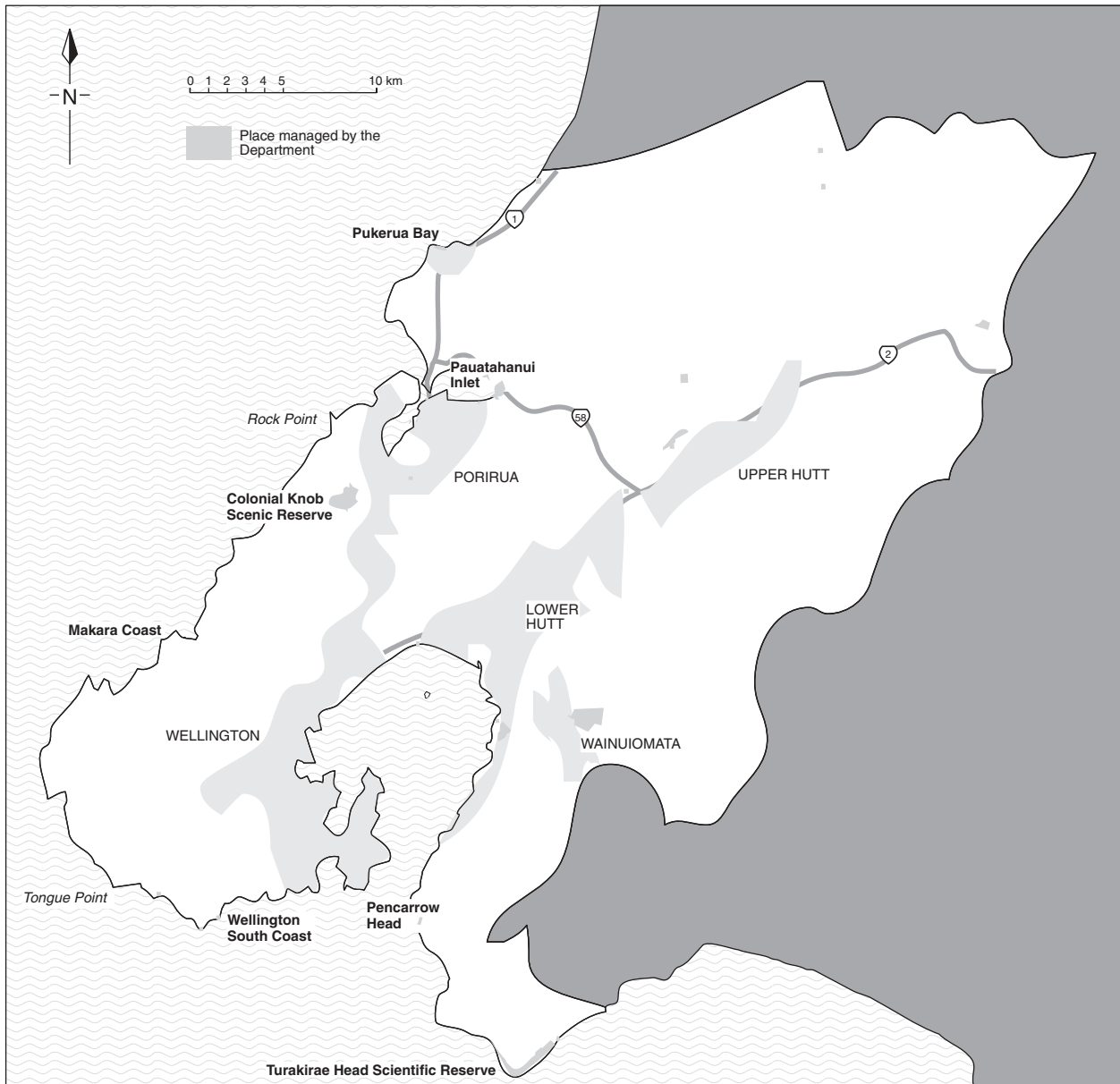


Map 17:  
Wellington



## 6. Wellington

### 6.1 OVERVIEW

#### Description

This area is west of Rimutaka Forest Park and south of Pukerua Bay. It encompasses the Wellington Peninsula, Pauatahanui Inlet towards its northern end, the Hutt Valley, and the coastal strip incorporating Eastbourne and south to Turakirae Head. [see Map 17, p 52] The area straddles the Cook Strait and Wellington Ecological Districts (within the Cook Strait Ecological Region); land adjacent to Rimutaka Forest Park is within the Tararua Ecological District. Only 4% of the mainland portion of the Cook Strait Ecological District and 6% of the Wellington Ecological District are legally protected for nature conservation. The geological composition, faulting and character of the area has a close affinity with the north part of the Marlborough Ecological Region.

This area has a distinctive Cook Strait “flavour”, with fault-induced landscape features, rugged coastline and, apart from the broad floor of the Hutt Valley, a hilly landscape. Little remains of the pre-settlement vegetation on the peninsula: 90% was cleared of native forest by 1900 and the bush is today mostly secondary growth.

Most protected natural areas subject to some form of legal protection are mature forest remnants; a few are coastline, wetlands or regenerating bush. In general the large, forested reserves in the area are administered by Wellington Regional Council. The Department has a focus in the Wellington region on coastal and wetland areas, particularly because many threatened plant and animal species survive in these areas, they contain historic and archaeological sites, and because Wellington has several seal haulouts.

The iwi resident in this area are Taranaki Whanui ki te Upoko o te Ika a Maui and Ngati Toa Rangatira.

#### Values

- There are continuous areas of seral and mature forest on the Eastbourne foothills, along the scarp of the Wellington Fault, which forms the abrupt western boundary to the Hutt Valley, and on the Hutt Valley foothills. These areas form important corridors of vegetation for wildlife, and in some places they provide a continuum of native vegetation from montane forest in the Tararua Range southwards to the coast. Secondary growth bush in gullies on the Wellington Peninsula also creates the habitat linkages critical for native wildlife. There are younger phases of regrowth still developing under dense gorse on the urban fringes. In aggregate they form a maturing outer greenbelt around the cities, and will become a dominant forest landscape and wildlife habitat within several decades.
- Wellington’s foreshore changed last century after two major earthquakes raised the rocky wave-cut platforms above sea level. The Pencarrow lakes and Taupo Swamp were formed from tidal inlets, and Pauatahanui

Inlet was shallowed to create an extensive area of estuarine saltmarsh. Unmodified coastline survives in pockets.

- The coast above mean high water mark has many conservation values. The steep cliffs and scree slopes have retained much of their natural character. The cliffs support specialised plants such as a vulnerable button daisy (*Leptinella nana*) and the giant bidibidi (*Acaena pallida*) and animals such as the endangered Whitaker's skink (*Cyclodina whitakeri*) and the brown speargrass weevil (*Lyperobius huttoni*), and cicada (*Maoricicada myersi*) (Appendix 1) at the mouth of the Orongorongo River. Little blue penguins are found in both natural and urban areas of the coastline, and New Zealand fur seals have haulouts along the Wellington south coast and at Turakirae Head.
- Historical features around the Wellington area include Maori pa, garden and fortification sites in coastal areas, shipwrecks, lighthouses, early settlement buildings, gold mining and logging industry relics, and military fortifications. The Department manages two historic buildings: the old wooden Government Buildings and Turnbull House (both Category I).
- Most of the recreational opportunities within the Wellington area are managed by Councils. Areas managed by the Department provide opportunities to view wildlife or for day walks, and have high visitor numbers. The level of use of public land is increasing, although growth of passive recreation demand is anticipated to be higher than for active recreation. There are a growing number of technology-based recreation activities which can create additional pressures on natural resources, e.g., scuba diving, trail-biking, mountain biking, and use of 4-wheel drive vehicles. One-third of all international summer visitors pass through Wellington, most arriving by car.
- Geological features include fossils at Rock Point, Tongue Point marine terraces, Red Rocks pillow lavas and thrusts, the raised beaches at Turakirae Head, Makara sedimentary inlet, Lake Kohangapiripiri and Kohangatira raised beaches, William Street uplifted beach ridge (Petone), Wellington Fault, Pitarua Street exposure and Harcourt Park.
- In Wellington Harbour are three small islands – Somes (Matiu), Mokopuna and Ward (Makaro).

## Threats

There is increased risk of fire, especially in areas with high recreational use and close to neighbouring urban residences. The extensive areas of gorse around Wellington add to the fire risk. Burning gorse eliminates broadleaved native species which regenerate under it. Repeated burning will deplete the soil and remove the seed sources of plants other than gorse.

Urban development in Wellington continues to threaten the viability of remaining natural and physical resources, especially the resulting pollution of coastal and freshwater areas. In addition proposals for roading affect foreshore and estuarine areas, and quarrying and mining operations in coastal environments affect natural and historic resources and significant landscapes and landforms.

Populations of coastal herbs and shrubs are greatly diminished as a result of goat browse, and erosion has increased. Regeneration beneath coastal forest is being inhibited. Most of the goats are feral populations from farm stock.

Coastal forest around Wellington contains kohekohe, which is particularly susceptible to possum browse. This forest type is reduced to isolated fragments around Wellington's coastal escarpments. Weakened by possum browse, the small stands are particularly susceptible to storm damage.

Pressure of visitor numbers and inappropriate behaviour around wildlife and in sensitive areas requires extra management input to provide facilities, to provide information and have a staff or volunteer presence at times of high use.

Botanical values within the coastal environment have diminished greatly over the past few decades, and now 29 plant species are considered regionally and/or nationally threatened.

### Key Conservation Issues for the Department

- Restoration of highly modified environments. Wellington has traditionally viewed with resignation clay banks and gorse around the city, but native vegetation communities are re-establishing and there is enormous potential for restoration within and around urban areas.
- Protection of marine mammals and coastal wildlife.
- Protection of natural and historic resources and significant landscapes and landforms from the adverse effects of gravel mining and quarries.
- Impacts of goats, possums on coastal vegetation and other natural areas.
- Access for recreation is not permitted to water supply catchments, yet they provide significant recreation opportunities and have outstanding conservation values in addition to their values for water and soil conservation. Animal pest monitoring and adequate control will make a significant contribution to retaining those values. The Department will advocate the water supply catchments be managed to protect their natural resources and to provide recreational opportunities to the public. *[refer Section 8, p 95]*
- Dissemination of recreation information. The Department has increased the range of information available in recent years, but should improve its dissemination, especially to international visitors in the Wellington urban area.
- Reduction of outbreaks of fire in gorse hillsides adjacent to or on areas managed by the Department.
- Urban-based conservation. Visiting protected areas does not, in itself, instil a conservation ethos. There are several key opportunities for the Department to bring conservation issues to residents' "back yards", through involvement in, or education about, neighbourhood conservation issues. Within the Wellington area, Pauatahanui Inlet, Whitireia Park, the South Coast and the proposed Karori Reservoir Wildlife Sanctuary project in particular offer community-based opportunities. *[refer Sections 6.4, p 61 and 6.7, p 68]*
- Support for the proposal to establish a Native Wildlife Sanctuary in the old Karori reservoirs. The reservoir catchment comprises 250 ha of regenerating hardwood forest 3 km from central Wellington. The concept is to restore the site as a refuge for indigenous species, by fencing the catchment with a predator/browser fence, by eradicating all goats, possums, cats, rats and other predators in the area, and by establishing breeding populations of indigenous birds, reptiles and invertebrates. An interpretation centre for visitors is intended and will

provide information about the species in the sanctuary and the current status of New Zealand's natural resources. The Department will be represented on future Boards for the project and will continue to provide technical advice and support.

- The need for integrated management of areas with conservation values by the Department, iwi, local government, communities and land owners to conserve natural and historic resources; the need for integrated management of the environment to protect natural resources. The town belt areas and some other areas managed by local authorities and the Wellington Regional Council are ecologically significant. Management to sustain their ecological values is a high priority.
- PNA and complementary surveys required in the Wellington area are:
  - HIGH priority: Cook Strait Ecological District
  - MEDIUM priority: Wellington Ecological District
  - LOW priority: Tararua Ecological District
- Key areas for protection:
  - Cook Strait Ecological District: forested areas, significant wetlands, escarpment
  - Wellington Ecological District: pre-European vegetation, second growth links, significant wetlands
  - Tararua Ecological District: lowland forest with connections to existing protected areas

[refer Table 9, p 166]

- The Whitireia Park Board is appointed to control and manage Whitireia Park under the Reserves Act 1977. The Park is the northern end of Te Onepoto Peninsula, which forms the western arm of Porirua Harbour. The Board membership represents community, iwi, local authority and Department interests. Day-to-day management is carried out by the Department on behalf of the Board.

Whitireia Park has outstanding conservation values.

Onehunga Bay is associated with the landing of Kupe's canoe. There are pa, terrace, pit and midden sites throughout the reserve. Whitireia Park was part of an area donated by Ngati Raukawa, Ngati Toa and Ati Awa in 1848 for a college and was brought by the Crown in 1976 from the Otaki and Porirua Trust, which uses the funds from the sale for educational training.

The reserve is the only known mainland site for the nationally vulnerable *Hebe elliptica* var. *crassifolia* and the only North Island site for the tiny herb *Leptinella nana*.

The reserve is a significant open space for recreation, offering one of the few opportunities in the region for wandering at will across pasture, as well as offering educational opportunities for visiting a rocky coastline.

Management issues at the reserve are maintenance of toilets and signs to a high standard in an area where vandalism occurs regularly, the risks of fire in gorse areas adjacent to housing, maintaining the open farmland character, controlling plant pests such as gorse, boneseed and boxthorn, administering the golf club lease and seeking to include in the Park Radio New Zealand land when it is no longer needed for radio transmission.

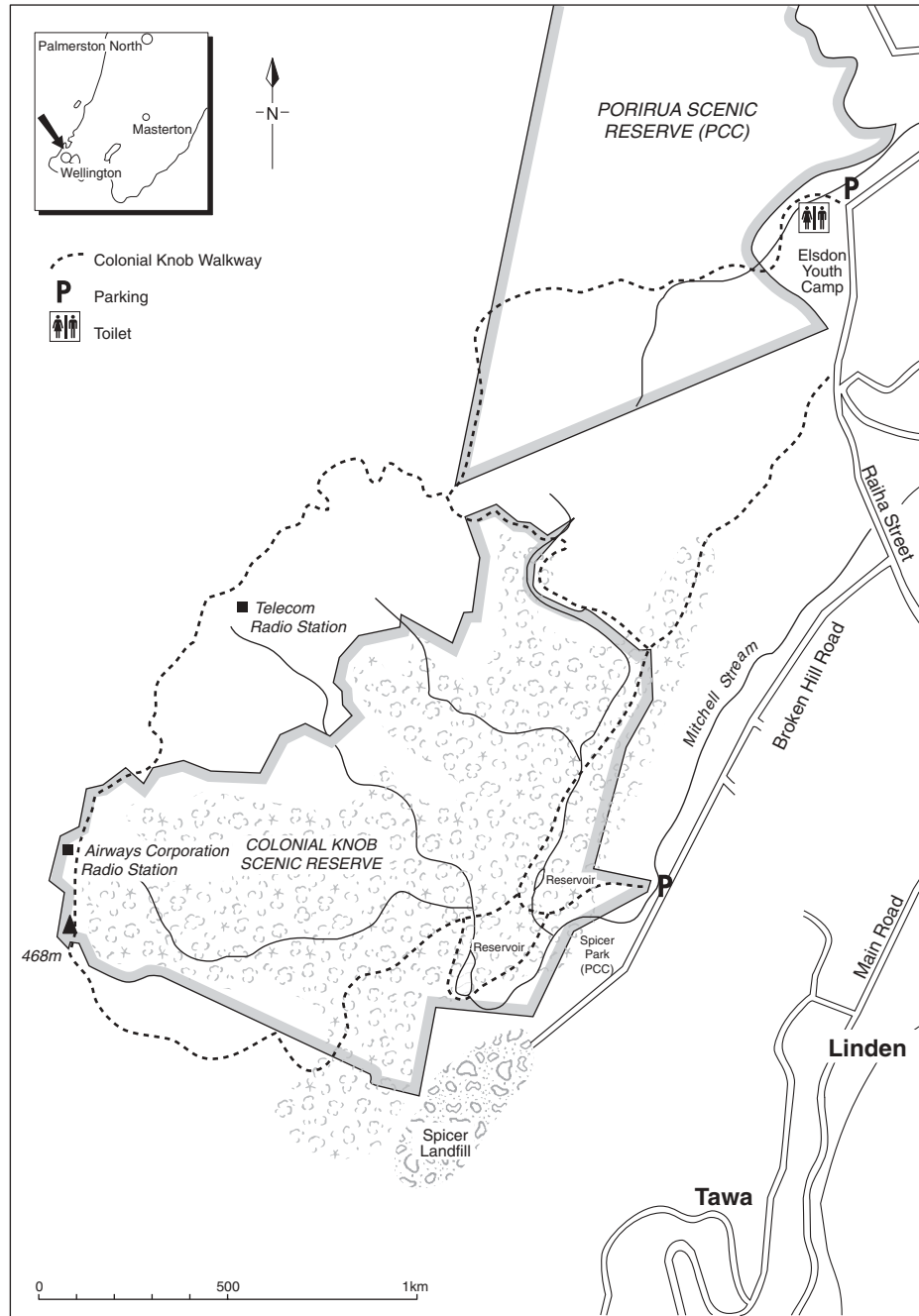
The Department will continue to work with the Board and the community to provide coastal, rural and open space recreation opportunities with an appropriate standard of facilities for its high level of public use, and it will also work towards protecting rare plants, archaeological sites and other natural and historic resources.

- Taita Scientific Reserve is a small catchment on the eastern Hutt hills off the Eastern Hutt Road at Taita. Its vegetation is manuka and kanuka shrubland, hard beech forest, kamahi forest, broadleaved forest, and semi-swamp vegetation. Its significance for conservation is as a fire-free catchment – it has not been burnt since 1938/39 when 45% of the catchment was affected – and as an area where possums have been controlled. Few catchments of this type in the Hutt Valley have been unaffected by both fire and possums. The reserve was managed by the Department of Scientific and Industrial Research and its successor Landcare Research NZ Ltd until 1993, when the research station and land surrounding the reserve was transferred to the Institute of Geological and Nuclear Sciences Ltd. The reserve is still controlled and administered by the Minister of Science through the Institute, but this is under review with the decision of the Institute to vacate the research station. To protect the natural resources of the reserve, legal access for the Department and a covenant around the perimeter for a fire break are being sought. The adjoining land is grazed. To assist in maintaining the fire-free status, open public access is not envisaged.

## 6.2 COLONIAL KNOB SCENIC RESERVE AND WALKWAY

<b>Conservation Unit No.:</b>	R27009	R27098
<b>Status:</b>	Scenic Reserve	Walkway
<b>Area:</b>	129.69 ha	—
<b>Ecological District:</b>	Wellington	Wellington
<b>Local Government:</b>	PCC	PCC
<b>Description</b>	Situated on the steep flank of the hills west of Tawa and Elsdon, this reserve comprises a mosaic of secondary growth forest, mature semi-coastal forest and some pastureland. It is contiguous with Porirua Scenic Reserve, which also protects mature semi-coastal forest. Two unused water supply dams at the foot of the hill are accessible via the Colonial Knob Walkway which passes through the reserve. There is a radio mast on the highest point overlooking the reserve.	
<b>Values</b>	As Colonial Knob is one of the highest points on the Wellington Peninsula it offers a commanding scenic vantage point.	
	The ridgetop vegetation is a cloud forest community, induced partially by fire and partially by the climatic conditions. The forest, although modified, is regenerating well and in combination with Porirua Scenic Reserve is a substantial forest habitat and landscape feature.	
	Colonial Knob Walkway is a high-use recreational facility for both Porirua and Wellington residents and is frequently visited by youth groups.	
<b>Management Issues</b>	<i>Public Awareness</i>	
	It is necessary to improve public awareness of the reserve, as past trampling and vandalism have retarded natural regeneration in some areas.	

Map 18:  
Colonial Knob  
Scenic Reserve  
and Walkway



*Dams*

The dams are a scenic attraction on the walkway but are deteriorating. One has already been drained for safety reasons, and the other requires remedial work. Options for their management will need to be reviewed.

*Fire*

The proximity to urban and landfill areas makes fire a constant threat although the risk is less here than on the fringes of Porirua Scenic Reserve where gorse is prevalent.

*Animal and Plant Pests*

*Clematis vitalba* and possums pose the main threats to vegetation in the reserve. Kohekohe is a major element in this forest type and could be at risk without adequate pest control.

**Objectives**

- 1 Protection and preservation of the natural resources of the reserve.
- 2 A high standard of recreation facilities, ensuring a quality recreation experience which minimises impact on the reserve's natural values.
- 3 Integration of management with the adjacent scenic reserves, Colonial Knob and Porirua, and the reserve land in Spicer Valley.
- 4 Raised public awareness of the natural resources of the Reserve.

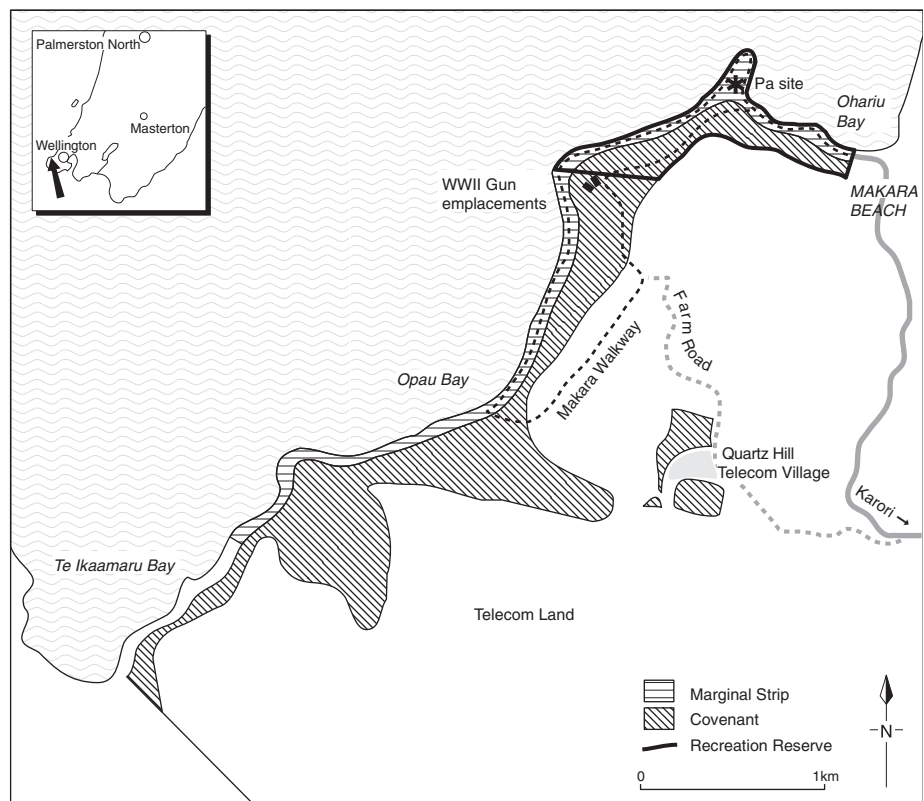
**Implementation**

- 1 Monitor the effects of pests and weeds on forest species and implement appropriate controls.
- 2 Investigate interpretation opportunities and continue to provide visitor information to increase public awareness of the natural and historic resources and recreation opportunities of the reserve and to address management issues.
- 3 Maintain walkway track to Walk standard.
- 4 Investigate the feasibility of retaining the dams and investigate their value for recreational fishing; retain if practicable.
- 5 Liaise with Porirua City Council over walkway management and access to reserve via Spicer Valley; advocate for compatible management of Porirua Scenic Reserve.

## 6.3 MAKARA COAST

<b>Conservation Unit No.:</b>	R27065	R27063	R27099
<b>Status:</b>	Marginal Strip	Recreational Reserve	Walkway
<b>Area:</b>	—	32.3 ha	—
<b>Ecological District:</b>	Cook Strait	Cook Strait	Cook Strait
<b>Local Government:</b>	WCC/WRC	WCC/WRC	WCC/WRC

Map 19:  
Makara Coast



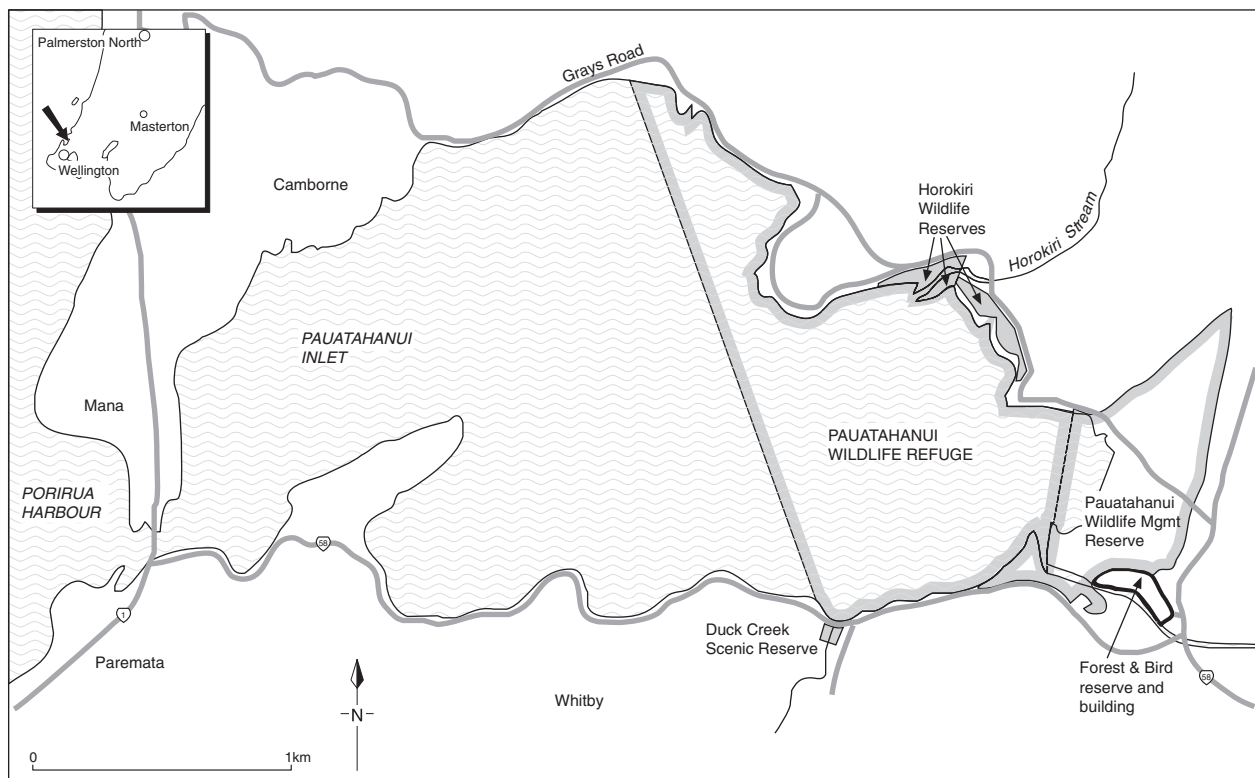
<b>Description</b>	<p>The area south of Makara Beach, the rocky coast, coastal escarpments and farmland, is a popular recreational area for Wellingtonians.</p> <p>The Department administers a marginal strip along the coast, a 125 ha covenant on Telecom land on the headland, coastal escarpments and pasture land, the Makara Walkway and a covenant over remnant forest around the Telecom Village at Quartz Hill. Telecom lease land to a farmer.</p>
<b>Values</b>	<ul style="list-style-type: none"> <li>• Archaeological sites: pa, midden, terrace and oven sites.</li> <li>• Indigenous coastal vegetation survives on rock faces and along foreshore.</li> <li>• Rimu-kohekohe forest remnants around Telecom Village and the inland valley system.</li> <li>• Makara Walkway has high recreational value; it provides access to the coast across open farmland and spectacular coastal views.</li> </ul>
<b>Management Issues</b>	<p><i>Animal Pests</i></p> <p>Goat browsing has caused serious deterioration of plant communities. The covenant area is but-fenced, and the fence will require ongoing maintenance and periodic replacement due to its location in a salty environment.</p> <p><i>Fire</i></p> <p>Use of the coast for picnics and barbecues increases the risks of fire, and the public need to be informed of the risks.</p> <p><i>Walkway</i></p> <p>Management of the Makara Walkway involves co-operation between the Department and the farm lessee as grazing means that access is restricted during lambing time.</p>
<b>Objectives</b>	<ol style="list-style-type: none"> <li>1 Protection of indigenous flora and fauna, archaeological sites and historic sites within the covenant area and walkway in consultation with landowners.</li> <li>2 Provision for recreational use and enjoyment of the area.</li> </ol>
<b>Implementation</b>	<ol style="list-style-type: none"> <li>1 Provide a high standard of recreational facilities in association with the Makara Walkway, with minimal impact on landscape values.</li> <li>2 Provide information about the walkway and interpret natural and historic resources.</li> <li>3 Liaise with the landowners to provide access over the Makara Walkway from the beach to the gun emplacements during the lambing season.</li> <li>4 Eliminate any reinfestation of goats within the covenant area.</li> <li>5 Light grazing will be retained around the gun emplacements to ensure that the sites remain clear of impeding vegetation.</li> <li>6 Monitor impact of recreational activities on the walkway, on historic sites and plant communities.</li> <li>7 Liaise with iwi and New Zealand Historic Places Trust regarding protection of archaeological sites.</li> </ol>

## 6.4 PAUATAHANUI INLET : PORIRUA HARBOUR

<b>Conservation Unit No.:</b>	R27001	R27007	R27056	
<b>Status:</b>	Duck Creek Scenic Reserve	Horokiri Wildlife Mngmt Reserve	Pauatahanui Wildlife Mngmt Reserve	Pauatahanui Wildlife Refuge
<b>Area:</b>	1.035 ha	5.04 ha	42.91 ha	
<b>Ecological District:</b>	Wellington	Wellington	Wellington	Wellington
<b>Local Government:</b>	PCC/WRC	PCC/WRC	PCC/WRC	PCC/WRC

*Map 20:*

## Pauatahanui Inlet, Porirua Harbour

**Description**

Pauatahanui Inlet is the larger of the inlets in Porirua Harbour. It is the largest relatively unmodified estuarine area in the southern part of the North Island. The Department manages four areas within the Inlet. Pauatahanui Inlet Wildlife Management Reserve, Horokiri Wildlife reserves, Duck Creek Scenic Reserve, and Pauatahanui Wildlife Refuge. Pauatahanui Wildlife Management Reserve is situated at the head of the Inlet. It is a coastal wetland containing tidal flats consisting of predominantly indigenous salt marsh vegetation. Several tidal creeks cross the Reserve; the largest are Pauatahanui Stream and Ration Creek, which flow through the southern and central reserve areas respectively.

The Pauatahanui-Plimmerton road bisects the reserve and has influenced tidal movements causing local drying out of the inland portion of the reserve, an increase in grasses and rushes and a subsequent reduction in wader feeding areas. Poles carrying electricity wires and a buried gas pipeline cross the reserve. Public access is via the Forest and Bird Reserve from State Highway 58, and public hides and tracks have been constructed.

The Pauatahanui Reserve Management Committee, under the auspices of the Royal Forest and Bird Protection Society (RFBPS) and including a representative of the Department, is responsible for the day-to-day management of the Wildlife Management Reserve (administered by the Department under the Reserves Act 1977). The RFBPS have purchased adjacent land for the Society's native plant nursery, information kiosk, and carpark.

Duck Creek Scenic Reserve is located on State Highway 58 where Duck Creek flows into Pauatahanui Inlet. It consists of a flat swampy basin mainly covered in rushes and is surrounded on three sides by roads.

Horokiri Wildlife Reserve is an estuarine wetland to the west and south of Grays Road near Horokiri Stream.

Pauatahanui Wildlife Refuge is located in the eastern half of the Inlet and is intended to protect wildlife from disturbance, especially hunting.

## Values

The area around the inlet has been inhabited for at least the last 600 years: waahi tapu, archaeological sites and historic places are located around the inlet and within the reserves.

The inlet is a productive estuarine habitat, a site of national significance in the Sites of Special Wildlife Interest (SSWI) database and the only large area of salt marshes and seagrass in the Wellington Region. It is also nationally significant for the extremely high densities of the copepod *Parastenhelia* sp. This small crustacean's role in the life of estuaries is important as it stimulates growth of bacteria, helps break up detritus and occupies a critical part in the foodweb. A wide variety of birds feed in the inlet, including waterfowl, waders, migratory waders and wetland birds. Fish and intertidal invertebrates are abundant in the inlet and the waterways in the catchment.

The shoreline vegetation is characteristic of indigenous estuarine wetland, and several threatened saltmarsh species are present. Outside the Wildlife Management Reserve the dry land vegetation beyond the tidal zone is highly modified; however, some remnants of kanuka and coastal forest survive on surrounding farmland.

The inlet offers extensive recreational opportunities, ranging from passive sightseeing and birdwatching to boating and whitebaiting. Access is easy and use is very high. Visitor facilities include paths, viewing hides, visitor centre and picnic area. There is active community support for conservation activities in the Wildlife Management Reserve, and provision of facilities has enhanced the reserve as a destination for schools. The local community is also concerned about the overall health of the inlet and has been advocating for the protection and enhancement of its natural and historic resources.

## Management Issues

### *Advocacy*

Critical to the conservation of the natural and historic values of the inlet is the management of the catchment of the inlet and the creation of buffers around existing natural areas. The inlet is a priority area for the Department's advocacy work, and with community groups the Department will be advocating for land and water management to protect and enhance the natural and historic resources of the area. Key threats to the inlet are siltation, eutrophication, pollution, road developments, and depletion of the fish stocks of the inlet through commercial and recreational fishing.

*Plant Pests*

Invasive weeds such as *Clematis vitalba*, honeysuckle, gorse and pampas grass require control.

*Honorary Rangers*

In easily accessible areas with a high number of visitors, the Department needs eyes and ears beyond its own, to ensure that the activities of the public do not adversely affect natural and historic resources. The Department is working under the Conservation Act to establish a group of honorary rangers for the Porirua basin, including Pauatahanui Inlet. The Department will be seeking a joint approach with local government, iwi, Guardians of Pauatahanui and other agencies.

*Management of Pauatahanui Inlet Wildlife Management Reserve*

The management committee has been enhancing habitat for birds by building ponds and nesting platforms; it is also providing walking tracks, hides and an information kiosk. The Committee and the Department need to establish details of the development and maintenance programmes for the reserve for at least five years and also need to establish an annual operations programme.

**Objectives**

- 1 Conservation of the estuarine wetlands, indigenous species, historic resources and scenic qualities of the reserves administered by the Department.
- 2 Public appreciation of the reserves, especially Pauatahanui Inlet Wildlife Management Reserve, by providing passive recreational and educational opportunities.
- 3 Continued delegation of day-to-day management of Pauatahanui Inlet Wildlife Management Reserve to Royal Forest and Bird Protection Society.
- 4 Conservation of the natural and historic resources of the Pauatahanui Inlet and its catchments.

**Implementation**

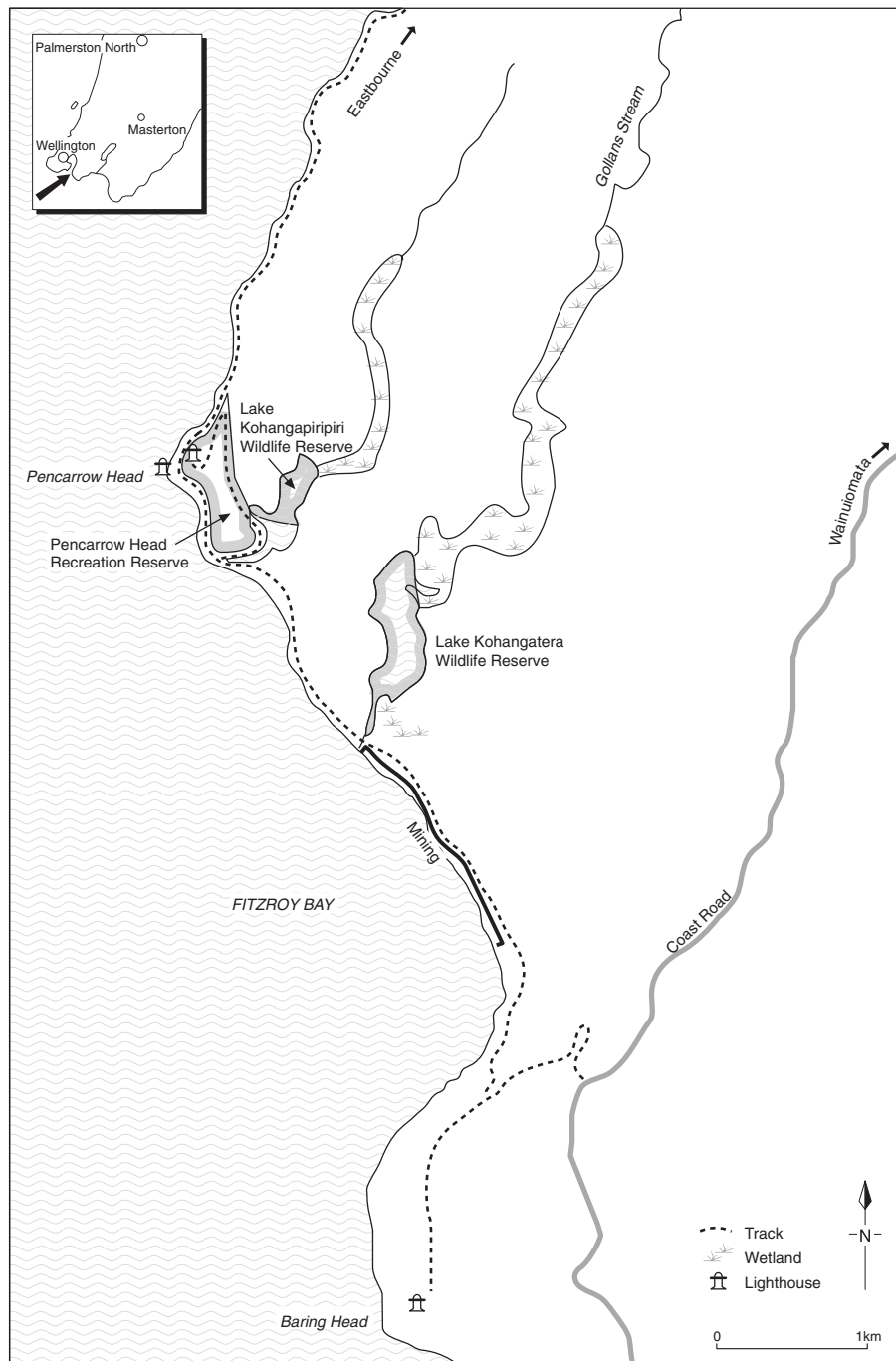
- 1 Participate in the Pauatahanui Reserve Management Committee, with the Royal Forest and Bird Protection Society and help the Committee to determine both a five year programme of works and an annual operations plan for the management of the reserve that involve the community in management of the reserve.
- 2 Monitor changes in ecosystem processes and indigenous species in the inlet to assess the effectiveness of protection and to help determine appropriate protection, and advocate that other agencies monitor the effects of surrounding land uses on the inlet.
- 3 Advocate under the Resource Management Act 1991 and other legislation for policies, rules and other mechanisms to protect the natural and historic resources of Pauatahanui Inlet.
- 4 Consult with tangata whenua on the management of waahi tapu, traditional food gathering areas and cultural materials of importance.
- 5 Undertake annual plant pest control, to control, and where feasible eradicate, invasive weeds in the reserves.
- 6 Seek opportunities to protect land around Pauatahanui Inlet containing other natural and historic resources.

7 Seek to establish a group of honorary rangers for Porirua Basin, including Pauatahanui.

6.5 PENCARROW RECREATION RESERVE AND LAKES

<b>Conservation Unit No.:</b>	R27025	R27024	R27023
<b>Status:</b>	Pencarrow Head Recreation Reserve	Lake Kohangapiripiri Wildlife Reserve	Lake Kohangatera Wildlife Reserve
<b>Area:</b>	14.31 ha	8.7 ha	34.0 ha
<b>Ecological District:</b>	Tararua	Tararua	Tararua
<b>Local Government:</b>	HCC/WRC	HCC/WRC	HCC/WRC

Map 21:  
Pencarrow Recreation Reserve and Lakes



**Description**

The Department administers Wildlife Management reserves on Lake Kohangatera and the northern two-thirds of Lake Kohangapiripiri. The Recreation Reserve surrounds Pencarrow headland, which is steep and rolling pastureland, and it contains Pencarrow Lighthouse Historic Reserve, administered by the Historic Places Trust. They will be linked by the East Harbour Regional Park, administered by the Wellington Regional Council.

**Values**

The lakes provide habitat for freshwater fish, waterfowl, swamp birds and shags. The lake margins have high species and plant community values, with several threatened species present. The lakes are registered as nationally important wetlands in the Wetlands of Ecological and Representative Importance (WERI) database.

Lakes Kohangapiripiri and Kohangatera are formed behind a raised beach ridge. The lake outflows breach the ridge. This landform is rated as being of national importance and moderately vulnerable to modification by humans in the NZ Geopreservation Inventory.

There are historical associations with Maori settlement and food gathering, and historic and archaeological sites.

Recreational use of the headlands is high. The value of the lakes and wetlands as a recreation destination is diminished by limitations on access across licensed grazing land, and by adjacent land use including sewer outfall and gravel mining. The area provides a future opportunity to interpret important coastal and marine conservation values through public awareness activities and provision of visitor information.

Sand dunes have significant plant communities and habitat for banded dotterel.

**Management Issues***Domestic Stock*

Grazing and trampling and runoff are having a detrimental affect on the lake margins and associated wetlands. Access for both stock and people needs to minimise the impact of both on the sensitive lake margin plant communities and needs also to allow for natural restoration.

*Advocacy*

The catchment of the lakes and their immediate surrounds is not managed by the Department. To protect natural resources within the lakes, co-ordination of management between management agencies and private landowners needs to be undertaken.

*Coast*

Gravel mining at Fitzroy Bay is extracting a renewable resource in an area with high conservation values as a breeding area for banded dotterel, as well as containing threatened plants and high landscape values. The gravel mining operation has a 15 year approval under the Resource Management Act (from 1994) to operate in the area, subject to conditions from Hutt City Council and Wellington Regional Council. The conditions ensure extraction rates will not cause coastal erosion. Mining is confined to areas where natural resources or recreational access will not be adversely affected and areas are rehabilitated after mining. The Department will continue to advocate for monitoring of management of the gravel mining to protect natural and historic resources and recreational access along the coast.

Four-wheel-drive and trail bikes on the dunes also threaten conservation values.

- Objectives**
- 1 Reduction or mitigation of peripheral land-uses detrimental to the lakes and wetlands and associated archaeological sites, landscapes and coastal environment.
  - 2 Enhancement of the natural character of the lakes and lake margins.
  - 3 Maintenance of public access to Pencarrow Headland and coast and increased public understanding and appreciation of the conservation values of the area.

- Implementation**
- 1 Advocate fencing the lakes to allow natural regeneration of wetland vegetation; this would provide a buffer against peripheral land-uses and would restore wildlife habitat.
  - 2 Consult with tangata whenua on the most appropriate management of cultural values of the lakes.
  - 3 Advocate to Wellington Regional Council and Hutt City Council appropriate land-uses and management of threats, pests and visitors in the lake catchment and foreshore to protect the natural and historic resources and restore degraded areas.
  - 4 Advocate improved public access to the Pencarrow coast from the Wainuiomata Valley.
  - 5 Work with Wellington Regional Council towards the establishment and management of proposed East Harbour - Pencarrow Regional Park.
  - 6 Advocate that natural and historic resources be protected from any gravel extraction on the coast.
  - 7 Investigate interpretation and the provision of visitor information to increase the public's understanding and appreciation of the area.
  - 8 Work with landowners to protect natural and historic resources on private land.

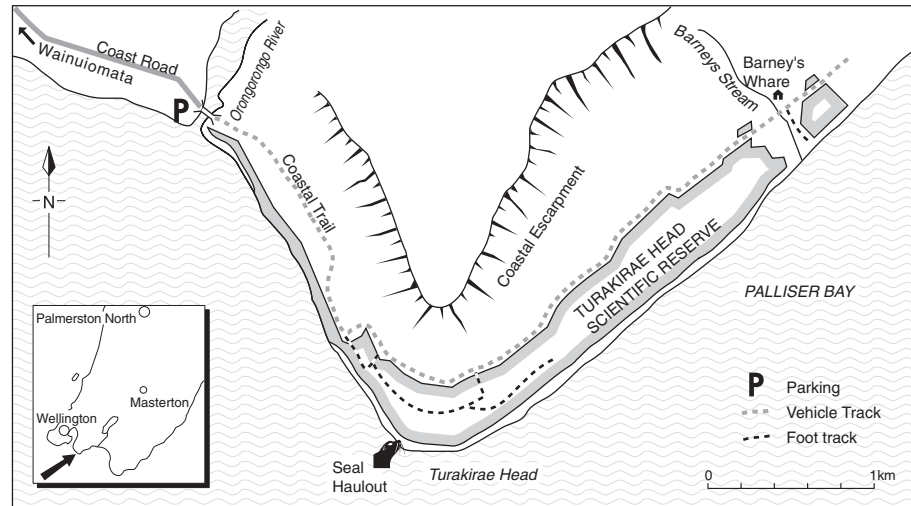
#### 6.6 TURAKIRAE HEAD SCIENTIFIC RESERVE

- Conservation Unit No.:** R28001  
**Status:** Scientific Reserve  
**Area:** 127.6 ha  
**Ecological District:** Tararua  
**Local Government:** HCC/WRC

**Description** This coastal reserve extends from the Orongorongo river mouth, 6 km around Turakirae Head to just north of Barney's Stream in Palliser Bay. The reserve protects a series of raised beaches uplifted by successive earthquakes over the last 6,000 years. A large year-round seal haulout is located here.

**Values** The raised beaches are internationally significant for the information they provide about earth movement and sea levels. The associated soils and ecological sequences provide an example of natural succession from colonisation of coastal shingles to dry coastal forest. Unusually large boulders provide a microhabitat for ferns, lichens and mosses unparalleled around Wellington's coastline.

Map 22:  
Turakirae Head  
Scientific Reserve



The seal haulout is gradually growing in size. The coastal habitat is particularly important for four lizard species (two are regionally uncommon) and cicada. Two rare species of cicada have been found at the mouth of the Orongorongo River, next to the reserve.

Human history of the area dates back to moa-hunting times. More recently, the coast was the main route for European settlers moving between Wellington and Wairarapa, and the area is closely associated with the region's farming history. Numerous ships were wrecked along this coast during the nineteenth century, some with great loss of life. The headland marks the tribal boundary agreed upon between Te Ati Awa, Ngati Kahungunu and Rangitane in the late 1800s.

The coastline offers an outstanding accessible coastal recreation opportunity. The raised beaches and the seals are a tourist attraction. The area is popular for walking, natural history studies, seal-watching and biking. The reserve has potential for the provision of interpretation of natural resources and visitor information.

## Management Issues

### *Access*

Vehicle access at the base of the escarpment and a track within the reserve have adversely impacted on the raised beaches and vegetation. The access has traditionally been regarded as essential for civil defence and for recreation. However, the Department will prohibit vehicle access to the reserve and limit its own vehicle access to that essential for management.

The final, unsealed, section of Coast Road to the Orongorongo River is in private ownership, as is the carpark. The Department has an easement for access for vehicles and to allow pedestrian access for the public. High public use is requiring more maintenance of both road and carpark. The Department, with the owner's agreement, will seek to have Coast Road declared a public road to the Orongorongo River and for the road and carpark to be sealed. As a mining licence (for gravel) exists in this area, the holder of the licence (currently Winstone Aggregates) will be consulted also.

### *Natural Features and Indigenous Vegetation*

There is potential conflict between preservation of recognisable raised beach profiles and the natural vegetation which is likely to obscure the older terraces as it matures. Protection of both the geological features and

processes of ecological succession is equally important. Sheep grazing reduces vegetation, but fencing of some areas will protect some vegetation from stock damage. Action to protect both the raised beaches and vegetation will be undertaken.

#### *Extensions*

The reserve does not encompass the significant coastal scarp and toe features and the threatened species' habitats of this headland. Grazing on the coastal escarpments is reducing vegetation and increasing erosion.

#### **Objectives**

- 1 Protection and preservation of the natural and historic resources, in particular the sequence of raised beaches, the indigenous biological features, and archaeological sites.
- 2 Increased public understanding and appreciation of the natural and historic resources of the reserve, in particular the raised beaches, plant communities.
- 3 Provision of public walking access to the reserve and improved vehicle access to the carpark on the west bank of Orongorongo River.
- 4 Protection of the headland escarpments and the Orongorongo river mouth area.

#### **Implementation**

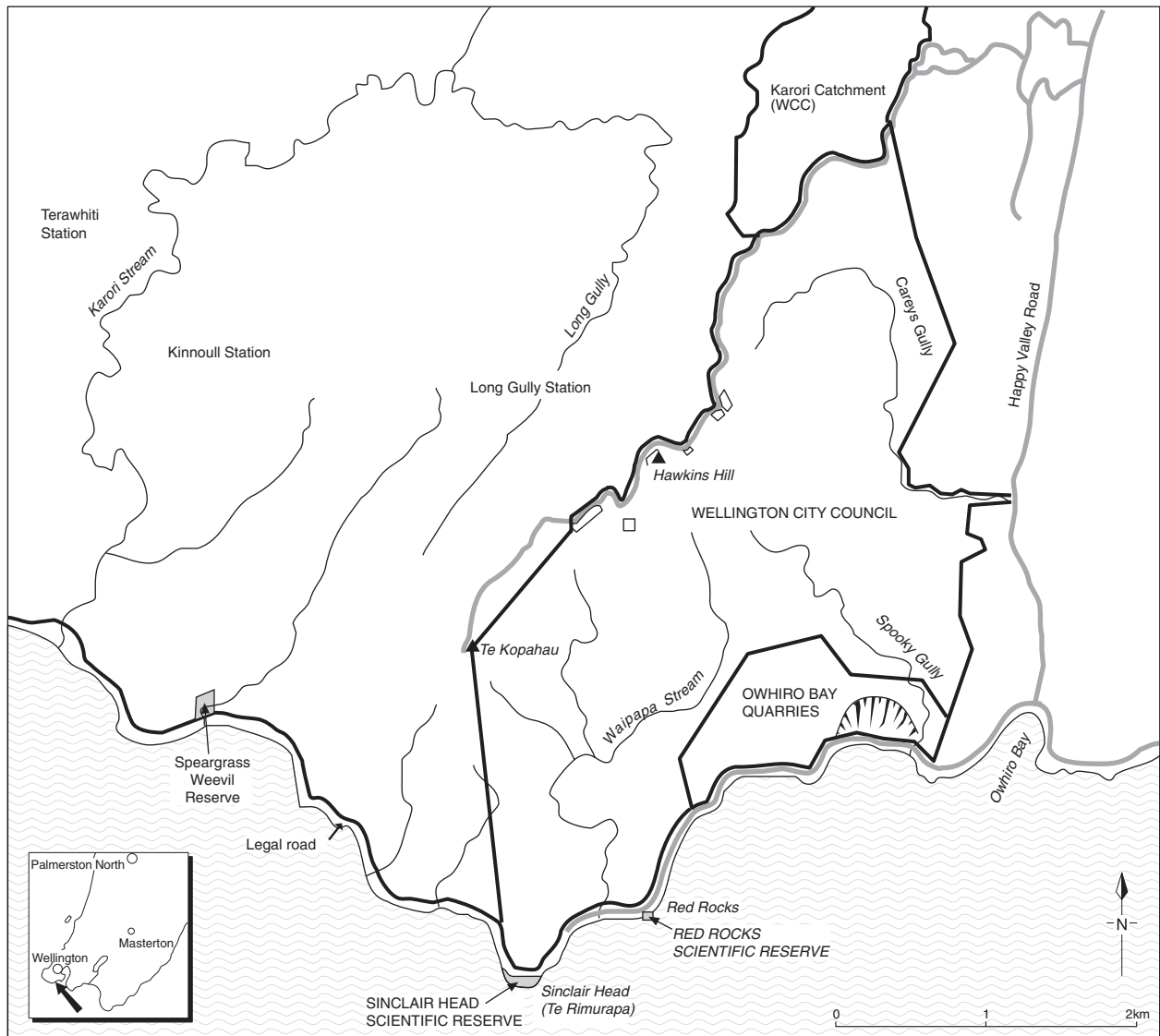
- 1 Investigate need for new fencing to protect natural values, especially threatened vegetation; implement as required.
- 2 Investigate maintaining some portion of the reserve unfenced to allow sheep grazing to retard revegetation and hence to retain the visibility of the raised beaches.
- 3 Investigate the provision of interpretation and visitor information in order to increase public awareness of conservation values of the reserve and to address management issues of how to behave on farmed areas.
- 4 Advocate with landowners' agreement that the access from the end of the legal coast road to the carpark on the west bank of Orongorongo River be made a legal road by the Hutt City Council.
- 5 Maintain the carpark at Orongorongo River.
- 6 Seek bylaws, under the Reserves Act 1977, to prohibit all motor vehicles other than Departmental vehicles within the reserve.
- 7 Encourage and support research into all aspects of the reserve to assist in reserve management and to increase the public's appreciation of its values.
- 8 Seek protection of the escarpment, and the Orongorongo river mouth through appropriate protection mechanisms, such as covenant, purchase, or management agreement.

#### 6.7 WELLINGTON SOUTH COAST

<b>Conservation Unit No.:</b>	R27021	R27022	R27068
<b>Status:</b>	Red Rocks Scientific Reserve	Sinclair Head Scientific Reserve	Public Works Act Compensation Certificate Speargrass Reserve
<b>Area:</b>	0.52 ha	0.62 ha	4.65 ha

<b>Ecological District:</b>	Cook Strait	Cook Strait	Cook Strait
<b>Local Government:</b>	WCC/WRC	WCC/WRC	WCC

*Map 23:*  
Wellington South Coast



### Description

The Department administers three tiny reserves along the South Coast between Owhiro Bay and Karori Stream. Red Rocks Scientific Reserve covers a small area of wave-cut platform exposed by the 1855 earthquake and protects an outcrop of pillow lava. It is bounded by a 4-wheel-drive road and the sea. Sinclair Head Scientific Reserve is an equally tiny coastal reserve specifically protecting a seal haulout. Further west, the Speargrass Reserve protects a steep coastal escarpment which in the past has been an important habitat for the nationally threatened speargrass weevil.

### Values

Red Rocks and Sinclair Head are steeped in Maori and pakeha history. Maori legends explain the red rock variously as blood from the nose of Maui, bait for the hook he used to haul up the North Island, bloodstains of Kupe's daughters distressed by Kupe's absence, or as blood from Kupe, wounded by paua. Sinclair Head is the site of several very old pa whose origins are uncertain. A World War II lookout is still evident on the headland.

The outcrop of Torlesse pillow lava at Red Rocks is the most accessible in the lower North Island and is a geological feature of national interest. Rock mined from this headland is found on development sites throughout Wellington. Protests over its removal from the coast resulted in the Scientific Reserve gazettal.

New Zealand fur seal have a winter haulout at Sinclair Head.

The coastal escarpments and gullies near the three reserves retain considerable ecological values. There is a characteristic Cook Strait assemblage of plants and invertebrates which share many features with alpine communities. A small dune area adjacent to the Speargrass Weevil Reserve is notable for its spinifex and pingao associations. All these areas are being damaged by, and threatened by, further browsing, and by vehicular and quarrying activity.

The important natural and historic resources of the area and its close proximity to Wellington provide a significant opportunity to interpret both coastal and marine conservation themes and management issues, and also allow the community to be involved in management.

## Management Issues

### *Integrated Management*

Each of these reserves was established to protect one or two specific natural resources. Nearby natural areas contain significant natural and historic resources which are not protected. The natural coastal communities, which include threatened plant and wildlife species, are being constantly degraded by browsing, roading, quarrying and fire. Both Red Rocks and Sinclair Head Scientific Reserves lack protection of the adjoining sub-tidal environment. A co-ordinated approach between landowners to protect the values of the entire coastline is required. The South Coast area is subject to a co-operative planning exercise involving the Department, Wellington City Council, and the Wellington Branch, Royal Forest and Bird Protection Society to protect its conservation values. The Department continues to advocate protection measures with private landowners. Planned inter-agency development and promotion of a coastal walk will have implications for seal protection and sensitive areas of coastal landform and vegetation.

### *Public Awareness*

This area has high recreational use. The Department has particular concerns about the pressure of visitors at the seal haulout; seals are occasionally harassed by visitors and can respond violently. Restriction on visitors is inappropriate at this site, and on-site education is important.

### *Weevils*

Speargrass weevils are no longer living within the named reserve, due to the decline of speargrass within it. They still live in other parts of the Wellington South Coast. A replanting programme to restore speargrass, and rodent control, could re-establish the weevils within the reserve.

## Objectives

- 1 Protection, preservation and rehabilitation of the natural and historic resources.
- 2 Integrated management to protect the full range of natural and historic resources on the South Coast and mitigate the adverse effects of land-uses on those resources.

- 3 Protection of seals from disturbance, and teaching visitors about appropriate behaviour.
- 4 Protection of pillow lavas and associated coloured argillites from vandalism and theft.
- 5 Public access along the coast to the reserves, increase the public's understanding and appreciation of coastal and marine conservation and opportunities for community involvement.

### Implementation

- 1 Actively participate in joint planning and implementation for the greater South Coast to ensure a high standard of recreational facility and protection of conservation values of national importance.
- 2 Advocate protection of natural and historic resources to owners of adjacent private land and Wellington City Council and marine resources to Ministry of Agriculture and Fisheries.
- 3 Support and contribute to research and monitoring of coastal biological communities to determine appropriate protection techniques.
- 4 Improve signage, interpretation and visitor information; explore methods of educating visitors to minimise conflicts between different kinds of recreational activities and to avoid disturbance of seals.
- 5 Investigate and if appropriate undertake restoration programme of the Speargrass Reserve to re-establish speargrass and the speargrass weevil; investigate and implement if feasible other community involvement opportunities.
- 6 Work with others to identify, protect and rehabilitate the habitat and population of threatened plants.

### 6.8 GOVERNMENT BUILDINGS HISTORIC RESERVE

**Conservation Unit No.:** R27101

**Status:** Public Reserve (Historic) Reserves Act 1977

**Area:** 1.172 ha

**Local Government:** WCC/WRC

### Description

The Government Buildings stand opposite Parliament at the northern end of Lambton Quay. It is prominent in the Parliamentary Precinct.

The site was originally reclaimed from the harbour in 1874, and the land which surrounds it was reclaimed soon afterwards.

The buildings were erected in 1876 to house the expanding public service following the abolition of provincial government.

When completed the buildings housed almost the entire public service in Wellington: Treasury, Customs, Telegraph, Marine and Stamps, Native Department, Public Works, Colonial Architect, Cabinet Room and Ministers' Offices and Audit Department.

The buildings housed the Government Cabinet and Ministers' offices from 1876 until 1932, and various government departments from 1876 until 1991.

The buildings' timber framing and interior and exterior cladding were designed in the Italianate palazzo style by William Clayton, the Colonial

Architect. The timber frame and weatherboard cladding were both commonly used for housing in the period but are used here on an enormous scale. The exterior timber is designed to simulate a stone building.

The timber used for the framing is Tasmanian hardwood, while the remainder is heart kauri.

Additions in the same style as the original buildings were built in 1897 and 1907. The exterior now stands much as it did when the 1907 additions were completed. The coat of arms above the central gable is an important element in the design of the buildings. It is the personal dynastic coat of arms of the sovereign and was in 1876 both the coat of arms of the British government and also of New Zealand. It is the largest and most splendid example of this coat of arms in New Zealand.

In 1976 preservation and refurbishment of Government Buildings was approved, and restoration of the foundations began that year. However, disruption to occupants was such that work was halted in 1986 even though repiling had not been completed.

The buildings have been administered by the Department since 1991, and a Conservation Plan was prepared in 1992. The buildings have been leased to Victoria University as a Law Faculty for 50 years. A major strengthening, restoration and fit out will be completed by the Department by December 1995.

## Values

Government Buildings are classified Category 1 under the Historic Places Act 1993 as a place of special or outstanding historical or cultural heritage significance or value. Their links with Parliament and with government departments give them a close association with the history of New Zealand's social, physical, and political development.

The buildings are unique in New Zealand and rare internationally because of their size and timber construction. It has been claimed that they are the largest timber building in the southern hemisphere and second largest in the world. While these claims have yet to be verified, it is certain they are among the largest timber buildings in the world and rare in terms of building type. The materials used in construction are now also rare – weatherboards and internal timber linings are kauri, with lath and plaster for most walls and ceilings.

## Management Issues

### *Conservation*

The preservation and refurbishment are now being completed. Especially urgent is the need to connect the superstructure to the new foundation system, to remove heavy brick chimneys and tie in the brick vault structures to enable the structure to survive a strong earthquake. The Conservation Plan (1992) outlines the full extent of work to be undertaken. Subsequent maintenance work by the tenant will be in accordance with a maintenance plan and subject to the Department's approval.

### *Restoration*

Important exterior and interior elements are being restored. The exterior restoration consists of replacing missing elements, including the chimneys, and enhancing the grounds around the buildings, including demolition of the annexe. In the interior, the important elements for restoration are corridors,

entrance, including porticoes, stairwells, the original cabinet room and the ministers' rooms.

*Public Access*

The historical importance of the buildings and the Government investment in their restoration warrant continued public access. This has been provided for in the lease. The Department will operate an interpretation centre there, which may include a cafe.

**Objectives**

- 1 Preservation of the architectural and historical integrity of the Government Buildings as a significant part of the cultural heritage of New Zealand.
- 2 Protection of the buildings from fire and earthquake and user damage as far as is practicable.
- 3 Maintenance of public access to parts of the buildings in co-operation with Victoria University of Wellington.

**Implementation**

- 1 Manage the restoration of Government Buildings, which is to be undertaken in accordance with the Conservation Plan (1992).
- 2 Prepare a maintenance plan for the tenant following completion of the restoration.
- 3 Administer the lease and ensure the conservation guidance outlined in the Conservation Plan and the lease is adhered to in the course of the tenancy.
- 4 Ensure continued public access to agreed parts of the buildings as provided for in the lease and interpretation of the buildings' history.
- 5 Operate a visitor interpretation facility in the buildings.
- 6 Manage the Department's responsibility as landlord, including rent reviews, insurance, major plant repairs, fire system, security system and mains services etc.
- 7 Nominate the buildings for World Heritage status, if appropriate.
- 8 Liaise with NZ Historic Places Trust, on the buildings' conservation, to comply with the requirements of the Historic Places Act.

6.9 TURNBULL HOUSE HISTORIC RESERVE

**Conservation Unit No.:**

R27102

**Status:**

Public Reserve (Historic) Reserves Act 1977

**Area:**

0.0768 ha

**Local Authority:**

WCC/WRC

**Description**

Turnbull House is located in Bowen Street, central Wellington. It is part of the Parliamentary Precinct area which houses the major government buildings in central Wellington; Parliament Buildings, Beehive, Government Buildings, the Cenotaph and Bowen House in which Parliament is now housed.

Turnbull House was built in 1916 for Alexander Turnbull as a home and to house his extensive library. Turnbull employed the architectural firm of Thomas Turnbull (no relation) and Son for the design of his house and library. William Turnbull designed the brick building.

Turnbull House was purchased from the Turnbull family by the Crown in 1918 to house the Turnbull collection of some 55,000 volumes, as well as manuscripts, paintings and sketches, bequeathed by Alexander Turnbull in 1917 in the hope they would form the “nucleus of a New Zealand national collection.”

The Turnbull Library was housed in Turnbull House until 1973, when the building could no longer accommodate it. The house now provides exhibition, reception and meeting rooms for a wide range of community groups, offices for small societies, and a restaurant.

It was classified as a Historic Reserve, under the Reserves Act 1977, in 1992.

## Values

Turnbull House is classified Category 1 under the Historic Places Act 1993 as it has a historical or cultural heritage significance of value.

The house has historic importance as the home and library of A H Turnbull and as the building that housed the Alexander Turnbull library for 50 years.

The house is a rare example of a purpose-built home and library. The building owed its origins to the revival, in the mid 19th century, of mediaeval architectural styles.

## Management Issues

### *Conservation*

The Turnbull House Conservation Plan 1991 established that the House is generally in good condition and will retain that standard with continuing maintenance. However, the building was at risk from partial or total collapse in the event of a major earthquake and did not have sufficient fire egress and servicing, e.g., the wiring also needed urgent upgrading. The House’s architectural integrity would be greatly enhanced by reinstatement of the gables. The requirement was to fund conservation work from the income generated from use of the house.

### *Community Use*

The strong preference is for community use to continue, provided that sufficient monies to fund restoration, ongoing maintenance, operating funds, and to provide a return to the Crown for its capital investment can be generated. If this is not possible, a commercial tenancy may need to be investigated.

### *Management*

The priority is to establish a management structure which can restore and maintain the House and preserve its historical integrity and provide for continuing community involvement.

Options for management of the Turnbull House Historic Reserve are:

- Department administration and management, in liaison with community interests.
- Community management by a charitable association or trust which has control and management vested in it under the Reserves Act 1977, or by a lease of the building to such a group.

## Objectives

- 1 Preserve the integrity of Turnbull House as part of the cultural heritage of New Zealand.

- 2 Allow for use by the community in a manner appropriate for preservation of the structure but subject to the need to finance conservation work and maintenance from income.
- 3 Establish a management structure to enable preservation of its integrity, continuing community use, and to allow interpretation of the building's history.

### **Implementation**

- 1 Complete strengthening of the structure and upgrading of fire protection services and means of egress, and restoration of the original gables on the visible elevations in accordance with the 1991 Conservation Plan.
- 2 Continue to maintain the building, in accordance with a maintenance plan and investigate the opportunities to interpret the building's history to increase the public's understanding and appreciation of Turnbull House.
- 3 Administer the lease to the restaurant on the ground floor and issue and administer leases of smaller rooms to community groups.
- 4 Maintain effective day to day management and market the house as a venue for exhibitions, seminars, meetings and receptions to optimise occupancy rates.
- 5 Maintain the first come, first served booking system, provided this does not diminish the availability of the house for community use.
- 6 Continue to offer concessions for bookings by community groups, and provide space for exhibitions, displays, and seminars to enable a broad section of the community to use the house.
- 7 Charge commercial rates for bookings to commercial users.
- 8 Investigate options for control and management of the house in consultation with the community and implement an option which achieves Objectives 1 and 2.
- 9 Liaise with NZ Historic Places Trust, on the building's conservation, to comply with the requirements of the Historic Places Act.

#### 6.10 PUKERUA BAY SCIENTIFIC RESERVE

<b>Conservation Unit No.:</b>	R26009
<b>Status:</b>	Scientific Reserve
<b>Area:</b>	12.31 ha
<b>Ecological District:</b>	Cook Strait
<b>Local Government:</b>	PCC/WRC

### **Description**

The reserve is adjacent to Porirua City Council's Raroa Recreation Reserve. These two reserves are collectively known as Wairaka Wildlife Refuge.

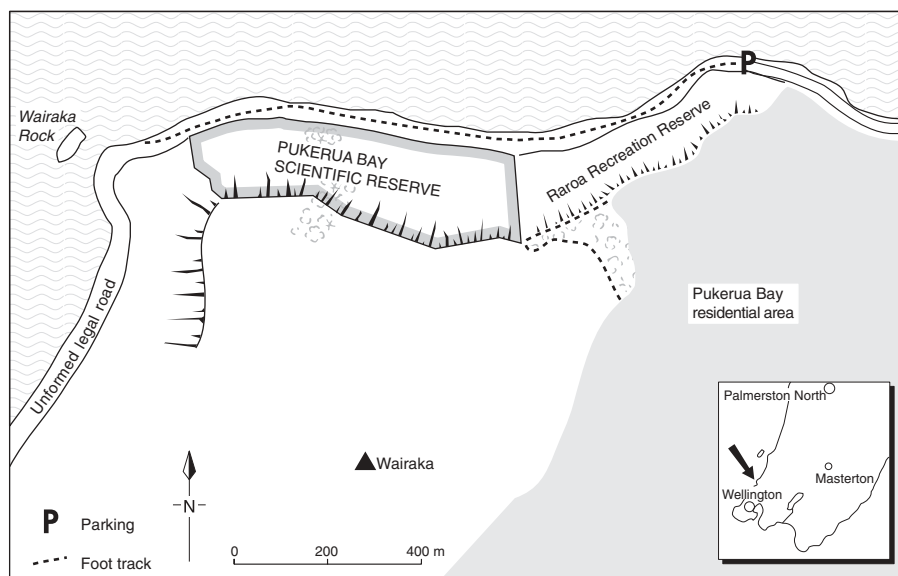
Both reserves encompass sheer coastal escarpment with a northwest aspect. The original coastal forest/scrub vegetation has been removed by recurring fires and has long been grazed, leaving pockets of degenerating forest fragments in gullies and allowing invasion of weeds into open grassland and scree. The beach is rocky and exposed. The overall effect is of a wild coastal landscape. An informal walking track follows the flat shoreline at the base of the escarpment. A noticeable landscape feature on the seaward boundary of the reserve is a large natural rock arch.

## Values

Pukerua Bay is believed to have the greatest concentration and diversity of lizards in the Conservancy. Five species have been recorded, including the rare and highly vulnerable Whitaker's skink (*Cyclodina whitakeri*). This is its only known mainland population. Little blue penguins nest at the base of the escarpment.

Although the reserve boundary does not extend to the well-used coastal platform, this area is very popular for passive and family-oriented activities. The easy road access to Pukerua Bay, carparking, and toilet facilities attract high visitor numbers, especially in summer. The coastal track receives high

Map 24:  
Pukerua Bay  
Scientific Reserve



use by local residents year-round. It is an important school trip destination for rocky shore studies. The area provides an opportunity for interpretation of the natural resources of the coastal environment.

The coastal escarpment and headlands defining Pukerua Bay are a distinctive landform visible for considerable distance along the Paekakariki coast. The land-sea interface is considered to have high natural landscape values, and the fragments of coastal forest remaining in gullies and on the escarpment are significant for their historic as well as biological values.

## Management Issues

### Threats

The values of the reserve and the adjacent Recreation Reserve are being threatened or degraded by the spread of boneseed, veld grass and broom. The threat of fire is exacerbated by the high number of visitors, barbecues, and dry, rank grass alongside the track. Mouse irruptions occur periodically with the potential to increase mustelid and cat pressures on lizard populations. Livestock have been fenced out of both reserves, but the fences are not goat-proof and goat control is periodically undertaken. Other threats include disruption to lizard habitat by roading or earthworks, human interference of lizard populations, and harassment of penguins by dogs.

### Whitaker's Skink

Whitaker's skink requires forest-scrub habitat with adequate burrows/rocks/stones for shelter. The disappearance of burrowing seabirds, loss of forest and scrub vegetation and the appearance of predatory mammals in the area

appear to have affected Whitaker's skink more than the other lizards present. Of these, Whitaker's skink has the narrowest habitat range, the slowest growth rate and is most sensitive to climatic conditions. Existing habitat should be improved to raise the carrying capacity for Whitaker's skink, and to allow the population to expand.

A recovery plan for Whitaker's skink and another rare endemic lizard, the robust skink, was prepared by the Department and approved in 1992.

Management of the reserve will be targeted at protection of Whitaker's skink. To achieve this, three key elements require consideration: habitat quality, predator pressures and fire. Management of the regeneration process (begun when stock were removed in 1987) has the potential to decrease predator pressure and fire risks if carefully planned.

Successful management of the reserve is dependant on support from the local community, especially for compliance measures, fire prevention and control and for pest control.

### **Objectives**

- 1 Protection and preservation of the natural resources, in particular the habitat and populations of Whitaker's skink.
- 2 Extension of the area of suitable habitat for Whitaker's skink.
- 3 Minimisation of threats to lizard populations and to the natural regeneration processes in the reserve.
- 4 Increased public understanding and appreciation of the natural resources of the reserve in a way which does not endanger the threatened species and communities.

### **Implementation**

- 1 Prepare a restoration plan for the land managed by the Department which takes account of recommendations in the Whitaker's skink recovery plan and the high recreational use of the bay, to provide improved habitat for Whitaker's skink.
- 2 Continue to monitor the reserve for the presence of Whitaker's skink.
- 3 Invoke a year-round fire ban for the coastal strip adjacent to the reserve.
- 4 Survey and evaluate the health and potential for regeneration of the coastal forest fragments. Implement animal and plant pest control as required to allow regeneration.
- 5 Eliminate and keep goats out of the reserve.
- 6 Support and contribute to research into the natural resources of the reserve.
- 7 Work with Porirua City Council to protect Whitaker's skink and their habitat, and to restore their habitat.
- 8 Support Porirua City Council intentions to re-gazette the Raroa Recreation Reserve as scientific reserve.
- 9 Discuss with Porirua City Council protection of Whitaker's skink habitat on the road reserve around the coast.
- 10 Investigate the provision of interpretative activities and visitor information to increase public understanding and appreciation of the natural resources of the reserve and to involve the local community in reserve management.
- 11 Undertake rodent control as required to protect Whitaker's skink.