



Karehana Bay Scenic Reserve Management Plan

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1 INTRODUCTION

1.1 THE RESERVE

Karehana Bay Scenic Reserve (formerly known as Toups Road Reserve) is located on a coastal hillside overlooking Karehana Bay, Plimmerton (see Map 1 over). The Reserve consists of over 16 hectares of remnant and regenerating coastal/lowland forest and is the second-largest piece of publicly-owned bush in Porirua City. It is flanked on one side by the Karehana Bay residential area, and on the other by privately-owned bush remnants and farmland.

The Reserve has high ecological, natural and scenic values, containing many species of native flora and fauna and providing a very pleasing backdrop to Karehana Bay. It is frequently used by the community for walking and relaxation and has a high degree of recreational value and potential. The special values of the Reserve have seen it classified as “scenic reserve” under the Reserves Act 1977 (the Act).

1.2 PURPOSE OF PLAN

The Porirua City Council, as the administering body of the Reserve, is required under the Act to prepare a management plan for the Reserve. The purpose of this Plan is to provide for the use, enjoyment, maintenance, preservation and protection of the Karehana Bay Scenic Reserve in terms of the principles set out under the Act for scenic reserves. Primarily, this involves ensuring permanent protection of the Reserve for its intrinsic worth and for the benefit, use and enjoyment of the public.

1.3 LAYOUT OF PLAN

This Plan provides a framework for the future management of the Reserve. The management framework is based on the unique qualities and values of the Reserve, the issues or threats facing it, and the requirements of the legislation. It includes a set of objectives for the Reserve, and a number of related policies and implementation methods designed to achieve the objectives. The Plan is set out in three main parts:

1. The **Resource Statement** section outlines the physical properties, history, values, and main management issues associated with the Reserve.
2. The **Reserve Administration** section summarises the legal and administrative situation applying to the Reserve, including its legal status and the management requirements of the Act and the District Plan.
3. The **Management Framework** section sets out specific objectives, policies and implementation methods for the future management of the Reserve.

2 RESOURCE STATEMENT

This section describes the topography, geology, vegetation, wildlife, access and use, adjacent land use and history of the Reserve. In addition, the main values and management issues associated with the Reserve are identified.

2.1 TOPOGRAPHY AND GEOLOGY

The Reserve is situated on a moderate to steep hillside facing west over Karehana Bay. It ranges in elevation from 30 to 110 metres, and is dissected by several steep gullies. The top of the Reserve features excellent views over most of the Porirua Basin, with a particularly good aspect out over Karehana Bay to Whitiareia Peninsula, Mana Island and the open sea. The Marlborough Sounds and the Kaikoura and Nelson ranges can easily be seen in clear conditions.

The underlying basement rock is greywacke (metamorphosed sandstone) of Triassic age. Soils are central yellow-brown earths.

2.2 VEGETATION

The Reserve is clothed largely in indigenous coastal forest, characteristic of the type of bush that once extended over the coastal hillsides from Makara to Waikanae. The forest is dominated by kohekohe and tawa, while titoki, pukatea, mahoe, nikau, karaka, hangehange, kawakawa, and lancewood are common canopy and sub-canopy species. Podocarps including miro, totara, kahikitea, rimu and matai are also present, as well as numerous ferns, treeferns, vines and epiphytes.

The most complete and mature forest assemblage is found in the gullies, which are wetter and have been less disturbed by human activities. Much of the rest of the Reserve is in a state of regeneration following clearance, grazing and other forms of disturbance over the last 100 or so years. Some parts of the Reserve, particularly around the margins and on the ridgelines, are covered in manuka and kanuka. It is likely that these species will be succeeded over time by coastal forest species as the forest regenerates.

Exotic vegetation within the Reserve includes a tall stand of pines and macrocarpa at the southern end, pastoral grasses towards the northern end, and various other species scattered throughout. Some of these species have adverse effects on native vegetation and are listed as pests in the Regional Pest Management Strategy. A full list of both native and exotic flora is shown in Appendix 1.

2.3 WILDLIFE

The Reserve is an important habitat for a number of native species. Kereru, tui and fantails are a relatively common sight, while morepork, kakariki, grey warblers, shining cuckoos and kingfishers have been reported in the area. Green geckos and the rare spotted skink are also believed to live there, as is the large native insect, the weta.

The Reserve is also home to many introduced animals and birds. Possums, rodents, mustelids, rabbits and feral cats are present, and wandering stock may pay an occasional visit. These species have adverse effects on native vegetation and wildlife and some are listed as pests in the Regional Pest Management Strategy. The ubiquitous blackbird, thrush, finch and sparrow also inhabit the bush and margins. A full list of both native and exotic fauna is shown in Appendix 2.

2.4 ACCESS AND USE

There are numerous points of access to the Reserve although none are particularly well marked. The most commonly used access-way is off the end of Reserve Road. Access can be also gained from public land at a point halfway up The Track, Toups Road, Taua-Tapu Track (from Airlie Road Reserve), Cluny Road, and the unformed access way between Reserve Road and Roys Road.

The Reserve is commonly visited by locals and bush enthusiasts who enjoy walking, bird-watching or plant-spotting. No formal walking tracks exist within the Reserve, although keen walkers have blazed several rough trails through the bush. Wider use and appreciation of the Reserve is undoubtedly constrained by the lack of proper tracks and signage, as well as the steep terrain, dense bush and the secluded nature of the entrance-ways.

2.5 ADJOINING LAND USE

The surrounding land uses are reflected in the zoning provisions of the Porirua City District Plan: to the south and west is the residential housing of the suburb of Karehana Bay (zoned suburban); to the north and east are lifestyle blocks and marginal farmland (zoned rural).

Much of the rural land immediately adjoining the Reserve contains covenanted areas (see Map 2 over). These covenants protect bush that is contiguous with the Reserve, but which is on private land. It is important to note that while the forest as a whole is part of the one ecological unit, this Plan only applies to those areas within the Reserve boundaries. Nevertheless, this Plan can help form the basis for integrated and co-ordinated management of adjoining areas in consultation with private landowners. In any event, covenants and the provisions of the District Plan afford a high degree of protection to bush areas adjoining the Reserve.

2.6 HISTORY

The Porirua coastline has been a site of Maori habitation for centuries, with various tribal groups occupying the land in pre-European times. After 1819, Ngati Toa occupied many sites along the coast, including Taupo pa and village at Plimmerton. Taupo pa was an important strategic point for the tribe, and it marked the beginning of the Taua-Tapu Track, a historic Maori route between Plimmerton and Pukerua Bay. The route passes through and along part of what is now the Karehana Bay Scenic Reserve. The Bay itself is named after Whakataki Karehana, a prominent Ngati Toa chief who lived at Motuhara pa.

After European settlement of the Plimmerton area, development of the coastal areas began to take place in the late 1800s and early 1900s. Around 1912, local landowner Sir George Troup subdivided a large area of land and laid out several roads, including Cluny, Gordon, Airlie and Ogilvie roads. A further road was planned for the hillside behind Karehana Bay, but was never constructed; this paper road became known as “Toups Road”, presumably after George Troup, but with the correct spelling and pronunciation lost at some point in time.

Some of the forested gullies on the hillside behind Karehana Bay escaped development, and on 28 March 1922 part of this area (Lot 1, DP 5600) was vested in the then Hutt County Council as reserve. Since that time many other parcels of land, including Toups Road, have been added to the Reserve and it is now over six times its original area.

The Reserve was known for many years as “Toups Road Reserve”. However, due to the confusion surrounding the origins and spelling of the name, and the fact that Toups Road does not exist in a physical sense, a new name was thought necessary when developing this Plan. “Karehana Bay Scenic Reserve” was agreed upon, reflecting the prominence of the Reserve in the Karehana Bay area, and was formally approved upon the adoption of this Plan in December 2001.

2.7 SIGNIFICANCE AND VALUE

The Reserve is the largest bush remnant in Plimmerton, and one of the larger areas of bush in Porirua City. It is a very good example of the type of indigenous lowland/coastal forest that was once widespread in the District, but is now restricted to a very few isolated pockets. Because of this, and its proximity and accessibility, it is a highly significant area. It has the following values:

- High natural, ecological and conservation values (described by Boffa Miskell Ltd (2001) as being “Rank 1: of highest ecological significance, or rare or scarce within Porirua City”)
 - contains a diverse assemblage of native flora and fauna
 - contains rare flora and fauna including the spotted skink (*Leiolopisma lineocellatum*) and the large-leaved milktree (*Streblus banksii*).

- is a good habitat and food source for native fauna
- provides a wildlife “corridor” for the movement of native fauna
- is a source of seed for regeneration within and outside the Reserve
- High recreational potential, being handily located and a good place to walk, relax and enjoy views of Karehana Bay and beyond
- Scientific and educational value, providing a location for research into and study of native flora and fauna
- High scenic, aesthetic, amenity and landscape values, providing a visually pleasing natural backdrop to Karehana Bay and residential areas
- Historic values (being associated with Maori and early European activity), and ongoing cultural and spiritual values
- Soil and water conservation values by protecting the land from erosion and maintaining high water quality

2.8 MANAGEMENT ISSUES

A number of different issues, or actual or potential threats to the Reserve’s values, have been identified. These issues are grouped under three main headings: (1) effects on ecological, natural and scenic values; (2) limited recreational and educational opportunities; and (3) fragmented ecosystem and administrative arrangements.

2.8.1 EFFECTS ON ECOLOGICAL, NATURAL AND SCENIC VALUES

- Adverse impacts of pest/exotic animals (including possums, rats, mice, stoats, rabbits and feral cats) on native flora and fauna
- Adverse impacts of pest/exotic plants (including old man’s beard, climbing asparagus, wandering willie and pines) on native flora
- Potential adverse impacts of stock on native flora, soils and natural values caused by incomplete or inadequate fencing
- Adverse effects of the dumping or placement of rubbish and inappropriate materials on native flora and fauna and natural and scenic values
- Potential adverse effects on native flora, soils and natural values caused by people creating or straying from informal tracks
- Potential adverse effects of future use and development of the Reserve for recreational purposes

2.8.2 LIMITED RECREATIONAL AND EDUCATIONAL OPPORTUNITIES

- Lack of a proper walking track between Reserve Road and The Track, which limits recreational use and increases the potential for damage to native flora, soils and natural values
- Lack of any interpretative material, which limits the extent to which people can learn about and appreciate the Reserve’s values
- Lack of appropriate signage indicating the location of recognised accessways to the Reserve

- Lack of any other public facilities that might increase enjoyment of the Reserve (eg, provision of seating and/or water)
- Potential conflict between developing the above recreational and educational facilities and protecting the ecological, natural and scenic values of the Reserve

2.8.3 FRAGMENTED ECOSYSTEM AND ADMINISTRATIVE ARRANGEMENTS

- The Reserve is a relatively small, isolated and fragmented “island”, making it more vulnerable to ecological damage
- Bush areas outside the reserve are important parts of the forest ecosystem as a whole, but may be managed differently or at risk from development
- Use and development of adjacent land may have adverse effects on the Reserve

3 RESERVE ADMINISTRATION

This section summarises the legal framework surrounding the Reserve, including an outline of the Reserves Act requirements, the classification and legal description of the Reserve, and the application of the District Plan.

3.1 RESERVES ACT 1977

The Reserve is managed under the Reserves Act 1977 (the Act). Section 3 of the Act sets out the purpose of the Act (see Appendix 3), and this is summarised as:

- Providing for the preservation and management, for the benefit and enjoyment of the public, areas of New Zealand possessing recreational, environmental or other values
- Ensuring, as far as possible, the survival of all indigenous species of flora and fauna in their natural habitats
- Ensuring, as far as possible, the preservation of public access to and along the coast, lakes and rivers

Under section 41 of the Act, the Council is required to prepare a management plan for the Reserve in consultation with the public and interested groups. The plan shall provide for the use, enjoyment and management of the Reserve consistent with the purposes for which it is classified.

3.2 RESERVE CLASSIFICATION

Because of its particular scenic, natural and landscape qualities, all of Karehana Bay Scenic Reserve is classified as a scenic reserve for the purposes of section 19(1)(a) of the Act (see Appendix 4). The primary purpose of the Reserve is therefore set out in section 19(1)(a) as follows:

For the purpose of protecting and preserving in perpetuity for their intrinsic worth and for the benefit, enjoyment, and use of the public, suitable areas possessing such qualities of scenic interest, beauty, or natural features or landscape that their protection and preservation are desirable in the public interest.

Subsections 19(2)(a-e) of the Act set out the more specific requirements for the management of scenic reserves. In summary, these subsections state that every scenic reserve classified under section 19(1)(a) shall be managed under the provisions of the Act so that:

- indigenous flora and fauna, ecological associations, and natural environment and beauty shall as far as possible be preserved, and for this purpose, exotic flora and fauna shall as far as possible be exterminated (subject to the approval of the Minister of Conservation);

- the public shall have freedom of entry and access to the reserve (subject to certain Council powers, Reserves Act bylaws, and conditions necessary to protect the reserve and the public);
- open portions of the reserve may be developed for facilities to enable the public to obtain benefit and enjoyment from the reserve (where necessary and to the extent compatible with the primary purposes of the reserve);
- any historic, archaeological, geological, biological, or other scientific features present shall be managed and protected to the extent compatible with the primary purpose of the reserve (subject to the Wildlife and Historic Places acts);
- the reserve's value as a soil, water, and forest conservation area shall be maintained to the extent compatible with the primary purpose of the reserve.

In addition to the above, section 55 of the Act provides the Council with certain specific powers in relation to scenic reserves. These powers enable the Council to protect and/or develop parts of the Reserve as necessary to effectively undertake its scenic reserve management functions (see Appendix 5 for details).

3.3 LEGAL DESCRIPTION AND AREA

The Reserve consists of 18 land parcels situated in Block V and Block VIII, Paekakariki Survey District, shown on nine survey plans. It has a total area of 16.6223 hectares, more or less. The individual land parcels and areas that make up the Reserve are shown in Table 1 and are also illustrated in Map 3 over.

Table 1: Karehana Bay Scenic Reserve legal description and area

| Land parcel | Area |
|--------------------------------------------------------|-------------|
| Lot 1, DP 5600, Block V, Paekakariki SD | 2.5622 ha |
| Lot 50, DP 6067, Block V, Paekakariki SD | 2.0234 ha |
| Lot 21, DP 16131, Block V, Paekakariki SD | 0.3392 ha |
| Lot 22, DP 67249, Block V, Paekakariki SD | 0.0208 ha |
| Lot 31, DP 67249, Blocks V and VIII, Paekakariki SD | 0.4543 ha |
| Lot 32, DP 67249, Blocks V and VIII, Paekakariki SD | 0.1119 ha |
| Lot 33, DP 67249, Block V, Paekakariki SD | 1.4164 ha |
| Lot 34, DP 67249, Block V, Paekakariki SD | 1.1032 ha |
| Lot 35, DP 67249, Block V, Paekakariki SD | 0.2020 ha |
| Lot 23, DP 67250, Block V, Paekakariki SD | 0.4564 ha |
| Lot 4, DP 81612, Block V, Paekakariki SD | 0.4004 ha |
| Lot 5, DP 81612, Block V, Paekakariki SD | 4.4910 ha |
| Lot 8, DP 81612, Block V, Paekakariki SD | 0.1272 ha |
| Lot 2, DP 85358, Block V, Paekakariki SD | 0.1786 ha |
| Section 3, SO 37295, Blocks V and VIII, Paekakariki SD | 2.4860 ha |
| Lot 2 DP 90979, Blocks V and VIII, Paekakariki SD | 0.1705 ha |

| | |
|---------------------------------------------------|-------------------|
| Lot 3 DP 90979, Blocks V and VIII, Paekakariki SD | 0.0263 ha |
| Lot 4 DP 90979, Blocks V and VIII, Paekakariki SD | 0.0480 ha |
| Total | 16.6223 ha |

3.4 DISTRICT PLAN PROVISIONS

Under the Porirua City District Plan, the bulk of the Reserve is zoned rural. The exception is Lot 31, DP 67249 at the southern tip of the Reserve, which is zoned suburban and included in the landscape protection area. Any developments within or outside the Reserve must be assessed in terms of the relevant provisions of the District Plan and the Resource Management Act 1991.

4 MANAGEMENT FRAMEWORK

This section sets out the specific objectives, policies and implementation methods for the Plan. These provisions are designed to provide for the use, enjoyment, maintenance, preservation and protection of the Reserve in terms of the principles set out under the Act for scenic reserves. The provisions are set out under three broad headings reflecting the major issues facing the reserve: (1) management of ecological, natural and scenic values; (2) management of recreational and educational opportunities; and (3) integrated management.

4.1 MANAGEMENT OF ECOLOGICAL, NATURAL AND SCENIC VALUES

Objective 1: To maintain and where possible enhance the indigenous biodiversity, ecological health and natural and scenic values of the Reserve.

Policy 1.1: Exterminate from the Reserve, as far as possible, pest animals and other exotic fauna.

Explanation

Possums, rats, mice, stoats, rabbits and feral cats are known to be present in the Reserve. These species, individually and in combination, can have severe adverse effects on native flora and fauna and their presence poses a threat to the ecological health and long-term viability of the Reserve ecosystem as a whole.

In order to protect the Reserve's ecological, natural and scenic values, these species should as far as possible be exterminated. The priority for control and extermination will be determined by the relative significance of the effects of each species, and by the requirements of the Regional Pest Management Strategy. Generally, animals that are classified as pests will have a higher priority for action.

Possums, rabbits, magpies, ferrets, stoats, weasels, feral cats, rats and mice, among other animals, are classified as pests under the Proposed Pest Management Strategy (2001 - 2021).

Implementation

- Carry out pest animal management as required by any Regional Pest Management Strategy
- Control and exterminate possums in co-operation with Wellington Regional Council's key native ecosystem operations
- Control and exterminate other pest/exotic animals as often as practicable and as resources and funding allow

- Monitor the impacts of pest/exotic animals on the vegetation and ecological health of the Reserve and respond as appropriate
- Involve the community in the monitoring and extermination of pest/exotic animals

Policy 1.2: Exterminate from the Reserve, as far as possible, pest plants and other exotic flora.

Explanation

A number of pest/exotic plant species exist within the Reserve, including old man's beard, climbing asparagus, wandering willie, eleagnus and wilding pines. These species can have a range of adverse effects, including suppressing regeneration (wandering willie), smothering existing vegetation (old man's beard), and shading and replacing native vegetation (wilding pines).

In order to protect the Reserve's ecological, natural and scenic values, these species should as far as possible be exterminated. The priority for control and extermination will be determined by the relative significance of the effects of each species, and by the requirements of the Regional Pest Management Strategy. Generally, plants that are classified as pests will have a higher priority for action.

Old man's beard, gorse, ragwort, banana passionfruit, boneseed, climbing asparagus, Darwin's barberry, cotoneasta, eleagnus, Japanese honeysuckle, Mexican daisy, Montpellier broom, Spanish heath and wild broom, among other plants, are classified as pests plants in the Proposed Pest Management Strategy (2001 - 2021).

It should be recognised that some exotic plant species may be beneficial. For example, gorse can provide cover for regenerating native plants, while "old man pines" may provide useful roosting places for birds.

Implementation

- Carry out pest plant management as required by any Regional Pest Management Strategy
- Continue to work in conjunction with the Regional Council's Key Natural Ecosystem programme to maximise the effectiveness of pest management in the area
- Exterminate old man's beard from the reserve, with re-infestations being exterminated with a maximum return period between operations of one year
- Control and exterminate other pest/exotic plants as often as practicable and as resources and funding allow. Such exterminations should be undertaken in conjunction with extermination of old man's beard where possible
- Monitor the impacts of pest/exotic plants on the vegetation and ecological health of the Reserve and respond as appropriate
- Involve the community in the monitoring and extermination of pest/exotic plants

Policy 1.3: Ensure that stock are permanently excluded from the Reserve.

Explanation

Fencing around the Reserve and adjoining bush is of varying quality and is not complete or secure in some places. Inadequate fencing has allowed stock from surrounding farmland to enter the Reserve for decades, and stock-damage to vegetation has been a significant problem over the years, although the situation has improved of late. Stock browse on seedlings and undergrowth, and given the opportunity and time can seriously set back or halt regeneration.

In order to protect regenerating vegetation and ecological and natural values, stock must to be totally excluded from the Reserve. This will require secure fencing either around the perimeter of the Reserve or around adjoining bush areas as the case may be. Cattle-stops may also be needed in some places. The fencing of bush on private land is addressed in both this Policy and Policy 3.2 below.

Implementation

- Assess the extent and adequacy of current fencing arrangements, and the extent of any stock damage present in the Reserve
- As required, construct, reconstruct or repair fences on Reserve land to a stock-proof condition
- As required, encourage and assist adjoining landowners to fence private bush areas where necessary to exclude stock from the Reserve
- Monitor the condition of fencing and maintain and repair fences to a stock-proof condition as required

Policy 1.4: Discourage the dumping or placement of rubbish and other inappropriate materials in the Reserve; and remove any existing material of that nature.

Explanation

Due to its proximity to roading and residential areas, the Reserve is susceptible to the dumping of bottles and domestic and garden rubbish. The dumping of rubbish is an offence under the Reserves Act; it is also unsightly and dangerous and can, in the case of domestic and garden waste, contribute to the spread of pest/exotic animals and plants. In addition, other inappropriate materials or structures, such as tree-houses and silt traps, are illegally placed in the Reserve.

In order to maintain and enhance the ecological, natural and scenic values of the Reserve, any existing rubbish should be removed. In addition, people should be discouraged from placing or dumping rubbish or inappropriate structures in the Reserve in future.

Implementation

- Encourage and facilitate community action aimed at the collection and disposal of rubbish and other unwanted materials

- Encourage visitors to the Reserve to remove any rubbish they may carry into the reserve, or to remove others' rubbish if any is found
- Discourage the illegal dumping of rubbish on the Reserve's margins
- Discourage the placement of inappropriate structures and materials in the Reserve
- Monitor the extent and effects of any future dumping of rubbish and/or placement of inappropriate materials

Policy 1.5: Prohibit any use and development of the Reserve that would have a net adverse effect on the following values:

- **indigenous flora and fauna, ecological associations and natural environment and beauty; or**
- **historic, archaeological, geological, biological, and other scientific features; or**
- **the Reserve's value as a soil, water, and forest conservation area.**

Explanation

From time to time there may be proposals to develop areas of the Reserve, for example, for the provision of public access and facilities. Such development can impact on the natural and scenic values of the Reserve, and its appropriateness needs to be carefully assessed. Such assessments should be carried out in accordance with Reserves Act and Resource Management Act processes.

Implementation

- Assess the impact of all proposed development works on the above values before deciding whether or not to proceed
- Follow the appropriate Reserves Act, District Plan and Resource Management Act process when deciding on developments
- Consult with the community in formulating and assessing any proposed development in the Reserve

Policy 1.6: Allow for and encourage revegetation projects where this will assist with regeneration and help to protect, enhance and restore the Reserve's natural, ecological and scenic values.

Explanation

Much of the Reserve has undergone significant disturbance in the past and is in a state of regeneration. However, the process of natural regeneration may be hindered by pests, a lack of seed sources or by inappropriate conditions for the germination and growth of certain species. Regeneration may therefore be assisted by the replanting of appropriate native species in certain areas of the Reserve. This will need to be carried out in conjunction with other management tools such as fencing and pest eradication programmes.

In other areas of the Reserve the natural functioning of the forest continues to be at threat from outside influences such as wind damage, particularly around the margins where there is little buffer. Here the planting of appropriate

species may help to protect and enhance the existing forest assemblage by providing the necessary buffer and shelter.

Implementation

- In consultation with the community and interested agencies, identify areas of the Reserve that may benefit from restoration activities, and formulate an appropriate planting and restoration programme for the Reserve
- Facilitate and encourage the implementation of appropriate restoration programmes by providing technical advice, seedlings and other resources as available
- Monitor the effectiveness and outcomes of restoration programmes on an ongoing basis

Policy 1.7: Monitor, on an ongoing basis, the ecological health of the Reserve, the effectiveness of Reserve management techniques and the effectiveness and appropriateness of the Management Plan as a whole.

Explanation

Monitoring is a crucial aspect of the management of ecological systems. Monitoring is necessary to ascertain base-line data on the health of the Reserve and to track changes to the Reserve's health over time. It is also necessary to ascertain the impact of threats to the Reserve (such as pests), and to measure the effectiveness of management and implementation methods (such as pest control). Ultimately monitoring is required to determine whether the objectives of the Plan are being met and to provide information to enable the Plan to be reviewed and changed as necessary.

Implementation

- Involve the community in the formulation and implementation of an effective monitoring programme for the Reserve
- Liaise and co-operate with the Department of Conservation and the Wellington Regional Council in relation to existing and future monitoring programmes in the reserve and surrounding area
- Monitor the ecological health of the Reserve over time by measuring the status of key indicators such as seedling regrowth, regeneration and canopy growth and the condition of rare plants and animals
- Monitor the status of pest/exotic animals and plants and their impacts on the vegetation and ecological health of the Reserve, and measure the effectiveness of plant and animal control programmes
- Monitor the effectiveness of Plan provisions in terms of meeting Plan objectives and use this information for the purpose of Plan review as appropriate

4.2 MANAGEMENT OF RECREATIONAL AND EDUCATIONAL OPPORTUNITIES

Objective 2: To improve the opportunities for the public to enjoy, learn about and appreciate the Reserve's unique values, where this is compatible with the protection of those values.

Policy 2.1: The public shall generally have freedom of entry and access to the Reserve, subject to any conditions necessary for the protection of the Reserve and the public.

Explanation

Freedom of public access to reserves is a foundation of the Reserves Act. Reserves are held, among other reasons, for the benefit, enjoyment and use of the public. Restrictions may be placed on public access where this is necessary to protect the values of the reserve or the safety of the public. At present, however, it is not thought that unrestricted public access to the Reserve represents a problem.

Implementation

- Monitor the impacts of public access to the Reserve and respond appropriately if the need arises

Policy 2.2: Where desirable and necessary for improved public enjoyment of the Reserve, open portions of it may be subject to appropriate development, provided this is compatible with the protection of the other values of the Reserve.

Explanation

The Reserves Act allows for appropriate developments within open portions of reserves for the purposes of enhancing public access and enjoyment. There may be a case for developing small areas of the Reserve to improve the situation that currently exists. However, such development must not be at the expense of the primary values for which the reserve is being managed (see also Policy 1.5 above).

Implementation

- Assess, on a case by case basis, the need for recreational developments and the adverse effects of such development on the other values of the Reserve.
- Follow the appropriate District Plan and Resource Management Act process when deciding on developments

Policy 2.3: Subject to policies 1.5 and 2.2, and in consultation with the community, the Council shall investigate the need for and/or develop:

- a walking track or tracks between Reserve Road and The Track;
- interpretation and educational material within the Reserve, and appropriate signage marking the entrance(s) to the Reserve;
- any other facilities necessary to enhance public enjoyment of the Reserve.

Explanation

Opportunities for recreation and education within the Reserve are presently very limited. There is no formal track through the Reserve, and signage and interpretation are non-existent. Further, the rough track that does exist is unsatisfactory to many people in that it is unformed, poorly marked, and does not connect properly with The Track.

The lack of a proper track leads to a number of issues. First, the safety and convenience of users is put at risk. Second, people can wander from the poorly defined track and cause unnecessary damage to soils and vegetation or stray into private land. Third, the opportunity for a round-trip within the Reserve or a connection to other walkways in the area is not fully realised.

The creation of a proper track would improve the above situation. Improved facilities in general may also encourage greater use and a better understanding and appreciation of the Reserve itself. However, the benefits of any developments within the Reserve must be carefully weighed against the adverse effects they may create.

Implementation

- In consultation with the community, investigate both the demand for and the options for a track and/or other public facilities within the Reserve
- Assess the potential positive effects of any development against the potential adverse effects
- If required and provided for by funding and other considerations (eg, walkways proposals), commence the process of developing appropriate facilities
- Monitor the impacts of such developments on the Reserve

Policy 2.4: Promote a greater awareness and wider appreciation of the special values and history of the Reserve.

Explanation

Although the Reserve is highly valued by locals and bush enthusiasts, it is unclear how well known or appreciated it is by the wider community. Improving awareness and understanding of the Reserve would increase the level to which it is enjoyed and valued, and widen the pool of people who are prepared to contribute to its protection. The Reserve also has the potential to be used for educational purposes.

Implementation

- Liaise and co-ordinate with schools and educational institutions who may wish to visit the reserve for educational purposes
- Liaise with neighbouring landowners to ensure that they are aware of the Reserve's values and the potential impact of their activities on the Reserve
- Develop and distribute educational material so that the public may better understand and appreciate the Reserve's values

4.3 INTEGRATED MANAGEMENT

Objective 3: To promote the integrated and co-ordinated management and protection of the Reserve and adjacent forest remnants, and where appropriate acquire further suitable land for the Reserve.

Policy 3.1: Promote and encourage the appropriate management of adjacent land to ensure that, as far as possible:

- any adverse effects of adjacent land use on the Reserve are avoided or minimised
- the ecological, natural and scenic values of adjacent bush remnants are maintained and enhanced
- the health and viability of the bush ecosystem as a whole, on both public and private land, is maximised and protected.

Explanation

The Reserve is an isolated, small and fragmented ecosystem, making it highly vulnerable to edge effects and less “viable” over time. It also forms the core of a wider area of bush, or a larger ecosystem, the edges of which are in private ownership. In order to avoid adverse effects on the Reserve, and maintain and enhance its values and ecological viability, adjacent areas should be managed in an appropriate and complementary manner.

To achieve this, surrounding landowners need to be engaged in and encouraged to co-operate with management initiatives. For example, programmes to eradicate pests within the Reserve need to be complemented by pest eradication in adjoining areas of bush in order to be successful. Covenanting and fencing of private areas of bush is also desirable.

Another concern is that further subdivision and development of surrounding land could potentially impact on the Reserve; for example, by changing the existing character and landscape quality of the area or by increasing runoff or sedimentation. These issues need to be addressed through District Plan and Resource Management Act processes.

Implementation

- Provide information to, and liaise and co-ordinate with, adjacent landowners to enhance appreciation of the Reserve and encourage appropriate and complementary management of adjacent land
- Promote, encourage and facilitate the construction and maintenance of fencing on private land where this is necessary to exclude stock from the Reserve and adjacent bush areas
- Promote, encourage and facilitate the control and extermination of pest/exotic animals and plants on private land in line with initiatives within the Reserve and the requirements of any Regional Pest Management Strategy

- Advocate the formal protection of any adjacent bush areas that are not already protected by covenant
- Provide input to the District Plan and Resource Management Act process to ensure that the effects of the use and development of adjacent land on the Reserve are taken into consideration and avoided or minimised

Policy 3.2: Consider the acquisition of additional areas of land for inclusion in the Reserve where this would:

- **assist with the integrated management of the wider bush area**
- **enhance the ecological, natural and scenic values of the Reserve and improve its viability (for example, by increasing its size and buffer zone);**
- **improve the opportunities for the public to gain access to and enjoyment from the Reserve;**
- **be acceptable to the both the landowner and the Council in terms of either the exchange of money or land.**

Explanation

In order to maintain and enhance the values of the Reserve and secure the protection of the wider bush area, the ideal situation is that further areas of bush are included in the Reserve. As has happened in the past, it is envisaged that this process would evolve over time as the opportunities arise. However, there may be some merit in investigating opportunities to buy or swap land in the area.

Implementation

- In consultation with landowners and the community, investigate the options for including further land in the Reserve
- Provide input to the District Plan and Resource Management Act process to ensure that the appropriate additions to the Reserve are provided for when subdivision is proposed

APPENDICES

APPENDIX 1: VEGETATION

APPENDIX 2: WILDLIFE

APPENDIX 3: SECTION 3 RESERVES ACT 1977

APPENDIX 4: SECTION 19 RESERVES ACT 1977

APPENDIX 5: SECTION 55 RESERVES ACT 1977

APPENDIX 1: VEGETATION

The following list is based on surveys made by Colin Ogle (September 1985) and Barbara Mitcalfe and Chris Horne (July 1997). The list was revised with Rae Collins and Terry O'Loughlin in September 1999, and further revised with Pat Enright and Olaf John in early 2001. Colin Ogle and the Wellington Botanical Society made further refinements to the list in June 2001. The survey concentrates on vascular plants and is not exhaustive.

NATIVE VEGETATION

| Botanical Name | Maori Name | Common Name |
|-------------------------------------------------------------|--------------|----------------------|
| <i>Gymnosperm Trees</i> | | |
| <i>Dacrycarpus dacrydioides</i> | kahikatea | kahikatea |
| <i>Dacrydium cupressinum</i> | rimu | rimu |
| <i>Podocarpus totara</i> | totara | totara |
| <i>Prumnopitys ferruginea</i> | miro | miro |
| <i>Prumnopitys taxifolia</i> | matai | matai |
| <i>Dicot Trees and Shrubs</i> | | |
| <i>Alectryon excelsus</i> | titoki | titoki |
| <i>Aristotelia serrata</i> | makomako | wineberry |
| <i>Brachyglottis repanda</i> | rangiora | rangiora |
| <i>Beilschmiedia tawa</i> | tawa | tawa |
| <i>Carmichaelia australis</i> | makaka | New Zealand broom |
| <i>Carpodetus serratus</i> | putaputaweta | marble-leaf |
| <i>Coprosma areolata</i> | | thin-leaved coprosma |
| <i>Coprosma grandifolia</i> | kanono | kanono |
| <i>Coprosma lucida</i> | karamu | karamu |
| <i>Coprosma propinqua</i> | | |
| <i>Coprosma repens</i> | taupata | taupata |
| <i>Coprosma rhamnoides</i> | | |
| <i>Coprosma robusta</i> | karamu | karamu |
| <i>Coprosma propinqua</i> x <i>Coprosma robusta</i> | | |
| <i>Corynocarpus laevigatus</i> | karaka | karaka |
| <i>Cyathodes juniperina</i> | mingimingi | little mingimingi |
| <i>Dysoxylum spectabile</i> | kohekohe | kohekohe |
| <i>Elaeocarpus dentatus</i> | hinau | hinau |
| <i>Fuchsia excorticata</i> | kotukutuku | tree fuchsia |
| <i>Geniostoma rupestre</i> var. <i>ligustrifolium</i> | hangehange | hangehange |
| <i>Griselinia lucida</i> | puka | broadleaf |
| <i>Hedycarya arborea</i> | porokaiwhiri | pigeonwood |
| <i>Knightia excelsa</i> | rewarewa | rewarewa |
| <i>Kunzea ericoides</i> | kanuka | kanuka |
| <i>Laurelia novae-zelandiae</i> | pukatea | pukatea |
| <i>Leptecophylla juniperina</i> subsp. <i>juniperina</i> | | prickly mingimingi |

| | | |
|--------------------------------------------------|-----------------------|------------------------|
| <i>Leptospermum scoparium</i> | manuka | manuka |
| <i>Leucopogon fasciculatus</i> | mingimingi | mingimingi |
| <i>Lophomyrtus bullata</i> | ramarama | ramarama |
| <i>Macropiper excelsum</i> | kawakawa | pepper tree |
| <i>Melicope ternata</i> | wharangi | wharangi |
| <i>Melicope simplex</i> x <i>M. ternata</i> | | |
| <i>Melicytus ramiflorus</i> | mahoe | whiteywood |
| <i>Metrosideros robusta</i> | rata | northern rata |
| <i>Mida salicifolia</i> | | |
| <i>Myoporum laetum</i> | ngaio | ngaio |
| <i>Myrsine australis</i> | mapou | mapou |
| <i>Nestegis lanceolata</i> | maire | white maire |
| <i>Olearia paniculata</i> | akiraho | akiraho |
| <i>Olearia rani</i> | heketara | heketara |
| <i>Olearia solandri</i> | | |
| <i>Ozothamnus leptophyllus</i> | tauhinu | tauhinu |
| <i>Pennantia corymbosa</i> | kaikomako | kaikomako |
| <i>Pittosporum crassifolium</i> | karo | karo |
| <i>Pittosporum eugenioides</i> | tarata | lemonwood |
| <i>Pittosporum ralphii</i> | | |
| <i>Pittosporum tenuifolium</i> | kohuhu | kohuhu |
| <i>Pseudopanax arboreus</i> | whauwhaupaku (puahou) | five-finger |
| <i>Pseudopanax crassifolius</i> | horoeaka | lancewood |
| <i>Pseudopanax (hybrid)</i> | | |
| <i>Schefflera digitata</i> | pate | pate |
| <i>Solanum aviculare</i> | poroporo | poroporo |
| <i>Streblus banksii</i> | towai (ewekuri) | large-leaved milk tree |
| <i>Streblus heterophyllus</i> | turepo | small-leaved milk tree |
| <i>Streblus (hybrid)</i> | | |
| <i>Weinmannia racemosa</i> | kamahi | kamahi |
| Monocot trees and shrubs | | |
| <i>Cordyline australis</i> | ti | cabbage tree |
| <i>Rhopalostyrus sapida</i> | nikau | nikau palm |
| Monocot lianes | | |
| <i>Freycinetia baueriana</i> ssp. <i>banksii</i> | kiekie | kiekie |
| <i>Ripogonum scandens</i> | kareao | supplejack |
| Dicot lianes and related | | |
| <i>Clematis foetida</i> | pikiarero | clematis |
| <i>Clematis forsteri</i> | | clematis |
| <i>Clematis paniculata</i> | puawhananga | clematis |
| <i>Metrosideros diffusa</i> | aka | white climbing rata |
| <i>Metrosideros fulgens</i> | akakura | scarlet rata |
| <i>Metrosideros perforata</i> | aka | clinging rata |
| <i>Muehlenbeckia australis</i> | | |
| <i>Muehlenbeckia complexa</i> | pohuehue | pohuehue |
| <i>Parsonsia heterophylla</i> | kaihua | New Zealand jasmine |

| | | |
|-------------------------------------|---------------------|----------------------|
| <i>Parsonsia heterophylla</i> | kaihua | kaihua |
| <i>Passiflora tetrandra</i> | | passion vine |
| <i>Rubus cissoides</i> | tataramoa | bush lawyer |
| Ferns | | |
| <i>Adiantum cunninghamii</i> | huruhuru tapairu | maiden hair |
| <i>Adiantum diaphanum</i> | | |
| <i>Adiantum fulvum</i> | | |
| <i>Adiantum viridescens</i> | | |
| <i>Anarthropteris lanceolata</i> | | |
| <i>Anarthropteris tenella</i> | | |
| <i>Asplenium appendiculatum</i> | | |
| <i>Asplenium bulbiferum</i> | manamana | hen and chicken fern |
| <i>Asplenium flabellifolium</i> | | |
| <i>Asplenium flaccidum</i> | makawe o Raukatauri | hanging spleenwort |
| <i>Asplenium gracillimum</i> | | |
| <i>Asplenium hookerianum</i> | | |
| <i>Asplenium oblongifolium</i> | huruhuruwhenua | shining spleenwort |
| <i>Asplenium polyodon</i> | petako | sickle spleenwort |
| <i>Blechnum chambersii</i> | nini | lance fern |
| <i>Blechnum discolor</i> | | rown fern |
| <i>Blechnum filiforme</i> | panako | thread fern |
| <i>Blechnum fluviatile</i> | kiwakiwa | |
| <i>Blechnum membranaceum</i> | | |
| <i>Blechnum minus</i> | kiokio | swamp kiokio |
| <i>Blechnum novae-zelandiae</i> | kiokio | |
| <i>Blechnum procerum</i> | | |
| <i>Cyathea dealbata</i> | ponga | silver tree fern |
| <i>Cyathea medullaris</i> | mamaku | black tree fern |
| <i>Dicksonia squarrosa</i> | wheki | wheki |
| <i>Hymenophyllum demissum</i> | mauku | filmy fern |
| <i>Hypolepus ambugua</i> | | |
| <i>Hypolepus rufobarbata</i> | | |
| <i>Lastreopsis glabella</i> | | |
| <i>Lastreopsis hispida</i> | | hairy fern |
| <i>Lastreopsis microsora</i> | | |
| <i>Lastreopsis velutina</i> | | velvet fern |
| <i>Leptopteris hymenophylloides</i> | heruheru | single crepe fern |
| <i>Microsorium pustulatum</i> | kowaowao | hound's tongue fern |
| <i>Microsorium scandens</i> | mokimoki | fragrant fern |
| <i>Paesia scaberula</i> | matata | scented fern |
| <i>Pallaea rotundifolia</i> | tarawera | button fern |
| <i>Polystichum richardii</i> | pikopiko | shield fern |
| <i>Polystichum vestitum</i> | punia | |
| <i>Pneumatopteris pennigera</i> | pakau | gully fern |
| <i>Pteridium esculentum</i> | rarahu | bracken |
| <i>Pteris macilenta</i> | | brake |
| <i>Pteris tremula</i> | turawera | shaking brake |

| | | |
|-----------------------------------|----------|---------------------|
| <i>Pyrrhosia eleagnifolia</i> | ota | leatherleaf fern |
| <i>Rhumohra adiantiformis</i> | | |
| <i>Trichomanes endlicherianum</i> | | |
| <i>Trichomanes venosum</i> | | |
| Orchids | | |
| <i>Acianthus sinclairii</i> | | |
| <i>Corybas macranthus</i> | | spider orchid |
| <i>Earina mucronata</i> | | |
| <i>Pterostylis alobula</i> | tutukiwi | greenhood |
| <i>Pterostylis banksii</i> | tutukiwi | greenhood |
| <i>Thelymitra sp.</i> | maikuku | sun orchid |
| Grasses | | |
| <i>Cortaderia toetoe</i> | toetoe | toetoe |
| <i>Dichelachne crinita</i> | | |
| <i>Echinopogon ovatus</i> | | Hedgehog grass |
| <i>Microlaena avenacea</i> | | bush rice grass |
| <i>Microlaena stipoides</i> | patiti | |
| <i>Poa anceps</i> | | broad-leaved poa |
| <i>Poa cita</i> | | silver tussock |
| <i>Rytidosperma gracile</i> | | |
| <i>Rytidosperma unarede</i> | | |
| Sedges | | |
| <i>Carex flagellifera</i> | | Glen Murray tussock |
| <i>Carex dissita</i> | | |
| <i>Carex flagellifera</i> | | |
| <i>Carex forsteri</i> | | |
| <i>Carex lambertiana</i> | | |
| <i>Carex solandri</i> | | |
| <i>Carex virgata</i> | | |
| <i>Carex raotest</i> | | |
| <i>Gahnia sp.</i> | mapere | mapere |
| <i>Isolepsis nodosa</i> | | |
| <i>Isolepsis reticularis</i> | | |
| <i>Uncinia banksii</i> | | |
| <i>Uncinia leptostachya</i> | | |
| <i>Uncinia rupestris</i> | | |
| <i>Uncinia scabra</i> | | |
| <i>Uncinia uncinata</i> | watu | hook grass |
| Rushes and allied plants | | |
| <i>Juncus australis</i> | | |
| <i>Juncus distegus</i> | | |
| <i>Juncus gregiflorus</i> | | |
| <i>Juncus sarophorus</i> | | |
| <i>Luzula picta var picta</i> | | |
| Remaining monocot plants | | |
| <i>Astelia fragrans</i> | kakaha | astelia |
| <i>Astelia solandri</i> | | |

| | | |
|--------------------------------------------|-----------|----------------------|
| <i>Collospermum hastatum</i> | kahakaha | |
| <i>Dianella nigra</i> | turutu | blueberry |
| <i>Libertia grandiflora</i> | mikoikoi | iris |
| <i>Phormium cookianum</i> | wharariki | coastal flax |
| Daisy-like herbs (composites) | | |
| <i>Euchiton gymnacephalus</i> | | |
| <i>Senecio minimus</i> | | |
| Dicot herbs (other than composites) | | |
| <i>Cardamine</i> sp. | | |
| <i>Centella uniflora</i> | | centella |
| <i>Dichondra repens</i> | | Mercury Bay weed |
| <i>Galium propinquum</i> | mawe | bedstraw, cleavers |
| <i>Haloragis propinquum</i> | | |
| <i>Hydrocotyle heteromeria</i> | | |
| <i>Hydrocotyle moschata</i> | | |
| <i>Leptostigma setulosa</i> | | |
| <i>Oxalis exilis</i> | | |
| <i>Parietaria debilis</i> | | |
| <i>Ranunculus reflexus</i> | maruru | |
| <i>Stellaria decipiens</i> | kohukohu | chickweed |
| <i>Wahlenbergia</i> sp. | wahu | New Zealand harebell |

EXOTIC VEGETATION

| Botanic Name | Common Name |
|------------------------------------|--------------------|
| Dicot trees and shrubs | |
| <i>Berberis darwinii</i> | Darwin's barberry |
| <i>Chrysanthemoides monilifera</i> | boneseed |
| <i>Cotoneaster glaucophyllus</i> | cotoneaster |
| <i>Cupressus macrocarpa</i> | macrocarpa |
| <i>Cytisus scoparius</i> | wild broom |
| <i>Eleagnus x reflexa</i> | eleagnus |
| <i>Erica arborea</i> | tree heath |
| <i>Erica lusitanica</i> | Spanish heath |
| <i>Erica vagans</i> | Cornish heath |
| <i>Hoheria populnea</i> | lacebark |
| <i>Lupinus arboreus</i> | tree lupin |
| <i>Paraserianthes lophanta</i> | brush wattle |
| <i>Phytolacca octandra</i> | inkweed |
| <i>Pinus radiata</i> | radiata pine |
| <i>Salix x reichardtii</i> | pussy willow |
| <i>Solanum pseudocapsicum</i> | Jerusalem cherry |
| <i>Teline monspessulana</i> | Montpellier broom |
| <i>Ulex europaeus</i> | gorse |
| Dicot lianes and related | |
| <i>Asparagus scandens</i> | climbing asparagus |
| <i>Clematis vitalba</i> | old man's beard |

| | |
|--------------------------------------------|------------------------|
| <i>Convolvulus arvensis</i> | bindweed |
| <i>Lonicera japonica</i> | Japanese honeysuckle |
| <i>Passiflora mollissima</i> | banana passionfruit |
| Grasses | |
| <i>Aria caryophyllia</i> | silvery hair grass |
| <i>Agrostis stolonifera</i> | |
| <i>Anthoxanthum odoratum</i> | sweet vernal |
| <i>Dactylus glomerata</i> | cocksfoot |
| <i>Erhata erecta</i> | veld grass |
| <i>Festuca arundinacea</i> | tall fescue |
| <i>Holcus lanata</i> | yorkshire fog |
| <i>Hordeum murinum</i> | barley grass |
| <i>Lolium perenne</i> | perennial rye grass |
| <i>Paspalum dilatatum</i> | |
| <i>Poa annua</i> | annual poa |
| <i>Vulpia bromoides</i> | squirrel-tail fescue |
| Sedges | |
| <i>Cyperus eragrostis</i> | |
| Remaining monocot plants | |
| <i>Agapanthus orientalis</i> | agapanthus |
| <i>Allium triquetrum</i> | onionweed |
| <i>Crocsmia x crocosmiiflora</i> | montbretia |
| <i>Lillium formosanum</i> | |
| <i>Sisyrinchium</i> sp. | |
| Daisy-like herbs (composites) | |
| <i>Cirsium arvense</i> | Californian thistle |
| <i>Cirsium vulgare</i> | Scotch thistle |
| <i>Conyza bilbaoana</i> | fleabane |
| <i>Erigeron karvinskianus</i> | Mexican daisy |
| <i>Gnaphalium spicatum</i> | |
| <i>Hypochaeris radicata</i> | catsear |
| <i>Senecio jacobaea</i> | ragwort |
| <i>Sonchus oleraceus</i> | sow thistle |
| <i>Taraxicum officinale</i> | dandelion |
| Dicot herbs (other than composites) | |
| <i>Archillea millefolium</i> | yarrow |
| <i>Crassula multicava</i> | fairy crassula |
| <i>Digitalis purpurea</i> | foxglove |
| <i>Geranium robertianum</i> | herb Robert |
| <i>Hydrangea macrophylla</i> | hydrangea |
| <i>Hypericum androsaemum</i> | tutsan |
| <i>Lavatera</i> sp. | mallow |
| <i>Linum bienne</i> | pale flax |
| <i>Petrosalinum crispum</i> | wild parsley |
| <i>Physalis peruviana</i> | cape gooseberry |
| <i>Plantago lanceolata</i> | narrow leaved plantain |
| <i>Plantago major</i> | |

| | |
|---------------------------------|---------------------------------|
| <i>Solanum chenopodioides</i> | velvety nightshade |
| <i>Solanum nigrum</i> | black nightshade |
| <i>Tradescantia fluminensis</i> | tradescantia (wandering willie) |

APPENDIX 2: WILDLIFE

Information about wildlife in the reserve comes from the Wellington Regional Council's key native ecosystems reports of 29 May 1997 and 13 January 1999. The list is not exhaustive.

NATIVE WILDLIFE

| Systematic Name | Maori Name | Common Name |
|----------------------------------------|------------|----------------------|
| <i>Gerygone igata</i> | riroriro | grey warbler |
| <i>Halcyon sancta vagans</i> | kotare | kingfisher |
| <i>Hemiphaga novaeseelandiae</i> | kereru | woodpigeon |
| <i>Mohoua albicilla</i> | popokatea | whitehead |
| | tui | tui |
| | | morepork |
| | kakariki | parakeet |
| | | long-tail cuckoo |
| <i>Paranephrops planifrons</i> | koura | freshwater crayfish |
| <i>Rhipidura fuliginosa placabilis</i> | piwakawaka | North Island fantail |
| <i>Scincidae</i> sp. | | skink |
| | | green gecko |
| | | spotted skink |

EXOTIC WILDLIFE

| Systematic Name | Common Name |
|----------------------------------|--------------------------------------------|
| <i>Erinaceus europaeus</i> | hedgehog |
| <i>Felis catus</i> | feral cat |
| <i>Gymnorhina tibicen</i> | magpie |
| <i>Mus musculus</i> | house mouse |
| <i>Mustela erminea</i> | stoat |
| <i>Mustela furo</i> | ferret |
| <i>Mustela nivalis vulgaris</i> | weasel |
| <i>Oryctolagus cuniculus</i> | rabbit |
| <i>Rattus</i> sp. | rat |
| <i>Trichosurus vulpecula</i> | possum |
| <i>Streptopelia risoria</i> | barbary dove (white dove/ring-necked dove) |
| <i>Turdus merula merula</i> | blackbird |
| <i>Turdus philomelos clarkei</i> | thrush |
| | Californian quail |
| | chaffinch |
| | waxeye |

APPENDIX 3: SECTION 3 RESERVES ACT 1977

Section 3. General purpose of this Act

- (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 subdivision and development.

APPENDIX 4: SECTION 19 RESERVES ACT 1977

Section 19. Scenic Reserves

- 1) It is hereby declared that the appropriate provisions of this Act shall have effect, in relation to reserves classified as scenic reserves—
 - a) For the purpose of protecting and preserving in perpetuity for their intrinsic worth and for the benefit, enjoyment, and use of the public, suitable areas possessing such qualities of scenic interest, beauty, or natural features or landscape that their protection and preservation are desirable in the public interest:
 - b) For the purpose of providing, in appropriate circumstances, suitable areas which by development and the introduction of flora, whether indigenous or exotic, will become of such scenic interest or beauty that their development, protection, and preservation are desirable in the public interest.
- 2) It is hereby further declared that every scenic reserve classified for the purposes specified in subsection (1)(a) of this section shall be so administered and maintained under the appropriate provisions of this Act that—
 - a) Except where the Minister otherwise determines, the indigenous flora and fauna, ecological associations, and natural environment and beauty shall as far as possible be preserved, and for this purpose, except where the Minister otherwise determines, exotic flora and fauna shall as far as possible be exterminated:
 - b) The public shall have freedom of entry and access to the reserve, subject to the specific powers conferred on administering bodies by sections 55 and 56 of this Act, to any bylaws under this Act applying to the reserve, and to such conditions and restrictions as the administering body considers to be necessary for the protection and well-being of the reserve and for the protection and control of the public using it:
 - c) To the extent compatible with the principal or primary purposes of the retention and preservation of the natural or scenic values, open portions of the reserve may be developed for amenities and facilities where these are necessary to enable the public to obtain benefit and enjoyment from the reserve:
 - d) Where historic, archaeological, geological, biological, or other scientific features are present in the reserve, those features shall be managed and protected to the extent compatible with the principal or primary purpose of the reserve:
Provided that nothing in this paragraph shall authorise the doing of anything with respect to fauna that would contravene any provision of the Wildlife Act 1953 or any regulations or Proclamation or notification under that Act, or the doing of anything with respect to archaeological features in any reserve that would contravene any provision of the [Historic Places Act 1993]:
 - e) To the extent compatible with the principal or primary purpose of the reserve, its value as a soil, water, and forest conservation area shall be maintained.
- 3) It is hereby further declared that every scenic reserve classified for the purposes specified in subsection (1)(b) of this section shall be so administered and maintained under the appropriate provisions of this Act that—
 - a) Except where the Minister otherwise determines, the flora and fauna, ecological associations, and natural environment and beauty shall as far as possible be preserved:

- b) The public shall have freedom of entry and access to the reserve, subject to the specific powers conferred on administering bodies by sections 55 and 56 of this Act, to any bylaws under this Act applying to the reserve, and to such conditions and restrictions as the administering body considers to be necessary for the protection and well-being of the reserve and for the protection and control of the public using it:
- c) To the extent compatible with the principal or primary purposes of the retention and preservation of the natural or scenic values, open portions of the reserve may be developed for amenities and facilities where these are necessary to enable the public to obtain benefit and enjoyment from the reserve:
- d) Where historic, archaeological, geological, biological, or other scientific features are present in the reserve, those features shall be managed and protected to the extent compatible with the principal or primary purpose of the reserve:
Provided that nothing in this paragraph shall authorise the doing of anything with respect to fauna that would contravene any provision of the Wildlife Act 1953 or any regulations or Proclamation or notification under that Act, or the doing of anything with respect to archaeological features in any reserve that would contravene any provision of the [Historic Places Act 1993]:
- e) To the extent compatible with the principal or primary purpose of the reserve, its value as a soil, water, and forest conservation area shall be maintained.

APPENDIX 5: SECTION 55 RESERVES ACT 1977

Section 55. Powers (other than leasing) in respect of scenic reserves—

- 1) The administering body of a scenic reserve may from time to time, in the exercise of its functions under section 40 of this Act and to the extent necessary to give effect to the principles set out in section 19 of this Act,—
 - a) Enclose the reserve or any part or parts thereof which the administering body may at any time decide is necessary or desirable to improve or allow to regenerate, and may improve the reserve or that part or those parts, or, as the case may be, allow the reserve or that part or those parts to regenerate:
 - b) Provided that the prior approval of the Minister shall be obtained to any planting of trees or shrubs:
 - c) Prohibit the public from entering or encroaching on any part of the reserve so improved or being allowed to regenerate:
 - d) Subject to section 42 of this Act, lay out and construct footpaths and driveways necessary for the management of the reserve or to enable the public to use and enjoy the reserve:
 - e) Make, stop, divert, widen, or alter any bridges, ways, or watercourses in, upon, through, across, or over any part of the reserve, subject to the payment of compensation for damage thereby to adjacent lands:
 - f) Provided that any such power in relation to watercourses shall be exercised subject to the Resource Management Act 1991:
 - g) Provided also that the exercise of any such power shall not alter or impair the natural water table or any stands of indigenous swamp vegetation or other indigenous vegetation:
 - h) Appoint officers, servants, and rangers, whether paid or unpaid:
 - i) Do such other things as may be considered desirable or necessary for the proper and beneficial management, administration, and control of the reserve.
- 2) The administering body of a scenic reserve, in the exercise of its functions under section 40 of this Act and to the extent necessary to give effect to the principles set out in section 19 of this Act, may also from time to time on the open portions of the reserve—
 - a) With the prior consent of the Minister and having regard to the conservation of natural vegetation and features, enclose any open parts of the reserve which the administering body may at any time decide is necessary or desirable to lay down or renew in grass or graze:
 - b) Prohibit the public from entering or encroaching on any part so laid down, renewed, or grazed:
 - c) Subject to any lease or licence granted pursuant to section 56(1)(b) of this Act, prohibit or regulate the carrying on of any trade, business, or occupation within the reserve:
 - d) With the prior consent of the Minister and having regard to the conservation of natural vegetation and features, set apart any areas for gardens, baths, picnic grounds, camping grounds, parking places for vehicles, or mooring places for boats necessary for the convenience of the public using the reserve or for facilities and amenities necessary for the public using the reserve; and construct or develop such gardens, baths, picnic grounds, camping grounds, parking or mooring places, or other facilities and amenities; and fix reasonable charges for the use of such baths, picnic grounds, camping grounds, parking or mooring places, facilities, and amenities:

- e) With the prior consent of the Minister, erect buildings and other structures on such terms as to plans, size, structure, situation, and otherwise in all respects as the administering body determines:
 - f) With the prior consent of the Minister, and subject to the Resource Management Act 1991, and having regard to the need to conserve the natural beauty of any sea, lake, river, or stream bounding the reserve, or of any lake, river, or stream within the reserve, do all such things as it considers necessary, including the erection of buildings and structures for public use, to enable the public to obtain the benefit and enjoyment of that sea, lake, river, or stream:
 - g) With the prior consent of the Minister, set apart and use any part of the reserve as sites for residences for officers or servants of the administering body or for rangers, and for other buildings and structures necessary for the proper and beneficial management, administration, and control of the reserve, and for the protection, maintenance, and well-being of the reserve.
- 3) The Minister shall not give his consent under any provision of paragraphs (d) to (g) of subsection (2) of this section, unless he is satisfied that the facilities or amenities or buildings or structures referred to in that provision are necessary for the purposes specified in the relevant paragraph and cannot readily be provided outside and in close proximity to the reserve.