

Whareroa Farm Plan



Department of
Conservation
Te Papa Atawhai

The Whareroa Guardians Community Trust and Department of Conservation Kapiti Wellington Area have prepared this plan with assistance from Peter Handford of PA Handford and Associates Ltd.

Chair, Whareroa Guardians Community Trust

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1. Introduction

Whareroa Farm (Whareroa) is a Recreation Reserve located near Mackays Crossing in Kapiti Coast District located adjacent to State Highway 1 just north of Paekakariki. The site covers approximately 438 ha of hill country which is predominately a mixture of pasture and shrubs. The land was historically in lowland broadleaf-podocarp forest until it was cleared and drained for cattle and sheep farming in the 1850s. Maori lived on part of Whareroa and had cultivations. The Mackay family farmed the land between 1859 and 1936, it was then transferred to the Wellington Hospital Board.

During World War II, the land was taken over by the Defence Department for the US Marines, who used the area and part of the nearby Queen Elizabeth Park as a recuperation and training camp. After the war, Whareroa was transferred to the Department of Lands and Survey and then to Landcorp. The site was purchased by the Department of Conservation in 2005.

Whareroa Farm is managed by the Department of Conservation (DOC) and the Whareroa Guardians Community Trust Inc. (the Guardians).

Whareroa provides an opportunity to demonstrate integrated conservation management on a working farm through waterway management, soil conservation and restoration of native habitats. Whareroa also provides a variety of recreational opportunities on the site and access to adjacent public lands. Potentially suitable activities include mountain biking, tramping, picknicking, exploring, horse riding and enjoying the natural environment.

This Whareroa Farm Plan has been prepared to ensure that management of Whareroa is set up on a sustainable basis with activities and uses well-matched to underlying land capability. The plan was produced following the preparation of a separate Whareroa Farm Resources Report that provides understanding of key resources – giving information and context to enable development of this plan. The plan sets out management over the next 10 years to implement the vision and goals of DOC and the Guardians.

1.1 Context

1.1.1 Scope

This document provides the strategic direction over the next decade for the management of Whareroa. It then provides the necessary detail to guide the management of Whareroa over the next five years (until 2018).

Whareroa is vested in the Department of Conservation, which is responsible for its management. Management of Whareroa must be consistent with the Conservation Act 1987 and the Reserves Act 1977 and must not be inconsistent with the relevant Conservation Management Strategy.

The Whareroa Guardians Community Trust Inc. (Guardians), a registered charitable trust, assists the Department in its management.



Snowfall at Whareroa Farm – August 2011

1.1.2 Relevant documents

Preliminary draft Wellington Conservation Management Strategy

The Conservation Management Strategy (CMS) describes what DOC's Wellington Hawke's Bay Conservancy wants to achieve within the boundaries of the CMS area during the next 10 years. In general, operational detail is not included.

A key goal of the CMS is integrated conservation management

- Integrated conservation management is managing natural resources and historic and cultural heritage and existing or potential activities in a manner which ensures that priorities are clear and that the effects of each activity on others are considered and managed accordingly.

The CMS:

- Identifies the highest priority ecosystems and habitats in the CMS area, including indigenous forests and wetlands.

- Seeks to connect New Zealanders with their heritage through improved management of archaeological and cultural sites.
- Recognises that public conservation lands and waters provide valuable opportunities for people to benefit from and enjoy the outdoors. This includes enjoying the sights and sounds of nature, picnicking, tramping, exploring, exercising, horse riding, hunting and fishing, boating, biking, connecting with heritage, or just getting away from it all.
- States that partnerships with other interested parties will be used to achieve conservation goals for Whareroa Farm.

Outcome

- Whareroa is a model of integrated conservation management that promotes environmental values and enables public enjoyment of the rural environment within a working farm

Management objectives

1. To demonstrate best farming practices at Whareroa, including catchment management, native vegetation regeneration, and soil conservation on steep slopes.
2. To provide for a range of appropriate and well-managed facilities and visitor experiences at Whareroa, including integration with adjacent public lands.

Management Policies

1. Agricultural management at Whareroa should demonstrate methods for biodiversity protection, including restoration planting and fencing of waterbodies and forest remnants.
2. Domestic livestock will be permitted within designated areas in Whareroa.
3. Should provide a range of daytime recreational opportunities at Whareroa that are integrated with the needs of a working farm.

Kapiti Area Conservation Action Plan

This DOC Action Plan describes a 5-year programme of conservation action for the Kapiti Area. It does not refer specifically to Whareroa Farm, such as in relation to the 6 identified conservation zones. However, several relevant actions are specified in Themes 1 (Relationship with tangata whenua), 3 (Heritage appreciation), 4 (Community partnerships) and 7 (Natural heritage).

Greater Wellington Parks Network Plan

The Parks Network Plan replaces a range of management plans including that for Queen Elizabeth Park. While the Network Plan will not bind the management of Whareroa Farm, it is important that policies and provisions in that plan are considered as:

- The history of both Queen Elizabeth and Whareroa is intertwined.
- GWRC seeks to develop Wainui, Whareroa and particularly Mackays as the main focal points for visitor activity and key development nodes for locating facilities and activities that are family friendly and focused on heritage.
- GWRC seeks to identify and develop access links for non-motorised recreation to Whareroa Farm and Akatarawa Forest.

The management focus is to:

1. Preserve the coastal ecosystems, dunes, wetlands and bush remnant
2. Implement a sustainable farm management plan and continue farming operations to manage open space where appropriate
3. Provide family recreational opportunities
4. Make provisions for a heritage precinct and associated visitor attractions
5. Recognise the historical occupation of the area by both European settlers and Māori
6. Re-evaluate future land management of the north-eastern area of the park that may be affected by any expressway development
7. Work with the Department of Conservation to integrate management processes, where appropriate, between Queen Elizabeth Park and Whareroa Farm.

1.2 Whareroa Farm

1.2.1 Location

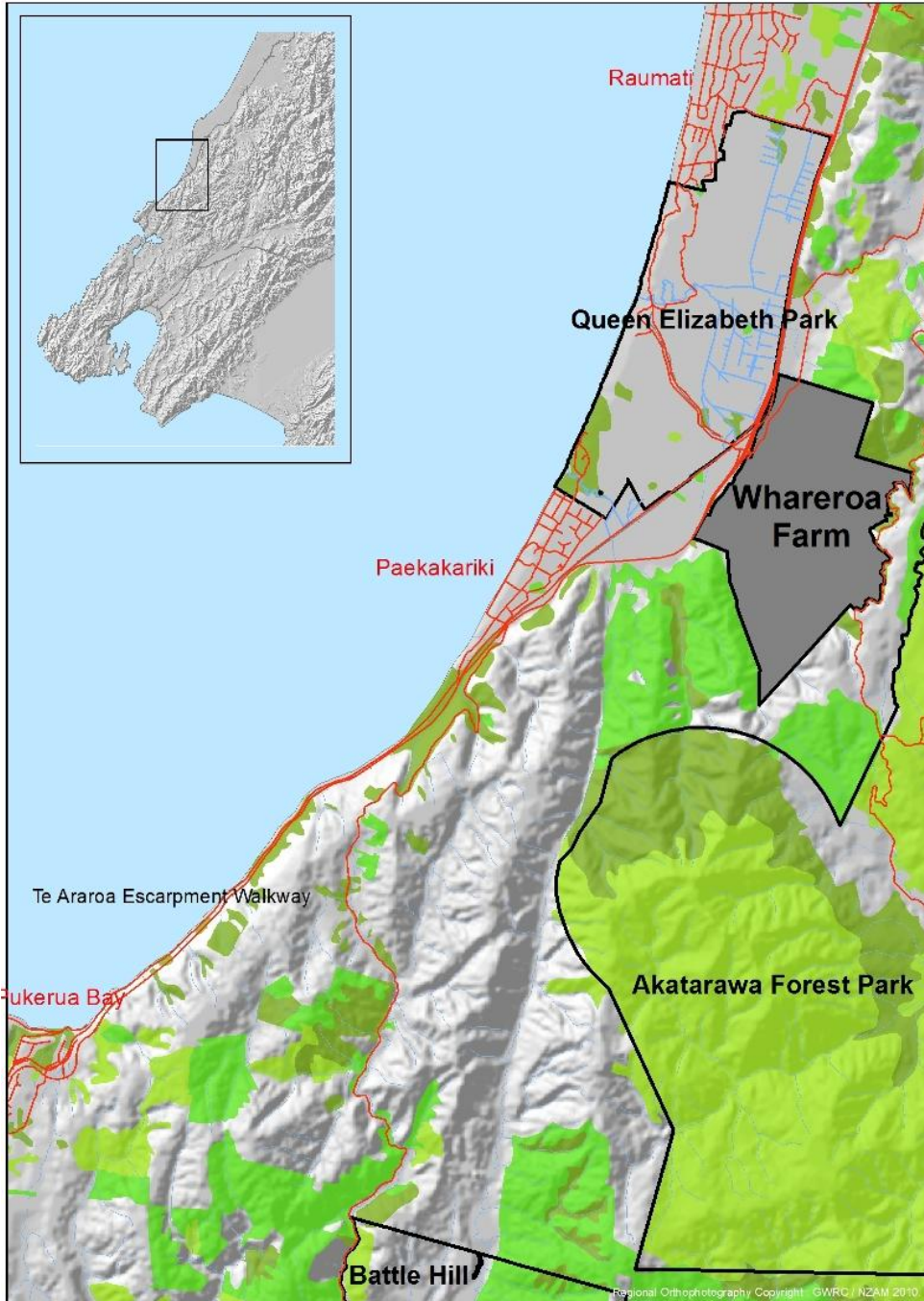
Whareroa Farm is located on the eastern side of Queen Elizabeth Park, adjacent to State Highway 1 and the foothills of the Tararua Ranges (see location map below). It forms part of an almost continuous strip of public land from the sea to the Tararua high peaks. It has private land on two sides. On the eastern boundary, Campbell's Mill Rd connects Whareroa Farm to the Maungakotukutuku Rd to the north and the Akatarawa Forest to the south.

1.2.2 Features

- Last large, accessible public open space land on the Kapiti Coast.
- Impressive landscapes
- Important ecological remnants
- Significant historical and cultural sites
- Varied opportunities for recreation.
- A meeting place of mountains, foothills, wave-cut escarpments, coastal plains forming the southern wedge of the Manawatu Plains.
- A gateway to Kapiti Island, Queen Elizabeth Park and the Tararuas, and, for visitors travelling south on Highway 1, to Wellington, the capital city.

A full summary of the resources of Whareroa Farm and their relationship to management are provided in the **Resources and Context Report**.

Whareroa Farm Location Map.



2 Vision and Goals

Whareroa Farm sustains native forest and stream ecosystems, cultural, historic and recreational values, integrated with best practice farming operations that together provide a valued resource for Kapiti and the wider community

This vision will be achieved by managing the farm for the goals below.

	Goal
Restoration	Natural ecosystems of Whareroa are restored to their natural state, providing optimal conditions for flora and fauna
Cultural & Historic	To protect, understand and share the history and cultural values of Whareroa Farm
Recreation	Whareroa Farm provides an accessible range of complementary recreational activities in a safe and sustainable environment enabling a positive visitor experience
Information & Education	Interpretation, education and information resources are provided that encourage people to visit Whareroa Farm and enhance their visitor experience
Sustainable farming	Whareroa is a working coastal hill country farm that integrates recreational use and conservation management with farm operations and demonstrates high quality sustainable land management

Detail on the objectives, policies and actions under each goal are set out in Section 5.

3 Funding sources

Funding for developments at Whareroa will be subject to:

- availability of DOC funds
- availability of Guardians funds
- revenue generated from concessionaires operating at Whareroa
- external funding applications made by the Guardians with support from DOC
- sponsorship opportunities as identified by the Guardians.

4 Land Management Zones

Land management zones have been defined to assist management decisions at Whareroa. Land management zones are areas that best suit certain activities by virtue of a combination of their land use capability and their environmental and cultural resources.

The analysis of the Whareroa's natural resources, that was developed in the Resources Report, was used to identify logical groupings from the perspective of use, management and ecology. These logical groupings are designed to also be consistent with the vision and goals of managing Whareroa. Land management zones provide a basis for management decisions that are consistent with the best long-term pattern of land use across the Farm. Ten land management zones are identified for Whareroa Farm. A map of the land management zones is provided at the end of this section. Summary descriptions of each zone are provided in the table below.

Zone	Location	Features	Best use / development
1. Biodiversity core	<ul style="list-style-type: none"> • Areas of lowland forest remnant • Includes covenanted areas. 	<ul style="list-style-type: none"> • Remnant, secondary lowland forest (some rare) • High biodiversity values • Stock excluded • Possums controlled in covenants • Some regeneration in surrounding areas providing buffering • Some remnant areas have good access and connectivity, others don't 	<ul style="list-style-type: none"> • Enhancement through pest animal and plant control, buffering and weed management • Important seed source and habitat for native fauna • Increase connectivity with riparian zone and other high value areas • Potential to increase public access for recreational, educational and ecological purposes
2. Biodiversity & catchment protection	<ul style="list-style-type: none"> • The steep faces in catchment heads along the eastern and northern boundary of the Farm • Spurs extend down into the central portion of the Farm 	<ul style="list-style-type: none"> • Less productive steep slopes • Includes important regenerating native forest and scrub. • Important catchment protection function for the Whareroa Stream • Important recreational links with Campbell's Mill Road • Important biodiversity connections through to adjacent properties 	<ul style="list-style-type: none"> • Allow native vegetation to regenerate • Ongoing recreational track development • Supports the restoration efforts on the lower reaches of the Whareroa Stream • Pest animal and plant control where possible
3. Hub – Family events	<ul style="list-style-type: none"> • Central area around the confluence of the Carex Stream and Intake Stream. • Low lying areas in the valley bottom 	<ul style="list-style-type: none"> • Includes productive flats and terraces • Low lying open pasture with areas of regeneration, exotic stands and forest remnants • landscape values of open space and view-shafts up the valleys and out to the coast • Sheltered from wind and highway noise • Easy access on foot/bike for families and groups • Natural amphitheatre, strong feeling of naturalness and seclusion. 	<ul style="list-style-type: none"> • Focus on recreational access and amenity • Ensure opportunity for quiet enjoyment, picnicking etc. • Restoration planting of riparian areas and adjacent steep slopes to manage gorse spread • Maintain open space and landscape values. Potentially use stock to keep grass down • Remove pine trees
4. Waterway framework	<ul style="list-style-type: none"> • Covers the lower sections of the main Whareroa tributaries • Western and central regions of the Farm 	<ul style="list-style-type: none"> • Key tributaries contributing to health of the Whareroa Stream • Wetland and wet seeps recommended for fencing and restoration • Large areas have been fenced and planted and/or are in managed regeneration • Some areas are currently grazed with stock access to stream. 	<ul style="list-style-type: none"> • Restoration and riparian planting • Retirement from farming, where feasible, to reduce sedimentation and stock effects on water quality • Integrated and consistent approach across zones to achieve aquatic health outcomes. • Ensure all fish passage is maintained. Enhance links to QEP.

Zone	Location	Features	Best use / development
		<ul style="list-style-type: none"> • Culverts in lower part of the Farm. Some unsuitable for fish passage 	
5. Landscape open space	<ul style="list-style-type: none"> • Prominent grazed ridge running south east toward the horizon • A core part of the agricultural lease 	<ul style="list-style-type: none"> • Less productive steep slopes • Important landscape values • A large component of the agricultural lease • Important views from recreational tracks 	<ul style="list-style-type: none"> • Maintain as open grazed land • Light sheep grazing generally used • Recreational access to view points and back of the Farm • Keep free of visible infrastructure • More remote walking and horse riding experience
6. Local agriculture amenity	<ul style="list-style-type: none"> • Lower elevation pasture within the agricultural lease • Multiple paddocks 	<ul style="list-style-type: none"> • LUC: productive ridges and easy slopes and productive flats • Grass production over summer reasonable • Remnant wetlands • Excellent low level view platforms out toward coast • Relatively accessible easy walking terrain 	<ul style="list-style-type: none"> • Maintain open grazing • Integrate individual and small group tree planting for shade and shelter. • Fence and restore wetlands • Opportunity for farm-education experience • Develop recreational walking loop • Fruit and nut trees
7. Hill country integrated agriculture	<ul style="list-style-type: none"> • Moderate faces and ridges in northern area of farm • Part of agricultural lease 	<ul style="list-style-type: none"> • Productive ridges and easy slopes with Paremata hill soils • Some slipping of deeper soils on sides of ridges • Considerable wind exposure to west 	<ul style="list-style-type: none"> • Maintain open grazing • Integrate Individual trees and groups of trees for shelter and land stabilisation • Potential for development of recreational loop tracks
8. Flat land agriculture	<ul style="list-style-type: none"> • Low lying terraces in the north western sector of the Farm • Part of agricultural lease 	<ul style="list-style-type: none"> • Productive flats and terraces • Separated by Emerald Glen Road. • Remnant wetland area adjacent to the railway 	<ul style="list-style-type: none"> • Maintain grazing • Potential for small areas of fodder etc crops • Control gorse for fire prevention, recreational access and agriculture • Riparian planting on lower reach of tributary in the southern end of the zone (Pond Stream).
9. Biodiversity and amenity forest	<ul style="list-style-type: none"> • Location is site of the main access tracks into the back of the Farm • Lower faces of Carex Valley 	<ul style="list-style-type: none"> • Includes productive ridge areas with easy slope • Sheltered from prevailing winds • Key recreational access area • Fire risk due to gorse, public access and location at foot of gorse slopes • Adjacent to important forest remnant areas • Includes established eucalyptus area 	<ul style="list-style-type: none"> • Maintain recreational track network • Reduce fire risk to users through encouraging natural regeneration and undertake additional planting of native species. • Gorse clearance and planting in some of areas. • Possible planting of totara for future selective harvest for cultural uses. • Manage eucalypt forest to enhance native understorey and succession to native species.
10. Intensive use	<ul style="list-style-type: none"> • Land that previously housed the marine camp • Includes the south western frontage (air strip) and levelled paddock in the central valley 	<ul style="list-style-type: none"> • Adjacent to State Highway 1 and easily accessed by foot and vehicle • Modified land that has been levelled, and gravelled, for marines camp in the past • Historically significant area • Lower land use capability due to shallow soil depth. Dries out easily 	<ul style="list-style-type: none"> • Potential for a range of intensive uses such as recreation: events, parking, year round cattle grazing etc. • Potential for intensive farm use such as viticulture • Areas close to the entrance are a logical focus for any future facilities with commercial use • Strong link to historical encampment so need to integrate recreational, historic and farming values

Transition in intensity of recreational use

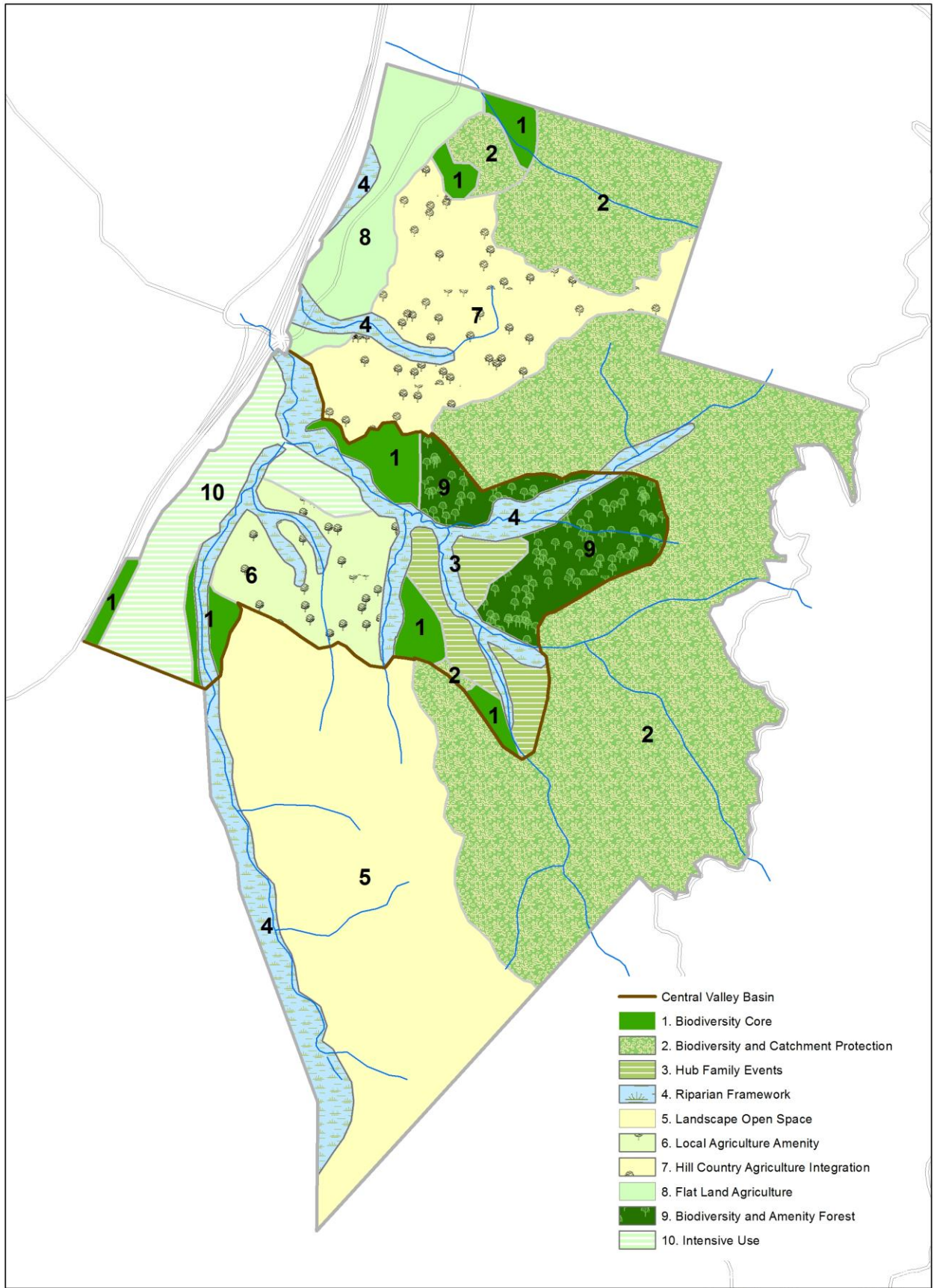
In addition to the detail of management zones it is useful to also identify a broad boundary in the intensity of recreational use between the central valley basin and the generally remoter areas of the farm further from the entrance. The general location of this boundary is shown on the management zones map, below.

The central valley basin is more sheltered and more accessible. It provides opportunity for accessible recreation for a wide range of different users. It has a transition from more modified areas close to the highway where the noise and influence of the highway is significant, back to more secluded areas around the Hub and Ramaroa Fan with a range of excellent views and opportunities for picnicking, quiet reflection etc. Careful management across the zones in the central valley basin will be required to make sure the wide range of values and users are accommodated.

Beyond the lower valley basin, recreational users are able to get to more remote ridges and valley heads. These areas generally have fewer users, greater separation between users and are steeper and more rugged, intermediate areas between the lower flats and basins and the Akatarawa Forest. Maintaining the less developed, more remote feel away from the central valley basin is essential to provide a range of different experiences at Whareroa.



Whareroa has a transition in recreational experience from more intensive and busier areas of the flat valley basin, closer to highway – through to steeper, more remote and less used upper valley areas.



1:10,000
Date: 23/08/2012

Whareroa Farm - Management Zones

0 125 250 500 Meters

5. Goals, Objectives and Policies

5.1 Restoration

Natural ecosystems in the retired areas of Whareroa Farm are restored to their natural state, providing optimal conditions for flora and fauna



Bush remnants such as Matai Bush, shown here, provide an important core of biodiversity values to be protected and enhanced.

RS1: Native flora and fauna are protected and enhanced

Policy	How
RS1.1 Develop a planting plan for priority areas	<ul style="list-style-type: none">• Planting plan prepared for priority areas• Implement planting areas within this plan
RS1.2 Control pest animals to achieve the targets within the table below.	<ul style="list-style-type: none">• Pest control undertaken and maintained to achieve targets in animal control table
RS1.3 Develop a pest plant plan for the farm	<ul style="list-style-type: none">• Undertake a pest plant inventory within the retired area and develop a pest plant management plan
RS1.4 Protect and enhance biodiversity core areas (covenants)	<ul style="list-style-type: none">• Focus on pest animal and pest plant control in these areas• Buffer and expand areas where possible.• Area above State Highway 1 (BC7, see Action Plan Map) requires carefully planned approach to control of tree weeds above highway. Work in conjunction with highway managers.

RS2: Waterways are protected and enhanced

Policy	How
RS2.1 The values of waterways and the threats they face are well understood to allow effective management.	<ul style="list-style-type: none"> • Complete an inventory of aquatic pests and native species present.
RS2.2 Waterway habitat and fish passage are enhanced to provide continuous high quality habitat from the sea to the head of Whareroa Farm	<ul style="list-style-type: none"> • Fencing to exclude stock along main waterways • Planting of waterways to provide improved habitat • New structures or earthworks that are put in place in the waterways will be completed in such a manner as to allow for the passage of native fish • Encourage adjacent landowners to adhere to environmentally sustainable land management practices which will protect and enhance Whareroa Farm waterways

RS3: A whole catchment approach is taken to restoration

Policy	How
RS3.1 Restoration links to and promotes wider outcomes at a catchment and landscape level	<ul style="list-style-type: none"> • Restoration of waterways and catchment heads linking to Queen Elizabeth Park below and Akatarawa Forest above. • Advocate for wider pest control and restoration planting on linked areas outside Whareroa Farm • Manage restoration and farmed areas to achieve wildlife links from the mountains to the sea

RS4: Work with iwi to support planting and harvesting of native flora for cultural purposes

Policy	How
RS4.1 Understand iwi interests in relation to cultural harvesting	<ul style="list-style-type: none"> • Discuss with iwi and DOC the planting and harvesting of native plant species for cultural purposes
RS4.2 Restoration plantings incorporate opportunities for sustainable cultural harvesting of flora	<ul style="list-style-type: none"> • Depending on interests of iwi, restoration plantings could provide opportunities for future harvesting of harakeke, rongoa plants, totara etc.

RS5: Community is involved in the restoration process and education opportunities are provided

Policy	How
RS5.1 Community volunteers are involved in restoration.	<ul style="list-style-type: none"> • Enhance links with community and supporters to encourage involvement in restoration • Work in conjunction with Queen Elizabeth Park and volunteer nursery etc
RS5.2 Students are involved for education and research	<ul style="list-style-type: none"> • Develop links with schools and tertiary educational institutions to encourage involvement in restoration
RS5.3 There is communication with the whole community about restoration.	<ul style="list-style-type: none"> • Develop links with media • Examine a range of local promotion opportunities



Involvement of community volunteers is vital to the support and management of Whareroa Farm.

RS6: Pest Animal Control Targets

Animal	Area	Control target
Stock	All retired areas	<ul style="list-style-type: none"> No sheep or cattle within retired areas. Where incursions occur stock must be dealt with immediately.
Goats	All Whareroa	<ul style="list-style-type: none"> No goats are present
Possum	Covenant areas /Biodiversity Core Zone	<ul style="list-style-type: none"> Residual trap catch rate of 5% or less
Rats	Covenant areas /Biodiversity Core Zone	<ul style="list-style-type: none"> tracking rate of 10% or less
Mustelids		<ul style="list-style-type: none"> will be maintained to low levels

RS7 Commemorative planting opportunities are provided in some areas

An opportunity for commemorative planting will be provided, whereby members of the public can sponsor planting and have this permanently identified to commemorate some important family or individual event. This will be provided in a designated area

Commemorative plantings introduce a long term responsibility to park management (and with it costs) and need to be carefully considered. Managing deaths of trees, need to remove trees for management purposes etc can be difficult. The following approach will be taken to commemorative planting.

Policy	How
RS7.1 Commemorative planting opportunities will be provided in designated areas.	<ul style="list-style-type: none"> The proposed Ramaroa Wetland retirement area (WR1 on the action plan map) is suggested as the most suitable location for commemorative planting because it is relatively accessible, but does not impinge on the naturalness of higher use areas such as the Hub.
RS7.2 Commemorative plantings will be managed consistently and to avoid unreasonable management expectations	<p>Commemorative plantings will be managed along the following lines:</p> <ul style="list-style-type: none"> Offer commemorative sponsoring of plantings each year, rather than responding to individual requests. This way the proposed planting can be planned and undertaken in line with restoration and other planting. Plantings would be undertaken at the optimal time in winter. Sponsors could contribute a particular amount to an area of planting Identify commemorative sponsors in relation to an area of planting rather than individual trees. Sponsors could be recorded for a particular area and be given a certificate of acknowledgement Burying of placentas or scattering of ashes anywhere on Whareroa Farm will be prohibited

5.2 Cultural and Historic

To protect, understand and share the history and cultural values of Whareroa Farm

CH1: Gather and understand historic and cultural information

Policy	How
CH1.1 Assemble all available information, to be held in a secure and accessible place	<ul style="list-style-type: none"> Organise meetings with key individuals / organisations to establish who will be responsible for particular areas of information gathering Identify secure and accessible storage approach Collate information and store it safely
CH1.2 Complete Heritage Assessment of Farm	<ul style="list-style-type: none"> Undertake archaeological site survey using historic maps and available information as a starting point Undertake geophysical survey of areas that may have subsurface archaeological evidence (e.g. Marines camp, cultivations (with iwi permission))



Old Paekakariki Water supply



US Marines camps 1943

CH2: Work in partnership with iwi and others

Policy	How
CH2.1 Work in partnership with iwi to enhance our knowledge of Maori settlement of the area	<ul style="list-style-type: none"> Meetings and discussions with iwi Compile information in conjunction with iwi
CH2.2 Work in partnership with other organisations, agencies etc.	<ul style="list-style-type: none"> Contact and work in partnership with GWRC, KCDC, Marines Trust, local businesses etc Discussions and gathering of information

CH3: Develop management practices

Policy	How
CH3.1 Management practices will be developed and applied to protect and enhance cultural and historic resources	<ul style="list-style-type: none"> • Consider results from survey, work in partnership with iwi etc • Identify and develop management and maintenance practices for physical sites (including subsurface) especially in relation to farming to protect important sites • Document and apply management and maintenance practices

CH4: Provide information

Policy	How
CH3.2 Clear and accessible information about the cultural and historic resources of Whareroa Farm	<ul style="list-style-type: none"> • Provide summaries of information about cultural and historic resources • Work in partnership in determining publicly available information • Provide information for Interpretation and Education about Whareroa Farm.

5.3 Recreation

Whareroa Farm provides an accessible range of complementary recreational activities in a safe and sustainable environment enabling a positive visitor experience



Whareroa Farm open day 2011

RC1: Provide for a range of recreation opportunities within the farm that cater for varying age, ability and experience

Policy	How
RC1.1: Develop a track network for the different user groups: Walkers, Mountain Bike Riders and Horse Riders	<ul style="list-style-type: none"> • Tracks to be developed / maintained to the standard set out in table of existing and proposed tracks below • Track use as set out in the table of existing and proposed tracks, below • Maintain existing tracks • Construct new tracks as set out in tracks table • Investigate additional tracks as set out in tracks table
RC1.2: Develop a plan for the entrance area	Completed
RC1.3: Develop and implement plan for the central "Hub" area	<ul style="list-style-type: none"> • Proposed Hub plan , developed by DOC/Guardians recreation working group, is set out in the Action Plan. • Management of the Hub to be consistent with best use described under this management zone (see section 4) • Hub plan to be consistent with outline provided in the action plan. • Implement Hub plan
RC1.4: Appropriate standard of track construction and maintenance achieved	<p>Track Design All new tracks and associated infrastructure to be designed in accordance with Standards New Zealand Handbook - NZ8630 Tracks and Outdoor Visitor Structures 2004 and other related Standard Operating Procedures/Best Practice guides. Mountain Bike track development will follow accepted trail building solutions as outlined in IMBA trail solutions publications and Cycle Trail Design Guide, September 2010 for Ministry of Tourism</p> <p>Track Maintenance Inspections for tracks and structures and other visitor facilities to be to be carried out as required in:</p> <ul style="list-style-type: none"> • DOC Ongoing Structure Inspections SOP • DOC Track Inspection SOP <p>Maintenance planning and monitoring for all visitor facilities will be undertaken using the DOC Asset Information Management System</p>

RC2: High quality visitor experience encouraged but not to the detriment of site values and other users' experience

Policy	How
RC2.1: Control the recreational uses that can operate at Whareroa to maintain a high quality visitor experience	<ul style="list-style-type: none"> • No motorised recreation permitted • Recreational uses are allowed, restricted and not allowed as set out in the table below. • Develop and apply a clear process for considering how to treat new recreational uses. • Signage will be installed to inform people that for their safety they should stick to defined tracks and routes. ie- "For your safety, please keep to the tracks."
RC2.2: Decisions on development of new recreation infrastructure are made using clear, agreed guidelines	<p>The following points must be met in making decisions on new recreation infrastructure</p> <ul style="list-style-type: none"> • An assessment of environmental affects for proposed developments has been prepared to ensure all ecological considerations are covered • Meets any relevant national design standards • Takes into account the needs of different users. This will involve separation of some types of activities. • Has considered alternative locations and alternative means of

Policy	How
	<p>meeting the intended purpose, including using or adapting existing infrastructure.</p> <ul style="list-style-type: none"> • Does not detract from or adversely affect the historic heritage of the area, including any known archaeological sites • Recreation facilities will be complementary to other opportunities close to Whareroa (e.g. Queen Elizabeth Park, Akatarawa Forest).
<p>RC2.3: Temporary Farm Closures restricting public access to some or all of Whareroa Farm will occur if:</p> <ul style="list-style-type: none"> • There is a danger to public/or animal health and safety. • Where continued access will cause environmental or cultural damage to a particular site • An event or activity has been granted the right to restrict public access as part of its approval conditions • Management operations requiring temporary closure which may include facility maintenance, pest control or farming operations • Fire Danger when fire indices reach extreme levels 	<ul style="list-style-type: none"> • Identify if any conditions are present that require temporary closures. • Public will be adequately informed regarding closures, using signage and other media, websites etc with an explanation of reasons and the length of time an area may be closed
<p>RC2.4: Event ideas will be considered case-by-case by the DOC/Guardians management partnership.</p>	<ul style="list-style-type: none"> • Develop and apply a clear process for considering how to treat new event ideas, e.g. outdoor music festivals, mountain biking competitions etc. • Criteria will include: <ul style="list-style-type: none"> ○ The event is compatible with the vision, goals and objectives in this plan ○ Impact of the event on the resources of Whareroa Farm is assessed and has only short term or minor impacts ○ The event will promote Whareroa Farm in a positive way that is aligned with the management vision
<p>RC2.5: Undertake monitoring of visitors and use results to manage and improve visitor experience.</p>	<ul style="list-style-type: none"> • Develop a visitor monitoring plan (Completed as part of Wellington Hawke's Bay Visitor monitoring plan) • Counters are installed currently on Forest Loop and on Gibson Grate to capture bike users. Counter to be installed into entry building. Location of counters to establish visitor trends on site. • Develop a visitor questionnaire over time to gain robust data

RC3 There is an integrated approach to recreation across the wider landscape

Policy	How
<p>RC3.1: Recreation development and promotion of links to opportunities on adjacent public land areas</p>	<ul style="list-style-type: none"> • Provide activities that are complementary to rather than the same as those in Queen Elizabeth Park and Akatarawa Forest. • Promote recreational walking, cycling and horse-riding links between Queen Elizabeth Park, Whareroa Farm and Akatarawa Forest.



Trampers at The Rocks

Allowed/Non Allowed Activities

Activity	Allowed/Not Allowed/Restricted	Comment
Aircraft Landings	Restricted	Could be considered for some events
Dogs/Dog Walking	Not Allowed	Consistent with past management of farm/Only permitted for farming operations or guide/hearing dogs which are covered by legislation
Collecting	Restricted	Collection of plant and seeds requires permission from DOC
Commercial activities, eg filming, guiding, coffee cart or cafe etc.	Restricted	Subject to concession processing standard operating procedure
Firearms/Hunting	Not Allowed	Apart from DOC pest management operations
Fireworks	Not Allowed	
Open Fires	Not Allowed	
Horse Riding	Allowed	In designated areas/may have seasonal restriction
Walking/Running/Tramping	Allowed	In designated areas/may have seasonal restriction
Mountain Biking	Allowed	In designated areas
Motorised Recreation	Not Allowed	
Picnicking	Allowed	
Vehicular access		Management purposes only

Consideration of new recreational uses

Possible new recreational uses need to be considered in terms of how well they fit with the vision, goals and objectives of management, and how they would impact on existing park users. Consideration of any new recreational infrastructure that might be required needs to be considered under policy RC 2.2.

Decisions on whether new uses are appropriate and where they might be located will be guided by the definitions of the management zones. Some examples of potential new uses are set out below:

Activity	Allowed/Not Allowed/Restricted	Comment
Orienteering	Allowed	<ul style="list-style-type: none">• Include with walking / running / tramping.• Events would need to be approved through usual events process.
Hang gliding, para gliding	Restricted	<ul style="list-style-type: none">• Could be allowed as one off events through normal events process• Does not appear well suited for open use due to potential disturbance of stock and of other users seeking quiet natural setting.
Geocaching	Allowed	<ul style="list-style-type: none">• Currently occurs• Does not create disturbance as basically involves walking• Good family activity

Future strategic opportunities

There may be potential for additional visitor facilities around the entrance area in partnership with a commercial concession, e.g. cafe or other venue. This could be considered in line with the criteria for new recreational infrastructure under RC 2.2, above.

Relationship of Recreational Use to Management Zones

The relationship of recreational use to the management zones defined in Section 3 is summarised below.

Zone	Recreation
1. Biodiversity core	<ul style="list-style-type: none"> • Walking and other low impact recreation on defined tracks • Simple track infrastructure
2. Biodiversity & catchment protection	<ul style="list-style-type: none"> • Remoteness – away from quiet use areas reduces conflict • Walking and running • Mountainbiking on designated tracks on steep but vegetated and stable slopes • Horse-riding on designated tracks
3. Hub – Family events	<ul style="list-style-type: none"> • A quiet sheltered zone where people can picnic and explore • Emphasis on simplicity and avoiding permanent structures or activities • Presence of gorse on faces around and through this area is a major concern in terms of fire risk as well as its negative impact on recreation. Clearance of gorse from key areas should be undertaken. • Develop as a natural open space, framed by natural vegetation, that is capable of supporting occasional events • Gathering for events but not intensive use • Generally avoid permanent active facilities such as mountain bike skills structures • Occasional organised (e.g. music) events • See Hub plan.
4. Waterway framework	<ul style="list-style-type: none"> • Ensure areas of access to the waterway are retained – areas where there is more open vegetation and opportunity for children to access the waterway • Opportunities for future short tracks through restored waterway areas
5. Landscape open space	<ul style="list-style-type: none"> • Emphasis on expansive views and feeling of remoteness and achievement • Avoid structures, major excavation etc • Recreational access to view points • More remote walking and horse riding experience
6. Local agriculture amenity	<ul style="list-style-type: none"> • High quality close farmed environment gives variety and interest to recreational experience • Opportunity for short walking loops through proposed wetland restoration area to link with Cairn Track. • Manage planting to maintain open area and views. Provide views framed by vegetation in some areas.
7. Hill country integrated agriculture	<ul style="list-style-type: none"> • Less developed but accessible. Exploring through attractive farmed landscape with trees. • Variety of settings and high quality views. • Possible future track area.
8. Flat land agriculture	<ul style="list-style-type: none"> • Agricultural open space that is unlikely to have significant recreational use in the short-medium term • Reasonable quality soils and wetness in some areas means that recreational use is not appropriate.
9. Biodiversity and amenity forest	<ul style="list-style-type: none"> • Key area of recreational tracks from the Hub to Campbell's Mill Road and as part of loops • Planting and management of native species that will promote suppression of gorse and improve the recreational environment, providing variety, shelter, shade and framed views. • Provides enhanced recreational environment in area that will continue to support key recreational routes
10. Intensive use	<ul style="list-style-type: none"> • North western area of this zone is potentially appropriate for development of any major facilities that may be proposed in the future, such as wine and food centre, conference centre, visitor centre etc. • Robust nature of soils, with underlying layer of metal on area of previous marines camp means the area is appropriate for intensive events such as horse events. • Potential use of open paddocks to support car parking for major events.

Existing tracks and future options

To be read in conjunction with Track Network map and Whareroa Names Map

Existing tracks

Name	Location	Distance	Time	Standard	Allowed users	Notes
Stream Loop Walk	Entrance picnic area	355m	12 min	Short walk Disabled access	Walkers only	Disabled access - wheelchairs etc allowed
Coast View Track	Branch off Forest Loop Walk	500m	15 min	Walking track	Walkers only	Seats at top
Forest Loop Walk	Entrance picnic area to Ti Kouka Stream, through kohekohe bush	1.6km	45 min	Walking track	Walkers only	
Cairn View Track	Farm Race to Cairn Lookout	1.2km	40 min	Easy tramping track	Walkers only (Horses in future)	With future development part will become shared use with horses as the Ramaroa loop is developed. This track traverses grazed area of farm and will be subject to seasonal closure for lambing/calving
Farm Race	Entrance to Hub			Walking Track	Walkers, horses and mountain bikes	
Link "A" Track (In Gums) (from Hub to Horse (Valley) Track)	From farm race beyond Ti Kouka Stream, through gums to Horse (Valley) Track			Easy tramping track/Grade 2 mountain bike track	Walkers and mountain bikes only	Stream crossing Should be called "Gums Track" or "Gum Tree Track"

Name	Location	Distance	Time	Standard	Allowed users	Notes
Horse Track (from Hub following existing farm track to Campbell's Mill Rd)	Follows valley floor from gums to head of valley, then climbs quite steeply to Campbell's Mill Road	2.5km		Tramping track/Horse Trail	Walkers and horses and mountain bikes for 400m between end of Link A and start of Link B Track then walkers and horses only.	Would be better called "Valley Track" Horses both ways at present. Connects the two sections of the Link Track. It would be better to call Link A "Gums Track" and the uphill section the "Link Track"
Link "B" (climbing section) Track	From Valley floor to Campbell's Mill Rd			Tramping track/ Grade 2 mountain bike track		
Downhill Track	Steep track from crossing with Link Track to gums	2 km		Tramping track/Grade 3 mountain bike track	Walkers and mountain bikes. Uppermost section (180m), above the Link Track crossroad to be designated East Ridge Track and shared with horses.	No horses below Link Track crossing, they must proceed to the East Ridge Track (when opened). When the East Ridge Track for horse downhill and trampers is developed this could revert to downhill Grade 3 MTB, apart from a short (180m) part of the top section shared also with horses and walkers as part of the "East Ridge Track". The lowest section of this track below the first intersection with the Link Track will be used by walkers seeking a shorter circuit. If this is to be an exclusive downhill mountain bike track in the future there will need to be a "crossing" and a connection to the new East Ridge Track – see below NB In reality, keen trampers are likely to continue to use this as quickest route to Campbell's Mill Rd even if labelled MTB only and it might be better to leave it as is.

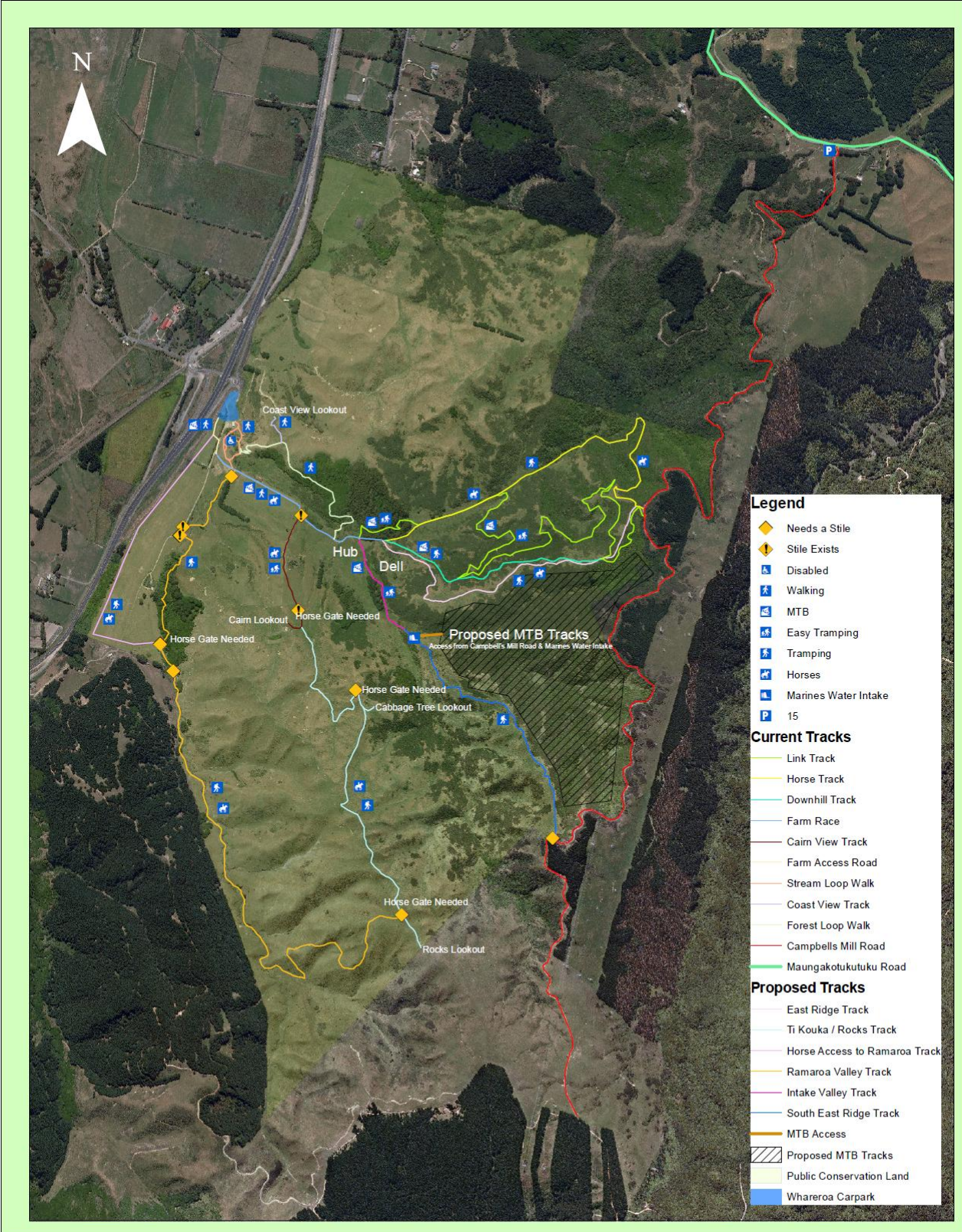
Proposed future tracks

Name	Location	Distance	Time	Standard	Allowed users	Notes
East Ridge Track	<p>Cambell's Mill Road to Gums.</p> <p>Follows ridge top from junction of Link Track with Downhill Track down to gums. Uses old farm tracks in part.</p>			Tramping track/Horse trail	<p>Walkers and downhill horses only.</p> <p>A short 180m part of the top section will be shared also with mountain bikers to connect with the Downhill Track</p>	<p>This track will provide increased safety by a less steep gradient for horses descending and by (mostly) separating walkers and horse riders from mountain bikers. It will need some gorse clearing, removal of fencing, signs and marker poles.</p> <p>Will need to be a 3m wide track to allow safe passing of horses and walkers, consistent with valley track management.</p> <p>This track is highest priority. Scope/Design work and construction as soon as possible. Concerns regarding shared use between horses and bikes remains - see main rec plan entry.</p>
Ramaroa Valley Track	<p>Provides a circuit with Ti Kouka/Rocks Track</p> <p>Exit carpark into airstrip paddock skirting along edge away from farm house then joins farm track up the Ramaroa Valley by Ramaroa Bush.</p> <p>Follow Ramaroa Stream along farm track up the valley, then up eastern slope to top of Main Ridge and fenced boundary</p>			Tramping track/Horse trail	<p>Walkers and horses only</p>	<p>Indicative line on plan. Will require direction signs and poles. Recommend using same horse lock on boundaries between grazed/non grazed areas and "Leave gates as you find them" signage on other gates.</p> <p>This track traverses grazed area of farm and will be subject to seasonal closure for lambing/calving. All users will be required to stick to the track.</p> <p>Scope/Design work required 2012/13 financial year for construction in 2013/14 financial year, depending on funding.</p> <p>In future, the walking track may pass through the</p>

Name	Location	Distance	Time	Standard	Allowed users	Notes
	<p>between grazing and retired land. Stile for trampers, horse padlock for gate.</p> <p>The Track joins the Ti Kouka/Rocks Track on leaving the grazed area.</p>					Ramaroa plantings and Ramaroa Bush. Out of bounds at present due to tradescantia infestation.
Ti Kouka/Rocks Track	<p>Provides a circuit with Ramaroa Track. Starts at top of Cairn View Track. Continues up Ti Kouka Valley through grazing. Crosses into retired area through farm gate/over stile. Continues up past Ti Kouka (Cabbage Tree) Lookout then on up to Rocks Summit Lookout (highest point on Whareroa).</p> <p>Ramaroa Track joins this track just below the Rocks.</p>			Tramping track/Horse trail	Walkers and horses only	<p>Horse trail will need gate accesses. Recommend using same horse lock on boundaries between grazed/non grazed areas and "Leave gates as you find them" signage on other gates. Will require direction signs and poles.</p> <p>Scope/Design work required 2012/13 financial year for construction in 2013/14 financial year? How funded?</p> <p>This track traverses grazed area of farm and will be subject to seasonal closure for lambing/calving</p>
Intake Valley Track	Hub to Marines water intake.			Easy Tramping Track/Grade 2 mountain bike track	Walkers and mountain bikes only	<p>This will provide egress for mountain bikes from the Mountain Bike Valleys, and access to a possible Mountain Bike Family Area. It will provide access for walkers to visit the Marines water intake and for Trampers to proceed up the SE Ridge Track.</p> <p>4WD access needed to service water supply intakes. Further clarification of upper part of this track is needed as it will continue into the Mountain Bike Valleys with the SE Ridge Track leading off it.</p> <p>"Ownership" needs clarification – DOC to manage the common section to intakes?</p>

Name	Location	Distance	Time	Standard	Allowed users	Notes
South East Ridge Track	Connects Marines water intake to Campbell's Mill Road.			Tramping Track	Walkers only	Provides a loop track opportunity and access to Mt Wainui. Establishment will require stile at Campbell's Mill Rd, direction signs at each end and poles or orange markers. Line on plan is indicative only. Guardians will apply for outside funding and use volunteers to establish the track.
Downhill Mountain Bike Valleys	Valleys to the east of Marines water intake up to Campbell's Mill Rd.			Mountain bike tracks of various grades Stream exploration opportunities	Mountain bikes only on downhill trails Access for walkers to streams in these valleys.	Will be dealt with through management agreement between Kapiti Mountain Bike Club Incorporated and Department of Conservation. Area for development as outlined on Whareroa Farm Track Map. These valleys include terrain of a different character to the rest of the farm eg waterfalls in streams. Some walkers will wish to explore these valleys but not using the downhill mountain bike trails. Due to potential 'conflict' between users this idea requires further discussion, including KMBC. Agreed to explore this option by January 2017.
Dell Loop tracks	Dell			Easy tramping	Walkers only	As per Dell Plan. To be developed and maintained by Whareroa Guardians.
Future possibilities						
Ramaroa Wetland Loop	From the main race or Cairn Track around the wetland areas proposed for retirement and back to lower Ramaroa Stream			Easy tramping track	Walkers only	Likely to need board walks

Name	Location	Distance	Time	Standard	Allowed users	Notes
Matai Bush Picnic Area Walk	From Hub, up ridge past the nikau grove to open clearing looking out over canopy of Matai Bush.			Easy tramping track	Walkers only	Will need a stile at south west corner of Hub grazed area. Poled. To be developed and maintained by Whareroa Guardians.
North western slopes, recreational routes	Various routes from the entrance and forest loop			Tramping tracks	Walkers only	Opportunity for just poling of existing walking routes that could go from forest loop along ridge to pond and down to Emerald Glen Road, to return along roadside walkway. Also potential for loops over to Carex Valley.



Whareroa Farm Track Network

Existing and Proposed

0 100 200 300 400 500
Metres
1:12,531
NZTM Projection, NZGD 2000

This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or planning purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

Department of Conservation
Te Papa Atawhai
Te Kāwanatanga o Aotearoa

SOFTWARE: ArcMap 10.0
FILE: S:\GIS\Recreation_and_Historic\MIS\Whareroa_Farm\Whareroa Track Network A3.mxd

Department of Conservation, 10 Paraka Street, Auckland
Road, Wellington (Map Office: 045 75 22 22)

5.4 Information and education

Interpretation, education and information resources are provided that encourage people to visit Whareroa Farm and enhance their visitor experience.

IE1: Valuable Information and Education Resources are Provided

Policy	How
IE1.1 Ensure support and funding are available to achieve information and education goals	<ul style="list-style-type: none"> • Establish a funding team. • Apply for funding for interpretation and information projects • Apply for funding for education projects
IE1.2 Off-site information, interpretation and education to complement the historic, cultural, recreation, and natural values of Whareroa Farm	<ul style="list-style-type: none"> • Provide updates for the DOC website. • A Guardians-produced Whareroa Farm brochure • A Whareroa Farm school education resource developed
IE1.3 An information shelter is established to provide visitors with information on restoration projects; news; farm history; and general visitor information	<ul style="list-style-type: none"> • Installation of historic timeline panel • Update Whareroa Farm notice board. • Install brochure holders • Local sponsors board installed • Review and update DOC information panel
IE1.4 Establish outdoor on-site interpretation, information and education to complement the historic, cultural, recreation, and natural values of Whareroa Farm	<ul style="list-style-type: none"> • DOC to update and maintain compliance, directional and other external signage installed by DOC. • Sites for historic interpretation identified • Discussion with iwi regarding tangata whenua interpretation • US Marines history interpretation installed • Mackays & farming history interpretation installed • Biodiversity interpretation installed • Geology interpretation installed • Outdoor education space providing opportunity for craft workshops, seminars and school trips established



Whareroa Farm provides excellent open air venues for interpretation and education. Here Jenny Rowan talks about Whareroa Farm to a group at The Dell.

5.5 Sustainable Farming

Whareroa is a working coastal hill country farm that integrates recreational use and conservation management with farm operations and demonstrates high quality sustainable land management.

SF1: Operations are managed to support recreational use

Policy	How
SF1.1 Stock types and locations managed to avoid conflict	<ul style="list-style-type: none"> Stock types and locations will be managed to reduce conflict with recreational users. This will include avoiding grazing more difficult types such as bulls or cows with calves in areas that are important public access. For example these stock types may be predominantly grazed on the airstrip and flat land agriculture areas along Emerald Glen Road where they can be separated from public use.
SF1.2 Fencing to separate stock and recreation in key areas	<ul style="list-style-type: none"> Where possible fencing for stock movement, including stock races will be undertaken to allow stock movement that reduces conflict with main recreational routes. The fencing out of the main access road to the Hub area is an example of this.

SF2: Soil resources are sustained

Policy	How
SF2.1 Stock types and locations managed to avoid soil damage	<ul style="list-style-type: none"> Stock types and locations will be managed to avoid pugging damage of soils. Many of the soils of the easier areas such as the flat land agriculture zone (Emerald Glen) and local agriculture amenity (the wetlands) are susceptible to pugging damage if grazed by cattle in wet conditions. The hill country soils with loess cover are also vulnerable. Keeping cattle off vulnerable areas, particularly during wet periods will be required.
SF2.2 Ensure effective nutrient management to maintain fertility and minimise nutrient loss.	<ul style="list-style-type: none"> Nutrient budgeting will be undertaken and a simple nutrient management plan developed. A consistent approach to soil sampling should be developed and fertiliser applied to maintain base fertility. Application of fertiliser should be managed to avoid areas not in production and waterways. This may include ground spreading on flat areas, use of helicopter on steeper terrain and areas with a mix of land uses.
SF2.3 Avoid soil erosion and soil loss	<ul style="list-style-type: none"> Avoid soil erosion and subsequent soil loss. This will require ongoing attention to maintaining appropriate stocking levels so that a productive pasture sward is maintained. It will also require targeted planting of trees such as poplar and willow in vulnerable areas of grazing land, as pair plantings in gully areas and small patches on some slip prone faces. These species can also be cut for emergency stock fodder in dry summer periods



Cattle graze on the Airstrip paddock. The gravel layer in soils of this area mean they are relatively robust under grazing by heavy stock.

SF3: Animal welfare is managed to high standards

Policy	How
SF3.1 Stock on Whareroa are in good condition and there are no animal welfare issues	<ul style="list-style-type: none"> Industry best practice is followed in relation to management of animal health and welfare. Appropriate industry codes of welfare published by Ministry for Primary Industry and Beef+Lamb should be followed. Stock numbers are managed to maintain adequate feed levels and body weight . Tree planting and retirement areas within the grazed area to provide sufficient shade and shelter for stock

SF4: Conservation management and restoration are integrated with farming operations

Policy	How
SF4.1 Biodiversity areas protected	<ul style="list-style-type: none"> Stock excluded from biodiversity and retired areas. As identified in other parts of the Whareroa Plan, these areas are either already fenced out and not grazed or will be in the future. Some wetland areas in the local agriculture amenity zone will be fenced out in the future
SF4.2 Waterways protected	<ul style="list-style-type: none"> Protect waterways within the grazed area. Most areas of the main waterway are now fenced. Cattle will be excluded from the large paddock in the headwaters of Ramaroa Stream and this area will only be grazed with sheep. Imposing this restriction will be easier to achieve if the property is managed as part of a combined lease with Queen Elizabeth Park. Where livestock are excluded from waterways reticulated water may have to be provided to maintain access to water. All dead stock to be removed from waterways



Farming operations need to be integrated with the wide range of other uses of Whareroa Farm from recreation to ecological conservation and management of historic heritage.

SF5: A best practice farming operation is maintained

Policy	How
SF5.1 Pursue opportunities to combine farming operations with QEP to increase viability.	<ul style="list-style-type: none"> Consider incorporating the farming operation into a larger operation including Queen Elizabeth Park (QEP). This would allow a viable farming operation with a total of around 4500 stock units. A range of stock types could be maintained across the properties, giving more scope to manage stock in relation to feed supply, soil conditions and public use. For example Whareroa provides a good sheep breeding property. Lambs could then be finished on parts of QEP.
SF5.2 Provide facilities for management of sheep	<ul style="list-style-type: none"> Potential construction of a small woolshed at Whareroa. A small (e.g. 2 stand) woolshed could be constructed to deal with the moderate number of sheep involved.
SF5.3 Establish a lease agreement that encourages long term sustainable management and support of recreation.	<ul style="list-style-type: none"> An extended lease period of 10 years with some right of renewal could ensure greater commitment to management of the property. If management of the farming operation in conjunction with QEP is agreed, it will be important to establish management of a single lease across the properties to simplify relationships with the lessee.
SF5.4 Allow flexibility to pursue better farming practices within defined environmental and other outcomes.	<ul style="list-style-type: none"> Provided other goals (above) can be shown to be met, farming operations should be encouraged to incorporate the best mix of management and activities for a farm of this type. This will be likely to include consideration of: <ul style="list-style-type: none"> o Pasture improvement and drainage

	<ul style="list-style-type: none"> ○ Incorporation of feed crops on appropriate areas, e.g. on flatland agriculture area and better areas of local amenity agriculture. These operations should use minimum till, direct drilling techniques to avoid soil disturbance. ○ Refinement of sheep and cattle breeds to suit the site and improve productivity. <ul style="list-style-type: none"> ● Small areas of increased grazing where appropriate. Grazing area on the main ridge could be increased slightly by moving the fence further east so the broad ridgetop is grazed. This would have benefits in terms of landscape and also recreational access, through keeping this area open. However the feasibility of this will depend on cost.
SF5.5 Apply best practice approaches to all land use and continue to seek practical improvements	<ul style="list-style-type: none"> ● Herbicide and other agrichemical use follows all industry standards and best practice guides and uses the approach that will give the lowest toxicity and level of application in the long term. ● Where areas of forestry are managed; establishment, management and harvest will use best practice approaches

SF6: An integrated sustainable land use approach is taken that utilises non pastoral land uses to increase sustainability

Policy	How
SF6.1 Future opportunities for viticulture, horticulture or other intensive uses will be considered on a case by case basis in appropriate management zones	<ul style="list-style-type: none"> ● Any viticulture or horticulture would generally only be considered in the intensive use or flat land agriculture zones. ● Possible viticulture opportunities: The airstrip paddock on the old Te Ramaroa gravel fan was subsequently overlaid with a layer of gravel by the US marines. This has been classified as LUC unit 6s8. Vineyards have been established on stony river flats with similar classification in the Wairarapa & Marlborough. The northerly aspect, gentle slope and elevation would provide a low frost risk environment for viticulture. Further investigation by viticulturalists would be required to see if conditions are actually suitable. There may be opportunity for a small vineyard on the lower airstrip area, but there could be considerable opportunity for some form of associated winery due to the proximity to Wellington and accessibility of the site. This would be appropriate within the intensive used zone. ● Any vineyard / winery development would need to involve a long term lease arrangement in order to justify an external party making the required investment.
SF6.2 Forestry may be considered as a component of sound land use in appropriate areas	<ul style="list-style-type: none"> ● May be considered in some areas, where it is compatible with the management zone, to provide enhanced range of settings and opportunities for recreation as well as economic return

6 Action Plan

This section summarises the main actions proposed over the next 5-10 years and lists the specific areas where this will occur. The action plan map identifies the location of different action areas. Individual actions are also given a high, medium, low priority (H, M, L) or identified as ongoing operations (O).

6.1. Restoration

Waterway and catchment restoration is a key part of the vision for Whareroa Farm.

The main restoration actions will be enhancing habitat through retirement from grazing and revegetation in native plant communities. The approach to revegetation depends on the particular site, its existing vegetation (e.g. pasture or solid gorse) accessibility, proximity to core forest areas etc. The different types of re-vegetation are briefly described below

The primary objective for re-vegetation of areas varies from, for example, buffering existing remnants and assisting linkages to providing streamside protection, - however most re-vegetation provides a range of these outcomes

6.1.1 Riparian restoration

Large areas of riparian retirement and restoration planting have already occurred at Whareroa Farm.

Maintenance and enhancement of existing areas

Area Name	Descriptive name	Ha	Notes (actions etc)	Priority
R1	Main waterway and escarpment at entrance	2.7	<ul style="list-style-type: none"> Maintain planting. Gorse removal and planting on escarpment where possible Infill planting 	H
R2	South branch adjacent to Kohekohe Bush and farm race	3.2	<ul style="list-style-type: none"> Most plantings now well established Control problem weeds Spot planting with long term species, e.g. kahikatea 	H
R3	Lower Ti Kouka Stream	2.3	<ul style="list-style-type: none"> Maintain plantings – releasing of young plantings important Additional infill planting and replacement / blanking where necessary 	H
R6	Lower Ramaroa Stream	1.9	<ul style="list-style-type: none"> Maintain existing plantings Control problem weeds Spot planting with long term species, e.g. kahikatea 	H



Existing riparian planting, Whareroa Stream

Proposed new areas or significant expansion

Area Name	Descriptive name	Ha	Notes (actions etc)	Priority
R4	Intake Stream through Hub area	3.9	<ul style="list-style-type: none"> • Removal of gorse • Planting with riparian transition from waters edge onto edge of flat (sedges to shrubs & flax to trees). 	H
R5	Carex Stream through Hub area	5.1	<ul style="list-style-type: none"> • Gorse and other weed control • Continued maintenance of existing plantings • Expansion of plantings but keeping generally lower Carex, flax, cabbage tree etc with scattered larger kahikatea. 	H
R7	Lower Pond Stream, western faces		<ul style="list-style-type: none"> • Fence out lower reach of small stream, below where valley closes in • Establish poplars in instable areas of valley bottom and keep cattle out of this area in very wet periods 	L
R8	Mid Ramaroa Stream, above Ramaroa Bush	1.9	<ul style="list-style-type: none"> • Flatter area of waterway immediately above Ramaroa Bush could potentially be fenced and planted to provide an expansion of the bush area. • Requires further consideration in relation to stock movement. 	M
R9	Upper Ramaroa Stream	10.2	<ul style="list-style-type: none"> • Not feasible to exclude stock from the entire area at present. • May be potential to establish native vegetation on some sections of the stream using semi permanent fencing (e.g. post and netting). • Removing cattle access to the area will increase the chances of some native scrub species establishing around the waterway, particularly on steep faces. 	L

6.1.2 Wetland restoration

There is one significant retired wetland area on Whareroa, adjacent to the railway. There are smaller areas including the Rautahi Wetland below the farm race and below Kamahi Bush. There are a number of opportunities to enhance and restore this rare habitat type.

Area Name	Descriptive name	Ha	Notes (actions etc)	Priority
WR1	Ramaroa Wetland	3.8	<ul style="list-style-type: none"> Series of seeps and channels in north western portion of Ramaroa Fan. Fence to remove stock Continue current gorse control Plant with wetland species in seeps and transition to forest species on small spurs between Possible use of some areas as commemorative plantings 	H
WR2	Matata (Railway) wetland	1.1	<ul style="list-style-type: none"> Monitor and control weeds entering the wetland Encourage a gradual transition of edge planted poplar to native species 	M
WR3	Hub wetland	0.5	<ul style="list-style-type: none"> Allow wet area on flat adjacent to Matai bush to regenerate into low wetland species (Carex already present). Control any problem weeds, e.g. gorse, blackberry. 	M



Seeps and channels of Ramaroa Wetland to be fenced and planted with wetland species.

6.1.3 Managed regeneration

There are large areas of land that are being left to regenerate to native forest at Whareroa. They will be managed to promote regeneration where practically and financially feasible. This may include localised areas of planting, particularly where fire risk management near public use areas means that it is important to replace gorse with less flammable species. Control of pest animals and pest plants will also be required through these areas. These key action areas are listed below.

Area Name	Descriptive name	Ha	Notes (actions etc)	
MR1	Northern retirement area	23.9	<ul style="list-style-type: none"> • Could be left to regenerate • Alternatively could consider aerial spray of gorse followed by planting with exotic forest species to suppress gorse and provide potential future revenue. • Decision on final approach needs to be made now.. 	H
MR2	Head of Carex Valley	28.7	<ul style="list-style-type: none"> • Leave to regenerate 	H
MR3	Intake Stream mountain bike area	65.2	<ul style="list-style-type: none"> • Leave to regenerate • Some localised patch clearance of gorse and planting with native species could occur once mountain biking access is present – if there are resources available for this. 	H
MR4	Whareroa Stream South Branch	41.2	<ul style="list-style-type: none"> • Leave to regenerate 	H



Regeneration of native species through gorse. Opportunities for additional Planting are present around tracks and open areas.

6.1.4 Managed Regeneration & Planting

This involves a more active approach to restoring areas of retired pasture that are regenerating predominantly into gorse at present. This more active approach is required because of higher recreational use and fire risk in these areas. Promoting more rapid regeneration will move the areas to low flammability native vegetation more quickly. It will also make the areas more appealing for recreational use.

Lower cost methods to enhance regeneration of native species include:

- Patch planting in existing more open areas of gorse and then maintaining gorse clearance from these areas until natives are established
- Cutting and controlling holes and lines in gorse and planting these areas
- Seeding native species into key areas.

Area Name	Descriptive name	Ha	Notes (actions etc)	Priority
MRP1	Lower northern side of Carex Valley	1.6	<ul style="list-style-type: none"> Clear gorse off some more accessible areas and cut holes and lines in gorse where possible Plant patches and scattered native species to speed up regeneration. Apply native seeding techniques as these develop 	H
MRP2	Behind Dell and lower southern side of Carex Valley	15.0	<ul style="list-style-type: none"> Clear gorse off some more accessible areas and cut holes and lines in gorse where possible Plant patches and scattered native species to speed up regeneration. Apply native seeding techniques as these develop 	H

6.1.5 Restoration planting

Planting will be undertaken in some areas where particular value is identified in buffering remnant forest areas, for example around northern remnant forest areas adjacent to Emerald Glen Road. Planting may also be undertaken to benefit landscape values, for example around the main entrance area.

Area Name	Descriptive name	Ha	Notes (actions etc)	Priority
RP1	Between Matai and Upper Bush in Hub area		<ul style="list-style-type: none"> Currently only patchy gorse Will link and buffer two bush remnants Will create a planted fire buffer instead of gorse adjacent to higher use area of Hub. 	H
RP2	Between Big Bush and Little Bush on western slopes.	4.0	<ul style="list-style-type: none"> Links and buffers two important bush areas on exposed western slopes Recently controlled gorse means area should be planted in 2013 if possible. Check if needs further gorse spray prior to planting Some fencing required but not major for area retired 	H
RP3	Upper Ti Kouka Stream	3.5	<ul style="list-style-type: none"> Adjoins lower Ti Kouka planting and Matai Bush. Lower priority due to amount of fencing required and because immediate planting to control gorse not required 	M

6.1.6 Pest animal control

Some pest animal control is occurring in the remnant forest areas. The intensity and consistency of this control will need to be increased so that standard networks of traps and or bait stations are present. Control should also automatically be rolled out into retired areas along tracks and when new planted areas are well established. The following key actions form part of this plan:

Area Name	Notes (actions etc)	Priority
Confirm pest animal control plan	<ul style="list-style-type: none"> Confirm range of pest control techniques to be used Use of bait stations that are pulsed with toxic bait is likely to give the most cost effective result for possums and rodents Establish a network of predator traps for control of stoats 	H
Whole Farm	<ul style="list-style-type: none"> Regular goat control operations by DOC to eradicate goats. 	H
Native forest remnant areas	<ul style="list-style-type: none"> Undertake initial knock down control of possums using professional operator (e.g. regional council biosecurity) Establish network of bait stations to be operated by volunteers Maintain control to achieve control targets in management plan 	H
Restoration planting and retirement areas	<ul style="list-style-type: none"> Undertake occasional knock down control of a range of pest animals through the area by professional operator. Likely to include night shooting and trapping. 	M

Area Name	Notes (actions etc)	Priority
	<ul style="list-style-type: none"> • Operate network of predator traps and also bait stations (where appropriate). • Establish trapping and bait station network as recreational track network develops – e.g. through mountain bike area. 	
Landscape level pest control – “Low Pest Lowlands Link”	<ul style="list-style-type: none"> • Consult with neighbours and understand pest control currently being undertaken • Expand Whareroa pest control across all retired areas to support adjacent pest control • Encourage and support neighbours to increase their animal pest control 	M



A diverse range of lowland forest species including kohekohe, nikau and podocarps are present in forest remnant areas which have a high priority for animal control.

6.1.7 Pest plant control

A strategic approach to pest plant control is required at Whareroa. This should concentrate on controlling high priority weeds in and around the forest remnants. High priority weeds will be species that pose a significant threat to the area, can spread rapidly, and have recently arrived. Examples of this are tradescantia, banana passionfruit and Japanese honeysuckle at Ramaroa Bush.

A strategic approach should also concentrate on control of weeds that are present on the farm and have potential to disperse widely into retired areas. An obvious example of this is pampas. This species is present as occasional individuals but could spread rapidly on westerly winds into retired areas. It is also present on adjacent roadway areas so discussion with NZTA over its control may also be required.

Retirement of areas and removal of stock grazing immediately provides an opportunity for weeds to become established and spread. Retirement and replanting areas need to be regularly checked for establishment of problem weeds and early control undertaken. For example early control of blackberry or pampas in a retirement area is a relatively small job, but once it becomes widely established can threaten the entire planting area.

Area Name	Notes (actions etc)	Priority
Native forest remnants	<ul style="list-style-type: none"> Complete weed survey of all remnant areas and prioritise weeds for control Undertake coordinated weed control 	H
Retirement & Planting areas	<ul style="list-style-type: none"> Regularly inspect retirement and planting areas for priority / problem weed species Undertake control early before infestation spreads 	H
Whole Farm	<ul style="list-style-type: none"> Broadly assess major problem weeds present across the farm and adjacent properties Identify weed control priorities across the whole farm and develop combined initiatives with neighbours 	H

6.1.8 Fencing

A number of fences are suggested under this action plan. The fences and their priority are set out in the table below.

Fence	Location	Approx Length (m)	Notes	Priority
F1	Ramaroa Wetland	500	<ul style="list-style-type: none"> Fence to exclude stock from wet seeps and small ridge areas between them. Practical fencing boundary found that also provides a natural line in relation to wet areas and land use capability 	H
F2	Little Bush	250	<ul style="list-style-type: none"> Fencing to south of Little Bush to excluded stock from Little Bush and area between Little Bush and Big Bush. 	H
F3	Upper Ti kouka Stream	500	<ul style="list-style-type: none"> Fencing along edge of track to exclude stock from some of upper reaches of Ti kouka Stream. Considerable fencing required to retire this area. Alternative lower cost approach to establish poplars into the gully sections of this area. 	M
F4	Proposed orchard	120	<ul style="list-style-type: none"> Fencing to exclude stock from a small orchard area. Possible location is near bottom end of main race, adjacent to old marine camp. 	M
F5	Ridgeline, head of Whareroa Stream South Branch	900	<ul style="list-style-type: none"> Possible fencing option to shift ridgeline fence further north east so that better quality land on broad ridge top is included in grazing. Would keep ridgetop open for recreational access and also remove hard visual line on ridgetop Decision on fencing likely to depend on farm leaseholder funding it or alternatively will be considered at fence replacement. 	L

6.2 Cultural and Historic

Effective management of cultural and historic values at Whareroa requires a number of key actions to be undertaken. These include:

Action	Notes	Priority
Assemble and secure all information in an accessible place		H

Work with iwi to gather cultural information	Including description of the area – iwi use etc	M
Complete archaeological survey and geophysical survey		
Develop management and maintenance practices for sites / values		M
Work in partnership with GWC, KCDC, Marines Trust, Local Businesses etc		M
Provide information for interpretation		M

6.3 Recreation

Full development of the track network in the Recreation Plan will occur over the next 10 years. Key areas of work are listed below. Planning of development of the Hub area is a high priority as this area is very important to recreation use and needs to be carefully managed. An early outline of the Hub plan is provided below.

6.3.1 Tracks

<i>Action Area</i>	<i>Description</i>	<i>Where</i>	<i>Priority</i>
New Track Construction	<ul style="list-style-type: none"> Implement the track development plan set out under the recreation goal. 	See table of tracks and track map	M
Track Maintenance	<ul style="list-style-type: none"> Continue maintenance to the standards set out under the recreation goal 	See table of tracks and track map	H

6.3.2 Mountain biking development

Plans for the specific development of tracks will be approved by DOC in line with their management agreement with the Kapiti Mountain Bike Club.



Mountain biking is an important recreational use at Whareroa Farm.

6.3.3 Other recreational infrastructure

Action Area	Description	Where	Priority
Toilets	• Construct new toilets adjacent to Hub, as set out in Hub plan	See Hub plan map	H
	• Maintain existing toilets	EF	O
Entrance facilities	• Maintain existing entrance facilities	EF	O
	• Plant deciduous shade trees and provide picnic tables in the immediate entrance area. • Avoid planting of deciduous exotic amongst natives around waterway	EF	M

6.4 Information & Education

Providing easily available information about Whareroa and utilising the property as an educational resource is important. A number of specific actions are to be achieved over the next 5 years.

Action	Notes	Priority
Prepare a Whareroa Brochure and make it widely available, including in brochure holders on the Farm	• A sponsor or funding source is required	H
System for regular updating of DOC website is in place.	• Ongoing	H
Update Whareroa Farm noticeboard	• Ongoing	H
Prepare historic timeline panel	• Historic interpretation for visitor centre	M
Historic interpretation site with interpretation panel established	• May be located on low ridgeline behind marine camp along the main race. • Could be combined with agricultural interpretation • US Marines History and interpretation included, or at a separate site	M
Farming interpretation site established with interpretation panel	• May be located on low ridgeline behind marine camp along the main race. • Could be combined with agricultural interpretation	M
Biodiversity interpretation site established with information panel		M
Discussion with iwi regarding tangata whenua interpretation and work with them on interpretation		H
Review and update DOC information panel		
Mackays & farming history interpretation installed		
Geology interpretation installed		
School education resource prepared and available		M
Investigate possible long term opportunity for outdoor education space, visitor centre	• Investigation in conjunction with Queen Elizabeth Park • With space for workshops, seminars and school trips	L

6.5 Sustainable Agriculture

6.5.1 Lease

A new lease will be required for Whareroa by the middle of 2013. DOC and the Guardians will set

the criteria / conditions for future leases and work together through the selection process. Some key aspects that should form part of this lease are set out below.

The possibility of combining the lease with Queen Elizabeth Park to be explored

- Greater lessee commitment to maintaining their tenure due to the greater income / livelihood obtained from the larger area.
- Greater ability to move different stock types between different land types on the properties.

Incorporate key performance indicators into the lease

The farming outcomes above will form a key part of the lease. Lessee will be checked against these outcomes annually. Suggested key performance indicators are provided below. These may require some refinement before they are incorporated into the lease.

Scope of the lease / area

- The lease would cover all the non retired areas but reserve the right to negotiate around additional removal of small areas from the lease where future retirement occurs.
- The proposed Ramaroa Wetland retirement and Little Bush retirement areas should be excluded.

6.5.2 Achieving high quality land management outcomes – key performance indicators

Achieving high quality sustainable agricultural operations on Whareroa Farm is important. Hands on management of the farming operation will be undertaken by the lessee. It is important that clear performance requirements are set around the farming operation so that DOC, The Guardians and the lessee are all clear on expected performance. The following key performance indicators will be used to help achieve sustainable farming operations. These performance indicators may be modified by DOC and the Guardians in setting selection criteria for future lessees. Farming operations will be monitored by DOC to assess against conditions stipulated in the concession agreement.

Criteria	Performance	Assessment
Soil structure	<ul style="list-style-type: none"> • Stock kept off vulnerable soils in wet periods. • Cattle kept off wet areas and retained on more robust “intensive use” areas in wetter periods • Pugging or other damage only localised 	<ul style="list-style-type: none"> • Presence of cattle on vulnerable soils at certain times • Excessive pugging over more than some agreed area (e.g. 0.1 ha).
Soil erosion	<ul style="list-style-type: none"> • Grazing levels and stock type managed to ensure a strong and full pasture cover is retained without exposure of soil and subsequent erosion • Support erosion control poplar plantings and avoid damage to pole plantings 	<ul style="list-style-type: none"> • Quality of pasture cover • Presence of erosion influenced by farming operation
Nutrient management	<ul style="list-style-type: none"> • Current overseer nutrient budget is present • Effective and regular soil testing to confirm soil nutrient status. • Fertiliser application only where necessary to achieve accepted target nutrient values 	<ul style="list-style-type: none"> • Nutrient budget • Soil nutrient levels • Quality of fertiliser application
Animal welfare	<ul style="list-style-type: none"> • Codes followed. No issues of nutrition etc • Dead or injured animals removed wherever possible 	<ul style="list-style-type: none"> • Check against codes • Valid public complaints
Waterway protection	<ul style="list-style-type: none"> • Stock kept out of all identified fenced waterways • Cattle kept out of upper Ramaroa Stream. 	<ul style="list-style-type: none"> • No stock in protected waterways • Dead stock in any waterways are to be

Criteria	Performance	Assessment
		removed promptly
Remnant and retired areas	<ul style="list-style-type: none"> Stock kept out of all retired and remnant forest areas 	<ul style="list-style-type: none"> No stock in retired areas
Farm assets	<ul style="list-style-type: none"> Maintenance of reticulated stock water Maintenance of fences Maintenance of sheds and buildings 	<ul style="list-style-type: none"> Assets maintained and improved
Community	<ul style="list-style-type: none"> Maintain a positive relationship with visitors to Whareroa 	<ul style="list-style-type: none"> Visitors, Guardians and DOC staff observe lessee engaging positively with public.

Weed control on farm areas will be undertaken by DOC or the farm lessee. This will be determined through the grazing concession process. An advantage of DOC undertaking control is that this could help ensure weed control is undertaken at a consistent level and not influenced by cycles of farm profitability.

6.5.3 Shelter and soil stabilisation planting

Soil stabilisation planting utilising poplar poles or other suitable method will be implemented on areas of the “local agriculture amenity” area and “hill country integrated agriculture” area, as shown on the action plan.

This pole planting is relatively low cost as poles can be established with sleeves to protect them from stock damage and do not require fencing.

6.5.4 Other land use opportunities

A variety of land use opportunities may be considered over the next 5-10 years. These include:

Expanding grazing area

As identified earlier under fencing, there is opportunity to move the fence further to the north east on the “landscape open space” block as this creates a good boundary in terms of utilising some easier ridgetop country and keeping the ridge open for recreation. This will be an opportunity that will depend on the lessee being willing to invest money to shift the fence.

Cropping

There are small areas on the west side of Emerald Glen Rd where feed crops such as Chicory could possibly be grown to provide extra production at key times for the farming operation. This use is appropriate on this area and could be undertaken by the lessee provided they still comply with the overall key performance indicators.

Horticulture / viticulture

There may be interest in further investigating opportunities in these areas. This would be appropriate principally within the events and facilities and intensive use area shown on the action plan. Any proposals for these uses would be likely to require long term leases and would need to be carefully evaluated in terms of their impact on other farm uses.

Summary of Sustainable Agriculture Actions

Action	Notes	Priority
Establish a new lease for Whareroa Farm	Work with GW to potentially have a combined lease for Whareroa and Queen Elizabeth Park Include key performance indicators in the lease	H
Assess key performance indicators	Regular (e.g. annual) assessment of operation against key performance indicators.	H
Undertake soil stabilisation and shelter planting	Establish poplar poles or other suitable individual planting method in areas shown on action plan	H
Consider expansion of grazing area on upper main ridge.	Will depend on interest and investment from lessee.	L
Localised use of feed crops west of Emerald Glen Road	Will depend on interest and investment from lessee Will need to comply with key performance indicators	L
Investigation of future horticulture or viticulture opportunities	Will depend on interest from external parties and require consideration against criteria for new uses	L

6.6 Hub plan

6.6.1 The Hub

The Hub area provides opportunity for quiet enjoyment of the natural surroundings away from the highway and other disturbance. It is also a key location where a range of recreational tracks converge and is the exit point for users of future mountain bike track areas. Because of the opportunities it provides and the number of tracks and users, careful planning of the separation and screening of different users is required to maintain the experience of natural values while also catering for travel through the area by more active users such as trampers and mountain bikers.

The large number of users travelling through this area and the presence of large areas of gorse around the area also mean there is a significant fire risk that needs to be managed as a high priority. The presence of gorse also has a negative impact for recreational users.

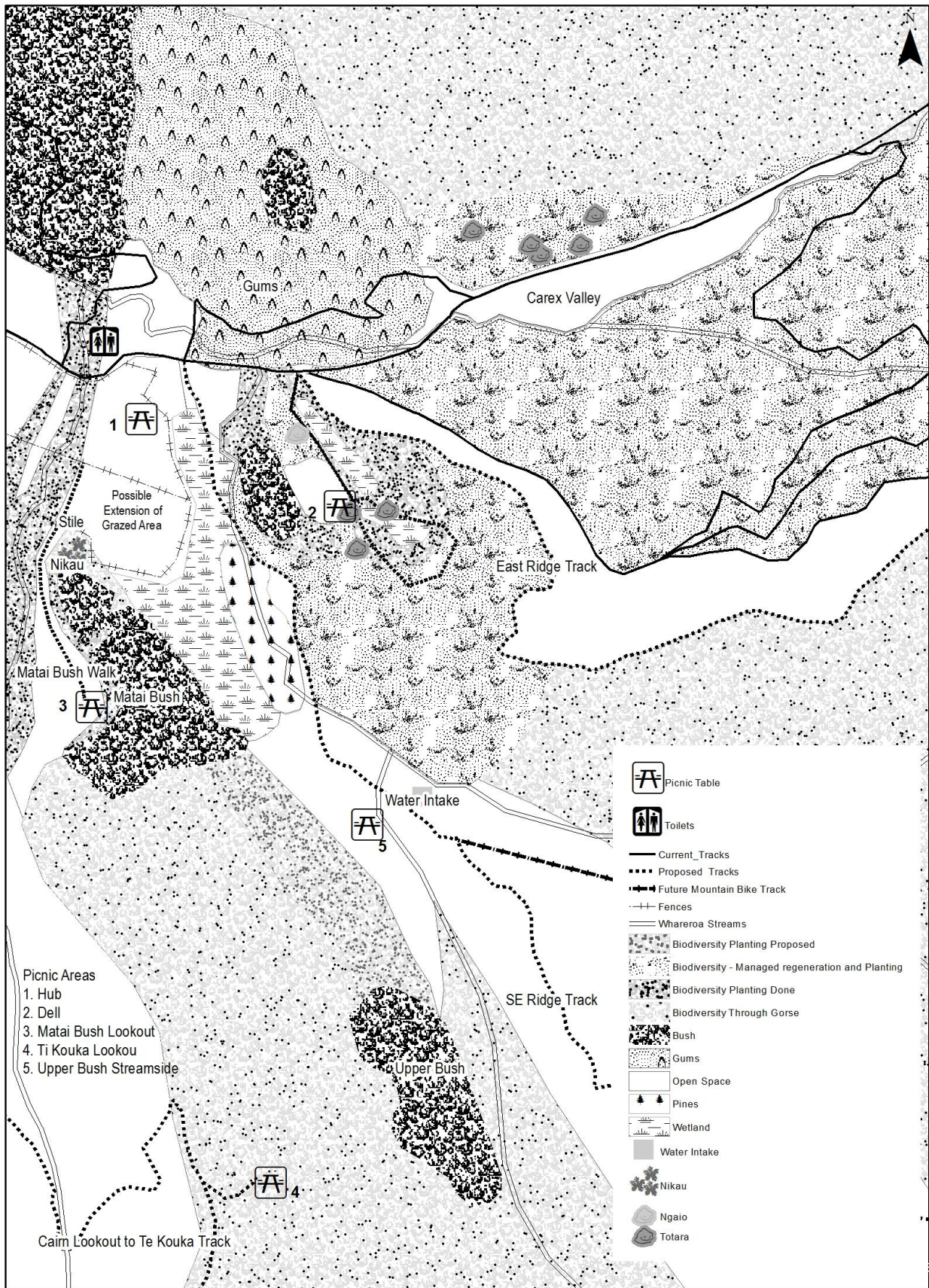
A Hub plan map is provided below. Additional detail on aspects of development in the Dell area that forms part of the Hub are given in section 6.1.2, below. Key features of the initial Hub plan are:

- Installing a toilet just north of the Hub where it is screened from the main Hub area but easily accessible
- Extend the open grass area as shown on the Hub Plan, and graze with sheep .
- Restoration of a wetland area with low wetland species in the central wet area of the flat, adjacent to Matai Bush. This would provide visual separation between the upper and lower flats, while still allowing views up the entire valley.

- Possible removal of pines along the stream prior to stream planting. There are pros and cons to the presence of these pines. They provide useful shade and variety, but they are somewhat out of character with the long term restoration of native vegetation up these valley areas. They also limit views up into the valley area. They will become larger and more difficult to deal with with increasing age.
- Maintaining areas of generally open space on the spur above the Dell and also above Whareroa Stream South Branch. This would be achieved through regular weed control to keep gorse growth off these areas. Keeping these areas open would provide attractive local outlooks and a variety of open and more secluded settings on short walks around the Dell.
- Removal of gorse from within the Dell and adjacent eastern areas and replacement with either managed grass (within areas of the Dell) or lower flammability native species. In addition to this, supplementary planting and patch clearing through other areas of gorse in the Hub area to encourage more rapid replacement of gorse with less flammable native species.
- Picnic tables and short tracks to encourage use by family or other groups with a range of ability.
- Careful planting of natives along the main south branch (intake) waterway and other planting west of the main track from the mountain bike area. This will screen the open valley flats and bush areas from mountain bikers and walkers – maintaining a more peaceful atmosphere for picnickers and others.
- A small children’s mountain bike skills area could also be located in the lower intake valley area where it is still easily accessed from the main Hub Flats, but can be screened and separated from them.



The Hub area with Matai Bush on the left and the Water Intake, bottom right.



Date: 28/11/2012

Whareroa Farm Hub Plan

0 25 50 100 Meters

6.6.2 Dell Plan

Concept

The Dell will generally be an area for “natural quiet”. At times it will be a place for group activities such as gatherings, picnics, live music etc. Access is on foot only. The grassed approach passes beneath trees to reach the open “amphitheatre” area with additional short loop walks to the east and south.

The Setting

The Dell consists of the following areas:

The Approach from the Horse Track below the Gums, up the present grassed area and including the south bank, under existing mature ngaio trees to

The Amphitheatre an open area at the centre

Wetlands along the valley floor

The Terrace between the southern rim of the Dell and the northern edge of Kamahi Bush

The Upper Dell beyond the Amphitheatre

The North Slope bounded above by East Ridge Track.

Management of different areas of the Dell

- Approach: There are scattered mature ngaio trees. The original access is being improved to provide an evenly graded path. This will remain in grass and need mowing (volunteers).

Trees have been planted along the whole of the south west side of the Approach.

- The Amphitheatre: Visitors will emerge from the bush path into an open area for picnics and quiet enjoyment surrounded by scattered mature trees (totara, tawa, ti kouka, kaikomako, karaka and ngaio) and forming a natural amphitheatre. This will be the principal picnic area, deeper within the farm, and the venue for organised gatherings eg for children’s music groups and live music, as occurred on Opening Day. A couple of picnic tables will form an added attraction.

A small levelled area at the "focus" of the amphitheatre where the existing large spreading ngaio tree provides shade has been levelled, this could then double as a small “stage” when needed. Volunteers are developing this as part of the existing path project (2012).

Trees will be planted at the top of the bank (to the south) to complete the "frame" of the amphitheatre.

- Wetlands: There is a swampy area at the base of the Dell with a small flow of water emerging to join Intake Valley Stream. At present this area is predominantly grass and water parsnip. Carex secta and small numbers of ti kouka, swamp maire, kahikatea and pukatea have been planted. No more trees are planned for the wetland. Eventually, grass will be replaced by carex and other low wetland species.

A culvert will be placed where the swamp narrows, near the base of the amphitheatre, to allow dry foot access across to the North Slope but allow fish access.

- The Terrace: Along the southern rim of the Dell and high above it is a narrow terrace which will be kept open to provide a circuit path. To the south it looks down the steep bank of Kamahi Bush which contains a variety of mature trees: kamahi, totara, titoki, manuka, hinau, tawa, nikau, kahikatea, kohuhu, kohekohe and a magnificent puka. To the north one looks down on The Dell and beyond to views of the farm and sea

- The Upper Dell: The bowl at the top of the Dell contains a few mature trees but also gorse and blackberry. The "Love Grove" project in 2009 initiated clearing and planting in this area and further clearing and planting is planned.

A short loop track is proposed to be developed in 2013, starting and finishing at the amphitheatre. NB East Ridge Track continues up around and crosses the slope higher above the Upper Dell.

- The North Slope: Part of this is in gorse, part is open grass and there are mature trees: ngaio and kaikomako. East Ridge Track forms the northern boundary.

A grove of kowhai and a few totara have been planted. Remaining gorse areas are being cleared. The slope could remain partially grassed, with trees providing shady picnic areas.

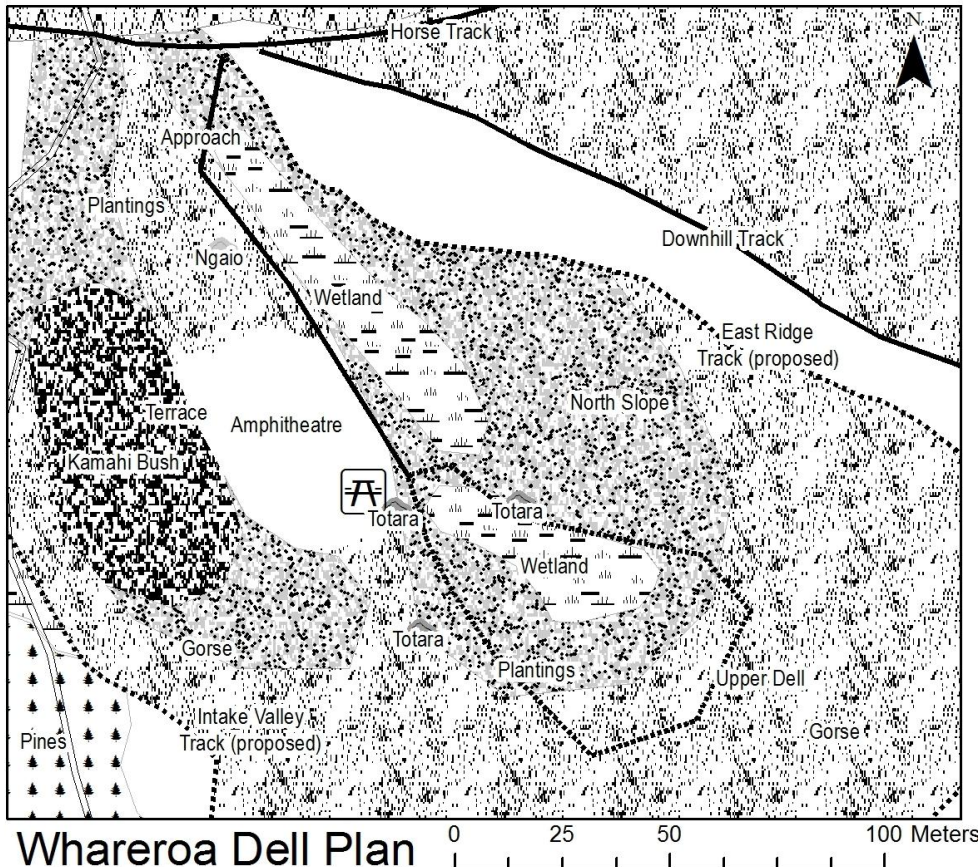
Development Principles

Whareroa Guardians development suggestions:

- Paths be "low tech" and hand made, for visitors to wander around the Dell.
- They will be developed, grassed and kept clear by volunteers.
- Seats and picnic tables will be donated and built over time – designs to be approved by DOC.
- Whareroa Guardians volunteers will maintain and gradually improve the Dell. All plantings will be eco-sourced natives.

The above development suggestions are subject to further consultation with the DOC visitor assets team to ensure work is agreed upon and carried out to agreed standards.

Standard of tracks and maintenance will be in accordance with recreation policy RC1.4 in this plan.



6.7 Fire Management

The combination of increasing number of recreational users and growth of highly flammable gorse vegetation in retired areas creates a significant fire risk. It is suggested that the following steps are taken to manage this risk:

- **Prepare a simple fire plan** for the area that can ensure that any fire can be suppressed quickly. This would be likely to include:
 - Identifying suitable fire fighting water sources including areas that can provide larger volumes and be easily accessed by helicopters.
 - Prepare a simple map of access points, water sources, vegetation, key assets etc.
 - Identify access tracks and firebreaks which need to be kept open and develop a maintenance programme.
 - Prepare Fire signage (no smoking, no fires) and location of these signs
 - Develop a fire risk closure and opening regime which will be based on the Fire Weather Index System.

- **Replace gorse vegetation in the central Hub area with lower flammability native vegetation** through clearance of gorse and planting in the most highly used areas such as the Dell. Where there is insufficient money and resources to achieve this in other areas of the Hub more rapid regeneration of native species should be promoted through patch planting in openings, clearing and planting small areas etc.

Summary of fire management actions

Action	Notes	Priority
Prepare simple fire plan	Includes: <ul style="list-style-type: none"> • Fire fighting resources • Access points • Signage • Fire risk closure regime 	H
Replace gorse with low flammability native vegetation around Hub area	<ul style="list-style-type: none"> • Clearance of gorse and planting in key areas. • Patch planting etc to hasten natural regeneration. 	H

6.8 Monitoring and review

Monitoring is required across a wide range of land uses at Whareroa. Some is already underway, e.g. bird monitoring. Monitoring requirements across a range of activities should be examined and a coordinated programme of monitoring and reporting against the management plan developed. Monitoring will include the following areas:

Sustainable agriculture –key performance indicators: regular, probably annual, assessment against lease key performance indicators identified in 6.5.2. For example this will include looking at soil nutrient sampling and fertiliser application over the year. It would include a walk over assessment of soil pugging damage and possibly use of tools such as visual soil assessment.

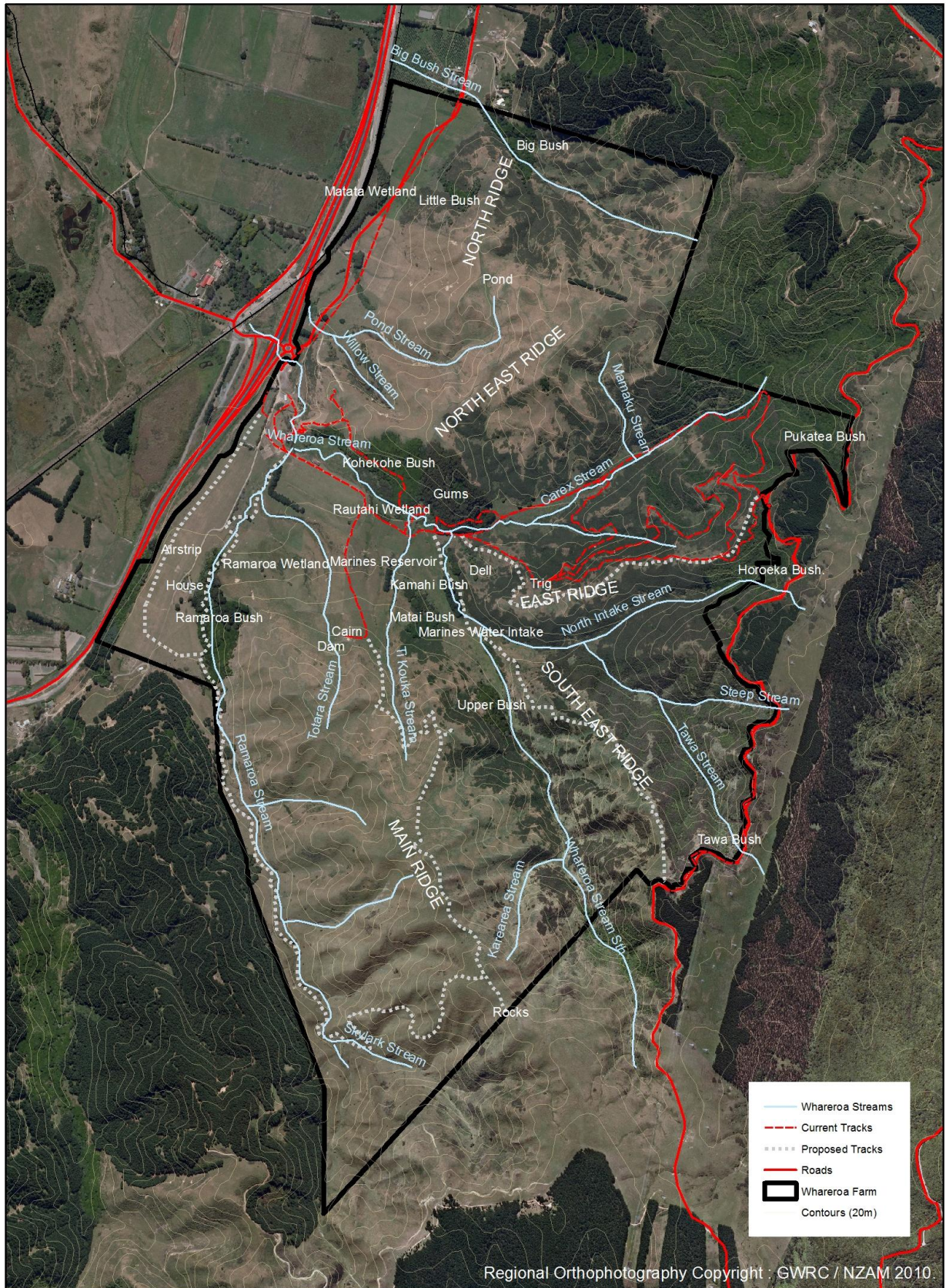
Recreational use: recreational user monitoring including the use of counters, user surveys etc will be established to provide information for management of recreational opportunities.

Biodiversity: Some biodiversity outcome monitoring is already established through five minute bird counts. Monitoring should be further developed around the key biodiversity restoration goals

in this plan. This could include monitoring covering:

- Vegetation condition. Including canopy and understorey condition.
- Aquatic biodiversity and water quality
- Plant and animal pests
- Operational achievement

Whareroa Farm Names Map

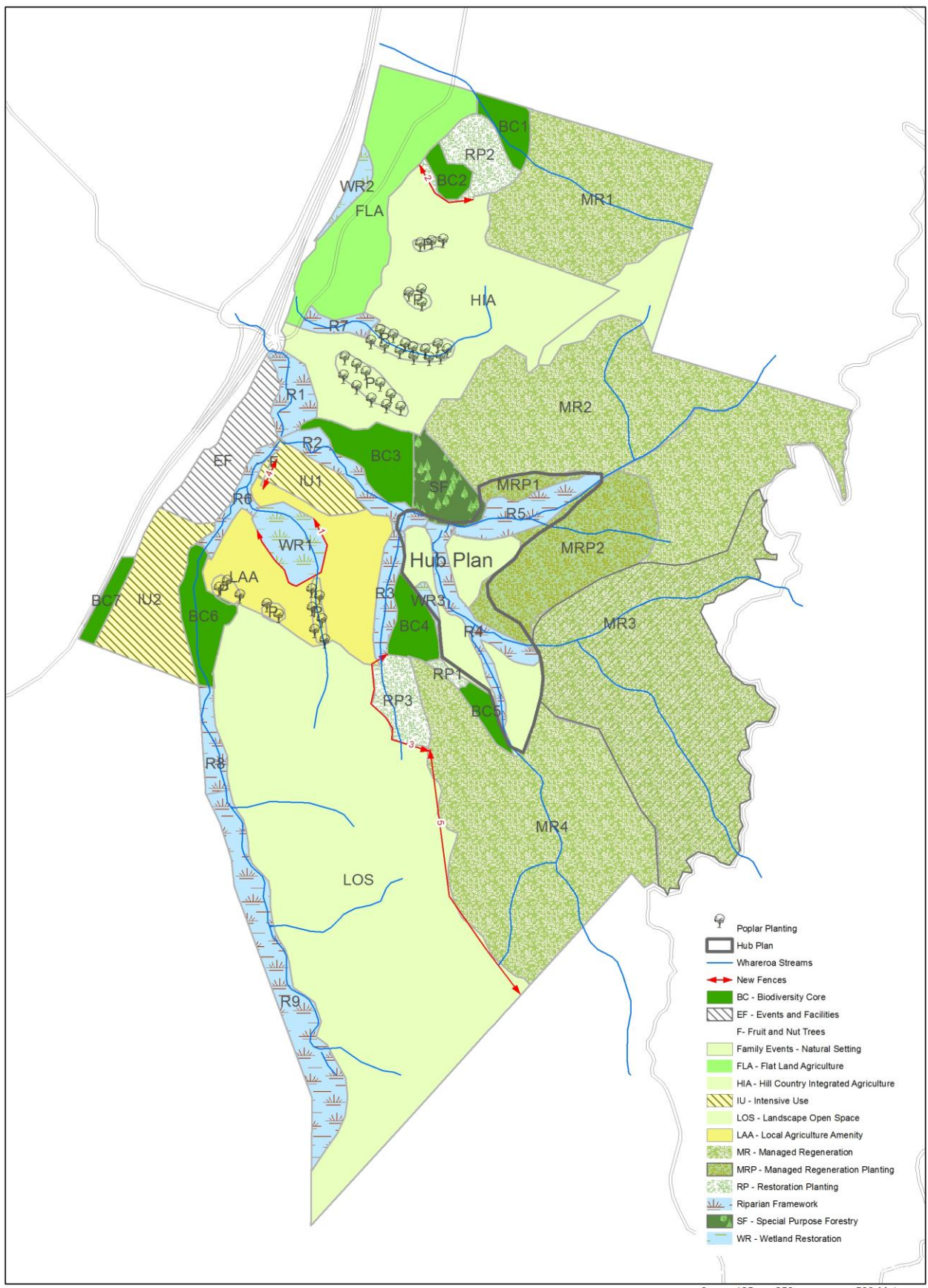


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Whareroa Farm - Names

Date: 18/10/2012

Whareoa Farm Action Plan Map



1:10,000 at A3
Date: 23/08/2012

Whareoa Farm Land Use Action Plan

0 125 250 500 Meters

Whareroa Farm Action List by Priority

The following table is a list compiled from actions listed in the Action Plan section of this document. The combined list is sorted by priority in this table to assist with development of work programmes.

Ongoing

Type	Area Name	Descriptive name	Ha	Notes (actions etc)	Priority
Recreation		EF		<ul style="list-style-type: none"> Maintain existing toilets 	O
Recreation		EF		<ul style="list-style-type: none"> Maintain existing entrance facilities 	O

High Priority

Type	Area Name	Descriptive name	Ha	Notes (actions etc)	Priority
Riparian restoration maintenance	R1	Main waterway and escarpment at entrance	2.7	<ul style="list-style-type: none"> Maintain planting. Gorse removal and planting on escarpment where possible Infill planting 	H
Riparian restoration maintenance	R2	South branch adjacent to Kohekohe Bush and farm race	3.2	<ul style="list-style-type: none"> Most plantings now well established Control problem weeds Spot planting with long term species, e.g. kahikatea 	H
Riparian restoration maintenance	R3	Lower Ti Kouka Stream	2.3	<ul style="list-style-type: none"> Maintain plantings – releasing of young plantings important Additional infill planting and replacement / blanking where necessary 	H
Riparian restoration	R6	Lower Ramaroa Stream	1.9	<ul style="list-style-type: none"> Maintain existing plantings Control problem weeds Spot planting with long term species, e.g. kahikatea 	H

Type	Area Name	Descriptive name	Ha	Notes (actions etc)	Priority
maintenance					
Riparian restoration new areas	R4	Intake Stream through Hub area	3.9	<ul style="list-style-type: none"> Removal of gorse Planting with riparian transition from waters edge onto edge of flat (sedges to shrubs & flax to trees). 	H
Riparian restoration new areas	R5	Carex Stream through Hub area	5.1	<ul style="list-style-type: none"> Gorse and other weed control Continued maintenance of existing plantings Expansion of plantings but keeping generally lower Carex, flax, cabbage tree etc with scattered larger kahikatea. 	H
Wetland restoration	WR1	Ramaroa Wetland	3.8	<ul style="list-style-type: none"> Series of seeps and channels in north western portion of Ramaroa Fan. Fence to remove stock Continue current gorse control Plant with wetland species in seeps and transition to forest species on small spurs between Possible use of some areas as commemorative plantings 	H
Managed regeneration	MR1	Northern retirement area	23.9	<ul style="list-style-type: none"> Could be left to regenerate Alternatively could consider aerial spray of gorse followed by planting with exotic forest species to suppress gorse and provide potential future revenue. Decision on final approach needs to be made now.. 	H
Managed regeneration	MR2	Head of Carex Valley	28.7	<ul style="list-style-type: none"> Leave to regenerate 	H
Managed regeneration	MR3	Intake Stream mountain bike area	65.2	<ul style="list-style-type: none"> Leave to regenerate Some localised patch clearance of gorse and planting with native species could occur once mountain biking access is present – if there are resources available for this. 	H
Managed regeneration	MR4	Whareroa Stream South Branch	41.2	<ul style="list-style-type: none"> Leave to regenerate 	H
Managed regeneration and	MRP1	Lower northern side of Carex Valley	1.6	<ul style="list-style-type: none"> Clear gorse off some more accessible areas and cut holes lines in gorse where possible Plant patches and scattered native species to speed up regeneration. Apply native seeding techniques as these develop 	H

Type	Area Name	Descriptive name	Ha	Notes (actions etc)	Priority
planting					
Managed regeneration and planting	MRP2	Behind Dell and lower southern side of Carex Valley	15.0	<ul style="list-style-type: none"> • Clear gorse off some more accessible areas and cut holes lines in gorse where possible • Plant patches and scattered native species to speed up regeneration. • Apply native seeding techniques as these develop 	H
Restoration planting	RP1	Between Matai and Upper Bush in Hub area		<ul style="list-style-type: none"> • Currently only patchy gorse • Will link and buffer two bush remnants • Will create a planted fire buffer instead of gorse adjacent to higher use area of hub. 	H
Restoration planting	RP2	Between Big Bush and Little Bush on western slopes.	4.0	<ul style="list-style-type: none"> • Links and buffers two important bush areas on exposed western slopes • Recently controlled gorse means area should be planted in 2013 if possible. • Check if needs further gorse spray prior to planting • Some fencing required but not major for area retired 	H
Restoration planting	RP3	Upper Ti Kouka Stream	3.5	<ul style="list-style-type: none"> • Adjoins lower Ti Kouka planting and Matai Bush. • Lower priority due to amount of fencing required and because immediate planting to control gorse not required 	M
Pest animal control		Confirm pest animal control plan		<ul style="list-style-type: none"> • Confirm range of pest control techniques to be used • Use of bait stations that are pulsed with toxic bait is likely to give the most cost effective result for possums and rodents • Establish a network of predator traps for control of stoats • Continue regular goat control by DOC to eradicate goats 	H
Pest animal control		Native forest remnant areas		<ul style="list-style-type: none"> • Undertake initial knock down using professional operator (e.g. regional council biosecurity) • Establish network of bait stations to be operated by volunteers • Maintain control to achieve control targets in management plan 	H
Weed control		Native forest remnants		<ul style="list-style-type: none"> • Complete weed survey of all remnant areas and prioritise weeds for control • Undertake coordinated weed control 	H
Weed control		Retirement & Planting areas		<ul style="list-style-type: none"> • Regularly inspect retirement and planting areas for priority / problem weed species • Undertake control early before infestation spreads 	H
Weed control		Whole Farm		<ul style="list-style-type: none"> • Broadly assess major problem weeds present across the farm and adjacent properties 	H

Type	Area Name	Descriptive name	Ha	Notes (actions etc)	Priority
				<ul style="list-style-type: none"> Identify weed control priorities across the whole farm and develop combined initiatives with neighbours 	
Fencing	F1	Ramaroa Wetland	500m	<ul style="list-style-type: none"> Fence to exclude stock from wet seeps and small ridge areas between them. Practical fencing boundary found that also provides a natural line in relation to wet areas and land use capability 	H
Fencing	F2	Little Bush	250m	<ul style="list-style-type: none"> Fencing to south of Little Bush to exclude stock from Little Bush and area between Little Bush and Big Bush. 	H
Cultural & Historic		Assemble and secure all information in an accessible place			H
Recreation		See table of tracks and track map		<ul style="list-style-type: none"> Continue maintenance to the standards set out under the recreation goal 	H
Recreation		See Hub plan map		<ul style="list-style-type: none"> Construct new toilets adjacent to Hub, as set out in Hub Plan 	H
Recreation		East Ridge Track - See table of tracks and track map		<ul style="list-style-type: none"> Construct this high priority track in the track development plan set out under the recreation goal. Remove conflict between horses and mountain bikes in this area 	H
Recreation		Dell loop track – see table of tracks and track map		<ul style="list-style-type: none"> Construct Dell loop track 	H
Information and education		Prepare a Whareroa Brochure and make it widely available, including in brochure holders on the Farm		<ul style="list-style-type: none"> A sponsor or funding source is required 	H
Information and education		System for regular updating of DOC website is in place.		<ul style="list-style-type: none"> Ongoing 	H
Information and education		Update Whareroa Farm noticeboard		<ul style="list-style-type: none"> Ongoing 	H
Information and education		Discussion with iwi regarding tangata whenua interpretation and work with them on interpretation			H
Information and education		Review and update DOC information panel			H
Farming		Establish a new lease for Whareroa Farm		Work with GW to potentially have a combined lease for Whareroa and Queen Elizabeth Park Include key performance indicators in the lease	H

Type	Area Name	Descriptive name	Ha	Notes (actions etc)	Priority
Farming		Assess key performance indicators		Regular (e.g. annual) assessment of operation against key performance indicators.	H
Farming		Undertake soil stabilisation and shelter planting		Establish poplar poles or other suitable individual planting method in areas shown on action plan	H
Fire risk management		Prepare simple fire plan		Includes: <ul style="list-style-type: none"> • Fire fighting resources • Access points • Signage • Fire risk closure regime 	H
Fire risk management		Replace gorse with low flammability native vegetation around hub area		<ul style="list-style-type: none"> • Clearance of gorse and planting in key areas. • Patch planting etc to hasten natural regeneration. 	H
Monitoring		Develop and implement monitoring plan		Includes: <ul style="list-style-type: none"> • Sustainable agriculture – monitoring of key performance indicators • Recreational use • Biodiversity outcomes 	H

Medium Priority

Type	Area Name	Descriptive name	Ha	Notes (actions etc)	Priority
Riparian restoration new areas	R8	Mid Ramaroa Stream, above Ramaroa Bush	1.9	<ul style="list-style-type: none"> • Flatter area of waterway immediately above Ramaroa Bush could potentially be fenced and planted to provide an expansion of the bush area. • Requires further consideration in relation to stock movement. 	M
Wetland restoration	WR2	Matata (Railway) wetland	1.1	<ul style="list-style-type: none"> • Monitor and control weeds entering the wetland • Encourage a gradual transition of edge planted poplar to native species 	M
Wetland restoration	WR3	Hub wetland	0.5	<ul style="list-style-type: none"> • Allow wet area on flat adjacent to Matai bush to regenerate into low wetland species (Carex already present). • Control any problem weeds, e.g. gorse, blackberry. 	M
Pest animal control		Restoration planting and retirement areas		<ul style="list-style-type: none"> • Undertake occasional knock down control of a range of pest animals through the area by professional operator. Likely to include night shooting and trapping. • Operate network of predator traps and also bait stations (where 	M

Type	Area Name	Descriptive name	Ha	Notes (actions etc)	Priority
				appropriate). <ul style="list-style-type: none"> Establish trapping and bait station network as recreational track network develops – e.g. through mountain bike area. 	
Pest animal control		Landscape level pest control – “Low Pest Lowlands Link”		<ul style="list-style-type: none"> Consult with neighbours and understand pest control currently being undertaken Expand Whareroa pest control across all retired areas to support adjacent pest control Encourage and support neighbours to increase their animal pest control 	M
Fencing	F3	Upper Ti kouka Stream	500m	<ul style="list-style-type: none"> Fencing along edge of track to exclude stock from some of upper reaches of Ti kouka Stream. Considerable fencing required to retire this area. Alternative lower cost approach to establish poplars into the gully sections of this area. 	M
Fencing	F4	Proposed orchard	120m	<ul style="list-style-type: none"> Fencing to exclude stock from a small orchard area. Possible location is near bottom end of main race, adjacent to old marine camp. 	M
Cultural & Historic		Work with Iwi to gather cultural information		<ul style="list-style-type: none"> Including description of the area – iwi use etc 	M
Cultural & Historic		Complete archeological survey and geophysical survey			M
Cultural & Historic		Develop management and maintenance practices for sites / values			M
Cultural & Historic		Work in partnership with GWC, KCDC, Marines Trust, Local Businesses etc			M
Cultural & Historic		Provide information for interpretation			M
Recreation		See table of tracks and track map		<ul style="list-style-type: none"> Implement the track development plan set out under the recreation goal. 	M
Recreation		Events and facilities area (see EF on Action Plan Map)		<ul style="list-style-type: none"> Plant deciduous shade trees and provide picnic tables in the immediate entrance area. Avoid planting of deciduous exotic amongst natives around waterway 	M
Recreation	Hub	Recreation development		<ul style="list-style-type: none"> Develop tracks and picnic areas as set out in Hub Plan 	
Information and		Prepare historic timeline panel		<ul style="list-style-type: none"> Historic interpretation for visitor centre 	M

Type	Area Name	Descriptive name	Ha	Notes (actions etc)	Priority
education					
Information and education		Historic interpretation site with interpretation panel established		<ul style="list-style-type: none"> • May be located on low ridgeline behind marine camp along the main race. • Could be combined with agricultural interpretation • US Marines History and interpretation included, or at a separate site 	M
Information and education		Farming interpretation site established with interpretation panel		<ul style="list-style-type: none"> • May be located on low ridgeline behind marine camp along the main race. • Could be combined with agricultural interpretation 	M
Information and education		Biodiversity interpretation site established with information panel			M
Information and education		Mackays & farming history interpretation installed			M
Information and education		Geology interpretation installed			M
Information and education		School education resource prepared and available			M

Low Priority

Type	Area Name	Descriptive name	Ha / m	Notes (actions etc)	Priority
Riparian restoration new areas	R7	Lower Pond Stream, western faces		<ul style="list-style-type: none"> • Fence out lower reach of small stream, below where valley closes in • Establish poplars in instable areas of valley bottom and keep cattle out of this area in very wet periods 	L
Riparian restoration new areas	R9	Upper Ramaroa Stream	10.2	<ul style="list-style-type: none"> • Not feasible to exclude stock from the entire area at present. • May be potential to establish native vegetation on some sections of the stream using semi permanent fencing (e.g. post and netting). • Removing cattle access to the area will increase the chances of some 	L

Type	Area Name	Descriptive name	Ha / m	Notes (actions etc)	Priority
				native scrub species establishing around the waterway, particularly on steep faces.	
Fencing	F5	Ridgeline, head of Intake Stream	900m	<ul style="list-style-type: none"> • Possible fencing option to shift ridgeline fence further north east so that better quality land on broad ridge top is included in grazing. • Would keep ridgetop open for recreational access and also remove hard visual line on ridgetop • Decision on fencing likely to depend on farm leaseholder funding it or alternatively will be considered at fence replacement. 	L
Information and education		Investigate possible long term opportunity for outdoor education space, visitor centre		<ul style="list-style-type: none"> • Investigation in conjunction with Queen Elizabeth Park • With space for workshops, seminars and school trips 	L
Farming		Consider expansion of grazing area on upper main ridge.		Will depend on interest and investment from lessee.	L
Farming		Localised use of feed crops west of Emerald Glen Road		Will depend on interest and investment from lessee Will need to comply with key performance indicators	L
Farming		Investigation of future horticulture or viticulture opportunities		Will depend on interest from external parties and require consideration against criteria for new uses	L