





FOREST PARK
MANAGEMENT
PLAN

Certified by Horowhenua District Council

PREPARED FOR

THY

Vincero Holdings Ltd

B Y

LANDMATTERS

EXECUTIVE SUMMARY

This Management Plan has been prepared for the Muhunoa Forest Park rural estate west of Ohau within the Horowhenua District. It has been prepared for the land currently described as Lot 1 DP 48282.

The owners of that land have continuously improved the property since 1978. A pine plantation has been established over the majority of the lands, as an alternative to the surrounding agricultural use. Within the pine plantation the owners have taken all care and responsibility to plant vegetation of both indigenous and exotic origin to provide for overall health of the land and biodiversity. Outside the plantation, a wetland has been managed and enhanced to its current state today. From an outsider looking in, it is fair to say that the land owner has invested considerable energy in caring for their environment.

It is apparent from their statement that the current land owner would like to share those values with their extended family and other families. This is to be achieved through the process of subdivision. However, in sharing those values it is also clear that owners would like new inhabitants to fully respect this area, and maintain and enhance the current amenity values for the benefit of all. This management plan provides a framework for that end result.

This Management Plan is part of the resource consent applications lodged with the Horowhenua District Council (HDC) in December 2008.

This Management Plan should be read in conjunction with the Assessment of Environmental Effects and further information that has been lodged with HDC.

The Muhunoa Forest Park is made up of a number of general areas and values. Notably:

- Coastal Environment;
- The Wetland Environment; and
- Forested Environment.

A Management Plan is a working document that sets out the objectives and policies for managing an area and how these will be achieved. As well as being a reference for consistent everyday management, it sets out the strategy for on going development and planning. For the benefit of readers, and where possible, photo's have been inserted into the content of the management plan to show what characteristics are being described.

MANAGEMENT PLAN FORMAT

The management plan is in three parts:

Part 1 - Background and Description

Describes the site, its past and current development and the issues that need to be addressed by the objectives in the Management Plan.

Part 2 – Management Plan Framework

Outlines the works and actions required to implement the natural value improvement of the land, and the transformation over time into an area for better wildlife habitat and recreation.

Part 3 - Management Plan Objectives and Implementation Provisions

Sets out the long and short-term objectives for the management of the area, and identifies how the objectives will be achieved.

PART 1 – BACKGROUND AND DESCRIPTION

1.1 Location and Legal Description

The land is located at the end of Muhunoa Road west of Ohau (approximately 7.6km from the State Highway/Muhunoa Road intersection). The land is adjacent to an esplanade reserve that has been vested some years ago. The esplanade reserve is about 65m wide. Beyond the esplanade reserve, mean high water springs is a further 85m westward and in total about 150m from the western boundary of the subject property. The remaining boundaries adjoins privately owned land most of which are being used for agricultural purposes.

The land is legally described as Lot 1 shown on DP 48282. The certificate of title reference is 19A/62. The total area of the land holding is just over 101 hectares (ha).

1.2 Physical and Cultural Environment

Site History and General Area

Adkin's authored a book in 1948 that describes the historical characteristics of the Horowhenua area. From a general perspective the Horowhenua area was noted as a thoroughfare for Te Rauparaha's heke during the early 1800's when he settled at Waikanae.

Adkin's prepared plans and diagrams of his research and notes a wetland existed in the area which he labels Ohine Lagoon. To the north of the property Adkin's describes how the Waiwiri Stream was used as food source – Tuna fishing – and to the south the Ohau River had Pa sites on its true right and left banks. The area subject to this management plan is some distance from those streams.

Consistent with many areas next to the coast in the Horowhenua and Kapiti District's O'Keeffe reports the existence of a midden on the property. Middens are evidence of historic occupation, and in this case it would appear that the occupation was temporary with no evidence of permanent occupation.

The land was in the ownership of the Kebbel family between 1887 and 1943. The transfer to John Kebbel (listed on the title as a sheep farmer) between 1887 and 1890 was by decree of the Native Land Court who declared he was entitled to purchase the lands from the Maori owners for the time being. The land changed hands through to Frederick Easton in 1943 and then to Steven Easton in 1976. The current owners have held the title since 1976.

REVIEWED: December 2015, REVIEWED: May 2019, REVIEWED: August 2022

Vehicle Access

internally an existing access track provides both casual and forestry traffic Muhunoa West Road ends at the frontage of the subject property, and

This existing track has linkages to all parts of the property.

Landform

dunes within the Coastal Environment. environment. The landscape assessment places any area of stable sand areas in the District. It assesses the subject area as being part of the coastal District" (October 2008) identifies a number of general landscape character The "Landscape Assessment of the Rural Environment of the Horowhenua

property interdunal hollows, and a swampy area in the north eastern part of the land is consistent with other 'coastal areas' with secondary dunes, springs further to the west. Within the site the Landscape Report notes the to the west of the property and the accreting line of mean high water A more specific and detailed Landscape Report has been completed for the lands by Todd (December 2008). That report describes the foredune series

Flora, Fauna and Site Features

values. vegetation types to get a better indication of the existing environmental reports are available from earlier work to more specifically investigate the Although the area is largely characterised by exotic pine plantation, various

> Monkey Puzzle, Eucalyptus, Kanuka, Manuka, Oak, and Totara. These include Cypress, Blackwood, Banksia, Douglas Fir, Cedar, Kahikatea, The current landowner has planted various species within the property.

Sparrows, Starlings, and Magpies. common bird species such as sea gulls, Pheasants, Parakeets, Finches, indigenous fauna - rather would appear to be frequently visited by The site is not noted in any existing text for supporting any significant

historical survey plans and by Adkin's as the Ohine Lagoon described in the inventory as the Muhunoa Coastal Swamp. It is named on in the north eastern corner of the property as the 119th in the region. The the Manawatu – Wanganui Region. The inventory ranks the wetland area Revised Inventory gives the wetland a priority C listing. The wetland is Horizons have prepared an inventory of regionally significant wetlands in

species Ohine Lagoon is likely to be a habitat for indigenous aquatic life and plant According to the Revised Horizons Regional Wetland Inventory (2008) the

permanently covered in surface water. Whilst it is important to prepare a indicatively on the plans attached to this management document. made for the area permanently covered in water. This area is shown management regime for the entire wetland area, specific provision will be The wetland is approximately 5ha in area and part of it (western extent) is

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1.3 Current Management

land owner. No livestock graze the property, and have not done so for management occurs on a relatively informal basis and is carried out by the The land is currently managed by the land owner. Extensive planting and

PART 2 - MANAGEMENT PLAN FRAMEWORK

even down to individual properties. The management plan details how the property will be managed overall

forestry activities to preserve the current 'forested' amenity values of the parent property. However the majority of the development relates to The management plan includes initiatives and actions for all parts of the

PURPOSE & REASONS FOR THE MANAGEMENT PLAN

general objectives for the development. These include: It is through this managed approach that the applicant has identified

- Area and it's margin; To provide enhanced access to the Coastal Marine
- environment; management plan area in order to provide a quality To protect the existing significant feature within the
- ÿ through management of future land use. To maintain rural character and amenity in this area,

environment including dune wetlands To enhance the natural character of the coastal

implement these objectives are, The key elements of the proposed management plan that will

- 9 Providing appropriate linkages to the Coastal Area through reserve vesting;
- 6) Providing a mechanism through the RMA 1991 control of waste water disposal within the consenting process for the management and management plan area;
- 0 plan area through private conservation significant wetland within the management Protection and enhancement of the existing covenants.
- 9 appropriate controls within the proposea Maintain the rural character of the area allotments (including height and building mass and form). through sensitive subdivision design and
- e) Develop appropriate wetland systems on private and common lots that provide linkage with wider coastal wetland areas.

This management plan document outlines the means to achieve the objectives and details programmes and methods to ensure they are implemented.

MUHUNOA FOREST PARK RESIDENTS ASSOCIATION, TENURE AND MANAGEMENT

This Management Plan will be administered by the consent holder and the Ohau Sands Residents Association. A purchaser of an allotment within the management plan area will become a member of the Ohau Sands Residents Association through obtaining title to the allotments within the area.

A key component of this Management Plan is the design, layout, and tenure controls for the subdivision contained therein. The consent holder has completed the subdivision. Regulation of the tenure mechanisms to achieve the objectives of the management plan will be the responsibility of the Ohau Sands Residents Association.

The management plan starts with objectives for specific aspects of the development and methods of implementation. These objectives build on the special qualities of the management plan area by providing a contextual background. To complete the 'picture', methods have been included to describe how the objectives will be achieved.

In summary, the Ohau Sands Residents Association will be able to collect funds from its members to implement the methods. These will include:

- Access Management;
- Forestry Management; and

Administration of the association.

The Consent Holder has completed the following:

- Established the 'vehicle' for the Residents Association; Constructed the component parts of the subdivision; and
- Undertook survey and legal work to give effect to the subdivision.

All management areas are referred to on the plan attached to this document in appendix 1. Reference to the text should be considered along side the plan, the Ohau Sands Residents Association, and the Ohau Sands Design Guide

Part 3 - MANAGEMENT PLAN OBJECTIVES AND IMPLEMENTATION PROVISIONS

FORESTRY MANAGEMENT AREA

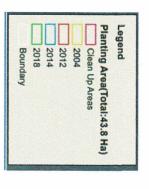
1. What we already know -

A stock take of the property has been completed by PF Olsen Limited on the forestry characteristics of the Management Plan Area. The property has been mapped in accordance with the Ministry of Agriculture and Forestry (MAF) and with respect to the legislated Emissions Trading Scheme (ETS).

Further harvesting and replanting has been completed, there are now 5 distinct stands: Radiata Pine 2004,2012, 2014,2018 and mixed species.

Photo 1 – Forest Mapping – John Turkington Ltd, (JTL), September 2021
Current Stock Take of replanted Radiata Pine Stands: 2004,2012,2014,2018 Refer
to appendix 9





species	Area(Ha)	Planting_year
P. radiata	1.6	
C. lucitanica	0.7	
P. radiata	1.5	
P. radiata	5.1	
P. radiata	16.7	
P. radiata	2.2	
P. radiata	2.4	
P. radiata	2.5	
P. radiata	1.6	
P. radiata	0.3	
P. radiata		
P. radiata	1.6	
P. radiata	1.2	
P. radiata	0.8	
P. radiata	0.6	
P. radiata		<nul></nul>
P. radiata	0.2	<nul><!-- The state of the sta</td--></nul>
P. radiata	2.8	Alul>
	species P. radiata C. lucitanica P. radiata	cies Area(Ha) 1.6 1.6 0.7 1.5 1.5 1.6.7 2.2 2.4 2.5 1.6 1.6 0.3 0.3 1.1 0.8 0.8 0.1 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8

Photo 2 - Radiata Pine

Radiata pine established about 1984





Photo 3 – Forest Mapping – ETS areas and existing house sites, July 2021 MPI - Current area captured by ETS is 48.60HA, Refer to appendix 10



FINAL MANAGEMENT PLAN - August 2022 MUHUNOA FOREST PARK

Because there is greater than 50ha of forestry cover planted before 1990, the land became part of the ETS, and carries with it a liability for deforestation. That liability stays with the land even after it is subdivided.

As provided for in other parts of the management plan, it is proposed to retire (prevent) new exotic forest to be planted in the Wetland Management Area (including the buffer) and the 20m Coastal Esplanade area – to provide for on-going natural character and ecological gains.

Current forest captured by ETS is 48.60ha. The recent forest map shows 43.80ha of replanted Radiata pine, see appendix 9, JTL, September 2021. ETS legislation allows for 2ha of deforestation in each 5-year period for each landowner. Vincero Holdings Limited now owns 2 lots with new owners for 13 lots. All individual landowners can deforest up to 2ha in the current period being 1 January 2018 to 31st December 2022.

The forest stands in the common area Lot 17, 50ha, is an undivided share amongst the 15 lot owners and only 2ha can be deforested in every 5-year period with agreement by all members of the Ohau Residents Association.

However, the forestry provides for more than just ETS requirements. The current forestry is part of the overall rural character and can provide for a pleasant living environment. 2017 was the last harvest and replant by the consent holder. Future harvesting will be determined by the Ohau Sands Residents Association.

The Management Plan also makes provision for buildings/structures within the Forestry Management Area. The buildings and structures are for internal community use and are not intended to be habitable for permanent occupation (i.e. the buildings are not dwellings). The location

of the buildings/structures shown indicatively on the Concept Plan in Appendix 1 of this document.

Forestry Management Area Provisions;

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The Residents Association shall;

1)

Manage the forestry asset to meet the obligations of the land under the ETS;

2)

- Organise compensatory planting (where required) for areas removed for curtilage activities, wetland management, and/or Foreshore/Coastal Setback management these may be located within lots 1 15 and/or the balance lands;
- ETS allows for individual lot owners to clear up to 2HA in every 5year period.
- Make decisions on the type of species for permanent forest cover (if required);

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- Ensure the forestry contractors understand and have an appreciation of the contents of the Management Plan, and meet the objectives of it within the physical management of the forestry;
 Ensure appropriate health and safety plans are contracted into
- harvesting operations including written notice to residents;

 7) Require forestry contractors to comply, as far as practicable, with the most up to date version of the Code of Forestry Practice;
- Obtain any necessary consents under legislation for activities associated with Forestry – for example land use consent from the Regional Council.
- The Residents Association shall ensure that any waste water disposal system associated with buildings on Lot 17 complies with

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the same requirements as those under "Servicing" in the Building,

- 10) shall only be located within the nominated areas shown as Areas Any buildings, including fences (but excluding boundary fencing) play areas and picnic tables in the "Forest Management Areas" Curtilage, and Effluent Disposal Management Area.
- A, B, C and D and be subject to the following design criteria:
- Have a height of no more than 8 metres from ground level;

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- the Management Plan; Have a building footprint no larger than that specified on
- **=** dark colour scheme; That the roofing materials are non-reflective and use a

a neutral colour scheme (BS5252); That the exterior cladding materials, natural materials and

- 11) and equipment. Any further development in Lot 17 will be undertaken by the Ohau Sands Residents Association and levies will the former use of the existing Hub building was to store tractors be collected to provide funding for any future development. The consent holder has completed the RA Hub (community building) using the existing Hub building located by the entrance,
- 12) Before undertaking any earthworks required for the buildings apply for any necessary Authorities for the works undertake a specific Archaeological Assessment of the area and mentioned in 10) above, the Ohau Sands Residents Association will

The Residents Shall;

9 Acknowledge that they live in and are part of an area subject to unreasonable affect or hinder those activities; Forestry and Rural Activities (including harvesting), and not

- 6) Forestry Activities; Resource Management Act 1991 for the continuation of the Provide any necessary written approvals required under the
- C Allow reasonable access to their individual titles for the purpose of Forestry Management.
- visible from the Esplanade Reserve (Lot 4 DP 44581) As far as practicable ensure sufficient forestry Is left in place, in Lot 17, to maintain a forested backdrop to built form where it may be

FORESHORE AND LANDSCAPE MANAGEMENT AREA

-What we already Know

Lot 4 DP 44581 is vested as esplanade. required to have a purpose under the Reserves Act 1977, and in this case was vested in the Horowhenua District Council in 1990. A reserve is The Management Plan Area adjoins Lot 4 DP 44581 which is a reserve that

purposes of esplanade reserves. These include; it was created before that Act) that legislation sets out the various Although not vested under the Resource Management Act 1991 (because

- (a) To contribute to the protection of conservation values by, in particular,-
- \Im Maintaining or enhancing the natural functioning of the adjacent sea ..; or
- Maintaining or enhancing water quality; or
- Maintaining or enhancing aquatic habitats; or
- Protecting the natural values associated with the esplanade
- 3 Mitigating natural hazards; or

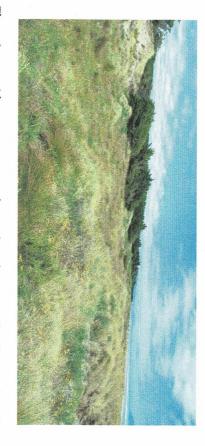
- (b) To enable public access to or along any sea ...; or
 (c) To enable public recreational use of the esplanada
- To enable public recreational use of the esplanade reserve ... and sea ..., where the use is compatible with conservation values.

At present the Waiwiri Stream and Ohau River effectively restrict access to the esplanade and foreshore areas west of the Management Plan Area. Private land between the end of Muhunoa Road and the esplanade reserve restricts legal access to the foreshore areas.

The esplanade reserve contains basically foredune sands which are covered in both indigenous and exotic beach grass. There are some wind swept wilding pines which appear to be self seeded in this area.

The foredune and beach grasses extend beyond the seaward boundary of the esplanade reserve and the management plan area is basically the start of an interdunal hollow that sweeps into the site before the farther back secondary dunes – some of which are characterised as parabolic.

Photo 4 - Typical View of Esplanade Reserve



There is no evidence to suggest the esplanade reserve has been vested to prevent natural hazards, and a more realistic assessment is that it is for

natural character and access value. It would be appropriate to recognise and provide for these values.

Landscape and Foreshore Management Area Provisions;

The objectives for the foreshore and landscape management areas are:

- To maintain and enhance natural values of the coastal margin and esplanade reserve;
- To provide for appropriate access to and from the esplanade reserve;

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1)

To prevent damage to the Foreshore and Landscape Management Area.

These objectives will be achieved by implementing the following:

- The Ohau Sands Residents Association ensuring that new production forestry planting is not undertaken in the Landscape and Foreshore Management Area;
- Any planting to occur by individual owners within the Landscape and Foreshore Management Area shall be using native species sourced locally and endemic to the Foxton Ecological District (plant list for this area attached as appendix 2 Table 2);

<u>b</u>

- No buildings or structures shall be located within the Landscape and Foreshore Management Area (with the exception of those structures required for access and forest management provision)

 for the avoidance of doubt no fencing shall be provided in this Management Plan Area;
- The consent holder has vested in the Council lot 16 shown on the management plan for the purpose of pedestrian access for the general public;
- e) Access to the esplanade reserve for lots 1-15 shall be by way of two points as depicted on the management plan;

Within the Landscape and Foreshore Management Area, the Ohau Sands Residents Association and Owners shall;

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- Not form, use or maintain pathways in a manner that would affect the stability of the foredunes;
- Control the growth of species identified as an ecological threat by Horizons Regional Council or the Department of Conservation;
- Prevent erosion of the sand dunes and all other fragile areas;
- Manage the land in accordance with the objectives of this management plan.

WETLAND MANAGEMENT AREA

What we already Know -

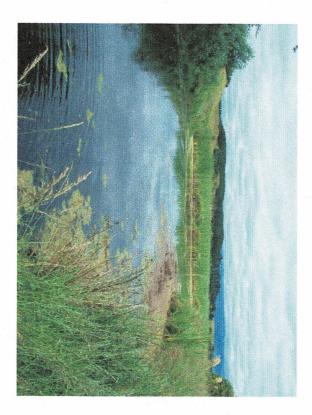
There is a wetland in the north eastern corner of the Management Plan Area. It has both swampy areas (majority) and a surface water area. Although the two areas have different wetland characteristics, it should be managed as through an integrated package of provisions.

The wetland is shown on old survey plans (Plan Number 6120 Blks 1-4 Waitohu SD) as being called 'Ohine'. More recent work by Horizons list the wetland as Muhunoa Coastal Swamp.

The total wetland area is about 5.5ha, although this management plan proposes to provide a buffer of 20m from the existing edge bringing the total Wetland Management Area to 6.6ha (approx.).

Wetland is a generic term and encompasses many landforms. In terms of the descriptions used by Horizons (June 2008), Ohine is in two distinct parts – part permanent pond, and part swamp.

Photo 5—Typical View of Wetland Management Area — Note Pond in Foreground and 'Swamp' in Background



Horizons also provide a summary of wetland values (not monetary value) which include:

Biodiversity and natural heritage

Estuaries and lakes are preferred habitat for many migratory and native bird species. Wetlands can have specifically adapted plants and animals that are not found in dry land ecosystems.

Maori cultural heritage

grow in the wetlands provided clothing, mats, and were a source of medicine, food, and dye. Wetlands provide an important link in the history and culture of many hapu. The plants that Wetland animals, particularly tuna (eels) were valuable foods.

A number of harvested fish spend some of their lifecycle in swamps, ponds, and estuaries.

Recreation

recreational activities in wetlands and wet places. Hunters, anglers. Boaties, and tourists spend much time and money on active or passive

Water Quality

water that flows through them Wetlands are vital to cleansing water by trapping sediment and capturing nutrient from

Flood mitigation and river flow moderation

maintain water flows between rainfall events. the land and into the rivers. Water stored in wetlands is released slowly, which helps By soaking up and storing water, wetlands mitigate flooding and moderate water flows off

Shoreline and back protection

protected by marshes and swamps. water currents. Unprotected shorelines and banks erode faster than those that are Vegetated wetland margins on lakes, rivers and estuaries absorb the energy of waves and

Carbon Storage

(peat). Wetland drainage releases this carbon as carbon dioxide. On a global scale, wetland Wetlands store carbon in the form of living material (plants) and preserved plant material destruction is believed to contribute to the Greenhouse Effect.

These values can come under threat from various activities including:

- urban use; Land use change from the existing to more intensive agricultural or
- V Change to the hydrological regime - drainage or inflows of stormwater;
- Sedimentation and nutrient loading point discharge through earthworks or non - point discharge of water water (dairy/domestic);
- Plant and animal threats invasive plants, exotic fish and grazing.

Wetland Management Area Provisions;

2

The objectives for the Wetland Management Area are

- 2) Area through a framework of appropriate planting; To enhance the natural values of the pond in the Wetland Management To formally protect the existing values of the Wetland Management Area;
- 3) Area through a framework of appropriate planting; To enhance the natural values of the swamp in the Wetland Management
- 4) preventing discharges; To maintain water quality in the Wetland Management Area by
- 5) To extend the values of the Wetland Management Area

These objectives will be implemented through the following provisions;

A covenant will be registered on the land within the Wetland Management Area to protect the wetland, and for that purpose the owner(s) must comply with the following use on the land;

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- Not undertake any activity that would reduce the water holding capacity of the lake;
- (ii) Maintain the water quality of the lake;(iii) Preserve the lake edge, including landsc

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- Preserve the lake edge, including landscaping and planting;
- (iv) Not introduce fish, other marine life, and not fish or shoot at or near the lake area;
- (v) Not permit or allow any waste material, or rubbish to be left on or to accumulate on the lake area.
- Any new planting in and around the lake proper, margin, and/or surrounds (i.e. within 10m of the lake edge), shall be undertaken in accordance with appendix 3 attached to this document;
- c) Any new planting within the remainder of the Wetland Management Area shall only be native species and consist of plants endemic to the Foxton Ecological District. As a reference, the plants listed in **appendix 4** are a recommended guide for appropriate species.
- There shall be no discharge of waste water or stormwater from within the Management Plan Area into the Wetland Management Area.
- e) Other than to harvest production trees that exist within the Wetland Management Area at the time of creating new titles, no new production trees will be planted within the Wetland Management Area.

- The Residents Association shall control the growth of species within the Wetland Management Area identified as an ecological threat by Horizons Regional Council or the Department of Conservation.
- No building or structure shall be located within the Wetland Management Area.
- No livestock shall be allowed to graze, feed, or remain within the Wetland Management Area.

ACCESS MANAGEMENT AREA

What we already Know -

There is access to the site via a gate from Muhunoa Road. Internal access within the property is over existing forestry tracks. Some of the tracks lead from the forestry to near the boundary of Lot 4 DP 44581 (esplanade reserve).

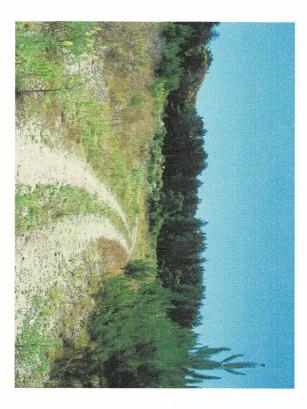
There is currently no public access available from the end of Muhunoa Road through to the esplanade reserve or coastal margin. Any provision for access would be an enhancement.

The management plan provides that the internal tracks take on a dual role of providing access for activities relating to forestry management (such as harvesting, thinning, pruning etc) and also for access to allotments 1-15 and the balance land, Lot 17. To maintain the rural character of the area,

the management plan seeks that the tracks are not public roads so that there is no expectation of future inhabitants and the public generally. This management plan makes it clear that the tracks are not public roads, and that this will be explicit to new owners so there are no misunderstandings. To make it clear to the general public appropriate signage will be located at the entrance to the management plan that it is a private access.

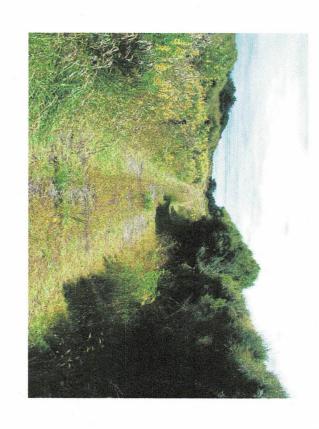
To ensure the Rural Character, and existing visual amenity is protected these tracks will be formed as such with a metal or limestone finish, and be created through a simple Right of Way easement.





The management plan provides land to the Council to make provision for public access.

Photo 7- Typical View of Lot 16 (looking westward) - land to Vest



2 **Access Management Area Provisions**;

The objectives for the Access Management Area are

- 1) Reserve and the margin of the Coastal Marine Area; To provide for enhanced opportunities for public access to an Esplanade
- 2) Management Plan Area; and the margin of the Coastal Marine Area for inhabitants of the To provide for appropriate and controlled access to an Esplanade Reserve
- 3) the least amount of disturbance to the environment. Area consistent with the amenity values currently in the area, and with To provide for appropriate vehicular access within the Management Plan

These objectives will be implemented through the following provisions;

- a) pedestrian access; Lot 16 has been vested in the District Council for the purpose of
- 5 be by way of 2 controlled points as shown on the Management Motorised vehicle access for inhabitants to the Esplanade Reserve Lot 4 DP 44581 from within the Management Plan Area shall only
- C access roads were approved under section 224, and future Association. maintenance is the responsibility of the Ohau Sands Residents Area follows the alignment of existing forestry tracks. The private The Right of Way – Common Access within the Management Plan
- 9 the NZ Forest Road Engineering Manual 2020 (NZFREM 2020) and ensure the Common Access is maintained in a condition suitable for rural and forestry traffic movements. Appropriate guidance is The Residents Association shall collect funds from members to

Diagram 1, and the typical cross section for Ohau Sands – Diagram

- Residents Association before any planned maintenance Sands Residents Association before any planned Guidance on inspections to be carried out by the Ohau undertaken in accordance with the NZFREM 2020. Road maintenance, repairs, and upgrades shall be
- 2) Roads can be inspected regularly, or after a storm or an should be used to develop a maintenance plan. Features extended wet period. The results from these surveys which should be noted during an inspection include:
- a. Pavement surfaces
- Flat crown
- Depressions
- Potholes
- Soft spots
- Shoving
- Unsealed shoulder surfaces Slippery surfaces

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- Ruts
- Potholes
- Soft spots
- Low and high shoulders
- Scouring.
- Grassed shoulder surfaces

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- Build up
- Soft spots
- Poor slope

- Debris
- Height of grass
- Water channels

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- Debris build up
- Blockages
- Scour
- Vegetation growth
- Culvert entrance debris accumulation
- Bridge waterway erosion or accumulation of debris
- In wet conditions the following features become more obvious

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- Ponding on the road surface and in the ditches
- Surface flooding
- Blockages
- Leaking flumes
- Leaking culvert joins
- Seepage up through the pavement
- Water runoff across the road instead of into the ditch.

Diagram 1 – Typical forestry road cross-section extracted from NZ Forest Road Engineering Manual 2020 (NZFREM 2020).

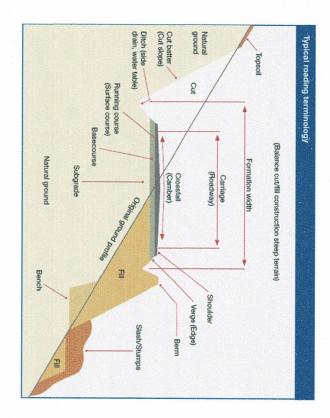
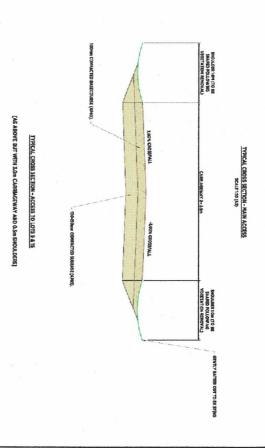


Diagram 2 – Typical cross section – Ohau Sands



e) The Residents Association shall ensure that appropriate signage is located and erected at the Muhunoa Road entrance to the Management Plan Area to ensure there is awareness that the Common Access is not available for public use.

CULTURAL AND HISTORIC VALUES MANAGEMENT AREA

What we already Know -

There is a responsibility to protect these values for future generations through recording the history and in particular encouraging continuing education and awareness of the past.

Whakapapa

Generations of Ngāti Kikopiri greatly value the resources acquired and used from the coastal area in and around Muhunoa / Werawhango, Lake Waiwiri, the Waiwiri stream and the related dune wetlands.

The mana of Ngāti Kikopiri resides within this takiwā on the northern side of the Ōhau river, south of the Waiwiri stream, east to the Tararua ranges and west to coast.

Whakatauaki

Whilst the name of Ōhau is not of Ngāti Huia or Ngāti Raukawa origin, Ngāti Kikopiri respects the Ngāti Apa traditions and narrative.

Māori have lived at Muhunoa / Werawhango from around 600 to 800 years ago. These people included the Waitaha, who were displaced by Muaupoko and Ngāti Hamua. In the 19th Century those groups were subsequently displaced by Ngāti Toa, Ngāti Raukawa, Ngāti Huia and Ngāti Tukorehe across the Ōhau river. Ngāti Kikopiri ki Huia maintain mana whenua over the Muhunoa area.

Muhunoa is a place of reflection

Muhunoa refers to a low mist, a quiet place, a restful silence akin to peace.

"E muhu noa ana au"

Refers to going to a place to look within one's thoughts or seek moments of reflection.

To Ngāti Kikopiri the Muhunoa takiwā including the coastal margin symbolises identity and uniqueness between the past present and future. The way that this area is managed is therefore of particular importance to Ngāti Kikopiri as tangata whenua.

The relationship of Ngāti Kikopiri to these lands are both physical and spiritual and are embodied in the roles of guardianship through the linkages of historical occupation.

The sea and the immediate environs within Muhunoa were a primary source of sustenance for Ngāti Kikopiri as tangata whenua. The coastal landscape provided an ecosystem alongside the customs, rights and responsibilities of these occupiers of this environment, including the need to apply conservation and sustainable management ethics.

Kikopiri is the name of the wharenui that stands on a hill overlooking the Te Waimarama stream at Muhunoa West, situated approximately 5 kilometres from Ōhau.

The hapū of Ngāti Kikopiri have been located at Muhunoa since the early 19th Century. The hapū of Ngāti Kikopiri is one of eight hapū of Ngāti Huia. Ngāti Kikopiri is also a hapū of Ngāti Raukawa. The building of Kikopiri

commenced in 1889 and Kikopiri was opened by the tohunga Kipa Te Whatanui in 1897. The Tohunga Whakairo of Kikopiri was Piwiki Horohau.

Kikopiri Marae Trustees are currently reviewing their Charter. The Marae Trustees promote the wellbeing of Ngāti Kikopiri, educational attainment, social and cultural development.

Ngāti Kikopiri Marae committee meets every second Sunday of each month at 10.00am.

Ngāti Kikopiri are guided by the values and traditions of our tūpuna. The concepts of Mana Tangata, Mana Whenua, Manaaki Tangata and Tikanga Māori are paramount to the way we conduct ourselves and the way that we make decisions.

European Occupation

Titles were issued to these lands in the 1887 – 89 period. The first wave of European ownership to Kebbel occurred in the same period. It was purchased from the Maori owners and the transfers indicate the land was acquired by consenting parties.

European settlement responded initially to agricultural production in the form of pastoral livestock farming.

Amalgamation of the land titles occurred to such an extent that by 1920 Te Rauawa Station occupied 1210ha (approx.) being the coastal belt between the Ohau River and Waiwiri Stream. Muhunoa West Road extended out to the coastal area of the station, and the Easton homestead had also being built by this time.

In later years the landscape changed to that of smaller rural lifestyle holdings, and the bach culture settlements.

Stabilisation of the coastal dune environment saw the pinus radiata plantation established on the larger lifestyle holdings and these remain a dominant component of the rural amenity today.

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Cultural and Historic Management Area Provisions;

The objectives for the Cultural and Historic Management Area are:

- To recognise and provide for cultural values within the Management Plan Areas;
- To preserve existing archaeological sites shown within the Management Plan Area by way of appropriate registrations on certificates of title;
- To provide an appropriate framework for managing historic heritage values within the Management Plan Area.

These objectives will be implemented through the following provisions;

- a) Implementation of the provisions for the Wetland, Access, Foreshore/Coastal Landscape, and Building/Curtilage/Effluent Disposal Management Areas;
- A document shall be registered on certificates of titles for Lots 1 and 2 within the Management Plan which makes reference to the NZAA Site S25/47 and site NZAA S25/109. The document shall require protection of those sites from activities that may physically disturb them;
- The Consent Holder shall apply to the Heritage New Zealand for an authority under the Historic Places Act (Section 12 Authority) for

- earthworks required for the upgrade to the internal forestry tracks and as provided for in the Access Management Provisions;
- Before undertaking any earthworks required for the activities required in the Building, Curtilage, and Effluent Disposal Management Areas, each allotment owner will undertake a specific Archaeological Assessment of the area, and apply for any necessary Authorities for the works.
- For accidental, or by chance discovery of archaeological material the owners shall:

e)

- Cease all activities in the immediate vicinity of the find;
- The person(s) responsible for, or actually undertaking the activity, shall contact the Pouhere Taonga Heritage New Zealand, a qualified archaeologist, the Horowhenua District Council and the Ohau Sands Residents Association;
- If the material includes or appears to include human remains then the New Zealand Police shall be advised first in addition to the groups above. Where appropriate, consultation may also be required with local lwi;
- No works shall commence until necessary authorisations have been obtained.

Currently the relevant contacts include:

Pouhere Taonga - Heritage New Zealand
The Senior Archaeologist
PO Box 2629
Wellington

Ph 04 472 4341 archaeology@historic.org.nz

Horowhenua District Council
Private Bag 4002
Levin

Ph 06 366 0999 enquiries@horowhenua.govt.nz

Ngāti Kikopiri Rob Kuiti

Ph 04 568 5268 or 027 645 8480 rob.kuiti@xtra.co.nz or rob.kuiti@twor-otaki.ac.nz

BUILDING, CURTILAGE AND EFFLUENT DISPOSAL MANAGEMENT AREA

. What we already Know -

Legal titles for lots 1-16 were issued on 8th November 2016, with lot 17 being the undivided balance lot.

Buildings and earthworks within the Management Plan Area require building consent from Horowhenua District Council. This will be the case for Lots 1–15.

Vegetation clearance for built form and access may also require consent from Horizons Regional Council – although consenting for Access Management Area provisions have already been granted by Horizons.

The building consent process deals with sanitary effluent disposal, potable water and dwelling foundation design.

Without prejudicing those requirements, this management plan seeks to 'lift the bar' by setting in place a framework for sustainability initiatives for building and curtilage activities on allotments 1-15. The initiatives aim to maintain rural character and not detract from other *values* in this area.

The Management Plan also seeks to create a sense of privacy between dwellings and this can be achieved without additional large scale and concentrated disturbance to the landform because the framework for transportation is already on place.

The framework of this managed approach to built form integrates in particular with the Forestry Management Area, and has been developed in consultation with a qualified landscape architect.

A dwelling area needs to be able to function and located in such a way to avoid possible incidence of flooding and/or a high water table, and so that waste water does not have an impact on the water resource. In depth investigation and ground survey by Wells (December 2008) reveals that that to avoid the effects of the design flood, habitable buildings should be a height of 3.5m above mean seal level (MSL Wellington).

Plan attached to this document. level. Existing topographical information is shown on the Management would only need elevation of between 0.5-1.0 m above existing ground in each of allotments 1-15, and as worst case scenario, habitable buildings According to the survey data and ground investigation an area is available

12 Building, Curtilage, and Effluent Disposal Management Area Provisions;

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Management Area are: objectives for the Building, Curtilage and Effluent Disposal

- 1) inhabitants within the Management Plan Area; To create a pleasant and private living environment for future
- 2) To provide for a safe and habitable living environment for future inhabitants;

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- 3 curtilage requirements; To provide sufficient area within each allotment to allow for
- 4) controls on built form; refer to the Ohau Sands Design Guide To maintain and enhance rural character through appropriate
- 6) 5) using renewable energy technologies; The Land covenant registered on the titles and the Ohau Sands To provide the opportunity for sustainable infrastructure through
- Residents Association will preserve the form and integrity of the Management Plan.

These objectives will be implemented through the following provisions;

GENERAL PROVISIONS

erect a dwelling and associated secondary buildings within the building area; attached to this document in appendix 5 building area and a resulting curtilage area, and the owner will only boundaries, and the dwelling site will incorporate a 40m x 40m The owners will first select a dwelling site within their title

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- any residential dwelling on any other site). standard setback requirements from boundaries and dwellings in existing and additional planting of trees and vegetation, and the are less than 100m, any lack of privacy will be mitigated through esplanade lots 3,4,5,6,7,8 where the existing or new dwelling sites within the Management Plan Area. This will not apply to the the Rural Zone (currently 3m from any other boundary and 10 from 100m separation between their dwelling and an existing dwelling For privacy, each allotment owner shall ensure that there is at least
- 0.81ha on each allotments 1 15;3399 dwelling site to the nearest production forestry - this shall be known as the 'Curtilage Area' and shall be a maximum area of that there is at least 25m of fall zone from the extent of each To avoid potential damage to a dwelling, each owner shall ensure
- Dwelling houses shall only be located within the Building Area forming part of the Curtilage for that lot;

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- e) shall ensure they obtain advice from a Chartered Professional each owner shall ensure that a dwelling within the Management To provide appropriate foundations for a dwelling, each owner Plan Area is at least 3.5m above Mean Sea Level (MSL Wellington); To avoid issues associated with potential ponding of surface water
- harvesting activities, and existing perimeter fencing around the Apart for temporary safety fences that may be required for forest

Engineer before applying for a building consent.

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- Management Plan Area, there shall be no fencing outside the curtilage area;
- All improvements, structures and other amenity features/landscaping found in a normal residential environment may be constructed, placed or occupy the Curtilage Area.

DWELLINGS AND BUILDINGS

- A Dwelling on a Lot shall be designed to be in harmony with the natural landscape and to form an integral component of a well designed managed rural area.
- Refer to the Ohau Sands Design Guide for Material Selection: suggested exterior materials and finishes
- c) If the Dwelling contains or comprises any separate garage or other outbuilding such garage or other outbuilding must be of a similar design and construction (including material used in construction) to the rest of the Dwelling.

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- d) Refer to the Ohau Sands Design Guide:
- a) Roofsb) Exteric) Accesd) Exterr
 - Exterior colour palette
 - Accessory buildings and structures

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- External lighting
- A Dwelling on a Lot will:

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 be completely constructed and finished within 12 months of commencement of excavation for foundations; and

- (ii) have all ancillary work including planting of lawns, landscaping and any other development work completed and finished within 18 months of commencement of excavation for foundations.
- A driveway on a Lot will be constructed of such materials so as to blend with the natural rural landscape and any paving material used will be of natural earthy recessive colours that will ensure that the driveway is not highly visible in the landscape.

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The Owners will not erect a Dwelling other than a new Dwelling on a Lot, and will not permit or allow the transportation and delivery onto a Lot of any pre-built, transportable or relocatable Dwelling that has been previously lived in.

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- The Owners will not permit a caravan, hut, tent, shed, pole or similar structure to be placed or erected on any Lot other than as may be required for use in the construction of a Dwelling. Any such caravan, hut, tent, shed, pole or similar construction permitted pursuant to this clause shall be removed immediately on completion of the Dwelling,
- The Owners will promptly replace, restore, reinstate and repair at the cost of the Owners all damage that may arise or be caused to the landscaping, planting, or other structures in the Management Plan Area and arising from the construction of the Dwelling or driveway or landscaping of a Lot and will ensure that due and adequate allowance is made for current and future drainage of all excess stormwater so that there is no discharge of stormwater from a Lot.

- j) The Owners will not permit or allow any building material, building waste material or rubbish to accumulate on any Lot or allow any building, structures or fencing to become dilapidated or fall into disrepair.
- k) The maximum height of any building on Lots 1-15 shall be 9m above finished ground level.

SERVICING

Wastewater

a)

Each Owner shall provide a suitable on-site water disposal system that, at the time of construction:

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- Complies with the relevant Local Authority Requirements;
- ii) Is an advanced treatment and disposal system;
- iii) Includes a disposal area that is of a sufficient area to dispose of the reasonably expected waste generated from the dwelling, and is covered in at least 250mm of topsoil or peat:
- iv) Includes an assessment that the disposal area is a sufficient height above the winter Ground Water Level (GWL);

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- Shall ensure that no stormwater is disposed of into the treatment system or disposal field.
- vi) Contains pressure compensating trickle irrigation lines for ground disposal of waste water which is to be dose loaded from the treatment system to provide a maximum areal loading rate of 3.0 litres/m²/day.

Water

- Each owner shall be made aware that they are part of a Managed Area whereby each lot is self sufficient;
- Because of the above sustainability initiative, water resources will be provided by each owner and as a minimum;

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- i) Capacity for 50,000 litres of water storage shall be available to each dwelling;
- 25,000 litres of the above storage shall be dedicated for fire fighting purposes, and each owner shall contact the New Zealand Fire Service to determine requirements for fittings etc;
- In providing for water resources, each owner shall consider treatment of the water in light of the publication "Household Water Supplies" (Revised April 2006) and which is published by the Public Health Department.

Electricity and Telecommunication

- Each owner shall be made aware that they are part of a Managed Area whereby the majority of service infrastructure is via on – site sustainable initiatives.
- Each of the Owners of Lots 1-15 shall provide for their safety and well being by providing for their individual needs in accordance with Territorial Authority requirements at the time of building;
- c) The Energy Efficiency and Conservation Authority (EECA). Real examples of this approach are attached as appendix 6.

For practical interpretation of these matters please see the Ohau Sands Residents Association Rules, Appendix 8.

APPENDIX 10	APPENDIX 9	APPENDIX 8	APPENDIX 7	APPENDIX 5	APPENDIX 4	AFFERDIX O	ADDENIDIY 3	APPENDIX 2	APPENDIX 1
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FOREST MAPPING - ETS & HOUSE SITES (2021)	FOREST MAPPING CURRENT STOCK (2021)	OHAU SANDS RESIDENTS ASSOCIATION	OHAU SANDS DESIGN GUIDE	AREA TYPICAL CURTILAGE AREA LAYOUT	PLANTING LIST – WETLAND MANAGEMENT	MANAGEMENT AREA	MANAGEMENT AREA	PLANTING LIST FORESHORE AND COASTAL	CONCEPT PLAN