

Project Summary

Introduction

This document provides the scope of the Piha Wetlands Project. Its purpose is to provide a briefing for strategic planning and funding purposes.

Organisation

Project Name Piha Wetlands Project
~Restoration ~ Education ~ Preservation ~

Legal Entity Name Piha Education Trust

Trustees

- Kerry Dean
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Trust Objectives

- To provide high quality environmental education programmes for young people and the community by providing educational and recreational facilities.
- To work closely with all schools, local body organizations and the community.
- To make provision for the on-going maintenance of any properties and/or premises from time to time in use by or under the control of the trust.
- To enter, from time to time, into such contract and commercial arrangements as shall be necessary to advance the charitable objects of the Trust.
- To raise and obtain funding for the purposes of the Trust

Project Concept The concept is to restore an area of native wetland vegetation bordering the Waitakere Regional Park using ecologically appropriate native plant species. The vegetation restored should be consistent with the species composition of surrounding natural areas, and should be aimed at providing habitat for native biodiversity.

Occurring during the restoration will be the establishment of an Education and Visitor Centre, providing “Learning through Experience” programmes to Primary, Intermediate and Secondary Students. The restoration of the wetland and riparian areas around the project site would provide an initial educational focus for learning about wetland ecosystems and what native plant species should be restored and how that provides for native biodiversity.

In New Zealand the availability of continuous ecosystems from the mountains to the sea is limited. At this site there are opportunities for “mountains to sea” catchment studies reaching from the Waitakere Ranges to the coast.

However the educational opportunities for this site have the potential to encompass a much deeper and wider ecological overview encompassing the endangered endemic resident around Piha, the Maui’s Dolphin. The Maui’s Dolphin is vulnerable to human impacts because it only exists in the near coastal zone. The coastal zone is an ecosystem that relies on energy inputs from inshore wetlands, river systems and the forested upper catchment. Examining those links will provide a more complete ecological understanding.

Project Partners Kuaka New Zealand as educational and environmental consultants.
Responsible for project site planning and development, educational focus of site, restoration planning and major planting and access on site.

Project Outcomes Restoration project outcomes will be measured in terms of the improvement of an indigenous native wetland / forest ecological community.

Performance Measures:

- All invasive weeds removed or controlled within 5 years
- An increase in native biodiversity to a level comparable with surrounding forest (i.e. 75% of surrounding forest plant species and/or wetland species found onsite within 10 years)

Piha Site

- Situated on Seaview Road, located alongside the Piha Fire station. Entry is one corner from Seaview Road.
- Owned by the Ministry of Education and designated for outdoor education use.
- 12 acres surrounded on two sides by bush, one side by a stream and one side open paddocks. ARC owns the adjacent land.
- Opposite the camping ground and within walking distance to Steadfast Park.
- One building – old Piha School House – footprint for a second building.

Restoration

Project Focus

Over the next five years the management of The Piha Restoration Project will focus on:

- Fostering partnership with schools, iwi, local interest groups, and councils to provide a recreational and educational resource for the entire community.
- Providing an education centre that interprets the area's natural, cultural and historic heritage at the school curriculum level and enhances the understanding of and support for this restoration and other associated projects.
- Establishing an integrated pest plant and animal control program that enhances the viability of the restoration area for native flora and fauna
- Removal of exotic trees except where they have historic, rarity or amenity value
- Planting indigenous flora representing the range of ecosystem types onsite
- Introducing local rare plants and threatened plant species
- Enhancing the recreation and conservation value of the area by linking the restoration project to the adjacent Waitakere Regional Park.
- Improving the ease of access and the general layout of the project area.

Restoration

Project Policies

- Protect and enhance indigenous vegetation remnants.
- Protect stream habitats and enhance the range of onsite habitat for indigenous biodiversity.
- Control or eradicate environmentally damaging plants and any new invasive weed species.
- Provide access around the site.
- Protect Maori cultural values and provide relevant interpretation for visitors in consultation with iwi.
- Protect and interpret European historic values for visitors.
- Provide an ongoing environmental education resource for the whole community.
- Promote the preservation and protection of the native biodiversity of the Waitakere Ranges, including its flora, fauna, ecosystems and threatened plants.
- Promote the preservation and protection of the native biodiversity of the Waitakere/Piha coastline, including its marine flora, fauna and ecosystems i.e. Maui's Dolphin.
- Support volunteer programs with outcomes that are consistent with this management plan.

**Education Key
Concepts/Themes**

Natural Landscapes

- Overall appreciation of land and vegetation types, zonation and succession.

Restoration Rangers

- Day visit restoration planting;

Wetlands Discovery

- Appreciation of our wetland and its biodiversity; “Kauri to the Dolphin” theme; the important role we all need to play in restoring and protecting our wetland

Plant Detectives

- Plant identification; classification of plants; importance of plant biodiversity

Wetland Wonders

- Looking for invertebrates; ink tunnel traps for lizards; large invertebrates (weta)

Plant Nursery

- Looking at the purpose and operation of a native plant nursery; ‘eco sourcing’ of seeds; plant propagation; plant life cycles; seed sowing techniques; seed and seedling care

**Education
Opportunities**

- Site survey identifying all plant species present, including the grasses and semi-aquatics. May need samples to be taken and ID at the varsity.
- Survey of surrounding vegetation for planting species list and as non treatment comparison
- Site survey of invertebrates
- Stream surveys for biodiversity and stream bank vegetation
- Ink tunnel traps for lizards, large invertebrates (weta) and rodents, to identify threats or opportunities for natives.
- Human intervention strategies and practices to assist restoration of natural areas.
- Presentation of various ecosystems of the west coast region.

History

In the Mid 1980’s, four Waitakere City intermediate schools formed a trust and secured a lease with the then Education Board to administer and use for students education and it was used for this purpose up until 2001. Several schools and a community group under the Waitakere Education Sector Trust formed a working group in 2000 to administer and look at future use and development. This group drafted a scope and liaised with principals in Waitakere, WCC, ARC and Piha Ratepayers.

2008 saw the working group become a legal entity (Piha Education Trust), and the signing of a 25 year lease with the Ministry of Education.

Project Plan

Year One:

- Eradicate invasive weeds Spring + Summer
- Cut back grass and broadleaf weeds to reduce competition Spring + Summer
- Plant primary colonizers Autumn + Winter
- Fundraising
- School Pilot Programmes:
 - Intermediate: Biodiversity, food chains and watersheds. Autumn + Winter
 - Primary: Species - Adaption's, predator/prey, endangered. Winter
 - Secondary: Yr 9/10 Producers, etc. environmental issue, sustainability, Ecology of Wetlands, Autumn + Winter
Autumn + Winter
- Day visits to site for school groups
- Day visits for school groups for planting Autumn + Winter
- Education Programme Development
- Commence Walkway
- Planning for development of the school house into visitors centre

Year Two:

- Weed around plants to reduce competition Spring + Summer
- Weed around plants. Remove and new invasive weeds Autumn + ongoing
- Replace dead plants Autumn + Winter
- Education Programme developed and launched Spring
- Schoolhouse Visitors Centre refurbished Autumn + Winter
- Complete walkway around property
- Link with neighbouring facilities
(i.e. ARC park and Boys Brigade, Waitakere City Council and community initiatives)

Year Three:

- Remove any invasive weeds Year round
- Plant appropriate forest canopy species Autumn + Winter
- Refurbished schoolhouse extension opened Spring
- Education Programme & Review
- Continue to develop links with neighbouring facilities
(i.e. ARC park and Boys Brigade, Waitakere City Council and community initiatives)

Year Four:

- Remove any invasive weeds Year round
- Plant appropriate forest canopy species Autumn + Winter
- Education Programme

Year Five:

- Remove any invasive weeds Year round
- Plant appropriate forest canopy species Autumn + Winter
- Education Programme & Review