

Restoration Plan – Pearl Creek 2013-2015

Introduction

Pearl Creek is a small spring fed creek that flows into the Waimea Inlet near Cotterells Road, Appleby. It is two kilometres long from the Appleby gravel aquifer to the Waimea Inlet.

The margins of the creek have a variety of land status including QEII covenant, esplanade reserve and farmland. Riparian rehabilitation along Pearl Creek was initiated by adjoining landowners in the mid-1980s and was assigned regional importance by Department of Conservation (Allibone, 1995) due to the presence of threatened species.

This restoration plan is a continuation and expansion of the restoration plan prepared by Martin Conway (December 2002). This updated version sets out actions and estimates which will guide future work programmes and be used for funding bids. It is in accordance with the landowner objectives for biodiversity protection on the property.

A QEII covenant was put in place in 1994, and extensive restoration (including fencing, willow tree removal, general weed control and planting of native seedlings) was undertaken between 2002 and 2009. The most recent plantings at the southern end of the farm took place in 2010.

Funding for past restoration work has been provided through grants from Canterbury Community Trust, the Biodiversity Condition Fund, and some private contributions, all organised through the Tasman Environmental Trust.

Partners in the restoration project have included the landowners, Tasman Environmental Trust, Fish & Game, Tasman District Council, Department of Conservation, Nelson Marlborough Institute of Technology and Appleby School.

Site significance

Pearl Creek, one of three spring-fed creeks flowing into the Waimea Inlet, is regionally significant in providing wetland and stream habitat for the nationally at risk giant kokopu, longfin eel and inanga. This small complex also provides important and significant habitat for kotuku and bittern (both nationally threatened), and fernbird, marsh crake, spotless crake and banded rail (all nationally at risk).

The protected riparian margins are planted with forest trees and riparian species from the threatened lowland /coastal ecosystem. Close-by on the same property the Native Habitat Tasman survey has identified a stand of original kowhai trees, a raupo wetland and a kuawa (lake clubrush) sedgeland. Also partly, on the property and neighbouring land is the largest and best example of a saltmarsh/brackish wetland/shrubland complex in Tasman Bay. All are significant, representing communities that are depleted to either <1% or <5% of their original cover in the Motueka Ecological District.

Wider Context

The National cycleway from Richmond to Mapua crosses through the farm on the crest of the Waimea River flood bank. It crosses Pearl Creek and runs close to the other sites.

Pearl Creek restoration work is now seen as a cornerstone, demonstrating the potential of good restoration projects to the wider Waimea River Park project and Waimea Inlet conservation programmes.

Present situation

Recent changes in the family ownership of Pearl Creek farm have led to a review of the restoration project.

Restoration plantings are in various stages of maturity. The oldest has kowhai, kohuhu and kanuka and ribbonwood trees at about 6 metres in height with good canopy coverage and ground weed/rank grass suppression. Wetter areas have strong establishment of harakeke and Carex species.

On the youngest site kanuka, lemonwoods, cabbage trees are at 1-2 metres, but with rank grass between. Willow regrowth is vigorous at the newest site, but also occurs intermittently along the stream. Other woody weeds include gorse, barberry, and occasional elderberry. Convolvulus, blackberry and some clematis vitalba are present. Tree Lucerne has been used as a primary planting shelter tree.

The stream itself has some clear water, but in places has complete cover of water weeds. There is variable flow of spring water with a noticeable decrease during summer dry spells.

A trapping group, which commenced in 2005, continues to run a mustelid/rat trap line starting at Pearl Creek through to Rabbit Island. This has enhanced the continued survival of coastal bird species including marsh crake, spotless crake, banded rail, and less frequently occurring fern bird and bittern.

Restoration Actions

A. Pearl Creek margins

1. Weed Control. Cutting and spraying of primarily willow, barberry and gorse. Cost over next 3 years - **\$14,400** ex GST
2. Releasing of both primary and secondary plantings - **\$6,500** ex GST
3. Further infill planting of climax tree species. Cost over next 3 years - **\$6,770** ex GST

B. Kowhai tree stand (NHT Ecological assessment report MO 78)

1. Fencing of 50 m. Materials to be provided by TDC. Labour estimate is \$200 ex GST.

C. Flood channels with reedland, sedgeland and herbfield turfs (NHT Ecological assessment report MO 76 & 77)

1. Fencing of 950 m involving two areas (600 m and 350 m). Materials to be provided by TDC. Labour estimate is \$3,300 ex GST.

D. A complex of communities, dominated by saltmarsh rush and sedge beds rising up to coastal margin shrublands (NHT Ecological assessment report MO 53)

1. Fencing to be determined.
2. Weed control – \$3,500 ex GST. Gorse, tamarisk and iceplant to be controlled asap.