



**MARLBOROUGH
DISTRICT COUNCIL**



Tui to Town Project 2008-2012 Summary Report

Photo: Damien Toman



Tui to Town Project 2008-2012 Summary Report

MDC Report No: 13-005

E310-012-003/Record No: 13125583

May 2013

Report Prepared by:

Nicky Eade

Contents

Tui to Town Project - Natural Habitat Restoration for the Wairau Plain 2008 - 2013.....	1
Background	1
Introduction.....	1
Tui sightings	2
Tui to Town Plantings.....	4
Tui to Town - Community Aspects	6
General Discussion	7
Summary	8
A Photographic Record of some Tui to Town plantings on the Wairau Plain	9
Map 1: Location of Tui Sightings 2008-2012	3
Map 2: Location of Tui to Town plantings 2008 – 2012	4
Map 3: Location of all known native habitat areas showing linkages and gaps between areas (Tui to Town plantings – yellow dots)	5
Map 4: Location of Grassmere Ecological District and Blenheim Ecological District.	6

Tui to Town Project - Natural Habitat Restoration for the Wairau Plain 2008 - 2013

Background

The Tui to Town project is a subset of the significant natural areas (SNA) project which promotes the protection of natural areas of ecological value. The SNA surveys have confirmed that very little natural habitat remains on the Wairau Plain area of Marlborough and the Tui to Town project is designed to promote habitat restoration in this area.

The Wairau Plain area is contained within the Blenheim Ecological District – an ecological unit used in the wider SNA surveys.

An initial analysis by Dr Eric Spurr from Landcare Research confirmed that tui reside and breed in the native forests of the Richmond Ranges in the north bank hills and would travel to feed on the Wairau Plain, particularly over the winter months if suitable food was available. The report was supportive of a programme to encourage the planting of suitable native species and raising public awareness about the lack of habitat on the Wairau Plain. The report also recommended investigating the possibility of undertaking targeted predator control in source breeding areas on the north bank, to enable tui to fledge more young successfully.

Introduction

The Tui to Town project was launched by the Council in June 2008 to promote understanding of native biodiversity and habitat restoration on the Wairau Plain/Blenheim Ecological District. This report summarises the results over five years up to June 2013.

The aim of the project is to involve the whole community in planting more trees and shrubs to create corridors and stepping stones of suitable natural habitat over the highly modified Wairau Plain area so that tui and other native birds can find places to feed and breed.

Tui live and breed in the native forests of the Richmond Ranges in the north bank hills and will travel 10 – 15 kilometres across the Wairau Plain to feed on nectar producing trees and vegetation. They are seen regularly on the Wairau Plain and in the Blenheim and Renwick township areas at certain times of the year and provide an ideal focus for habitat restoration efforts.

The Tui to Town programme includes:-

- information and publicity in the form of a brochure, web site information and various media articles and notices,
- the collection of reported tui sightings in Blenheim and the Wairau Plain area through a web based reporting system and;
- funding assistance to plant areas of a minimum of 1000 square metres or larger in the area.

The tui sighting and planting “seasons” are roughly the same, from May to December each year.

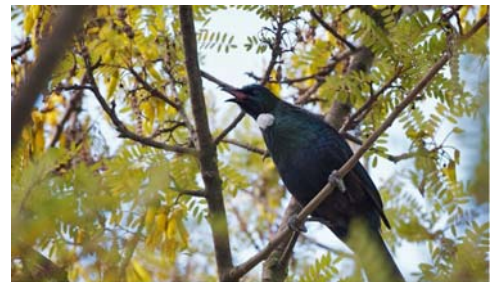


Tui sightings

Tui are sighted in and around Blenheim mainly through winter and spring as they search out food sources (particularly nectar) outside their forest habitats in the Richmond Ranges on the north bank. By recording sightings a local picture can be built of where and when tui are seen, and the type of habitat they are utilising. The process also actively involves the public in the project and harnesses their collective observational abilities. Over 600 sightings have been reported since 2008.



- in 2008 between the months of June and December 80 tui sightings were reported.
- in 2009 over the same 7 month period 71 tui sightings were reported.
- in 2010 there were 218 sightings between the months of May to December.
- in 2011 there were 117 sightings mostly between the months of May to December.
- In 2012 there were 120 sightings between the months of May to December



Discussion on sightings

The timing of most tui sightings matches the known seasonal pattern of tui behaviour. Early in the year tui mostly stay within their breeding areas in the north bank forests, occupied with nesting and raising their young. Both parents are kept very busy feeding the 2-4 very hungry chicks, so their feeding range decreases dramatically – they need a rich food source nearby and therefore need at least 1 hectare of suitable habitat area to breed. During this period the native forest contains an abundance of fruit, flowers and insects. Not many sightings are recorded on the Wairau Plain and around Blenheim during this time.

By autumn and early winter tui are travelling further to feed and this is the time they start to be seen more regularly around Blenheim and the southern part of the Wairau Plain searching out alternative food sources (May to September). Tui court each other through September/October with much diving and duet singing and then begin to retreat back to the north bank forests to nest and breed through November to January. Sightings on the Wairau Plain diminish over this nesting time.

Nearly all of the sightings are in trees, generally feeding or occasionally just perched, with a few in flight. Tui are rarely seen on the ground.

Eucalyptus trees (*E. leucoxydon*, *E. mellidora*, *E. globoidea*), account for 34% of the sightings where birds are observed feeding on the nectar producing flowers, particularly during the early season sightings from May to July. Kowhai is the next most popular species with 23% of sightings, mostly during the three months from August – October. Banksia species have 5% of the sightings and the sightings are then widely distributed over a variety of species including various native plantings, camellia, beech, elderberry and various fruit trees. Tui are also commonly sighted perched but not feeding, on taller trees like oak, pine and walnut.



The number of sightings in eucalyptus species have shown how some exotic plant species can also contribute significantly to the food sources utilised by tui, especially at the times of year when they are not nesting and can travel long distances to feed on nectar.

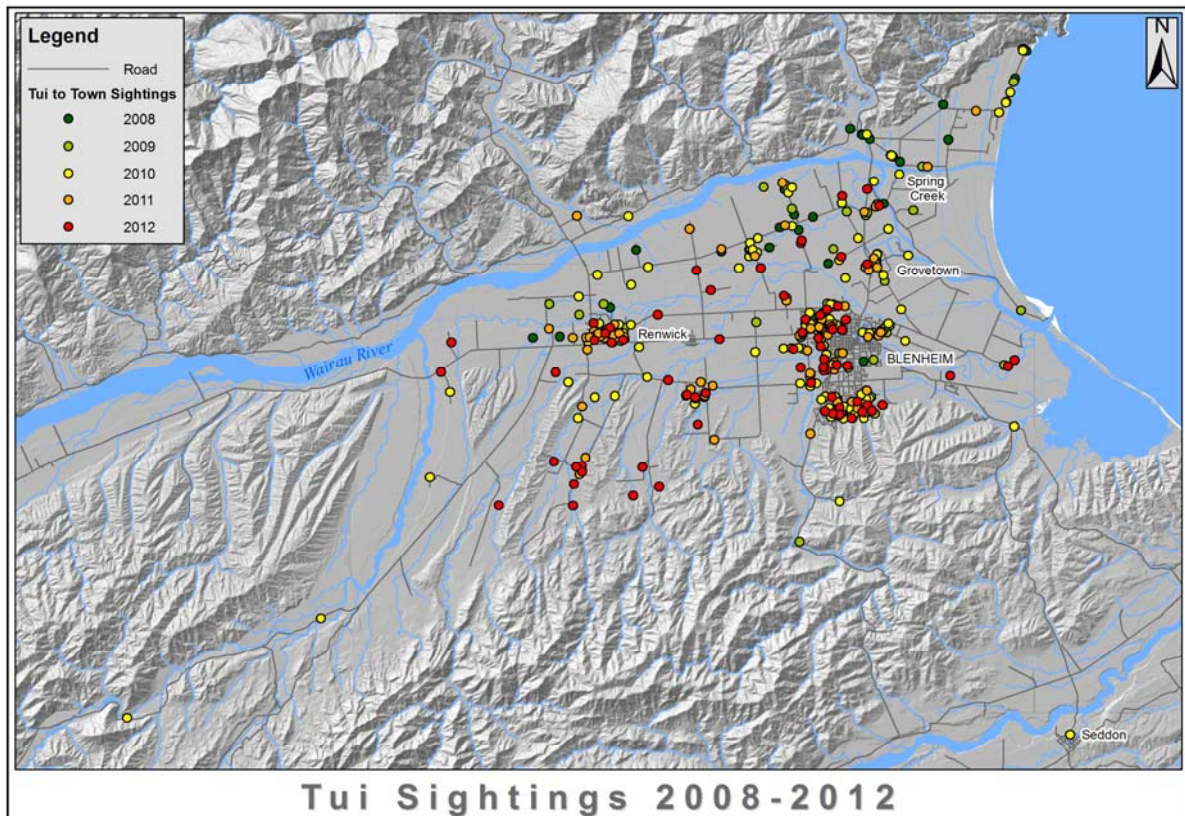
An interesting aside is that research being carried out in relation to the nectar and pollen requirements of honey bees shows that there are close parallels with the plant species that also suit tui. These include eucalyptus species along with a number of native species (for instance five finger, flax, kanuka, manuka, cabbage tree, kowhai).

As is to be expected, the majority of sightings are from urban areas where people live. Sightings are also more common closer to the north bank hills and become very sparse south of the Blenheim township area where native vegetation areas and other trees are minimal providing little feed or habitat to attract tui. Although, paradoxically, it has become apparent over time that people who see tui regularly do not continue to report sightings or only report continuous sightings occasionally. On that basis the reported sightings are only indicative and in more recent years tend towards the areas where sightings are more infrequent, that is furthest from the north bank hills to the south of the Wairau Plain in areas like the southern valleys.

The 2010 year saw a particularly large number of sightings and some that were quite widespread and in areas that people did not recall seeing tui previously (the Taylor pass area and well up the Waihopai valley for instance). We do not know why this was the case but the most likely reason was that the north bank tui population had managed a better than usual breeding season that year or the previous year for some reason – most likely less predator pressure.



Map 1: Location of Tui Sightings 2008-2012



Tui to Town Plantings

New native plantings, along with the few existing areas and some favoured exotic trees and shrubs, will help to build stepping stones of habitat for tui and other native bird and insect species on the Wairau Plain.

There has been a steady interest in funded “Tui to Town” plantings. A total of 32 plantings have been funded over the five year period and these are shown in Map 2. As each project is a minimum of 1000 square metres this means a total area of new habitat of about 3 hectares has been created. Some of the plantings that are four or five years old are already quite well established and have been visited by tui.

- 2008 – four plantings
- 2009 – eight plantings
- 2010 – eleven plantings
- 2011 – five plantings
- 2012 - four plantings

These tui to town plantings compliment other restoration projects on private land being undertaken through the Significant Natural Areas project, projects on Council land, and other smaller scale plantings of native vegetation on private land, school grounds and so on.

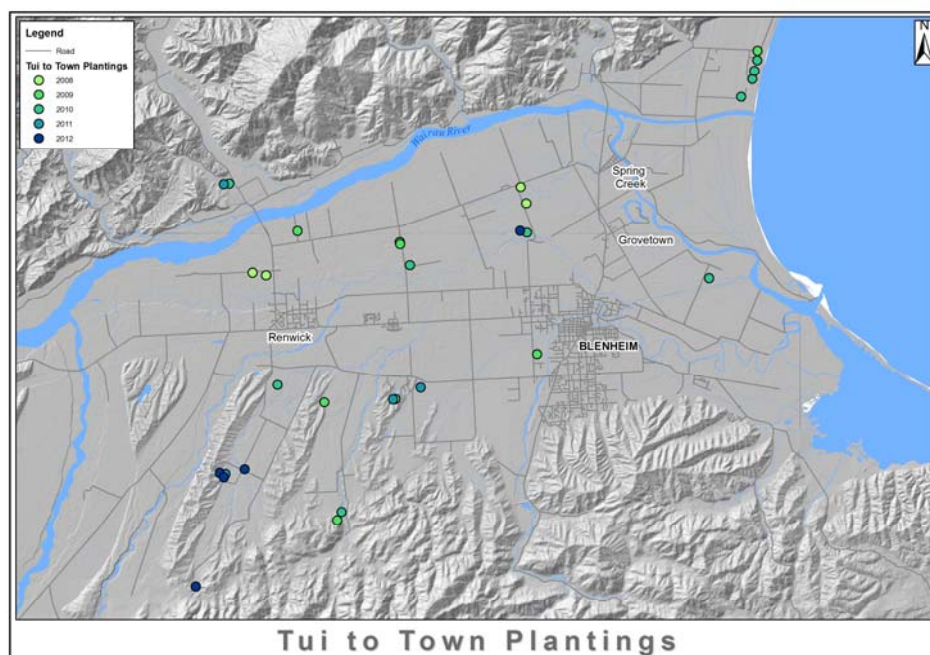


Planted area in 2009 – 1 year old



Planted area in 2013 – 5 years old

Map 2: Location of Tui to Town plantings 2008 – 2012



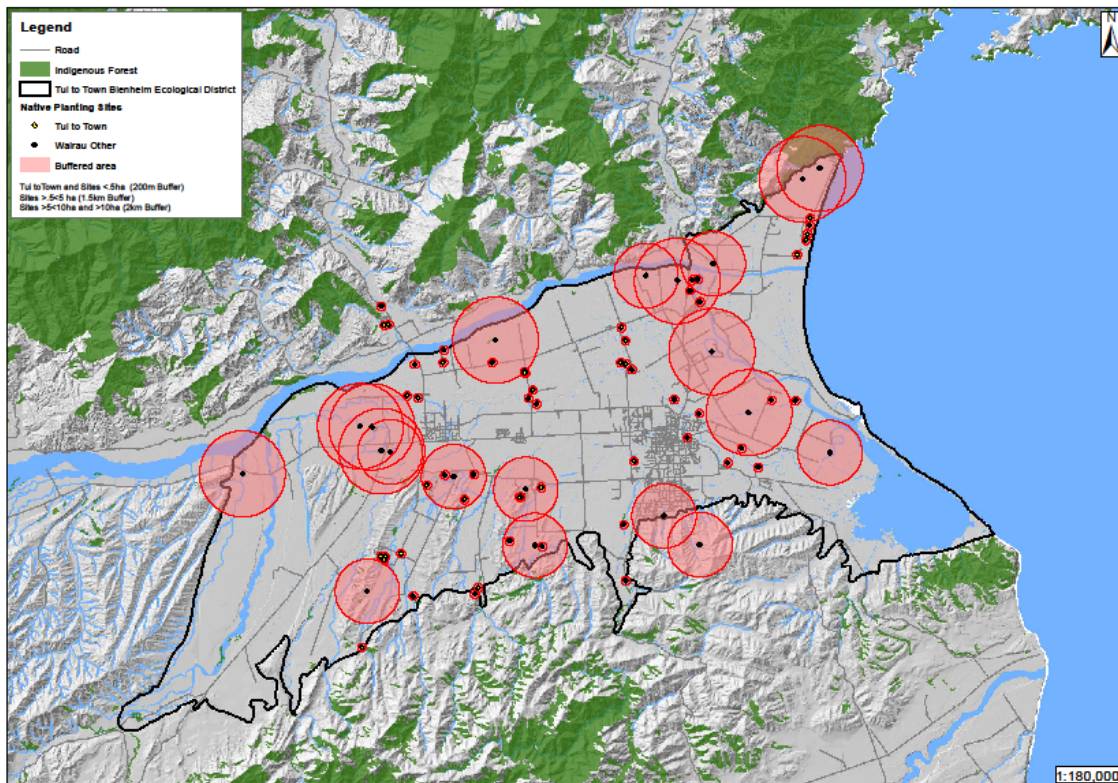
Discussion on plantings

By mapping all of the new Tui to Town plantings, along with all other known native vegetation sites on the Wairau Plain area/Blenheim Ecological District, a picture of the extent and distribution of the habitat areas, and their relationship to each other, can be built up.

Using ecological reserve design theory “reserves” of native vegetation are divided by size into three categories and a distance of influence is then put around these areas. Distances of 200m are placed around small planted sites of less than .5 of a hectare (5000 square metres – this includes all of the smaller 1000 square metre tui to town plantings), and larger distances of 1.5km and 2 km over larger “reserves” of 0.5 – 5 hectares and 5 – 10 hectares.

Map 3 shows that while we have made some gains, there are still large areas with virtually no natural habitat areas present.

Map 3: Location of all known native habitat areas showing linkages and gaps between areas (Tui to Town plantings – yellow dots)

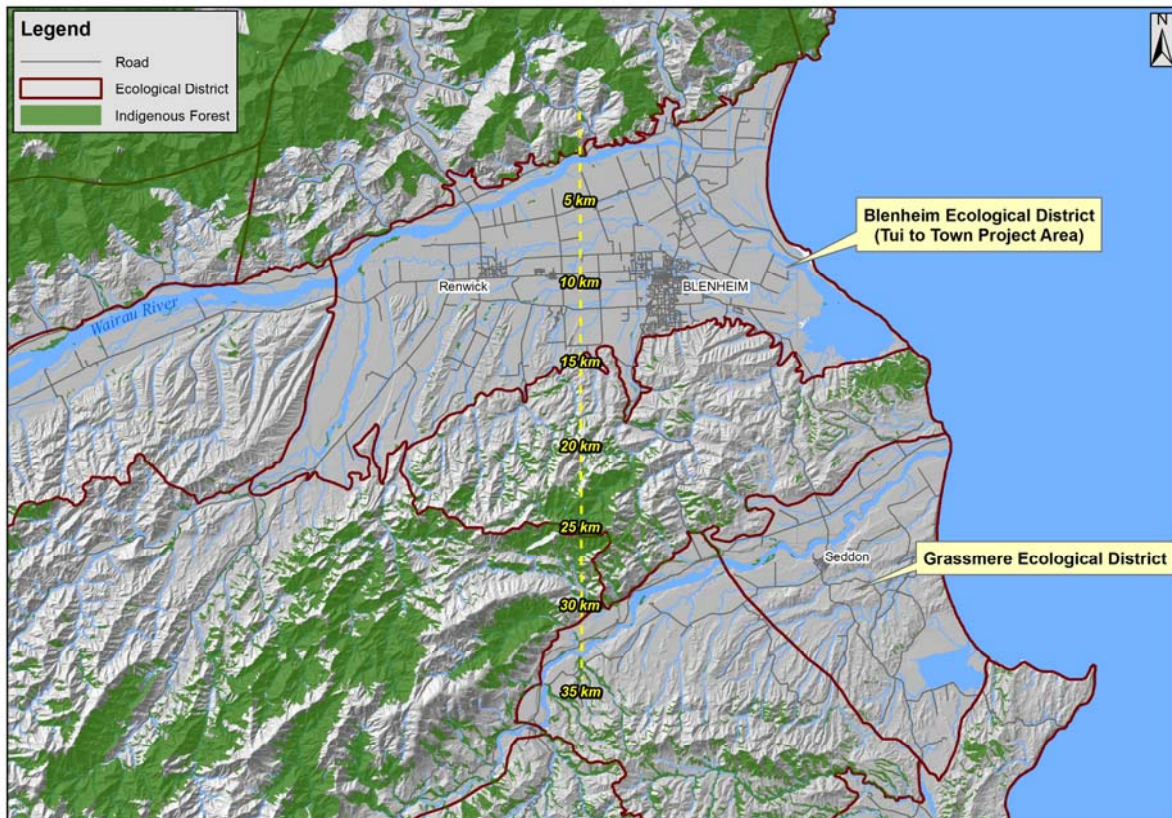


The total area of all of the mapped habitat areas is 188 hectares (this includes Marlborough District Council reserve areas, significant natural area restoration projects on private land and the Tui to Town plantings). Much of this habitat is still very new and has not yet reached its full potential in terms of forest structure and food production and habitat value.

This current habitat area is about 0.5% of the total land area of the Wairau Plain, a slight improvement on previous but still obviously a very low proportion overall. Because of this very small percentage of land area in indigenous cover, the Wairau Plain area has been identified by nationally developed guidelines (Ministry for the Environment, 2007), as a priority for protection (along with any land area with less than 20% or less remaining in indigenous vegetation cover).

There is scope for many more plantings on both private and public land to further increase the area of habitat available for tui and other native species. Ideally the ecosystem would be resilient and functioning to a level which could support some breeding populations of native birds. The allocated Tui to Town funding has not generally been fully used in each financial year so there is scope to fund more plantings within existing resources. Another option may be to consider extending the geographical area of the project to include the Grassmere Ecological District (shown on Map 4), which includes the lowland area around the township of Seddon. This ecological district, like Blenheim has less than 1% of its land area in indigenous vegetation cover.

Map 4: Location of Grassmere Ecological District and Blenheim Ecological District.



Tui to Town - Community Aspects

The Tui to Town project has proven to be an effective way to generate interest and raise public awareness about native habitats and biodiversity issues and to promote the restoration of habitats and ecosystems in some instances. The programme has an educational and public awareness aspect as well as providing practical assistance to promote habitat restoration through information and funding. It is an ongoing annual programme with the active phase being between about May to December when both tui presence occurs on the Wairau Plain and planting projects are carried out. This seasonal presence of tui provides an ideal focus for education and habitat restoration efforts.

The programme has been integrated into the EnviroSchools “Living Landscapes” programme and a number of schools have carried out native plantings within the school grounds in the hope of attracting tui. “Tui to Town” street banners were also introduced into the Blenheim township area in 2011, and are periodically erected, providing further promotion of the project.



In 2011 the Tui to Town programme was integrated into the Rugby World Cup programme in Marlborough as part of the associated local environmental programme. The visiting Russian rugby team participated in a special community planting on the banks of the Taylor River, where native plants, along with some Russian elms, were planted.

Future initiatives planned for this 2013 year include an invitation to all current tui to town planters and the public, to attend a field trip to look at a selection of plantings that have established through the programme. Garden Marlborough is also planning a tour of some wetlands on the Wairau Plain and an emphasis on habitat restoration and the work of the Tui to Town programme.

The draft Taylor River Recreation Plan is likely to incorporate some areas of native planting aligned with the Tui to Town project. Schools or other community groups could be involved with developing and maintaining these areas.



Marlborough residents, Councillors and members of the Marlborough Landscape Group join the Russian rugby team to plant tui to town trees on the Taylor River bank in September 2011

General Discussion

Other projects - There are other projects around the country with a focus on tui which may have some relevance for the Marlborough situation. Tui are being re-introduced to Banks Peninsula through the Banks Peninsula Conservation Trust and stepping stones of habitat are at the same time being created on the Canterbury Plains driven by “Te Ara Kakariki – Greenway Canterbury” Trust.

In the Waikato the “Hamilton Halo” project is a collaboration between Environment Waikato, Landcare Research and the community. The project involves working to research tui behaviour and ecology in the area and to carry out effective pest control in many native forest areas within a certain distance of Hamilton city to encourage tui to return to the city's gully systems which are being restored to provide suitable habitat areas within the urban boundary.

Extending the tui to town programme to the Grassmere Ecological District area – as already discussed above there is scope to expand the project by including the Grassmere Ecological District area which also has less than 1% of the land area in indigenous vegetation cover. There have been a number of enquiries over the five years from landowners in this area wanting to be part of the Tui to Town project.

However the reality is that tui are not currently found in this area as it has virtually no suitable native habitat and it is too far (25-35) for tui to travel from the north bank or any other area of native forest habitat to feed, as they do readily on the Wairau Plain which is located within 5-10 km and adjacent to their breeding areas in the Richmond Ranges. If the project was extended to this area it could focus on

planting to create new habitat areas and attracting other more common native species like fantails, bell birds etc.

Pest control initiatives - The initial Landcare Research report recommended investigating the possibility of undertaking targeted predator control in source breeding areas on the north bank, to enable tui breeding success rates to increase. Most of the areas that could be targeted would be on Department of Conservation (DoC) administered land and any pest control effort would require close collaboration. This has not been explored to date but the SNA working group is well established and works in partnership with DoC and could provide a future vehicle for further collaboration and development of this concept.

Pest control will also be required in some of the habitat areas as they develop and provide suitable habitat for predators as well as native species. These would need to be site led integrated programmes to target any predator pest that becomes evident, especially if tui or other native bird species were known to be breeding in the sites.

Summary

Since its establishment in 2008 the Tui to Town project has provided a valuable opportunity to both raise public awareness about native habitats and to practically start the process of re-establishing some elements of native ecosystems on the Wairau Plain. The project complements other larger scale restoration work being carried out on Council reserves and private properties.

The reporting of tui sightings over this time has enabled some useful information to be obtained. The establishment of over 30 new plantings has added a small amount of areas in native vegetation cover but this is still a very small proportion of the area overall and there is some way to go before the area could support breeding populations of tui.

Future developments could include extending the funding to a broader area incorporating the Grassmere Ecological District around Seddon.

As more suitable habitat becomes available on the Wairau Plain over the next few years it will be worth exploring the possibility of carrying out some targeted pest control in the source breeding areas in the Richmond Ranges on the north bank. This would require collaboration with the Department of Conservation and possibly some private landowners on the north bank. Pest control initiatives within areas on the Wairau Plain may also be necessary in the future.

A Photographic Record of some Tui to Town plantings on the Wairau Plain



An established four year old Tui to Town planting at Pernod Ricards' Stoneleigh vineyard on Jacksons Road 2012

Robyn Cuddon shows Margaret Peace her new Tui to Town planting on her property near the Marlborough Ridge 2011. This planting complements other wetland restoration work at this site.



Cloudy Bay Vineyards combine their 2010 Tui to Town planting with their winery waste effluent disposal area.

Stage one of a new Tui to Town planting in 2011 at Villa Maria on New Renwick Road, due to be extended in spring 2012.

