



**MARLBOROUGH
DISTRICT COUNCIL**

**Summary Report on the Results of the
Significant Natural
Areas Project
2013 – 2014**

July 2014



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The Biodiversity Fund – Department of Conservation

Executive Summary

Introduction and Background

Through the Resource Management Act 1991 and its subsequent amendments, the Council has a role in maintaining and protecting indigenous biodiversity and significant natural areas in the Marlborough region. Since 2001 the Council has implemented the "Significant Natural Areas" (SNA) project, which has involved extensive field based ecological survey work and a subsequent protection and monitoring programme.

This report provides a summary of results of the Significant Natural Areas project (SNA) over the one year period from July 2013 to June 2014. It follows from five previous summary reports, one of which covered the early years of the project from 2001 to June 2008, the other four covering the annual periods from 2010 to 2013.

This report summarises the results of:-

- the ecological survey work carried out through the Council's Significant Natural Areas (SNA) project between July 2013 and June 2014 (two surveys);
- the related environmental protection work carried out through the SNA project Landowner Assistance Programme from July 2013 to June 2014 (one new project and 18 on-going projects);
- the related monitoring programme; and ;
- several other projects associated with the Significant Natural Areas project including:-
 - o publicity and education activities,
 - o the native seed collection project; and
 - o the Tui to Town project from its establishment in 2008 until June 2014

(NB: all financial amounts in this report are presented GST inclusive)

Ecological Survey Work

Since 2001, extensive field based ecological surveys have been carried out on private land through large parts of the Marlborough region. The majority of the work was carried out from 2001 to 2009 and since that time only the occasional survey is carried out, generally through landowner requests.

In the 2013/14 annual period, two further properties were surveyed, one in south Marlborough and one in north Marlborough. One significant natural area was identified on each property.

In addition, a separate wetland identification programme has been carried out between 2010 and 2013 and more than 1000 new sites have been identified through this programme. These are likely to be incorporated into the Significant Natural Areas programme and become eligible for protection assistance.

Protection Programme

A pilot landowner assistance programme to implement protection of areas identified as significant natural areas was established in 2003 and extended into a full programme in 2005. Since this time a total of 81 projects have been completed.

In the 2013/14 annual period only one new project was completed and eighteen other on-going projects were completed. This reflects a combination of a lower demand and the more mature stage of the project where many completed projects require on-going follow up work (mostly weed control).

Four additional projects were prepared but deferred for the next annual period.

Recent changes to the Central Government Biodiversity Condition and Advice Fund mean that the Council can no longer apply to the fund on behalf of private landowners.

Total Funding Contributions for Biodiversity Protection Projects on Private Land 2013/14

Marlborough District Council Funding	\$50,906.00
Central Government Biodiversity Fund	\$9672.00
Landowners	\$27,932.00
Total	\$88,510.00

Monitoring

Monitoring of the sites that have been the subject of protection work was initiated in 2006 and has been repeated on a bi-ennial basis since that time.

In the 2013/14 monitoring round 25 sites were visited on 16 properties. Nine of these were new sites being monitored for the first time. A total of seven sites (on six properties) were not visited this time around, five sites because visits were not considered necessary and two due to difficulties in contacting the landowners.

Weed control is an issue in a number of sites. Fences are generally in good condition although ongoing maintenance is required in two cases with one other fence needing serious attention.

It is recognised that further monitoring of those 600 + sites not captured by the current programme is required, and a programme is being developed to be trialled in the 2014/15 year.

Associated Projects

- Publicity – information about the project has been disseminated at a number of public events and a project newsletter was distributed in March 2014
- Seed collection - a productive seed collection programme was carried out between February and May and a seed collection guide for plant nurseries and individuals wishing to collect and propagate their own plants has been developed.
- Tui to Town project – six new Tui to Town native plantings were funded.



Members of the Significant Natural Areas working group which has been instrumental in helping to guide and manage the project since 2001

From left to right, Geoff Walls (contract ecologist), Alan Johnson (MDC), Jo Gould (DoC), Paul Millen (consultant), Mike Aviss (DoC), Nicky Eade (MDC), Tom Stein (QEII rep), Ross Beech (farmer rep), Roy Grose (DoC), Jan Clayton-Greene (DoC), Simon Moore (DoC)

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1. Introduction

The Significant Natural Area project was established in 2000 to enable the Marlborough District Council to meet its obligations under section 6 (c) of the Resource Management Act which requires that, in relation to managing the use, development and protection of natural and physical resources, the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna, shall be recognised and provided for as a matter of national importance.

The Council of the time decided to meet these obligations through a proactive but non-regulatory programme to identify significant natural areas and offer landowners support to protect and enhance these areas. Integral to this approach was a commitment to hold the property specific information confidentially rather than scheduling it for regulatory purposes.

A working group was established to assist the Council to manage the programme. The group included Councillors and staff, Department of Conservation staff, three landowner representatives and the local QEII representative. This group met several times a year in the initial stages of the project and continues to meet approximately annually. It has played an important role in guiding the direction of the project over the years.

A small team was employed to assist with landowner consultation and carry out the ecological survey work. Paul Millen carried out the majority of the direct consultation with landowners while ecologists Geoff Walls and Philip Simpson carried out the ecological field work and reporting and also provided expert advice as required. Once the later protection programme was established Paul Millen also assisted with managing restoration and protection programmes and has carried out the seed collection work since 2006. Some external assistance was also used to help with publicity and the publication of the two summary reports (2005 and 2009) and planting and restoration guides (2004 and 2011).

Information collected through the significant natural areas surveys is held in a database and is only reported publicly in a general sense. The two main ways the information is used are firstly, to provide a regional overview of significant natural areas and biodiversity on private land in the Marlborough region, and secondly, to provide a basis for developing protection programmes with landowners interested in proactively managing and protecting these areas.

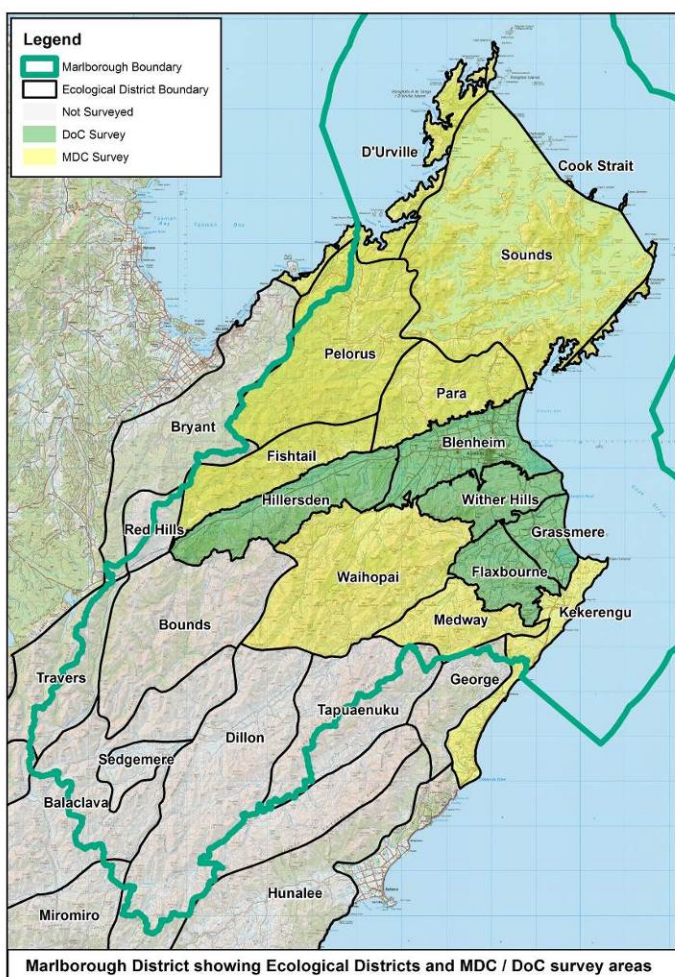
The Marlborough District Council continues to support the non-regulatory approach to provide for the protection of significant natural areas. The Significant Natural Areas programme is well established but continues to evolve over time.

Part A: Ecological Survey Work – Summary of Results – July 2013 – June 2014

2. Field Based Ecological Surveys – Background and Overview

Between 2001 and 2009, extensive field based ecological surveys were carried out on private land throughout large parts of the Marlborough District. This work has been approached as a partnership with landowners, who have participated voluntarily. Through the results of the ecological survey work, it has been possible to analyse the extent and type of ecosystems remaining and the severity and types of pressures these remaining areas are subject to.

Ecological Districts have been used as the survey units. The Marlborough District Council carried out the majority of the survey work overall (Kekerengu, Medway and Waihopai ecological districts in south Marlborough and Para, Fishtail, Pelorus, d’Urville, Sounds and Cook Strait ecological districts in north Marlborough). However, the Department of Conservation also carried out a substantial part of the survey work between the years 2002 – 2004, as part of the Protected Natural Areas (PNA) survey of the Wairau Ecological Region which included five ecological districts in south Marlborough - Grassmere, Flaxbourne, Wither Hills, Blenheim and Hillersden. Some ecological districts at the south of the region were not surveyed (Tapuaenuku, Bounds, Dillon, Sedgemere, Balaclava Travers and Red Hills), being mostly Department of Conservation land or pastoral leasehold land.



Map 1: Ecological Districts and Marlborough District Council/DOC survey areas

The ecological survey work has resulted in a large amount of information being collected. This provides both a regional scale overview of the extent and state of biodiversity resources on private land, and a more detailed property scale assessment which is useful for implementing practical protection measures such as fencing and pest control. While the emphasis has been on terrestrial vegetation and habitat values, wetlands, and some waterways, have also been assessed.

The work was largely completed in the nine year period from 2001 to 2009 (inclusive). Further occasional field surveys have been carried out at the request of landowners since that period.

In the period from July 2013 to June 2014, two further properties were surveyed, one in south Marlborough and one in north Marlborough. The total cost of these surveys was \$5278.

2.1. Wetland Survey 2010 – 2013

From 2010 – 2013 Council has carried out a further project to identify regionally significant wetlands in Marlborough. The intention is that these are scheduled in the new resource management plans (due for public notification in 2015), there for providing certainty to landowners over whether rules relating to wetland areas apply to them. This project involved desktop identification followed by notification to all affected landowners and follow up field visits on request. There was some overlap with wetland areas already identified through the earlier Significant Natural Areas surveys.

While the final number of identified wetlands is yet to be confirmed, well over 1000 are likely to be scheduled. The intention is that these wetlands will in effect be classified as significant natural areas and will therefore qualify for the same assistance with protection works through the Landowner Assistance Programme. A number of wetland owners have expressed an interest in wetland restoration and approached the Council for assistance.

Staff have done some preliminary work to develop a wetland assessment template and landowner assistance guidelines, so that these additional sites can be integrated into the Significant Natural Areas programme. Once the wetlands are formally scheduled there will need to be some further alignment with the Significant Natural Areas database, mapping system and so on.

2.2. Results

The tables below show the summary of ecological results from the Significant Natural Area surveys on private land for both south and north Marlborough in the 12 year period from July 2001 to June 2014. These do not include the additional wetland sites that have been identified more recently through the 2010-13 survey described above.

Tables 1 and 2 show the total participation rates and overall results from 2001 to June 2014 in south and north Marlborough respectively. Using ecological district units, the tables show; the number of properties surveyed, the number of properties where permission to survey was sought but declined, the number of sites identified, the combined area and percentage of total land area of all of the identified significant natural area sites, and in north Marlborough, the percentage of Department of Conservation land.

As of June 2014 a total of 284 landowners participated in the ecological survey in both south and north Marlborough (75% of those approached). A total of 94 landowners declined to participate (25% of those approached). A total of 708 significant natural areas have been identified, with a combined area of 45,099 hectares.

Table 1: South Marlborough Ecological Survey Participation and Results (July 01 – June 13)

Ecological Districts	No. Properties Surveyed	No. Properties Declined	No. of Sites	Combined Area (ha)	% of Total Land Area
Kekerengu	20	3	57	1,446	4.6%
Medway	14	3	79	4,961	15.5%
Waihopai	19	14	61	5,418	5%
Blenheim	15	1	13	292	1%
Wither Hills	22	7	24	5,132	16.7%
Grassmere	10	4	11	155	1%
Flaxbourne	26	14	62	2,027	7%
Hillersden	29	4	30	3,666	7.5%
Totals	154 (75%)	50 (25%)	336	23,092	7.2% av

Table 2: North Marlborough – Ecological Survey – Participation and Results (July 01 – June 13)

Ecological Districts	No. Properties Surveyed	No. Properties Declined	No. of Sites	Combined Area (ha)	SNA sites as a % of Total Private Land Area in ED	SNA sites as a % of Total Area of ED (DoC and Private)	% of DoC Land
d'Urville	21	9	47	3,650	16.5%	12.0%	27%
Cook Strait	3	0	7	755	17.1%	13.2%	24%
Sounds	62	16	184	11,790	16.0%	9.5%	39%
Pelorus	19	10	45	1,472	3.8%	1.4%	63%
Para	18	7	55	2,975	8.7%	6.2%	24%
Fishtail	6	2	33	1,350	9.0%	3.0%	55%
Totals	128 (75%)	44 (25%)	369	21,924	(Av=12%)	(Av=7.4%)	(Av=38.5 %)

2.3. Discussion

The field based ecological surveys have produced a lot of information about the distribution and type of native habitat remaining on private land in both south and north Marlborough.

South Marlborough

This part of the region is characterised by a history of extensive native vegetation clearance and consequently very depleted ecological functioning in some respects. While there are some extensive areas of beech forest, kanuka forest, shrublands and tussock grasslands, these all occur in the extensive areas of hill country. Of the eight ecological districts that were surveyed in the south Marlborough area there is very little Department of Conservation land, apart from in the Waihopai ecological district, and in general, the percentage of total land area of significant natural sites is very low - less than 10% in six of the eight ecological districts and less than 5% in the three of these lowland coastal ecological districts (Blenheim, Grassmere and Kekerengu).

This is clearly reflected when the ecological districts are compared to the Priority One area of the 2007 Statement of National Priorities for Protecting Rare and Threatened Biodiversity on Private Land which identifies land environments that have less than 20% remaining in indigenous cover. The 20% threshold is based on a well established species-area relationship which shows that the rate of biodiversity loss increases dramatically when the amount of available habitat drops below 20% of its original extent.



Some ecosystem types in south Marlborough are very depleted and the little that does remain is not always well managed or formally protected in anyway (for instance wetlands, podocarp forest and broadleaved forests). However, with a recent emphasis on protection of some of these areas some improvements are being made, with landowners introducing management such as fencing, weed control and restoration planting, that will ensure the long term sustainability of some of these sites.

North Marlborough

The north Marlborough part of the region has a different climate and history of land clearance to south Marlborough and also has a considerable amount of land in Department of Conservation management (ranging from 24% to 63% in different ecological districts). The percentage of total land area of significant natural sites is generally higher than in south Marlborough, ranging from about 4% to 17% across the ecological districts.

While some ecosystem types are quite depleted, for instance lowland alluvial and swamp forests and kohekohe forest, a significant amount of native forest habitat remains – both beech and podocarp dominated. Additionally, large areas of regenerating forests consisting of kanuka, manuka, tauhinu and broadleaved species are present where land has been left to regenerate following earlier clearance.



While fencing is important for some lowland sites within a pastoral farming landscape, feral animal pest control is the main challenge in north Marlborough, especially as there are still populations of a range of native fauna present (forest birds, sea birds, weka, giant land snails, freshwater native fish species).

Part B: Protection Work – Landowner Assistance Programme – Summary of Results 2013/14

3. Landowner Assistance Programme – Background and Overview

The Landowner Assistance Programme has been operating since 2003 in conjunction with the field ecological survey work, and has targeted assistance to high value sites with identified pressures and threats that can be practically managed. It was initially established as a pilot programme with a focus on the south Marlborough area, but has since been fully established as a permanent programme and extended to include north Marlborough.

While the main focus of the programme has been on practical protection of individual high value significant natural area sites (including a mix of fencing, weed and animal pest control and restoration planting work), other broader methods to promote the protection of natural values in south Marlborough have also been incorporated. These have included:

- the pilot use of farm scale plans to balance the production and conservation values within properties (especially where fencing is not practical);
- three feasibility studies looking at pest and weed control issues (old mans beard and goat control in south Marlborough and wilding pine control on d’Urville Island);
- the collection of native plant seed material to ensure an ongoing supply of locally sourced plants for re-vegetation and restoration efforts, associated publicity and promotion work (newsletters, a series of newspaper articles and publication of summary reports and native planting guides for both south and north Marlborough); and
- The Tui to Town restoration project with a focus on the Wairau Plain area.

A strong conservation effort on private land is needed if functioning ecosystems are to be maintained, especially in the lowland areas of south Marlborough which have been identified nationally as threatened environments with less than 20% of natural cover remaining. To be effective this would need to include continued protection of the last remaining remnants as well as active restoration planting to create new habitats and increase the overall area in natural cover (which is currently less than 1% on the Wairau and Awatere Plain areas). So far only about 10% of the 708 identified sites over the whole of Marlborough have received any restoration or protection (28 in north Marlborough and 52 in south Marlborough). Many surveyed sites are likely to be deteriorating in condition over time due to a range of threats and pressures.

While the protection and restoration efforts have been heartening, continued effort is required. There is some indication that demand for assistance to protect sites is decreasing and efforts to encourage further work need to be considered.

In 2010 an analysis of the sites selected for protection and their relative scores under both the SNA scoring system and the four national priorities for the protection of indigenous biodiversity set out by the Ministry for the Environment in 2007 was undertaken (details of this analysis are set out in Appendix 2).

This showed that the protection effort is being split almost evenly between higher value sites, and lower value highly modified sites in areas where there is little habitat remaining. This was a reflection of the diversity of the region and the sites identified, and the targeting of protection effort to both high value, high scoring sites and lower scoring sites in highly modified areas (ie; lowland wetland sites). Effort is also necessarily targeted to manageable issues where gains can practically be made. Protection is far more difficult where large scale cross boundary threats exist (ie; ungulate grazers and some weed species) and these are currently parked in the "too hard" basket. Re-visiting some of these sites (see the monitoring section for more on this), will help assess the condition and on-going nature and severity of the threats that were identified in the original ecological surveys carried out between 2001 and 2009.

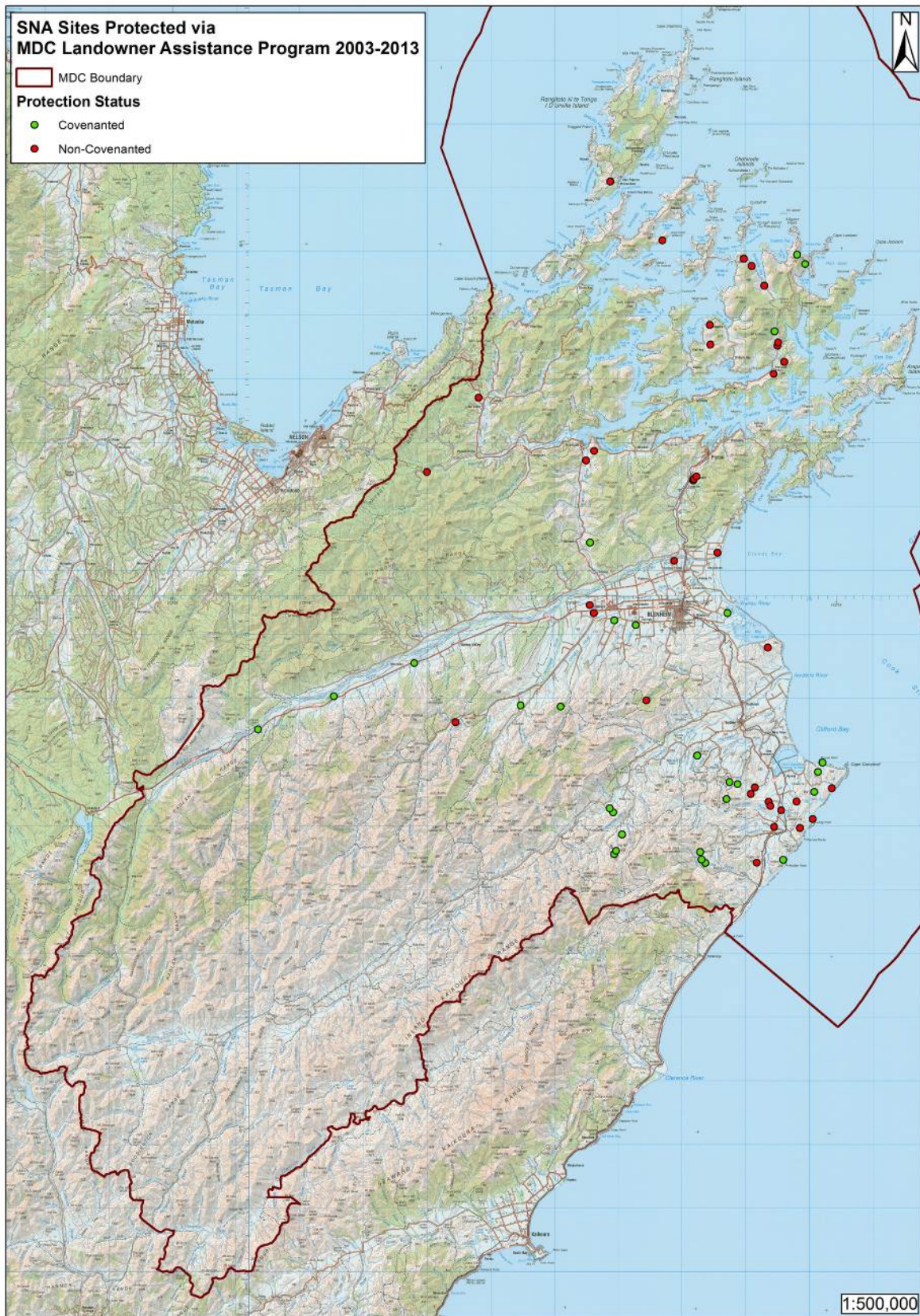


John Hickman and his planting team enjoying a lunch break in the sun beside Lake Elterwater



A newly fenced remnant coastal forest site on a farm in the Outer Sounds

Map 2: The location of the majority of the 80 sites that have been protected through the programme. The sites shown in green have been covenanted.



3.1. Protection Projects 2013 – 2014

In the 12 month period from July 2013 to June 2014 year the Council contributed to 19 projects in total while a further four planned new projects were deferred into the next financial year for various reasons. Only one of the completed projects was a new project. All of the projects involved pest control, 17 weed control and two animal pest control.

In summary the Council contributed to ongoing weed control and maintenance work as follows:-

- One new project (wilding pine control carried out on a private property on d'Urville Island co-ordinated by the Marlborough Sounds Restoration Trust).
- Three existing multi-year projects which were completed in this year with central government Biodiversity Funding contributions in addition to Council and landowner contributions.
- Three wetland restoration sites with formal ongoing follow up programmes in place.
- Three sites in the Waima/Ure Valley as part of the community restoration initiative administered by the Waima Valley Ecological Restoration Society.
- Nine minor follow up weed control projects arising from the monitoring round (these have been combined in the table below).

All of these projects, apart from one, were ongoing or follow up projects so while a total of 19 projects were completed, the total number of protection projects since 2003 has only risen from 80 to 81 over this period.

Four additional new projects were planned and Landowner Agreements were prepared and signed. However, for a variety of reasons all of these have been deferred until the 2014/15 year.

3.2. Protection Projects Summary – July 2013 – June 2014

Table 3: Summary of protection projects July 2013 – June 2014 (GST inclusive)

Ecosystem Type	Size (ha)	North/South Marlborough ED	Type of Work	Total Funding	MDC	Biofund	Landowner and QEII/other
Hill slopes d'Urville Island (HER)	20	S d'Urville ED	Pine Control	\$5750.00	\$5750.00		Unknown MSRT project
Wetland-riparian (JH)	10	S Kekerengu ED	Weed control Planting	\$18,540.00	\$6180.00	\$6180.00	\$6180.00
Coastal forest (PL) (QEII)	42	N Sounds ED	Animal pest control	\$9630.00	\$3217.40	\$1598.00	\$4815.00
Coastal forest (NA)	40	N Sounds ED	Animal pest control	\$11,380.80	\$3794.80	\$1894.00	\$5692.00

Ecosystem Type	Size (ha)	North/South Marlborough ED	Type of Work	Total Funding	MDC	Biofund	Landowner and QEII/other
Wetland (D Te)	4	S Blenheim ED	Weed control	\$4255.00	\$2127.50		\$2127.50
Wetland (D Fa)	8	S Blenheim ED	Weed control	\$8737.70	\$4368.85		\$4368.85
Wetland (PR)	5	S Blenheim ED	Weed control	\$9500.00	\$4750.00		\$4750.00
Hill Slopes (Peg)	10	S Medway ED	Weed control (OMB)	\$2875.00	\$2875.00		Unknown WVERS project
Riparian (Pet)	10	S Medway ED	Weed control (OMB)	\$1725.00	\$1725.00		Unknown WVERS project
Riparian (Ure)	10	S Medway ED	Weed control (OMB)	\$3450.00	\$3450.00		Unknown WVERS project
Weed Control 9 sites	25	Various	Weed control	\$8496.00	\$8496.00		
Tui to Town x 6	0.6 ha	S Blenheim ED	planting	\$4800.00	\$4800.00		
Total				\$89,138.00	\$51,532.00	\$9,672.00	\$27,932.00

Three of the projects were also funded by the central government Biodiversity Fund.

Four of the projects involving weed control (wilding pine control and Old Mans Beard), were managed by other agencies (QEII Trust, Marlborough Sounds Restoration Trust (MSRT) and Waima Valley Ecological Restoration Society (WVERS), with Council making a financial contribution. There were also contributions from other funding agencies and landowners but the exact amounts are unknown.

The remaining 12 of the total 19 projects were funded solely through the Council's own Landowner Assistance Fund which provides a 50/50 contribution to landowners. (Note - however, in the case of nine of the smaller follow up programmes the Council provided 100% of the funding as the small amounts did not justify the administration costs involved in cost sharing).

An additional six small restoration planting projects within the Blenheim Ecological District were funded through the Tui to Town Project.

Total spending on the 19 protection projects was \$88,510, with the Biodiversity Fund share being \$9627, the Marlborough District Council share being \$50,906 and landowner share \$27,932.

Tui to Town spending was an additional \$4174.

Total combined spending on protection projects on private land for the 2013/14 financial year, when all of these protection projects are taken into account, is set out below showing the contribution of the various funding sources.

Total Funding Contributions for Biodiversity Protection Projects on Private Land 2013/14

Marlborough District Council Funding	\$50,906.00
Central Government Biodiversity Fund	\$9627.00
Landowners	\$27,932.00
Total	\$88,510.00

Summary of Total Funding Contributions for Biodiversity Protection Projects on Private Land 2003 – 2014

Marlborough District Council Funding	\$576,161.00
Central Government Biodiversity Fund	\$810,010.00
QEII National Trust	\$74,692.00
Landowners	\$489,517.00
Total	\$1,950,380.00

3.3. Central Government Funds

The central government Biodiversity Condition and Advice Funds were established in 2003 and since that time the Council has made successful application to fourteen rounds of the Biodiversity Fund, usually for multiple projects each time. Generally the Council applies to the Biodiversity Fund when the total value of projects is more than \$10,000.

In this last reporting period one application to the Biodiversity Fund was approved (CON 970A). The large fencing project relating to this application has been deferred and is planned to be carried out in the 2014/15 financial year.

In addition, one active Biodiversity Fund round was completed including final reporting and invoicing (CON 821), and two others have been physically completed but the final reporting and invoicing are yet to be completed, (CON 883 and CON 930).

The Biodiversity Fund has recently been restructured into the “Community Conservation Partnership Fund” and local government agencies can no longer apply on behalf of private landowners. This will potentially affect the funding of larger Significant Natural Areas projects which have until now, been reliant on this co-funding which has enabled the cost to landowners and the Council to be kept at reasonable levels.

Landowners can still apply to the fund and the Council could still assist to prepare applications behind the scenes. However, landowners would need to be more proactive and be prepared to administer the fund themselves. Also, the fund seems more directed at community partnership oriented projects and may not look as favourably on private projects.

3.4. Relationships

The Council promotes covenanting and has developed a strong relationship with the Department of Conservation and the Queen Elizabeth II National Trust (QEII), both of which provide a mechanism for landowners to independently covenant protected areas on their properties. A total of 34 of the 81 projects

protected through the programme so far have been covenanted. Two of these are Protected Private Land (PPL) covenants administered by the Department of Conservation and the other 32 are QEII covenants. The QEII National Trust takes responsibility for on-going monitoring of their covenanted sites, reducing the monitoring required to be carried out by the Council.

The Council has also been working collaboratively with the Marlborough Sounds Restoration Trust in recent years and has contributed to several wilding pine control projects on private properties, led by the Trust.

The Waima Valley Ecological Restoration Society is a community based initiative in South Marlborough with an emphasis on Old Mans Beard control in the Waima/Ure catchment area. The Council has assisted this group to develop a management strategy to structure the project work, and has also contributed financially to some small areas of control work.

All of these groups are independent of the Council and obtain significant levels of funding from other sources, for instance Lotteries, Canterbury Community Fund, the Biodiversity Condition and Advice Fund (now Community Conservation Partnerships Fund), and landowners.

Part C: Monitoring Programme – Summary of Results 2013 – 2014

4. Background

Monitoring is an important part of measuring and tracking the outputs and outcomes of any project. There are three potential types of biodiversity monitoring that could be in place in Marlborough.

Firstly, at the broadest level, regional scale biodiversity monitoring is desirable so that an overall picture of biodiversity state and trends can be gained. At this stage we don't have this type of monitoring established in the Marlborough region but we are involved in a national Envirolink Tools project which is being carried out in conjunction with Landcare Research and the Department of Conservation. This project is developing some standardised biodiversity indicators and methodology to measure these indicators. Staff continue to maintain a watching brief over this project.

Secondly and more specifically, in relation to the Significant Natural Areas project, some ongoing monitoring of the state of a selection of representative sites from the more than 700 sites identified through the survey phase of the project would be desirable. This would give some indication of the continued presence of sites and the state or condition of these sites over time with or without any targeted conservation management. To date this has not been implemented, however, a monitoring strategy will be developed and some initial sites monitored in the period of the next financial year (2014/15).

Thirdly, systematic monitoring to assess the condition of the 80 protected through the Landowner Assistance Programme sites (about 10% of all sites identified), has been established.

The purpose of this monitoring is threefold:-

- Firstly, a check of the actual protection work carried out, ie, the condition of fencing, the success of previous weed control or planting programmes, and so on.
- Secondly, an ecological health check to assess the condition of the site and record changes.
- Thirdly, maintaining a relationship with the landowners and talking through any issues that have arisen in terms of ongoing management of the area.



So far four monitoring rounds have been undertaken starting with a pilot in the summer of 2006/7 with 12 sites visited. The following three rounds have been carried out at two yearly intervals including 2010, 2012 and most recently in the summer of 2013/14.

The QEII National Trust monitors the sites that have been covenanted through their organisation (currently 34 sites), and some sites are not monitored as they are managed by other organisations or are very minor in nature.

4.1. 2014 Monitoring

In the most recent monitoring round 25 sites were visited on 16 properties. Nine of these were new sites being monitored for the first time.

A total of seven sites (on six properties) were not visited this time around, five sites because visits were not considered necessary and two due to difficulties in contacting the landowners.

Contract ecologist Geoff Walls has carried out the monitoring to date with the assistance of Marlborough District Council staff. Assessment methodology is kept simple and includes photopoint observations and rapid ecological condition/trend assessment. Reports prepared for each site and provided to the landowners, include commentary, site maps and photographs established at defined photopoints which, over time, will provide a visual record of changes. Any emerging issues (for instance weed invasion), are discussed with the landowner and management put in place to deal with these. The monitoring allows the Council to maintain links with landowners and remind them of their responsibilities in regards to these sites.

Some observations and learnings from the 2014 monitoring round:-

- The monitoring is effective at detecting and managing ongoing issues in relation to the sites although the timing of the monitoring needs to be targeted early in the year (Jan/Feb) to allow for follow up weed control work in the same season (Feb – April).
- A number of forest and shrubland remnant areas are showing early signs of healthy regeneration in both north and south Marlborough.
- Plantings to boost small fragmented sites in south Marlborough have been reasonably successful although some losses have inevitably occurred in some sites. To achieve successful results in most cases, follow up maintenance is best carried out by experienced contractors rather than relying on landowner follow up.
- Most fences are built to a high quality although in several cases stock had still managed to get through into sites and ongoing vigilance and maintenance is clearly needed once a fence is completed. One site has serious problems with the standard of the fencing.
- Emerging weeds were an issue in some sites usually associated with reduction of stock pressure (ie, old mans beard), or opening a site up to light through willow removal (several wetlands). These weeds will need ongoing management and the Council programme provides for further assistance in relation to weed control. For the more significant cases an ongoing programme of control work is set up through a formal Landowner Agreement. Currently four sites have weed control issues which are being managed through Landowner Agreements on a 50/50 cost share basis (all of these are larger wetland restoration sites where the main restoration programme work has been recently completed).
- For the relatively minor weed control cases (generally under \$1000.00), it is more efficient for the Council to organise and pay directly for this work to be carried out as soon as possible after the monitoring.
- Landowners are generally positive and happy to allow access for monitoring purposes.

The monitoring programme will build over time as the number of protected sites increases through the programme. It is an important and integral part of the project, enabling the ongoing assessment of the effectiveness of the protection programme, the identification of any emerging management issues and an ongoing relationship and two way flow of information with participating landowners.

Table 4: Significant Natural Areas – Summary of Protected Site Monitoring – 2006 – 2014

Year	Total Sites	Sites Monitored	Sites Excluded	Sites Missed	QEII sites
2006/7	25	12 (9 properties)	1		12
2009/10	52	24 (17 properties)	4		24
2011/12	74	19 (13 properties)	18	6	30
2013/14	80	25 (19 properties)	13	7	34

Note:

Sites that are excluded are sites that it is not considered necessary to monitor for various reasons, generally because of the minor nature of the work or the monitoring is carried out by another group or agency.

Sites that are missed are sites that were either not considered necessary to visit and monitor this time around, or it was not possible to contact the landowner.

The total cost of the monitoring work was \$19,241.



Photo point image of Sounds lowland forest in 2010 soon after the site was fenced



The same forest showing slow signs of recovery on the forest floor in 2014.

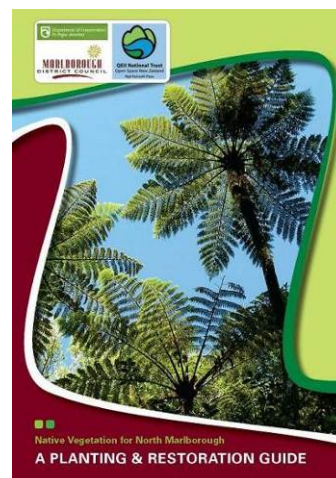
Part D: Associated Projects

5. Publicity and Information

5.1. Background

Publicity and promotion have been integral to the Significant Natural Areas Project because it relies heavily on voluntary participation and proactive protection activity from landowners. Initially the emphasis was on increasing awareness about the unique and diverse biodiversity of the region and the opportunity for landowners to participate in collecting information and looking at options for protection where necessary. This occurred through personal contact, individual property reports, annual newsletters and newspaper articles.

More recently publicity about the SNA project is integrated into other media releases and publicity, for instance links with entrants in the Marlborough Environment Awards, farming articles and so on.



Previous publications relating to the project have included:

- annual project newsletters – 2003, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2014
- Guidelines for landowners to develop a management plan for the sustainable management of native vegetation – 2004
- Native Vegetation for South Marlborough – a Planting Guide – December 2004
- South Marlborough – Significant Natural Areas Project Summary Report – July 2005
- Marlborough District Council web page – Environment/Ecology and Biodiversity - 2005
- Tui to Town brochure, web page and associated planting guides (Wairau Plains and South Marlborough low lying hill country) – June 2008
- North Marlborough – Significant Natural Areas Project Summary Report – June 2009
- North Marlborough – Native vegetation planting and restoration guide – June 2011

5.2. The 2013/14 year

In the 2013/14 year displays were presented at a number of public events including the Marlborough A and P Show, Garden Marlborough (November 2013), The Rai Valley International Year of the Family Farm Day (March 2014) and the NZ Farm Forestry Conference (April 2014).

In July 2013 the Marlborough Express published a series of two colour double page feature articles promoting the Tui to Town project.

In March 2014 an annual newsletter was published and mailed to all participating landowners as well as other interested groups such as iwi, community and industry groups.

6. Seed Collection Project

6.1. Background

Through the Significant Natural Areas project it became apparent that boosting the supply of suitable locally sourced native plants would be necessary if there was to be an adequate volume of plant material

available for restoration projects in Marlborough. The Tui to Town natural habitat restoration project is helping to stimulate this activity on the Wairau Plain area by providing information and for larger projects, funding assistance.

The Significant Natural Areas project has provided an opportunity to identify remaining pockets of indigenous plants on private land that provide valuable seed sources to generate future material for restoration planting.

A pilot seed collection project was initiated in 2006 focusing on totara seed collection and this has continued since then and broadened to include a range of suitable species for restoration planting such as kowhai, kanuka, flax, cabbage tree, mahoe, kohuhu, ngaio, broadleaf and lancewood.

Over the last five years since July 2008, the emphasis has been on collecting the podocarp species matai and kahikatea from sparsely distributed remnant populations to complement the original and ongoing focus on totara. Coordination with the Marlborough District Council's Reserves Section has also taken place to try to create efficiencies in the area of seed collection.

The programme is flexible and can be shifted to meet the needs of specific projects. The current emphasis in terms of location has been to collect seed close to Blenheim to ensure that the Tui to Town and other lowland restoration projects have a supply of suitable plants, and also some collection in the Rai Valley area to enable an effective riparian restoration planting project in the area in the future.

A co-operative arrangement with local plant nurseries has been developed whereby Council collects and provides the seeds (courtesy of the access granted by private landowners to seed sources), and the nursery propagates, grows and sells the plants. This helps to ensure that appropriate locally sourced native plants are available in Marlborough nurseries to service the restoration of natural areas in the modified lowland environments.

6.2. The 2013/14 Season

In the 2013/14 seed collection season seed was collected from a number of sites on ten different properties. The main focus was rimu (a first), totara, kahikatea, black beech, along with other common species for restoration planting such as flax, cabbage trees, kowhai and toitoi.

A collecting guide was developed to assist nurseries and individuals to collect seed from convenient locations where collections of eco-sourced native plants are already established near to Blenheim.

The total cost of the seed collection project in the 2013/14 financial year was \$12,441.

Seed collection nets set up under rimu tree on an Okaramio farm and within a forest remnant on the same property. This is the first year rimu has been successfully collected.



7. Tui to Town Project – Natural Habitat Restoration for the Wairau Plain 2008 – 2014

7.1. Introduction

The Tui to Town project is a subset of the significant natural areas 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 Tui to Town project was launched by the Council in June 2008 and includes:-

- information and publicity in the form of a brochure, website 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.



7.2. Information and Publicity

In the 2013/14 year displays and presentations promoting the Tui to Town project were presented at a number of public events including the Marlborough A and P Show, Garden Marlborough (November 2013), and the NZ Farm Forestry Conference (April 2014).

In July 2013 the Marlborough Express published a series of two colour double page feature articles promoting the Tui to Town project.

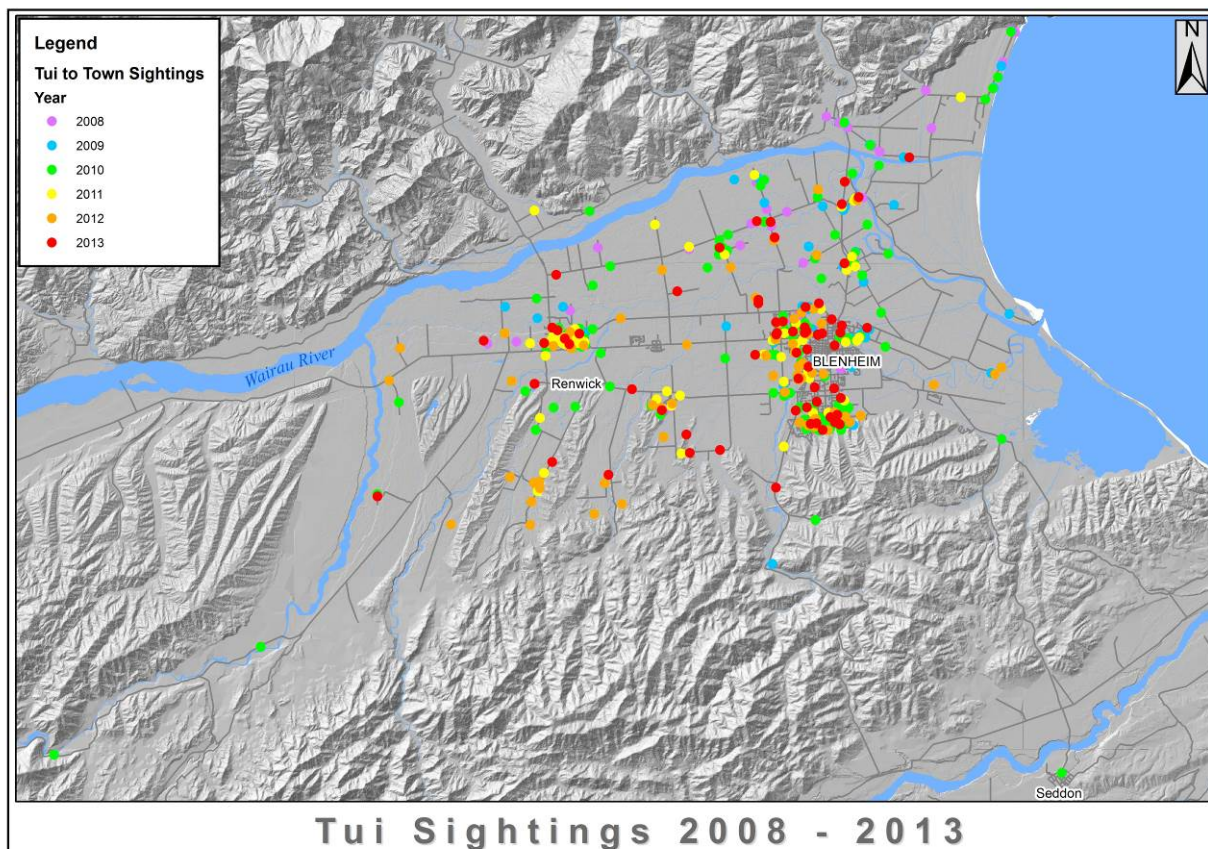
Tui to Town street flags continue to be flown in Blenheim and Renwick periodically.

7.3. Sightings

In the 2013 calendar year 75 sightings were reported. This brings the total number of sightings to over 700 over the six year life of the project, providing useful information about tui movement and feeding patterns on the Wairau Plain.

The basic pattern emerging is that Tui are resident in the forested areas to the north of the Wairau Plain and begin travelling to feed about May, continuing through until about December. They appear to be resident in and around large flowering eucalyptus trees for periods of time through winter (ie; they are present early in the morning and late in the evening for several weeks), but it is not yet clear if they nest in any locations on the Wairau Plain.

Eucalyptus species are the most common for sightings (34%) with kowhai next (23%) as well as a variety of other species (banksia, camellia, various native species, fruit trees).



Map 3: Location of Tui Sightings reported to MDC database 2008 – 2013

7.4. Plantings

Six new Tui to Town plantings were funded in the 2013/14 financial year bringing the total number of plantings since 2008 to 38. Together, these have resulted in about 3.5 hectares of new habitat being created. Along with other larger restoration and protection projects on the Wairau Plain, these are contributing to a slight increase in area of habitat available to tui and other native fauna.

The total Council contribution to the six Tui to Town planting projects in 2013/14 was \$4800.

A separate more detailed report was prepared in 2013 summarising the full results of the Tui to Town project over the five year period from June 2008 to June 2013.

7.5. Tui to Town and the Wider Restoration of the Wairau Plain/Blenheim Ecological District

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.

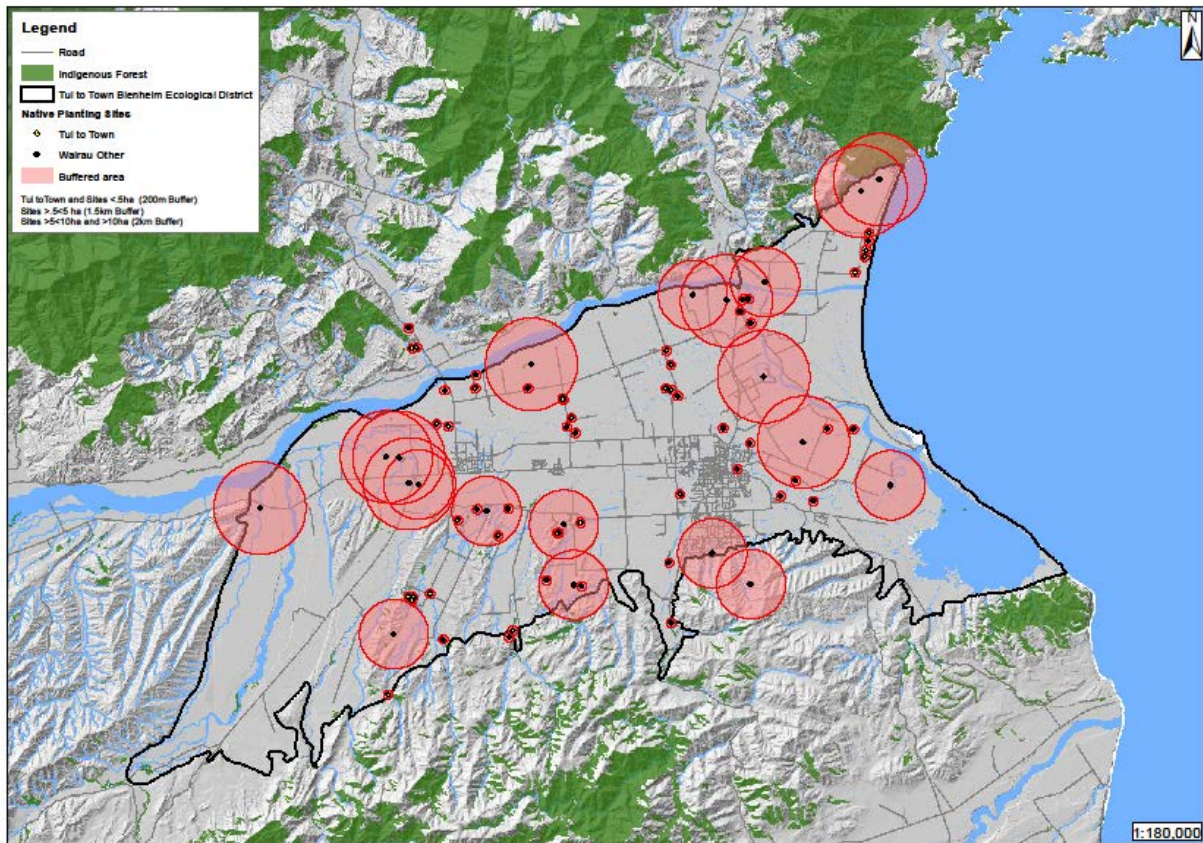
Using ecological reserve design theory “reserves” of native vegetation are divided by size into three categories and a distance of influence is then put around these areas. Distances of 200m are placed around small planted sites of less than 0.5 of a hectare (5000 square metres – this includes all of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

The total area of all of the mapped habitat areas within the Blenheim ecological district 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 (Blenheim Ecological district) along with the coastal and lowland areas around Seddon (the Grasmere Ecological district), have been identified by nationally developed guidelines, as a priority for protection (along with any land area with less than 20% or less remaining in indigenous vegetation cover (Ministry for the Environment, 2007).

Map 4: Location of all known native habitat areas in the Blenheim Ecological District, showing linkages and gaps between areas



7.6. Tui to Town Habitat Restoration Programme and Other Ecological Districts

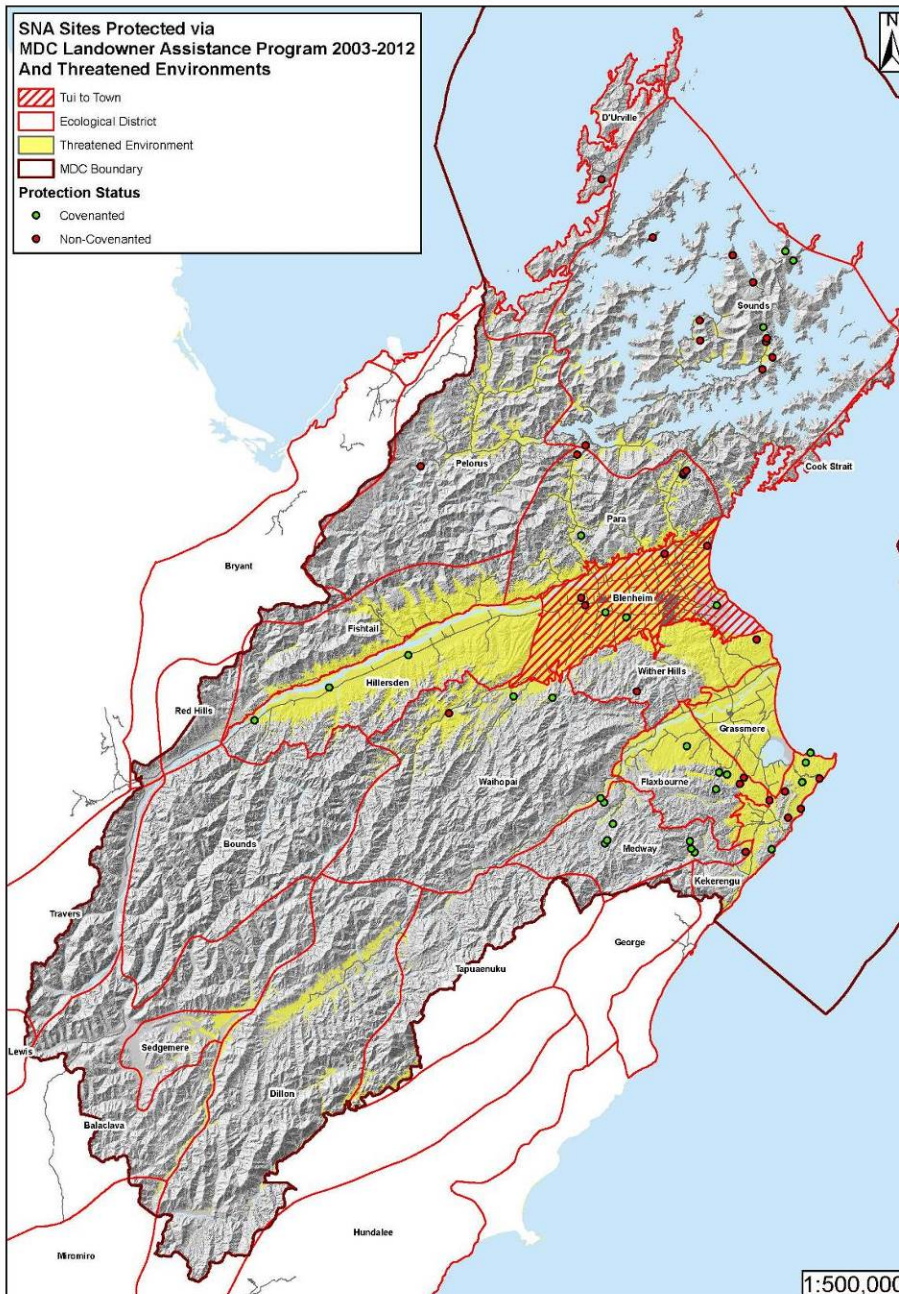
The principles driving the Tui to Town project on the Wairau Plain are equally applicable to other ecological districts.

Map 4 shows the Marlborough District divided into the Ecological District boundaries along with the yellow “Threatened Environment” layer identified by central government which shows land with 20% or less remaining in indigenous cover. Both the Blenheim and Grasmere Ecological districts are entirely within this layer along with the lowland parts of the Hillersden, Wither Hills, Flaxbourne and Kekerengu

Ecological districts and the valley floor areas through the Sounds and Awatere Valley. In all of these areas there are only small remnant areas of indigenous habitat remaining and protection and restoration efforts are critical.

Aspects of the Tui to Town programme, particularly the funding assistance for habitat restoration, could be extended to these areas. Some modification to the current information and mapping would be required along with additional publicity to inform the public about the extension to the programme. Funding for the Tui to Town project has not been fully spent over the last two years so the extension to a new area could be managed within the existing funding allocation of \$10,000.

Map 5: MDC Ecological District Boundaries and National Threatened Environment Layer



8. General Discussion and Conclusions

The Significant Natural Areas programme has been in place in Marlborough since 2001. It is the main mechanism used by the Council to identify and promote protection of terrestrial indigenous biodiversity. It is entirely voluntary but sits alongside some rules preventing certain types and scale of indigenous vegetation clearance and wetland drainage and clearance. The sites are not scheduled in the resource management plans (apart from wetland sites identified in the 2010-13 surveys which will be scheduled).

The project is very focussed on habitat areas as a mechanism to protect larger suites of indigenous species (insects, reptiles and birds) and in this sense is quite limited. While it is a voluntary method of promoting protection, the information collected through the significant natural areas ecological surveys is used internally by the Council when assessing the effects of resource consents.

While much has been achieved through the project, it appears that momentum to protect sites is decreasing, although the recent identification of more than 1000 wetland sites has boosted interest. Of the 700 or so sites identified through the SNA surveys about 80 have had some protection work of some kind applied to them and a number of these have been covenanted to provide permanent legal protection (primarily through the QEII Trust).

However, there are around 600 SNA sites yet to be protected and proactively managed so that their ecological values are sustained in the long term. Some may be in a sustainable state within current management systems, others are likely to require intervention if they are to be sustainable in the long term. A programme to contact landowners and re-visiting a selection of these sites to assess their current condition and threat status is planned to start in the 2014/15 year. This should provide valuable information on both landowners' attitude and interest in relation to these areas, and the actual condition and state of a selection of sites.

Over time it may be that the Council also establishes a broader regional state of environment monitoring programme to align with national monitoring and reporting requirements. Work is underway nationally to assist with developing this programme.

The significant natural areas project is an important element of indigenous biodiversity management and protection in Marlborough, with a particular focus on privately owned land. It is complemented by the work of the QEII National Trust which works independently with private landowners to covenant and protect areas. In recent years, several large covenants have been put in place on two rural properties in the Waihopai Valley in south Marlborough that were not part of the significant natural areas project. Treaty of Waitangi settlements across the top of the south island may also influence iwi involvement in biodiversity related issues over the next few years.

There has also been an increase in the number of larger scale community conservation and restoration projects in Marlborough in recent years and the significant natural area project has worked closely with some of these, particularly where private land is involved. The groups include:-

- The Waima Valley Ecological Restoration Society
- The Marlborough Sounds Restoration Trust
- The Tui Nature Reserve Trust
- Kaipupu Mainland Island Sanctuary
- Grovetown Lagoon Restoration Project

- The Endeavour Inlet Restoration Trust
- The Te Hoiere/Pelorus Long-Tailed Bat Project (Forest and Bird)
- The Para Swamp Restoration project (Fish and Game and Gamebird Habitat Trust)

The SNA project has focused particular effort on restoration of existing sites including some restoration planting, in the highly threatened lowland environments of south Marlborough, including the Blenheim ecological district (Wairau Plain) and the Kekerengu ecological district (Ward and East Coast area). There is scope to extend restoration efforts in these areas in programmes that could encourage more restoration planting with funding incentives (similar to the Tui to Town project). There may also be opportunities to work more closely with the farming industry to encourage and assist with restoration planting in riparian margins along waterways, potentially achieving biodiversity gains in threatened lowland environments alongside water quality and land management benefits.

Future directions need to be developed in consultation with the working group and the wider community and it may be that a Marlborough region biodiversity strategy would help to focus efforts and direction. Some initial discussions have been held with the Department of Conservation about this and the work could be tied in with the development of a new Conservation Management Strategy for the Marlborough region by the Department.

Appendix 1: Total Budget for Main Aspects of Significant Natural Areas Project – MDC Expenditure and Revenue – July 2013 – June 2014 (GST inclusive)

Table 5: Significant Natural Areas Project – Total budget July 2013 to June 2014

Project Name	Projected Budget	Actual Expenditure	Revenue
SNA survey and general	\$5,000	\$5,278	
SNA Biodiversity Fund protection projects	\$20,000	\$13,191	\$26,4776 (CON 821, CON 970)
SNA MDC protection projects (incl Tui to Town)	\$50,000	\$38,572	
SNA associated projects (seed collection)	\$10,000	\$14,307	
SNA monitoring	\$30,000	\$19,241	
SNA miscellaneous (meetings and publications)		\$2,617	
Total	\$115,000	\$93,206	\$26,4776

Appendix 2: Analysis of the Scoring and Selection of the Protection Projects 2010

An analysis of the sites selected for protection and their relative scores under both the SNA scoring system and the four national priorities for the protection of indigenous biodiversity set out by the Ministry for the Environment in 2007 was undertaken.

The Significant Natural Areas scoring is based on a set of criteria and goes from a minimum of 6 to a maximum of 30. While a lower scoring site is likely to be of less value overall factors such as size and fragmentation also come into the assessment so that small isolated remnant sites will generally score quite low while intact areas of less modified forest for instance, may score quite high. Of the 50 protected sites analysed, 26 scored 20 or more, indicating a high ecological value. A further 15 protected sites scored from 15 to 19 indicating a moderate ecological value. Nine sites scored under 15 indicating a fairly low ecological value at the time of assessment.

As would be expected, the 24 lower scoring sites (a score less than 15), that had been protected, tended to be highly modified small remnant ecosystems in the parts of south Marlborough where very little habitat is left. Nine of these sites were wetlands and eight were remnant areas of native shrubland in south Marlborough.

This shows that protection effort is being split almost evenly between higher value sites (26 projects out of 50), and lower value highly modified sites in areas where there is little habitat remaining (17 of the 24 sites with scores below 20).

Using the "National Priorities for Protecting Rare and Threatened Native Biodiversity on Private Land" published in 2007 (Protecting our Places, 2007, Ministry for the Environment and the Department of Conservation), as a basis for scoring the sites provides a slightly different picture. These priorities are focused on nationally rare or threatened biodiversity based on four broad criteria including location in a highly modified lowland habitat, wetlands and dunes, a set of defined "originally rare" ecosystem types and sites which protect the habitat of threatened species. In an effort to look at the alignment of SNA sites prioritised for protection locally sites have been scored from 0 to 4 based on how many of these national criteria they meet.

When the 50 protected sites are scored using this system 23 of the 50 score 2 or more (out of a total of 4), indicating a moderate to high priority for protection at a national level. These 23 are split quite evenly over the higher and lower scoring SNA sites (13 out of the 16 sites which score more than 20 under the SNA scoring, and 10 out of the 24 sites that score less than 20).

These higher national scores do not correlate tidily with the local SNA scores, for the reasons set out earlier – a highly modified wetland may not score highly in terms of set ecological criteria under the SNA scoring system, but would automatically score at least 2 under the national criteria. Areas of ecologically functioning intact forest would conversely score well under the SNA system but not under the national priorities.

Using the two scoring systems to look at the types of sites being selected for protection provides some useful perspectives and shows that Marlborough is a diverse region with quite different sets of issues, for instance between the north and south Marlborough areas, and between the highly modified lowland areas and less modified hill country and mountain lands. Protection is spread over a diverse range of sites, however there is a clear dual focus on both prioritising high value sites and targeting lower value sites in highly modified areas. Large scale investment is generally into these two categories of site.

Landowner willingness is also a local driver and a few smaller projects in lower priority sites have also been undertaken for this reason. The Council programme also works in with other agencies and groups, for instance contributions are made to projects driven by the QEII National Trust and also to one or two projects developed and managed by landowners (ie, a three year Biodiversity Funded project to control Old Mans Beard in the Ure/Waima Valley).