



**MARLBOROUGH
DISTRICT COUNCIL**

**Summary Report on the
Results of the**

**Significant Natural
Areas Project
2017-2018**

**Technical Report No: 18-008
November 2018**

Summary Report on the Results of the Significant Natural Areas Project 2017 - 2018

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Report Prepared by:

Mike Aviss

Biodiversity Coordinator
Environmental Science & Monitoring Group

With contributions from Paul Millen (Environmental Consultant) and Geoff Walls (Consulting Ecologist)

Marlborough District Council
Seymour Square
PO Box 443
Blenheim 7240
Phone: 520 7400

Website: www.marlborough.govt.nz

Acknowledgements:

Participating Marlborough Landowners
Members of the Significant Natural Areas Working Group
Council Staff - Peter Hamill, Jamie Sigmund

Executive Summary

Introduction and Background

Through the Resource Management Act 1991 and its subsequent amendments, the Marlborough District Council (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 2017 to June 2018. It follows from eight previous summary reports, one of which covered the early years of the project from 2001 to June 2008, one covering the two year period from 2008 to 2010 and the others covering the annual periods from 2010 to 2017.

This report summarises the results of:-

- Ecological survey work carried out from July 2017 to June 2018
- Environmental protection work carried out through the SNA Landowner Assistance Programme from July 2017 to June 2018
- Significant Natural Area monitoring programmes; and ;
- several other projects associated with the Significant Natural Areas project, including:-
 - publicity and education activities,
 - the Native Seed Collection Project; and
 - the Tūi to Town Project

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

External Strategic Review and Prioritisation Project

Following the external review of the SNA project which was undertaken by Wildlands Consultants, a Prioritisation Project was initiated to give better direction to the Councils Biodiversity work. The Potential Ecosystems map produced in 2016/17 has been used to inform this process. It is expected that GIS maps will be completed by December 2018 and these will guide our biodiversity work by prioritising the sites of natural biodiversity in the region.

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.

There are a total number of 710 Significant Natural Areas identified on our database.

The owners of a high country station in the upper Awatere recently requested an SNA survey. The field work was completed in summer 2018 with 12000ha of freehold land being surveyed. Six sites were identified on the freehold land. The Draft report combines this information with another report on the leasehold land (completed by DOC in 2008) and an “all of farm conservation plan” which recommends another eight SNAs on the farm’s Crown Lease land. The report is now with the owners; still in the discussion phase and yet to be finalised.

Another seven new SNAs were surveyed in lowland Marlborough, representing potentially 48ha of new SNA in the region, including up to 43ha of the Pukaka Stream alluvial flats. They are in the Blenheim, Para, Pelorus and Wither Hills ecological districts.

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 92 projects have been completed.

The 2017/2018 financial year started with twelve projects underway. An additional eight new projects were started in the year, and four were completed, giving a total of 16 current active assistance projects.

This programme to assist landowners to improve the condition of their SNAs resulted in the investment nearly \$200,000 into native biodiversity on private land in 2017/18, of which Council paid 1/3. Nearly half of this went into fencing stock out of wetlands and the rest went into weed control and planting native trees.

Three existing SNAs and a new SNA are being covenanted with QEII after conversations had with landowners in 2018. They have a combined area of approximately 110ha.

We are working with a proactive forestry company and assisting with seed collection, advice and monitoring. Through QEII, they are about to protect another 10 SNAs.

Total Funding Contributions for Biodiversity Protection Projects on Private Land 2017 – 2018

	2017/18	2016/17
Marlborough District Council Funding	\$73,378.85	\$72,986.42
QEII National Trust	\$6,439.17	\$1,905.30
Landowners	\$60,130.02	(inc \$34K LINZ) \$71,255.35
Total	\$129,435.56	\$146,147.07

Monitoring

The Monitoring Plan for 2017/18 focussed mainly on three areas: the East Coast, which was affected by the November 2016 Kaikōura Earthquake; wetlands, especially in the Lower Wairau; and on SNAs within production forestry. Monitoring of 27 Managed sites and 27 Un-managed sites made for a total of 54 sites monitored for the year.

Monitoring of Managed SNA Sites was initiated in 2006 and has been repeated on a bi-ennial basis since that time. Of the 27 Managed sites monitored this year, eight were in the East Coast Earthquake Zone and six were wetlands in the Wairau. All were in Fair or Good condition with a trend of Stable or Improving. One coastal site was recorded as Deteriorating-Stable mostly as a result of damage to the dunes by vehicles as well as the spread of marram grass and wilding conifers.

Results from monitoring 27 Un-Managed SNA Sites in the same period showed 6 (22%) improving to some degree, 10 (37%) stable and 11 (40%) deteriorating to some degree. Impacts from recent forestry harvest were the most common cause of site deterioration in these sites, along with weeds and stock.

Overall, the direct impact of the earthquakes on the biodiversity of Marlborough's SNAs was not great, apart from a few slips and rock falls in some limestone bluff areas. The downstream affect, however, has been increased vehicle access to large sections of the Cape Campbell coastline which has been allowed by the seismic uplift. This is resulting in damage to the foreshore and dune biodiversity in our Region, from Clifford Bay to Kekerengu.

The contact generated by these site visits and the monitoring project in general was very valuable. Other than a raised level of awareness by landowners about their sites, it resulted in management of another two previously unmanaged sites on private land in Te Whanganui/Port Underwood, as well as ongoing discussions with foresters about SNA management.

The 2015/16 and 2016/17 monitoring programme included a telephone survey with participating landowners prior to any field visits that were arranged. In 2017/18, it was decided that the lessons learnt from the telephone survey had been useful but it was not necessary to continue it.

Associated Projects

- Publicity – information about the project has been disseminated at a number of public events over the year including the Garden Marlborough Fete.
- Seed collection – was carried out between February and May 2018 with a focus on collecting kahikatea, tōtara and mataī seed for the Tūi to Town Project, as well as species suitable for the Taylor River Improvement Project.
- Tūi to Town project – The programme area was extended in early 2015 to include the Wairau Valley area and the Seddon/Ward/Flaxbourne area and there has been publicity about this to encourage further plantings in lowland South Marlborough in the future. Three new Tūi to Town projects received funding assistance in the 2017-2018 year. They were at Giffords Road and St Andrews in Blenheim ecological district and on Avondale Rd, Waihopai ecological district.

Discussion and Conclusions

While the monitoring on the East Coast showed that the earthquake had not had huge effects on SNAs there, it has highlighted the impact of increased visitor numbers along the coast, and the subsequent damage to ecosystems, habitats and landscapes by vehicles. There is also an issue with exotic marram grass and other weeds invading the coast and overwhelming the natural ecosystems and species. This area is highly regarded as a natural landscape and is important for threatened species, such as banded dotterel. The local knowledge gained from these site visits has also been useful in discussions and forums associated with the East Coast Protection Group.

While Managed sites are definitely in much better condition and trend than Un-Managed sites, this is to be expected. The vast majority of Un-managed sites were still found to be in Fair or Good condition. Many of these sites are naturally resilient which is why they are still remaining in an otherwise modified environment. While the forestry industry can impact native forest, especially during the harvest of adjacent trees, for long periods between harvest, native forests can be afforded considerable protection by commercial forestry when threats are managed. If ungulates, possums and wilding pines are controlled, native vegetation has a chance to recover from the previous damage caused by the browsing of livestock.

A focus on talking to landowners about covenanting SNAs through the QEII Trust seems to be having some success with four SNAs currently in the process of being protected by QEII.

A biodiversity prioritisation system is currently being developed which will give more direction to the Significant Natural Areas programme. The current review of the resource management framework in Marlborough through the proposed Marlborough Environment Plan may also provide some further

direction once the public submission process has been completed in late 2018 (submissions closed on 1 September 2016).



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 (Council), Jo Gould (DOC), Paul Millen (consultant), Mike Aviss (Council), Nicky Eade (Council), Tom Stein (QEII), Ross Beech (farmer rep), Roy Grose (DOC), Jan Clayton-Greene (DOC), Simon Moore (DOC)

Absent: Kristen Gerard (farmer representative) and a Federated Farmers representative, Peter Hamill (Council)

Note: In 2016, Nicky Eade resigned her position as coordinator of the SNA programme since its inception. Mike Aviss was appointed to the role, starting in 2017.

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1. Introduction

The Significant Natural Area project was established in 2001 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.



Figure 1 Silver tussock and totara forest on limestone in Kekerengu ecological district

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.

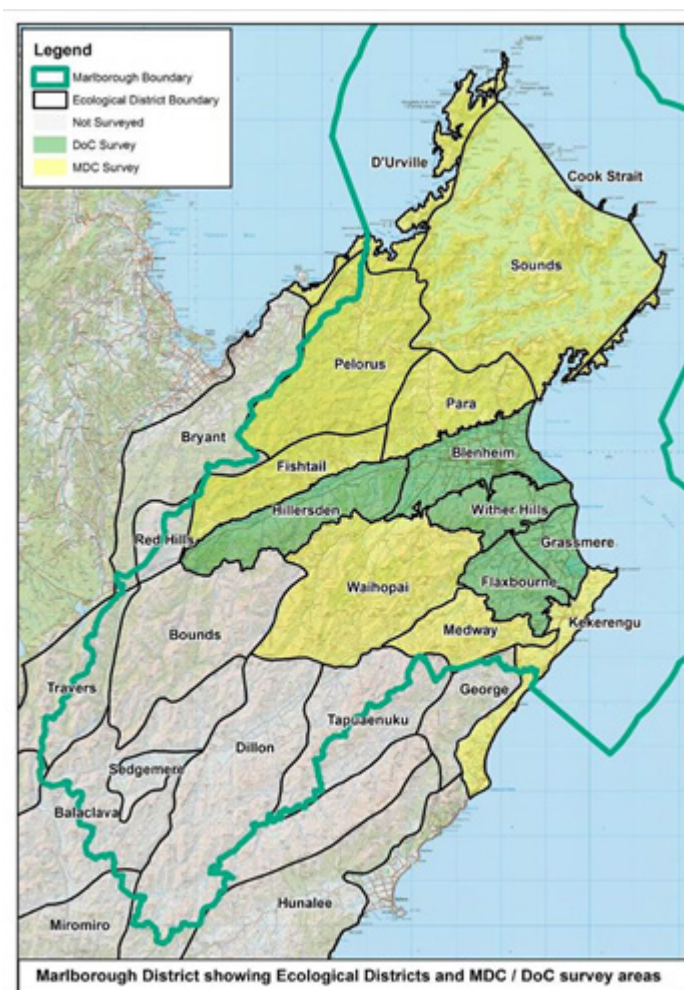
At the time of writing, the proposed Marlborough Environment Plan has been publicly notified, submission period is over and submissions are now being heard. This proposed Plan promotes the ongoing use of the voluntary partnership approach adopted through the Significant Natural Areas project and also sets out indigenous vegetation clearance rules which are designed to provide a reasonable level of protection to all areas of indigenous vegetation through general rules.

Part A: Ecological Survey Work – Summary of Results – July 2017 to June 2018

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 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 - see yellow shaded areas on map). 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 (see green shaded areas on map). Some ecological



Map 1 Ecological districts and Marlborough District Council/DOC survey areas

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.

This ecological survey work has resulted in a large amount of information being collected. It 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.

2.1. New Sites Surveyed in 2017/18

Further occasional field surveys have been carried out at the request of landowners since 2009. These are mainly surveyed by Geoff Walls in association with annual monitoring of SNA condition.

In the 2017-18 year, 5 new properties were visited and 7 new SNAs survey reports were completed. They were spread geographically across Marlborough from Rai Valley, Kaituna, the Lower Wairau, Pukaka and the Awatere Valley. Four of them were Significant Wetlands that had never been surveyed. All of these wetlands are now being managed for their biodiversity values. The three other sites are lowland podocarp forest and two of these are on alluvial soils.

In addition to this, Council contracted Wildlands Consultants to survey a large Awatere high country station which straddles two ecological districts which haven't been surveyed for SNAs before, Dillon and Tapuaenuku. The Freehold land was surveyed and this was combined with a DOC report on the values of the Crown Lease to give a full assessment of the property. Five new SNAs were identified on freehold land with potentially another seven on Crown Lease land, but these are yet to be confirmed with the landowner or put into the database. The sites are mainly high country forest, but also include bluffs, screes, wetlands, shrublands and tussocklands.



Figure 2 High country Awatere mountain totara forest remnant.



Figure 3 Diverse podocarp forest remnant in Rai Valley

As each SNA is visited for monitoring, the opportunity is taken to reassess the boundary to ensure it still reflects the extent of significant habitat. A number of sites were resurveyed as a result and this process is ongoing with a large forestry company, where sites were mapped inaccurately in 2002 and have not been revisited since that time. The inaccuracies mainly stem from the quality of mapping that was available during the early 2000's compared to what is used today.

An opportunity to engage with run holders in the Upper Awatere Valley was presented when Muller Station had an open day after winning the 2017 Marlborough Environment Awards Farming Award. The offer was made to work with run holders to identify and manage significant sites in partnership with Council. Some interest from run holders is promising and may herald another period of surveys in the next few years. This is the last major area in Marlborough that has not had a Significant Natural Area survey. There are currently no SNAs in either the Dillon or Tapuaenuku ecological districts, and none upstream of the Jordon River in the Awatere Valley other than Significant Wetlands, most of which have not been surveyed.

Aside from that, there are some large gaps in coverage in other parts of Marlborough, especially in Pelorus, Waihopai, and Flaxbourne, which need some attention.

2.2. Wetland Survey 2010 – 2013

From 2010 – 2013 Council carried out a further project to identify regionally significant wetlands in Marlborough. These have been scheduled in the proposed Marlborough Environment Plan which is currently notified and submissions are being heard. Wetlands are identified on the Plan zoning maps. 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.

There were 1300 wetlands identified in the desk-top exercise. While the final number of identified wetlands is yet to be confirmed, well over 1000 are likely to be scheduled in the Marlborough Environment Plan once it is ratified. As these wetlands are being treated as SNAs, they 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. In the 2017-2018 year, three wetland projects were started.

The wetlands were not automatically visited or described in a survey as part of the identification process. This is an information gap which will need to be filled as opportunity allows with some ecological assessments.

During the 2017/18 year, one Significant Wetland was removed from the register and another was added, while four have been added to the SNA database after completion of a survey report, at which time they were allocated a new SNA number.

2.3. 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 2018. 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 2017 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 2018 a total of 291 landowners participated in the ecological survey in both South and North Marlborough (75% of those approached). A total of 711 significant natural areas have been identified, with a combined area of 45,575 hectares. Another 94 landowners declined to participate (25% of those approached at the time).

Table 1: South Marlborough Ecological Survey Participation and Results (July 01 – June 18)

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 17)

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	64	16	186	11,790	16.0%	9.5%	39%
Pelorus	19	10	45	1,472	3.8%	1.4%	63%
Para	20	7	57	2,977	8.7%	6.2%	24%
Fishtail	6	2	33	1,350	9.0%	3.0%	55%
Totals	133 (76%)	44 (24%)	375	21,924	(Av=12%)	(Av=7.4%)	(Av=38.5%)

2.4. 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 is consequently much depleted in ecological functioning in some respects. While there are some extensive areas of beech forest, kānuka 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 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 much depleted (for instance wetlands, podocarp forest and broadleaved forests) and the little that does remain is not always well managed or formally protected in any way. 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, which will ensure the long term sustainability of some of these sites.



Figure 4 Isolated Hill

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 kānuka, mānuka, 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: Site Improvement – Landowner Assistance Programme – Summary of Results 2017-2018

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 management of threats within 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 man's 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

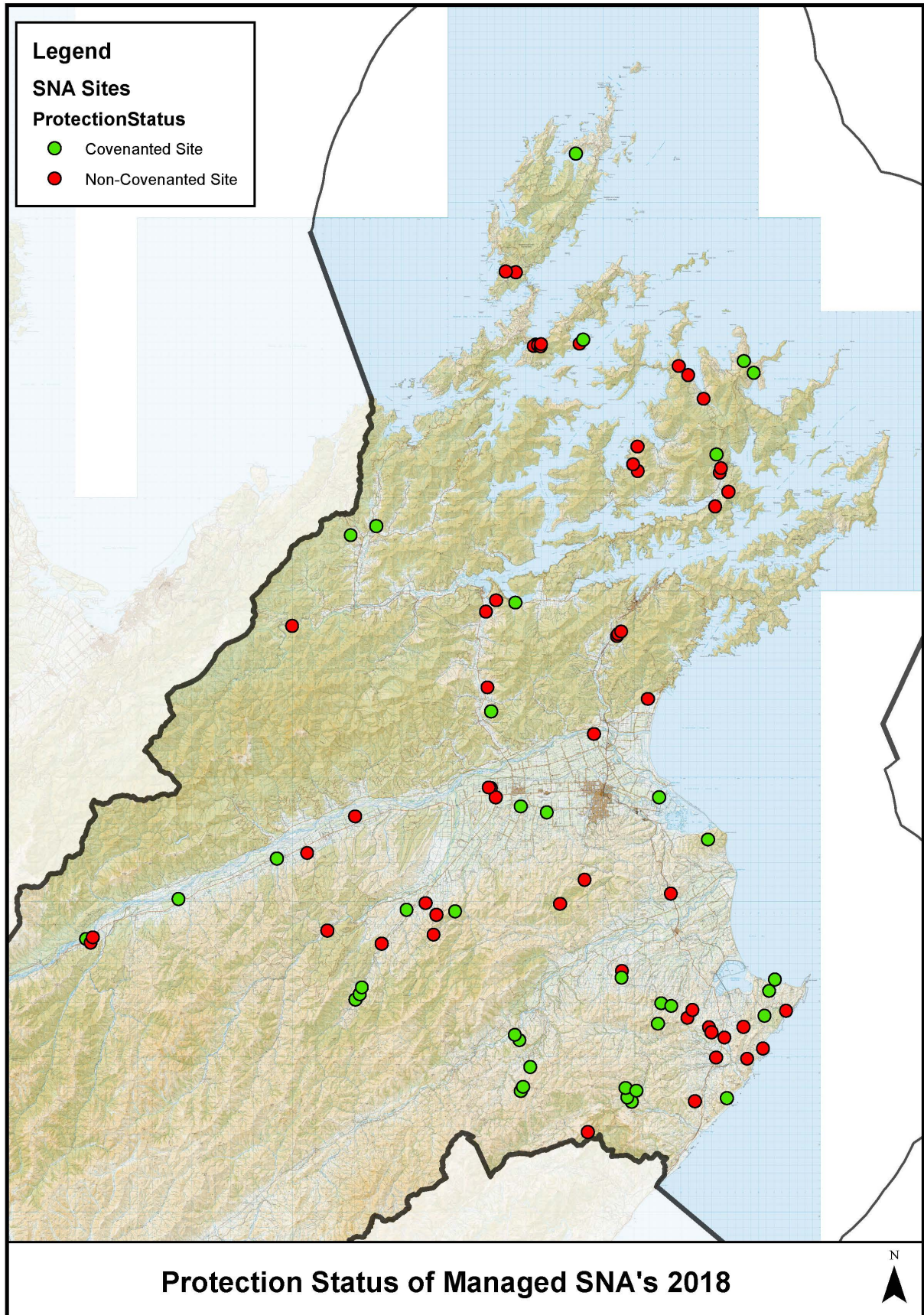


Figure 5 Wetland and terrace riser fenced to exclude stock, Wairau Valley

- the Tūi to Town restoration project with an original focus on the Wairau Plain area but which was extended in 2015 to include the Wairau Valley and lowland areas around Seddon and Ward.

A concerted 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 13% of the 711 identified sites over the whole of Marlborough have received any restoration or management (33 in North Marlborough and 60 in South Marlborough). Many surveyed sites are likely to be deteriorating in condition over time due to a range of threats and pressures.

Expenditure to manage SNAs averaged about \$120K per annum from 2007 until 2012, when DOCs Bio Fund rules changed. Since then, Council has invested an average of approximately \$71K per annum managing SNAs. A lot of restoration and good will has been achieved by the programme in that time.



Map 2 Protection Status of Managed SNA's

3.1. SNA Habitat Improvement Projects 2017-2018

In the 12 month period from July 2017 to June 2018, the Council contributed to sixteen projects in total. Eight of these were new projects, with a mix of weed control, fencing and planting, planning and threatened species management. Eight were ongoing projects; mostly weed control but also including a fencing project and threatened native broom management.

Highlights of the year in the Management Projects are:

- fencing and restoring a 4ha flax/cabbage tree wetland in the Avon,
- management of native pink broom *Carmichaelia carmichaeliae* in the Avon,
- fencing, restoring and securing a covenant over a 1.2ha raupo/carex wetland in Rai Valley,
- fencing and restoring a 1.2ha flax wetland at Dashwood,
- fencing and restoring a 3.6ha wetland at Wairau Valley.

The total number of projects carried out since 2003 is 98, including current ongoing projects.

The Waima/Ure Valley Restoration Society (WVRS) had a significant change with the recent resignation of its organiser, Susan King, after the sale of Peggloh Station. While her husband Barry retains the role of Treasurer, the group is now being led by Nicky Roberton from Blue Mountain Station. Council is still working with WVRS and helped them secure a \$23,000 grant from DOC in 2017/18, as well as contributing some SNA funding to sites where SNAs are benefiting from the control of old man's beard.

A summary of all Significant Natural Area project expenditure is included in Appendix 1



Figure 6 Burtergill Swamp fenced and ready to plant in the Lower Awatere



Figure 7 This Avon Valley Wetland SNA was fenced in 2017 and had weeds controlled

3.2. Protection Projects Summary – July 2017 – June 2018

Table 3: Summary of new protection projects July 2017 – June 2018 (GST inclusive)

Ecosystem Type	Size (ha)	North/South Marlborough ED	Type of Work	Total Funding	Council	Biofund	Landowner and QEII/other
Wetland (Di)	2.5	S Waihopai	Restoration	\$44,026.64	\$22,013.32		\$22,013.32
Wetland (Ba)	4	S Flaxbourne	Weed	\$4248.84	\$2124.42		\$2124.42
Riverbank (Wi)	4	S Waihopai	Planting	\$7146.82	\$3573.41		\$3573.41
Wetland (Va)	1.2	S Wither Hills	Fence, weed	\$6828.15	\$3566.50		\$3261.65
Wetland (Tr)	3	S Hillersden	Fence	\$11,540.84	\$5770.42		\$5770.42
Forest (Ha)	121	S Medway	OMB	\$3772.00	\$1886.00		\$1886.00
Wetland (Br)	1.2	N Pelorus	Fence, weed	\$11958.45	\$3986.15		\$7927.30
Forest (Ka)	4	N Sounds	OMB, Banana Passionfruit	\$2,078.33	\$1578.33		\$500.00
Total				\$91555.12	\$44498.60		\$47,056.52

Table 4: Summary of ongoing protection projects July 2017-June 2018 (GST inclusive)

Ecosystem Type	Size (ha)	North/South Marlborough ED	Type of Work	Total Funding	Council	Biofund	Landowner and QEII/other
Forest (Lo)	155	S Waihopai	Sycamore	\$7065.50	\$3532.75		\$3532.75
57Gully (Waima OMB Project and Sa)		S Medway ED	OMB control	\$115080	\$6900	\$23000 DOC Dirty Dozen Fund	\$85,180
Forest (Di)	12	S Waihopai	Elder, OMB barberry	\$1229.62	\$614.86		\$614.86
Forest (Di)	28	S Waihopai	Native brooms	\$907.28	\$907.28		

Ecosystem Type	Size (ha)	North/South Marlborough ED	Type of Work	Total Funding	Council	Biofund	Landowner and QEII/other
Hill Slopes (SB) QEII	40	S Flaxbourne ED	Weed control	\$7359.06	\$2453.02		\$4906.04
Riparian (Gr)	3	S Wither Hills	Buddleia	\$1158.26	\$579.13		\$579.13
Wetland (Jo)	3.6	S Hillersden	Plan/OMB	\$12,800.00	\$6400.00		\$6400.00
Hillslopes (Me)	20	N Sounds	Wilding pines	\$10406.56	\$5203.28		\$5203.28
Total				\$156006.38	\$26,590.32	\$23,000	\$106416.06

Total Funding Contributions for Biodiversity Protection Projects on Private Land 2017-2018

Marlborough District Council Funding	\$69,906.62
DOC Dirty Dozen Fund (Central Government)	\$23,000.00
QEII National Trust	\$6,439.17
Landowners	\$153,472.58
Total	\$252,818.37

Summary of Total Funding Contributions for Biodiversity Protection Projects on Private Land 2003 – 2018

Marlborough District Council Funding	\$837,183.04
Central Government Biodiversity Fund	\$833,010.00
QEII National Trust	\$86,662.47
Landowners	\$935030.51
Total	\$2,691886.02

3.3. Relationships

Council promotes covenanting and has developed strong relationships with the Department of Conservation and the Queen Elizabeth II National Trust (QEII), both of which provide a mechanism for landowners to independently protect areas on their properties. A total of 40 of the 92 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 38 are QEII covenants. The QEII takes responsibility for on-going monitoring of their covenanted sites, reducing the monitoring required to be carried out by Council.

The table below shows the number of SNAs that have been protected by either the QEII Trust or DOC. The boundaries of both do not always, or even often, agree, so the area is only where they overlap. For example, a 10ha covenant inside a 50ha SNA is recorded as 10ha. Likewise, if a covenant of 50ha overlaps with a 10ha SNA, it is recorded here as 10ha. As this data was not recorded previously to this detail, land area prior to 2018 is not available; however it will be recorded and reported on annually from now on.

Table 5: SNAs in Marlborough which have legal protection.

	Hectares	Sites
SNAs in Marlborough which had some legal protection up to June 2016		56
Covenanted SNAs added in 2016-2018		14
SNAs in Marlborough which have some legal protection at August 2018	9369.6	70

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 as well as a new guideline about converting pine plantations to native vegetation. In 2017/18, Council contributed \$5203.28 toward control of wilding pines in Admiralty Bay.

The South Marlborough Landscape Restoration Trust (SMLRT) has moved to their first operational programme delivering wilding conifer control operations in the Awatere Valley. In 2017/2018, SMLRT contractors have worked progressively up the valley from Aotea to the Upcot Saddle. The focus has been on controlling scattered trees and/or infestations. The Trust is liaising closely with run holders regarding longer term planning to remove seed source trees around homesteads.

The Waima Valley Ecological Restoration Society is a community based initiative in South Marlborough with an emphasis on Old Man's Beard control in the Waima/Ure catchment area. 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. More substantial contributions were granted for the 2015/16 and 2016/17 years which allowed the trust to operate while attracting new funding sources through the DOC Community Fund, Lotteries Commission and LINZ. In 2017/18, Council assisted the group to apply for Dirty Dozen funding valued at \$23000, and they spent another \$115,080 on control of OMB in the Waima Catchment, much of it from fund and trusts.

Other community based conservation groups currently operating in the Marlborough region include:-

- Endeavour Inlet Restoration Trust
- Grovetown Lagoon Restoration Project
- Kaipupu Mainland Island Sanctuary
- Para Swamp Restoration project (Fish and Game and The Gamebird Habitat Trust)
- Picton and Rarangi Dawn Chorus Groups
- Te Hoiere/Pelorus Long-Tailed Bat Project (Forest and Bird)
- Tōtara for Tōtaranui Project
- Tūi Nature Reserve Trust

All of these groups are independent of the Council and compete in a tight market for funding from a small number of other sources, such as, Lotteries Commission, Canterbury Community Fund, the DOC Community Fund, Council and landowners.

Part C: Monitoring Programme – Summary of Results

4. Background and Overview

Monitoring is an important part of measuring and tracking the outputs and outcomes of any project. There are three types of biodiversity monitoring that are relevant to the Significant Natural Areas project.

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, this type of monitoring is not 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, Council is undertaking a programme of ongoing monitoring of the state and condition of a selection of representative sites from the more than 600 SNAs identified that have not had any specific conservation management applied. This type of monitoring was started in the 2014-2015 in two ecological districts and repeated in the 2015/16 year in a further two ecological districts.

In 2017/18, Kekerengu and Para ecological districts were the focus, to look at damage following the Kaikoura 2016 Earthquake, and to maintain an ongoing watch of SNAs in areas of production forestry. This monitoring was carried out by contractor with assistance from Council staff. 28 sites were visited which cost the programme \$24,924.41.

Thirdly, systematic monitoring has been established to assess the condition of the 98 sites that have been actively managed through the Landowner Assistance Programme (about 13% of all sites identified). It is repeated every two years. So far six monitoring rounds have been undertaken starting with a pilot in the summer of 2006/7. In 2018, 23 managed sites were monitored at a cost of \$11,573.54. Nine of these managed sites were monitored by Council SNA staff without contractor assistance.

The QEII National Trust monitors the sites that it has covenanted (currently 80 sites in Marlborough, 70 of which are SNAs), so Council does not monitor the 70 SNAs that QEII monitors, even though Council contributes to funding management at some of the 70 covenanted SNA sites.



**Figure 8 Native vegetation dunelands
Cape Campbell area**



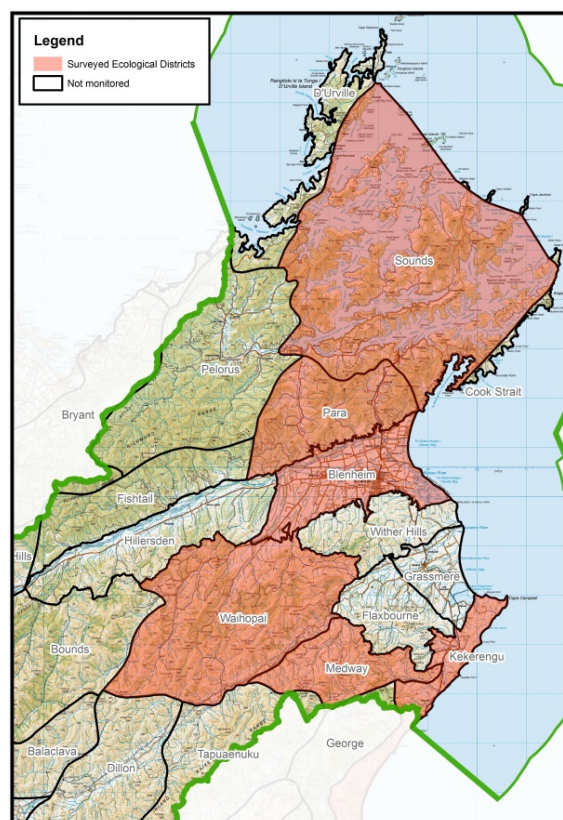
**Figure 9 Healthy silver tussock farmland.
A lightly grazed SNA**

4.1. 2017 - 18 Monitoring of Un-Managed SNA Sites

Monitoring to assess the state and condition of a selection of 27 representative sites that have not had any specific conservation management applied was carried out in 2017/18.

They were located in the Kekerengu, Medway, Para, and Sounds ecological districts (ED) in a range of habitat types; wetlands, hill slopes, gullies, bluffs and forestry hill country. (see Map 3).

The majority of the Un-managed Site monitoring effort was spent in Kekerengu ED and Medway ED, to look for earthquake damage in coastal and limestone areas, and in Para ED to monitor the condition of Production Forestry sites.



Map 3 Surveyed ecological districts 2018

4.2. Site monitoring results

- A total of 27 Un-managed sites were monitored in 2017/18, covering a mix of ecosystem types. The majority were areas of broadleaved/podocarp forest (9 sites), wetlands (6 sites), limestone bluffs (4 sites) and kānuka forest (4 sites). Landowners receive reports showing the results of monitoring at their sites.
- Overall results show that most Un-managed sites visited were generally in reasonable condition (83% good or good-fair and 10% fair and only 7% poor). This reflects the inherent resilience of most of the sites, which have persisted within a productive landscape over many years prior to the SNA programme identifying the sites in the early 2000's.
- A good proportion of Un-managed sites (59%) show a condition trend of improving/stable or stable, while 41% are stable/deteriorating or deteriorating. The main reason for the improvement was low stocking rates on back country farms by careful farmers, which allowed natural regeneration to occur. Deteriorating condition was mainly a result of damage to small gully sites during the harvest of surrounding forest blocks.
- One forestry company was reported to the Overseas Investment Office in 2016/17 for possibly not adhering to their conditions of purchase. Outcome from their investigation is still forthcoming.
- 45% of the sites surveyed in 2016/17 are now either receiving or about to receive assistance through the programme, to manage threats. In 2017/18, this figure is also approaching 45%, especially as we engage with the forestry company. This is one of the chief benefits of the monitoring programme, as it allows direct face to face communication/re-engagement with land owners.
- A key issue is that very few sites are legally protected, and rely on the benevolence of the owners or Marlborough Environment Plan (MEP) clearance rules to protect them from damage or destruction. There is now a recommendation in monitoring reports that the owners contact the QEII Trust to discuss legal protection of sites. This has been successful in prompting four SNA sites to be processed for covenanting by the QEII Trust this year.

Table 5: Summary of condition results of SNA Un-managed site revisits to Kekerengu, Medway, Waihopai, Blenheim, Para and Sounds ecological districts- 2017/18.

Site Condition	Good	Good/Fair	Fair	Fair/Poor	Poor
	1 (4%)	21 (78%)	3 (11%)		2 (7%)
Site Trend	Improving	Improving/Stable	Stable	Stable/ Deteriorating	Deteriorating
		6 (22%)	10 (37%)	10 (37%)	1 (4%)

Note: Site condition and trend scores are an average of the 8 category scores given during the monitoring visit : Ecosystem, vegetation, flora, fauna, weeds, animal pests, fences and plantings.

Most of the sites in Kekerengu and Medway had not been hugely affected by the earthquakes, other than some slips in limestone country which were not devastating. The most obvious impact from the earthquakes has been from the uplift along the coast, from Otuwhero River (Blind River) to Wharanui. Now that greater vehicle access has been enabled, many more people are driving off-road vehicles and 4WDs along the coast. Large areas of new dune have been created by the uplift and if they are allowed to, they will grow over in time. Use of the foreshore by vehicles is preventing this and is damaging the intertidal area, rock platforms sand dunes and dune vegetation.

The establishment of native sand binding plants is occurring on the newly uplifted sand where there is a seed source, but many places are dominated by marram which out-competes the native species and creates very steep dunes which are less attractive to native lizards and invertebrates.

Marlborough Regional Forestry (MRF) sites were targeted this year after the damage that was witnessed in commercial forestry last year. The MRF sites have not been monitored before. The larger sites are in good condition and are often resilient because of their size. They contain some spectacular native forest. The smaller sites are much more vulnerable to damage during harvest, and a number of recommendations have been made to reduce the damage that is occurring. MRF and Council are working together on planning a solution.



Figure 10 Wilding conifers encroaching into mature native forest

4.3. 2017 - 2018 Monitoring of Managed SNA Sites

SNA Assistance Programme Monitoring – In the 2017/18 monitoring round a total of 27 sites were visited on 17 properties.

Table 6: Summary of Monitoring of Managed SNA sites 2006 - 2018

Year	Total Sites	Sites monitored	Sites excluded	Sites missed 2015/16	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
2015/16	88	26 (19 properties)	14	8	40
2017/18	98	27 (17 properties)	8	23	40

Contract ecologist Geoff Walls and Council staff member Mike Aviss carried out the monitoring over the 2017/18 summer season. Assessment methodology is qualitative and simple and includes photo points and rapid ecological condition and trend assessment. Reports prepared for each site visited and provided to the landowners include commentary, site maps and photographs established at defined photo points to provide a visual record of changes over time. 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 relation to these sites. Further quantitative monitoring could be added in time to allow a more rigorous analysis of change in site condition over time or to target particular points of interest within sites.

The main focus of the 2017/18 Managed Site monitoring was Kekerengu ED, to monitor for earthquake damage, and also in the Blenheim ED to focus on important wetlands on the plains. The table below provides a summary of the condition and trend of the sites.

The vast majority are in good/fair or good condition (93%) and one is fair. The majority (73%) are showing a trend of improvement, while some sites (27%) are only stable or stable/deteriorating in condition. This is a good outcome.

The large wetlands on the lower Wairau Plains are mostly in the care of large wine companies. Many of the sites are managed through the SNA programme and as a result they have improved hugely with control of willows and other weeds and exclusion of stock. A lot of the work now occurs without Council funding. They are looking a lot better than they did, especially with willows being slowly removed from the system, however there is still a lot to be done, especially in Hinepango and the sites south of the Diversion that have not had work programmes.

It would be good to see the rest of the large wetlands that make up the Rarangi Wetland Complex managed in the same way to make the most of this valuable habitat which is the last vestige of the great freshwater wetlands once found on the Marlborough Plains, where <1% of native cover remains.

Table 7: Summary of Monitoring results for SNA Managed sites 2017/18

	Good	Good/Fair	Fair	Fair/Poor	Poor
Site Condition	3 (11%)	20 (74%)	4 (13%)		
	Improving	Improving/Stable	Stable	Stable /Deteriorating	Deteriorating
Site Trend	3 (13%)	12 (53%)	7 (30%)	1 (4%)	

Note: Site condition and trend scores are an average of the 8 category scores given during the monitoring visit : Ecosystem, vegetation, flora, fauna, weeds, animal pests, fences and plantings.

4.4. Summary and discussion

Some observations from the 2017/18 monitoring round:

- Landowners continue to be co-operative and allow access for monitoring purposes and most landowners are either very, or moderately, interested in the sites and tracking their progress over time.
- Along the coast, marram grass is a major threat to the integrity of the natural ecosystems and is replacing the native sand binding plants in many sites. There is a huge opportunity to plant natives on the newly uplifted beach areas to help prevent marram dominating, but marram must also be controlled.
- Natural regeneration on the east coast, post the earthquake, is also being hindered by vehicles using the beaches in much higher numbers than before. Native vegetation and dune habitats are being damaged. Success of any planting programme would require that vehicle impacts were managed and reduced.
- Most sites are improving in condition generally due to natural re-generation processes and in some cases establishment and growth of restoration plantings within sites.
- Initial major weed control efforts are often succeeded by secondary weed issues that require ongoing control for a number of years. The monitoring programme picks up these situations and assistance is being provided to landowners to deal with these issues.



Figure 11 Overwhelmed by marram and vehicles, the dunes are deteriorating



Figure 12 Vehicle tracks on Wharanui Beach north towards the Needles

4.5. Landowner questionnaire

Unlike the previous three years, there was no landowner questionnaire undertaken, as the results from all other years were very similar, as was reported on in 2016/17. The cost of landowner questionnaires was redistributed to pay for a Biodiversity Prioritisation Project. Communication with landowners was still necessary to obtain permission to access properties to carry out monitoring. This was generally carried out via a phone conversation, to confirm the landowner was happy to grant access to sites on their land and to ask if the landowner was interested in joining the monitoring team for the visit. This is also the best opportunity to start the discussion about the need for management of any issues on the site.



Figure 13 Isolation monitor. Ecologist Geoff Walls with landowner Rob Peter

The monitoring methods used in this programme were qualitative only and designed to provide a fast way to assess the state and condition of sites. The establishment of photopoints provides some scope for ongoing monitoring but additional quantitative methods could be built into the programme if required in the future.

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.

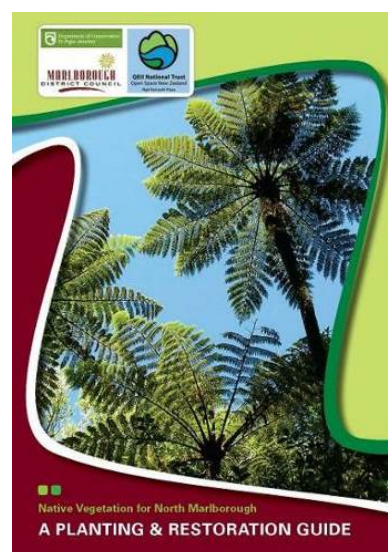
Previous publications relating to the project have included:

- Annual project newsletters – 2003-2016
- 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
- Tūi 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
- Publication “Guidelines for Converting Pine Plantations to Native Vegetation in the Marlborough Sounds” – November 2016

5.2. The 2017-2018 Year

In the 2017/18 year, displays were presented at public events, including the Garden Marlborough Fete, Rarangi Dawn Chorus open day and at Smart and Connected events in the rural towns of Marlborough.

All existing information brochures and website versions have been updated with contacts for the new Biodiversity Coordinator.



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 Tūi 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 tōtara seed collection and this has continued since then and broadened to include a range of suitable species for restoration planting such as kowhai, kānuka, flax, cabbage tree, māhoe, kōhūhū, ngaio, broadleaf and lancewood.

Over the last eight years since July 2008, the emphasis has been on collecting the podocarp species mataī and kahikatea from sparsely distributed remnant populations to complement the original and ongoing focus on tōtara. 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 Tūi to Town, Significant Natural Areas and other lowland restoration projects all have a supply of suitable plants.

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.



Figure 14 Collecting totara seed from the Branch River

6.2. The 2017-2018 seed collection season

In the 2017/18 seed collection season, seed was collected from a number of sites in both North and South Marlborough. The cost of the seed collection project in the 2017/18 financial year was \$6,189.35.

Good quantities of kahikatea, and totara were collected on the Wairau Plains and Valley and tributaries. Smaller quantities of kowhai seed were also collected and distributed to growers. Pingao seed was collected from Cape Campbell to be planted on newly exposed dunes following the 2016 earthquake. Flax seed was collected for the Taylor River Improvement Project plantings.

Ongoing collection of totara seed from the Branch River area was undertaken and Merrill and Ring took over this on behalf of the forest owners as it is for their own restoration programme on that site.

Seed was collected opportunistically during survey and monitoring work, to help make rarer or uncommonly grown plants available for local restoration projects. This included pukatea seed in the Para and seed from a range of species in the Upper Awatere, including rock daisy, toitoi, *Carex secta*, southern pink broom, New Zealand lilac, scented tree daisy and weeping matipo. Weeping tree broom seed was collected from Pollard Park.

7. Tūi to town Project 2008- 2018

7.1. Background and Overview

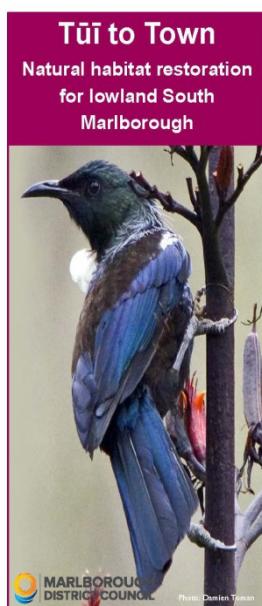
The Tūi to Town project is a subset of the significant natural areas project which promotes the protection of natural areas of ecological value. The SNA surveys have confirmed that very little natural habitat remains on the lowland parts of South Marlborough and the Tūi to Town project is designed to promote habitat restoration in this area. From 2008 the programme was targeted to the areas around Blenheim and Renwick but in early 2015 was extended to include the wider lowland South Marlborough area, including the Wairau Valley area and out to Seddon and Ward and surrounds. Native bird sightings (not limited to tūi) are being regularly reported from these new areas and a number of enquiries about funding for larger plantings have been received.

The programme essentially remains the same with the public encouraged to report native bird sightings to build a picture of species present and habitat use, and funding available for native plantings which are a minimum of 1000 square metres.

7.2. Information and Publicity

In the 2017-2018 year, displays and presentations promoting the Tūi to Town project were presented at several public events including the Garden Marlborough Fete (November 2017), making good use of the banners produced last year.

Three new Tūi to Town banners were produced for the Garden Marlborough Fete and have since been used at a Rarangi Dawn Chorus event and a number of other community events.

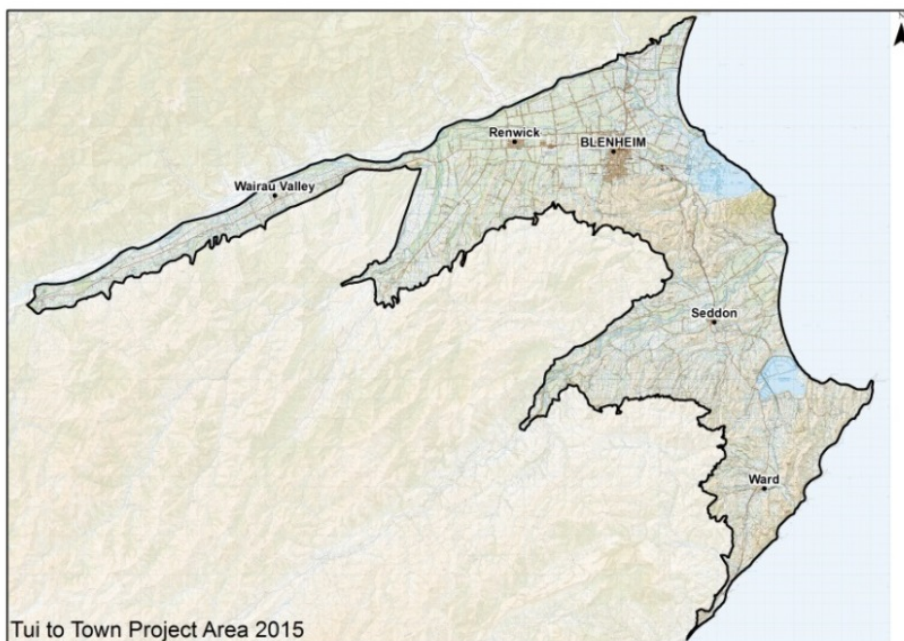


The Tūi to Town brochure and website page have been updated.

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

A number of public plantings (for instance the Taylor River plantings carried out by the Marlborough District Council Reserves section and the Nelson Marlborough Institute of Technology (NMIT) Horticulture course), are publicised as being linked to the Tūi to Town project.

7.3. Extension of Tūi to Town Programme to Wairau Valley and Seddon/Ward Areas.



Map 4 Overview map showing the Kekerengu, Medway, Waihopai, Blenheim, Para and Sounds

Map 4 shows the expanded Tūi to Town area which includes the original Wairau Plain area along with the valley floors of the Wairau Valley and the lowland areas of the South Marlborough area which contain less than 10% of indigenous vegetation cover. This is based on the Ministry for the Environment “Threatened Environments” layer and has been identified as one of four priorities for protection on private land in the 2007 Central Government “Protecting our Places” document. The area represents land where very little indigenous habitat remains –between 1 – 5% of land area with sites generally very small, highly modified and scattered within the landscape. It includes all of the Blenheim and Grassmere ecological districts and lowland parts of the Hillersden, Wither Hills, Medway and Kekerengu ecological districts.

7.4. Sightings

In the 2017 calendar year, a total of 61 tūi sightings were reported to the Tūi to Town database. The sightings came mostly from greater Blenheim, including Grovetown, Spring Creek, Rapaura, Fairhall and Hawkesbury.

Last year Rapaura had higher densities of tūi than elsewhere, and also had kererū recorded. This supported the theory that most tūi are coming to Blenheim from the forests on the north side of the Wairau River. This year, however, the sightings have been evenly spaced between north and south Blenheim.

Kowhai trees are the most common tree for sightings (11) with flax next (6) and gums (5), as well as a variety of other species (banksia, apricot, lusitanica).

Bellbirds are starting to feature in the sightings database, with 16 reported this year, mostly in Witherlea but also in Springlands and elsewhere on the Wairau Plains. Large numbers of tūi and bellbirds congregate in the Wither Hills in winter to feed on flowering gums and from there they venture into Blenheim. It is unknown if they are breeding in the regenerating Wither Hills, planted post the fires of Boxing Day 2000, but they are very likely coming from the native forest below the Ned.

The total number of tūi sightings over the nine year life of the project is now more than 840. This is providing useful information about tūi movement and feeding patterns on the Wairau Plain and the beginnings of some information about tūi presence in the Seddon and Awatere area.

The basic pattern that has emerged is that tūi 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 kowhai and flax, and 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 Plains.

7.5. Plantings

There were three planting projects funded in the 2017/18 financial year by the Tūi to Town fund, with a total of \$4394 paid out. St Andrews vineyard worker accommodation development on SH1 south of Blenheim is a large planting in a very public area. It is likely they will continue planting in future years and qualify for further Tūi to Town funding. The other sites were on Giffords Road and in the Waihopai.



Figure 15 St Andrews "Tūi to Town" planting

The total number of funded plantings since 2008 is now 51 and a total area of new habitat of about 5.4 hectares has now been planted. These plantings compliment other restoration projects on private land being undertaken through the SNA project, projects on Council land, and other smaller scale plantings of native vegetation on private land, school grounds and so on.

8. Significant Natural Areas Review

8.1. Background overview

A decision was made to have a professional external review of the Significant Natural Areas programme to help evaluate its effectiveness, give it some direction and to ensure the right information is being collected and stored. Wildlands Consultants Limited was commissioned to undertake the review in 2016 and their report was received in 2017.

The team from Wildlands reviewed annual newsletters, project summaries, the Access database and a number of guides produced by Council. In addition they had the GIS layer of all Marlborough SNAs as well as RAPs and Public Conservation Land.

8.2. Discussion and Recommendations

Wildlands proposed a number of recommendations, bullet pointed below. The arrow points illustrate what Council's SNA programme is doing currently to implement these recommendations;

- **SNA status offers no legal protection and therefore more sites should be protected with, for example, QEII covenants. Likewise, approach landowners with existing QEII covenants that do not have SNA status to be registered on the SNA database.**
 - Four new QEII covenants in riparian forests and dunelands are in process following approaches made to landowners by Council during SNA visits.
 - Covenant status of SNAs is reported on in this document and will be updated annually.
- **The Threatened Environment Classification for Marlborough may not fully reflect the actual local pattern of indigenous cover and protection. The classification should be re-assessed. Map the districts indigenous vegetation and ecosystems, and use the data to prioritise the work of the SNA programme. This should lead to better targeting of areas where protection or restoration of ecological values is most needed.**
 - A "potential ecosystems" mapping exercise has been completed and this, overlaid onto a map of actual indigenous cover, is an integral part of the new Biodiversity Prioritisation System, soon to be released.
- **There is a need for targeted ecological restoration in Threatened Land Environments especially in the lowlands, using techniques which could include expanding existing SNAs through planting or ecological restoration on Council land parcels, and ensuring that criteria for landowner assistance funding gives preference to the most valuable sites.**
 - Wetlands in the lowlands have been targeted for restoration with currently seven projects underway.
 - Landowners of coastal dune sites in Kekerengu ED have been engaged with and a number of exciting projects are underway, including covenants.
 - The monitoring report recommended that SNAs on Marlborough Regional Forestry land should be protected with QEII covenants.

- **Continue to address sites in the ecological districts with the least indigenous vegetation (Kekerengu, Flaxbourne, Grassmere and Blenheim) and gain access to sites in areas that have not been targeted, for example in the upper Awatere.**
 - A large high country station in the upper Awatere was recipient of a week-long SNA Survey this year. The draft report is now with the landowner as we await feedback.
 - Indigenous planting advice for the Wither Hills, specifically the Blue Gums and Quail Stream sites, was given to Assets and Services.
 - Seven Significant Wetlands on the plains were targeted for SNA restoration projects, including fencing and weed control.
- **Continue to engage with landowners in relation to having SNAs and managing the threats on them.**
 - This is happening on a regular, even daily, basis.
- **Improve the SNA database to allow for better reporting.**
 - This project is underway.
- **Target sites on Pallic Soils (eg dry coastal soils) as they are poorly represented.**
 - SNA monitoring along the Cape Campbell coast was carried out in 2018 and restoration projects for the sites and the landscape are being developed.
 - The Rarangi Wetlands/Drylands complex has been targeted to continue the gains made there.
- **Identify ecological corridors and target potential SNAs and restoration areas within them.**
 - The new Zonation based Biodiversity Prioritisation System is designed to recognise the value of habitat linkages and corridors.



Figure 16 Pingao on the Lulworth dunes

9. General Discussion and Conclusions

The Significant Natural Areas programme has been run by the Marlborough District Council since 2001. It is the main mechanism used to identify and promote protection of terrestrial indigenous biodiversity on private land. 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 are intended to be scheduled).

The project is very focussed on identifying and protecting habitat areas on private land as a mechanism to protect larger suites of indigenous biodiversity (plants, insects, reptiles and birds). Ecological assessments are relatively broad scale, relying on experienced ecologists and rapid qualitative methods. 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.

A wider review of the roles and responsibilities of local government in managing indigenous biodiversity in the New Zealand context is currently underway and it will be interesting to follow this discussion over the next year or two. It may provide some direction in relation to the SNA programme or other Marlborough District Council activities or programmes. Central government has also re-started the process of developing a National Policy Statement for Indigenous Biodiversity.

A working group continues to assist the Council to manage the Marlborough SNA project and usually meets annually. This group remains integral to the management and direction of the SNA project.

Of the 700 or so sites identified through the SNA surveys, about 92 have been managed in some way to enhance biodiversity and a number (38) of these sites are also covenanted to provide permanent legal protection (primarily through the QEII Trust).

Monitoring to track the condition of a random selection of these managed sites is done every two years and was carried out over the 2017/18 summer season. It was found that 87% were in good condition and the rest were fair. In terms of the trend in condition, 66% of sites were improving, 30% were stable and only 4% were deteriorating in some way.

However, there are still over 600 Significant Natural Areas which have not received any assistance from Council to proactively manage the ecological values and ensure they are sustained in the long term. A programme to contact landowners and re-visit a selection of 99 Un-managed sites carried out over the last four summer seasons showed that in contrast to the Managed sites, only 17% of them are improving in condition, while 37% are in stable condition and 45% are deteriorating in some way. The impacts associated with harvest of commercial plantation forests were the most common cause of site deterioration in both 2016/17 and 2017/18, although weeds, feral animals and farm stock also having an impact in some sites.



Figure 17 Rarangi Wetland showing extensive wetland-dryland ridge sequences unique to Marlborough.

In addition to the monitoring of SNA sites (both Managed and Un-managed) mentioned above, Council may be expected to establish a broader regional “state of environment” monitoring programme to align with national monitoring and reporting requirements. Work is underway nationally to assist councils in developing these programmes.

The SNA working group recognises that building and maintaining goodwill and awareness amongst landowners is at the heart of the SNA programme, and the work carried out in relation to the questionnaire and site re-visits has gone some way to re-establishing contact with most landowners in the four ecological districts involved.

Other initiatives to more actively engage with landowners through sector groups, such as Dairy NZ, Beef and Lamb, Federated Farmers, Marlborough Winegrowers and the Marlborough Forest Industry Association are being pursued. Targeting protection of certain types of high priority sites, or within certain high priority localities, could also provide opportunities to raise the profile of the project and improve uptake of assistance available for protection of sites.



Figure 18 Restoration Planting on Council reserve land on the Wairau Plains

An external review of the SNA programme has helped to set the future direction and work programmes associated with the SNA project. Also, the current review of the resource management framework in Marlborough through the proposed Marlborough Environment Plan may provide some further direction once the public submission process has been completed. The submission process will also result in a final confirmation of wetland sites which will then be formally eligible for financial and technical assistance through the SNA Landowner Assistance Programme.

Information management in relation to the SNA programme is undergoing some changes. Improvements to the Council’s internal information storage systems have been implemented. The electronic capture of all of the Department of Conservation 2004 Wairau Region protected Natural Areas Survey Programme is a step forward although there is still work to be done in creating property specific maps and reports for landowners with sites originally identified through the DOC survey programme.

In addition new technologies and tools (for instance improved aerial photography for large parts of Marlborough), are creating opportunities to refine site mapping which may allow for a review of some site boundaries in the future. This is hugely important if we are to be able to accurately assess any loss of SNAs over time. As sites are visited, the opportunity to engage with landowners enables boundaries of SNAs to be reviewed.

In their external review, Wildlands Consultants suggested the SNA programme could be improved if we had better planning tools to prioritise where the survey and management effort needed to go, and to improve the storage of the data for each site. Current effort to design a Biodiversity Prioritisation System and a new Biodiversity Database are aiming to resolve any shortfalls in these areas.

The Significant Natural Areas programme 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.

Treaty of Waitangi settlements across the top of the South Island may also influence iwi involvement in biodiversity related issues in future. In particular, Te Tau Ihu Iwi, DOC and the Top of the South Councils have recently signed up to a Memorandum of Understanding to create a collaborative biodiversity alliance called “Kotahitanga mo te Taiao”.

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 programme continues to work closely with some of these, particularly where private land is involved.

In summary, the Significant Natural Areas Project continues to be the main avenue for Council to protect land based indigenous biodiversity in the Marlborough region. Marlborough has less than 5% of its rarer ecosystem types remaining on the plains, which is not enough to sustain biodiversity over time. With Primary Industry being such an important part of the Marlborough economy, Council has an important role in working with industry to help ensure that the natural environment is not degraded, and hopefully is improved.



Appendix 1: Total Budget for Main Aspects of Significant Natural Areas Project – Marlborough District Council Expenditure and Revenue – July 2017 – June 2018 (GST inclusive)

Table 6: Significant Natural Areas Project – Total budget July 2017 to June 2018

Project Name	Projected Budget	Actual Expenditure	Revenue
SNA survey and general	\$17,250	\$23,950	
SNA protection projects	\$92,000	\$92,907	\$23,000
Tūi to Town	\$11,500	\$4,395	
Seed collection	\$11,500	\$5,791	
SNA monitoring – Managed sites	\$28,750	\$11,573	
SNA monitoring – Un-managed sites	\$23,000	\$24,924	
SNA miscellaneous (meetings and contributions)	\$3,450	\$40,207	\$26,450
Prioritisation Project	\$40,250	\$49,932	
Total	\$227,700	\$253,679	\$49,450