



**MARLBOROUGH
DISTRICT COUNCIL**

**Summary Report on the
Results of the**

Significant Natural Areas Project 2018-2019

**Technical Report No: 19-004
August 2019**

Summary Report on the Results of the Significant Natural Areas Project 2018 - 2019

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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 2018 to June 2019. It follows from nine 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 2018.

This report summarises the results of:-

- Ecological survey work carried out from July 2018 to June 2019.
- Environmental protection work carried out through the SNA Landowner Assistance Programme from July 2018 to June 2019.
- 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 in 2016, a Prioritisation Project was initiated to give better direction to the Council’s Biodiversity work. The Potential Ecosystems map produced in 2016/17 has been used to inform this process. Subsequently a Zonation Analysis was undertaken using this and other data in 2018/19 and GIS maps produced. It is expected that the maps will be ground truthed by December 2019. This work 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.

In 2017, the owners of three high country stations in the upper Awatere requested an SNA survey of their farms. The field work and reports for two of these are complete. The first farm plan identifies 12 SNAs. The second farm survey was completed in summer 2019 with 12000ha of freehold land being surveyed. 16 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 16 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 10 new SNAs were surveyed in lowland Marlborough, representing potentially 660ha of new SNA in the region, including our two largest wetlands. They are in the Kekerengū, Medway, Para, and Sounds 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 2018/2019 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 2018/19, of which Council paid about 1/3. Nearly half of this went into fencing stock out and the rest went into weed control, planting native trees and planning.

Two new SNA are being covenanted with QEII after conversations had with landowners in 2019. They have a combined area of approximately 365ha.

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 2018 – 2019

	2017/18	2018/19
Marlborough District Council Funding	\$73,378.85	\$79,646.00
QEII National Trust	\$6,439.17	\$55,148.00
Landowners	\$60,130.02	\$53,939.66
Total	\$129,435.56	\$188,769.66

Monitoring

The Monitoring Plan for 2018/19 focussed mainly on three areas: the East Coast, which was affected by the November 2016 Kaikōura Earthquake; wetlands, our most threatened environment; and on forests north of the Wairau. Monitoring of eight Managed sites and 15 Un-managed sites made for a total of 23 sites monitored for the year. This was less than usual as a result of a much larger survey programme.

Monitoring of Managed SNA sites was initiated in 2006 and has been repeated on a bi-ennial basis since that time. Of the eight Managed sites monitored this year, half were wetlands. All eight were in Fair or Good condition with a trend of Stable or Improving.

Results from monitoring 15 Un-Managed SNA Sites in the same period were pleasing as all sites were Fair or Good in condition with a trend over time of stable. Only one was stable-deteriorating.

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 Kekerengū.

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.

Associated Projects

- Publicity – information about the project has been disseminated at a number of public events over the year including the Garden Marlborough Fete and the Marlborough Environment Awards Farm/Forestry Field Day.
- Seed collection – was carried out between February and June 2019 with a focus on collecting kahikatea, tōtara and kanuka seed for the Tūi to Town Project, as well as species suitable for the Awatere high country.
- 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. Four new Tūi to Town projects received funding assistance in the 2018-2019 year. They were all wetlands and streambanks at Dog Point Road and New Renwick Road in Blenheim ecological district, on State Highway 1 at Dashwood and on Avondale Road, Waihopai ecological district.

Discussion and Conclusions

Last year's monitoring on the East Coast area showed that the earthquake had not had huge effects on SNAs there, but it highlighted the impact of increased visitor numbers along the coast, and the subsequent damage to ecosystems, habitats and landscapes by vehicles. This continued in the 2018/19 year and showed that the impacts of visitors have not reduced with time. 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.

In an effort to focus attention and restoration direction onto large wetland ecosystems, SNA assessments have been completed for Para Swamp, Lake Elterwater and two large wetlands at Pukaka. They are all in various states of condition and it is hoped to drive their restoration with targeted assistance.

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

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 2019.



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

Note: In 2016, Nicky Eade resigned her position as coordinator of the SNA programme since its inception. Mike Aviss was appointed Biodiversity Coordinator in 2017 and took over the SNA coordinator role then.

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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 Sounds rain forest

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 analysed. 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 2018 to June 2019

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 (Kekerengū, 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).



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

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.

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.

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

There are some large gaps in coverage in parts of Marlborough, especially in the Awatere, Pelorus, Waihopai, and Flaxbourne, which need some attention. These are being addressed as opportunity allows.

There is a focus on surveying the Awatere high country runs which was generated by the Farm Environment Award open day on Muller Station in 2017, and this will continue for as long as the run holders welcome us onto their properties. We are moving one property at a time from the top of the valley down and have so far been invited onto three of the 10 properties that were not surveyed in the original surveys around 2006. Two have been completed and we plan to survey the third in summer 2020.

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. The inaccuracies mainly stem from the quality of mapping that was available during the early 2000's compared to what is used today. This same process is undertaken for Significant Wetlands that are visited.

2.1. New Sites Surveyed in 2018/19

In the 2018-19 year, Geoff Walls and I visited nine new properties and 10 new SNAs were mapped and described. They were spread geographically across the whole of Marlborough in the Sounds, Medway, Para and Kekepengū ecological districts. This included two of Marlborough's most Significant Wetlands, Para Swamp and Lake Elterwater, along with another undocumented wetland on private land at Pukaka, contiguous with the Chaytor Scenic Reserve. Two of the sites are coastal dunes and limestone, two are lowland podocarp forest, and three other sites are forested hill country. The cost of this to Council was about \$17,250.00

In addition to this, Council contracted Wildlands Consultants to survey a large Awatere high country station which straddles two ecological districts, Dillon and Balaclava. The Freehold land was physically surveyed over 10 days and this was combined with a DOC report on the values of the Crown Lease land to give a full assessment of the property. The cost to Council of the survey and report was \$31,464.00.

Fourteen new SNAs were identified on the freehold land totalling approximately 1130ha. Collectively, these SNAs contain a range of habitats that include forest, treeland, scrub, shrublands, snow tussock grasslands, short-tussock grasslands, scree-herbfields, bluff and outcrop shrublands, and sedgelands and reedlands within wetlands. Another sixteen areas on Crown Lease land were identified in a desktop exercise, but these are yet to be confirmed with the landowner or put into the database. Habitats within these 16 sites include: subalpine tarns and wetlands, scree-herbfields, bedrock outcrop shrublands, snow tussock grasslands, subalpine shrublands, forest, and lower elevation ephemeral wetlands and ponds.



Figure 2 Tuamarina River in Para Swamp



Figure 3 High country broadleaf forest

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 analysed. Wetlands are identified on the Plan zoning maps and landowners now have another opportunity to consider this. 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.

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.

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 2018-2019 year, six wetland restoration projects were funded.

During the 2018/19 year, three Significant Wetlands were added to the register, while seven 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 2019. These do not include the additional wetland sites that have been identified more recently through the 2010-13 survey described above, unless they have had a full SNA assessment report completed.

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 19)

Ecological Districts	No. Properties Surveyed	No. Properties Declined	No. of Sites	Combined Area (ha)	% of Total Land Area
Kekerengū	22	2	60	1,574	4.6%
Medway	15	2	80	4,986	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%
Tapuaenuku	1	Nil	11	363	
Dillon	1	Nil	14	1130	
Totals	156 (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	66	16	189	11,825	16.1%	9.5%	39%
Pelorus	19	10	45	1,472	3.8%	1.4%	63%
Para	22	7	59	3,449	9.9%	6.2%	24%
Fishtail	6	2	33	1,350	9.0%	3.0%	55%
Totals	137 (76%)	44 (24%)	380	22,501	(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 Kekerengū).

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 Upper Awatere showing scattered forest remnants

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 2018-2019

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

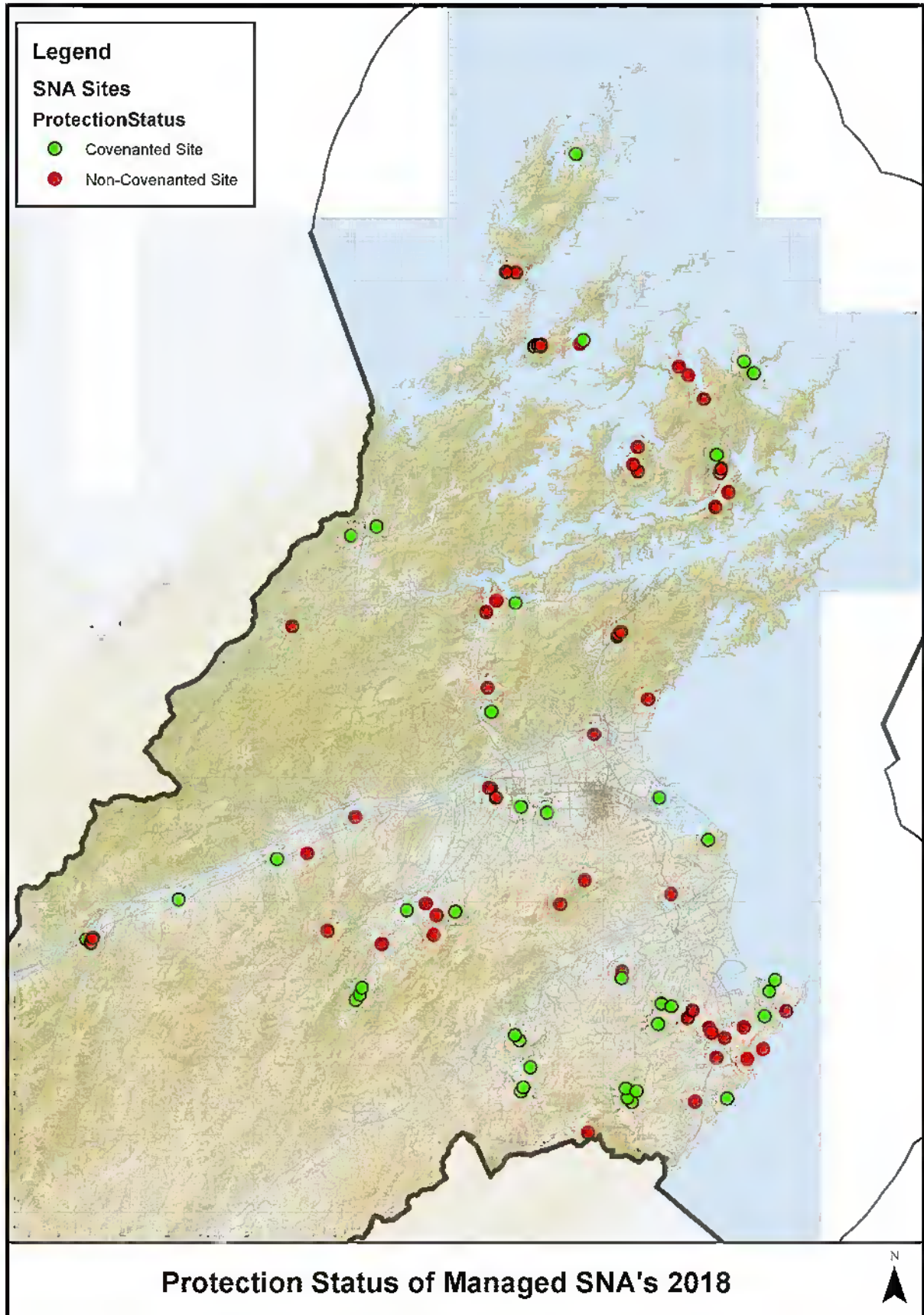


Figure 5 Discussing weed control

- 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 722 identified sites over the whole of Marlborough have received any restoration or management (36 in North Marlborough and 64 in South Marlborough). Many surveyed sites are likely to be deteriorating in condition over time due to a range of threats and pressures, however, its pleasing to note that the condition of all but one of the 14 unmanaged sites monitored in 2018/19 was stable.

Expenditure to manage SNAs averaged about \$120k per annum from 2007 until 2012, when DOC's Bio Fund rules changed. Since then, Council has invested an average of approximately \$71k per annum managing SNAs, and this has been matched by landowners and others so that in 2018/19 a total of \$188,733 was spent improving the condition of Significant sites. 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 2018-2019

In the 12 month period from July 2018 to June 2019, the Council contributed to 22 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:

- spraying 1ha of marram grass on the East Coast, to protect Canterbury Gully,
- fencing, restoring and securing a covenant over a 4ha stream/native broom area in the Avon,
- planting 400 northern pink brooms *Carmichealia carmichaeliae* in that site,
- planting around the 1.2ha flax wetland beside State Highway 1 at Dashwood,
- fencing a QEII covenant in the Sounds.

The total number of projects carried out since 2003 is 106, including current ongoing projects.

I have had a significant focus on the East Coast, especially south of Marfells Beach, with a huge percentage of the SNAs monitored. The first runs on the board in terms of restoration of this important landscape are trial spraying an area of invasive marram grass, collecting seed to propagate spinifex and pingao plants, contributing \$1000 to the East Coast Protection Groups predator traps and commissioning a restoration plan for the coast.

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



Figure 6 Avon River Covenant



Figure 7 Lake Elterwater Inlet

3.2. Protection Projects Summary – July 2018 – June 2019

Table 3: Summary of new protection projects July 2018 – June 2019 (GST inclusive)

Ecosystem Type	Size (ha)	North/South Marlborough ED	Type of Work	Total Funding	Council	Biofund	Landowner and QEII/other
Wetland (PR)	4	S Blenheim	Weed	\$1048.00	\$524.00		\$524.00
Forest (Co)	120	N Para	Wilding pines	\$9338.00	\$4669.00		\$4669.00
Forest (St)	60	S Kekerengū	Wilding pines	\$10350.00	\$3450.00		\$6900.00
Coastal (Pe)	33	S Kekerengū	Fence, plants, traps	\$18,100.00	\$9050.00		\$9050.00
Coastal (Pe)	7.6	S Kekerengū	Weeds, plant	\$6788.00	\$6788.00		
Coastal (Pe)	21	S Kekerengū	Signage	\$713	\$713		
Forest (Sa)	927	S Medway	OMB	\$13980.00	\$6990.00		\$6990.00
Wetland (F&G)	380	N Para	Plan	\$5000.00	\$5000.00		
Forest (Po)	92.2	N Sounds	Fence	\$9861.00	\$3287.00		\$6574.00
Forest (Bl)	25	S Medway	Fence assessment	\$517.00	\$517.00		
Dunes (Wi)	66	S Kekerengū	Weeds, plant	\$4025.00	\$4025.00		
Total				\$79,720.00	\$45,013.00		\$34,707.00

Table 4: Summary of ongoing protection projects July 2018-June 2019 (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	\$9200.00	\$4600.00		\$4600.00
Hillslope (Ha)	54	S Medway ED	OMB control	\$4300.00	\$2150.00		\$2150.00
Forest (Di)	28	S Waihopai	Plant	\$2213.00	\$2213.00		
Wetland (PR)	5.7	S Blenheim	Weeds	\$900.00	\$450.00		\$450.00
Hill Slopes (SB) QEII	40	S Flaxbourne ED	Weed control	\$8955.00	\$2985.00		\$5970.00
Riparian (Gr)	3	S Wither Hills	Buddleia	\$529.00	\$529.00		
Wetland (Di)	2.5	S Waihopai	Restoration	\$1150.00	\$1150.00		
Wetland (Va)	3.6	S Withers	Planting	\$3682	\$3682		
Riparian (Wi)	4	A Waihopai	Fence	\$70032.00	\$12878.00		\$57154.00
Hillslopes (Me)	20	N Sounds	Wilding pines	\$2852.00	\$1426.00		\$1426.00
Wetland (Br)	2.5	N Pelorus	Fence, weeds	\$5267.00	\$2570.00		\$2760
Total				\$109080	\$34633.00		\$74447.00

Total Funding Contributions for Biodiversity Protection Projects on Private Land 2018-2019

Marlborough District Council Funding	\$79,646.00
Central Government	
QEII National Trust	\$55,148.00
Landowners	\$53,939.66
Total	\$188,769.66

Summary of Total Funding Contributions for Biodiversity Protection Projects on Private Land 2003 – 2019

Marlborough District Council Funding	\$916,829.04
Central Government Biodiversity Fund	\$833,010.00
QEII National Trust	\$141,810.47
Landowners	\$988,969.51
Total	\$2,880,619.02

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 46 of the 106 projects protected through the programme so far have been covenanted. Three of these are Protected Private Land (PPL) covenants administered by the Department of Conservation and the other 43 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.

The data comes from the QEII website and is only updated once the covenant has been formalised, fenced and then surveyed, which allows it to be mapped and added to the GIS layer. There is a lag time from the time the agreement is signed.

Table 5: SNAs in Marlborough which have legal protection.

	Sites
SNAs in Marlborough which have some legal protection at August 2018	70
SNAs in Marlborough which have some legal protection at July 2019	74

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 2018/19, Council contributed \$1426 toward control of wilding pines in Admiralty Bay.

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. Council is working with DOC to set up a Biodiversity Forum to provide a simple way of communicating with all the groups and enabling them to communicate with each other. Initially this has involved consultation with the groups to find out what they want and then having an inaugural meeting, which was well attended.

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 700 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 2018/19, Medway and Kekerengū ecological districts were the focus, to maintain the focus on SNAs containing rare native brooms and to complete the scan of the East Coast post the earthquake. This monitoring was carried out by contractor with assistance from Council staff. 14 sites were visited which cost the programme about \$15000.

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 2019, 8 managed sites were monitored at a cost of about \$11,000.

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 Pingao and spinifex near Long Point



Figure 9 Riparian fencing at Hopai

4.1. 2018 - 19

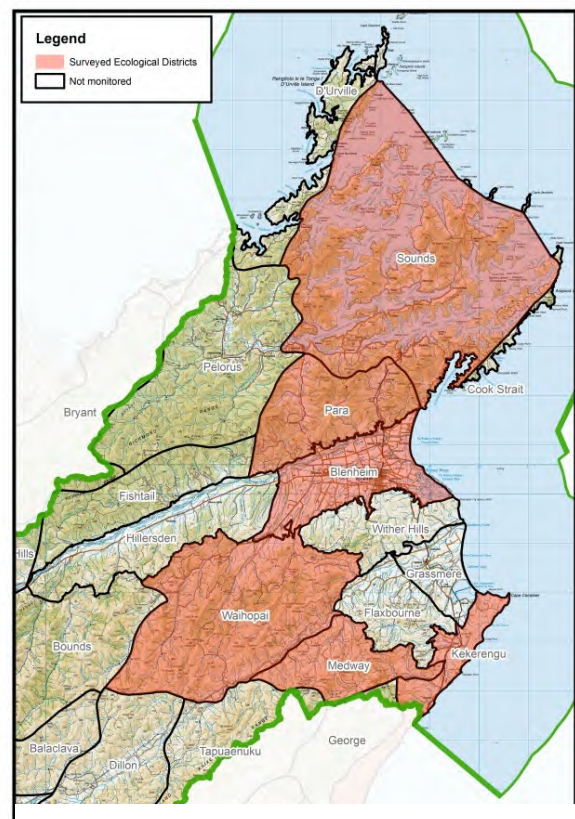
Monitoring to assess the state and condition of a selection of representative sites that have not had any specific conservation management applied was carried out in 2018/19.

They were located in the Kekerengū, Medway, Para, Fishtail and Sounds ecological districts (ED). (see Map 3).

The majority of the Un-managed Site monitoring effort was spent in Medway ED to monitor a large property with rare weeping and pink brooms, and Kekerengū ED, to complete the scan of the east coast zone post the earthquake of 2016.

4.2. Site moni

- A total of 14 Un-managed sites were monitored in 2018/19, covering a mix of ecosystem types. The majority were areas of broadleaved/podocarp forest (4 sites), dry shrublands (2 sites), wetlands (1 sites), limestone bluffs (2 sites) and kānuka forest (5 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 (eight were Good, four were Fair-Good and two were Fair). 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 2000s. In some cases it also reflects a level of management which landowners undertake without any Council assistance.



- A good proportion of Un-managed sites (13 or 93%) show a condition trend of stable, while one (7%) was stable/deteriorating. The main reason for this appears to be was low stocking rates on back country farms by careful farmers, and landowner pest control for the property, which allowed the sites to persist. Deteriorating condition on one site was mainly a result of weed infestation.
- 45% of the sites surveyed in 2018/19 are now either receiving or about to receive assistance through the programme, to manage threats. A significant outcome of SNA monitoring of Marlborough Regional Forestry last year is that MRF has applied for Forestry Stewardship Council Certification. FSC Certification should result in a greater focus on the sustainability of the business. 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 a number of 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 Kekerengū, Medway, Waihopai, Blenheim, Para and Sounds ecological districts- 2017/18.

Site Condition	Good	Good/Fair	Fair	Fair/Poor	Poor
	8 (57%)	4 (29%)	2 (14%)		
Site Trend	Improving	Improving/Stable	Stable	Stable/ Deteriorating	Deteriorating
			13 (93%)	1 (7%)	

Last year I reported on the damage that was occurring to the dunes, beaches and coastal vegetation within and beside the SNAs along the East Coast, post the Kaikōura Earthquake of 2016. The damage to these vulnerable natural communities has continued in the absence of any control or reduction of this vehicle access to the coast. A huge effort has been made to understand the biodiversity in these communities better, quantify the damage and to come up with solutions to remedy it.

Next year I hope to report on the gains that have been made in managing some of these issues.



Figure 10 Kohekohe fruit at Port Gore in the Outer Sounds

4.3. 2018 - 2019 Monitoring of Managed SNA Sites

SNA Assistance Programme Monitoring – In the 2018/19 monitoring round a total of eight sites were visited on six properties.

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

Year	Total Sites	Sites monitored
2006/7	25	12 (9 properties)
2009/10	52	24 (17 properties)
2011/12	74	19 (13 properties)
2013/14	80	25 (19 properties)
2015/16	88	26 (19 properties)
2017/18	98	27 (17 properties)
2018/19	106	8 (6 properties)

Contract ecologist Geoff Walls and Council staff member Mike Aviss carried out the monitoring over the 2018/19 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 table below provides a summary of the condition and trend of the sites.

The vast majority are in good or good/fair condition (93%) and three fair. The majority (73%) are showing a trend of improvement, while the rest of the sites (27%) are stable. This is a good outcome as while these sites have received management interventions, the two sites recorded as Stable are the two receiving the least effort. One is an inherently difficult coastal site and the work was undertaken over 12 years ago.

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

	Good	Good/Fair	Fair	Fair/Poor	Poor
Site Condition	3 (37.5%)	2 (25%)	3 (37.5%)		
	Improving	Improving/Stable	Stable	Stable/Deteriorating	Deteriorating
Site Trend	4 (50%)	2 (25%)	2 (25%)		

Last year I wrote the following: “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.”

This year we surveyed three large wetlands and next year I hope to fund some programmes of work in them. I plan to visit more in the region in an effort to engage with landowners and help drive more improvements in the state of many of the important wetlands that remain in Marlborough.

4.4. Summary and discussion

Some observations from the 2018/19 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. Wilding conifers and boxthorn are the two other main weeds.
- There is also good evidence of native sand binding plants establishing with the marram wherever there is a seed source, especially spinifex, ice plant and Raoulia mat daisies.

- Natural regeneration on the east coast, post the earthquake, is mainly 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.



Figure 11 Natural spinifex regeneration



Figure 12 No room for spinifex here



Figure 13 Puka roots on a huge pukatea tree in Kenepurū Sound

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.

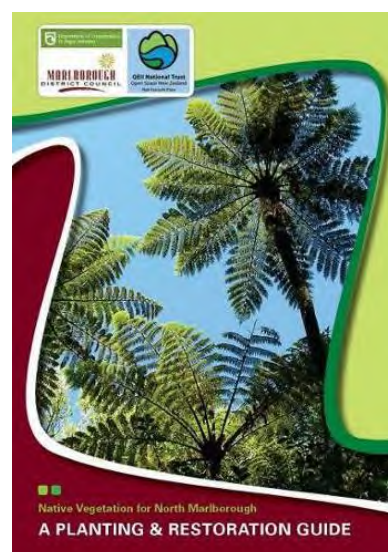
Previous publications relating to the project have included:

- 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 2018-2019 Year

In the 2018/19 year, displays were presented at public events, including the Garden Marlborough Fete, and at Smart and Connected events in the rural towns of Marlborough. The Biodiversity Coordinator spoke at Forest Industry Field Days and Marlborough Environment Awards Farm/Forestry Field Day. Articles were placed in local papers and in magazines such as Wine Press about SNAs and the Tūi to Town programme.

All existing information brochures and website versions have been updated.



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 10 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.

6.2. The 2018-2019 seed collection season

In the 2018/19 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 2018/19 financial year was \$11,142.18 incl GST.

The most year produced huge quantities of kahikatea and totara seed which was collected on the Wairau Plains and valley and tributaries. Smaller quantities of kanuka and kowhai seed were also collected and distributed to growers. Spinifex seed was collected from Marfells Beach for dune restoration.



Other seed was collected opportunistically during survey and monitoring work, to help make rarer or uncommonly grown plants available for local restoration projects. This included seed from a range of species in the Upper Awatere, including rock daisy, toitoi, *Carex secta*, kanuka, mountain five finger, cabbage tree and totara.

7. Tūi to town Project 2008- 2019

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 2018-2019 year, displays and presentations promoting the Tūi to Town project were presented at several public events including the Garden Marlborough Fete (November 2018), making good use of the T2T banners.

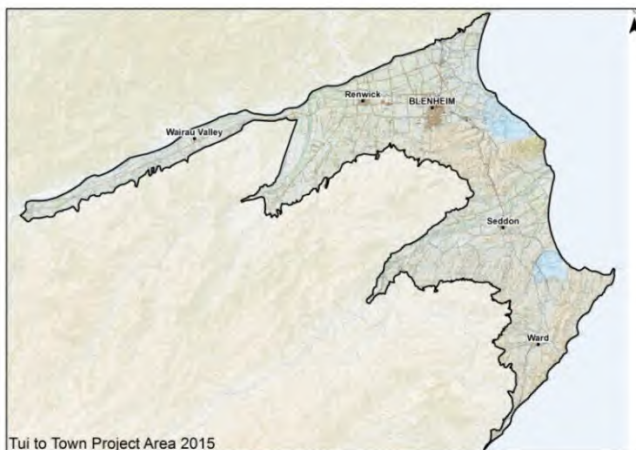
Three new Tūi to Town banners were produced for the Garden Marlborough Fete and have since been used at a Rarangi Dawn Chorus event and a number of other community events, including Small Townships events.

The Tūi to Town brochure and website page were updated in 2018.

Tūi to Town street flags continue to be flown in Blenheim and Renwick periodically. More Tūi to Town signage has been purchased to ensure that Tūi to Town projects are labelled with durable signs.

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 Kekerengū, 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 Kekerengū ecological districts.

7.4. Sightings

In the 2018 calendar year, a total of 55 tūi were reported to the Tūi to Town database and another 16 bellbirds and a kereru. The sightings came mostly from greater Blenheim, but also included Awatere, Woodbourne, Grovetown, Rapaura and Fairhall.

Woodbourne and Springlands had higher densities of tūi than elsewhere. Sightings have been evenly spaced between north and south Blenheim, with Redwoodtown, Blenheim and Witherlea also recording numbers. This pattern is changing and indicates that tūi are feeding all over the town. They are still most common between July and December. There is also evidence of tūi breeding near Pollard Park, with a chick recorded.

Bellbirds have strongholds in Witherlea and Woodbourne which indicates they are resident in the Wither Hills, probably originating from the wooded gullies around and west of The Ned. One kereru was also recorded in Blenheim, possibly for the first time.

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, plum and walnut).

The total number of tūi sightings over the nine year life of the project is now close to 900. 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.

7.5. Plantings

There were four planting projects funded in the 2018/19 financial year by the Tūi to Town fund, with a total of \$6640 paid out. Philip Walsh’ planting on the Omaka Riverbank at Dog Point is a great example of how to convert a weedy hole of wattles and willows into a beautiful and diverse native riparian forest.



Figure 15 Tūi~To Town planting Omaka River Bank

The total number of funded plantings since 2008 is now 55 and a total area of new habitat of about 7.5 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 Councils SNA programme is doing currently to implement these recommendations and are a useful way to monitor the progress of our programme in relation to that review;

- **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.**
 - Five new QEII covenants in riparian forests, wetlands and dunelands are in process following approaches made to landowners by Council during SNA visits.
 - An update of Covenant status of SNAs was not available at the time of this report but it is planned to record it here and update it 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.**
 - Biodiversity Prioritisation GIS maps have been produced under contract using the Zonation Analysis method adopted by all Regional Councils in New Zealand and these will be 'ground truthed' by an external organisation this financial year.
- **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, with a focus on Lake Elterwater and Para Swamp.
 - Landowners of coastal dune sites in Kekerengū ED have been engaged with and a number of exciting projects are underway, including covenants. This East Coast area is to be the target of a sustained restoration project led by a Restoration Plan recently written by Geoff Alls.
 - Revegetation techniques to enable larger scale restoration of retired areas in the Wither Hills are being tested and promoted.

- **Continue to address sites in the ecological districts with the least indigenous vegetation (Kekerengū, Flaxbourne, Grassmere and Blenheim) and gain access to sites in areas that have not been targeted, for example in the upper Awatere.**
 - SNA surveys in the Upper Awatere are continuing with a second survey completed last summer and another set to begin in 2019/2020. Sites are listed for restoration effort in 2019/20
 - Lake Elterwater, and other large important wetlands in Marlborough, including Para Swamp, will become more of a focus with restoration plans under way.
 - 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 through a variety of means, including SNA surveys, monitoring, farm field days and forestry field days.
- **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.**
 - The ongoing focus on the East Coast is fast becoming a targeted restoration project with emphasis on returning indigenous flora and fauna to this isolated area and managing the threats to allow it to thrive.
 - The Rarangi Wetlands/Drylands complex will continue to be regarded as important to encourage indigenous biodiversity there to thrive.
- **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 Para Swamp flax and raupo

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.

Central Government has initiated a process to produce a National Strategy of Indigenous Biodiversity. The process is consultative and will lead to a new Biodiversity Strategy which will give Council direction for its Biodiversity programme.

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 106 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 2018/19 summer season. It was found that 63% were in good condition and the rest were fair. In terms of the trend in condition, 75% of sites were improving and 25% were stable.



Figure 17 Needles Point from Chancet Rocks

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 15% of them are improving in condition, while 44% are in stable condition and 40% are deteriorating in some way. The impacts of weeds, especially wilding pines, marram grass and boxthorn, were the main issue in 2018/19, in addition to feral animals and farm stock having an impact in some sites.

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 helping to raise the profile of the programme and spread the message of our native species.

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.



Figure 18 Lake Elterwater

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. While we know already where the gaps are, it is important that we can target the high priority sites in those areas for restoration effort. This is progressing well with a Zonation exercise having been completed. The next step in this is to ground truth the system to ensure it is accurate.

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. Council's relationship with QEII is close and productive and we help each other to engage with new clients on a regular basis. A weakness in the system is that QEII covenants are not monitored by the SNA programme, so they are vulnerable to being overlooked in the management programme, whereas they are legally protected so are a safer investment for Council funds.

The “Kotahitanga mō te Taiao” alliance continues to develop with Te Tau Ihu Iwi, DOC and the Top of the South councils working closely to develop a strategy for improving indigenous biodiversity in Te Tau ihu.

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 the community to help ensure that the natural environment is not degraded, and hopefully is improved.



Figure 19 Cape Campbell from Mussel Point

Appendix 1: Total Budget for Main Aspects of Significant Natural Areas Project – Marlborough District Council Expenditure and Revenue – July 2018 – June 2019 (GST inclusive)

Table 6: Significant Natural Areas Project – Total budget July 2018 to June 2019

Project Name	Projected Budget	Actual Expenditure
SNA survey and general	\$28,750	\$31,464
SNA protection projects	\$92,000	\$77,339
Tūi to Town	\$10,000	\$6,731
Seed collection	\$5,750	\$11,142
SNA monitoring – Managed sites	\$34,500	\$34,221
SNA monitoring – Un-managed sites	\$34,500	\$17,540
SNA miscellaneous (meetings and contributions)	\$4,600	\$1,978
Prioritisation Project	\$11,788	\$18,628
Total	\$221,888	\$199,043