

\$5.00



QE II National Trust
For open space in New Zealand

Nga Kairauhi Papa

Open Space™

MAGAZINE OF THE QUEEN ELIZABETH II NATIONAL TRUST

No.62, November 2004



IN THIS ISSUE Taranaki/Wanganui/Manawatu Covenants • Covenants that connect habitats

Helping you protect the special nature of your land

QEII helps landowners protect significant natural and cultural features on their land.

Features protected include:

- Landscapes
- Wetlands
- Cultural sites
- Coastlines
- Archaeological sites
- Forests and/or bush remnants
- Tussock grasslands
- Streams
- Geological features

Landowners throughout the country have voluntarily protected some 69,000 hectares of their land through QEII covenants (or protection agreements). The Trust also helps by contributing funds for covenant projects and advising landowners on managing their covenants. *For more information see page 27.*

QEII also owns 29 properties which collectively protect over 1,500 hectares of significant habitat. These have mostly been gifted to the Trust. Effective stewardship of these properties is greatly assisted by local communities and management committees.

Contents

Focus on: Taranaki/Wanganui/Manawatu	4-9
Rare Species	10
Riparian management	12-13
The importance of connectivity	14-16
Archaeological sites	17
Annual Report Summary	18-20
Know your natives	22-23
Recently registered covenants	24
Fragments	25
About QEII open space covenants	26-27
A place to visit: Cloud Farm	28

'Open Space™' is published by the Queen Elizabeth II National Trust, P O Box 3341, Wellington, New Zealand St. Laurence House, Level 4, 138 The Terrace, Wellington.
Telephone: 04 472 6626 Fax: 04 472 5578
Freephone: 0508 (QE2TRUST) 732 878
E-mail: qe2@qe2.org.nz
www.qe2.org.nz

Cover photo: Wetlands and regenerating lowland forest flourish on Gillian Snelling-Campbell's and Douglas Snelling's Wairoa farm, where 72 hectares are protected under QEII open space covenants.

Photo: Malcolm Piper

The Queen Elizabeth II National Trust (QEII) is a statutory organisation independent from Government and managed by a Board of Directors.

Board of Directors

Chairperson, Sir Brian Lochore, Masterton

Deputy Chairperson, Bill Garland, Cambridge

Dr Sue Bennett, Te Anau

Geoff Walls, Christchurch

Lorraine Stephenson, Dannevirke

Yvonne Sharp, Kerikeri

Chief Executive, Margaret McKee

Tel: 04 472 6626, E-mail: mmckee@qe2.org.nz

Regional Representatives

Far North

Greg Blunden Tel: 09 407 5243

Northland

Nan Pullman Tel/Fax: 09 434 3457

Northwest Auckland

Rodney Straka Tel: 09 420 4082

Auckland

Rex Smith Tel: 09 622 2303

Coromandel/Hauraki

Hamish Kendal Tel: 07 866 0770

Waikato

Hamish Dean Tel: 021 741 222

Waitomo/Otorohanga

Malcolm Mackenzie Tel: 07 873 7728

Bay of Plenty/Taupo

Stephen Hall Tel: 07 544 1227

Gisborne

Malcolm Piper Tel/Fax: 06 867 0255

Hawke's Bay

Marie Taylor Tel: 06 836 7018

Taranaki

Neil Phillips Tel: 06 762 2773

Manawatu/Wanganui/National Park

Peter van Essen Tel: 06 355 9076

Wairarapa

Aidan Bichan Tel: 06 379 7513

Wellington

Tim Park Tel: 04 472 6626

Nelson/Marlborough

Philip Lissaman Tel: 03 540 3442

Canterbury

Miles Giller Tel/Fax: 03 313 5315

West Coast

Ian James Tel/Fax: 03 753 4017

Coastal Otago

Rebecca Reid Tel: 03 482 2304

South Island High Country

Dr Brian Molloy Tel: 03 348 1077

Waiau Catchment

Mark Sutton Tel: 03 215 9117

Southland

Gay Munro Tel: 03 239 5827

www.converge.org.nz/ntsth

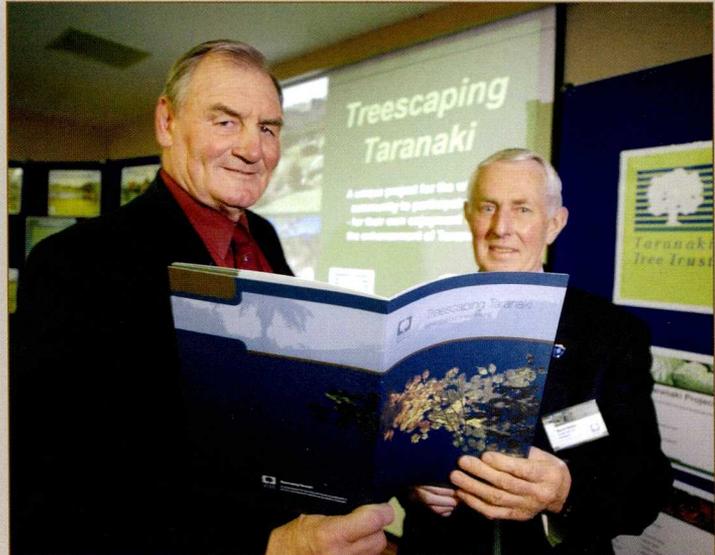
Aroha Island Ecological Centre

Tel: 09 407 5243

Treescaping project

Taranaki farmers are being encouraged to plant more trees through a new project run jointly by the Taranaki Tree Trust and Taranaki Regional Council.

QEII Chairperson, Sir Brian Lochore, was delighted to launch the Treescaping Taranaki project in July, recalling the lack of farmland trees when he grew up and welcoming what he called a “sensible approach” where trees are selected for the conditions and the range of benefits they can provide. Sir Brian wrote the foreword to the 28-page booklet that was sent out to all farmers, school and libraries in the region. The booklet contains advice about species selection, site selection, and how to plant and maintain trees. The Tree Trust hopes the booklet will encourage farmers to regularly plant trees for multiple uses, including shade, shelter, stock fodder, erosion control, habitat and visual value.



Sir Brian Lochore and David Walter, Chairperson of the Taranaki Tree Trust and Taranaki Regional Council, with the Treescaping booklet.

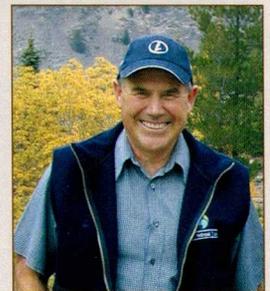
Photo: Taranaki Daily News

Bill and Brian and the batten debate



Like most farmers, Bill Garland and Brian Lochore debate fencing. The two QEII directors may have their own preferences but when it comes to fencing covenants, they're in agreement. Covenant fences tend to have bush on one side and grazing stock on the other. This can result in stock putting one-sided pressure on the fence as it tries to get at the proverbially greener foliage on the other side. Covenant fences can also be prone to damage from tree fall from within the covenant.

Bill and Brian agree that, provided power is available, hot-wired fences are the best, most robust and cheapest fencing option. Not only do the



hot wires deter stock from leaning over the fence but they're also easier to restore after a tree fall compared to batten fences where the wire tends to break and the battens get skewed. With power available, batten fences are outdated. Their recommendations:

- 7 - 8 wire fence, with no battens and 1 or 2 hot wires;
- for cattle: 8-wire with one hot wire 3 down from the top;
- for sheep: 7-wire with one hot wire 2 down from the top and another 3 up from the bottom.

All farmers have their fencing preferences. Here, a 6-wire fence with 1 top hot wire protects a bush covenant on James Hunter's Hawke's Bay farm. James (left) and Hawke's Bay Regional Council biosecurity advisory officer, Darion Embling, (right) look on while QEII rep Marie Taylor tells field day visitors about the covenant.

Taupo Swamp restoration



Photo: Robin Gay

Young flax being prepared for planting by contractor Mark Winter. Blackberry was sprayed over two years and the dead vines slashed.

Restoration of the nationally significant wetland, Taupo Swamp, has had a big boost thanks to funding from the Habitat Protection Fund (managed by WWF) and the Lotteries Grants Board.

The swamp on SH1 north of Plimmerton, which is owned and managed by QEII, is one of the few wetlands in the Wellington region where mainly native vegetation has remained. However, invasive weeds are a threat.

Landscape architect and advisor Robin Gay says weeds - especially blackberry - have been targeted, followed by revegetation planting in the wetland and on the lower slopes where a shrubland buffer is planned.

Focus on:

Taranaki/Wanganui/Manawatu

Farming is a major income earner for the Taranaki, Wanganui and Manawatu regions - dairying on the highly fertile volcanic soils of lowland Taranaki and the silt loams of river terraces in Wanganui and the Manawatu, mixed farming on the coastal plains and sheep and cattle production on the hill country.

This highly productive landscape was once a mosaic of coastal dunelands, lowland swamp forests and podocarp / hardwood forest. Large areas of native forest still remain on the steeper inland hill country but elsewhere only scattered remnants of the former native vegetation cover remain.

Landowners are helping to protect and restore these scarce remnants. More than 8,000 hectares are protected under 205 QEII covenants while a further 43 covenants, that have been approved and are progressing towards registration, will protect an additional 800 hectares.



Taranaki/Wanganui/Manawatu covenants featured in this issue.

Hanui Arboretum

Eighteen years ago **Louis and Don McIntyre** decided to retire a steep slope in a gully on their Manawatu sheep and cattle farm, as it was unsuitable for grazing. As keen farm foresters they already had various productive tree planting projects underway but their interest in native flora prompted them to devote the 0.4ha area to a native plant arboretum.

Their planting efforts have been so successful that a wide variety of New Zealand flora is now represented. QEII rep, Peter Van Essen, says that the arboretum has developed surprisingly well in a relatively short time and was protected by a QEII covenant earlier this year as a showcase of New Zealand flora. Although still maturing, the arboretum has considerable potential as an educational resource as it is easily accessible from SH1.



Louis and Don McIntyre proudly display their QEII covenant as Peter van Essen, looks on.

The McIntyres have developed walking tracks through the arboretum and labeled various species of interest. Visitors are currently welcome by prior arrangement but the McIntyres envisage the area might be opened to the public in the future.

Neighbours lead the way

Neighbouring dairy farmers have been the first to use QEII covenants to protect forest remnants in an area of ecological importance in South Taranaki.

Jill and Greg Braggins have covenanted 35.8ha while **Lynne and Richard Milne** have covenanted 9.8ha of remnant tawa-broadleaf forest. The remnant forest, bordering the Oruhai Stream on the northern boundaries of their adjoining farms,

was previously logged but is now regenerating well and is an important link along a larger bird corridor that enables native birds to travel between the coast and foothills for seasonal food.

The covenants sit within a more extensive, forested gully system that cuts below the surrounding flat farmland, linking the lowland plains with the extensive Tarere Forest natural area inland. The 240ha gully system, known as the Tarere Forest extension

is noted in the South Taranaki District Council's District Plan, because of its significant natural value. As with other significant natural areas the council provides financial incentives and information directly to landowners. In this case the Council met the Braggins' and Milne's share of the covenant fencing costs.

Environmental Services Group Manager, Graham Young, says that to date the council has been involved in nine covenants, assisting with advice and costs associated with protecting a range of sites including some not listed in the district plan.

"QEII covenants are a good way to encourage landowners and the council to work together. We work closely with QEII helping to make lasting protection workable and affordable for landowners. Neil Phillips, the QEII regional representative, works with us in advising landowners about the Council's protection programme, which achieves a seamless service to landowners," said Mr Young.



The covenants occupy a steep-sided gully system that has cut through terraced farmland. The bush pictured was fenced in 1985.

Oaonui coastal sand dunes

At the seaward end of Lynette and Peter Johnston's South Taranaki dairy farm lush, green pasture gives way to tawny-coloured sand dunes which the Johnstons have protected under a 9ha QEII covenant.



Photo: Neil Phillips

The Johnstons' covenant protects the dunes at left and a DOC reserve protects the dunes centre-right. Mt Egmont National Park is in the distance.

The covenant is part of the Oaonui sand dunes, the largest dune system remaining in a region where 70% of duneland has been lost since 1942. Although vehicles and stock have caused damage in the past, native dune vegetation has survived, providing habitat for rare species including the gold-striped gecko and the NZ dotterel. The sand dunes are also a breeding ground for black-backed gulls. Not surprisingly, Oaonui is recognised as a significant natural area. In a joint effort between QEII and the South Taranaki District Council, most of Oaonui is now protected under the Johnston's covenant, an adjoining 16ha DOC-managed reserve and an esplanade strip managed by the South Taranaki District Council.

The Johnstons wanted to help protect the native wildlife and plants, and are pleased to see breeding birds returning to the dunes.

The popularity of this stretch of coast for surf casting, recreation and school visits has been a catalyst for the formation of a community-based dune care and restoration group, Ngatitara Oaonui Sandy Bay Society Inc. The Taranaki Regional Council, DOC and

QEII have planned a restoration programme with the Johnstons and identified priority areas. Biodiversity condition funding was successfully secured for restoration work, supplemented by funds from Shell Todd Oil Services which runs a nearby Maui offshore rig production station, while the district council has assisted the Johnstons with 50% of their covenant fencing costs. Planting has been carried out by the restoration group aided by local Oaonui and Opunake schools.

"This is a great example of co-operative effort," says QEII rep Neil Phillips. "By working together landowners, public agencies and the community are able to achieve results amazingly quickly."

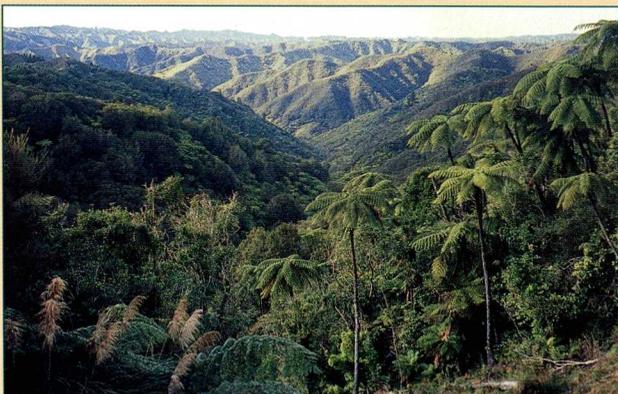


Photo: South Taranaki District Council

Left to right: Ross Dunlop, Chair of the South Taranaki District Council Environment and Hearings Committee, Peter and Lynette Johnston with their Certificate of Appreciation for their efforts to protect and preserve indigenous vegetation on their property, Tracey Coles, STDC Environmental Policy Manager.

Omoana Bush

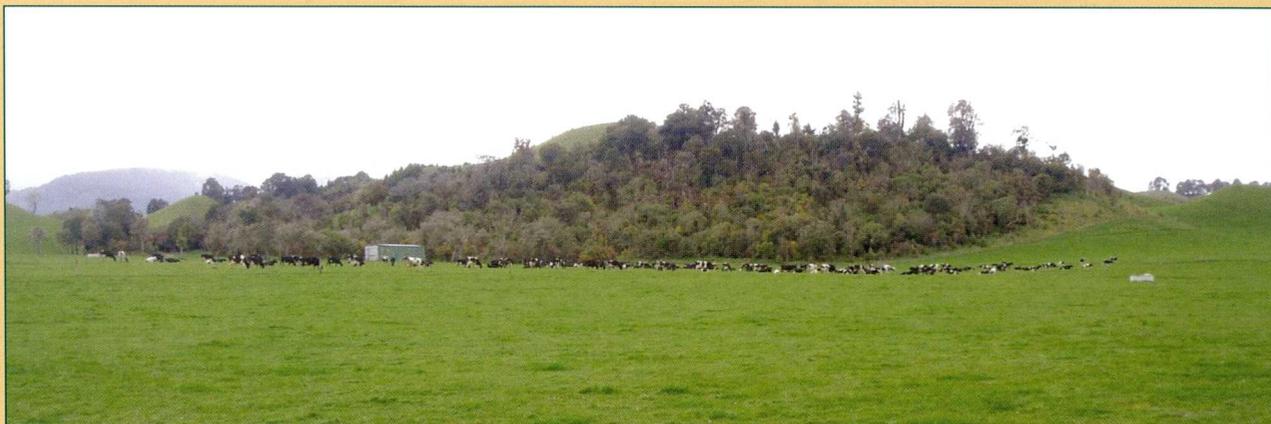
The NZ Native Forests Restoration Trust (NZNFRT) has covenanted 333ha of hill country in the headwaters of the Mangatoromiro Stream in eastern Taranaki, the first of other potential purchases it hopes to make in the area.



Although Omoana Bush was once almost completely cleared and farmed, it is now covered in vigorously regenerating secondary rewarewa-pukatea-rata forest and manuka/kanuka scrub. The Ornithological Society confirmed the forest is providing good wildlife habitat, with confirmed observations of 34 native bird species including kiwi, falcon, robins, fantail, bellbird, grey warbler, kingfisher, pukeko and NZ pipit.

NZNFRT trustees, Tim Oliver and Roy Dench, say their objective is to protect the flora and fauna, which is regenerating so well they're sure it will be self-sustaining, as well as protecting the stream catchment, a tributary of the Patea River. They are grateful to the South Taranaki District Council for help with fencing costs.

View west across Omoana Bush from the Waitiri Track, which passes along the western boundary.



The Martins fenced the forest remnant in 1996 and subsequently planted the open edge with native species to aid regeneration.

Dairy farm conversion

Combining three properties into a single economic dairy unit led **Bruce and Lisa Martin** to covenant two areas of remnant native forest.

In 1990 the Martins bought a small dairy farm adjoining their farm in the northern Manawatu, including 14ha of native forest protected by a QEII covenant. When they sold part of the new property, they retained 2ha of the covenant and added another 0.5ha of regenerating forest to it.

In 1996 they purchased another neighbouring sheep and cattle property for dairy conversion. Estimating that 95% of this land was in pasture, they were keen to safeguard the little tree cover that remained, so they fenced and covenanted a 3.7ha stand of mixed broadleaf native forest. The remnant had never been fenced and was showing the adverse effects of prolonged grazing as well as possum damage.

Now, eight years later, the

improvement from stock exclusion and possum trapping is obvious - the canopy, understorey and forest edges are all in good condition and there are no serious weed problems. Meanwhile the Martins increased their Friesian dairy herd to 400 but, finding it too hard on the hill pasture, settled back to a herd of 330 on the flatter areas, with production increasing from 330 to 382 milk solids per cow as a result.

McNie covenant

The McNie homestead, 5km from Taumaranui, looks across at a stand of primary native forest. It's a setting that Sharon and Graeme McNie have always valued but they hadn't considered its long-term protection until their daughter Trudy suggested a QEII covenant. Trudy, who has a degree in natural resource management, was keen to safeguard the forest's ecological and landscape values,

and Sharon and Graeme agreed a covenant was an ideal way to do so.

The newly-registered 6.6ha covenant at the southern end of the McNie's 650ha, 6500-stock-unit sheep and beef cattle property takes in part of the Pongahuru Stream and is clearly visible from Pongahuru Road. The canopy comprises a range of podocarp and broadleaf species including kahikatea, black maire, miro, matai, and

kamahi with totara dominant on the upper slopes. The understorey has been depleted by stock but is expected to regenerate rapidly with the new fencing, as there are ample seed sources from within the site and from birds that travel between forest remnants in the locality.

The McNies' covenant will add to a network of forest remnants that are protected under covenant or scenic reserve status in the district.



The McNie's podocarp / broadleaf forest remnant.

Revegetation project comes of age

In 1931, long before 'revegetation' had become a byword, Carl and Herman Stern fenced off a bare paddock on their Manawatu farm and set about revegetating it.

Today, the 0.63ha area has been transformed into a fine stand of secondary native forest due to Carl and Herman's foresight and over seventy years' of continuing effort from the family. **John Stern** is proud of the legacy his father and uncle passed on and secured its lasting protection through a QEII covenant last year.

The forest occupies a small valley with a spring-



John Stern, left, with QEII rep Peter Van Essen at the entrance to the new covenant.



Growth is prolific around the spring-fed wetland.

Photo: Peter Van Essen

fed wetland area. Seventy-year-old rimu, kahikatea, miro, totara and kauri, all planted by Carl and Herman, are emerging above a dense broadleaf canopy. A diverse understorey and groundcover has developed with ferns and seedlings, while native sedges border the open water of the wetland. Although some native plants from outside the ecological district were planted, most are local in origin and are typical of second growth forest in the locality.

As John says, "This is an example of an early, 'pioneer' revegetation project. Carl and Herman showed what could be done. They learnt as they went and got it pretty right!"

A magic place

For **John and Esther Williams** Mainui farm, 40 kilometres inland of Wanganui, is a "magic place" where they were fortunate to live for 24 years before advancing years forced them to move. They are glad Mainui's special qualities are protected by the QEII covenant they initiated.

Located in the headwaters of the Kauauarapaoa Stream, which has cut a spectacular gorge through the steep, slip-prone hill country of the area, Mainui's



Visitors enjoy the Mainui forest on a DOC Summer Nature Programme tour lead by Esther Williams.

110ha of virgin native forest is valuable for water and soil conservation as well as its botanic and scenic qualities. The varied topography supports a diverse range of plant species, with 82 vascular plant species recorded on just one visit by the Wanganui Botanical Society in 1991. Beech forest dominates on the steeper sandstone ridges while podocarp and broadleaf species occur on the easier slopes, including some very large rata. Ferns are plentiful and swathes of the orchid, *Earina autumnalis*, are a particular feature.

As native forest covers most of the 135ha property, the Williams decided to place the covenant over the whole land title with provision for controlled grazing on the 8ha of existing paddocks. New owners Susan Davis and Noel Shepherd share the Williams' enthusiasm for Mainui. Noel says the February 2004 storm did considerable damage in the Kauauarapaoa Valley but the native forest areas came off better than the surrounding plantation forests and farmland.

Early covenants

Taranaki's first covenant



The Collier / Lintott covenant (left) frames the newly-formed Lake Rotorangi on the Patea River, 1985.

In 1978 the late **Keith Collier** was redeveloping his farm, east of Eltham; - clearing extensive areas that had not been farmed since the 1930s. One area he and his wife Beverley had no intention of clearing, however, was a native forest-covered peninsula in a bend of the Patea River. They approached the newly-formed QEII Trust about protecting it.

Meanwhile the Colliers' neighbour, **Peter Lintott**, was also hard at work clearing scrub and redeveloping his farm. He, too, was keen to preserve the native bush and, hearing about the Colliers' covenant proposal, put forward a further 136 hectares of adjoining forest on his land.

The Trust approved both proposals as, together, they would protect 360ha of lowland podocarp and hardwood forest which, although it had been partly logged, was regenerating well. The two areas were registered as Taranaki's No 1 (A & B) covenant in 1981.

Both owners were also keen to make the covenanted land available

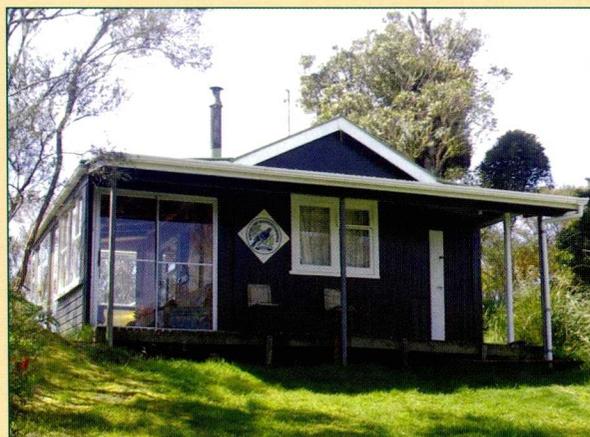
as a scenic attraction for public use. It was accessible only via the deeply incised Patea River, so they developed walking tracks across their respective farms and through the forest from the Tangahoe valley and the Mangamingi valley. Easy boat access became possible when, in 1985, the river was flooded under the Patea River hydro scheme to form the 26-mile-long Lake Rotorangi.

Since then the forest has become a popular visitor destination and has flourished, greatly assisted by the Taranaki branch of the Royal Forest & Bird Society. In 1993, with QEII approval and Forest & Bird help, the

Colliers moved their former scrubcutters' hut to the bush, which has been well used as a visitors' lodge ever since. Forest & Bird volunteers also helped with goat and possum control for many years, formally taking over the pest control programme in 1999. A survey in the same year recorded 133 plant species and noted that the native bird population was responding well to pest control.

The Colliers' son Cam and wife Sarah now run the family farm in partnership and Graeme Dickson owns the Lintott farm, which Peter Lintott sold in 1985. Graeme and the Colliers maintain a good relationship with Forest & Bird, assisting members with access for pest control. Twenty-five years on, the covenanted bush on both farms is intact, healthy and a place of value to the wider community - just as the Keith Collier and Peter Lintott had planned.

Note: access to the covenants is by prior arrangement.



The visitors' lodge in 2004.

Photo: Thomas Collier

Rare Species

Patearoa Saline Area:

an endangered and special dryland habitat of inland Central Otago

Written by Brian Patrick, Collections & Research Manager, Otago Museum

Otago is the only region in New Zealand with salty soils present in its inland valleys. Once widespread and extensive, salty soils are now very rare and those that remain are mostly tiny remnants. While some are covered in water in winter, most are exceedingly dry in the hot Central Otago summer.

South of Patearoa the main road truncates a series of salt pans forming an extensive salt meadow on the western flank of the Rock and Pillar Range. The most biologically diverse part of this system was protected in 1996 under a QEII covenant on **John Beattie's** farm following ten years' research on the special insects, halophytic (salty soil dependent) plants and soils.



Photo: Otago Museum

The cress *Lepidium sisymbroides subspsisymbrioides* is chronically threatened and in gradual decline. Two other subspecies found on salt pans are even more threatened.

The low hills that surround the site are also of special interest. The same conservative grazing regime that has ensured the survival of the saline soils plants and insects has also saved a dryland system of native grasses, herbs, prostrate shrubs and associated insects.

The native halophytic herbs and grasses include cryptic (camouflaged) species with grey foliage, while the surrounding slopes support the rare low growing shrub *Carmichaelia vexillata*, the daisy herb *Vittadinia australis*, and the threatened cress *Lepidium sisymbrioides*.

Dryland insects abound at this site, both those active by day and nocturnal species. Colourful diurnal moths and butterflies such as the tiny *Euythecta zelaea* with its flightless female, the rare plume moth *Stenoptilia celidota*, and the newly described *Australothis volatilis* are all a feature of this site.



Photo: Otago Museum

Roadside interpretation on the highway explains the salt pan's special values.

I consider this the most important remaining inland saline system so its protection is vital. Thanks to John Beattie's covenant and the monitoring programme set up by former QEII rep, Helen Clarke, the suite of specialist insects and plants in this distinctive landscape is being protected and nurtured.



Photo: Simon Morris

Underscoring the value of protected areas like the Patearoa Saline Area, is the recent rediscovery of another endemic insect. This small cryptic grasshopper that was first collected nearby in 1939 was recently found in the reserve. It is an unnamed species that appears confined to the low altitude western slopes of the Rock and Pillar Range.

It was during an Otago Entomological field trip to this site in 1986 that the small diurnal grey and orange moth *Paranotoreas fulva* was rediscovered after 50 years of no sightings. Subsequently it was found that the larvae of this dryland moth fed on the foliage of the salt-loving *Atriplex buchananii* amongst other herbs.



Photo: Otago Museum

Woody vegetation helps hold our soils - more evidence



Scientists have confirmed forest and scrub cover provide good soil protection during severe weather events.

In a study carried out by Landcare Research, landslides resulting from the February floods in the Manawatu / Wanganui region were mapped, using satellite imagery. The images showed 62,000 landslides had occurred, affecting an area of 19,000 hectares. The landslides were then compared to detailed maps of rock and soil type, slope and land cover.

The comparison showed that sandstone and mudstone hill country is at risk to landsliding no matter what

the slope but woody vegetation cover dramatically reduces the risk. Forest (both indigenous and exotic) reduces the likelihood of landsliding by 90% and scrub reduces it by 80%.

Landcare Research scientist John Dymond says landslides are a concern because they are gradually reducing the productivity of pastoral hill country. "Many of the slips were quite shallow (300-1000 mm deep) but, unfortunately, once slipping starts, it generally continues until the whole face

has slipped." He says increased sedimentation also harms stream and river environments with detrimental downstream effects.

Using the February storm information, the study team tested and refined a model they had developed previously to predict landslide risk. They found that, as predicted, the risk of landslides was very low for land under woody vegetation and high for steep, pasture-covered slopes. More landslides occurred on moderate slopes than predicted, partly due to material sliding down from steeper land above.

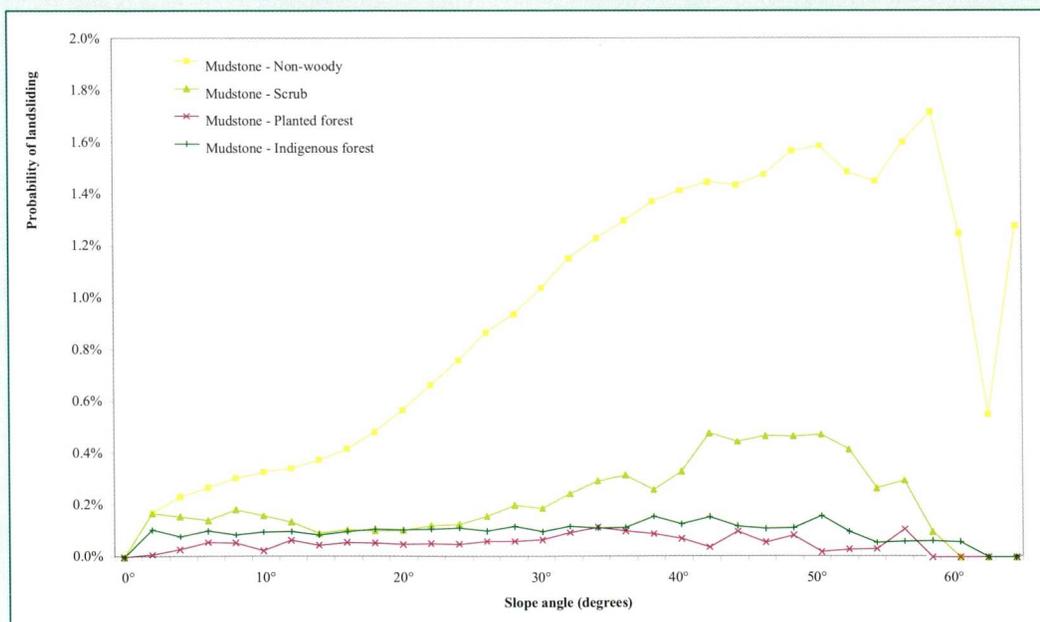
John says the model will be used to target steep land at most risk to landsliding but that will be only part of the solution. Given the landslide risk on moderate slopes, too, a catchment-wide approach is needed where all slopes are managed through their vegetation cover. "We can't control rock and soil type, or slope, but we can control vegetation cover. The effects of the February storm clearly demonstrate how effective woody plants are at holding soil, so we should be protecting existing forest and scrub and looking at a range of soil-conservation techniques for at-risk pastoral land."

Techniques include reforestation, farm forestry, space-planted poplars, riparian management and gully wall planting. John recommends farm plans to work out a good balance between conserving vegetation and soil, and maintaining farm productivity.

Research team:
John Dymond, Anne-Gaelle Ausseil, James Shepherd of Landcare Research, Palmerston North; and Lars Buettner, Centre for Environmental Research, Leipzig, Germany.



Multiple shallow slides on recently milled hills in the lower Whangaehu valley, 20km east of Wanganui. The forested areas behind were barely affected. Source: GNS, Lower Hutt



This graph of landslide probability under different vegetation types on mudstone shows that the probability decreases significantly under forest or scrub cover. Source: Landcare Research

Riparian management



Farm streams - appearances can be deceptive

A recent visual preference survey, carried out by NIWA, found that people overwhelmingly prefer farm streams that look clean, healthy and natural. However, while a stream may look clear and sparkling billions of faecal bacteria may be lurking below the surface, according to another NIWA study.

After studying a typical farm stream draining a pastoral catchment, NIWA concluded that livestock faeces chronically contaminate pastoral agricultural streams.

The research team estimate that during normal flows the stream water contains only about 1/1000th of the total faecal contamination in the stream. Most faecal contamination is found in the sediments that settle on the stream bottom. During floods, however, the bacteria and sediments get picked up by the swirling waters and washed downstream. Water samples showed that bacteria levels increased hugely

during a flood, peaking at 40,000 per 100 ml compared to a baseflow (low water) level of about 100 per 100 ml.

These results are of concern for two reasons.

Firstly livestock or people wading in a stream are likely to disturb muddy stream bottoms and release bacteria into normal flows. Secondly, floodwaters carry large amounts of bacteria down to lakes and estuaries where accumulated contamination can be a threat, especially to shellfish gathering and aquaculture.



Photo: Rob Davies-Colley

NIWA tech officer John Nagels demonstrates the muddiness of a farm streambed. The disturbed mud contains very high levels of faecal bacteria.

Faecal contamination is either washed in during rainstorms or else deposited directly when animals get into the channel. Either way, fenced-off riparian buffer zones are likely to reduce contamination by filtering run-off and excluding stock from direct contact with stream waters.

Farm streams – what do people like?

1050 people at the 2002 Waikato Agricultural Fieldays were asked to rank the four photos shown below from “most liked” to “least liked” and to give reasons for their choice. Two small and two large streams were portrayed, with and without riparian management. Overall, respondents commented favourably about the fenced and revegetated buffer zones but some preferred a tidier look noting possible weed problems, and others still felt that stock access was important.

Photo A was most preferred because the banks were planted and the water seemed clean and healthy, followed by B, due in part to the bigger stream size, meandering channel, and tidy (weed-free) banks. D and C were least liked, particularly C, because it was small, channelised and untidy. These results showed that people’s preferences do not always reflect stream health, as streams A and D provide the best water quality and habitat diversity.

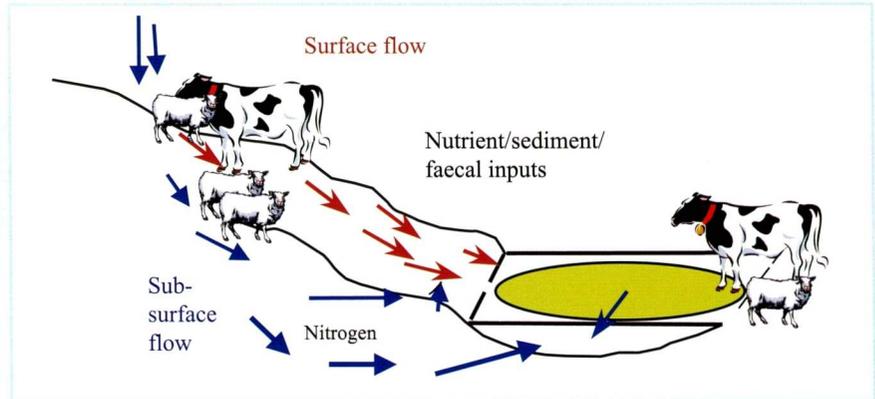
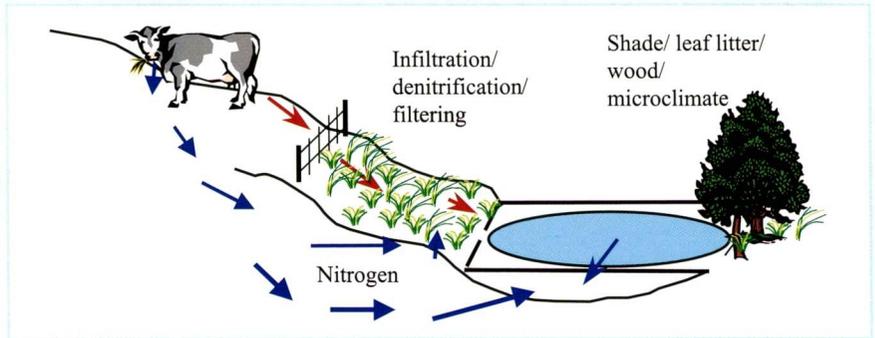


Riparian buffer zones - how effective are they?

Given the outlay of money and effort that creating riparian buffer zones can involve, NIWA thought it would be useful to check out some results. Do the hoped-for benefits of improved water quality and natural habitat occur and how long will it take?

In one study, nine examples of riparian buffer management on North Island pastoral farm streams were compared with similar unbuffered reaches. Macroinvertebrates (aquatic creepy crawlies) were observed as the main indicator of habitat improvement, and water quality, temperature and clarity were also measured. Although the results were variable, the streams bordered by riparian buffer zones showed improvement overall, particularly improved water quality.

Another study examined the restoration of two Waikato streams, undertaken by Genesis Power Ltd as part of a resource consent. The fish populations were surveyed in 1995, prior to fencing and riparian planting, and then surveyed again in 2003, after eight years' of restoration. This revealed



Source: NIWA

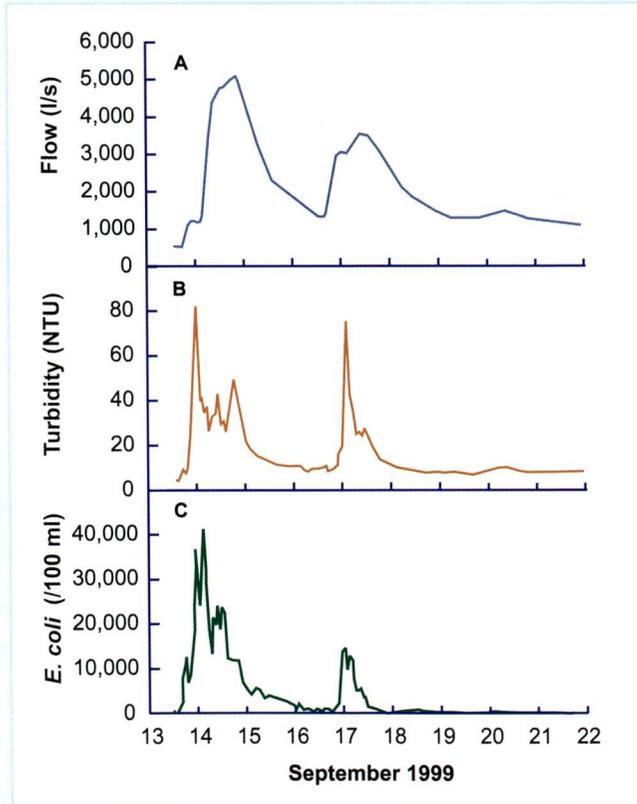
that the fish population had changed significantly - the abundance of species that prefer forested streams had increased, often by at least 50%, while the abundance of species that prefer pastoral streams had decreased. The change in fish type indicated that one of the objectives was gradually being realised - establishing native forest corridors along the streams with the right conditions for indigenous native fish.

Both studies pointed to the following main conclusions:

1. **Be patient - stream habitats recover slowly!** Water quality may improve quickly but, depending on the stream, it can take decades before there is enough shade to lower water temperature enough for aquatic life to thrive.
2. **Upstream land use effects downstream results.** Lack of filtering, shade and exclusion of livestock can have an adverse flow-on effect on downstream management.
3. **Linkages to other natural areas will help recovery.** Biodiversity may only improve if aquatic and riparian species can easily travel from other established habitats to recolonise the stream.
4. **Ongoing maintenance is important.** Livestock getting into one fenced-off section of stream can ruin years of plant growth and bank stabilisation in a short time. Riparian vegetation can also need maintenance including replacement of dead plants, thinning and weed control.

NIWA freshwater ecologist Stephanie Parkyn, says the key to improving water quality and restoring ecological diversity is *connection*. "Stream rehabilitation is most likely to be successful when planting in riparian zones begins from the headwaters and progresses down through the catchment to produce a long, continuous buffer."

Source: Water & Atmosphere, Vol.11 No.4 and Vol. 12 No 2, published by NIWA



Observations during a flood on the study stream in 1999. (A) hydrograph (water flow), (B) turbidity (measure of suspended matter in water) and (C) faecal indicator bacteria. There is a close correlation between turbidity and faecal bacteria but much weaker correlation with flow.

The importance of connectivity in a working landscape

Linking the remnants of fragmented natural systems is often the key to their long-term viability.

While there is some debate about how important the connections between fragmented natural areas in landscapes are, most ecologists agree that wildlife habitats, linked in some way, are more valuable than those that are not. The size of natural areas is also an important factor in determining what species of animal are able to survive. The smaller a patch, the greater the negative effects of fragmentation.

Most of our lowland ecosystems exist today as fragments of their extent prior to human influence. These need to be reconnected by corridors to enable the exchange of plants and animals. This aids ecological biodiversity and the survival of species that require larger natural areas than the remnants they are confined to.

In the Coromandel the Wallace family is connecting habitats on its property, while QEII covenantors at Patoka in Hawke's Bay and Urenui in North Taranaki are co-operating with each other, and with local councils, to make wider connections that feed into catchment or special management areas.



Photo: Hamish Kendall

The Wallace family is gradually linking up covenants across their farm, from the sea to Tapuaetahi Peak (centre) and to other parts of the Whenuakite Kiwi Care Group Zone beyond.

Connecting the Wallace farm

Lin and Charlotte Wallace's family property has some of the best coastal forest on private land on the east coast of the Coromandel. The property extends 6km along the coast as a mosaic of forest and farmland up to Tapuaetahi Peak at 276m above sea level. There is a diverse range of habitat for wildlife including kiwi and the critically endangered creeper mawhai (*Sicyos australis*).

When the Wallaces bought the 825ha property in the 1960s, there were few fences and the stock roamed free. Now retired in their mid-80's, they are living their dream of

protecting the forest while maintaining an income from the farm to help pay for it. They have just fenced their third QEII covenant, and are already planning a fourth that will link all the covenants together from the sea to the peak. Their protected forest will also link up with neighbouring private and state forests, all of which are part of the wider Whenuakite Kiwi Care Group Zone.

The Wallaces experienced the forest devastation that occurred when possums arrived on the Coromandel Peninsula in the 1970's, but the forest

is healthy again now that Lin maintains 140 possum bait stations as part of the kiwi care programme. Charlotte was a founding director of the QEII National Trust and their original covenant was the first registered on the peninsula.

In addition to QEII's own contributions to fencing, the first two covenants received generous funding from the Waikato branch of the Royal Forest and Bird Society while the latest has been supported by the Regional Council and DOC's Biodiversity Condition Fund.

The Patoka sequence

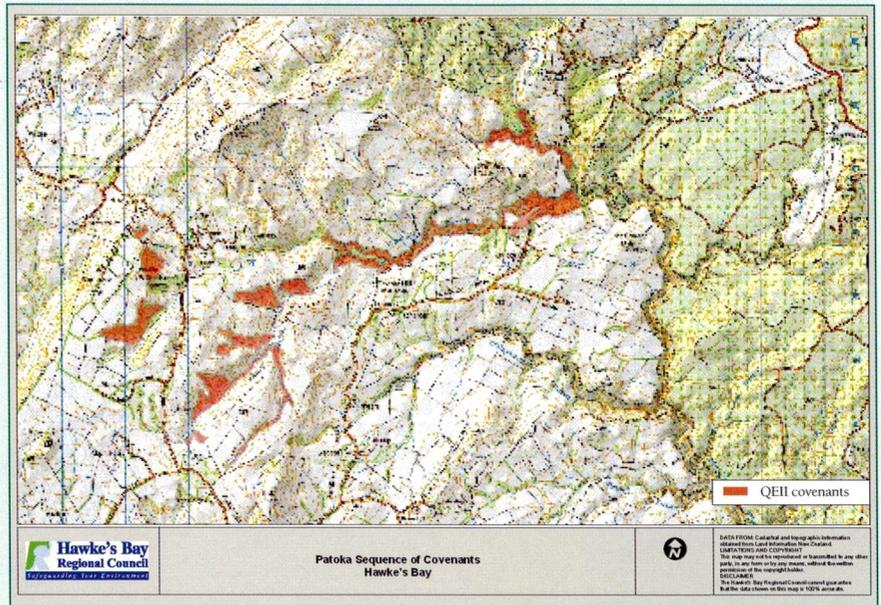
When neighbours get together to work on a project, the results can be very powerful, as neighbouring farmers have found at Patoka, an hour northwest of Napier.

Back in 1994 **Wilton and Theresa Hartree** started fencing off 42ha of bush on the family farm in the headwaters of the Waipuna Stream, a tributary of the Mangaone River. About the same time, other farmers in the catchment were initiating covenants. With significant funding help from the Hawke's Bay Regional Council, which had put the Mangaone on its priority catchment list, fences started going up all along its tributaries.

Tom and Dora Hartree who farm next door to Wilton and Theresa started with two blocks of bush - including a remarkable limestone cliff featuring



The Patoka sequence of covenants connect natural habitats along the Waipuna Stream.



Covenants line approximately 16km of the Waipuna Stream near Patoka.

stalactites. Two farms downstream, **Roger and Michelle Thomsen** began a six-year project to fence off and protect 6km of deep, bush-clad gullies on their farm.

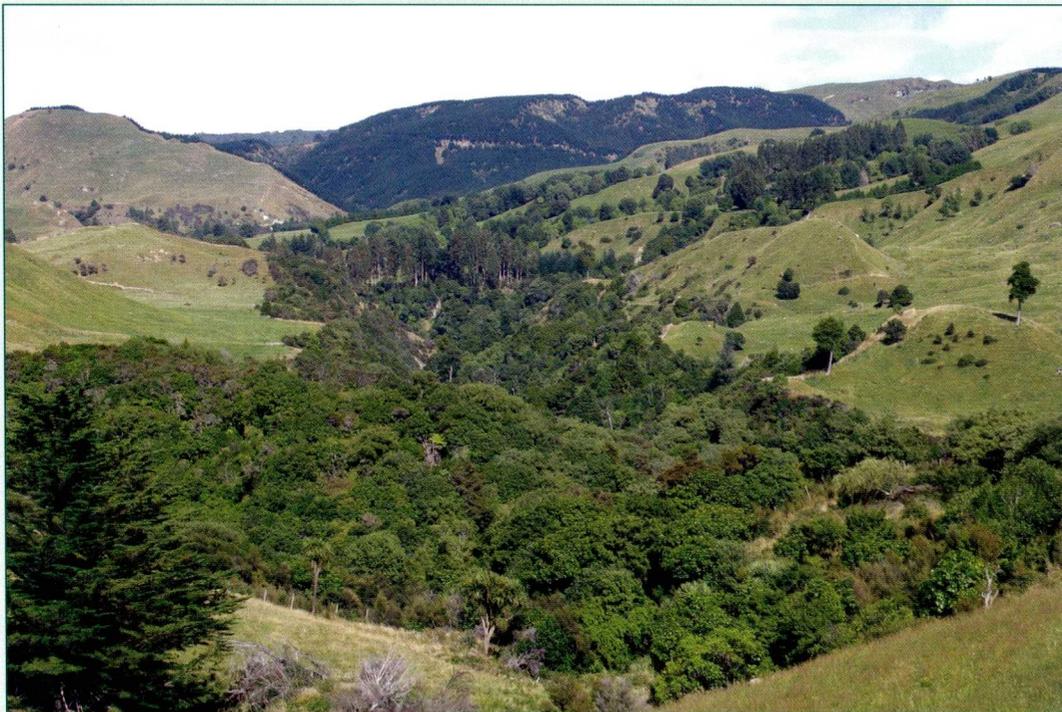
In between, **Mark and Judy Nelson** fenced their side of the Waipuna Stream, and neighbours **Pauline and Bruce Gloyn** added 29ha, much of which is sheer cliff faces.

Further upstream the **McGregor** family have recently

fenced a 16ha block, which was designated a Recommended Area for Protection in DOC's 1996 survey of the Maungaharuru Ecological District. The McGregors have also fenced the entire stream length through their farm, allowing strong regeneration of treeland areas into secondary forest.

Together, these landowners have double-fenced more than 16 km of bush-clad streams and protected 290 hectares of natural habitat in a vulnerable catchment. QEII rep, Marie

Taylor, says it's a marvelous area. "These covenants include limestone bluffs and cliffs that support rare plants, a spring-fed wetland in a region where few wetlands remain, and lowland hardwood and podocarp forest, in an area where little remains. Moa bones have also been discovered and various bird, fish and lizard species have been noted. The covenanted areas link up and form a valuable natural corridor."



Regenerating lowland forest fills the Waipuna Stream gorge on the Thomsen covenant.



Photo: Neil Phillips

Protected forest remnants link habitats down the Kakapo Stream to the coastal lowland. Urenui township is at top right.

Kakapo Stream - from hills to sea

Between April 1992 and December 1995, six landowners protected 41ha of riparian forest in the north Taranaki Kakapo Stream catchment under QEII covenants. In the stream's headwaters **Stephen and Karen Luxton** covenanted land on the west side, while **Clyne and Diane Morgan** and **Brian and Kathleen Carr** set aside land on the east side. The next section downstream was protected by **Robert Godderidge**, while **Alan and Janet Halcombe** and **John and Nerida Halcombe** covenanted three more forest remnants close by.

Since then, more landowners living on the same road have placed covenants or are in the process of placing covenants on their forest. Alan and Janet Halcombe have added further areas to their initial covenant while their neighbours, **Kathryn Gulliver and Didrik Stene** are in the process of protecting 4ha of forest. Inland to the east, the **Newton** family have covenanted 69ha on Kaipikari Farm, are



Photo: Neil Phillips

King fern (*Marattia salicina*), which is in serious decline through New Zealand, is present in the Urenui forests.

fencing off a further 40ha and have plans for protecting more areas. Further upstream 40ha of regenerating forest belonging to **Chris Halcombe and Melissa Seed** have been approved for covenanting.

The covenants encompass semi-coastal and coastal, primary and secondary hardwood and podocarp forest, including rimu, miro, matai, pukatea, totara, swamp maire, tawa and nikau in the canopy, and a diverse understorey. King fern (*Marattia*

salicina), which is of cultural significance to Maori and is in serious decline throughout New Zealand is present in several of the covenants.

Fencing the forest and keeping stock out of the catchment was important for soil conservation and water quality - particularly as the Urenui township near the coast derived most of its water supply from the Kakapo Stream at the time. With this in mind, the Taranaki Regional Council became involved as well as QEII, and contributed substantially to funding the project.

The continuity of these covenants along the stream has also benefited local ecology. It is providing an important link between the inland hill country DOC-managed Taramoukou and Pouiatou forests and remnant habitats closer to the sea. Connections of this sort, that link a range of environments, greatly assist the biodiversity and viability of the fragmented lowland and coastal habitats.

Archaeological sites

Māori pā sites

QEII open space covenants are one way to ensure protection of Māori cultural sites.

Motuto Point

Motuto Point, set aside 87 years ago by the **Smith family** and covenanted in 1997 by the family trust, is a remarkable landscape, geological and archaeological feature.

The rocky point north of Whangapoua Beach on the Coromandel Peninsula, is the vestige of a small, long-eroded volcano. The Motuto pā was built by Ngati Huarere on the north, seaward-facing side of the summit where the well-preserved remains of terracing is evident today. It was ideal for defence, being located above rugged, basalt-column cliffs and connected to the mainland only by a narrow neck of land.

Public access to the pā site is allowed, although it is a steep and tricky track to the top. The covenant can be reached by walking around the boulder shore from Whangapoua and also provides public access to the secluded New Chums Beach.



Photo: Hamish Kendall

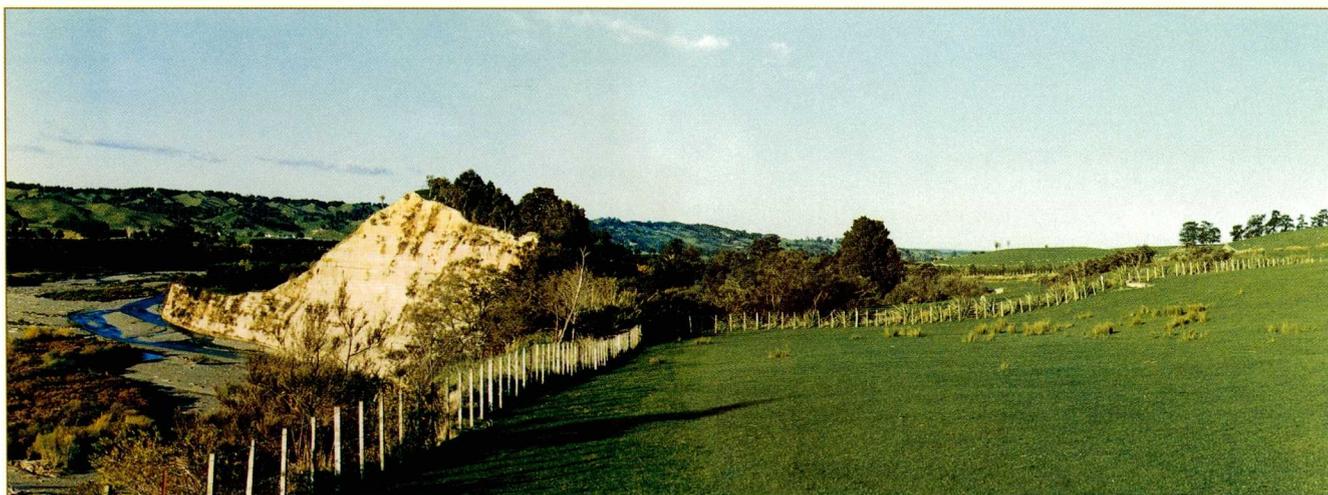
Motuto Point with Whangapoua Beach beyond: the pā was built on the grassy slope facing the sea.

Recorded pā sites date from the 16th century. Pā were built by Māori as fortified refuges for times of war but were also secure living places and were centres for learning, crafts and horticulture. They were often located on naturally defensible high points such as the ends of steep-sided ridges, coastal headlands or isolated hills but were also built on the edge of swamps and sometimes on flat land. Defensive earthworks included steepened slopes, ditches and banks, often combined with timber palisades, while platforms and terraces were formed within the defences to accommodate buildings and activities.

Te Whiti-O-Tu Pā

The Te Whiti-O-Tu Pā on **Helen Swinburn's** Hawke's Bay property was built on a small hillock at the top of sheer 100-metre cliffs above the Waipawa River, a dramatic defensive location near the foot of the Ruahine Ranges. It was the site of a decisive battle in or around 1831, when the Ngapuhi and Ngati Whatuiapiti tribes defeated the Ngai Te Upokoiri and Tuwharetoa tribes, in a fierce engagement.

The remains of a tihi (platform) and a series of terraces descending down from it can be seen today. Helen manages the pā site under light grazing to maintain a grass sward that allows the earthworks to be seen and is delighted that school groups visit the site regularly. She has also protected an adjoining area of black beech / totara forest under the covenant.



Te Whiti-O-Tu Pā: the small hill above sheer cliffs was a strategic location and a dramatic battle site.

Extracts from QEII National Trust Annual Report to Parliament for the Year Ended 30 June 2004

The full annual report can be viewed on www.qe2.org.nz/about or phone Freephone 0508 732 878 to request a copy by post.

Chairman's report

It is a pleasure to report on a year of solid progress.

Our financial performance is strong and we continue to deliver exceptional value for money. We take enormous pride in what we have achieved for New Zealand's natural heritage for less than \$3million of public funds. This year we approved 304 new covenants, which is a grand reflection on landowners coming forward to voluntarily protect natural features on their land. QE II is now the perpetual trustee for over 2,393 covenants protecting over 85,000ha, or as some of us like to say, over 212,000 acres!

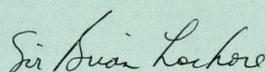
In my first nine months in the role as Chairperson I have travelled the length of the country and been privileged to meet a wide variety of landowners. Whether we're in a Southland peat bog, a bush remnant in the hill country of the Wairarapa or a coastal forest and dune system in the Far North, all the landowners have one thing in common: they all take great pride in and are absolutely committed to conservation and good environmental practice on their own patch. Their stewardship is to be applauded and encouraged in every way as it is integral to helping us as a country retain the natural character of our land for the benefit of all New Zealand.

Many rural landowners have had challenges over the last year with storms and floods. I have been a farmer all my life and I know how devastating the loss of many years' hard work on the land can be. My heartfelt thoughts are with all of you who have experienced hardship. These times also remind us of the need to respect the land, natural processes and the delicate balances of nature.

My fellow Directors come from a diverse background and collectively we make an effective team. We comprise four farmers, a mayor and an ecologist, and are geographically spread from Kerikeri to Te Anau. This inevitably leads to healthy and robust debate that continues to test and strengthen the Trust's work. During the year Yvonne Sharp was appointed as a Director, Lorraine Stephenson was reappointed for a second term and Bill Garland and Geoff Walls were both re-elected by the membership for a further three-year term. I thank them for their ongoing dedication.

We were all saddened by the sudden loss of former chairperson Sir Peter Elworthy during the year. Sir Peter had served on the Board for a total of six and half years and he was absolutely committed to the work of the Trust and took great pride in his own covenants on Craigmore. His contribution, particularly to the rural sector in New Zealand, was enormous.

We especially thank the Minister of Conservation, the Honourable Chris Carter, for his support and for the increase in funding. As well as enabling additional QE II presence and protection around the country the funding has provided an enormous boost to morale for all those involved in private land conservation.



Sir Brian Lochore
Chairperson



Chief Executive's report

This last year has been an exciting and challenging one for the Trust.

The significant increase in funding, from a modest base, has enabled activity to be increased with renewed energy.

We welcomed Sir Brian Lochore as Chairperson. He brings huge mana and embodies our core working values of practicality, respect and partnership.

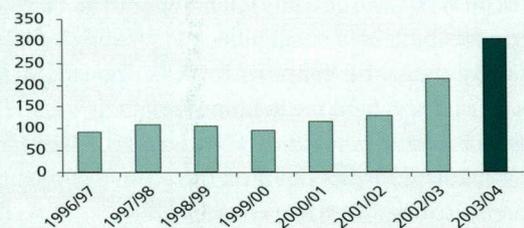
In recognition of the increasing importance of science and technology Dr Richard Allibone was appointed to a newly created position of National Services Manager. Richard is a freshwater scientist with previous roles in NIWA and Department of Conservation and brings valuable science leadership to QE II. The total staff in the Wellington office is now 12.

This year we also created four new territories in the field allowing more intensive coverage for remote areas. They cover the West Coast, Coromandel, North West Auckland and the Te Anau Basin. This brings the total number of (part-time) field representatives to 20.

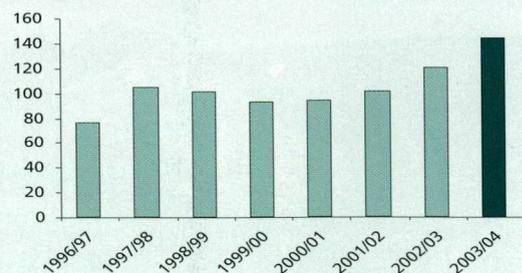
There has been a steady increase in all our work and conservation gains for private land.



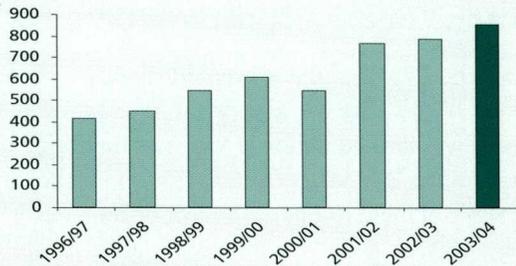
Growth in number of new covenants approved annually
(number of new covenants is a function of funding)



Growth in number of covenants registered annually
(lag between approval to registration is 1-2 years)



Growth in number of covenants monitored annually
(covenants are monitored every second year)



Proudly we continue to have a highly operational and practical focus with over 40% of funding going directly towards contributions to the fencing and survey cost of covenants.

Increased resources were again applied to the monitoring of covenants. The results showed 82% of covenants exceeded the agreed covenant terms and conditions, and less than 3% had poor adherence where remedial action was required. These statistics remain the same whether the landowner is the originating Covenantor or has purchased covenanted land.

Biodiversity advice and condition funding has had a great impact on improving the condition of the covenants. Work has been targeted to specific covenants and groups of covenants for integrated pest management.

The Trust continues to forge stronger links with local government. This increases resources and planning capability and in many cases leverages additional funds for landowner

assistance. This year we formalised Memorandums of Understanding with Environment Bay of Plenty and Canterbury Regional Council.

Technology increasingly provides an important way forward. We have improved financial management systems, upgraded to digital photography and continue to make progress towards integrated geographical information systems. We have been actively involved in planning and bidding for research grants in collaboration with AgResearch, Landcare Research and university partnerships.

Our 'Open Space' magazine goes from strength to strength. While we progressively include more science and land management content to assist our covenantors, we are also increasing distribution through a wider variety of channels. In addition to rural landowners, we have targeted resource planners, surveyors, farm accountants and farm foresters.

Our challenges over the next year include keeping pace with new technology where it improves our efficiency and allows a more strategic approach and ensuring we reach and influence landholders in the appreciation of open space and the natural New Zealand landscape.

We offer expertise in legal protection of natural features, expertise in monitoring programmes and a network of specialised field representatives throughout the country. As a resource management tool, for the 70% of land in private ownership, QE II is simple, robust and highly cost effective.

Importantly we all thank the landholders for their tremendous dedication in managing their voluntary covenants and helping shape and give QE II and New Zealand a unique presence.

Margaret McKee

Margaret McKee
Chief Executive

Highlights for the year

- 304 new covenant approvals protecting 8,390 hectares
- 143 new covenant registrations protecting 3,407 hectares
- 477 approved covenants progressing towards registration
- Monitoring 853 covenants
- Significant work achieved from Biodiversity Condition and Advice funds
- Management of 28 properties owned by the Trust
- Administration of 2,393 covenants (registered and approved) protecting 85,895 hectares.

Increased protection of habitats under threat

- 73 new approved covenants protected coastal and semi coastal areas
- 43 new approved covenants protected wetlands and swamps
- 108 new approved covenants were in the lowlands
- 123 new approved covenants protected primary forest

Summary @ 30 June 2004

Covenants	Number	Hectares
Registered covenants	1,919	68,365
Approved covenants	477	17,016
Total	2,396	85,381
Formal agreements	15	644
Properties owned by the Trust	28	1,575
Total		87,600

Statement of Financial Performance for the Year Ended 30 June 2004

2003 Actual \$		2004 Actual \$	2004 Budget \$
	Revenue		
1,318,222	Government Grant - Base Funding	1,318,222	1,318,200
533,333	Government Grant - Biodiversity	1,333,334	1,332,800
42,166	Government Contestable Funds	336,717	113,000
136,331	Donations and Other Grants	145,962	55,000
259,693	Interest from Investments	320,254	240,000
166,710	Other Revenue	134,797	191,151
2,456,455	Total Revenue	3,589,286	3,250,151
	Expenditure		
705,442	Field Operations	1,077,690	1,119,180
610,832	Covenant Expenditure (Note 2)	696,270	1,172,797
655,198	Administration (Note 1)	636,780	670,779
151,520	Property Operations	128,403	116,395
96,105	Public Relations	98,707	121,000
80,782	Depreciation (Note 8)	76,996	50,000
2,299,879	Total Expenditure	2,714,846	3,250,151
156,576	Net Surplus before Property Acquisitions/ Disposals (See Note Below)	874,440*	-
	Surplus/ (Deficit) on Property Acquisitions/ Disposals		
(16,000)	Loss on Sale of Property by Trust	-	-
36,000	Property Gifted to Trust	250,000	-
176,576	Net Surplus/ (Deficit)	1,124,440	-

* There is a commitment against this figure of \$703,831 which is allocated to fencing and survey costs for specific covenants approved during 2003/04 and is currently work in progress.

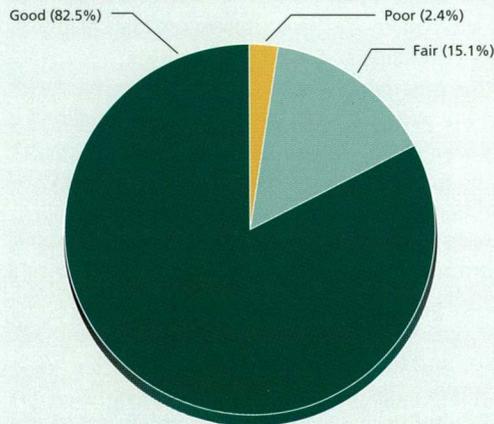
Team effort in managing covenants

Working in partnership with landowners and providing support is an important function of the Trust.

All covenants are visited every second year by a QEII rep. These visits are a valued opportunity to meet with landowners, share their pleasure in observing positive changes, discuss any worries they may have and work out together the best ways of managing their covenants. The

condition and trends of the vegetation canopy, understorey, ground cover and edge are assessed in detail as well as the presence of wildlife and indicator species. Monitoring during 853 visits in the 2003/04 financial year show encouraging results. Some of these results are shown below.

Adherence



Adherence

Adherence is assessed with respect to how well the agreed covenant terms and conditions are being met.

Good: Exceeds the terms and conditions

Fair: Satisfies the terms and conditions

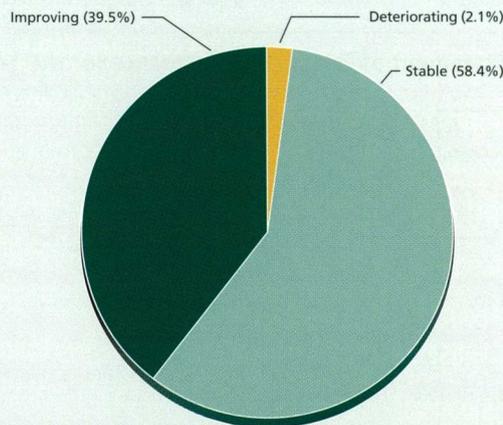
Poor: Remedial action required to ensure terms and conditions are met.

In 2003/04 the percentage of covenants considered to have poor adherence matched the long-term figure of 2.5%. This statistic is the same for original covenantors and for landowners who purchase existing covenants. Change of ownership does not appear to jeopardise the integrity of the covenant.

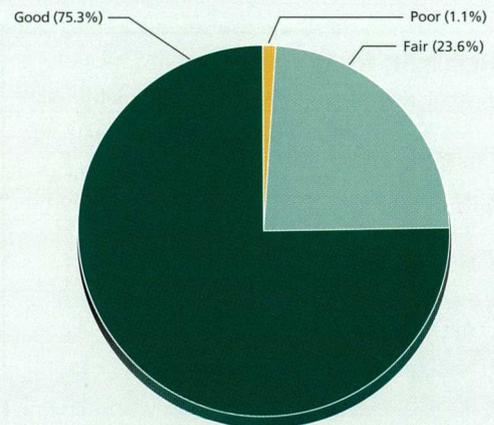
Monitoring

Canopy condition monitoring showed that the majority of covenants are in good condition and canopy trend is also either stable or continuing to improve. The higher proportion of covenants with poor ground cover condition is expected because, after fencing and the exclusion of grazing stock, weeds can initially increase while the native flora re-establishes. The ground cover trend indicates ground cover is improving in the majority of covenants.

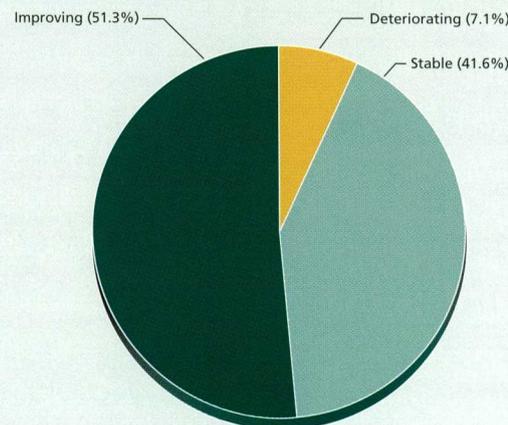
Canopy Trend



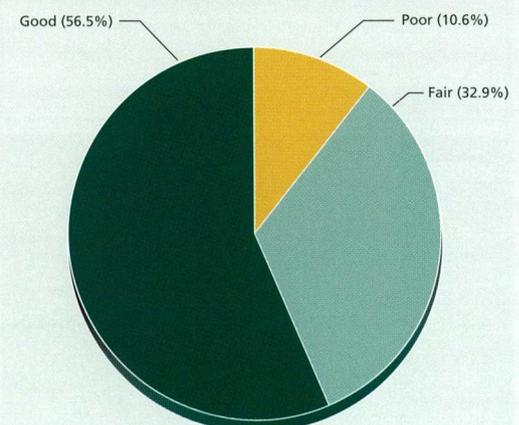
Canopy Condition



Ground Cover Trend



Ground Cover Condition



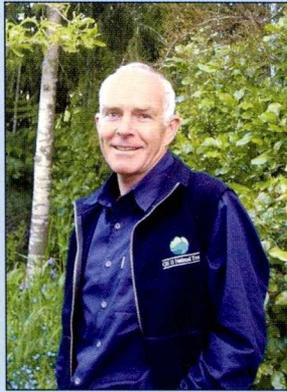
Trust People

Waitomo / Otorohanga / Taupo / north Ruapehu

Malcolm Mackenzie is the new QEII representative for the Waitomo / Otorohanga / Taupo and northern Ruapehu areas.

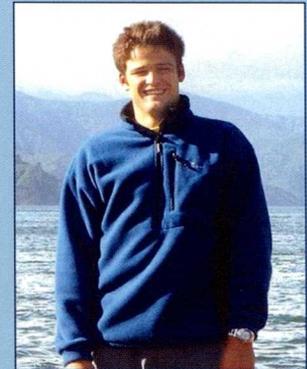
He knows the central North Island hill country very well, having worked in the area as a MAF farm advisor and then a self-employed farm consultant for twelve years before turning to his own farm and forestry ventures. He is an active member of the Farm Forestry Association and has been a forest manager in recent years.

Malcolm and his wife Alison manage sheep, cattle and productive forest at their Otorohanga farm, as well as 7ha of regenerating indigenous forest. They both enjoy tramping and the occasional round of golf.



Waikato

Hamish Dean, the new QEII representative for the Waikato, is a trained ecologist with a practical bent, having grown up learning about native plants and their propagation from his parents' well-known native plant nursery, Naturally Native.



Until this year, Hamish worked as an ecologist in a central North Island consultancy, carrying out field surveys and monitoring in a wide range of ecosystems. He now devotes his energy to his QEII work and the revegetation and restoration advisory service he and his father recently set up.

Environment award winners

Jean and Ernest Alspach have received an Environment Bay of Plenty (EBOP) environment award in September for their commitment to conserving a native bush remnant on their Opotiki property.

They protected the 14ha broadleaf podocarp forest remnant under a QEII covenant 15 years ago, embarking on a long-term weed eradication programme once stock was fenced out, transplanting native seedlings and, more recently, working in partnership with EBOP to control rats and possums. The bush is flourishing, with a diverse range of plants and increasing native birds, including tui, bellbird, kereru and kaka.



Ernest Alspach, DoC scientist Chris Ford and Jean Alspach beside the Alspach covenant.

Writing awards winner

Covenantor Dame Anne Salmond has been recognised for her outstanding contribution to New Zealand literature (non-fiction) in the 2004 Prime Minister's Awards for Literary Achievement. She also won both the history and non-fiction categories of the 2004 Montana New Zealand Book Awards for her book *The Trial of the Cannibal Dog: Captain Cook in the South Seas*.

Dame Anne, who is a Distinguished Professor of Maori Studies and Anthropology at the University of Auckland and chairwoman of the Historic Places Trust, grew up in Gisborne where she and her husband have protected Longbush, an 11ha native forest remnant on the Waimata River. The covenant is open to the public and is used as a teaching area for conservation students.

Bequest acknowledged

QEII is grateful to the late Iris Margaret Garside for her bequest of \$85,000. Iris was a keen and active conservationist who highly valued the Trust's work. She was born and raised in Paekakariki, lived most of her adult life in the United States and more recently lived close to her birthplace again, in Paraparaumu.

Know your natives:

Maire tawake / swamp maire

Rivulets of water thread their way between the smooth trunks of trees and roots with distinctive coral-like growths. This is a fertile wetland where water gently flows and seeps carrying nutrients from upstream, and the trees are maire tawake or swamp maire, *Syzygium maire*.

Maire tawake, in the Myrtaceae family, is related to rata, pohutukawa, eucalyptus and feijoa, but quite unrelated to the three New Zealand maieres (black, white and narrow-leaved). It has recently been reclassified from the *Eugenia* to the *Syzygium* genus, a very large genus of mainly subtropical and tropical trees and shrubs, of which the clove, *S. caryophyllus*, is well known. Our single species *S. maire* is endemic (occurs only in New Zealand.)

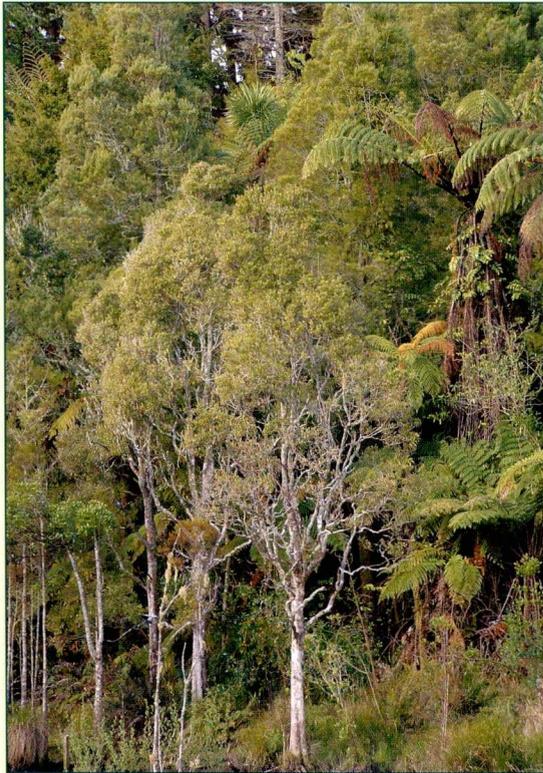


Photo: Hamish Dean

Maire tawake is recognised against kahikatea here, by its smooth, pale bark.



Photo: Tony Fraser

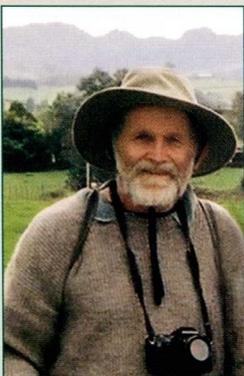
White stamens encircle the nectar cup on each flower, which occur in clusters.



Photo: Michelle White

A distinguishing feature of maire tawake are the pneumatophores on the roots.

Tony Fraser, 1947 - 2004



Tony Fraser, who was QEII's Waikato Regional Representative, died suddenly in July. Tony was a committed and highly respected animal research scientist and conservationist with a wealth of knowledge and enthusiasm about the environment and sustainable land management. He was actively involved with numerous conservation and environmental advisory organisations for many years.

Tony was particularly influential in the Waikato region, where he inspired many people with his visionary ideas. The Waikato Gully Restoration programme, for instance, grew from Tony's 'Gully Field Trips' at the annual Waikato Festival for the Environment. The trips showed the potential to restore ecosystems in Hamilton and bring native birds back into the city. He received a Hamilton Civic Honour for services to the environment in 2000.

Tony had worked part time for QEII and knew many covenantors in the region. He and his wife Maxine had protected a 5.6ha forest remnant on their own farm under a QEII covenant in 1993.

Amongst his many interests Tony had a particular affection for and concern about the survival of swamp maire. The article above is based upon his notes.

Know your natives:

Continued from previous page

Maire tawake is a handsome tree growing up to 15 m high with a spreading canopy and specially adapted appendages on the roots called pneumatophores, which allow the roots to breathe in a waterlogged soil. It was formerly common in fertile swamps of the alluvial plains and basins of the North Island and upper tip of the South Island, where it formed large enough stands to have its own forest type. It is now uncommon due to the clearance of lowland swamps for agriculture, and is found most commonly in small swampy areas of higher altitude.



Photo: Michelle White

A single seed is contained in each brilliant berry, which is about 12mm in diameter.

The white rata-like flowers appear from February to April, followed by large bright red berries the following summer from December to April. The berries were collected by Maori to make a pudding called “waiwaka”, described by an early pakeha settler as a truly delicious confection containing an abundance of juice. Maori also obtained a blue-black dye for their flax garments from the tender twigs and bark of the tree and used the tough wood for implements and weapons.

A number of QEII covenants contain maire tawake but, as the tree is generally not well known to rural landowners, it is quite likely that there are other unrecognized stands of this special swamp tree. (Note: it is commonly known as ‘waiwaka’ in Taranaki and the western Waikato/King Country.) It is readily propagated from seed - as long as the seed is not stored and dried out - and is an excellent tree to include in wetland restoration.

Tony Fraser Memorial Covenant

Alan and Helen Sutherland remember their daughter asking them not to develop a swamp on their Te Kuiti farm as it was a special place for plants and animals. They didn't and it is now part of a new 4.5ha covenant containing good examples of maire tawake (or swamp maire).

Tony Fraser, then QEII field officer, spotted the swamp when he visited the farm to check on the 2.2ha remnant tawa forest that Alan and Helen had covenanted in 1987. He immediately recognised its value. There was already a good cover of swamp maire seedlings in the wetter areas and a range of other trees including pukatea, tawa, hinau, rewarewa, matai and cabbage trees.

The Sutherlands soon decided to also protect this second area and since then, with the help of dedicated conservationists Arthur Cowan and Jim Swindells, have planted kahikatea and other native plants on adjacent open areas to extend and join up the forest and



The Waitomo Branch Farm Forestry Association visited the new covenant in 2004; the swamp maire area is at right.

wetland. They plan to control the existing willows so swamp maire and other native wetland trees can take over.

They have named the covenant after Tony. As Alan says, “If it hadn't been for Tony we would never have realised what we had.”

Recently registered covenants

A summary of covenants registered from 1 July to 30 September 2004.

Covenantor	Area (ha)	Open space type	District Council
Kennedy	39.81	Semi-coastal lowland broadleaf-podocarp remnants	Far North
Clarkson Fisk	1.87	Semi-coastal broadleaf/podocarp remnant and riparian area	Far North
Poulton	23.00	Lowland regenerating forest and forest remnant	Far North
Hume	22.60	Lowland regenerating forest and forest remnant	Far North
Tapp	1.37	Lowland secondary broadleaf & podocarp forest with created wetlands	Whangarei
Phyn	1.21	Regenerating volcanic broadleaf forest	Whangarei
Schoonderwoerd	1.12	Lowland secondary podocarp and broadleaf forest	Kaipara
Speck	14.37	Semi-coastal modified primary puriri-taraire forest	Auckland
H W D Bruce Limited	1.74	Lowland modified primary totara-puriri-taraire forest remnant	Franklin
Waling	12.10	Lowland semi-coastal forest and scrub	Thames-Coromandel
Blackwood	0.26	Coastal lowland secondary kauri-kanuka forest	Rodney
Chatelanat	841.17	Semi-coastal forest, landscape, and archaeological features	Rodney
Armitage	0.13	Wetland/stream and secondary treefern-broad-leaved shrubland	Hamilton
Hall	9.20	Lowland primary podocarp/hardwood forest	Gisborne
Nelson	12.25	Lowland riparian forest remnant	Hastings
Cave	9.20	Lowland modified primary broadleaved forest	Hastings
Walls-Renwick	0.26	Lowland modified primary rimu-kahikatea/tawa forest remnant	New Plymouth
McKenzie	36.52	Lowland rimu/tawa, miro/pigeonwood & horopito forest	Tararua
Flux	41.40	Lowland modified primary forest and secondary forest	Upper Hutt
Flux and Park	5.52	Lowland secondary forest	Upper Hutt
Burnt Section Limited	9.69	Lowland podocarp/beech forest remnants	Tasman
Balfour	171.70	Semi-coastal secondary kanuka forest	Marlborough
Bugo	55.48	Secondary mountain five finger-fuchsia forest and horopito scrub	Banks Peninsula
Rupert	6.73	Lowland beech forest and podocarp-hardwood forest	Timaru
Millar	1.70	Coastal herbfield	Dunedin
Landcorp Farming Limited	15.37	Lowland peatland wetland and pond with associated vegetation	Southland
Landcorp Farming Limited	78.85	Lowland modified primary wirerush/Juncus rushland and scrublands	Southland
Landcorp Farming Limited	6.45	Montane modified primary tarns, wetland and shrubland	Southland
Natusch	87.01	Coastal primary rimu-rata/kamahia forest and mutton bird scrub	Southland
Reiger	28.20	Coastal Juncus rushland wetland, lake and associated wetland areas	Southland
Venekamp	15.37	Lowland primary kahikatea-totara forest	Southland

Covenants Update

As at 1 October 2004, there were 1,947 open space covenants totaling 68,963 hectares. In addition, there were a further 544 covenants totaling 16,900 hectares, awaiting registration. The regional breakdown based on Regional Council boundaries, is as follows:

Region	No. of Covenants	Area Protected (ha)
Northland	288	5,617
Auckland	160	2,293
Waikato	308	9,693
Bay of Plenty	116	8,474
Hawkes Bay	107	7,910
Gisborne	71	2,341
Taranaki	104	2,251
Horizons	192	3,770
Wellington	153	4,695
Nelson	9	400
Marlborough	23	937
Tasman	71	1,517
West Coast	14	563
Canterbury	138	8,731
Otago	76	7,133
Southland	117	2,628
Total	1,947	68,963

Fragments

Biodiversity funding for landowners

Private landowners can seek financial assistance under the government's Biodiversity Condition and Advice Fund for improving indigenous biodiversity on their land. Projects can include activities such as fencing and pest control.

Individuals or groups can apply independently or through the local council or through QEII Trust. Covenantors please contact your local QEII rep to help you decide the best option.

Applications for the next funding round will open in February 2005. For further information, application forms and project criteria visit: www.biodiversity.govt.nz/land/nzbs/pvtland/condition.html

Bequests

QEII is helped greatly by money or assets gifted in people's wills. Making a bequest is easy - usually you need only make a simple addition to your existing will. The wording can be as simple as:

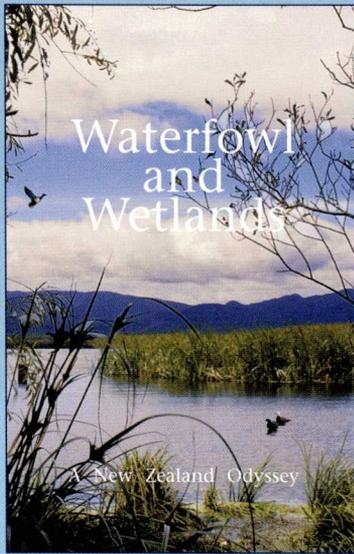
"I give and bequeath to the Queen Elizabeth the Second National Trust (QEII National Trust) the sum of \$..... or% of my estate, for its general purposes and use at the discretion of the QEII National Trust's Board of Directors."

If you would like to discuss any aspect of making a bequest to QEII, please phone CEO Margaret McKee at Freephone: 0508 732 878.

"Waterfowl and Wetlands: A New Zealand Odyssey"

New Zealand's wetlands - from coastal estuaries to alpine tarns and even to the sub-Antarctic Islands - are on show in a new 75-minute film. QEII covenantor, Chris Thomas, made the film to show the importance of wetlands and advocate their protection.

The habits and behaviour of each waterfowl species are shown along with information about their wetland habitats, predators, and the role of hunters in controlling introduced species. Footage includes some of the world's rarest waterfowl.



Order Form:

To order video copies please complete the form below and post, with payment, to: Scientific and Wildlife Films, 11 Hanover Street, Wadestown, Wellington.

Name:.....

Address:.....

Price per copy \$49 including GST

Number of copies	Total price
.....
NZ Postage	\$4.00
TOTAL payment enclosed	\$.....

Further enquiries: Tel/Fax: 04 472 8147
Email: c.thomas@paradise.net.nz

QEII Swannдри® Vest

If you would like to purchase a Swannдри®, merino wool vest, embroidered with the QEII logo please complete the form below and post with payment to QEII National Trust, PO Box 3341 Wellington or Fax to 04 472 5578 or Phone 04 472 6626



Price: \$165 including GST and postage (Navy only)

Sizes available:	S	M	L	XL	2XL	3XL
Chest (cm)	94	99	104	114	124	134
Waist (cm)	80	85	90	100	110	120

Name.....

Address (for courier delivery)

Telephone.....

Size(s).....

Quantity:.....

Method of payment – Cheque Mastercard Visa

Total \$..... Please send a receipt

Credit card details – Number

□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Cardholder name..... Expiry date.....

Signature.....

About QEII open space covenants

How your covenant helps New Zealand

Many plants, animals and landscapes found in New Zealand are unique to this country. Their uniqueness helps set us apart and define us as a nation. Unfortunately, many of these species and features are under threat. The decreasing diversity of our indigenous flora and fauna is regarded as one of our biggest environmental problems.

While there is a network of publicly owned conservation areas, the vast majority (70%) of New Zealand's land remains in private ownership. Many habitats and features are found only in these areas. They can only be protected with the goodwill and action of landowners.

Practical land management and farm productivity

Many farmers are motivated to protect natural features because it makes good land management sense. Bush and wetlands help filter rain and runoff ensuring water quality. They encourage recycling of nutrients and reduce soil erosion. Forest remnants reduce wind, and provide shelter and shade, enhancing stock management and production. Fencing areas not only allows the regeneration of the bush, but also helps protect stream banks, water quality and keeps stock out of hard to manage areas. Healthy bush and natural landscapes beautify and add economic value to farm properties.



QEII is always in need of greater financial and moral support for its work. You can help by joining as a member.

Members receive:

- A year's subscription to our magazine *Open Space* – three issues a year.
- Free entrance to properties owned or administered by the following organisations: The National Trust (UK), National Trust for Scotland, National Trust of Australia (all states), Barbados National Trust, Bermuda National Trust, National

Trust for Fiji, Georgia Trust for Historic Preservation, Gibraltar Heritage Trust, Japan National Trust, National Trust for Zimbabwe.

- Entitlement to nominate and vote two members onto the QEII National Trust Board of Directors.

QEII covenantors become members automatically.

Please fill out this membership application form and send it to: **QEII National Trust, PO Box 3341, Wellington or Free-phone 0508 732 878.**

QEII National Trust Membership Application

Name

Address

.....

.....

Telephone..... Email.....

Membership Type – tick appropriate category

- Individual \$30 Family \$45 Life \$550
 Corporate – business (on application)
 Corporate – non profit organisation \$50

Donation – optional (tick box): Donations over \$5.00 are tax deductible

- \$100 \$50 \$20 Other \$.....

Method of payment – Cheque Mastercard Visa

Credit card details – Number

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Cardholder name..... Expiry date.....

Signature.....

Total \$..... Please send a receipt

Please send me information on:

- Making a bequest to the Trust Open Space Covenants

Gift Membership

Gift to: name & address.....

.....

Send next year's renewal to me to the recipient

Helping you protect the special nature of your land

What is a QEII open space covenant?

A covenant is a legally binding protection agreement which is registered on the title of the land. It is voluntary but once in place binds the current and all subsequent landowners. Private property rights are not jeopardised - the landowner retains ownership and management of the land. Visitor access is available only with the landowner's prior permission.

Each covenant is unique. It can apply to the whole property or just part of the property. There can be different management areas within a covenant with varying applicable conditions. Conditions can be stringent where rare or vulnerable natural features or habitats are being protected.

Open space covenants are generally in perpetuity though there can be a case for a variable term covenant. These include: **Kawenata**, on Maori land, which recognises tino rangatiratanga, and **Life of the Trees** where individual trees occur in a situation where they may not be self-regenerating. **Landscape protection agreements** are used where the land does not have title, such as roadside areas.

The average covenant size is around 35 hectares, the largest is over 6,500 hectares. There are currently over 2,400 registered and approved covenants extending from the Far North to Stewart Island from sea level to above the bush line.

Managing an open space covenant

QEII helps landowners with ongoing management advice and support. A management plan may be prepared with the landowner when a covenant is established, which sets out ongoing management objectives and provides guidance on such aspects as species management, pest control and restoration methods.

Each covenant is visited regularly, usually every 2 years, to monitor its condition and trends, identify and address any threats, and advise the owner about how to meet the covenant objectives.

How to covenant your special area

If you wish to protect a special area on your property, the following steps are typically needed to gain a QEII open space covenant.

- **Enquiry.** Ask your region's QEII representative (see inside front cover) to visit your property.
- **Evaluation.** The QEII representative will evaluate your special area against a wide range of criteria including: ecological and biodiversity value, naturalness, sustainability, existing or potential value as an ecological corridor, wildlife, geological features, landscape values, cultural and heritage values. There will also be practical considerations including: management needs, threats to site values, your motivation and potential sources of funding.
- **Approval.** The QEII Trust Board will consider the evaluation, and approve the covenant if it meets the criteria. You will then be asked to sign a covenant agreement.
- **Fencing.** If required, the covenant area will have to be fenced next.
- **Survey.** An accurate survey plan or aerial photodiagram of the covenant area will be prepared, which you will need to check and sign.
- **Registration.** The covenant will then be formally registered on the title of your land with Land Information New Zealand. QEII will lodge all the necessary documentation.

Funding assistance

You may be eligible for assistance in funding your QEII open space covenant in a number of ways:

- Fencing costs
- Weed and pest control
- Rates relief
- Restoration planting.

Your QEII representative will be able to advise you about possible sources of funding.

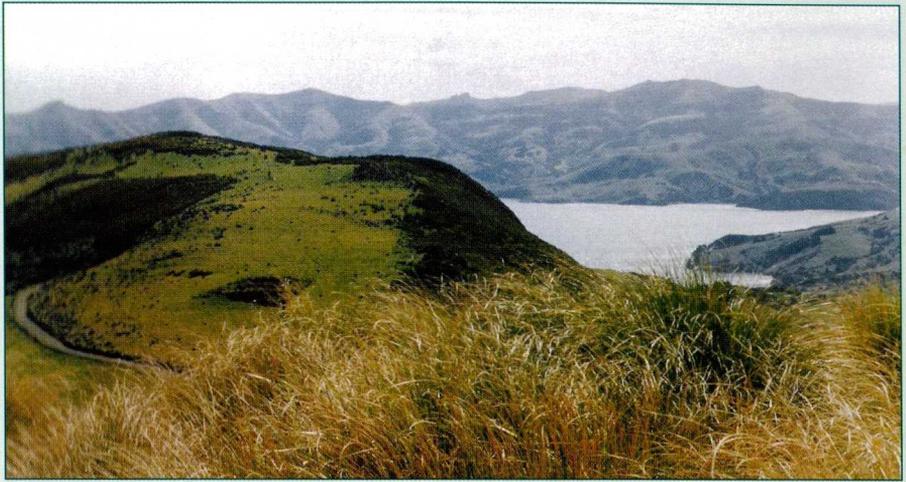


A place to visit:

Cloud Farm: High on Banks Peninsula

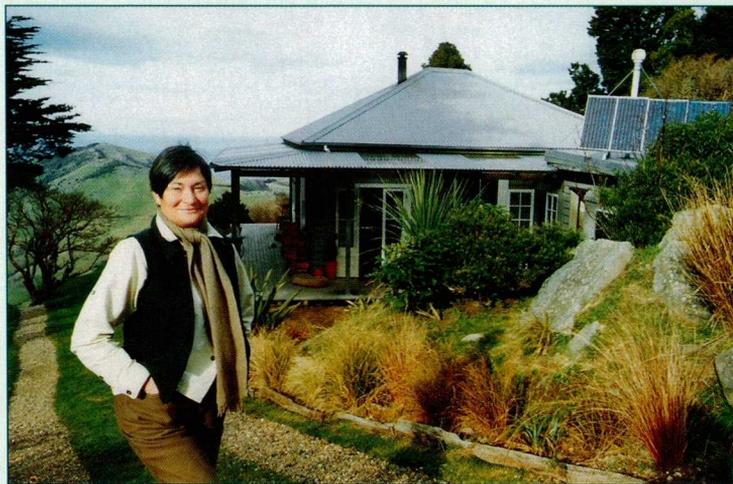
"From here I could look over the Akaroa Harbour in one direction, straight out across the Pacific Ocean in another and down the valley to a magnificent stand of native trees, so luxuriant and lush it looked almost like West Coast bush. Clouds raced above my head, mountain tussocks rustled in the wind, the air was fresh and clear. Far to the west I could see the Alps. Under my feet mosses and orchids competed for hold on the rocky surface."

From the first moment she saw Cloud Farm, Jane Chetwynd was smitten. The house was derelict - with no power or running water - and the farm overrun by gorse. Jane had no knowledge of house renovation, let alone farming. Yet, she bought the 67ha property and, ten years on, has no regrets.



Cloud Farm's exposed summit - a place of snow grasses, rock outcrops and panoramic views.

Photo: Denise Baldwin



Jane Chetwynd outside the cottage which she rid of rats, rust and rotting holes after 60 years' of disuse.

Photo: Michael de Hamel/The Akaroa Mail

In her book, *Cloud Farm*, Jane tells the story of Cloud Farm's transformation - and her own. Against daunting obstacles, she made the house habitable and figured out a way to survive financially. Then she resigned her prestigious job as professor of public health at the Christchurch School of Medicine, abandoned her fast-paced city life and moved to the farm.

Her new environment, 2,000 feet above sea level, is subject to winter snow, frequent cloud and gusting winds. But Jane loves it and finds that those who visit her also relish the peace and rugged beauty.

She and Heather Chapman, who also lives on the farm, have developed a network of tracks that take in areas of regenerating bush and the three QEII covenants on the property including 16ha of high altitude podocarp forest and 5ha of ridgetop tussock grassland. Tracks also lead to the neighbouring Hinewai Reserve and the Ellangowan Scenic Reserve beyond.

To Visit:

Phone or email Jane or Heather to arrange a visit or to book a place on one of their summertime guided walks.

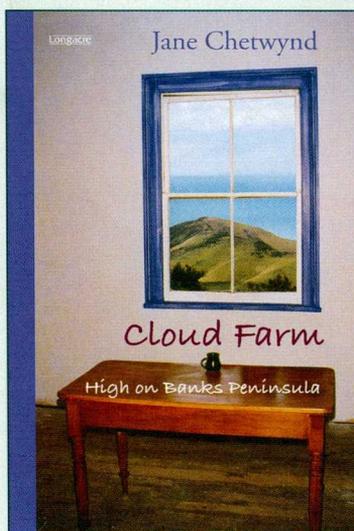
Phone: 03 304 8010

Email: cloudfarm@clear.net.nz

Website: www.cloudfarm.co.nz

Location:

Cloud Farm, Hickory Bay Road, Banks Peninsula



Cloud Farm is an engaging account of something many of us dream of - 'getting away from it all'. Published by Longacre Press, \$29.95.