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in THIS ISSUE Focus on Coastal Otago and Hawke's Bay • Revegetation Planting

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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
- Wildlife habitats

Landowners throughout the country have voluntarily protected some 74,700 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 27 properties which collectively protect over 1,800 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.

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Marie Taylor, QEII Rep for Hawke's Bay, identifies plants at the Te Mata Park covenant on Te Mata Peak near Havelock North. The 94.5ha covenant protects a fascinating collection of cliff-dwelling native plant communities including some plants that are found only on the Peak. Photo: Margaret McKee The Queen Elizabeth II National Trust (QEII) is a statutory organisation independent from Government and managed by a Board of Directors.

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Gift to Whitianga

Josephine McNiel, aged 96, was able to fulfill a heartfelt wish before she died last September - to protect her 82.8ha property overlooking the Whitianga Harbour from development.

Four QEII covenants now protect the open space value of the property, which forms a stunning natural backdrop to the Whitianga township.

The land was part of a 1200-acre farm that Jo and her late husband Derek bought in 1951, but it was never broken in and was left to regenerate. Secondary coastal forest and scrub now cover the steep land while wetland areas and pohutukawa forest along the shore are in a near-natural state.

The land was held under 16 titles but Jo, with the support of her family, amalgamated it into 4 titles and placed a covenant over each.

"With development pressure so high on the Coromandel, the McNiels have foregone millions to do this, " says Hamish Kendal, QEII Rep for Coromandel-Hauraki." It's a huge gift for the people of Whitianga."



The late Jo and Derek McNiel, who first started looking for ways to protect their land over 20 years ago.

View from the Whitianga Marina. The McNiel covenants extend over nearly all the harbour edge pictured.



Confidentiality of covenant information

The QEII National Trust regularly receives requests for information about individual covenants or about covenants in particular areas.

Some information is publicly available: - the covenant documents, once registered on the land title at Land Information New Zealand, are publicly searchable.

The Trust regards other information, such as details about a covenant's biodiversity, as confidential. Such data is used to compile statistics about the Trust's activities and achievements (for instance, the number of kiwi habitat covenants) but information that could identify a particular covenant is not released without the landowners' prior permission.

Requests for specific biodiversity information have increased as a result of the New Zealand Biodiversity Strategy, which involves government and non-government organisations working together to protect and improve the condition of New Zealand native flora and fauna. QEII receives approximately 50% of its government funding via the strategy.

QEII will this year be sending out a 'Privacy and Information Form' for all covenantors to sign and return, to either allow QEII to release specific covenant information when requested, or not.

Owners will retain the right to change their instruction at any time.

Although the Trust compiles statistical covenant information (e.g. about wetlands), specific information about each wetland covenant will only be released with the owners' prior permission.



Focus on: **Coastal Otago**

Coastal Otago is notable for the diversity of its ecosystems and landscapes. Podocarp rainforest of the Catlins Coast in the south contrasts lushly with the (now scarce) kowhai/ ngaio dry-forest north of Dunedin. Wetlands, estuaries and lagoons teem with wildlife along the coast while specialised subalpine herbs find a home in the rugged hill country inland. Dunedin's volcanic landscape, Oamaru's sedimentary limestone country, and the inland massifs of metamorphic origin reveal a complex underlying geology.

Landowners helping to protect and restore the distinctive features of these landscapes are being assisted through the Otago Regional Council's Biodiversity Fund. Council **Biodiversity Officer Aalbert Rebergen says the** fund was set up specifically to support private landholders to protect natural areas on their land. "It is purely voluntary and is very much a partnership between the landholder, Council and QEII."

As at 1 February 2006, 91 landowners in the Otago Region had registered covenants protecting 7,718ha and a further 34 had approved covenants, which will protect a further 2,323ha when registered.



Stony Creek Lagoon

Stony Creek Lagoon near Palmerston is a fragile nesting and feeding ground for migratory birds.

Barry Walker closed off damaging vehicle access when he covenanted the margins and seaward duneland in 1992 but people can still cross the covenant on foot to reach the highly scenic lagoon and beach.

Since 1996, volunteers from the Malcam Trust and the Conservation Corps have carried out progressive revegetation work funded by the NZ Lottery Grants Board and Otago Regional Council. In 2004 the council also funded planting of the sand-binding native pingao, Desmoschoenus spiralis on the dunes.

Coastal restoration enthusiast David Blair at work planting pingao on the Stony Creek dunes.



Rugged country

Two threatened plants are making a comeback on the exposed ridgetops of Scott and Dinah Dunavan's 750ha covenant on the Razorback Range in north Otago.

The highly palatable and nationally vulnerable herb, *Gingidia grisea*, and the sparsely distributed daisy, *Celmisia hookeri*, have begun to spread from the inaccessible rock crevices where they had been confined before the Dunavans retired the land from grazing.

The Dunavans bought the property five years ago, still undecided about their intentions, except that they wanted to protect the areas of remnant and regenerating bush. They realised it would be uneconomic to fence off all the remnants in such rugged country so they decided to retire and covenant the whole property.



Gingidia grisea (left) is a member of the Apiaceae family (which includes such plants as carrots and angelica). It is endemic to northeastern Otago where its survival is threatened by weed competition and animal browsing.



Photo: Scott Dunavar

Diverse habitats including sheltered valleys, steep slopes and rocky outcrops support varied plant communities within the Dunavan covenant.

Scott says regeneration took off, aided by Animal Health Board possum control, after stock was excluded three years ago.

"We were stressing out about the gorse growth though," Scott recalls. "We're grateful to Helen Clarke, the QEII Rep at the time, for her support. She suggested visiting Hugh Wilson at Hinewai Reserve on Banks Peninsula. It was an inspiration to realise that with some assistance from us - like pest control and fire prevention - regeneration will take its course and the gorse will eventually give way to native forest."

"We'll never get tall forest in our lifetime," Dinah says, "but we will have started the process."



Rugged country: the Dunavan covenant rises to 540m altitude within 8km of the coast, supporting an unusual mixture of kanuka, podocarp/hardwood forest and snow tussock.

A coastal wetland in a spectacular landscape

It's a steep descent off a windy gravel road to get to Murdering Beach, just north of Aramoana on the Otago Coast, in a dramatic landscape that is fast being recognised by developers and 'lifestyle' seekers.

The Chapman family is committed to integrating conservation with their farming activities where possible and has had the foresight to put a covenant on a 1.7ha remnant of coastal wetland.

The wetland provides valuable habitat for a variety of water fowl and aquatic species in a region where intact coastal wetland ecosystems are now uncommon.

A revegetation project around the edges of the once grazed area has begun, with help from the Otago Regional Council and QEII National Trust.



Initiating open space protection in a special coastal landscape, the Chapman's covenanted wetland lies behind Murdering Beach (centre), flanked by Purehurehu Point (right).

Podocarp giants protected

A group of iconic giants - matai, kahikatea and totara - are a special feature on Dunedin's northern motorway, standing tall in a paddock at the southern entrance to Waitati.

Lynley and Frank O'Neill have placed a covenant over the 2.5ha remnant and rallied community support to try restoring the remnant to its former glory as a podocarp/broadleaf forest. Previously, the ancient trees had been stressed and their continued survival threatened by grazing on the site.

Otago Regional Council funding has enabled appropriate native plants to be propagated for the "Waitete Bush Regeneration Project" and a number of community planting days have successfully attracted volunteers keen to help restore this unique forest landscape.

Hendric Koch and Huata Holmes demonstrate planting techniques after the bi-cultural blessing at the Waitete Bush community planting opening day in October 2004.



'Win-win' on the Catlins Coast

"Our covenants really are a winwin," says Albert Jenks, whose family has covenanted three blocks of bush on their 400ha sheep and cattle farm on the Catlins coast near Papatowai.

"We were forever losing stock in the bush. Fencing it off has improved farm management out of sight.

And we keep the character. If we didn't have the bush it wouldn't be the same."

Albert's thankful that his grandfather, a sawmill worker, left the rough gully and high ridge areas when he started buying and clearing land in the 1930s, as they now contain primary remnants of the podocarp hardwood rainforest that was once prolific along the Catlins Coast, and stands of silver beech. QEII Rep Rebecca Reid says the silver beech is near its eastern limit and is an important link between the coastal forest and inland areas where it dominates.

It's a link that walkers on the Catlins Top Track can see clearly from 'Top Bus' on the Jenks' farm. The former Dunedin city trolley bus is the overnight accommodation on the two-day walk, which crosses four farms and traverses one of the Jenks' covenants.



The stunning Papatowai landscape wouldn't be the same without the Jenks' bush covenants, pictured here beyond the tiny hamlet of Maclennan.

"People sit up there for ages just looking - over the valleys and out to sea," says Albert. "It's magic."

For track bookings contact Catlins Wildlife Trackers by phone, 03 415 8613 or email info@catlins-ecotours. co.nz

Albert Jenks in the podocarp forest. Many old trees survived former logging including rata, rimu, kamahi and a single matai.



On the road to recovery

Two years ago, a small bush remnant on the slopes of Mt Royal near Palmerston was struggling to survive after years of stock damage and weed invasion. Many farmers might have written it off as 'a bit of rubbish' but Graham and Sherry Thurlow thought it might be salvageable and they were right.

A QEII assessment showed it to be a dry forest type now quite rare in the ecological district, with a mainly intact canopy and a surprising range of species. Now protected under a 1.5ha QEII covenant, with stock-proof fencing, regular Animal Health Board possum control, and the Thurlows' energetic planting and elderberry/gorse control efforts, recovery is already noticeable.



The Thurlow's covenant (foreground) where little of the former die-back is now seen in the broadleaf / mahoe / kanuka canopy.

On the edge of Lake Mahinerangi

Annette Joel has thrown her life and soul into her unique 5.6ha wholetitle covenant at the southern edge of Lake Mahinerangi, 65km southwest of Dunedin.

Her well-treed property is obvious in a landscape where most of the former beech forest has disappeared.

Annette's goal is to restore, in part, the flora and fauna that was typical of the area and, in doing so, demonstrate that indigenous vegetation can be re-established in this modified environment. Trial plantings with such eco-sourced species as red and mountain beech, totara, and rimu are well on the way, guarded by a dedicated Annette who regularly wields a scrub cutter, hand-pulls weeds and shoots rabbits to protect her plants.

With changing lake levels regularly inundating a third of her land, Annette says it's really a riparian revegetation project. "I started off with bare clay and a few elderberry and I couldn't get from the front door to the lake, it was just solid broom. I've planted thousands of trees, and created wet areas to help conserve, purify and regulate water quality."



Photo: Rebecca Reid

Annette Joel is proud of the several hundred red tussocks she planted that now thrive on the fringes of Lake Mahinerangi.



Annette's house, a former homestead of the Cotton family, next to the original Waipori school (background).

A variety of exotic species, including alders, silver birch, Dawn redwoods, Japanese larch and spruce, have been planted for windbreaks, shade and nitrogen fixing but will eventually be removed.

The covenant also protects historic sites that have direct links to early farming in the area and to the Waipori township, which was flooded by the Lake Mahinerangi hydro scheme in 1924. In the back paddock a classic run of corrugated iron sheds from the late 19th and early 20th centuries includes a two-seat privy, a store, stables and a blacksmith's shed while the original Waipori School sits nearby, shifted to the property in the early 1920s to escape inundation.

For Annette, protecting her lifelong project under a QEII open space covenant makes it even more worthwhile.

Partnership is the key for a bold restoration project

A new dawn chorus is tuning up in a native forest network between the Bay of Plenty coast and Lake Rotoma, 20kms inland, thanks to a partnership between the local community, QEII National Trust and Environment Bay of Plenty (EBOP).

The Manawahe Ecological Corridor restoration project covers a strip of about 4,000 hectares of cutover native forest which, despite former podocarp logging, is in very good condition and is home to a wide range of native birds. Just over half the forest is privately owned.

Pete McLaren from EBOP is the project coordinator. "When we started in 2000, the local community was already motivated, with about 800ha fenced under EBOP and QEII covenants, and volunteers committing a lot of energy to the community-based Manawahe Kokako Trust recovery programme. It was the ideal place to implement the recently signed Memorandum of Understanding between EBOP and QEII. Under the agreement QEII enables landowners to covenant their land and EBOP develops a management programme with the landowners and QEII. Possums and rats are controlled within the covenanted forest. Approximately 700ha are now being protected under approved and registered QEII covenants."

Pete works closely with QEII Rep Stephen Hall. With a \$100,000 Biodiversity Condition Fund grant they secured to supplement EBOP and QEII funding, the private land under pest control was extended to almost 1000ha in 2005. "We're about half way there" says Pete.

Monitoring in pest control areas has shown native bird



Vyrne Gray (sitting), Pete McLaren, EBOP project co-ordinator (right) and David Paine, EBOP Pest Animal Officer, on site at Vyrne's 92ha QEII forest covenant – just one in the network of protected areas at Manawahe.

populations to have doubled, or more, compared to similar areas without rodent and possum control.

"There is a lot to be done ", says Pete, "but with so many motivated and organised people swinging in behind the project it cannot help but succeed. Their legacy will be a forest full of birdsong".



In 1997, only three pairs and a few single birds of the nationally threatened kokako remained at Manawahe. To prevent local extinction, local volunteers formed the Manawhe Kokako Trust and began a pest control programme. By 2005, breeding pairs had increased to 21, and the total population to more than 50 birds.

Focus on: Hawke's Bay

Hawke's Bay's marketing image is Wine Country: one of long, hot summers, surfing at the beach, winery lunches and Art Deco.

But behind the dry hill country seen from the main roads in summer is a treasure trove of special landscapes which Hawke's Bay landowners are very proud of. There is very little indigenous vegetation remaining throughout most of the Bay, with less than 6% in the eastern hill country. Perhaps that's why landowners are working so hard to protect it.

Driving this protection work is the Hawke's Bay Regional Council, which not only helps with fencing and survey funding, but with possum and weed control.

As at 1 February 2006, 133 landowners had registered covenants over 8,390ha, and 60 more had approved covenants, which will protect a further 2,700ha when registered.

The following pages show some examples of recently registered Hawke's Bay covenants most of which have received assistance from the Hawke's Bay Regional Council.



Epae Bush covenant

Looking a bit like a small, grey, fluffy hebe, *Pomaderris phylicifolia* is an unassuming but very special feature of Paul Dearden's covenant in Central Hawke's Bay.



This *Pomaderris* is uncommon in the Eastern Hawke's Bay Ecological District, and the only known protected area of the small shrub in the whole district is at Epae Bush.

Nestled at the top of an exposed south-facing argillite slope, the *Pomaderris* community is thriving - except where it's being squeezed out by some rampant gorse. The *Pomaderris* is too small to compete, so a careful gorse control programme is being designed.

It took 5km of fencing to completely protect the 52ha of mostly kanuka forest and regenerating shrubland.

The Mangawhero Stream, which flows into the Porangahau River, meanders its way through the covenant, which also features dramatic steep papa mudstone faces along the stream and prominent argillite outcrops caused by faulting.

Paul Dearden (right) discusses Epae Bush (background) with Neil Faulkner, Hawke's Bay Regional Council Land Management Officer.

Cave Covenant

Regeneration has got off to a remarkably fast start at Ginni and Lloyd Cave's Putorino covenant.

The couple, who won the Hawke's Bay Farm Forester of the Year Award for 2005, say possum control by the Regional Council at the time they fenced the covenant really kicked off the regeneration.

In November they hosted a field day attracting 70 people who were all impressed with the family's hard work and progress.

Their covenant is a 9ha steep sided gully with karaka and a beautiful stand of tall podocarps including rimu and matai, which is unusual in this ecological district. Some very large nikau are also present and many wetland species in wet seeps above rimrock, which are a feature of the gorge. Their neighbour Bruce Goldstone has also covenanted a further 2.5ha which adjoins the Cave covenant.

The Caves are in the middle of a major

revegetation programme in their covenant, and will be planting kakabeak this winter from seeds grown from the southernmost kakabeak population at Boundary Stream.



Ginny Cave in the remnant podocarp forest that she and her husband Lloyd have protected in their covenant.

Bramwell covenant

A spectacular gorge has recently been protected under an 87ha covenant on Ross Bramwell's property in the Esk Valley.

The gorge drops about 100m from the top down to the Mangakipikopiko Stream. The streamsides are almost all kanuka, except for some rewarewa, titoki, cabbage trees, totara and matai. Kowhai is also an important part of the canopy in places.

Ross was an important advocate for the QEII National Trust in Hawke's Bay when he was chairman of the Hawke's Bay Regional Council, a role he held for seven years until late 2004.

Many fern species thrive beneath the kanuka on the Bramwell covenant.



A U-turn in thinking

Hawke's Bay farmer and Regional Councillor Alec Olsen recalls a visit in the mid-1970s from New Zealand Forest Service forestry extension officers, Quentin Roberts and Joe Dennis, whose job it was to encourage the growing of forest blocks on farmland.

"I took them down to overlook where the Bridle Track drops into the Mangaone River and Mangahina Stream. There was light mist and all the kanuka trees were bowed down with all this lovely water on them.

"They thought I had brought them there because I wanted to clear it and plant radiata. They turned around at the same time and said, 'Under no circumstances will we sign off anything to clear this land. It is too valuable like this.' They are our Hawke's Bay heroes."

Alec's partner Heather Bell, encouraged him to close up the steepsided banks of the Mangaone River. "She asked me what use it was for grazing. She could see the benefit of a covenant and liked the idea of it.

"I guess in the end it simply made more sense to covenant it. The big



Alec Olsen points out features of his covenant to OECD representatives during their visit in 2005.

drawcard was the fencing. I could see the practical side of it. When you have been grazing land for nearly 30 years you don't easily see a reason to change that. It takes a while to do a U-turn, but having done one, you have momentum the other way.



with help from the Trust and the Regional Council, possums and goats have been successfully brought under control, and there's been a terrific response in regeneration of many indigenous species.

Alec encourages people to use the protected area. He hosts many school groups on the farm and in 2004 boys from Room 14 at Hastings Intermediate built a new track down to the river.

Recently he hosted a visit from the Organisation for Economic Cooperation and Development, showing leader Martha Heitzmann and six OECD representatives his 52ha covenant of kanuka and kowhai.

"These covenants are very interesting from an OECD perspective," Ms Heitzmann was reported in *The Dominion Post.* "We have seen some very good examples of the integration of environmental concerns with agricultural and forestry practices."



Kanuka and kowhai forest clothes the steep sides of the Mangaone River in the Olsen covenant.

Magnificent mistletoes...

...on putaputaweta...

The white mistletoe flourishing in the McGregor family's Ben Alpin covenant at Patoka belies the recent trend of gradual decline in the species in Hawke's Bay.

Tupeia antartica is growing strongly in Buddy and Pieta McGregor's stunning 52 ha covenant. Mostly it's present on putaputaweta, looking like large lush green bouquets.

It took 8km of fencing to encompass the whole covenant, which includes all the bush and riparian areas on this beef farm. Fencing began in 2000, and the covenant was registered in February 2005.

Putaputaweta, lacebark, mahoe, manuka and kanuka dominate the secondary lowland hardwood forest but species such as cabbage trees, kaikomako and mamaku are also present. The protected areas are important as wildlife corridors in the locality.



Buddy McGregor with some of his white mistletoe, Tupeia antarctica, growing on a putaputaweta tree.



...and on totara

A huge totara hosts a luscious green mistletoe, *Ileostylus micranthus* at Richard and Wendy Bradley's Ongaonga farm.

They had fenced their bush off many years ago and Richard says regeneration was prolific after it was fenced off.

"The whole of the area was completely bare dirt like the sheepyards. I wondered if anything would ever grow. Within two or three years it was a solid mass of mahoe seedlings. That's the wonderful power of nature."

They decided the time had come to re-fence the area more securely and came to the Trust for help in formally protecting it. They named it the Bradley Covenant and made sure the new fence looped out to give the totara tree and its precious burden more protection. The 2ha covenant protects a totara dominant canopy, with matai, kahikatea, titoki, rewarewa, regenerating rimu and mahoe.

Richard Bradley with the green mistletoe, Ileostylus micranthus, *which a large totara hosts on his farm.*

Revegetation planting - giving nature a helping hand

Mark Dean well-known nurseryman of Naturally Native NZ Plants nursery and Natural Environments Ltd. gives some pointers for successful revegetation planting.

evegetation or restoration planting started in the 1950's when the first plantings of native species were done around the newly constructed hydro dams on the Waikato River. It wasn't until the early 1980's, however, that the concept of replanting native trees to recreate or restore bush came to public attention with the QEII National Trust publication of the Revegetation Manual by Boyden Evans. Even then, these ideas took a long time to be accepted. As recently as 1990 the general attitude was that natives were too slow growing to be planted. Attitudes have changed markedly though, with widespread native planting now undertaken to restore areas and, increasingly, being carried out to meet the requirements of local or regional authorities under the Resource Management Act.

This article focuses on planting, which is the most common method used in revegetation projects around the country. Other methods such as laying manuka slash and hydroseeding will be covered in the next issue of *Open Space*.



Communities are increasingly involved in restoration projects, as here at the O'Connor coastal wetland covenant near Richmond where pupils from Appleby School have helped with revegetation planting.

Planning – the vital first step

Consider your desired outcomes before embarking on any revegetation project, as this will help determine the method and species. Your objectives might include: enhancing the amenity or biodiversity of your covenant or property, helping control erosion, filtering fertiliser or sediment from runoff into waterways, or restoring a wetland.

Remember that it will be several years before your project reaches a stage where it will be reasonably self-sustaining. Set realistic goals and allocate time and resources for follow-up maintenance at the outset. It's better to revegetate a smaller area properly than to embark on a large area that you can't maintain.

Find out if plants sourced from within your ecological district are available. If not, you may have to order them at least a year in advance to allow for seed collection and propagation.



A common revegetation project for covenant owners is edge planting to help protect and enhance forest remnants.

The keys to successful planting

The final outcome of any revegetation planting project is directly related to three factors: -

- 1. The site preparation undertaken before planting;
- 2. The quality of the plant material used;
- 3. The maintenance done after planting.

Site preparation

Site clearance via manual, mechanical or chemical means is essential to give your plants a head start and reduce potential weed competition. First, remove all woody weeds that have the potential to smother newly planted trees, such as blackberry or barberry.

Second, spot-spray non-woody weeds and grass at a 1m diameter at each plant site. Glyphosate is a commonly used spray for this purpose. Manual removal has also been successful but often requires considerable input of labour. Its





This riparian revegetation project was fenced and blanket-sprayed before planting.

main benefit is that the site is ready for immediate planting whereas spraying takes 2-4 weeks to be effective.

Plants are usually spaced at 1.5m - 2.0 m, which generally allows the canopies of the young plants to close over the ground and suppress weed competition within 2 - 3 years. In northern parts of the country, where weed growth can be particularly rampant, closer spacing for faster canopy closure is often recommended to reduce maintenance.

As rabbits and hares can destroy a newly planted area within a few days, plan a control programme before planting starts, which is continued until the new plants are reasonably well established. Talk to your local pest control officer well in advance of the planting season.

A covenant edge ready for planting after weed removal and spraying.

Tasks by calendar year

Note: the timing of releasing is indicative and will vary between projects, depending upon the site and weather conditions. Generally, releasing is required at the spring and autumn peak growth periods but can also be required

in summer, or in winter if a longer growing season occurs. Regular checking of weed growth is the key to deciding when action is needed.

Year 1	Autumn	Project panning
	Winter	Order plants
	Spring	Site preparation (woody weeds)
Year 2	Autumn	• Site preparation (woody weed follow-up & spray grass)
	Winter	Planting
	Spring	• 1 st release
	Summer	• 2 nd release
Year 3	Autumn	• 3 rd release
	Spring	• 4 th release
Year 4	Autumn	• 5 th release
	Ongoing	Monitor & maintain as required

Plant quality

Plant quality is vitally important for rapid establishment. Each plant must be actively growing, not yellow and starved of fertiliser. A balance between size and cost is always a factor but the best results are often obtained using PB2 grade stock 30 - 40 cm tall. This grade competes well with any weed growth and is sufficiently large when planted to be seen and damage avoided when maintenance is carried out.

Root trainer grade plants have often been used in revegetation projects especially where larger areas have been restored and cost factors are a major consideration. They are



Winter planting of PB2 grade plants using predominantly cabbage trees and Carex secta to help colonise this riparian site.

also easier to carry and handle in quantity on sites where access is difficult, such as steep sites or sites at a distance from a vehicle delivery point. Bear in mind that smaller plants have greater difficulty competing with weed growth so denser planting will be needed to achieve rapid canopy closure, often ending up costing more than the larger grade PB2. Check Root Trainer grade plants to ensure that they are not too tall and leggy as such plants have difficulty establishing in the open.

Revegetation plants on this dry bank are just beginning to get ahead of grass growth but broom (foreground) has potential to spread and smother the young plants.

First stage colonising species

Revegetation should never be thought as a single stage process. The aim is to recreate a natural environment by planting species that will encourage the natural regeneration process to take over and let nature produce the final result. Therefore, the selection of species is crucial. First, use plants that are colonising or nurse species. These are plants that: -

- Grow naturally in the open
- Grow very quickly so that they will suppress weed growth
- Produce seed or fruit that attracts birds
- Need little care and attention.

Examples are manuka, kanuka karamu, lemonwood, kohuhu, mahoe, ngaio and flax.

A typical first-stage revegetation site using colonising species including akeake, karamu, manuka, wineberry and cabbage trees. However, always find out from your district or regional council or local DOC office which species are best suited to your area and the particular site conditions. Knowledge of the local species and their growth characteristics is essential so consult the experts if you are unsure.

Mulching, whether with weed mat or shredded bark as pictured, helps retain soil moisture and suppress weeds. Whether applied around the base of each plant or over the entire site depends on budget, site access and quantities available. In some cases, the cost and practicalities may preclude mulching at all.

Maintenance

Plan your revegetation project to include at least three maintenance sessions during the first year and at least two in the second.

Maintenance involves releasing the grass and weeds from around the plants, done either mechanically using a weed eater, or by using chemical spray or by hand. Care needs to be exercised to avoid damaging the plants with spray drift or poorly controlled weed-eating, but failure to maintain the planting will certainly result in a poor outcome and is often the cause of costly failures. If necessary, factor in the cost of getting in a maintenance contractor.

Once plants have hardened off on site, pest damage can decrease but remember to monitor for signs of damage and control if necessary.

Depending on the plant survival rate, another maintenance task may be 'blanking'; - replacement planting to fill gaps where plants have died. As a rule of thumb, blanking should be carried out where more than 40% of plants has failed. Consider the likely reasons for losses, as this could influence the remedial action you take; was it the effects of severe frost damage, drought or animal browsing? Perhaps some species were less suited to the site and failed noticeably more than others, in which case replacement planting would be better done with the species that did well.

Second stage revegetation (or enrichment planting)

Once the colonisers or nurse plants have established it could take a very long time for the taller or shade-loving forest species to establish without help, especially if seed sources are lacking in the vicinity. Depending upon the forest type in your area, plant larger species such as totara, kauri, beech, kahikatea, tanekaha and rimu when the first stage planting is about shoulder high. Find a gap and plant these species at random approximately 10 - 15 metres apart.

A revegetation project (left) during site preparation in 2003 and (right) in 2005 two years after planting. Note the distribution of species according to differing on-site conditions, with drier-ground species in the foreground and wetland species on the low-lying area beyond.

And the future?

Revegetation sites will always require some form of ongoing care. Usually this means removing woody weeds that might from time to time grow in the planted area, and continuing to monitor and, when required, control pest animals.

Most people are surprised by how quickly a well done revegetation project will grow and produce the expected results. An updated edition of the 1993 QEII National Trust publication Native Forest Restoration, A Practical Guide for Landowners, is to be published by the end of 2006. Advance order forms will be sent to Trust members prior to publication.

Pests

Rats on the New Zealand mainland

By John Innes of Landcare Research, Hamilton

The first step in dealing with rats as pests anywhere is to identify which species you have. When you get your eye in, the two usual species (ship rats and Norway rats) are very different, in terms of appearance, behaviour and impacts.

The ship rat is by far the most widespread and abundant rat species. Unfortunately, it also has the most impact because it is an unbelievably good climber and so is the main predator of small forest birds. Ship rats come in three coat colours, which confuses people who wrongly think these are different species. Like possums, ship rats are distributed across immensely large forests such as Te Urewera National Park, but are also at home in small forest remnants and urban parkland.

Norway rats are also widely distributed but are mainly

confined to edges of streams and lakes, for unknown reasons. Both species are common on farms in barns and sheds where food is available.

While Norway rats can be serious predators of shorebirds, such as dotterels, and river birds like terns and gulls, it is ship rats that are most likely to be encountered in forests and the species that most covenant owners are likely to confront for restoration purposes.

Kiore, the so-called (but not actually) 'native' rat, is extinct on the North Island and now confined to a few parts of the southwest corner of the South Island and some offsore islands.

Time lapse video recordings showing the predatory habits of ship rats can be viewed on the Resources section of the QEII website **www.openspace.org.nz**.

Common name	Ship rat	Norway rat	Kiore
	Rattus rattus	Rattus norvegicus	Rattus exulans
Other names	Roof rat, black rat, bush rat	Brown rat, water rat	Polynesian rat, 'native' rat
Mainland distribution	Virtually ubiquitous in North and South Islands	Both islands, but very patchy	Parts of Fiordland, Southland, south Westland
Habitat	Everywhere except grassland	Near water or buildings; common on farms	Forest, shrubland
Distinguishing features	Tail dark all round and longer than body; three coat colours	Tail pale beneath and shorter than body	Upper side of hind foot dark near ankle; small rat
Key behaviour	Superb climber	Burrows; swims readily	Climbs and burrows
Key impact	Main predator of small forest birds	Preys on ground-nesting birds such as shorebirds	Historically, caused many mainland extinctions of small forest birds and nesting seabirds

The Norway rat, a large brown rat distinguished by a tail coloured pale underneath and shorter than its body.

hind foot length to 31 mm).

^{photo:} Landcare Research

Pests

Riparian rat control

Bird life in the riparian forest of the Huatokitoki Stream has been getting a boost from a rat control programme initiated by the Hawke's Bay Regional Council.

Darion Embling, HBRC Biosecurity Advisory Officer, says the initiative is a trial, aimed at targeting rats for 4 - 5 months annually over the main bird breeding season. The results have been encouraging. "Pre-treatment monitoring showed ship rats and mice to be present but we caught only mice at the end of the first season and at the beginning and end of the second season. This compares with a non-treatment site where we caught rats and mice right the way through."

Darion says the Huatokitoki Stream was ideal for the trial, as rats had been problematic in the corridor of remnant riparian forest where a number of QEII covenants are located. To withstand periodic flooding, the bait stations were screwed to trees and the bait (which was still effective after wetting) wired permanently inside the bait stations.

Rat numbers will now be monitored to observe post-treatment trends.

For more information contact Darion Embling at Hawke's Bay Regional Council, 06 833 8068.

The corridor of riparian forest along the Huatokotoki Stream, where the Hawke's Bay Regional Council has been trialing rat control.

Fencing Combating corrosion on coastal fences

Salt-laden sea winds make coastal fences far more susceptible to corrosion than those inland. Simon Fuller, Chairperson of the Fencing Contractors' Association, recommends the following to increase durability in salty situations.

- Use wire with aluminium content. A zinc/ aluminium wire will last three to four times longer than ordinary galvanised wire, (25 years compared to 7 years on an exposed coastal site).
- Use a heavier gauge wire; 3.5mm instead of the usual 2.5mm.
- If possible, use staples with aluminium content also.
- Use stainless steel wire for post footings.

Check the fence regularly as wire will deteriorate quickly once rust appears, and replace deteriorating sections promptly. Watch areas particularly exposed to spray drift, including places where sea winds funnel inland, as corrosion is likely to set in earlier in these places, without necessarily affecting the whole fence.

Our native muehlenbeckias, an insect heaven

by Brian Patrick, Collections & Research Manager, Otago Museum

ur native muehlenbeckias are a common sight around our coasts and countryside but few of us will be aware that they are the most important plant in the New Zealand flora in terms of species richness in insects.

This translates into importance for insect predators, such as reptiles and birds, as well. At least 100 species of our butterflies and moths feed as larvae on the various muehlenbeckias and, of these, over 75 depend exclusively on muehlenbeckia for their survival.

Muehlenbeckias are scrambling, climbing or shrubby plants that belong to the dock family (Polygonaceae). There are five muehlenbeckia species native to New Zealand, of which the most common, both called pohuehue by Maori, are *Muehlenbeckia australis* and *M. complexa*.

Male and female copper butterflies courting on Muehlenbeckia complexa, Pukerua Bay.

The wiry muchlenbeckia or pohuehue (Muchlenbeckia complexa) *forms dense springy mounds in coastal and lower montane New Zealand.*

Like all muchlenbeckias, the large-leaved muchlenbeckia or pohuchue (Muchlenbeckia australis) has a much-branched, interlacing habit but has larger leaves up to 8cm long. The creamy flower panicles occur mainly in spring and summer.

The moth and butterfly larvae eat all parts of the plant – some feed on the flowers, others on the foliage, and others on the leaf litter on the ground or perched above the ground. A few tiny species mine the leaves, while one elegant species lives within a swelling it initiates in the stems. Still others re-use this swelling, eat the seeds or browse lichens growing on the stems.

Among the conspicuous and important insect groups this host supports are all our copper butterflies – thought to number at least 50 species in four well defined groups. In global terms, this is the most diverse copper butterfly fauna in the world, all endemic to New Zealand and all depending for their survival on various muchlenbeckias from the tiny mat plant *M. axillaris*, the almost leafless *M. ephedroides* and the orange-stemmed *M. complexa* to the large-leaved *M. australis*.

But muchlenbeckias are important for other insect groups too. Stick insects, shield bugs, many beetle groups, flies and wasps all have representatives that thrive and depend on this plant genus.

Muehlenbeckia australis - a smothering cloak or a haven of biodiversity?

With its rampant growth engulfing trees and roadsides, our native Muehlenbeckia australis might seem like a weed but it occupies an important place in New Zealand's ecology.

Pohuehue, or large-leaved muchlenbeckia, grows naturally in places where there is plentiful light and climbing support such as forest edges, cliff faces, scrub and regenerating vegetation. It has flourished since human settlement because land clearance has created conditions it favours such as edges around forest remnants.

Brian Patrick of Otago Museum (see article opposite) says that pohuehue

fulfils an important ecological function, forming a protective 'seal' around forest edges and over exposed bluffs and banks, and healing natural or humaninduced disturbance. Often, it is the only native species persisting in highly modified areas.

"As the most prolific native host plant for our native fauna," Brian says, "it contributes enormously to biodiversity."

Muehlenbeckia australis is being fostered at this Nelson covenant (above), to suppress blackberry and provide riparian protection.

Managing *M. australis* on your covenant

Whether or not you need to control pohuehue on your covenant depends on the situation and your covenant objectives.

Dr John Dawson, Botanist at Victoria University, advocates a cautious approach. "These vines are part of the nature of disturbance and regrowth. Together with our forests they've been here for millions of years. It's wise to monitor muchlenbeckia before intervening, to see what effects it's really having."

Pohuehue may be particularly beneficial on your covenant if you wish to enhance the diversity of insect life, heal exposed areas such as an erosionprone gully or an exposed bush edge, or suppress weeds.

However, it may need controlling where it is competing with rare or threatened plants or overwhelming young plants on your revegetation site. QEII Rep Brian Molloy says it may need control in southern snow-prone areas to prevent it supporting such a heavy load of snow that the regenerating vegetation underneath collapses.

In most cases where control is needed, cutting the vine at ground level, without poisoning, is sufficient to weaken it.

A case for monitoring - while Muehlenbeckia australis blankets a Dunedin hillside it is not necessarily killing the underlying vegetation.

Weeds

Boxthorn: A thorny customer to deal with

African boxthorn is invading limestone escarpments on the south bank of the Waitaki River in North Otago, threatening to damage the rock formations and engulf native flora. Observing this trend, QEII Rep Brian Molloy recommended decisive action to protect the unique collection of endemic and threatened plants at the Awahokomo limestone covenant near Lake Waitaki.

In the spring of 2003, with financial assistance from the Biodiversity Condition Fund and support from covenantor, Jock Russell, invasive weed contractor Kennedy Lange cut down all the accessible boxthorn as close to the ground as possible. The cut stumps were painted *immediately* with glyphosate herbicide at 20% concentration, with no surfactant. Smaller plants (less than 10mm diameter) were pulled out. Although many of the larger bushes had a high proportion of dead branches all cut stumps were treated.

Six months later, all plants missed

One of the boxthorn thickets tackled at Awahokomo.

during the first visit were cut and treated. The small amount of 'fuzzy' regrowth on previously treated plants was also sprayed to runoff with glyphosate at label rates of 150mls/15 litres. As recommended by the manufacturer, no penetrant was used. Thousands of boxthorn seedlings that had emerged between treatments were also sprayed and Vigilant® gel herbicide applied to plants on the cliff faces.

Control of all but four plants perched out of reach on the highest limestone pinnacles appears to have been successful. However, ongoing monitoring and control will be needed to combat the inevitable spread of seed by nesting rock pigeons.

A frican boxthorn (*Lycium ferocissimum*) was introduced to New Zealand in 1897 as a hedge and shelter plant. It tolerates salt spray and is now widespread in coastal areas throughout the country, colonising sand dunes, gravels, scrub, pastures and waste places near the coast, as well as fertile riparian and limestone areas further inland.

It is listed as a pest plant in the Auckland, Gisborne, Horizons, Nelson/ Manawatu/ Marlborough, Canterbury and Southland regions.

African boxthorn forms compact shrubs up to 4 metres tall, with interlacing rough thorny branches.

Boxthorn leaves are narrow and glossy green. The small waxy white flowers have a purplish base and produce orange-red, bird-dispersed, poisonous berries about 10mm long.

Recently registered covenants A summary of covenants registered from 1 October 2005 to 31 January 2006.

	7		· · · · · · · · · · · · · · · · · · ·				
Name	Area (ha)	Open space type	District Council	Name	Area (ha)	Open space type	District Council
Adams	4.0	F	Far North	Landcorp Farming Limited	4.0	W	Horowhenua
Fisk	7.0	F, S, W	Far North	Beetham	6.8	F, T, S	Masterton
Guy	5.5	F	Far North	Scott	80.5	F, S, W	Masterton
RPNZ Properties Limited	3.6	F, S	Far North	Scott	13.7	F, S, W	Masterton
Corbett (x 5)	7.8	F	Whangarei	Goodin	2.4	F	Carterton
Harrison (x 4)	1.7	F, T	Whangarei	Lincoln	1.7	F	Kapiti Coast
Mitchell Management	7.7	S, F	Whangarei	Palmer	2.1	T, W	Kapiti Coast
Services Limited (X Z)	12.0	E 14/	Kainana	Glazebrook	2.7	S, W	Upper Hutt
Horrodin Keinem District Council	12.8	F, VV	Kaipara	Donald	10.5	F	South Wairarapa
Kaipara District Council	34.1	F, S	Kaipara	Grant	2.1	F	Tasman
Smales	12.7	F	Kaipara	Smith	1.4	W	Tasman
Court	8.3	F	Rodney	Wilkie	9.2	F, S, T	Tasman
Bouzaid	61.0	F, L	Auckland	Rold	2.1	T, W	Marlborough
Butler & Rangi-Butler	0.6	F	Franklin	Sheild	52.8	F, L	Marlborough
D A Redfern & Son Limited	0.3	F	Waipa	Macfarlane Estate Limited	113.5	F	Hurunui
Hulse	0.8	F	Waipa	TLK Holdings Limited	7.4	F	Grey
Macky	8.1	F	Waipa	Landcorp Farming Limited	1.1	S	Waimakariri
Phillips & Flett	0.8	F	Otorohanga	Richon Limited	6.0	W	Waimakariri
Brough	3.3	F, W	Waitomo	Chamberlain	20.7	E G	Banks Peninsula
M.E.B. Carter & Co. (1977)	25.7	F, W	Waitomo	Chambers	10.5	F	Banks Peninsula
Oosten & Percy	9.5	F	Gisborne	S.P. & J.N. Crone Farm	8.1	S, F	Mackenzie
Severinsen	1.7	F	Central Hawke's	Limited	12.2	E C M	Time a
			Bay	Henriksen	12.3	F, S, W	Timaru
McDonald	82.8	F	New Plymouth	Langston	2.8	F, S	Waimate
Oakura Farms Limited	3.9	F	New Plymouth	Aratuna Farms (1988) Limited	1.2	F	Westland
van Beers (x 2)	2.0	W, F	New Plymouth	Landcorp Farming Limited	1.8	W, S	Southland
Gray	3.3	F	Wanganui				
McLeod	0.9	F	Wanganui	Marra .			
Burnview Limited	23.2	S	Tararua	кеу:	_		
Poulton	18.4	S	Tararua	A Archaeological feature F	Fore	est Is all for t	G Grassland
McColl	8.1	F	Manawatu	Ga Garden / arboretum G	Troo	logical teatur	e L Landscape

Covenants update

were 2,255 registered open space covenants covering 74,700 were a further 625 approved covenants covering 20,633 hectares, awaiting registration. The regional breakdown based on Regional Council boundaries is as follows.

Regional Council	Total land area in the region (ha)	No. of registered covenants	No. of approved covenants	Total area registered & approved (ha)	Largest registered covenant in region (ha)	Average covenant size (ha)
Northland	1,250,000	351	79	7123	417	16.6
Auckland	500,000	171	40	3551	841	16.8
Waikato	2,500,000	350	99	14774	645	32.9
Bay of Plenty	1,223,100	125	20	10242	6564	70.6
Gisborne	826,500	78	26	3425	1104	32.9
Taranaki	723,600	120	36	3050	334	19.6
Hawke's Bay	1,420,000	133	60	11120	4606	57.6
Horizons	2,221,500	214	40	5713	276	22.5
Wellington	813,000	196	65	5565	824	21.3
Tasman	978,600	78	24	1767	641	17.3
Nelson	42,100	10	2	448	144	37.3
Marlborough	1,049,500	28	13	1537	172	37.5
West Coast	2,300,000	23	15	1700	619	44.7
Canterbury	4,220,000	158	29	11452	1679	60.9
Otago	3,200,000	91	34	10041	2735	80.3
Southland	3,035,500	129	43	3825	214	22.2
Totals	26,303,400	2255	625	95333		

Fragments

Gifts and bequests

QEII is helped greatly by money or assets gifted in people's wills or in their lifetimes.

You may wish to support the Trust's work in general or help the Trust protect a special place or species in particular.

If you would like to discuss any aspect of contributing to QEII by gift or bequest, please phone CEO Margaret McKee at Freephone 0508 732 878.

Things to buy

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Pleas

QEII Swanndri® Vest

A high-quality merino wool vest, embroidered with the QEII logo.

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

S	Μ	L	XL	2XL	3XI
94	99	104	114	124	134
80	85	90	100	110	120

QEII Greetings Card

Pack of 10 cards in two designs with envelopes. Inside of card is blank.

Price: \$30 including GST and postage

Landscape painting and rata on matai bark.				
der Form		Prices include GST and postage		
	Vest size(s) x \$165.	00 each = \$		
e	Greeting cards (packs of 10 only) x \$	30/pack = \$		
	Donation (optional)	\$		
ress (for courier delivery)		Total \$		
	Method of payment – 🖵 Cheque	🕽 Mastercard 🛛 🖬 Visa		
	Credit card details –			
	Number			
bhone	Cardholder name	Expiry date		
lease send a receipt	Signature			
e post your order form to QEII National Trust, PO Box 3341, Wellington or Fax to 04 472 5578 or Phone 04 472 6626				

Take a break in a peaceful coastal setting

at QEII's own Aroha Island

- Camping and accommodation
- Venue hire
- Outdoor activities
- Kiwi and nature study
- · Ecological centre

12 km from Kerikeri in the Bay of Islands. Contact managers Greg and Gay Blunden. Ph: 09 407 5243 www.aroha.net.nz

Fragments

Places to visit – www.openspace.org.nz

Covenantors who wish to encourage visitors are welcome to list (free of charge) a brief description and contact details on the Trust's website, **www.openspace.org.nz**, under the 'Places to Visit' section.

Public access to QEII National Trust covenants is not mandatory and is entirely at the landowner's discretion. Usually, access is only with the landholder's prior permission.

Contact: Shona McCahon, Freephone 0508 732 878 or email qe2@qe2.org.nz

School children visit Chris and Brian Rance's covenant and Southland Community Nursery, which is listed on the QEII website.

Biodiversity funding for landowners

The next round of applications for Biodiversity Condition and Advice Fund funding will be open from around March/April 2006. Projects can include such activities as fencing or pest control.

Individuals or groups can apply independently or through the local council or through QEII Trust. For further information, application forms and project criteria visit: www.biodiversity.govt.nz/land/ nzbs/pvtland/condition.html.

Planting guide for the Canterbury Plains

A new DOC booklet entitled Native plant communities of the Canterbury Plains was launched in November, at the same time as the visionary 'Greenway Canterbury' project.

The Greenway project, initiated by the Isaac Centre for Nature Conservation at Lincoln University, aims to restore a network of native plant and wildlife communities across the plains and the booklet provides guidance on how to do so.

The booklet costs \$5.00 and is available from the Motukarara Conservation Nursery or DOC offices.

Trust People

Central North Island

Robert Meehan, the new Central North Island QEII Rep, knows his area very well, having worked for the Waikato and the Horizons Manawatu-Wanganui Regional Councils for eleven years before starting his part-time crop and pasture spraying business four years ago.

He carried out both animal and plant pest control operations for the councils, dealing with a wide range of species and is, as a consequence, highly knowledgeable about control methods. He looks forward to sharing his knowledge in his new role with the Trust.

Robert lives with his wife and three children near Taumarunui where he enjoys hunting and fishing.

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	Method of payment – Cheque Mastercard Visa		
Address	Credit card details – Number		
Talanhana Email	Cardholder name Expiry date		
	Signature		
Membership Type – tick appropriate category	Total \$		
□ Individual \$30 □ Family \$45 □ Life \$550			
□ Corporate – business (on application)	Please send me information on:		
□ Corporate – non profit organisation \$50	□ Making a bequest to the Trust □ Open Space Covenants		
(Subscriptions include GST)	Gift Membership		
Donation – optional (tick box):	Gift to: name & address		
Donations over \$5.00 are tax deductible			
□ \$100 □ \$50 □ \$20 □ Other \$	Send next year's renewal to me \Box to the recipient \Box		
Membership runs from 1 July to 30 June. New memberships after 31 March will come due for renewal 30 June the following year.			

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 37 hectares and the largest is over 6,500 hectares. There are currently over 2,800 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

Your QEII open space covenant may be non-rateable. See the "QEII Recommended Best Practice to Local Government on Rates Relief" under the publications/ policies section of the QEII website: **www.openspace. org.nz**.

You may also be eligible for assistance with funding such items as fencing, weed and pest control and restoration planting. Your QEII representative will be able to advise you about possible funding sources.

Silvery lichens decorate the trunks of young saplings in the Draper covenant in Northland.

A place to visit

Tautane Station, Cape Turnagain

It was at Cape Turnagain, on his first voyage to New Zealand in February 1770, that Captain Cook realised the North Island was an island.

It was his second view of the Cape, as he had seen it a few months earlier, sailing south along the Hawke's Bay coastline. Both times he turned at the Cape, first heading north again, then on the second visit, heading south.

Today the Cape is part of Tautane Station, which has been farmed since 1902 by descendants of the Herrick family. The station is managed by John Linton. The spectacular 3693ha property, which is about 80km south of Waipukurau, is home to three QEII National Trust covenants.

The owners first came to the Trust in 1994, wanting to protect a valuable block of semi-coastal forest they had already fenced 15 years before.

This area, which features an enormous northern rata and five species of podocarps (matai, rimu, kahikatea, totara and miro) in the midst of lush karaka and broadleaf forest, is 24ha in size.

The next area they protected is an adjacent 16ha of similar forest called Tapui Bush. Kahikatea emerge through a dense canopy of karaka, and pukatea are common.

Tautane's third covenant is a recently fenced 6ha area of karaka treeland on the coast at Poroporo, a few kilometres north of the Cape.

All three covenants can be visited - by foot - when staying at Tautane Station. Bookings are essential for the former shearers' quarters which have been renovated to accommodate up to 40 people.

As well as walking through the bush and the farm, there's always the dramatic coastline of the Cape Turnagain beach walk.

Two of the Tautane Station supervisors, Edward Elworthy (left) and Robert Herrick (right) at the 2004 sheep sale held annually on the farm.

Looking east across Tautane Station. The two protected forest remnants nestle into the Tautane Stream valley while the protected karaka treeland is out of sight near the coast.

noto: Marie Taylo

An enormous rata towers above lush broadleaf podocarp forest in the first of the Tautane covenants.

For bookings, contact Sharon Linton at Tautane Station by phone on 06 374 3553 or 06 374 3407, or by email at **escapetothecape@ihug.co.nz**. Tent sites are available and campervans and caravans are also welcome.