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New Zealand's and Australia's Foreign Affairs Ministers, Phil Goff and Alexander Downer, sign the treaty settling the maritime boundaries between the two countries.

TRANS-TASMAN TREATY CLEARS WAY FOR CONTINENTAL SHELF SUBMISSION

Kiwis and Aussies have their moments on dry land – especially if the particular plot of turf has goalposts at either end. But deep under the ocean, at least, we're getting on just fine.

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On 25 July, our respective Foreign Affairs Ministers signed a treaty which settles four years of negotiations between the two governments on the location of our maritime boundaries. When Hon. Phil Goff and his counterpart Alexander Downer signed the "Treaty between the Government of New Zealand and the Government of Australia establishing certain Economic Zone and Continental Shelf Boundaries" they achieved an important milestone in the process of defining each country's continental shelf.

The Treaty, which is still to be ratified by the two governments, delimits the maritime boundaries in two distinct parts (see map). The boundaries take in areas where the Exclusive Economic Zones (EEZ) of the two countries overlap, and where the continental shelf extends beyond the EEZs.

While the lines on the map look fairly simple, their definition was linked to a whole raft of geographic and legal factors. Relative lengths of coastlines, effects of islands and distances from relative coastlines, as well as geomorphological factors were among those taken into account.

As well as the direct benefits to New Zealand and Australia of agreeing our maritime boundaries, the Treaty was a vital cog in the complex machinery that is bringing each country's submissions on the extent of its continental shelf before the United Nations Commission on the Limits of the Continental Shelf.

The two countries have undertaken to support each other's submissions. Australia's is being lodged next month, while New Zealand's is due in 2006.

LINZ Continental Shelf Project Leader Russell Turner, who also acted as a technical adviser to the New Zealand negotiating team for the trans-Tasman treaty, says the preparation of New Zealand's submission is proceeding well.

"Every aspect on the technical side has been completed on time and within budget – quite an achievement for such a lengthy project involving so many risk factors," he says.

"The more glamorous phase of the project, involving physical exploration of the unknown, is now well and truly behind us. Progress on crunching the vast amount of data collected is well in hand."

Russell says the project team has completed three of the six regional reports that will form the substance of New Zealand's case. Each report contains a large storehouse of information which physically occupies its own entire 'shelf'. To make the data more easily available, indexed material is also being provided on CD for each report.

The Institute of Geological and Nuclear Sciences and the National Institute of Water and Atmospheric Research are now leading the project work, with help from LINZ and Iain Lamont from the Navy's Hydrographic Office, Russell explains. "As the data analysis phase draws to a close, the impetus of the project will pass to the Ministry of Foreign Affairs and Trade, which will present our case to the UN."

While the Australia - New Zealand maritime boundary treaty has been a major step forward for both countries, there is still some tidying up to do for each. The two countries have yet to delimit the maritime spaces off their Antarctic territories. New Zealand also has yet to conclude maritime boundary treaties with Fiji and Tonga. Also, Australia has to conclude treaties with Norway (Antarctic territories), France (New Caledonia) and East Timor.

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WHO CONTROLS WHAT?

Within an Exclusive Economic Zone, a coastal state has sovereign rights over the resources of both the sea and the seabed. Where the state's continental shelf extends past the 200 mile EEZ, these sovereign rights cover only the seabed and subsoil and any sedentary organisms living on the ocean floor, such as sponges and molluscs.

While the coastal state does not have rights over what lives in the water column above the extended continental shelf, it is not open season on this biomass. There are a number of international treaties covering management of particular species in the high seas, especially migratory fish such as the southern bluefin tuna.

The newly signed Australia - New Zealand maritime boundary treaty provides for the two countries to coordinate management responsibilities for any petroleum or other mineral resources beneath the seabed which straddle the boundary. It also provides much more certainty of jurisdiction over the seabed and its resources, and a better framework for preserving the marine environment, and carrying out further research.

Landonline



STRONG INTEREST IN E-LODGEMENT

The Landonline customer support initiatives rolled out in May have picked up pace since we last reported in the June 2004 issue of *Landscan*.

Following on from phase one of the programme – informing customers of the new support services available during their transition to *e-dealing* and *e-survey* – phase two is now well under way.

LINZ Programme Manager Katrina Jacobsen says the second phase of the programme comprises adding to the depth of the new support services and monitoring customer feedback on these services to further improve their delivery. “We have resourced up to provide the support services our customers require to transition to, and use, digital lodgement services.”

She says many current and new customers are now benefiting from increased specialist support available through the 0800 number, one of the key initiatives promised in May. “We concentrated on up-skilling LINZ support staff in the *e-dealing* and *e-survey* services and now we have a pool of internal expertise for customers to draw from.”

LINZ Marketing Communications Specialist, Melanie Templeton is excited by the momentum that is now developing for both *e-survey* and *e-dealing*.

“The LINZ-sponsored *e-survey* training that’s been made available through Cadastre Limited has prompted huge interest, and our customer team for *e-dealing* is now booked up weeks in advance,” Melanie says. “The places available in the sponsored *e-survey* training programme are limited, but commercially-based training should be available beyond this.” The provision of *e-survey* training was another key initiative of phase two of the customer initiatives programme.

The ‘buzz’ about *e-dealing* at the recent Property Law Conference was overwhelmingly positive, Melanie says. “If people didn’t already have *e-dealing* licences, they were on the point of signing up.”

Melanie says economist Gareth Morgan urged attendees at the conference to see their practices as a business, and told them that taking the initiative with new technologies (like Landonline *e-dealing*) was one of the few areas where they could gain significant efficiencies.

“In May we introduced customers to the new initiatives. Now we are delivering on our commitment to support them through the transition to electronic lodgement of titles transactions and survey datasets. The response has been fantastic.”

LINZ Senior Adviser, Customer Strategy, Jeff Needham, says regional presentations are continuing in smaller centres to offer survey and law professionals who couldn’t attend the bigger events the opportunity to discuss the LINZ programme first hand.

“We have run several meetings in the upper South Island, and other areas are also being targeted further down the line,” says Jeff.

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At a glance

- ◆ The LINZ e-lodgement customer support initiatives are into their next phase
- ◆ There is strong interest in the training programmes being offered
- ◆ Numbers of *e-dealing* and *e-survey* licences are now growing rapidly
- ◆ Regional presentations at small centres are continuing to ensure all legal and survey professionals have the opportunity to benefit from the support programme.

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LOOKING TO THE GOVERNMENT'S FUTURE ROLE IN GEOSPATIAL INFORMATION

Geospatial information. It's better known as "information concerning objects or phenomena that are directly or indirectly associated with a location relative to the Earth". Are your eyes glazing over, yet? Well bear with us on this one, because geospatial information is implicated in just about everything we do.

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Geospatial information is a fundamental part of our modern day infrastructure and it has been estimated that up to 80% of government information has some geospatial component. LINZ is leading an initiative to define the Government's future role in managing this dynamic storehouse of information. The outcome will be a Geospatial Information Strategy, expected to be delivered early next year.

So what exactly IS geospatial information? If the high-level definition didn't capture your imagination, the ways it is used might draw a clearer picture. Geospatial information underpins:

- land title management
- defence planning and counter terrorism activities
- resolution of claims under the Treaty of Waitangi
- navigation by land, sea and air
- emergency services responses, crime analysis and disaster management
- environmental assessment

- resource management
- farming, forestry, mining, fishing and energy industries
- government decision-making about socio-economic policy (health, education, community services)
- participation in democratic processes
- meeting international treaty obligations (e.g. Kyoto protocol, defence).

While every New Zealander is affected in one way or another by the integrity of our geospatial information there are three main providers: central government, local government and Crown entities. And while it keeps the economic wheels turning, managing geospatial information is itself a significant economic activity. It has been estimated that central and local government between them spend more than \$100 million a year collecting, buying, maintaining and using geospatial information.

So is the system broken? Do we need to fix it?

While our geospatial information is now collected, stored and managed using the latest digital technology, the various databases – and the way they are managed – have deep historical roots, going back more than 150 years. During that time there have been huge changes in the demands on that information and the shapes of the organisations that are its custodians. Innovations such as the e-Government strategy have big implications for the way geospatial information is stored and shared.

It is timely to look at the way we manage geospatial information and how it fits with the Government's goals and strategies for the 21st century.

To get the ball rolling, LINZ has developed a discussion document which highlights possible problem areas. It suggests a framework of involving various points of intervention, which could help define the Government's future role in this area.



Lindis Pass Hotel – past and present.



IF THESE WALLS COULD TALK...

There's not too much of it left now, but thanks to a property transfer during the recent tenure review for the Nine Mile Station pastoral lease, the colourful history of the historic Lindis Pass Hotel will be protected for future generations.

The ruin and its 0.8 hectare site will be transferred to the management of the Department of Conservation (DoC) when a group of six properties in the Lindis Valley enter the implementation phase of Tenure Review (see *Landscan* No. 28, April 2004).

Ken Taylor is manager of the Alexandra Branch of DTZ New Zealand Ltd, the company contracted by LINZ to negotiate this review. He says the Lucas family, the leaseholders at Nine Mile Station, were keen to see the hotel preserved, and have undertaken to continue their stewardship of the site until DoC begins its restoration work.

"As well as the hotel site, which had been on freehold title for a number of years, an adjacent area of old gold workings will be passed over to DoC," Ken explains. "The 10 hectares of workings are on a steep escarpment and were mined on and off right up to the 1950s."

He says that the preservation of our colonial history doesn't often come up as part of the Tenure Review process, but in this case all parties are delighted with the outcome.

Situated on a little-used road off State Highway 8 in the Lindis Valley, the hotel's origins date back to the original gold rush of the early 1860s. Though soon overshadowed by the



It identifies a number of problems faced by the Government in relation to geospatial information:

- lack of geospatial information resources available to meet current and future needs. There are some gaps in the geospatial resources needed to support the day-to-day activities of organisations within government
- lack of knowledge of the geospatial resources held by the Government. This means some decisions may not be properly informed
- lack of access to geospatial information. Barriers such as cost, confidentiality and distribution mechanisms may prevent agencies from using the data to best advantage
- inability to combine geospatial information. Fragmented standards and policies may prevent geospatial information from different sources being combined to help address the issues of the day
- lack of capacity and capability within government to get full advantage from our current geospatial resources.

The discussion paper, which is still subject to Cabinet approval for release, proposes some concepts that could be used to develop a geospatial vision for government:

Increasing the availability, accessibility, sharing and usability of trusted geospatial data to ensure:

- New Zealand’s safety and security

- growing an inclusive, innovative economy for the benefit of all
- protecting and enhancing the environment.

How this vision could be realised is broken down into manageable portions in the discussion paper by focusing on four key areas: geospatial data, access, interoperability and governance.

Within each of these areas, a range of possible changes is mooted. For example, under Governance, the paper explores various options for managing geospatial activities across government, while under Access, the creation of a geospatial information one-stop geospatial information portal is canvassed. A strong theme running through the discussion paper is the need for a coordinated, whole-of-government approach to this issue.

Stakeholders will be invited to put forward their views through a questionnaire accompanying the discussion paper, which is expected to be available by the end of October. Following on from this, a comprehensive consultation programme will begin, with a view to delivering a Geospatial Information Strategy by March 2005.

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far richer pickings to be found in the Gabriel’s Gully rush, the Lindis site nonetheless gained a foothold and the hotel’s boisterous history began.

Constructed of split schist and mud mortar (timber was scarce in the area), the original buildings were continuously altered and added to over the years. The first liquor licence was granted in the 1870s, and in the 1890s it was bought by the owners of the Morven Hills pastoral lease (itself now in the early stages of Tenure Review).

History shows the hotel was popular with farm workers who would occasionally succumb to its charms for drinking binges lasting many days. The most helpless cases were consigned to the “dead room” to dry out, and their bar tabs settled by the leaseholder who then deducted it from their wages.

By the early 20th century, and in perhaps more temperate times, it was an accommodation house and refreshment stop for the Mount Cook Company’s buses. It also doubled as a store and post office, but suffered a commercial blow when the main highway was shifted across the river in the 1930s.

In the 1950s it was sold to the local Rabbit Board as accommodation for the rabbitier, and after the Board vacated the premises the roof was removed to provide materials for a hayshed. The building has been in gentle decline since then, culminating in the collapse of a wall last year.

While full restoration is out of the question, it is an important historical relic, and is one of the largest, relatively intact stone ruins in Otago. The Department of Conservation is embarking on a plan to restore the collapsed wall and to stabilise and cap the other walls to prevent further decay.

Once the site is safe, it will be opened up to the public with interpretive signs provided to open a small but intriguing window into Otago’s past.

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TENURE REVIEW UPDATE

A little over 60 percent of the South Island's Crown pastoral leases have now become involved in the Tenure Review process.

By the end of last month, 186 properties were involved at some stage of the process, including 21 further lessees which have invited LINZ to initiate a review since the last issue of Landscan. Of these, two were reviews being 're-started' after a lease had changed hands during Tenure Review.

This is how the various reviews stood as at 31 August:

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Stage	Number of leases
Implementation complete; freehold title granted.	9
Final Proposal (substantive proposal) signed off; implementation under way.	21
First Cut of Proposal (preliminary proposal) completed; public submissions closed and under consultation to develop a Final Proposal.	19
First Cut of Proposal completed and advertised for public and iwi submissions.	4
Consultation with leaseholder under way prior to formulation of first cut of proposal.	70
Invitation to carry out review received and lease accepted into programme; initial research under way.	63
Total leases involved in Tenure Review programme	186

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PUBLIC ACCESS KEY FEATURE OF MOLESWORTH MANAGEMENT PLAN

Ask most New Zealanders what they know about Molesworth Station and they'll more than likely mention its size. They'd be right.

At 180,476 hectares, Molesworth is by far New Zealand's biggest farm. If that area was contained within a neat square (it isn't) you would have to walk the equivalent of more than a marathon to cover the length of just one side.

This enormous piece of Marlborough real estate has its origins in four separate pastoral runs. They accommodated 95,000 sheep by the end of the 19th century, accompanied by countless rabbits which thrived in the dry environment. A combination of overgrazing by these two animals, plus repeated burning of tussock to encourage new growth, severely degraded the environment and accelerated erosion.

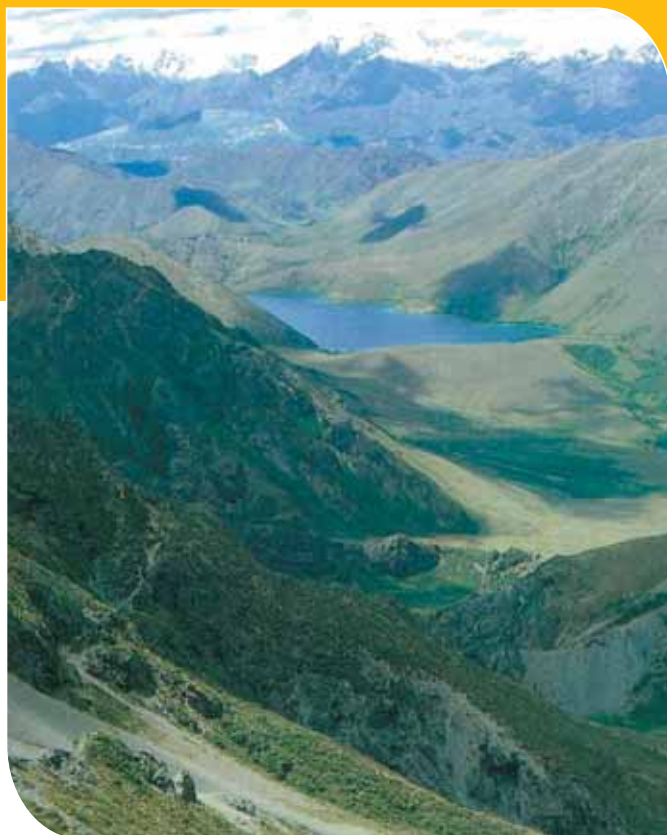
By the 1940s all four runs had been abandoned to the rabbits and the Crown took over management of this diverse, fragile and challenging country.

LINZ's predecessor, the former Lands and Survey Department, began rehabilitating the land in the 1950s. By replacing sheep with cattle, restoring pastures and controlling rabbits, some of the worst damage was reversed, and the station built to its current carrying capacity of around 10,000 cattle. That is extremely lightly stocked by New Zealand standards, but is appropriate to the land and by sheer weight of numbers is still a significant farming operation.

As well as its role as a farm, the landscape of Molesworth Station has always attracted a huge range of outdoors enthusiasts. It is popular with trampers, hunters, anglers, canoeists, rafters, mountain bikers and nature lovers.

To this day, the property is still managed by LINZ, and leased to Landcorp Farming Limited. Since 1987, when Landcorp Farming was split off from the former Lands and Survey, a government-appointed steering committee has overseen the implementation of management plans for the station. The committee currently comprises representatives from DoC, the lessee (Landcorp Farming) the Commissioner of Crown Lands and an independent Chairman. Secretarial services for the committee and management of the lease are provided by LINZ's Crown Property Management unit in Christchurch.

In December 2003 the Government decided that upon expiry of the current lease at 30th June 2005 a new lease under the Land Act 1948 would be put in place and Molesworth would then transfer to the Department of Conservation as a Recreation Reserve subject to the new lease. This decision coincided with the steering committee's regular review of the management plan. The review was drawn together by LINZ and incorporates a high level of public input.



**The diverse and challenging landscape of Molesworth Station.
The updated management plan allows for enhanced recreational access.**

The handover to DoC does not mean that the land will cease to be farmed, as a requirement of the Government's decision was that Molesworth should continue to be a viable farming operation, but it will inevitably herald changes in the way the requirements of conservation, outdoor recreation and productive agriculture are reconciled.

Parts of the updated management plan for the station endorse much of the farming practice that has been established for more than 50 years, with only fine tuning required.

Other parts of the plan reflect changes in the environmental status of the station. For example, wilding pines from the station's woodlots, and other woody weeds, have replaced hieracium as the most troublesome pest plants. (Biological controls are starting to overcome hieracium, previously an intractable pest.) Meanwhile rabbits have been decimated and largely controlled by calicivirus since 1996. While welcome, this has changed the population dynamics of bovine tuberculosis-carrying feral animals such as ferrets.

The new management plan acknowledges these shifting environmental and biosecurity challenges. It also intensifies the focus on protected natural areas, with a view to protecting discrete areas and unique species. The station is home to 21 threatened plant species, and two of these are found nowhere outside its boundaries.

Perhaps the biggest single area of public interest in the new management plan was the issues surrounding recreational access. The unique landscape offers up a huge variety of recreational opportunities and challenges for lovers of the outdoors, and in developing the plan, LINZ has taken their submissions seriously.

What is perhaps not well understood in some quarters is that there is already considerable scope for public access to the station land, and recreational activities:

- the western area of Molesworth and areas around Sedgemere Lake, Fish Lake and Bowscale Tarn are open to foot access year round
- all streams of 3 metres or wider are accessible via 20-metre marginal strips
- the section of the Hanmer to Wairau Valley road within the station boundaries is open year round
- camping is allowed along the Clarence Valley road year round
- access to the eastern and central areas of Molesworth is available subject to permission from the Station Manager
- sections of the Hanmer to Awatere Valley road (Acheron Road) are open for a restricted period each summer.

Although there is already considerable scope for recreational access, the new management plan reflects the high degree of interest shown by the public in expanding recreational opportunities. For example, mountain bikes will now be no longer lumped in with motorised vehicles, which will open up greater opportunities for mountain bikers within the station.

The Steering Committee is now overseeing the development of a detailed recreation and access plan, using the new Molesworth Management Plan as a framework.

The plan will balance the desire of the public for greater access with the need to ensure their safety in what can be an isolated and unforgiving landscape. Other considerations will include the need to protect the environment from biosecurity incursions and degradation, and to manage the extreme fire risk that can arise during the summer months. Also considered will be the needs of the farm to operate without endangering production, or the public.

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(Left) *Lagarosiphon major* forms dense and unsightly beds in shallows around the shores of Lake Wanaka. (Middle) Members of the Lake Wanaka Guardians at the recent open day. From left: Guardians Chairman Bill Hislop, Management Team Member Laurel Teirney, and Chas Morris. (Right) Suction dredging is one of the methods that will be used to control *Lagarosiphon major* in Lake Wanaka.

AGREEMENT CLEARS WAY FOR BETTER LAKEWEED CONTROL

A breakthrough agreement between key stakeholders has cleared the way for a programme to control the aquatic weeds that are choking the shores of Lake Wanaka.

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The iconic southern lake has been infested with the South African water weed, *Lagarosiphon major* for at least 30 years (See *Landscan* No. 24, March 2003). The weed grows in shallow waters around the lake edges. Until now, control methods have focused on mechanical methods, mainly suction dredging. However, despite these efforts, the weed has continued to spread around the lake shores.

In July this year an accord was reached between the Queenstown Lakes District Council, LINZ, the Department of Conservation, the Otago Regional Council and the Lake Wanaka Guardians. The Memorandum of Understanding between the groups fosters a more collaborative and integrated control programme to fight the encroachment of the weed.

LINZ has committed \$120,000 to the first stage of the programme, and the Queenstown Lakes District Council \$20,000. Funding at this level will allow the lake's weed problem to be addressed in its entirety, rather than concentrating on the amenity areas of the past.

A management committee representing each group will meet twice each year to review reports from the service providers carrying out the control work, and plan the next year's programme.

David Morgan, LINZ Contract Manager, says the key to getting on top of the weed has been the acceptance by community organisations of a comprehensive approach involving a combination of mechanical removal (suction dredging and hand weeding) and strategic use of a non-residual herbicide.

All water supply intake from Lake Wanaka will be ceased prior to treatment and reinstated only after water testing is completely clear of any residue.

"There has been consultation about the best methods for controlling the weed, and there is support from local organisations for the approach that's been agreed," David says.

"The Guardians are satisfied that the use of herbicide, together with mechanical methods is both necessary and appropriate. The aquatic formulation of diquat to be used does not drift when applied from the air. It has been used with great success in the nearby Lake Dunstan for the past three years, and also in the Rotorua Lakes for the last 40 years. Despite extensive monitoring over the years, no environmental or safety problems have ever been detected.

"An open day was held at Wanaka in August, where members of the public could talk to representatives from all the agencies, and a leading authority on aquatic weed management. There was a good turnout on the day. Appreciation was expressed about the opportunity to become better informed about the *Lagarosiphon* issue and intended control package."

David says the parties met in July 2004 and agreed a control plan for the 2004/05 financial year. This plan is an interim measure and does include the information obtained from the April 2003 workshop on *Lagarosiphon* that was attended by the MOU parties and a number of New Zealand's foremost scientists and experts on lakeweed.

"Beyond that we need a longer term strategy, which we will begin to develop later this year. Once we see how the weed responds to initial herbicide treatments, we will have a better idea of what's required to maintain control over the longer term," he says.

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Before and After:
Tree removal is improving the lake and mountain views for tourists driving along the eastern side of the lake.



WEEDING OUT PEST TREES

If you're a fan of the Lord of the Rings trilogy, you might remember Treebeard and his vengeful army of Ents stirring themselves into battle and marching on Saruman at Isengard, during The Two Towers.

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There's no evidence that *Pinus contorta* has any warlike ambitions, but this pest tree has definitely been on the move – and it is doing so in a North Otago landscape reminiscent of the Rings movies.

Originally planted to help with land stabilisation and as an experimental tree for high altitude forestry, *P. contorta* has proven overly successful and is now a nuisance plant along the shores of Lake Pukaki. The 'wilding' trees are on Crown land administered by LINZ, and the wind-borne seeds they produce from about six years of age are starting to infest neighbouring properties. The trees also present a fire risk, in an area that can get tinder-dry over summer.

LINZ has swung into action to deal with the problem along the eastern shores of the lake, where about 20,000 trees have been removed over the winter. The vast bulk are *P. contorta*, but other nuisance trees such as silver birch and larch are also being removed in some spots.

As well as dealing with a large-scale weed problem, the tree removal programme is restoring views of the lake and Mount Cook for the many tourists who use the popular route along the lake shore.

David Morgan, Contract Manager with LINZ Crown Property Management in Christchurch, says the tree removal programme

has involved extensive consultation. He says stakeholders include Meridian Energy, which has an operating easement on the lake, adjacent land owners, Transit New Zealand, Department of Conservation, Mackenzie District Council, the Twizel Community Board and Ngai Tahu.

The area to be tackled was broken up into three zones, with contracts for the tree removal let for each.

"We wanted to create a park-like atmosphere, and not a desert," David says. "Site visits were carried out to identify trees for removal and those that could be retained.

"Rather than dictating to the contractors how they should carry out the work, we left it to them to come up with solutions. Unfortunately the timber of *P. contorta* is of no real value, so innovative solutions were needed."

David says the larger trees were removed from the site, and the leftover 'slash' and smaller trees were mulched with the mulch either being spread to break down naturally or removed off site. Many locals are helping themselves to the mulch, which is fine with both LINZ and the contractors. Some smaller plants are grubbed or sprayed, and return visits are planned to deal with any regrowth or trees that were missed.

Because the area is an important tourist route it was important that it be left tidy, David says.

For now, the 'army' of wilding trees has been stopped in its tracks. David says there are also infestations on the western shore of the lake, that will need watching, while the newly cleared areas will also require monitoring to contain any future incursions.



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