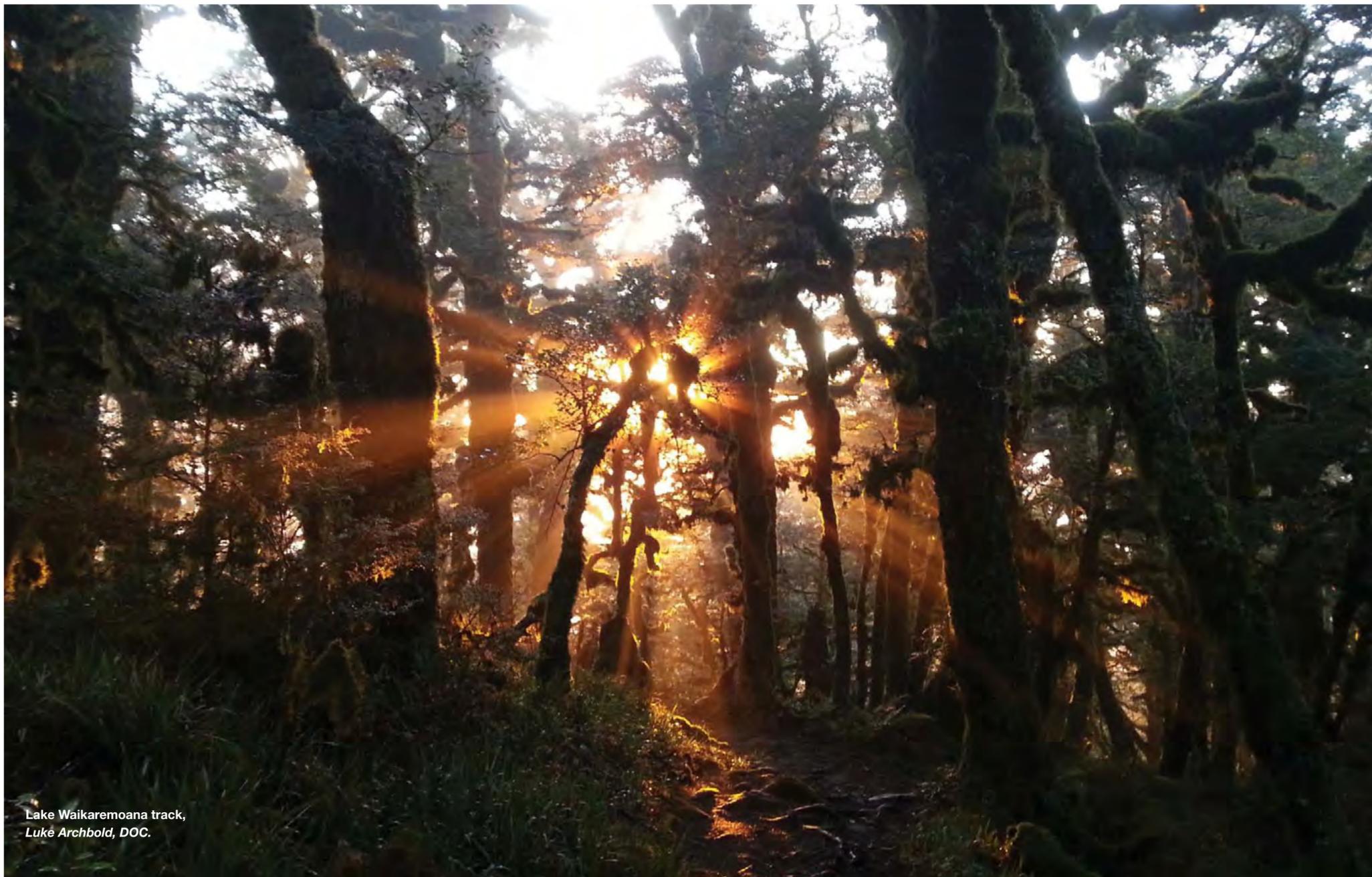


Science and management, public and private: 1987–2012

Since DOC's creation, its improving ability to bring together science, policy, management and the public and private sectors, as well as iwi, in the service of conservation, has improved the quality of action taken.



Lake Waikaremoana track,
Luke Archbold, DOC.

1987

DOC: born of democracy

DOC was born in one of the most strenuous eras of political reform in the 20th century. Shortly after coming to office, the David Lange-led government held an environment summit in 1985 in which 150 key players met in Parliament before a gallery of public officials. Over several days of self-styled radical democracy, they debated the government structures required for a new era.

Minister for the Environment Russell Marshall announced a new policy ministry, seen then as the senior agency. The other 'nature conservancy' agency's shape was less clear, but the summit's express desire was the separation of former departmental activities, such as Forest Service commercial logging, from its conservation roles. After years of divided and conflicted conservation responsibilities, a single agency, mandated with integrated management responsibility for habitats and

species, protection and recreation, was envisaged. The move was publically supported by outgoing Director-General of Lands and Survey Bing Lucas who had influenced the professionalisation of New Zealand's parks and reserves system as well as UNESCO's World Heritage protection.

So DOC began on 1 April 1987. The Conservation Authority followed in 1990. Under its unique provisions, within each conservancy community, representatives on conservation boards—not the department—signed off on park management. The system was modelled on the old national park boards and authority.

Also defining, in 1991, was Kaupapa Atawhai, a unit of Māori liaison officials whose task was to help honour the department's unique legislative requirement to give effect to the principles of the Treaty of Waitangi.

1990s

Candid camera: red-handed possums and rats

Amazingly, it was only as recently as the 1990s when research on kōkako revealed the identity of predators that cause declines in native bird populations. John Innes's leading work involved catching, banding and tracking kōkako back to their nests where they were most vulnerable. It showed a sex bias, meaning that nest-sitting females were predated; males often survived. Rats, possums and harriers were identified. Innes led the team whose camera implicated with forensic finality the possum in bird population decline.

This work in the Central North Island showed that it was possible to manage kōkako populations, reversing trends, largely through controlling rats and possums. Innes followed up with wood pigeon/kūkupa in the North, where, until then, the rat and possum predation effect had been entirely left out in any reckoning of its scarcity.



David Mudge

Soon after, Graeme Elliott showed that yellow-head/mohua were vulnerable to rats when beech trees produced mass seed. Previously, stoats were thought to be the main predator. All this impacted psychologically on the complex issue of pest management thinking nationally, shifting DOC towards many of the species management systems that have become standard practice today.



Te Wāhipounamu—South West New Zealand World Heritage Area—
Milford Sound. Rob Suisted

1990–2007

World Heritage recognition

The listing, in 1990, of Te Wāhipounamu—*South West New Zealand* by UNESCO as a World Heritage site was an outstanding achievement of the early DOC. A wide range of conservation and recreation non-governmental organisations, notably Forest and Bird and the Federated Mountain Clubs of New Zealand, supported by Ngāi Tahu, backed DOC's 'outstanding universal values' advocacy for this area of 2.6 million hectares—10 percent of New Zealand's land area. The 1989 decision to pass to DOC 300,000 hectares of South Westland's indigenous forests south of the Cook River paved the way for this international initiative, ending decades of forest conservation controversy.

Soon after, in 1993, the indigenous element in the designation of Tongariro National Park as New Zealand's second World Heritage site played an even more decisive role. After a nomination led by Lands and Survey in 1986 and an application led by Sir Hepi Te Heuheu,



Koichiro Matsuura, UNESCO Director General, is greeted by Tumu and Susan Te Heuheu at Tapeka. Dave Wakelin, DOC

of Ngāti Tūwharetoa, UNESCO decided to reconsider its cultural criteria for world heritage. A presentation by Sir Hepi's son, Tumu, in 1993 to a World Heritage experts group, resulted in a special designation of the park based, for the first time ever, on its living cultural values as well as its unique history and extraordinary natural qualities.

It was therefore fitting that New Zealand hosted the 31st session of the World Heritage Committee in Christchurch in 2007. Paramount Chief of Ngāti Tūwharetoa Tumu Te Heuheu was then Chair of the World Heritage Committee. The park is one of only 23 sites in the world with dual World Heritage status. New Zealand's third World Heritage site is the subantarctic islands.



1995

Cave Creek

Cave Creek is synonymous with terrible, avoidable tragedy; with what has been DOC's greatest ordeal and with the development of systems to ensure that such an event never happens again.

Located within Paparoa National Park, this was the site of a viewing platform that, soon after construction in April 1995, collapsed under the weight of 18 people, most of them outdoor education polytech students. Plummeting 30 metres, the accident caused the deaths of 14, injuring four others, one seriously.

In the ensuing inquiry, it became clear that the causes were manifold and systemic. In a culture of doing more with less, training, supervision and engineering inspection were seriously wanting. Successive restructurings, the pervading climate of less government and deregulation also contributed.

Apart from further, significant restructuring and the reassessment of safety throughout its network of tracks, bridges, huts and other constructions, DOC established new and powerful management systems. These went beyond public safety, and elements of risk averseness, to ways in which plans and their implementation, be it in the science of endangered species management or the control of spending, became systematic and, in the jargon, 'transparent'. In the process, the law for government chief executives changed and DOC traded its 'coalition of free spirits' for a lean and more accountable, focused bureaucracy.

—
Cave Creek: tragic prelude to quality management systems for DOC.
DOC



1996

Kapiti Island: place of a second chance

In the early 19th century, Te Rauparaha, ‘the Napoleon of the South Pacific’, chose Kapiti, north of Cook Strait, as the centre for his resettled tribe, allies and strategies. Late in the century, it became an island sanctuary for native birds; in the 1920s, its neglect was an inspiration for the formation of the Forest and Bird Society. From the 1980s, it was a leader in, first, large-scale ground possum control (1986) then aerial rat eradication (1996). Consequently, it became a key site for translocation of a rich range of endangered species and a must-see destination for eco-visitors.

Furthermore, it opened DOC’s eyes to the possibility that large areas, at that stage offshore islands, could be pest free, leading to a succession of ‘conquests’ of bigger and bigger landmasses,

including the mainland island concept. The necessary techniques, involving aerial poison drops, followed by trained dogs tracking remnant possums and vigilant surveillance systems forever after, were also pioneered on Kapiti.

Kapiti is also one of New Zealand’s oldest marine reserves, whose challenging stakeholder representation included three tangata whenua groups and—being recreationally vital to a large urban area—a myriad of others. Māori, business and recreational groups make up its advisory committee.

Kapiti represents, then, one of those special places where seemingly impossible dreams can be manifested.

—
Kapiti: exemplary in offshore islands’ role in species recovery. *Rob Suisted*

Karori Sanctuary (Zealandia): the world's first fully enclosed mainland island.
Rob Suisted



1999

Karori: thriving within walls

In the early 1990s, the realisation that predator control was the key to protection of endangered species coincided with the Wellington Regional Council's decision to turn its 130-year-old water catchment at Karori into a reserve. Conservation neophyte, Jim Lynch (planner, systems designer and strategic thinker) put these two ideas together with his inspiration that Wellington-wide native wildlife restoration could kick-start at Karori behind an 8.6 kilometre predator-exclusion fence.

It was a radical idea, a world first. But, again serendipitously, technology to enclose the 225 hectares of valley stream from all predators was just becoming feasible.

In 1999, Karori Sanctuary was born. Tracks were built, restoration furthered and translo-

cations undertaken. Before long, the dream of restoration of saddleback/tīeke, stitchbird/hihi, kākā and bellbird/korimako to what until recently, had been a Wellington domestic edge dominated by gnarly pines, magpie and possums, became reality. Since then, the name has changed to Zealandia, tourism has become important, but conservation innovation continues with such species as tuatara and little spotted kiwi.

This ecological island concept, bringing the rare, unseen and endangered back to the mainland, has inspired several similar projects throughout New Zealand. Among these are the 7.7 hectare kahikatea remnant of Riccarton Bush/Putarangamotu, 98 hectare Bushy Park and 3,500 hectare Maungatautari, which encloses an entire mountain.



2000

Biodiversity in action

‘Biodiversity’, a recent word popularised by American ecologist Edward O. Wilson to promote ecologically based conservation, became enshrined in thinking worldwide following the UN Environment Summit in Rio de Janeiro in 1992.

In 2000, the New Zealand Biodiversity Strategy was published, stimulating protective measures in coastal, marine and terrestrially based restoration. Often driven by communities on private and public land across the country, forest regeneration, wetland renewal and protection of endangered birds, lizards, snails and fish have benefitted.

Shoring up what was under threat, preserving and extending limited representativeness and intensifying predator control measures—some in mainland islands—was supported by \$42 million in the Fund available to Māori, community projects and science.

Trapping of exotic predators
and elimination

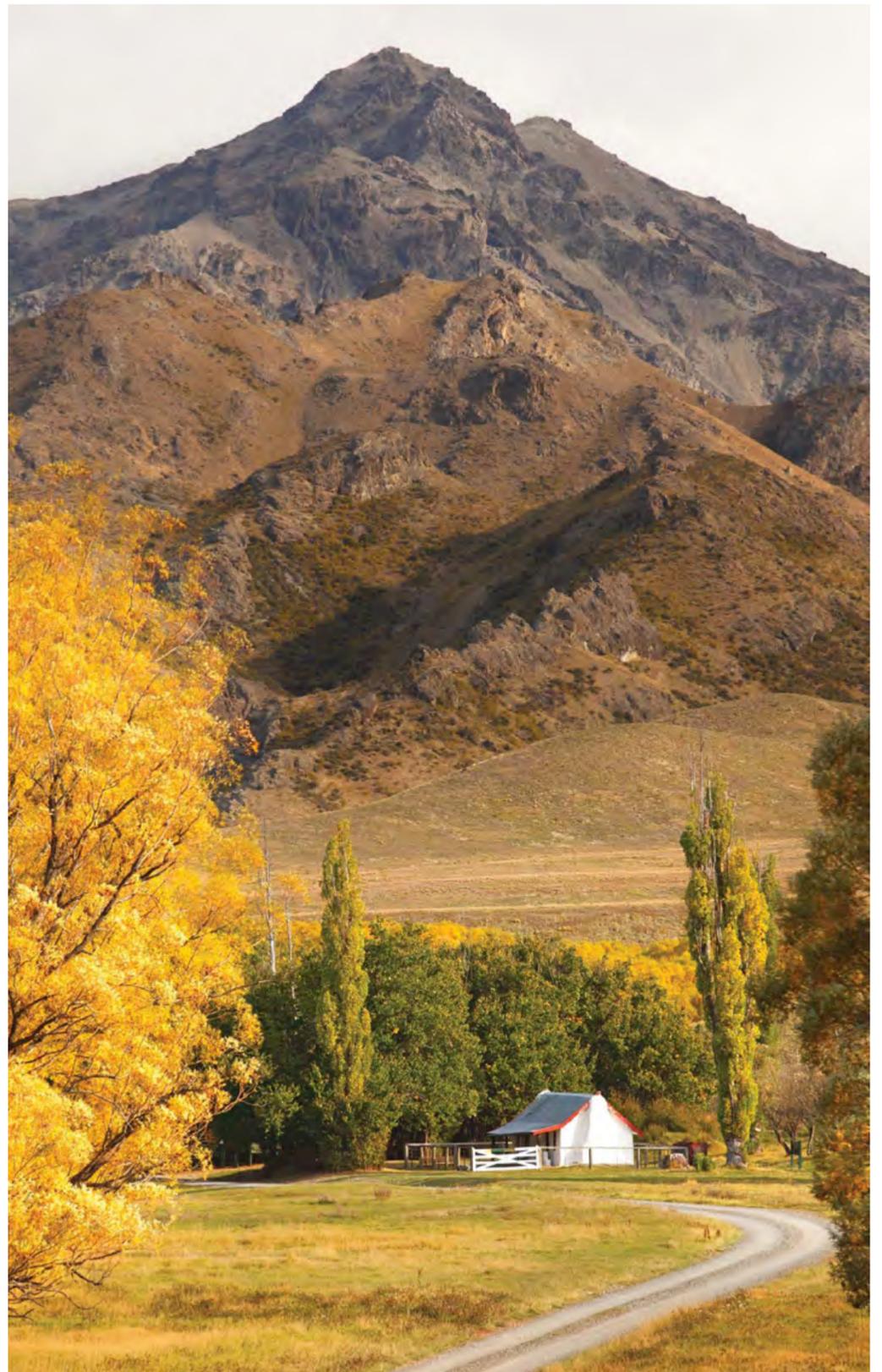
of invasive weeds were essential measures in most places. As lead agency, DOC, but also other departments and local and regional government, provided advice, training and leadership, particularly technical support. The translocation of native species to a site always marks a win for significant predator control.

Despite the fact that, overall, New Zealand’s native biodiversity is still losing ground, large numbers of New Zealanders are committed to ending such trends. Predation is not the only cause. Draining, private logging, housing development, inadequate waste disposal—especially in parts of the dairy sector—continue to take their toll on environmental quality and threats to species.

—
The modern term ‘biodiversity’ has helped catalyse thinking, policy and action world-wide. Volunteers make a vital contribution—Wakatipu Wilding Conifer Control Group. *Emily Adamson Photography*

2005

Molesworth Station: heritage in motion



Historic, archetypal Molesworth is mythical New Zealand. Today, owned by DOC, it is run on three entwined principles—conservation, recreation and production.

At 181,000 hectares, its vastness makes a similar footprint to Stewart Island's. In remoteness and in heritage value as a classic high country station, dating from the 1850s, it has been described by one cyclist as 'like riding through a painting'. Since 2005, when it formally took over, the department has leased back Molesworth to Landcorp. The corporation commercially runs 9,000 head of beef cattle on a portion of this.

Once an 85,000-strong sheep station on the old Nelson-Canterbury route, Molesworth became synonymous with rabbit infestations and spectacular erosion. However, after WWII, with precautionary management, including aerial over-sowing, rabbit control, destocking and abandonment of sheep, it gradually became a model of land care in difficult country.

Today, the diversity of its ancient rocks, wild rivers, ecosystems with cryptic plant life in a range from herb and tussock lands is its conservation *raison d'être*. The landscape contains beech remnants to the west, grading into wood, shrub and tussock lands to the east. Species include Hall's tōtara, mountain daisy, hebes and native daphne, many endemic to south Marlborough.

Through the summer, its heritage trails are increasingly a recreational choice for hundreds of cyclists. Apart from exercise, the unfolding panorama of big riverscapes and mountains, historic sites, cob buildings and a continuing sense of pioneer life, Molesworth offers a unique experience only a short hop from the Cook Strait ferry.

—
Former high country station, today Molesworth is an adventure-tourism destination. *Rob Suisted*



A range of agencies now works to conserve our natural heritage values on both public and privately owned lands. Wairepo kettlehole, Quailburn Conservation Park. Joy Comrie, DOC

2005

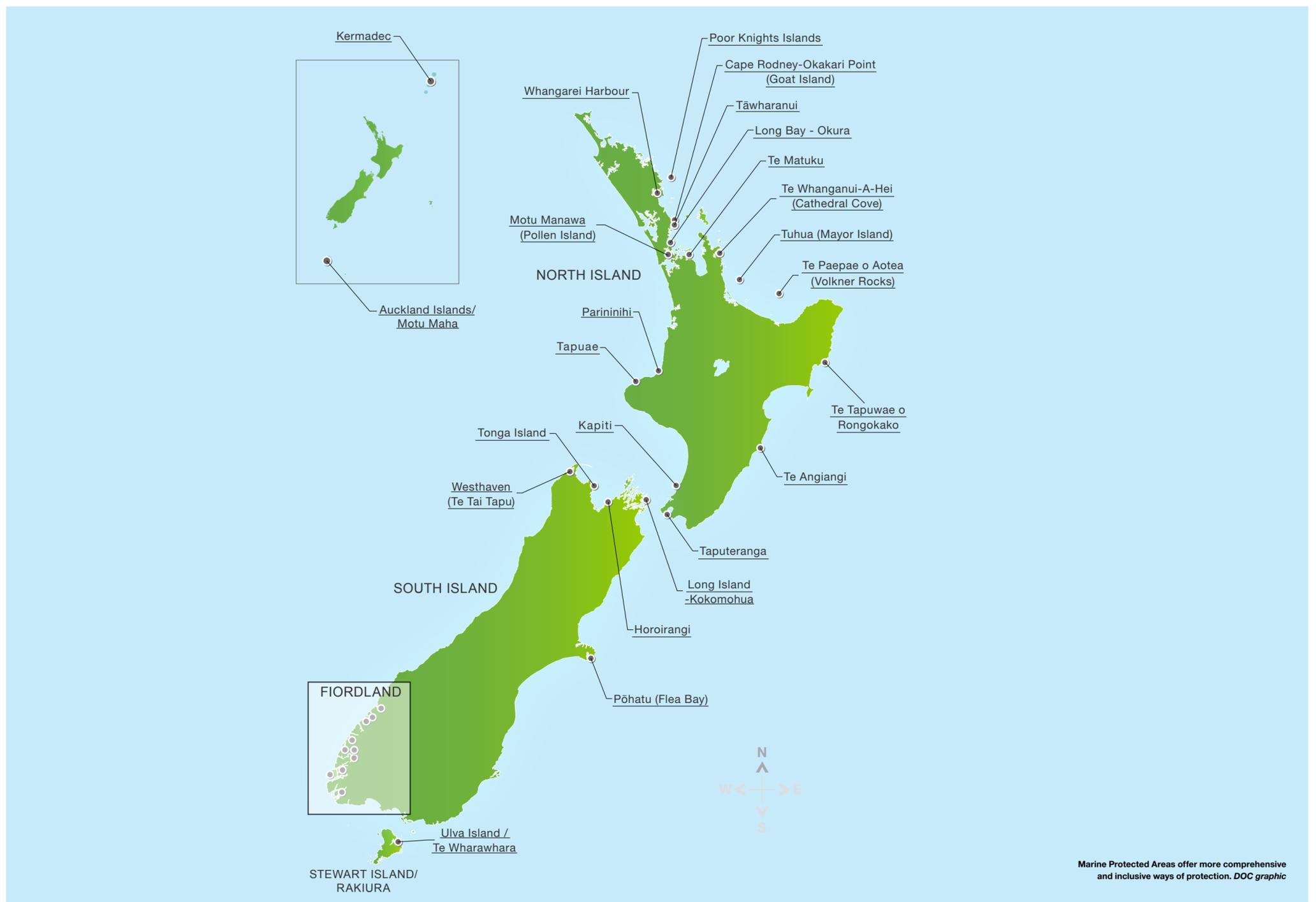
Covenants and other pathways to protection of natural lands

Until 1977, land for conservation purposes was held in trust in a range of reserves, from national parks down to local domains. These were administered on behalf of the public mainly by Lands and Survey, the Forest Service or local government.

In that year, inspired by conservationist-farmer, Gordon Stephenson, the Queen Elizabeth II National Trust was formed. Under its special legislation, landowners could place in permanent covenant their native forests, lakes, wetlands, coastline and other special landscapes, entered on the land title. In return, rates relief, fencing assistance and/or predator control assistance was made available. In the past 10 years the number of these covenants has increased from 1,400 to 3,600, the total area protected growing from some 50,000 to 110,000 hectares.

Under DOC, the Nature Heritage Fund (NHF), originally the Forest Heritage Fund, and Ngā Whenua Rāhui (NWR) have been formed to protect those ecosystems of natural biodiversity on private or Māori land. Independent, but serviced by DOC, NHF purchases, arranges covenants or provides management assistance. Both funds have been highly successful. Twenty-two years later, NHF has protected 340,000 hectares, a considerable proportion of it being that most rare of former ecosystems, wetlands. NWR is similar, but also provides an opportunity for Māori to apply Māori conservation values in their own right.

From the 1990s, the high country tenure review brought further ecologically significant lands into public lands administered by DOC, leaving the conventionally productive lands for agriculture.



Marine Protected Areas offer more comprehensive and inclusive ways of protection. DOC graphic

2006

Marine Protected Areas

While some impressive areas have been placed under reservation, the 30-year goal to establish marine reserves of '10 percent by 2010' is yet to be achieved. Much of the protection area in marine reserves lies around the Kermadec or subantarctic islands, leaving large mainland coastal gaps in the ecological representativeness of the network. Fewer marine reserves have been established over the past five years.

Efforts for a representative and holistic network of MPAs through community-driven processes and backed by the Biodiversity Strategy resulted in a Marine Protected Areas Policy and Implementation Plan, approved by government in 2006. This has resulted in a focus on particular biogeographic regions, rather than trying to run several marine protection application processes at once.

Regional MPA forums were run for the South Island West Coast and subantarctic islands. Despite the fact that there is no significant fishing in the subantarctic, the process was frustrated by relitigation by the fishing lobby. The approach has taken a few years, and protected areas are only now being established—a key reason for the slowing of acquisitions of reserves. There have also been unsuccessful marine reserve applications, for example, for Great Barrier Island.

The recommendations of both regional forums were eventually approved by Ministers of Conservation and Fisheries, with those for the subantarctic islands to be established by special legislation. Three subantarctic reserves should be secured this year. Those for the West Coast await the statutory process of the MPA.



2008

Innovations in weed management

Invasive weeds have taken root in New Zealand since James Cook's first voyage here. Naturalist Georg Forster noted that, between 1769 and the second voyage in 1773, canary grass was established.

New Zealand now has more introduced plant species established in the wild than it does natives. Invasive plants that threaten biodiversity values total more than 300 and continue to arrive here at the rate of two per year. It was 1998 when DOC wrote a smart weed strategy that has focused its weed work since. The weed budget has grown from \$1 million to \$20 million, reflecting an appreciation of the extent of the problem.

One of New Zealand's most intractable weeds has been the wilding pine whose relentless march has, for more than 50 years, been seen as

a threat to be extirpated, root and branch—even off the giddy slopes of The Remarkables. Volunteers have played an important role at more accessible sites—recently, 60 removed 16,000 trees in two days from the Maitara basin.

However, ground-based and aerial application of herbicides is achieving even more effective control, across vast and often inaccessible parts of our high country. The generic term 'wilding pines' refers to at least 10 species of conifer including firs and spruce as well as pines.

Wilding pine control is only part of the Department's weed work that includes other nasties such as old man's beard, buddleia and wild ginger.

—
Wilding pines threaten New Zealand's ecological integrity, but innovative controls are being developed. Jamie Cowan, DOC



New Angelus Hut. A booked alpine destination. Nelson Lakes, DOC

2010

Understanding recreation demand

In 25 years of DOC recreation management, we have seen a shift from a supply driven model to one much more demand driven.

DOC's inheritance in the way of tracks, huts and even bridges from its land-holding predecessors, the Forest Service and Lands and Survey, was impressive in both scope and content.

The 1960s and 1980s saw considerable expansion of backcountry assets built for both recreation and wild animal management.

Managers also noticed more public use of the front country and road-end development. The North American influences, whereby the US Park Service, Forest Service and Bureau of Land Management were expanding their asset base and understanding of recreation demand and needs, were considerable.

However, as the 1995 tragedy of Cave Creek sank in, two salient points of DOC's legacy became clear. One, publicly identified by Director-General Bill Mansfield, was that no one had identified the need for a national project management system before Cave Creek. The other was that such a system would entail identifying much more closely where public demand lay and—to meet DOC's limited budget—reducing the number of facilities available.

To manage within its capacity, DOC has sharpened its visitor management focus on 'understanding demand'. This has meant providing the best mix of facilities and services and ensuring a quality, enjoyable experience suitable for a range of visitors. Working with others, such as outdoor recreation groups and the tourism industry, is also now essential.

2010

1080: DOC's *critical tool*

In 2007, DOC released its threatened species list, showing that 416 new species had been added and 40 bird species were worse off. At the same time, however, two positive trends were well under way. One was the growth of mainland 'islands' with intensive predator control; the other, the elimination of predators from larger and larger islands by aerial application of 1080 and other toxins.

Despite its long-proven ability to protect native birds from exotic predators, and the refinement of aerial drops supported by a range of proven supplementary techniques, 1080 remains the bug-bear of some rural communities. Partly, this is an issue of trust and social control.

Some hunters continue to oppose the use of 1080 (sodium fluoroacetate)—primarily because, together with its primary target species of possums, rats, stoats and weasels,

1080 Tekā

5 Common misconceptions of 1080

Based on feedback from Māori communities

Tekā/Myth	Pono/Fact
1080 destroys the mauri of the ngāhere	Possoms and predators do far more damage to the mauri of the ngāhere than anything else
Ground trapping would provide employment for Māori	Trapping on its own is not and will not provide long-term employment for Māori
1080 poisons the waterways	Research shows 1080 breaks down quickly in water and does not poison waterways
DOC and its partners are not interested in alternatives to 1080	In Aotearoa, \$4–5 million is spent each year on finding alternatives to 1080
DOC uses 1080 on vast areas of the public conservation land that it manages	DOC uses aerial 1080 on only 6% of all conservation land.

it can reduce deer and pig numbers.

When first introduced after WWII, Forest and Bird opposed 1080, but that is not the case today. Lack of native mammalian predators means New Zealand is the world's largest user of this disrupter of mammalian metabolism. As well as its value for predator control, 1080 is a vital tool for the Animal Health Board in its reduction of bovine tuberculosis in cattle and deer herds, as possums are a vector for the disease.

The most recent independent review of 1080 use came from the June 2011 report of the Parliamentary Commissioner for the Environment, which not only endorsed the targeted use of 1080 but urged more use of it, the better to protect our forests and fauna.



New Angelus Hut. A booked alpine destination. *Nelson Lakes, DOC*

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Whoi/blue duck project, Tongariro, supported by electricity generator, Genesis. Herb Christophers, DOC

2012

Bangs, bucks and biodiversity

Surprising many of its supporters, in 1990, a cash-strapped DOC negotiated its first commercial contract—with Comalco, conservation’s nemesis from the Lake Manapouri debate. Manapouri’s hydro scheme powers Comalco’s Bluff aluminium smelter. Originally, with funding from recycling of aluminium cans, Comalco (later Rio Tinto, now New Zealand Aluminium Smelters) pledged to assist saving the now famously eccentric and endangered kākāpō. Down to just 50 birds, and heading rapidly for extinction, numbers have—fitfully—increased and threatened status has eased. To date, the company has put millions of dollars into the kākāpō recovery project.

In 1991, the Bank of New Zealand’s support for the Kiwi Recovery Programme began. Its financial pledge helped halt the rapid decline in mainland kiwi numbers, and birds remain in their natural habitat. After 21 years, kiwi still struggle in some

regions. However, most of the five species now hold ‘improving’ status—progress even on six years ago. The 2006–16 Kiwi Recovery Programme is designed to ensure that healthy kiwi populations survive across as much of the mainland as is feasible.

In the 1990s, Genesis Energy committed to an effective mitigation package for the Tongariro Power Scheme to help protect the threatened blue duck. This year, the company partnered with DOC to fund \$2.5 million for a whoi recovery programme at eight sites nationally. Like kiwi, once found in most of New Zealand, the whoi’s presence is a sign of pure waters and good habitat.

These are just a few of DOC’s current commercial partnerships, all of which are backed by smart science, responsive management and community support.

This Department of Conservation (DOC) site has information about the protection of New Zealand's natural and historic heritage, how and where you can enjoy public conservation places and how to get involved in conservation.

Parks & recreation



Find out about places to visit, national parks; tracks, walks, hunting and other activities; huts, cabins and campsites.

By region



This section pulls together information provided throughout the site and sorts it by region.

Conservation



Learn about plant, animal, marine, coastal and land conservation, heritage protection and managing threats.

Getting involved



Get involved in conservation volunteering, training, teaching,

About DOC



Find information on jobs, news, permits, running

Publications



DOC publishes a wide range of documents, many of which

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Be part of it

2012

Communicating conservation stories

For nearly as long as New Zealand has had governments, politicians have sought to sell this country's environmental and cultural distinctiveness to an international audience.

Fox used both pen and paintbrush to excellent effect. Liberal MP Richard Seddon promoted scenic wonders with photography, pamphlets and even poetry. In the process, an enhanced national identity—and stronger protective measures—emerged. In 1941 Lance McCaskill took his own fight for water and soil conservation in slide form to Parliament. Roy McGregor, Herbert Guthrie-Smith and Perrine Moncrieff wrote books, often photographically illustrated, to make their point.

More recently, DOC was the first New Zealand government department to have

a webpage, taking 11 hits in its first six months in 1997. Last year that number came close to 4.2 million. The amorous endeavours of Sirocco the kākāpō to cross-species communicate with visiting celebrity Mark Cawaradine was a 'YouTube moment' that later made Sirocco a Facebook and Twitter sensation—highlighting how online exposure for conservation may have rapid positive outcomes, especially when supported by other media.

Today, under the leadership of Director-General Al Morrison, DOC is focusing on two crucial tasks: engaging with others (including businesses, communities, and iwi) to increase conservation effort; and building recognition that spending on environmental health is an investment that underpins our economy, lifestyles and well-being.

Watch this space...