

CATCHMENT MANAGEMENT WORKING TOGETHER



COMMUNITY CATCHMENT MANAGEMENT?

Water quality issues do not respect property boundaries. If a creek running through your property has problems, then you can be sure that your neighbours will be impacted too. The best way to improve quality water in the creek is to get everyone who lives along it together, identify problems and come up with collective solutions. This simple philosophy is at the very core of community catchment management.

On a larger scale, river catchments can be made up of many interconnected elements. The land acts as a collector, directing water into creeks, ponds, drains, wetlands, lakes and rivers. Due to the linkage between waterways, any negative impacts will be shared downstream. Some catchments need to cope with the pressure imposed by large towns and cities, but in many New Zealand examples land use will revolve primarily around farming, forestry, native bush and smaller urban settlements. Issues can take many forms including reducing or changed levels of water in the catchment system, physical changes to waterways and river courses, declining water quality through point source contamination and loss of native biodiversity.

Rather than working in isolation on individual elements, a catchment level approach provides the best opportunity to find enduring solutions. But for this to work it is essential to get people together. Everyone with a stake in the catchment should have the opportunity to get involved in creating a vision for 'their catchment'. What should the rivers and lakes look like? What activities should be safe to engage in? How much water is needed for business and agriculture? What are the costs of delivering change? These are just a few of the questions that will need answering.

While the process can be challenging the outcomes are worth the investment. Communities feel connected to their catchment and a sense of ownership is generated. Ownership extends to the problems, the solutions and delivery of outcomes. In addition to environmental benefits the increased connections within the community can also bring social and economic benefits too.

This publication takes the form of a series of information sheets with a focus on case studies. The four examples provide an introduction to the potentially complex subject of community catchment management, giving a brief insight into a variety of projects while briefly exploring the challenges and successes:

- [Case Study01 - Volcano to Sea](#)
- [Case study02 - Manawatu River](#)
- [Case study03 - Sherry River](#)
- [Case study04 - Lake Brunner](#)

For those who wish to dig deeper NZ Landcare Trust has two further publications that will provide additional information. Designed initially for catchment and resource management professionals 'Community-owned Rural Catchment Management' explores the subject in considerable detail, looking at local ownership, strategic approaches, collaborative planning, incentives and much more. 'Landcare: A Practical Guide' considers the benefits of sustainable land and water management with a practical focus for farmers and landowners. It includes useful case studies and provides details on how to set up a landcare group.

People must be **engaged** if we want environmental change. **Communities** must **own** the issue if we want effective sustained change.

The challenge is to maintain **profitable production levels** without undermining the **capacity of the land to recover and regenerate**.



Community-owned Rural Catchment Management

This publication is aimed at people with an interest in the detailed management of catchment scale projects. It offers a realistic account of the opportunities and challenges associated with engaging communities in this work.

NZ Landcare Trust has a proven track record working alongside farmers, landowners and community groups, delivering change where it really matters... on the ground. This guide takes a broad perspective, examining common themes that run through a number of successful community catchment projects.

Chapters

1. Rural Catchment Management in New Zealand
2. Local Ownership
3. Being Strategic
4. Collaborative Planning and Management
5. Well Designed Incentives
6. Regulation Backed by Effective Compliance
7. Further Information

A digital version of the publication can be downloaded from the NZ Landcare Trust website:

www.landcare.org.nz/catchmentguide

Landcare: A Practical Guide

Aimed at farmers and landowners, as the name suggests the emphasis is on practical, useful information that can make a big difference to the long term sustainability of a farm. A large section is devoted to a series of case studies where farmers and landowners share their motivations, challenges and successes.

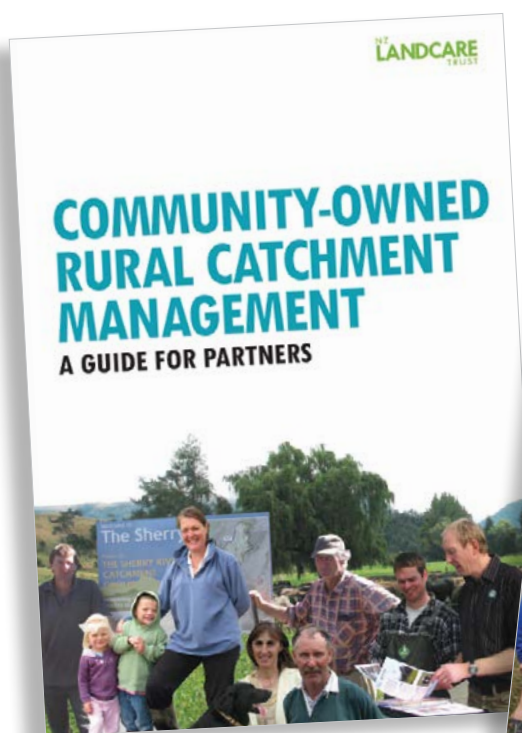
It also highlights 10 key areas that farmers and landowners can focus on when seeking sustainability improvements including the benefits of farm planning. Finally the publication outlines the process involved in setting up a landcare group and the factors that help maintain long term success.

Chapters

1. Aims
2. What is Landcare
3. Landcare in Action
4. Landcare Opportunities
5. Larger Commercial Operations
6. How to Set Up a Landcare Group
7. Further Information

A digital copy is available from the NZ Landcare Trust website:

www.landcare.org.nz/landcare-guide



Volcano to Sea: Innovative Urban Catchment Project

01

CASE STUDY

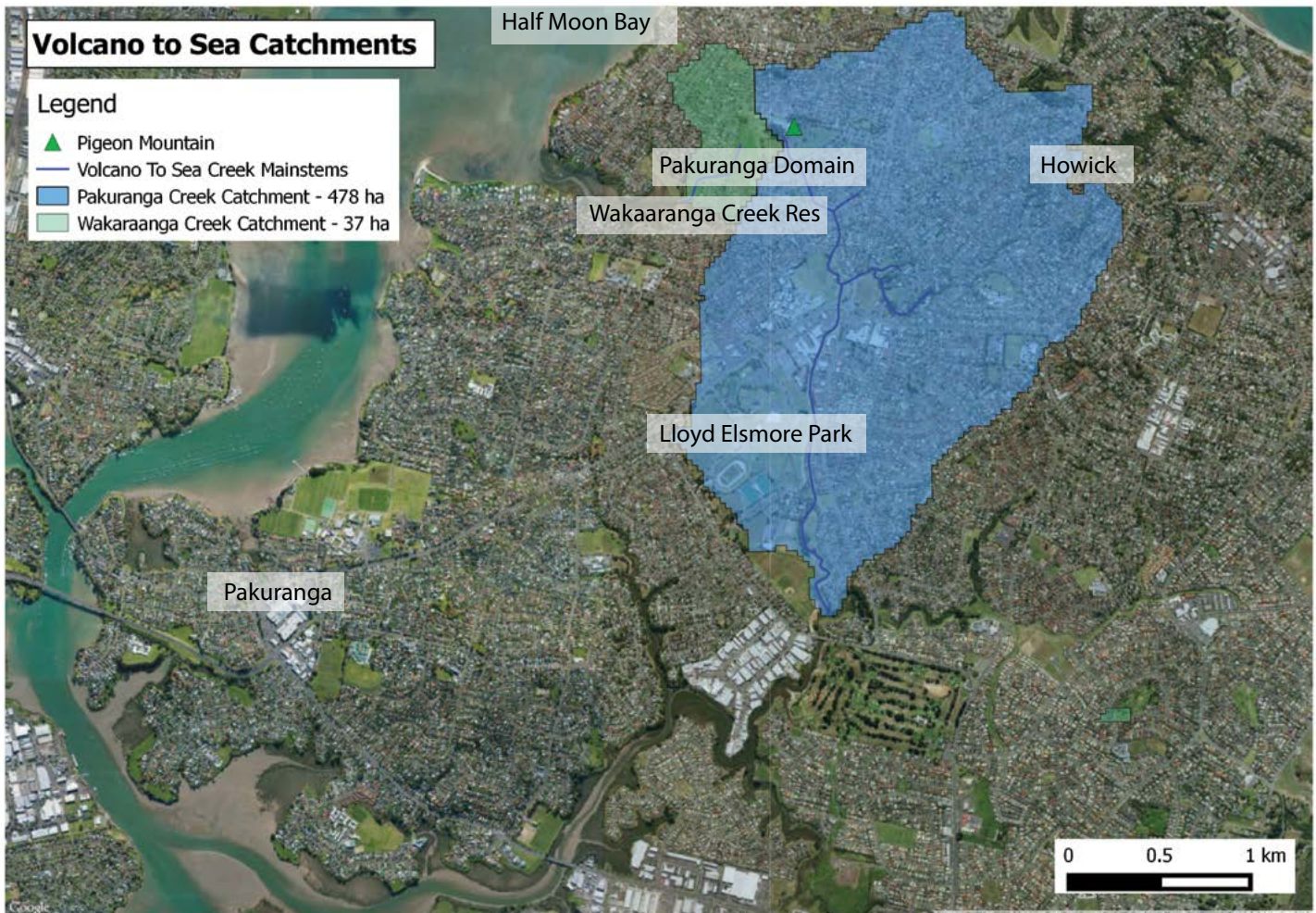
Catchment Project Profile

- **Name of Project:** Volcano To Sea
- **Location:** Whakaaranga creek and Pakuranga stream, flowing into the Tamaki Estuary, Auckland.
- **Catchment size:** 500ha
- **Main objectives:** innovative urban catchment-scale initiative linking communities, remnant natural features and the sea. Project will engage with schools and community members, to make positive changes in their local environment.
- **Funding and investment:** MfE Community Environment Fund provided \$240,000 over 3 years. Additional funding from NZ Landcare Trust and Auckland Council.
- **NZ Landcare Trust Project Coordinators:** Trudy Rankin and Heidi Clark.
- **The Trust's role:** Working with various sectors of the local community to increase awareness and engagement with biodiversity restoration work, and halt decline in water quality.

Pigeon Mountain

A dormant 'castle and moat' volcano situated in Half Moon Bay, Pigeon Mountain overlooks the Tamaki Estuary, the Waitemata Harbour and the Manukau Harbour. The mountain is the site of a former pa, also known as Ohuiarangi and forms the heart of the Volcano to Sea project.





Background

The term catchment management often brings to mind large rural landscapes where challenges include dealing with multiple land uses and working with different interest groups including farmers, environmentalists and recreational users. NZ Landcare Trust has considerable experience working with such rural communities but what sets this innovative project apart is the fact that this catchment is located in one of New Zealand's most heavily populated urban areas; Howick, South Auckland.

The Volcano to Sea project aims to harness the energy and pride of the local community to create a native biodiversity corridor linking a dormant volcano named Pigeon Mountain with the Tamaki Estuary. It also sets out to address declining water quality in both the Pakaranga Stream and the Whakaaranga Creek, which flow from the higher volcanic slopes down to the Tamaki Estuary, and in turn enters the Hauraki Gulf. The catchment contains a broad mixture of housing, business premises, sports facilities, recreation reserves, and industrial zones, so pollution risks are many and varied.

As with all catchment projects, a key aspect here is community participation and many of the philosophies that underpin successful rural projects were applied

to Volcano to Sea; building awareness of the issues through education and encouraging people to get involved in practical activities such as planting events. However the methods used for engagement shifted to reflect the needs of this specific urban audience, such as greater use of social media and translating articles for non English news outlets.

The catchment area is very multicultural with diverse religious beliefs and a broad socioeconomic range. A large Chinese sector of the community has proven to be keen supporters of the project, as have children and younger people through local schools and colleges.

Most people who live in cities are broadly aware of New Zealand's environmental issues particularly around water quality but often feel that they have little power to do anything about it. Volcano to Sea presented an opportunity for people to better understand what was happening on their own doorstep. What special native plants and animals make their home in the city? What habitat do they need to thrive? What can local people do to help? This final point resonated with the public, providing a focal point for community effort - they really can make a difference.

The Volcano To Sea project could not have been delivered without partnerships. Right from the beginning Auckland Council were supportive and others such as Sustainable Coastlines, The EnviroSchools Foundation, Ngai Tai ki Tamaki Tribal Trust and the Howick Local Board were keen to lend a hand. Underpinned by strong community interest an application was made to the Ministry for the Environment's Community Environment Fund. This was successful and resulted in the project getting underway with a grant of \$240,000 over three years.

Delivery

The Volcano to Sea project kicked off in style with a highly successful launch that aimed to set the scene for the future. A family focussed launch event attracted over 350 local people who enjoyed fun activities for children, a free sausage sizzle and a number of informative stalls and entertainment sites courtesy of NZ Landcare Trust and project partners. The event drew to a close with an evening screening of the Disney nature movie 'Oceans'.

MfE Community Environment Fund

The Community Environment Fund (CEF) provides funding so New Zealanders are empowered to take environmental action. It also ensures:

- partnerships (relating to practical environmental initiatives) between interested parties are supported and strengthened.
- community-based advice and educational opportunities are increased
- awareness on environmental legislation and issues is heightened.

With important initial partnerships in place NZ Landcare Trust Project Coordinators were able to focus on delivering the key project objectives:

- Encourage stewardship of the environment by schools and the local community
- Enhance local biodiversity, contribute towards improved water quality in the area and embrace iwi cultural values
- Support and strengthen collaboration between schools, communities, project partners and iwi
- Develop resources focussing on ecological restoration and catchment management
- Enable schools and community members to collect scientific data and share their results with the wider community
- Develop an educational programme to facilitate learning about the catchment and associated area ecology, socio-cultural values and restoration processes.

A number of environmental education programmes were already established within local schools, with useful teaching and learning resources coming from organisations such as The EnviroSchools Foundation and Auckland Council. Both organisations were Volcano to Sea project partners so these established relationships provided the perfect base to extend the children's awareness through practical on-the-ground experiences linked to the project. In doing so the young people also learned about catchments and the relationship between land, rivers and sea.



Practical community events like rubbish collection and planting days have been one of the greatest success stories of the project so far. This can be illustrated by the programme in place for June 2014 which included nearly 20 separate planting events, ranging from specific school and community group activities up to large high profile catchment-wide celebrations.

To celebrate World Environment Day 2014 project partners Sustainable Coastlines organised a huge planting event spread over three sites within the Volcano to Sea catchment. With support from Auckland Council and NZ Biosecurity Services around 3,000 native plants were planted by nearly 250 eager volunteers. After a busy morning planting in the warm winter sunshine, local school children along with members of the local community and corporate volunteers gathered for a barbeque lunch. Children also had the opportunity to create colourful fish artwork and learned more about how their work will contribute to improving biodiversity and water quality in the catchment.

The urban nature of the project also presented unique sponsorship opportunities such as the partnership with skincare range Neutrogena Naturals. This high profile brand used the NZ Landcare Trust logo on their New Zealand advertising material and also took a practical position supporting the community work around the Cascades Reserve area within the catchment. This culminated in a beauty editors planting day where 200 native plants were planted. The subsequent articles in an assortment of high profile magazines ensured the Volcano to Sea story reached a new audience.

Further information

NZ Landcare Trust Volcano to Sea
Project Coordinator Heidi Clark

- VolcanoToSea@landcare.org.nz
- 022 020 8800

Useful Websites:

- NZ Landcare Trust project page
www.landcare.org.nz/VolcanoToSea
- Volcano To Sea Facebook page
www.facebook.com/volcanotosea
- Ministry for the Environment
www.mfe.govt.nz/withyou/funding/community-environment-fund/round-2.html
- Auckland Council
www.aucklandcouncil.govt.nz
- Sustainable Coastlines
www.sustainablecoastlines.org
- The EnviroSchools Foundation
www.enviroschools.org.nz



Sherry River: Rural Community Adopt Scientific Approach

02

CASE STUDY

Community Motivation - quotes from landowners

"We want to minimise farming's impact on the environment and want our farming business in the dairy industry continuing 50 years from now."

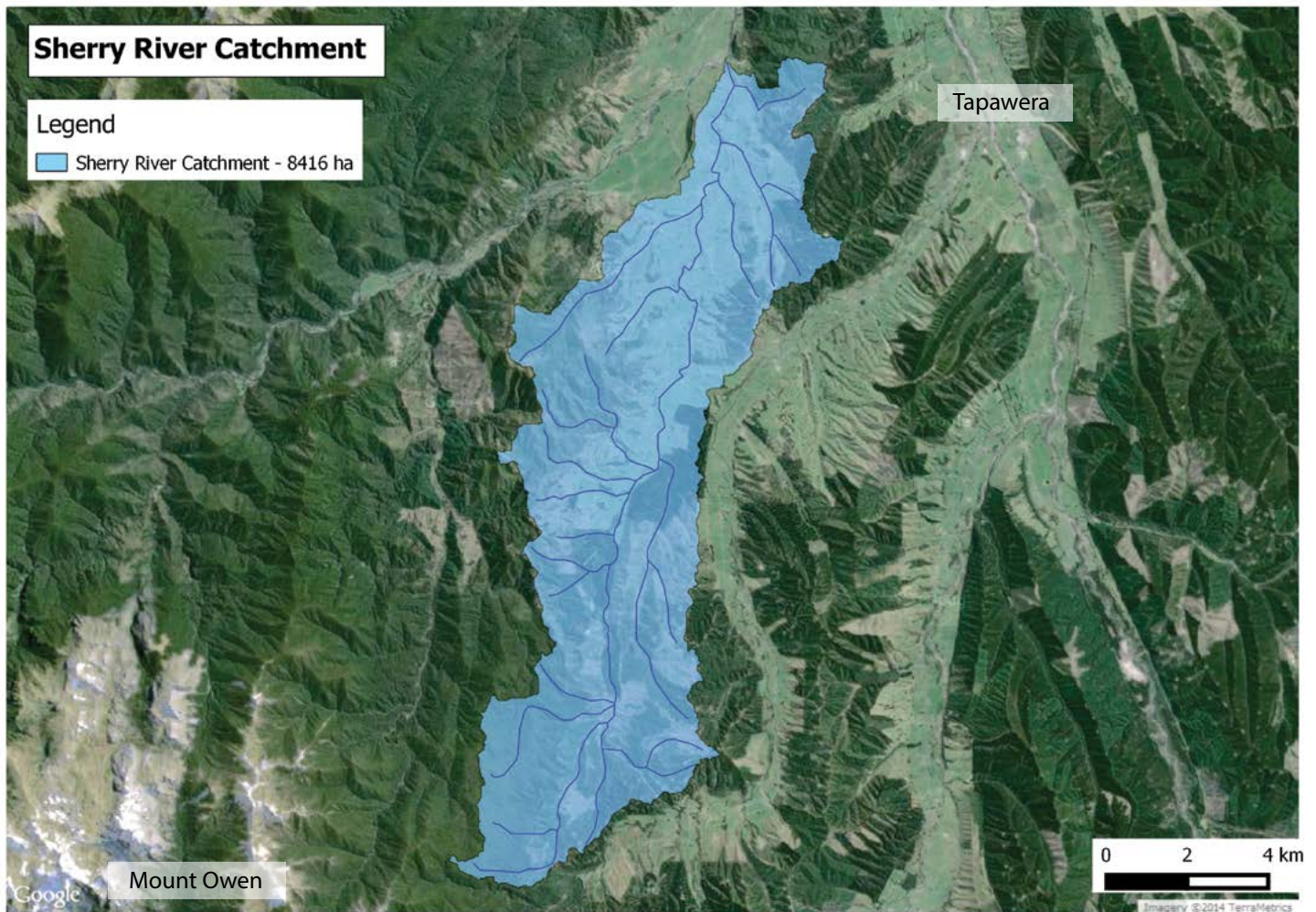
"Landowners here regard this valley as our place and our home."

"Our Community has seen measurable results from the efforts of the local catchment group and I think that inspires us to keep working at it."

Catchment Project Profile

- **Name of Project:** Sherry River
- **Location:** Sherry River catchment is a sub-catchment of the Motueka catchment near the Nelson Ranges.
- **Catchment size:** 8416ha
- **Main objectives:** Catchment level approach to water quality improvement, community collaboration to determine knowledge gaps and showcase benefits of Landowner Environmental Planning.
- **Funding and investment:** Ministry for Primary Industries (MPI) Sustainable Farming Fund provided \$95,000 over 3 years. Total project cost \$198,450
- **NZ Landcare Trust Regional Coordinator:** Barbara Stuart.
- **The Trust's role:** Work with the rural community to help establish a catchment group and encourage and facilitate practical changes to enhance water quality.





Background

The Sherry River community is a small group of farmers, foresters and lifestyle-block owners, many of whom have family ties with the area stretching back over multiple generations. They value their local environment especially the river therefore it was a huge shock when scientists working on the large scale Motueka Integrated Catchment Management project informed them that water tests revealed the Sherry River carried very high levels of e-coli. In fact the levels were the highest in the Motueka catchment and exceeded standards required for safe bathing and stock drinking. Once they had recovered from the shock this resilient community got together and decided to take action.

The community wanted to know more, so they worked with scientists to gain a better understanding of what was causing the problem. They discovered a situation echoed in many corners of rural New Zealand - the Sherry River catchment was feeling the effects of growing farming and forestry activities.

While long term residents believed the Sherry River was much improved when compared to former gold

mining days, they simply had not noticed the 'quiet arrival' of unwanted sediment and bacteria. Some farmers had spoken of a smell from the river following fresh rain in the summer and others had mentioned the sight of balls of algae drifting under the surface. However rural folk are a hardy bunch and they did not let that kind of thing put them off swimming and enjoying the river... until now. The new information from the scientists made sense, while no-one had yet become sick from using the river, the community could see it was no longer safe for recreational use, and the problem would only get worse unless things changed!

With a large catchment scale project underway involving scientists from Landcare Research, Cawthron Institute and Tasman District Council the Sherry community had a great opportunity to tap into some of New Zealand's top experts. The community established their own catchment project (Sherry River) with \$95,000 of funding from the Ministry for Primary Industries Sustainable Farming Fund. Additional funding and in-kind support came from a number of other project partners including the farmers and landowners themselves.

Delivery

From an initial meeting around a kitchen table in 2001 this rural community took the challenge very seriously and set out to restore water quality to a level where it was safe for contact recreation such as swimming. They began by agreeing to work with scientists on a study that looked at the impact of cows crossing the river. The resultant study 'Cows & Creeks' clearly identified the negative affect of cows walking through a river, especially faecal contamination linked to the cows habit of excreting directly into waterways.

This led to an immediate change in farm practice. Farmers invested in building three new stock bridges over the Sherry River, and began using a previously established bridge for stock, ensuring cows no longer had to enter the waterway to move around farms. This work alone led to a 50% improvement in water quality, which was documented by scientists and presented in a further report entitled 'Cows out of Creeks.' This early success was very heartening but despite the significant improvements, water quality in some places was still below safe bathing levels. Not deterred this motivated community decided that more could be done. NZ Landcare Trust were invited to help draw the wider community together through facilitated meetings. This led to the formation of the Sherry River Catchment Group, who focussed on identifying opportunities for delivering further improvements to water quality in their catchment. By working together they were able to determine their own objectives and have a collective voice.

In 2007 a new phase of work began. The Sherry River Catchment Group set about building on their earlier success, thanks to a successful application to the Sustainable Farming Fund. This SFF project looked specifically at the Sherry River catchment, with a focus on how Landowner Environment Plans could deliver further water quality improvements.

A meeting to launch the project gave everyone the chance to discuss Landowner Environment Planning (LEP) and Best Management Practices, specific to the soils and climate of the Sherry River catchment. A farm planning consultant was commissioned to work with landowners at an individual level, to create plans that were specific to each property. Aspects covered in the plans included stock management, limiting soil erosion and reducing run-off. From a landowner perspective they needed an action plan that contained practical information designed to help prioritise work and deliver best value for money.

It was identified that riparian planting zones could provide massive benefits, creating a buffer to reduce run-off while also providing shade in summer. The community once again called upon science for help, which came in the form of trial planting areas. The outcome was a set of guidelines that identified a planting approach suitable for the frost prone Sherry climate, which helped ensure the hard work associated with planting gave long term benefits.

A series of steps were identified which included:

- Summarising appropriate farm environmental planning and best management practices.
- Developing a template for environmental plans.
- Organising an introductory Farm Environmental Planning Day with catchment landowners.
- Compiling individual plans into a combined Sherry River Catchment Action Plan and prioritising actions across the catchment.



At the end of the project, achievements included the completion of 16 Landowner Environmental Plans along with over 4000 native plants established and 5180 metres of fencing erected along waterways. Improving water quality remains a long term goal for the Sherry River community and they anticipate further improvements will occur as more components of the Landowner Environmental Plans are adopted and riparian areas begin to fully mature. To this day the community continue to participate in water quality monitoring and note that when soils are saturated run-off from land can still be an issue.

The hard work and commitment from the Sherry River Catchment Group resulted in several environmental awards, including a Green Ribbon Award in 2011 and recognition at New Zealand's inaugural National River Awards in 2013. The project has also been praised at national and international conferences, attracted delegations from overseas and has become a model for other rural communities seeking to address water quality issues.

Further information

NZ Landcare Trust Regional Coordinator
Barbara Stuart

- barbara.stuart@landcare.org.nz
- 03 545 0443

Useful Websites:

- NZ Landcare Trust project page
www.landcare.org.nz/SherryRiver
- Sherry River Catchment Group
www.landcare.org.nz/Landcare-Community/Sherry-River-Group
- Ministry for Agriculture and Forestry
<http://maxa.maf.govt.nz/sff/about-projects/search/07-113/index.htm>
- Ministry for Primary Industries, SFF
www.mpi.govt.nz/agriculture/funding-programmes/sustainable-farming-fund.aspx
- Tasman District Council
www.tasman.govt.nz/environment/water/rivers/river-water-quality/state-of-river-water-quality-in-tasman/river-water-quality-investigations-in-specific-catchments/sherry-river-catchment/



Manawatu River: Large Scale Problems Tackled Through Collaboration

03

CASE STUDY

Manawatu River Leaders Accord - Vision

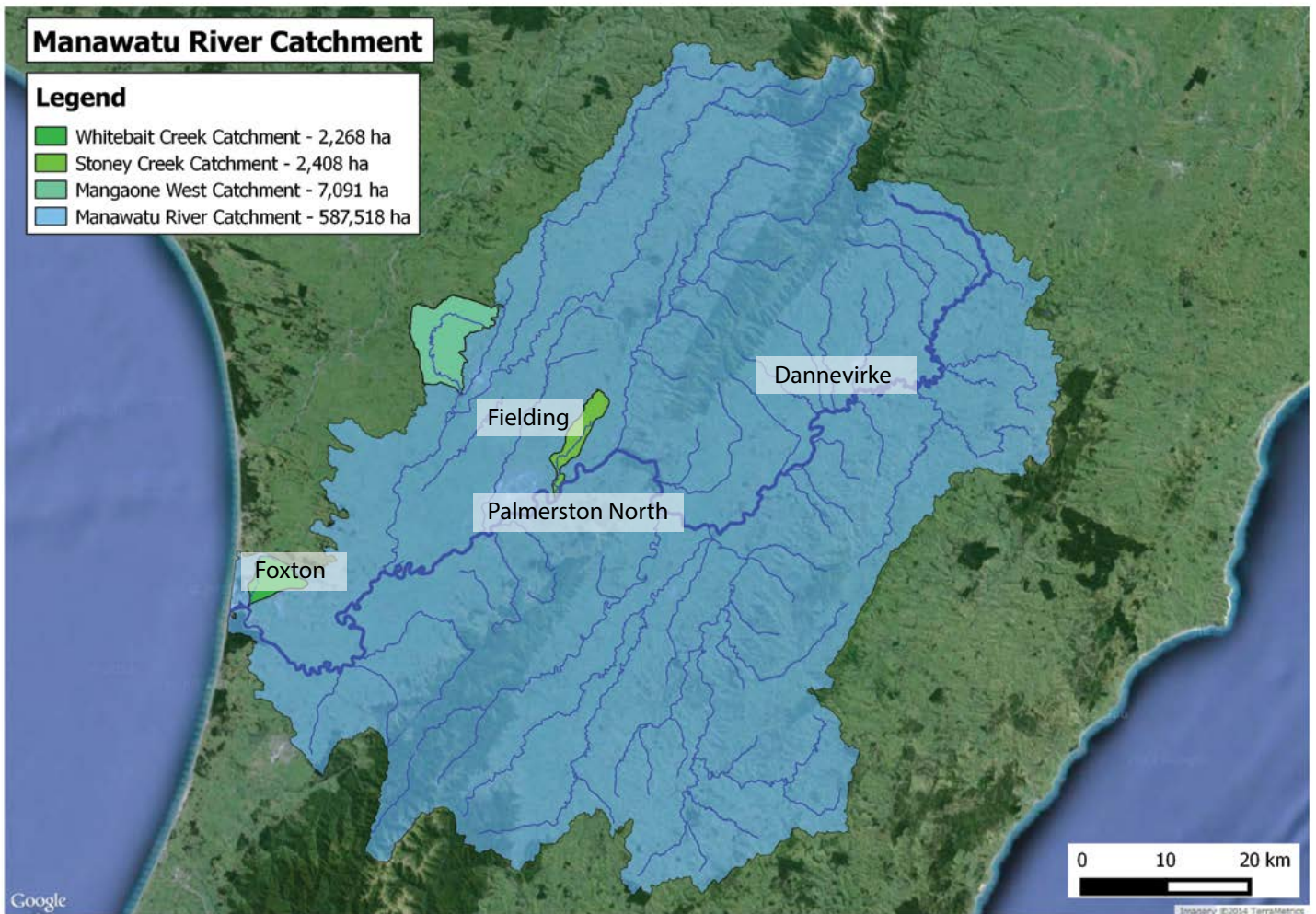
Kei te ora te wai, kei te ora te whenua, kei te ora te tangata.

If the water is healthy, the land and the people are nourished.

Catchment Project Profile

- **Name of Project:** Manawatu River
- **Location:** Manawatu River Catchment
- **Catchment size:** 587,518 ha, predominantly agricultural
- **Main objectives:** To restore the health of the river by improving water quality, enhancing instream habitat, and involving the community in restoration activities.
- **Funding and investment:** Fresh Start for Freshwater Clean-up Fund contributed \$5.2M for the first 2 years. Total project cost anticipated to be \$30M
- **NZ Landcare Trust Regional Coordinator:** Alastair Cole.
- **The Trust's role:** Three initiatives linked to the Community Involvement fund; Mangaone West, Stoney Creek, Whitebait Creek.





Background

A report published in 2009 by the Cawthron Institute controversially identified the Manawatu River as one of the most polluted rivers in the western world. While many people knew the river was in a bad shape, the magnitude of the situation came as a surprise to most. With a growing human population and increasing levels of industrial and agricultural development the problem was only going to get worse... unless things changed.

In early 2010 Horizons Regional Council organised a meeting, inviting local representatives from a range of organisations and groups, all of whom shared an interest in the river. Representatives from local government, farming, business, iwi, environmental groups and recreation all agreed the river needed urgent attention and collaboration should play an important role in identifying solutions. The group continued to meet regularly, forming the Manawatu River Leaders Forum, which was formalised in August 2010 through the signing of an Accord. Despite some early robust discussion, where entrenched views were aired and explored, the Manawatu River Leaders soon found direction. In June 2011 with Richard Thompson as the Chair they launched an Action Plan identifying what needed to be done and how the community could get involved.

An injection of funding for this large project came in 2012 from the Government's Fresh Start for Freshwater Clean-up fund, which provided financial support to help communities clean up waterways affected by historical water quality issues. Additional funding came from Horizons Regional Council, the district councils and industry.

Manawatu River Leaders Six Key Priorities

1. Reduce sediment
2. Reduce nutrients and bacteria from point source discharges
3. Reduce nutrients and pathogens from agricultural run-off
4. Reduce the impact of flood control and drainage work
5. Protect areas of habitat for fish and birds
6. Management of water allocation

Delivery

A \$5.2M contribution from the Government was allocated through eight 'Clean-Up Fund Projects' selected for their capacity to make the biggest difference to Accord goals and their ability to meet funding criteria:

1. Tararua District Council - three wastewater treatment plants targeted for upgrade.
2. Manawatu District Council - two wastewater treatment plants targeted for significant upgrade.
3. Horowhenua District Council - wastewater treatment diverted during low flows.
4. Stream Fencing - target to excluded stock from 200kms of waterways.
5. Native Fish Habitat Restoration - target two sub-catchments, improve numbers of native fish.
6. Whitebait Habitat Restoration - target two sub-catchments, improve whitebait numbers.
7. Environmental Farm Plans - target to work with 60-80 dairy farms.
8. Community Involvement - support at least eight community projects.

Different parts of the Manawatu catchment face different issues, so it was decided to split the area into nine sub-catchments. In addition to the wastewater treatment upgrades, fencing and riparian planting work was prioritised with an emphasis on community involvement. The adoption of management plans for dairy farms was also seen as a critical step. A great

deal of work was required behind the scenes to help make this happen. This effort was formally recognised in 2013 when The Manawatu River Leaders' Accord and Horizons Regional Council were awarded a Green Ribbon Award (Public Sector Leadership category) from the Ministry for the Environment.

Improving the overall state of the Manawatu River is a long term endeavour but it is heartening to see that three years after the signing of the initial Accord progress in a number of areas has been made. A key solution to the sedimentation issue has been the use of the Sustainable Land Use Initiative which seeks to address erosion problems through the protection of fragile hill country soils. This initiative works together with Whole Farm Plans to provide greater information to farmers and landowners, enabling them to make better decisions when developing farm management systems. Improved farm planning also helps reduce problems associated with farm run-off and helps dairy farmers meet objectives set out in the dairy industry's Sustainable Dairying Water Accord. Point source discharges are being tackled by resolving outstanding resource consent applications and ensuring consented discharges meet water quality targets identified under the regional plan. Riparian fencing and planting is directly helping to improve habitat for birds and fish while also bringing a host of benefits linked to other priority areas. A Progress Report from the Manawatu River Leaders' Accord was released in April 2014 and outlines progress – www.manawaturiver.co.nz/news/report-released-on-river-clean-up



NZ Landcare Trust has taken a very practical role working directly with community groups and organising on-the-ground activities with Conservation Volunteers NZ such as planting and weed control. The Trust's Manawatu/Whanganui Regional Coordinator Alastair Cole has worked on three projects that have contributed to the larger catchment level initiative - Mangaone West (7,091 ha), Stoney Creek (2,408 ha) and Whitebait Creek (2,268 ha).

NZ Landcare Trust works closely with dynamic, proactive farmers such as Dave Stewart who farms Hiwinui with his family near Palmerston North. Dave is passionate about sustainability and believes in taking practical steps, such as planting native trees to form shelter belts and patches of native bush. Dave has described them as 'the kidneys of the farm, as they help to intercept run-off before entering waterways.' With the help of groups such as Conservation Volunteers NZ and local schools, planting is continuing apace with up to 3000 plants planted over a three day period. NZ Landcare Trust is helping Dave to get together with other local farmers to establish a Landcare Group. They plan to improve local water quality by creating a riparian planting area along Stoney Creek. Longer term plans include the development of wetlands to further improve water quality through sediment retention.

These practical initiatives are all contributing to the goal of improving water quality in the Manawatu River.

Further information

NZ Landcare Trust Manawatu/
Whanganui Regional Coordinator
Alastair Cole

- alastair.cole@landcare.org.nz
- 06 359 3700

Useful Websites:

- NZ Landcare Trust
www.landcare.org.nz/Regional-Focus/Manawatu-Whanganui-Office
- Manawatu River Leaders Accord
www.manawaturiver.co.nz
- Horizons Regional Council
www.horizons.govt.nz/managing-environment



Lake Brunner: Prevention is Better Than Cure

04

CASE STUDY

Catchment Project Profile

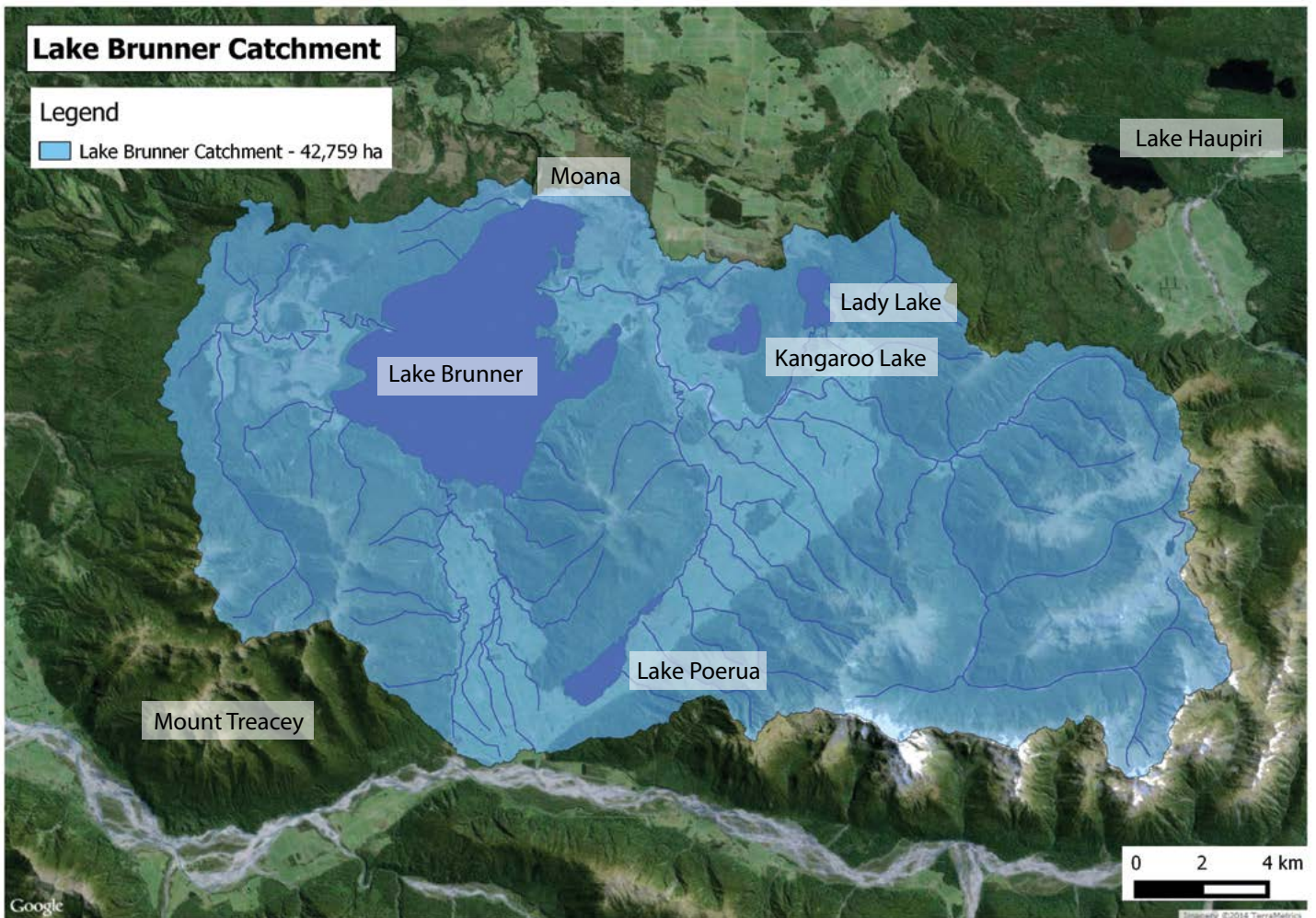
- **Name of Project:** Lake Brunner
- **Location:** Lake Brunner Catchment
- **Catchment size:** 42,759ha
- **Main objectives:** To halt the decline in water quality by adopting a proactive position on land and water management issues through community participation, riparian restoration and farm planning.
- **Funding and investment:** Fresh Start for Freshwater Clean-up Fund contributed \$200,000 for the first 2 years. Total project cost anticipated to be \$446,000
- **NZ Landcare Trust Regional Coordinator:** Phil Keene.
- **The Trust's role:** Initiate and lead the Lake Brunner Community Catchment Care Group with planting events and future community based initiatives.

What's in a name?

Lake Brunner was named after the 19th century explorer Thomas Brunner by surveyor and engineer John Rochfort.

The Māori name for the lake is Kotuku moana, which means 'Sea of herons'.





Background

Lake Brunner is on the beautiful West Coast, a special place situated inland from the main tourist route along the coastal highway SH6. It may be slightly off the main tourist track but it increasingly attracts people from all around the world, who come to enjoy the scenery and many recreational activities on offer, particularly the excellent trout fishing. In common with many rural areas the Brunner catchment is seeing an increase in farm intensification, with a focus on dairy production.

Covering an area of over 40km² Lake Brunner is the largest of the South Island's north-western lakes and overall the quality of its water remains very good. However the lake has been subject to close monitoring since the early 1990's and a worrying decline in water quality has been observed. The most notable increases are in spring-time phytoplankton and nitrogen concentrations, both early indicators of eutrophication. Phosphorus has also been identified as a problem. A water quality report released in December 2013 confirmed that oxygen levels in the lake are high enough to prevent the release of phosphorous from lake sediments, which is good, as recycling of lakebed phosphorus could lead to a slide into further water quality degradation.

High profile examples of freshwater lake deterioration, especially on the North Island, rang a warning bell for those living and working around Lake Brunner. This community appreciates the scenic values of their surroundings and understands the linkage to a thriving local economy. Far better to invest now in early prevention rather than wait for a decline and the much greater costs associated with cleaning up. On a positive note the rate of decline appears to have reduced thanks to many local farmers who have already responded and adapted their farm management systems to limit environmental impacts.

The West Coast Regional Council had been working to improve the situation in Lake Brunner, aware that in all other parts of their region, water quality met the objectives identified in the government's National Policy Statement (NPS) for freshwater management. The Ministry for the Environment recognised that freshwater management is a nationally significant issue, so established the NPS as part of a wider suite of initiatives under their Fresh Start for Fresh Water reforms which took effect in June 2011. A new \$15 million Clean-up Fund was also announced within the package of reforms and this provided the West

Coast Regional Council with \$200,000 to prevent water quality decline in Lake Brunner. The council took on the role of overall project management and contributed additional funding, with further financial support coming from Westland Milk Products, individual farmers and NZ Landcare Trust; taking the total project cost to around \$446,000.

Delivery

Farm environment plans are valuable tools for the farmer, providing information that enables informed decisions to be made about farm management systems, ensuring increased efficiency and a reduced environmental impact. This in turn benefits water quality. The West Coast Regional Council began working with Westland Milk Products to provide unique farm environment plans for 25 farms in the Lake Brunner catchment. Up to \$180K has been allocated to provide 'work grants' to make it easier for farmers to carry out the recommendations identified in the plans.

Much of the work on the Lake Brunner project revolves around community engagement; work NZ Landcare Trust has considerable experience delivering. This prompted the West Coast Regional Council to invite the Trust to take on a co-lead role. One of the first tasks was to work with a small group of committed community members to establish the Lake Brunner Community Catchment Care Group.

The passion and enthusiasm shown by the group has seen it grow from a dedicated handful of people sitting around a kitchen table to a large influential group with up to 60 individuals, including representation from Te Runanga o Ngati Waewae, Westland Milk Products, Fish & Game, DOC, DairyNZ, regional and local councils, and the Brunner Residents Association. NZ Landcare Trust Regional Coordinator Phil Keene was instrumental in helping establish the group.

Phil describes how it took two years 'to get to where they are now' but the hard work has been worth while. Right from the beginning the passion shown by the community and the willingness to discuss different perspectives and share information proved invaluable. Word of mouth soon became a powerful ally, and others decided to get involved. This was an exciting, and at times challenging period, where Phil helped ensure the group retained clear goals and maintained momentum.

Shaffrey's Value Farm Plans

Rosalie and Des Shaffrey are farmers who understand the value of clean water. They saw Lake Brunner's nutrient levels were increasing and knew they had to be proactive and manage the impact their farm was having on water quality.

They were surprised how small steps have led to significant accomplishments over time. They believe that having a farm plan and the support of the Lake Brunner Catchment Group has really helped maintain motivation to implement good environmental practice.

They began by fencing waterways especially near Lake Brunner - initially for trout fishers. This led to fencing all waterways on the farm plus a series of other initiatives such as reticulating all stock water, subdividing paddocks and constructing two bridges. Planting has also begun on key riparian areas and two significant natural areas of the farm have been protected with QEII covenants.



Three objectives were identified to guide progress:

- **Environmental stewardship:** To encourage and facilitate the implementation of community-based actions that in conjunction with farm-based actions reduce contaminant run-off from productive land in the Lake Brunner Catchment and increase both the biodiversity values and knowledge of cultural values.
- **Farm resilience:** To support and encourage the implementation of farm-level strategies that build and sustain a resilient catchment, including managing the impacts of adverse weather events.
- **Social:** To work with all sectors and stakeholders in the community to support outcomes that ensure a positive future for those who work and live and recreate in the Lake Brunner Catchment.

A West Coast Regional Council Community Fund of up to \$20k was made available to the Lake Brunner Community Care Group to undertake planting and other works on public land that aimed to improve water quality. West Coast Regional Council and NZ Landcare Trust worked with the Care Group who identified areas for riparian plantings and sourced native plants from the local Rotomanu Nursery.

MfE Fresh Start for Fresh Water Clean-up Fund Interventions

- Fencing and riparian planting to provide buffer strips between waterways and adjacent land use on private lands.
- Community freshwater enhancement projects on public lands.

A series of highly successful planting events followed, with volunteers from the community and local schools planting native trees and plants at four separate locations around the catchment; Lake Poerua, Ryder Road (Mitchells), Homestead Creek and Iveagh Bay. It is anticipated that the growing support for the Brunner group will see this valuable riparian planting work continue.

Looking ahead the combined riparian fencing and planting on farms and public land will become increasingly important, providing an essential buffer to protect waterways from run-off but also encouraging greater native biodiversity. In addition to the environmental benefits this work will ultimately lead to a more proactive and resilient rural community.

Further information

NZ Landcare Trust West Coast Regional Coordinator Mike Copeland

- mike.copeland@landcare.org.nz
- 03 789 7709

Useful Websites:

- NZ Landcare Trust
www.landcare.org.nz/west-coast/lake-brunner
- Ministry for the Environment
www.mfe.govt.nz/issues/water/freshwater/fresh-start-for-fresh-water
- West Coast Regional Council
www.wcrc.govt.nz/our-region/state-of-the-environment/surface-water-quality/Pages/Lake-Brunner-Water-Quality.aspx



'Catchment Management: Working Together'

Produced by NZ Landcare Trust
PO Box 4305, Hamilton 3247
www.landcare.org.nz . 0800 526 322

July 2014.

ISBN 978-0-9941066-1-2 (print)
ISBN 978-0-9941066-2-9 (pdf)

Written by James Barnett, NZLT
Graphic Designer Abby Davidson, NZLT
Photography thanks to NZ Landcare Trust staff

This resource was funded by the Ministry for the Environment.

The Ministry for the Environment does not necessarily endorse or support the content of the publication in any way.

This work is copyright. The copying, adaptation, or issuing of this work to the public on a non-profit basis is welcomed. No other use of this work is permitted without the prior consent of the copyright holder(s).