



GOOD FARMING PRACTICE

ACTION PLAN FOR WATER QUALITY 2018

The Action Plan

The agricultural and horticultural sectors are committed to swimmable rivers and improving the ecological health of our waterways. The widespread adoption of Good Farming Practice alongside greater collaboration between sectors, Regional Councils and central government, will allow improved water quality to be achieved faster.



Good Farming Practice Governance Group members:

Chris Allen—*Federated Farmers*

Sam McIvor—*Beef + Lamb New Zealand (B+LNZ)*

Nigel Corry—*Greater Wellington Regional Council*

Tim Mackle, Rick Pridmore and David Burger—*DairyNZ*

Chris McLay—*Waikato Regional Council*

Mike Chapman—*Horticulture New Zealand*

Roger Bannister—*Water Directorate, Ministry for the Environment*

Andrew Curtis—*Irrigation New Zealand*

Martin Workman—*Water Directorate, Ministry for the Environment*

Nadeine Dommissé—*ECan*

This Action Plan was developed by a Governance Group composed of senior representatives of the primary sectors, regional councils and the Water Directorate (Ministries for the Environment and Primary Industries).

The Action Plan is a voluntary commitment, whose purpose is to accelerate the uptake of good farming practices for water quality (primarily) and quantity outcomes, to measure and demonstrate this uptake, to assess the impact and benefit of those farming practices, and to communicate progress to the wider public. The Governance Group is committed to supporting positive behaviour change and adopting an approach of continual improvement in these critical areas.



Ministry for Primary Industries
Manatū Ahu Matua



Ministry for the
Environment
Manatū Mō Te Taiao

Regional Councils, as members of the Governance Group, and supported by the Regional Council sector, are committed to working with Industry to deliver the Action Plan.

To achieve this we commit to the following actions and time-frames:

Action	Time-frame	Who will be involved?
Refresh the Industry Agreed Good Management Practices for Water Quality and revise to National Good Farming Practice Principles	Complete	Governance Group with support from the Land and Water Partnership ¹ and Regional Council Land Management Officers
Develop systems and tools for monitoring and reporting on Good Farming Practice uptake	2018-2020	Sectors, councils, Water Directorate, and other interested parties
Identifying priority principles to apply for a region, catchment and/or sector to support the uptake of targeted Good Farming Practice	2018-2020	Sectors, councils and other interested parties e.g. community-based, commercial agribusiness, rural professionals
Supporting every farm and horticultural property to have assessed risks against priority principles for catchment/sector and developed their response actions (farm plan)	Milestones to be developed, with priority catchments and sectors completed first 2018-2030	Sectors, councils and rural professionals
Accelerating uptake through sector and council extension programmes and share learnings	2018-2020	Sectors, councils, Water Directorate, and other interested parties
Communicate progress on farming practice to communities, councils, central government	Ongoing	Sectors
Strengthen and validate support systems and tools to: <ul style="list-style-type: none"> • Improve and expand training and certification for consultants, council Land Management Officers, auditors • Ensure a database for monitoring and reporting • Promote harmonisation of approaches across New Zealand 	2018-2020	Councils, sectors, Water Directorate, other government agencies e.g. Tertiary Education Commission
Update the Good Farming Practices Action Plan	2020	Sectors, councils, central government, ENGO's, iwi organisations and other interested parties

¹A pan-sector primary industry group

Through these actions, the Action Plan will deliver the following outcomes:

- Well-informed and competent land users using Good Farming Practices successfully to improve rural water outcomes at the farm level arising from their activities
- Sectors able to articulate and demonstrate their water stewardship story
- Councils and communities confident that land users are using Good Farming Practices to improve water outcomes.

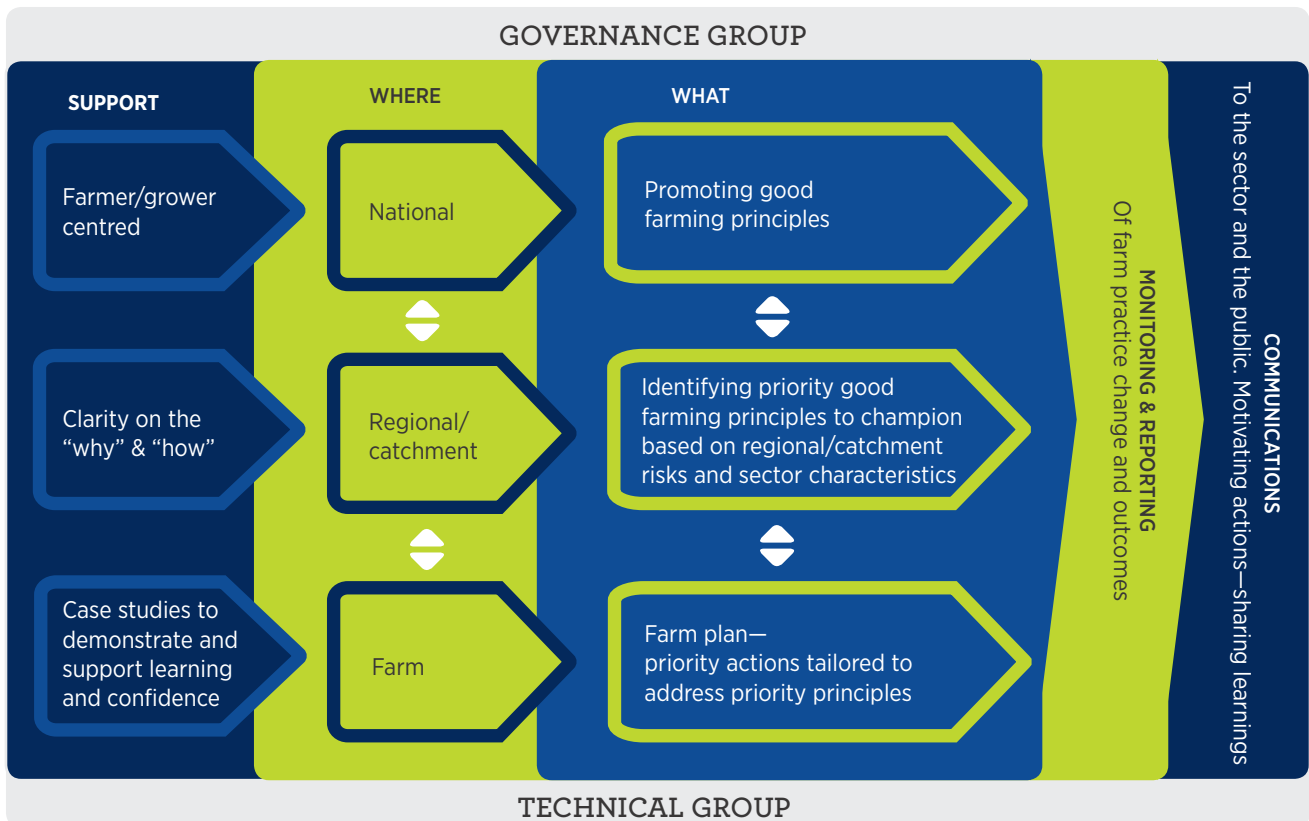
Good Farming Practices are an evolving suite of practical measures that can be put in place at a land user, sector and industry level to assist in achieving community agreed outcomes.

The Action Plan envisages a system that responds rapidly to feedback, new insights and understanding, incorporating learnings as programmes develop over time.

The Action Plan Approach detailed below, builds on the 2015 Industry Agreed Good Management Practices for Water Quality.

These 21 Agreed National Good Farming Practice Principles (detailed on page 4) were developed with input from farmers to ensure they are practical and achievable.

While the Action Plan is focussed primarily on water quality, promoting efficient water use (e.g. through initiatives like Dairy NZ’s Smart Water Use on Farms to reduce water use) is also important.



Promoting good farming practices

At the national level, the Governance Group will promote the Good Farming Practice Principles outlined below.

AGREED NATIONAL GOOD FARMING PRACTICE PRINCIPLES

GENERAL PRINCIPLES

1. Identify the physical and biophysical characteristics of the farm system, assess the risk factors to water quality associated with the farm system, and manage appropriately.
2. Maintain accurate and auditable records of annual farm inputs, outputs and management practices.
3. Manage farming operations to minimise direct and indirect losses of sediment and nutrients to water, and maintain or enhance soil structure, where agronomically appropriate.

NUTRIENTS

4. Monitor soil phosphorus levels and maintain them at or below the agronomic optimum for the farm system
5. Manage the amount and timing of fertiliser inputs, taking account of all sources of nutrients, to match plant requirements and minimise risk of losses.
6. Store and load fertiliser to minimise risk of spillage, leaching and loss into water bodies
7. Ensure equipment for spreading fertilisers is well maintained and calibrated.
8. Store, transport and distribute feed to minimise wastage, leachate and soil damage.

WATERWAYS

9. Identify risk of overland flow of sediment and faecal bacteria on the property and implement measures to minimise transport of these to water bodies.
10. Locate and manage farm tracks, gateways, water troughs, self-feeding areas, stock camps, wallows and other sources of run-off to minimise risks to water quality.
11. Exclude stock from water bodies to the extent that is compatible with land form, stock class and stock intensity. Where exclusion is not possible, mitigate impacts on waterways.

LAND AND SOIL

12. Manage periods of exposed soil between crops/pasture to reduce risk of erosion, overland flow and leaching.
13. Manage or retire erosion prone land to minimise soil losses through appropriate measures and practices*
14. Select appropriate paddocks for intensive grazing, recognising and mitigating possible nutrient and sediment loss from critical source areas
15. Manage grazing to minimise losses from critical source areas.

EFFLUENT

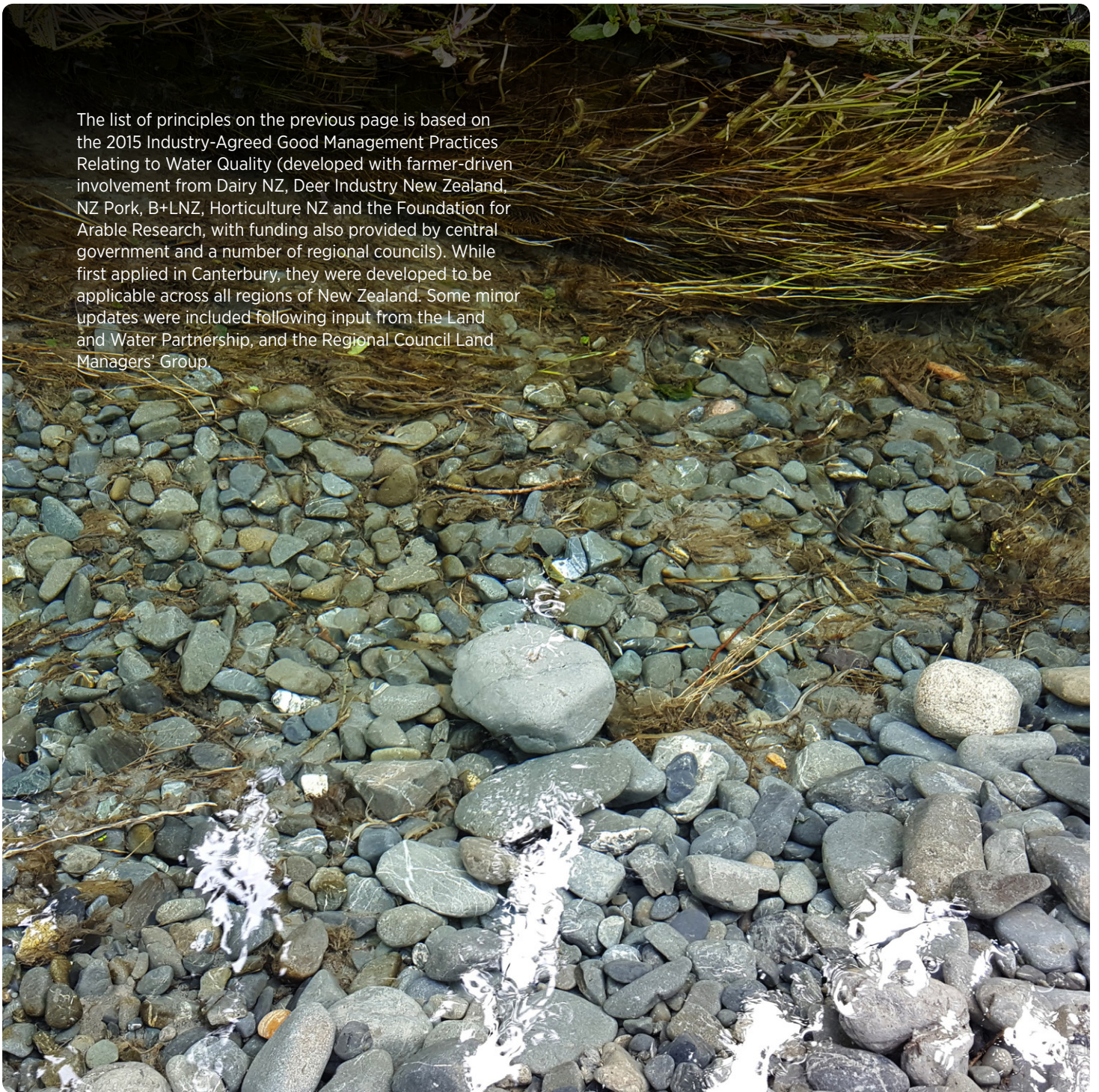
16. Ensure the effluent system meets industry specific Code of Practice or equivalent standard.
17. Have sufficient, suitable storage available for farm effluent and wastewater.
18. Ensure equipment for spreading effluent and other organic manures is well maintained and calibrated.
19. Apply effluent to pasture and crops at depths, rates and times to match plant requirements and minimise risk to water bodies.

WATER AND IRRIGATION

20. Manage the amount and timing of irrigation inputs to meet plant demands and minimise risk of leaching and runoff.
21. Design, check and operate irrigation systems to minimise the amount of water needed to meet production objectives.

**Implementing this principle may mean that Class 8 land is not actively farmed for arable, pastoral or commercial forestry uses as this land is generally unsuitable for these activities as described in the Land Use Capability Handbook.*

The list of principles on the previous page is based on the 2015 Industry-Agreed Good Management Practices Relating to Water Quality (developed with farmer-driven involvement from Dairy NZ, Deer Industry New Zealand, NZ Pork, B+L NZ, Horticulture NZ and the Foundation for Arable Research, with funding also provided by central government and a number of regional councils). While first applied in Canterbury, they were developed to be applicable across all regions of New Zealand. Some minor updates were included following input from the Land and Water Partnership, and the Regional Council Land Managers' Group.



Identifying priority principles for regions/catchments

For each region, the set of principles are narrowed to those that are a priority in that region. Identifying the priority good farming practice principles to champion in a region is a critical step. Where significant regional variation exists, priority principles will be identified at a catchment or sub-catchment level.

The priority principles will be decided based on the most pressing water quality issues in the region/catchment and considering their causes, the range of solutions and likely impacts of practice change.

Some principles may only be considered as potential priorities for some sectors e.g. the effluent principles are largely relevant only for the dairy sector

The priority good farming practice principles for a region will be identified in a co-created way with leadership from both regional councils and the farming sectors, and opportunity for input from other interested parties. Sectors may lead the identification of priority principles for their sector in each region but will work with the relevant regional council to make sure that there is agreement that the right principles are being identified. It will be important to give confidence to both the regional council and the wider community that the approach being taken will help address the priority water quality issues.

The Governance Group's intention is that this process will be done without delay, with a focus on getting practice change actions in place quickly. The approach will need to be reviewed and adapted over time **to ensure the desired** improvements are being delivered.



Identifying actions in a farm plan

At the farm/property level, risks to water will then be identified based on the nature of the business and the priorities for the catchment. A farm plan will be developed to identify practical, targeted actions to deliver on the relevant priority principles. These actions will be monitored and reported on.

Where the regional regulatory framework requires a farm plan, the documented risks and actions will need to align with regulatory requirements such as approved farm plan templates. In areas where farm plans are not required, the form of the document can be shaped to meet the needs of the farm, farmer or sector, to support good farming practice implementation.

The process of discussing and identifying priority principles will include identifying the tools and solutions available in the local area to support farmers and growers to improve water quality outcomes through farmer-driven actions. This includes existing programmes and extension support.

Training and extension support will be needed at national, regional and farm levels to increase capability and to ensure consistency. Ongoing communication will be required within the primary sectors and to the wider public, to demonstrate and verify good water stewardship. Case studies will provide grounded demonstrations.



Scenario: applying the approach

Below is a high-level, hypothetical example of how a farm plan might look for two different farm enterprises using the process to identify priority principles for a catchment (for illustration only).



SHEEP AND BEEF FARM— EAST COAST OF NORTH ISLAND

Critical water quality issues for the catchment.

Erosion—sediment, phosphorous, *E. coli*.

Does the regional council require a Farm Environment Plan (or equivalent)?

No (note that some East Coast North Island catchments require a farm plan).

Priority principles identified from page 4, led by Regional Council and the sectors.

Selected principles from the “waterways” (#9-11), “land and soil” (#12-15) and “nutrient” (#4-8) subcategories likely to be prominent. “Effluent” (#16-19) and “irrigation” (#20-21) principles unlikely to be a priority.

Discussion of locally available tools, resources and support to help farmers and growers improve practices

Actions included in a farm plan.

Sheep and beef farmer assisted to prepare farm plan that includes 3-5 priority actions targeted to meet an identified subset of those principles. For example, one action could be targeted to principle #13, with the farmer setting out steps he/she will take to retire and actively manage their erosion prone land.

Monitoring and reporting of implementation of farm plan actions



DAIRY FARM— EAST COAST OF SOUTH ISLAND

Critical water quality issues for the catchment.

Nitrates, *E. coli*.

Does the regional council require a Farm Environment Plan (or equivalent)?

Yes.

Priority principles identified from page 4, led by Regional Council and the sectors.

Selected principles from “nutrients” (#4-8), “waterways” (#9-11), and “irrigation” (#20-21) categories likely to be prominent. “Effluent” (#16-19)—these principles may be lower priority if they are already being addressed by existing programmes.

Discussion of locally available tools, resources and support to help farmers and growers improve practices

Actions included in a farm plan.

Dairy farmer assisted to prepare a farm plan that includes 3-5 priority actions targeted to meet an identified subset of those principles, as well as meeting any industry or council requirements, including compliance, with any agreed templates. For example, the farmer could identify irrigation principles (#20-21) as critical to focus on and be assisted to identify an action/s to improve performance.

Monitoring and reporting of implementation of farm plan actions

Building on successful initiatives

The Action Plan's approach is founded on existing successful initiatives that can be built on to achieve greater uptake and reporting of good practice, as set out below, with further details in the examples (see page 12).



Farm Plans to target farm-specific sources of contaminants. For example:

- Horizons Regional Council's Sustainable Land Use Initiative
- DairyNZ's Sustainable Milk Plans
- B+LNZ's Land and Environment Plans



Support for practice change. For example:

- Dairy sector's *Sustainable Dairying: Water Accord*
- *Pathway for the Pomahaka* catchment initiative
- Wharekopae Water Quality Improvement Project
- Irrigation NZ's SMART irrigation initiative



Accreditation, monitoring and reporting. For example:

- Horticulture sector's Good Agricultural Practice programmes
- Processor programmes, e.g. Fonterra's *Tiaki*, Synlait's *Lead with Pride*, Miraka's *Te Ara Miraka*, Alliance Group's environmental activities

Monitoring and reporting

The Governance Group intends to report on progress in implementing the Action Plan each year.

Leading work on developing systems and tools for monitoring and reporting on good farming practice uptake will be a significant focus for the Governance Group over the next two years (2018-2020). This will include identifying the nature of data that needs to be collected and ways to report progress at catchment, regional and national levels.

The monitoring and reporting system needs to be credible. To avoid unnecessary costs, duplication and bureaucracy, it will be important to building on existing systems where possible.



Our approach

- We are building on the Land and Water Forum's recommended approach to good management practice, including use of the Industry Agreed Good Management Practices for Water, use of farm plans, and taking a risk-based approach that targets actions at a local level to address priority water quality issues.
- We recognise and want to build on the many existing initiatives already contributing to improving water quality and quantity management (e.g. see page 9).
- Where gaps are identified, we will work collectively to address these, including through collaboration with respect to research and development.
- We support farmer-driven catchment-based approaches that seek to engage and work with communities, iwi, and a wide range of interested parties.
- We will use adaptive methods, by testing what we are doing, sharing what we are learning and improving as we go.
- We will respond rapidly to what we learn and implement these learnings to improve outcomes.
- We will report to Ministers and the public on progress annually.
- We are taking a practical approach, focusing on what works for achieving practice change on the ground to deliver outcomes quickly.
- We are drawing on the best information as to what motivates good farming practice uptake.
- We will look for opportunities to take a holistic approach that also considers the influence of other drivers such as greenhouse gas emissions, biodiversity, and business outcomes.
- We will work with partners to implement the Action Plan, for example, environmental non-government organisations, the Federation of Maori Authorities, processors, marketers and the banking sector.
- We will work with like-minded groups to support a coordinated national approach to improving water quality.

Good farming project part of the solution

We recognise that in some catchments, measures beyond good farming practice will be required, e.g. catchment scale mitigations or large-scale land use change. These measures are not the focus of this Action Plan, and the Action Plan does not cover all the land-based primary sectors. We are committed to working with communities to improve water quality.



There is complementary work underway to identify and increase uptake of urban good practice for water quality and quantity management.

Examples of successful practice change, monitoring and reporting initiatives

Sustainable land use initiative

This farm plan-based programme was initiated by Horizons Regional Council in 2005/6 in response to serious erosion and flooding in a 2004 storm. It targets highly erodible land for afforestation or space planting with poplar poles. Farm plans are in place on 669 farms in the target areas, covering 500,942 ha. Over 13.7 million trees have been planted as forests and 165,900 poles planted to reduce the risk of erosion and downstream flooding, along with 850 km of new fencing.

Landcare Research SedNetNZ modelling indicates that around 12% less sediment is generated on works completed to date, with over 27% reduction when work is complete. In target catchments, the model indicates up to 60% sediment reduction. Evaluation of the initiative has indicated a strong perception from farmers that the scheme has had a major impact on environmental and economic sustainability (AgResearch 2016 report to Horizons Regional Council).

Pathway for the Pomahaka farmer-led catchment initiative

The Pomahaka catchment in South & West Otago is one of a growing number of successful farmer-led catchment initiatives. The catchment was identified by the Otago Regional Council as one with poor water quality. Initiated by the NZ Landcare Trust in 2013 and with support from the Sustainable Farming Fund, work began to bring together farmers and stakeholders to scope out a catchment plan. The Pomahaka Farmers Water Care Group was formed as they saw a need for farmers to lead and engage other farmers on good management practices to improve water quality. The success of this initial work led to a further three year Sustainable Farming Fund project 'Pathway for the Pomahaka' with wider involvement from the Pomahaka stakeholders group, Rabobank, ORC, DOC, Ravensdown, Ernslaw 1, Fish and Game, Dairy NZ and Beef + Lamb NZ, and continued support from the NZ Landcare Trust.

The work is using and showcasing industry tools to help farmers to improve farm practices that reduce nutrient loss and improve water quality. Farmers are now working to eliminate stock from waterways and manage river bank erosion along with establishing riparian planting areas. There has also been a noticeable change in the management of winter crops in the catchment, which should result in improved phosphate and other mineral levels in the summer. On-farm water testing has been instrumental in motivating action though helping farmers understand how their actions impact on water quality and why they need to make changes.

A mini-documentary focussing on management practices in the Pomahaka catchment can be accessed here:

www.youtube.com

www.landcare.org.nz/Regional-Focus/Gore-Office/Pomahaka-Project

B+LNZ Environment Plan

B+LNZ's Environment Plan guides farmers through a recorded assessment of their farm's environmental risks as well as land management opportunities. It involves a stock-take of land, soil and water resources, and results in the development of a personalised written plan identifying potential actions to be undertaken, where they might be targeted, and when they will be implemented.

A well prepared Environment Plan captures stewardship and sustainability as a record showing that measurable actions are being taken to address environmental concerns and to

demonstrate good practice. It also helps farmers understand the natural resources on their farm, and allows all those involved in the farm business to understand the plan to manage them for the long-term.

B+LNZ run regular Environment Plan workshops around the country with small groups of farmers.

www.beeflambnz.comcompliance/environment/environment-plans

Dairying and Clean Streams Accord

The *Sustainable Dairying: Water Accord* was launched in July 2013 setting out the dairy industry's commitment to improving water quality in New Zealand. It built on the Dairying and Clean Streams Accord agreement first signed in 2003. The Water Accord includes commitments to targeted riparian planting plans, effluent management, comprehensive standards for new dairy farms and measures to improve the efficiency of water and nutrient use on farms. The most

recent annual progress report on the Sustainable Dairying Water Accord was released in May 2017, indicating significant progress towards the targets e.g. 83% have nutrient management plans, up from 56% in 2013; with close to 100% uptake of riparian stock exclusion and bridging/culverting of regular stock crossings.

www.dairynz.co.nz/environment/in-your-region/sustainable-dairying-water-accord

Sustainable Milk Plans

DairyNZ works with farmers to develop Sustainable Milk Plans to help dairy farmers focus on environmentally sustainable farming practices. In the Upper Waikato pilot, 642 plans were developed, with a total of 5921 individual actions recorded (average of 9.2 actions per farm across the five management target areas of effluent, waterways, nutrients, land and water use). Most of the actions were either underway or complete

in 2015. Current modelling estimates that potential reductions in farm nutrient losses following the successful completion of 70% of all intended sustainable milk plan actions across all farms are estimated to be 5% for N and 12% for P, increasing to 8% for N and 21% for P once all actions are complete.

www.waikatoregion.govt.nz/assets

Ngāi Tahu Farming Case Study

Ngāi Tahu believe their whakapapa (genealogy) binds them to the mountains, land, forests and waters. In this way, all things are considered to have a mauri (life force), and shared whakapapa, reinforcing the tribal philosophy that all things are from the same origin and the welfare of the environment determines the welfare of the people. This is best defined by the whakataukī (proverb):

*Toitū te Marae o Tane, Toitū te Marae o Tangaroa, Toitū te Iwi
When land and water are sustained, the people will prosper*

Ngāi Tahu Farming is committed to best-practice farming, aiming to continuously improve the environmental, social, cultural, and economic outcomes associated with their operations. A current focus is Te Whenua Hou a former forestry block northwest of Christchurch. It is being developed into 6,700 hectares of new farmland (including the planting of 150 hectares of native bush). When complete, there will be 20 farms operating under gravity-flow pivot irrigation, sourcing water from the Waimakariri Irrigation Scheme.

Ngāi Tahu have high expectations around what happens on their land. All of the processes and systems on the farms have been well-researched and well thought-out so that they can deliver on Ngāi Tahu's core values, including kaitiakitanga (stewardship), tohungatanga (expertise), tikanga (appropriate action) and rangatiratanga (leadership). Significant investment in research, modelling, data and technology has been made. For example, managers get daily information gathered from soil moisture strips under every pivot irrigator, mini weather stations which tie into the MetService five-day forecast, and fertiliser application is tracked using GPS. In addition, Ngāi Tahu Farming has a three-year research project with Lincoln University to monitor nitrate leaching through the soil profile, with 40 lysimeters (measuring devices) installed on Paritea (one of the eight dairy farms at Te Whenua Hou).

www.ngaitahufarming.co.nz

The SMART Irrigation initiative

The SMART Irrigation initiative was launched in 2014. Its purpose is to provide all irrigators with the knowledge and skills to use water efficiently. The goals are for all irrigation systems to be designed and installed in-line with industry codes of practice; checked they are in working order at least annually; all irrigation applied accounts for crop requirements, soil water holding and weather forecasts; and all operators of irrigation systems are trained.

Progress to date includes 24 irrigation designers now holding a National Certificate in Irrigation Design and all large irrigation companies being accredited for their irrigation design work. An irrigation installation apprenticeship launches in 2018. The 'Bucket Test' app for assessing irrigation system performance was released in early 2017 and now has over 500 active users. Over 1,600 irrigators have undertaken irrigation manager training over the last 3 years.

The SMART initiative is transforming irrigation in NZ introducing an increased level of professionalism, knowledge and above all understanding of how to use water efficiently.

Wharekopae Water Quality Improvement (Rere Falls) project

In 2015 Gisborne District Council and Beef and Lamb New Zealand began collaborating with Rere farmers to raise water quality in the Wharekopae River to a swimmable standard. The Rere Falls and Rockslide on the Wharekopae River are popular swimming and rocksliding destinations, despite signage warning people about swimming health risks due to *E. coli* contamination from sheep and cattle.

Tangible on-farm impacts of the project to date include 4.2km of new fencing, increased stock exclusion from waterways, increased numbers of applications to the Rere

Fund, improved water quality monitoring and the Farm Environment Planning process positively influencing thinking and action on-farm.

Farmer interest and participation in the project has been high. A report has been completed telling the story of the project to date, including lessons, next steps and strategic implications. It is available here:

www.mfe.govt.nz/publications/fresh-water/engaging-farmers-improving-water-quality-rere-story

Good agricultural practice for horticulture

Horticulture's Good Agricultural Practice (GAP) schemes promote the safe and sustainable production of fruit and vegetables in New Zealand. Certification to one of the schemes is necessary for supplying many local and overseas markets. Just under 90 percent of New Zealand's commercial scale growers are certified to one of the three GAP schemes operational in New Zealand. The three schemes are operated by and under GLOBALG.A.P. and achieve consistency through the NZ Technical Working Group

NZGAP (one of the three schemes) offers an environmental risk assessment add-on to manage natural resources, including:

- Protection and sustainable use of land and water
- Responsible use of agrichemicals and fertilisers
- Waste management
- Biodiversity
- Waste, emissions and energy.

The NZGAP Environmental Management System (EMS) encompasses a number of elements including EMS guidelines, property maps, the farm environment plans, environmental risk assessments, guidelines for good and best management practises, compliance criteria, and the grower/third-party auditor checklist. This add-on is at present being offered to growers in Canterbury with plans to progressively offer it to all growers in New Zealand.

www.newzealandgap.co.nz

Tiaki Sustainable Dairying Programme

Through its Tiaki Sustainable Dairying Programme, Fonterra supports its farmers to meet all regulatory requirements, including Farm Environment Plans. Fonterra offers this service to its farmer shareholders with no additional cost through a team of Sustainable Dairying Advisors, who tailor products and services to regional requirements and each individual farm.

Additionally, all farmers must meet minimum standards set out in the Fonterra Farmers' Handbook. Environmental requirements cover effluent management, stock exclusion

from waterways, bridging or culverting stock crossings, and the supply of information to enable Fonterra to model nitrogen loss. Farmers who do not meet these requirements must work with Fonterra to develop and implement an Environmental Improvement Plan within specified timeframes. Under the terms of the supply agreement, Fonterra may suspend collection of milk if requirements are not met.

Synlait's Lead with Pride™

Canterbury-based dairy processor Synlait encourages best practice dairy farming with its Lead With Pride™ certification, which recognises and financially rewards certified suppliers. Certification requires farmers achieve best practice standards across the four pillars of milk quality, environment, animal health and welfare, and social responsibility. Included in the environment pillar are water and irrigation management, effluent management, waste initiatives, improved biodiversity,

soil quality and energy management. All suppliers must meet minimum standards and certified suppliers (ISO/IEC 17065) meeting higher standards and are paid a premium.

www.synlait.com/about/supplying-synlait/lead-with-pride

Alliance Group's environmental activities

Alliance Group is a food company headquartered in Invercargill. Alliance is ISO 14001 certified and has robust procedures and programmes in place which target areas to achieve specific environmental outcomes. Its environmental policy is based on a commitment to improve its performance across the business for the long term benefit of the environment. The company optimises its use of all resource including energy, water and chemicals and embraces the use of technology. In implementing its policy, Alliance integrates environmental management into its daily business activities. Its achievements include a greater than 20% reduction in processing energy

use since 2000 and greater than 20% reduction in water use since 2007/8 per unit of production across the co-operative. It has achieved a 98% reduction in discharged phosphorus from the Mataura Plant. A new rendering facility at Lorneville has reduced Alliance's electricity use by approximately 1.5 million kilowatt hours. The Mataura Plant generates almost 20% of the electricity it needs from its own hydroelectric plant. Alliance has also committed to a multi-million dollar wastewater treatment upgrade at its Lorneville plant that will deliver a 75% reduction in nitrogen and a 45% reduction in phosphorus in the generated wastewater and disinfection before it is discharged.

Kaitiakitanga—Te Ara Miraka

The Miraka vision—nurturing our world—reflects the company’s commitment to sustainable business practice and production of top quality products for the world market. As Kaitiaki (guardians) of the land and the environment Miraka believes it is fundamental to the sustainability of continued milk supply and the prosperity of its farmers, their future generations and therefore of the company itself.

In 2016, to ensure the value of Kaitiaki was in action from the farm to consumers, the company introduced a sophisticated farm excellence programme—Te Ara Miraka (The Miraka Way). The standards for Te Ara Miraka are founded on five Pou or pillars: People, Environment, Cows (Animal Care), Milk Quality and Prosperity. The programme gives farmers the potential to earn an extra 20 cents/kg/MS premium on top of the milk price by meeting 30 standards, including 13 mandatory ones. Farmers are provided with additional tools, resources and access to experts to help them achieve the standards so they are not “going it alone”.

Since the 2016 season, farms in Te Ara Miraka have been independently audited by a third party accredited under the Joint Accreditation System of Australia and New Zealand (JAS-ANZ) to International Standards ISO/IEC Guide 65—the international standard for ensuring competence in those organisations performing product certifications.

The company also encourages all its farmers to be proactive in the management of their farm environment and has provided an Environment Management Plan, detailing all identified risks, on-farm policies to avoid these risks, and actions to mitigate milk production impacts. Again, farmers are supported to reach the standards set.

Of the 106 farmers who supply Miraka, 103 are now actively engaged in Te Ara Miraka and are all striving to achieve standards of excellence. Feedback from suppliers indicates they welcome the opportunity to supply a company that shares their values, has invested interest in all aspects of their business success, and is prepared to offer financial incentives to support the regulatory requirements being placed on dairy farmers.

They also recognise that Te Ara Miraka is as much about production efficiency on farm and putting structures in place to mitigate their risks by maximising the quality and integrity of their products and insulating their revenue from the volatility of dairy commodity prices.

Te Ara Miraka underpins the quality assurance demanded by its customers as Miraka has moved from WMP and UHT products to value added consumer brands Taupo Pure and Whaiora.

