

Primary Sector Water Partnership Leadership Document

Summary of the Plan of Action

DRAFT FOR CONSULTATION



Primary Sector Water Partnership

The *Primary Sector Water Partnership* is a group of major primary sector organisations who are committed to ensuring the sustainable use of freshwater resources in the primary sector.

This is a collective action plan that builds on the individual environmental management programmes of the various partners.

Our goals are:

- Maintain and/or enhance water quality from primary production land, with demonstrable and accelerated progress on the resolution of water quality issues from agricultural land within five years
- Demonstrable improvements in water use efficiency by the primary sector within five years¹.

Our approach aims to achieve sustainability goals and to maintain dynamism and flexibility in the primary sector by:

- Developing Sustainable Water Management Strategies for each partner.
- Engaging land managers in environmental outcomes and self management of their impacts, with an initial focus on identified priority catchments.
- Working in partnership with central and regional government.

Our targets for action are:

Nutrient Management	<ul style="list-style-type: none"> • By 2013, 80 per cent of nutrients applied to land nationally are managed through quality assured² nutrient budgets and nutrient management plans. • By 2016, 1.7 million ha of intensively farmed land³ will have implemented nutrient management plans, in the context of their wider farm management planning, to achieve improved environmental outcomes.
Industry “Good practice” bench marks of water use	<ul style="list-style-type: none"> • By 2016, 80 per cent of extracted water used by the partners will be under a self management approach to meet benchmarks⁴ of industry “good practice” bench marks for water use.
Sediment and Microbial Management	<ul style="list-style-type: none"> • By 2010 all forestry land, and by 2016 1.7 million ha of intensively farmed land will have implemented a management programme to minimise microbial and sediment deposition in waterways.

The *Primary Sector Water Partnership* has committed to a work programme that will deliver on these targets, and will engage with regions, central government and other stakeholders to ensure that the wider objectives of sustainability are achieved.

Chairman, Primary Sector Water Partnership

1 The specific sector and sub sector targets and timeframes are set out in Annex 1.

2 The people undertaking and processes used will be subject to independent quality assurance.

3 Land with dairy, arable, and horticultural operations.

4 Such benchmarks would be agreed between the sectors and regions, and would be set based on efficient reasonable use for region, system type and season – and be dependent on regional council agreement.





Plan for Action

May 2008

INTRODUCTION

The primary sector has shaped New Zealand's economy, society and environment. The sector is central to our economic performance – agriculture, horticulture and forestry provide an estimated 20 per cent of New Zealand's Gross Domestic Product⁵ and around 47 per cent of total exports⁶. The sector's activities cover around 52 per cent of New Zealand's land area. Their economic sustainability is important for maintaining the quality of life enjoyed by all New Zealanders.

New Zealand depends greatly on our water and land resources, our 'natural capital'. The sector directly supports wealth-generating activities in the wider economy and contributes greatly to social and cultural values. To sustain New Zealand's economic prosperity and quality of life the primary sector recognises the need to look after New Zealand's natural capital. Over the past two decades there have been signs that primary sector resource use has not always been sustainable. There are emerging problems with water allocation and availability in some areas. Competing demands for water have increased and surface water quality has deteriorated in some lowland areas.

These trends, if not addressed now, will erode the natural capital base from which our economic prosperity and general wellbeing are derived.

The primary sector recognises the need to anticipate and engage proactively on environmental issues. As New Zealand's expectations of environmental quality and performance change over time, the primary sector needs to be positioned to secure a sustainable future for New Zealand's land-based primary sector.

⁵ Ministry of Agriculture and Forestry 2003. *Contribution of the Land-Based Primary Industries to New Zealand's Economic Growth*. MAF, Wellington.

⁶ Ibid.

The *Primary Sector Water Partnership* is a grouping of organisations who recognise the need to take action, and who are committed to doing so. The sector representations in the partnership are:

- Dairy (Fonterra, DairyNZ)
- Arable (Foundation for Arable Research)
- Horticulture (HortNZ)
- Sheep and Beef (Meat & Wool New Zealand)
- Forestry (NZ Forest Owners' Association and NZ Farm Forestry Association)
- Fertiliser (Fertiliser Manufacturers Research Association)
- Irrigation (Irrigation NZ)
- Federated Farmers NZ

These organisations have seen the need to work together to achieve their aims.

PURPOSE

The purpose of this document is to promote sustainable freshwater management in the land-based primary sector by supporting and co-ordinating the sector's initiatives.

ENVIRONMENTAL GOALS

- To achieve improved understanding and alignment among and between the primary sector and wider community.
- Maintain and enhance water quality from primary production land, with demonstrable progress on water quality from agricultural land within five years⁷.
- Achieve demonstrable improvements in water use efficiency within five years.

APPROACH

The Primary Sector Water Partnership believes that it can achieve freshwater outcomes while contributing to the economy and improving community wellbeing. The Partnership believes that the key to retaining a dynamic and forward thinking primary sector is flexibility in land use and production systems, and self management by land managers. These themes of dynamism and self management are the drivers of the approach outlined in this action plan.

Develop Sustainable Water Management Strategies: Partners will work with their members and relevant stakeholders, to develop Sustainable Water Management Strategies. These Sustainable Water Management Strategies will outline clear, time-bound targets and actions to deliver on the agreed outcomes. The sector strategies will build on existing water management initiatives where appropriate.

Engage Land managers in Outcomes and Self Management: Water quality issues often arise due to activities carried out by land managers in a catchment, and are best addressed by engaging land managers at a catchment scale. This approach involves:

- Identifying **priority catchments**⁸ for each region, working with national and regional government.
- Working with communities to **agree outcomes** for those priority catchments. Land managers must feel engaged and believe in the need for the outcomes.
- Adopting **cost-effective and flexible approaches and tools** to manage and mitigate impacts and achieve targets.
- Implementing **self management regimes** to meet targets, with regulation as a backstop.

⁷ The specific sector and sub sector targets and timeframes are set out in Annex 1.

⁸ It is envisaged that these would be negotiated and agreed between the sectors and the regions, with the number likely to be limited, depending on the issues and resourcing available.



Work in Partnership: The primary sector has an impact on the environment. These impacts have arisen as a result of people lawfully undertaking activities that have, in the past, been seen as acceptable and desirable⁹. Solving water quality issues is not the sole responsibility of any one party. It requires concerted effort from all. This will only occur where there is a meaningful partnership between the primary sector, national and regional government and wider community interests. The Partnership will involve:

- **Engagement** of the primary sector in national and regional decision making.
- Recognition of the difficulties that the sector faces in addressing some water quality issues, and acknowledgement there is genuine desire to address issues. This will require **joint approaches** to understanding and adopting solutions.
- Consistent, equitable, and efficient environmental regulatory regimes across all regions that achieve the right outcomes for all partners. Central government should work to facilitate cross-regional consistency and cross-sector equity.
- **Self management regimes, with appropriate auditing** is viewed as the best means of achieving the right results. Regulation will still be required, but it should be used as a backstop rather than the primary means to engage with land managers.

PRIMARY SECTOR TARGETS

This section outlines the targets that the Primary Sector Water Partnership believes can be achieved nationally through co-ordinating the sector's activities. Each partner's targets are referenced in Annex 1.

LEADERSHIP

New Zealand primary producers accept the need to manage their activities sustainably and recognise their responsibility for leading this change among land managers. Leaders from each of the groups will undertake the following:

- **Engagement with Regional Councils:** engage with regional councils individually and collectively to ensure collective responses to water management.
- **Prioritisation:** Complete national and regional 'at risk' water body prioritisation by November 2008 with a complete plan-of-action produced by September 2010.
- **Take Action:** Commence at least ten new catchment-based community initiatives each year from 2008 to 2013 that address local water quality issues originating from productive lands.

⁹ Years of government funded research, extension and subsidies and contributed to current land use practices and the production oriented culture of farmers.

- **Co-ordination:** Increase co-ordination of primary sector activities in areas of 'at risk' water bodies
- **Report progress:** Annually report to the Minister(s) on progress towards the targets and actions in this document.

NUTRIENT MANAGEMENT

- 80 per cent of nutrients applied to land nationally are managed through quality assured¹⁰ nutrient budgets and nutrient management plans by 2013.
- By 2016, 1.7 million ha¹¹ of intensively farmed land will have implemented nutrient management plans, in the context of their wider farm management planning, to achieve improved environmental outcomes.

Nutrient management is one of the key primary sector issues that must be addressed. Because nutrients have a catchment scale effect, all of the sectors are interdependent.

The initial aim of this objective is to ensure that nutrient budgeting and nutrient management planning is in place. The fertiliser partner will take the lead role in ensuring that this occurs, supporting the primary sector partners.

The next stage in achieving best practice is to ensure that nutrient management is integrated into the wider farm system through self management regimes. To gain the best use of resources, the initial focus of this approach will be on intensively farmed areas.

Once achieved, the targets will ensure that not only are the majority of nutrients applied using nutrient management approaches, but also that land uses that contribute to approximately 2/3 of total nitrogen losses and 1/3 of total phosphorus¹² losses are engaged in self management regimes to ensure best practice is achieved across the farm system.

WATER EFFICIENCY

- 80 per cent of extracted water used by the sector will be under a self management approach to meet benchmarks¹³ of water efficiency by 2016.

Water efficiency is a key issue for New Zealand in areas where water is considered to be constrained in availability for the primary sector. These are mostly traditional summer dry areas such as the east coast of both islands. Availability of water has also become an important issue in areas such as the Waikato.

Improving water use efficiency benefits for both the environment and the water user. Irrigation NZ has taken the lead in water use efficiency with its Irrigation Code of Practice and Irrigation Design Standards. We believe this lead role will continue and be integrated with the self management initiatives of the partners to achieve enhanced water use efficiency for the majority of extracted water used.

SEDIMENT AND MICROBIAL MANAGEMENT

- By 2010 all forestry land, and by 2016 1.7 million ha¹⁴ of intensively farmed land will have implemented a management programme to minimise microbial and sediment deposition in waterways.

10 The people undertaking and processes used will be subject to independent quality assurance.

11 Land with dairy, arable, and horticultural operations (Stage 1 of implementation).

12 These figures are derived by estimating N and P losses from dairy, arable and horticultural land using 2004 estimates of average N and P losses by land use (Phil Journeaux, MAF Policy, pers. comm.).

13 Such benchmarks would be agreed between the sectors and regions, and would be set based on efficient reasonable use for region, system type and season.

14 Refer to 11 above..



Microbial and sediment losses to waterways are difficult to address because of the varying nature of activities and responses. The targets outlined here are initially aimed at minimising sediment loss from forestry. They also include both sediment loss and microbial contamination from intensively farmed areas, based on proposed approaches from the partners.

The forestry sector experiences major issues with sediment loss during and immediately after harvest, and expects forestry contractors to be fully compliant with the compulsory requirements in its Environmental Code of Practice by 2009.

The dairy sector has existing initiatives around the Clean Streams Accord to minimise stream bank erosion and to prevent direct deposition of faecal material in waterways. Further responses are in development.

The sheep and beef sector are using land-environment plan-based approaches to encourage land managers to minimise sediment and microbial losses.

The horticulture sector is using proven paddock plan management practices in the vegetable industry, based on the sustainable land management guide *Doing It Right*, to minimise sediment losses from cultivated land used for vegetable cropping.

Further progress is anticipated with the development of these strategies.

CAPABILITY BUILDING, RESEARCH AND EXTENSION

- Capability building: Develop the required capability to achieve the sector-specific targets by 2011.
- Research and extension: Increase alignment of sector and public research investment to deliver the knowledge required to achieve the desired outcomes in priority water body catchments.

The primary sector goals in water management are ambitious, and apart from the forestry sector, will not be achieved with current capability. There is an urgent need for skills and experience to support land managers in moving toward more sustainable land use systems. These skills and experience are in short supply - they must be developed now. This requires a financial commitment to employ, educate and train the right people with the right skills.

The technological solutions to freshwater management are limited in number and efficacy. It is critical that in a country the size of New Zealand all research is aligned toward common goals. This includes primary sector and government research.

Research and capability building are areas where the Partnership believes that central government has a responsibility to contribute. Government commitment to future research will demonstrate a genuine partnership with the primary sector.

NEXT STEPS

This document is a living document, to be administered by the Partnership. The specific administrative provisions of the Partnership are set out in Annex 2.

The next steps are:

- **Establish executive working groups** – The Partnership is the primary decision making body for the actions recorded in this document. In order to move the individual target areas forward, smaller working groups will be established. These will include the key sectoral parties for each target, together with other important stakeholders such as the regional councils. These working groups will oversee the design and implementation of management systems to achieve improved environmental outcomes.
- **Engage with regional councils** – To tailor responses to suit regional variation in land-uses and issues, engagement with individual regional councils will be required. Initially representatives from appropriate sectors from the Primary Sector Water Partnership will approach regional councils to determine the level of engagement required. The Partnership will encourage regional councils to work on a collective basis to increase the efficiency of action across regions.
- **Sector Strategies** – These are a critical part of ensuring that the targets in this document can be achieved. These sector strategies will need to be developed and updated in close consultation with the regional councils.
- **Capability** – The development of capability is a key priority and the Partnership urges central government to make an immediate start on meeting capability needs. The Partnership wishes to establish a working party with government to ensure this capability is developed.
- **Consultation** – Dialogue with recreational and environmental organisations with the aim of developing an agreement on issues of mutual interests.

Annex 1: SECTOR-SPECIFIC TARGETS

Achieving the targets outlined above require action from each of the partners. This Annex outlines the targets and actions individual sectors and organisations have committed to in order to achieve the collective targets. As partner strategies are developed and the action programme gains momentum, these targets and those in the main body of this document will be refreshed and updated.

DAIRY SECTOR AND FONTERRA COMMITMENTS:

Through the Dairying & Clean Streams Accord and the programme supporting the “*Dairy Industry Strategy for Sustainable Environmental Management*” (2006):



- Full adoption of Dairying and Clean Streams Accord:
 - o Dairy cattle excluded from 50 per cent of streams, rivers and lakes by 2007; 90 per cent by 2012;
 - o Half of regular crossing points to have bridges or culverts by 2007; 90 per cent by 2012;
 - o All farm dairy effluent discharges to comply with resource consents and regional plans;
 - o All dairy farms to have in place systems to manage their nutrient inputs and outputs by 2007;
 - o Half of regionally significant wetlands on farms to be fenced by 2005; 90 per cent by 2007.
- Nutrient management – provide programmes to have 50 per cent of dairy farms implementing a Nutrient Management Plan by 2012 and 100 per cent by 2016.
- Set benchmarks and targets for increasing resource use efficiency (water and nutrients) by 2010.
- Demonstrate, by 2016, a significant reduction (30 per cent as an interim stretch target) in nutrient losses, at catchment scale, in areas where water quality is identified as being ‘at risk’.



- Commission research that progressively delivers by 2016, tools, technologies and management practices capable of:
 - o Off-farm losses: 50 per cent less nitrogen, 50-80 per cent less phosphorus, microbial levels at contact water standard; and
 - o Efficiency use gains: 40 per cent increase in water use efficiency by development of improved pasture and forage species
 - o Irrigation use efficiency: In partnership with Irrigation NZ, development of tools and encouragement of uptake so that 80 per cent of water used in dairy industry will be under self management to meet industry "good practice" benchmarks.

FOUNDATION FOR ARABLE RESEARCH COMMITMENTS:

- Achieve objectives of the MAF SFF / Horticulture & Arable Industries / Regional Government Project: Nitrogen Managers for Environmental Accountability (NMEA) by January 2009, followed by:
 - o By end-2009 arable industry recognition of nutrient budgeting for all high risk activities; i.e. leaching from certain crops on different soil types, climatic zones or certain management practices; e.g. maize and wheat.
 - o February 2009 - NMEA developed 'Overseer', based on Crop & Food's Soil and Plant Growth Models (ex LUCI), completed for crop models currently available.
 - Increase the use of FAR Crop Management Guidelines (including nitrogen fertiliser budgets and taking into account deep nitrogen soil testing) using crop production tools as appropriate:
 - o Increase use of the Wheat Calculator or the principles of the wheat calculator from 60 per cent currently to 80 per cent of wheat crops by 2010.
 - o Expand the Wheat Calculator or the principles of the Wheat Calculator to barley by 2015 and achieve 15 per cent uptake.
 - o Release the new Maize Calculator for widespread trial use in 2008 with full commercial use and 5 per cent uptake in 2009, 50 per cent uptake by 2012.



- Clear guidelines provided to growers on how and when to use reduced or no-tillage techniques (particularly in high risk intercrop periods e.g. after pasture/clover and early sown autumn crops and green feed (for maximum yields/dry matters to “mop up” excess nitrates)) by 2012.
- Improve irrigation efficiency and plant water use efficiency by:
 - o Continuing extension work on irrigation use efficiency, including irrigation distribution performance with 80 per cent of new irrigators on arable farms being tested prior to full commissioning by 2010 and 15 per cent of all existing irrigators tested prior to 2010.
 - o Soil moisture monitoring and best management practices for irrigation management used on 15 per cent of irrigated area by 2010, 40 per cent by 2012 and 70 per cent by 2015.
 - o Irrigation use Efficiency: In partnership with Irrigation NZ, development of tools encouragement of uptake so that 80 per cent of water used in arable industry will be under self management to meet industry “good practice” benchmarks.
- Continue to promote the uptake of GROWSAFE[®]

HORTICULTURE NEW ZEALAND COMMITMENTS:

- Achieve the objectives of the MAF SFF / Horticulture & Arable Industries / Regional Government Project: Nitrogen Managers for Environmental Accountability (NMEA) by January 2009, followed by:
 - o By end-2009 Hort Industry product group recognition of nutrient budgeting for all high risk activities; i.e. leaching from certain crops on different soil types; e.g. potatoes, onions, sweetcorn, winter grown green vegetables and some berryfruit and fruit; e.g. kiwifruit.
 - o February 2009 - NMEA developed ‘Overseer (Hort)’, based on HortResearch’s SPASMO and Crop & Food’s Soil and Plant Growth Models (ex LUCI), completed and rolled out.
 - o 2009 onwards – advocate with regional councils for the voluntary uptake of ‘Overseer (Hort)’ by growers to be recognised in land and water plans, through permitted activity rules for fertiliser application via nutrient budgeting.
 - o March 2009 - Commence 6 months extension work with Overseer (Hort).
 - o Late 2009 – ‘Overseer (Hort)’ incorporated into New Zealand GAP (including the GLOBALGAP equivalent levels).
 - o April 2010 - 25 per cent uptake of Overseer (Hort) by vegetable and relevant fruit growers by, April 2012 - 50 per cent uptake and April 2014 - 75 per cent uptake.
 - o 2017 - Overseer (Hort) fully developed, 90 per cent taken up by industry.
- Crop Production tools, for high-risk activities, optimizing efficient use of nutrients and water inputs under continuing development, including:
 - o Potato Crop Calculator operational 2007.
 - o Rolled out for limited commercial use late 2007, roll out continued through 2008.
 - o End of 2009/10 season - 25 per cent uptake by growers, end 2012 - 60 per cent uptake and end 2013 - 75 per cent uptake.
 - o 2015 - Potato Crop Calculator fully developed, 90 per cent taken up by industry.



- o Continue extension work on irrigation efficiency including irrigation distribution performance and advocating soil moisture monitoring and best management practices for irrigation management (INZ Code of Practice linkage)
- o Irrigation use efficiency: In partnership with Irrigation NZ, development of tools encouragement of uptake so that 80 per cent of water used in arable industry will be under self management to meet industry “good practice” benchmarks.
- Continue to promote the uptake of the GROWSAFE ® Calculator (used to predict the environmental fate of agrichemicals used on crops across the country, by combinations of crop, region (climate), soil type, and agrichemical) to all affiliated product groups and growers.

MEAT & WOOL NEW ZEALAND COMMITMENTS:

Meat & Wool New Zealand’s environmental objective is “enhanced sheep, beef, and goat sector efficiency and profitability, while sustainably managing air, soil, and water resources.” Meat & Wool New Zealand will facilitate this by the development and demonstration of tools and services that enable farmers to assess and manage the impact of the farming systems on the environment.



- To work with the fertiliser industry to encourage the uptake of nutrient budgeting through the use of Overseer by sheep and beef farmers - all Meat & Wool New Zealand Monitor Farms to be operating Overseer based nutrient budgets by the end of the 07/08 year.
- For sheep and beef farmers to be given an opportunity to obtain a copy of Level 1, Level 2 & Level 3 Land Environmental Plans in the 07/08 year. Goal to achieve 3000 requests from farmers for these during the 07/08 year.
- To work with the Fertiliser Industry to increase uptake and use of the “Fertiliser Code of Practice”.

NEW ZEALAND FOREST OWNERS’ ASSOCIATION AND NEW ZEALAND FARM FORESTRY ASSOCIATION COMMITMENTS:

- NZ Forest Owners’ Association members will, within one year (December 2008), ensure that all forestry contractors operating on members’ land have a field copy of the relevant Best Environmental Management Practices section of NZFOA Environmental Code of Practice (Part 1, 2007), and be cognisant of the Compulsory Rules defined therein.
- NZ Forest Owners’ Association members will, within two years (December 2009), ensure that all forestry contractors operating on members’ land are in compliance with all the compulsory rules defined in Part 1 of the NZFOA Environmental Code of Practice (2007).
- The NZ Forest Owners’ Association and the NZ Farm Forestry Association will support universities, research consortiums and CRIs to undertake field trials of risks, costs & benefits of incorporating environmental impact mitigation methods and techniques (e.g. biochar) into common agricultural systems.
- In line with the principle of consistent and efficient regulatory regimes discussed above, the NZ Forest Owners’ Association and the NZ Farm Forestry Association will work to assist MfE to develop, within two years (December 2009), a National Environmental Standard (NES) under the RMA for a defined list of plantation forestry activities relating to protection and maintenance of water quality. The NES will establish Permitted Activities conditions designed to protect water quality, for those activities that are suitable, and would look to include such examples as mechanical land preparation on steep slopes, afforestation and reforestation, establishment of stream setbacks, road and access track construction and harvesting (on other than high risk erosion land areas), installation of culverts, and the aerial application of agrichemicals and fertilisers near streams.





FERTILISER MANUFACTURERS RESEARCH ASSOCIATION COMMITMENTS:

- Contribute to the ongoing development, upgrading and implementation of the Overseer Nutrient Budget Model, including:
 - o Incorporation of a nitrification inhibitor component by December 2008.
 - o Incorporation of wetlands and riparian margins by December 2008.
 - o Review Overseer in the light of the recently announced Climate Change Policy. Identify and prioritise components that need to be upgraded or incorporated – by July 2008.
 - o Incorporate priority components into the next version of Overseer for release by December 2008.
- Develop and implement an accreditation scheme for Nutrient Management Advisors by July 2008.
- Implement an independent external audit process of internal company procedures for auditing nutrient budgets (Ballance Agri-Nutrients, Ravensdown Fertiliser Cooperative Ltd, Summit-Quinphos NZ Ltd) to be completed by December 2007.
- Implement, through an external independent provider, a comprehensive audit process for nutrient budgets undertaken by Ballance Agri-Nutrients Ltd, Ravensdown Fertiliser Cooperative Ltd and Summit-Quinphos NZ Ltd by July 2008.
- Review, update and promote the Code of Practice for Nutrient Management. This will include:
 - o Linking the Code to Overseer and incorporating it into company systems by December 2008.
 - o Customise the Code Nutrient Management Plan Template according to member company requirements by July 2008.
- Provide nutrient budgets, nutrient management plans and emission reports – targets will depend on government, regional council and sector requirements. This will require discussion and consultation as it will impact on:
 - o Staff recruitment
 - o Staff training
 - o Costs



IRRIGATION NZ COMMITMENTS:



- INZ Design Code of Practice.
 - o Prepare and widely disseminate a user guide to the design code aimed at accelerated adoption of code within the industry, to irrigation water users, regional councils and commercial irrigation suppliers by November 2008.
 - o Launch the completed Code of Practice nationally over the period September to November 2007
 - o Support the development of NZQA accredited training for designer certification to be available for trainees by 2009¹⁶.
 - o Implement an industry audit process for assessing the Code of Practice uptake by 2010.
 - o Review the Design Code of Practice by 2010.
- INZ Evaluation Code of Practice.
 - o Undertake an education programme with existing irrigators through INZ and media instruments to encourage evaluations of existing systems to meet key performance indicators for efficient irrigation over period January-November 2008.
 - o Establish and maintain a register that records number of accredited evaluators and evaluations completed by July 2008.
 - o Review the Evaluation Code of Practice by 2010.
- Irrigation Scheme Self Management Systems.
 - o Complete by July 2008 the SMF supported study of self management systems for irrigation schemes that reflects requirements of regulators, schemes and scheme members, environmental NGOs, iwi and community groups.
 - o Publish and promulgate findings over period July to November 2008.
 - o Industry plan in place to roll out Self Management Systems completed by 2010 (subject to study results).
- Irrigation Efficiency¹⁷
 - o Develop a methodology in conjunction with the sectors to estimate the weekly irrigation demands of a range of soil and enterprise types, based on actual types of systems and real time climate data, that can be used to derive real time (within season) industry best practice irrigation applications (end 2009).
 - o Trial on a case study basis the use of the methodology to identify compliance with industry best practice performance and outlier performance in a selected irrigation region, based on measurement of actual irrigation water use (case study examples in Opuha by end 2008, wider application dependent on metering progress in other areas under SWPoA and NRRP developments).
 - o Implement facilitation and improvement services to assist poorly performing systems to comply with best practice norms.
 - o Work with dairy, arable and horticulture sectors to realise the goal of having 80 per cent of all irrigation water use under a self management system to meet industry "good practice" guidelines.

¹⁶ Progress dependent on NZQA processes

¹⁷ This will require support from SFF and/or industries, availability of metering of water use data, and support from industry extension specialists.

FEDERATED FARMERS COMMITMENTS:

- Encourage regional councils to identify priority water bodies and their critical issues and assist with dissemination of this information to appropriate industry sectors by November 2008.
- Promote tools and mitigation practices to its members to address identified priority areas and specific issues.
- Continue the “10 in 10” campaign to lift awareness and encourage best management practices.
- Acknowledge the other industry, or sector, agreed targets and agreements.
- Maintain dialogue with councils to update priority areas and mitigation.



**Annex 2:
ADMINISTRATION OF THE PRIMARY SECTOR WATER PARTNERSHIP**

This document is recognised as a ‘living’ document by the partners. It will be reviewed from time to time at the request of any partner and consequently changed by mutual agreement. This will enable the document to include new initiatives and targets as these are developed by different partners. The document will be reviewed by the sector within five years of coming into effect.

The Sustainable Water Management Strategies will not take the place of any obligations under statutes, plan rules, resource consent conditions, and commitments to stakeholders or the community, and will not be legally binding.

Parties to the Primary Sector Water Partnership will inform the other parties, in a timely manner, of all media releases related to this Partnership.

The success of this Partnership relies heavily on all parties engaging sector stakeholders and the wider community, and on providing consistent information to land managers. The parties will prepare a joint communication plan to meet this need.



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