

THE DAIRYING AND CLEAN STREAMS ACCORD: SNAPSHOT OF PROGRESS 2009/2010



Dairy for life



Ministry for the
Environment
Manatū Mō Te Taiao



Local Government New Zealand
te pūtahi matakokiri

EXECUTIVE SUMMARY

- The Dairying and Clean Streams Accord remains a key environmental initiative alongside many other projects and strategies that support and improve the dairy industry's social, economic and environmental performance.
- The 2009/10 season produced similar results to the 2008/09 season in achieving two of the five 2007 Accord targets – dairy exclusion from Accord-type waterways, and bridging and culverting regular crossing points. The proportion of dairy farmers with nutrient budgets remains high and the number of councils that have identified and have monitored fencing of their “Regionally Significant Wetlands” continues to increase. Nationally, there was an increase in full compliance of dairy effluent consents but this target remains a concern for the Accord partners.
- Progress has been made towards meeting the Dairying and Clean Streams Accord target for excluding stock from Accord-type waterways. Dairy cattle are excluded from waterways on 85 percent of farms with all regions now having achieved the 2007 target. Four regions have also achieved the 2012 target of 90 percent of waterways protected. Fewer than 2 percent of Accord-type crossings still require bridging or culverts.
- Progress has been made with the Accord target for full compliance with regional council dairy effluent rules and consent conditions. Nationally, the level of full compliance in 2009/10 increased to 65 percent compared to 60 percent in 2008/09. Across the regions, full compliance varied between 39 percent and 96 percent.
- Nationally, the average level of significant non-compliance has remained relatively static at 15 percent in 2008/09 and 16 percent in 2009/10. This level of non-compliance continues to be a focus for the industry, regional councils and territorial authorities. Farmers in Auckland, Hawke's Bay, Wellington, Canterbury and Otago have reduced levels of significant non-compliance from the previous season. Increases in significant non-compliance occurred in the Waikato, Tasman and Marlborough while levels of non-compliance in Northland remain high.
- Fonterra, DairyNZ, councils and other stakeholders have implemented many programmes to support and promote improved effluent compliance.
- Over 99 percent of farmers now have a nutrient budget compared with only one in five at the Accord's outset in 2003. Data on the number of farmers using nutrient management plans is not yet being collected. However, a nutrient budget is a key component of nutrient management plans. Fonterra is collecting data on nutrient management plans for the 2010/11 season.
- Nine of the 13 councils have defined and identified their “Regionally Significant Wetlands”. Of these, two regions have met the 2005 target of 50 percent of these wetlands having been fenced, and one region has achieved the 2007 target of 90 percent of these wetlands having been fenced.



1. PROGRESS AGAINST THE TARGETS

Introduction

The Dairying and Clean Streams Accord is an agreement between the Ministry of Agriculture and Forestry (MAF), Ministry for the Environment, Fonterra and Local Government New Zealand (on behalf of regional councils). Signed in May 2003, the Accord provides a framework for these organisations to work together.

The Accord's aim is to contribute toward clean, healthy freshwater resources including streams, rivers, lakes, groundwater, and wetlands in dairying areas. It remains an important voluntary environmental initiative alongside other projects and strategies that support and improve the dairy industry's social, economic and environmental performance.

The Accord sets out five targets for dairy farmers.

1. Dairy cattle to be excluded from 50 percent of Accord-type¹ streams, rivers and lakes by 2007, rising to 90 percent by 2012.
2. Fifty percent of regular crossing points to have bridges or culverts by 2007, and 90 percent by 2012.
3. All dairy farm effluent discharges to comply with resource consents and regional plans immediately.
4. All dairy farms to have in place systems to manage nutrient inputs and outputs by 2007.

¹ Accord-type waterways are defined as deeper than a red-band gumboot (ankle deep), wider than a stride (1 metre) and permanently flowing.

5. Fifty percent of regionally significant wetlands to be fenced by 2005, rising to 90 percent by 2007.

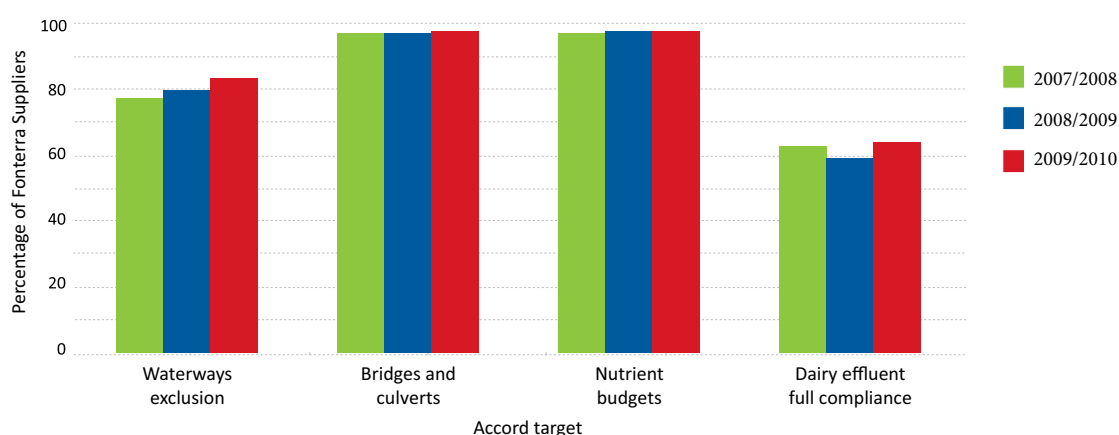
Progress is measured by:

- the results of Fonterra's annual *On-Farm Environmental and Animal Welfare Assessment 2009/10*;
- regional council monitoring of compliance with regional plans and resource consents for dairy effluent disposal. A standardised system for reporting dairy effluent compliance was initiated for the 2007/08 season. This enables more accurate comparisons between the past three seasons and across regions.

Overall progress

The 2009/10 season produced similar results to the 2008/09 season in achieving two of the five 2007 Accord targets – dairy exclusion from Accord-type waterways, and bridging and culverting regular crossing points. The proportion of dairy farmers with nutrient budgets remains high. The numbers of councils that have identified and have monitored fencing of their “Regionally Significant Wetlands” continues to increase. Nationally, full compliance of dairy effluent consents increased but remains a concern for the Accord partners. The changes in the performance of dairy farmers in meeting the Accord targets are shown in Figure 1 and Table 1.

Figure 1: Progress of the Dairying and Clean Streams Accord targets 2007/08–2009/10¹



¹ Progress from 2003/04–2006/07 has been omitted to ensure a more accurate comparison is made between seasons, particularly as a number of adjustments were made in the 2007/08 season including:

- Revising the waterway exclusion target to only include farms that have Accord-type waterways (previously this was based on all farms, including those without Accord waterways).
- A standardised system of reporting dairy effluent compliance between councils to improve the reliability of the data presented and enabling more accurate comparisons between seasons. Prior to 2007/08, different criteria was used between regions for reporting compliance rates.
- The wetland target is not presented in Figure 1 and Table 1 because there is incomplete data, and also the data is only available for the past two seasons so trends are not able to be shown.

1. PROGRESS AGAINST THE TARGETS continued

Stock access to waterways

The *On-Farm Environmental and Animal Welfare Assessment 2009/10* results confirm that 63 percent (5599 farms) of Fonterra's suppliers (excluding the Taranaki region) have waterways that meet the Accord definition. Taranaki suppliers are excluded because information relating to waterways is provided directly by the Taranaki Regional Council through its farm riparian planning programme². This programme differs to the Accord because it imposes riparian fencing and planting requirements on those farmers with riparian plans and covers a wider range of waterways.

The 2007 Accord target of *having dairy cattle excluded from 50 percent of Accord-type streams, rivers and lakes* has been achieved by all regions. Nationally, the proportion of farms with stock excluded from Accord-type waterways increased from 78 percent in 2007/08 to 85 percent (4735 farms) in 2009/10. Four regions – Northland, Canterbury, Otago and Southland – have also achieved the 2012 Accord target of 90 percent exclusion. The continuing steady progress towards total exclusion of Accord waterways from stock access is highlighted in Figure 2.

Waterway crossings

The *On-Farm Environmental and Animal Welfare Assessment 2009/10* recorded 14 945 Accord-type crossings – up from 12 879 crossings last season. Of these, 204 crossings (1.4 percent) still require a bridge or a culvert. The 2012 Accord target of 90 percent

² The task is equal to the total length of the New Zealand coastline (15 000 kilometres) given the high drainage density on the volcanic ring plan around Mt Taranaki. Ninety percent of dairy farms have had a riparian plan prepared by the Council in liaison with the landowner. To date, 1.8 million plants have been sold under the programme, 69 percent of riparian margins are fenced and 57 percent are planted. Fencing and planting continues to increase by about three percent per year.

of regular crossing points to have bridges or culverts has now been exceeded in all regions.

Compliance with regional plan and resource consent requirements

The third Accord target states that *all dairy farm effluent discharge to comply with resource consents and regional plans immediately*. The percentages quoted in this report are based on information provided by regional councils and unitary authorities across New Zealand. The national weighted average is based on Fonterra suppliers.

Regional councils have different policies and rules for dairy effluent and levels of dairying in their regions. This has led to each region having different monitoring regimes. These differences include: not all farms being visited annually; visits being decided based on the previous season's compliance performance; testing of water quality; aerial surveys; and the inclusion of feed pads and stock underpasses. Individual results may reflect these differences and the different conditions of rules and/or resource consents that are in place.

All councils use the same criteria to classify dairy farm effluent compliance. These criteria are:

- **FULL COMPLIANCE:** Those conditions of the rule or resource consent that were monitored were being fully complied with.
- **NON-COMPLIANCE:** Any other non-compliance where a rule or resource consent has not been complied with, but there has been no discharge to water, and a discharge to water is not likely to occur.
- **SIGNIFICANT NON-COMPLIANCE:** A discharge has either entered water, or is likely to enter water, and the discharge is not authorised by a rule or a resource consent. Also, where an abatement notice has been not been complied with.

Table 1: Progress towards Accord targets 2007/08–2009/10

Accord target	2007/08	2008/09	2009/10
Dairy cattle are excluded from streams, rivers and lakes (2007 target: cattle excluded from 50 percent of Accord-type waterways) ^A	78%	80%	85%
Regular race crossing points have bridges or culverts (2007 target: 50 percent of regular crossing points bridged or culverted)	98%	98%	99%
All farms have a system in place to manage nutrient inputs and outputs (2007 target) ^B	98%	99%	99%
Farm dairy effluent is appropriately treated and discharged. (Target: Full compliance with regional council resource consent and/or permitted activity conditions immediately)	64%	60%	65%

A Based on farms with Accord-type waterways – deeper than a red-band gumboot (ankle deep), wider than a stride (1 metre) and permanently flowing.

B These figures represent the percentage of farms with a nutrient budget, which is an important step in the development of a nutrient management system.

Councils meet annually to audit inspection records between councils ensuring that compliance criteria are applied consistently and to identify and share monitoring best practice.

The data shows that full compliance has increased from 60 percent in 2008/09 to 65 percent in 2009/10. Across the country full compliance varied between 39 percent and 96 percent. Figure 3 shows the percentage of farms in each region that were compliant with their dairy effluent resource consents and regional plans. A more detailed regional breakdown showing the changes in compliance levels between 2007/08 and 2009/10 is shown in Table 2.

Eight regions have improved their rates of full compliance from the 2008/09 season. There have been significant improvements in the Wellington and Otago regions. In Wellington, full compliance increased from 72 percent of farms in 2008/09 to 89 percent in 2009/10. Otago has increased full compliance from 75 percent to 95 percent in 2009/10. Taranaki continues to maintain a high level of effluent compliance (96 percent) with their rules. Northland, Waikato, Marlborough³, Canterbury, and Southland have the lowest levels of full compliance ranging between 39 and 59 percent.

3 The decreases in full compliance in Hawke's Bay and Marlborough reflect the move from a 5-grade system to the national guidelines of three grades. Those previously graded "minor non-compliance" are now "non-compliant".

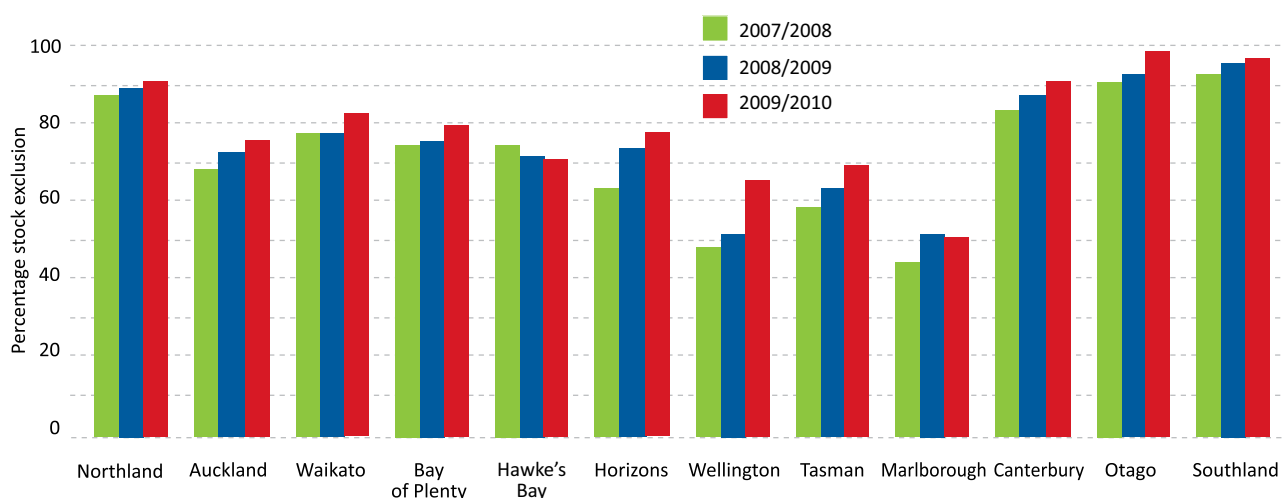
Nationally, the level of significant non-compliance continues to be a concern increasing from 12 percent in 2007/08, 15 percent in 2008/09 and 16 percent in 2009/10. The Accord partners acknowledge that full compliance is a regulatory requirement and this level of dairy effluent non-compliance is unacceptable and remains a major focus of collaborative efforts. Factors leading to significant non-compliance include poor management of effluent systems, for example pond overflows and a lack of storage capacity; inadequate infrastructure to cater for increasing stock numbers; runoff from feed/standoff pads and poor effluent disposal methods onto land.

The increase in significant non-compliance may, in part reflect the impact of the high proportion of dairy herds in the Waikato region (35 percent of Fonterra farms) on the weighted national average. If Waikato had maintained their significant non-compliance at 2008/09 levels, significant non-compliance nationally would have decreased to 13 percent.

Several new initiatives have been established in the Waikato region to improve compliance. The initiatives include:

- Fonterra assessing the risk of failure of effluent infrastructure on all farms in the region every year and working with dairy farmers to prepare effluent improvement plans where these are required;

Figure 2: Percentage of farms with total stock exclusion from Accord waterways, 2007/08—2009/10^{1,2}



1 Data is only based on those farms that have Accord-type waterways.

2 Annual percentage changes for each region are affected by farm sales (that is, an Accord-complying farm is bought and becomes part of a non-complying farm, or vice versa), as well as adoption of Accord farm practices.

1. PROGRESS AGAINST THE TARGETS continued

- DairyNZ sending out a checklist to all farmers reminding them of their obligations and what features of the effluent system farmers should be regularly checking;
- Environment Waikato changing the way it monitors in agreement with the industry;
- the development of an effluent pond storage calculator originally developed by Horizons and adapted for Waikato soil and climatic conditions that enables farmers to calculate appropriate storage.

Of particular note is the reduction in significant non-compliance in the Canterbury region, decreasing from 19 percent in 2008/09 to 8 percent in 2009/10. This is a result of a broad stakeholder approach in achieving sustainable dairying. A joint task force was set up with representatives from DairyNZ, Federated Farmers, NZ Dairies Ltd, Synlait, Fonterra and Environment Canterbury. This task force has implemented initiatives, such as DairyNZ's effluent compliance checklist and the Fonterra "Every Farm Every Year" programme, that are aimed at improving awareness of dairy effluent management and compliance with resource consent requirements. Environment Canterbury has been involved in these initiatives, providing technical support and regional dairying data where appropriate.

There has been a 33 percent decrease in infringement notices⁴ issued to farmers in 2009/10. Nationally the average number of abatement notices has reduced by 10 percent with notable decreases in Northland, Horizons and Canterbury. There were increases in abatement notices in Auckland, Waikato and the Bay of Plenty. Hawkes Bay, Wellington, Tasman, Marlborough, Otago have had zero or low levels of notices sent. The number of prosecutions initiated in the 2009/10 season has remained similar except for notable decreases in the Waikato (10 down to five) and Otago (21 down to 11) regions.

There is no direct correlation between significant non-compliance and the number of prosecutions. Significant non-compliance is broadly defined as a discharge which has either entered water, or where there is a risk effluent may enter water. This can range from one-off ponding events to deliberate discharges. However, the decision on what action to take in response to a significant non-compliance takes into account a wide range of factors, including the significance of the discharge,

⁴ Infringement notices are utilised for situations where an offence requires a penalty, but is not considered serious enough to warrant prosecution. Abatement notices are issued to individuals or parties who have committed an offence against a plan, rule or other legislative requirement.

Table 2: Regional dairy effluent compliance for the 2007/08–2009/10 seasons

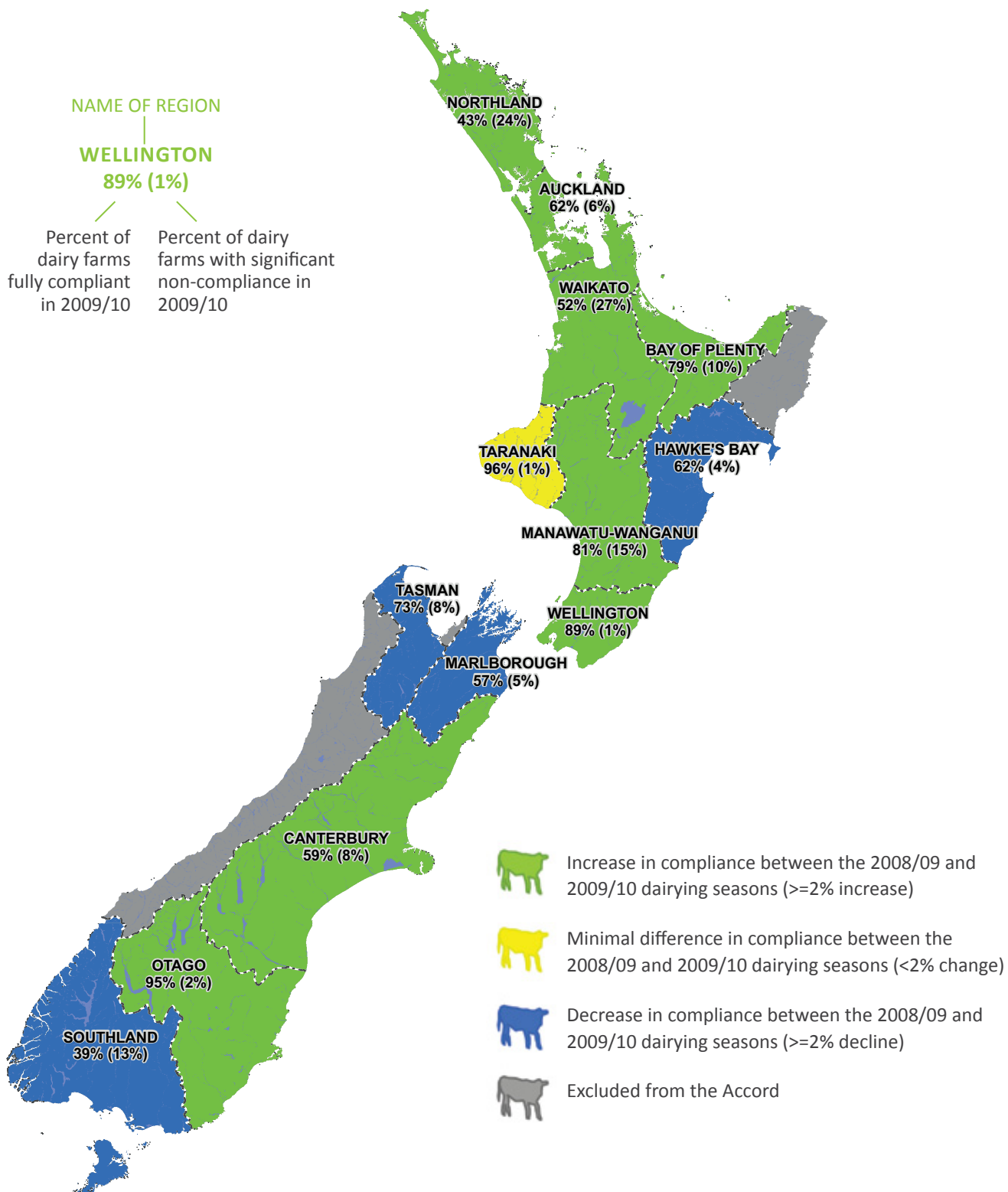
Regional council	Full compliance (%)			Non-compliance (%)			Significant non-compliance (%)			Total farms (Fonterra) ^B	Farms assessed ^C
	2007/08	2008/09	2009/10	2007/08	2008/09	2009/10	2007/08	2008/09	2009/10	2009/10	2009/10
Northland	43	39	43	31	34	33	26	27	24	927	947
Auckland	73	45	62	19	32	32	7	23	6	317	310
Waikato	48	41	52	42	39	21	10	20	27	3749	686
Bay of Plenty	76	73	79	15	18	11	9	9	10	650	364
Taranaki	96	96	96	4	3	3	0.2	0.5	1	1687	1782
Hawke's Bay	74	83	62	16	13	33	11	5	4	85	78
Horizons	78	77	81	0	9	4	22	14	15	830	384
Wellington	53	72	89	19	24	9	28	4	1	180	177
Tasman	93	89	73	5	6	19	2	5	8	138	37
Marlborough	75	88	57	25	10	38	0	2	5	61	60
Canterbury	46	43	59	34	37	33	20	19	8	803	769
Otago	83	75	95	10	20	4	8	5	2	342	389
Southland	65	69	39	22	18	48	13	13	13	758	768
Weighted average^A	64	60	65	25	26	20	12	15	16	10527	6751

A Weighted average is calculated using the Fonterra farm numbers and therefore does not include the Gisborne or West Coast regions.

B Numbers of suppliers in each region provided by Fonterra.

C Farms assessed by regional councils to monitor dairy effluent management compliance.

Figure 3: Dairy farm effluent discharge compliance with resource consent and regional plan requirements during the 2008/2009 and 2009/2010 seasons



1. PROGRESS AGAINST THE TARGETS *continued*

previous history of the parties involved, the degree of effort that has been put into remediation and clean-up, whether the event was one-off or ongoing, whether there had been any prior instructions given, the degree of recklessness or failure to take due care, and whether any profit was made. The lower number of prosecutions is reflective of fewer cases of significant non-compliance where that level of enforcement action was deemed appropriate after considering all of the above factors.

Progress towards meeting this Accord target continues to be challenging. Fonterra, regional councils and unitary authorities and industry organisations such as DairyNZ will work with poorly performing farmers and the wider farming community to improve compliance levels and nutrient management to achieve the Accord's stated environmental objectives. Several of these programmes are outlined in the section called "Areas of Focus".

Nutrient management

Fonterra suppliers have been required to have systems to manage nutrient inputs and outputs since 2007. Nutrient budgets form a key part of this process with data from Fonterra's *On-farm*

Environmental and Animal Welfare Assessment Report 2009/10 indicating that the number of farmers with a nutrient budget has remained at 99 percent.

Fonterra, the fertiliser industry and DairyNZ are continuing to work proactively to ensure these budgets are being used as part of a wider nutrient management system as per the Accord target. This will be delivered by identifying priority catchments with regional councils and reflecting the industry targets as developed under the Primary Sector Water Partnership (PSWP)⁵.

Sector achievements highlighted in the *PSWP Annual Report 2009-2010* (p.4) note that as of September 2010, 28 percent of dairy farms had nutrient management plans (NMPs)⁶. DairyNZ, Fonterra and the fertiliser industry have begun providing nutrient management tools for all dairy farmers and are collating and analysing nutrient budget information from dairy farms across New Zealand to help set benchmarks to improve nutrient use efficiency (see the section in this report called "Areas of Focus" for further information).

Regionally significant wetlands

To date, nine regional councils⁷ have defined and identified their "Regionally Significant Wetlands", of which two⁸ have met the 2005 Accord target of 50 percent of regionally significant wetlands on or bordering dairy farms to be fenced. Taranaki has met the 2007 Accord target of 90 percent of regionally significant wetlands on or bordering dairy farms to be fenced.

This Accord target is difficult to assess because a number of regional councils lack data on how many Regionally Significant Wetlands are fenced.

Interesting Accord facts and figures

The *On-Farm Environmental and Animal Welfare Assessment 2009/10* reveals some interesting facts and figures about the New Zealand dairy industry.

- The number of dairy farms continues to decrease. Since 2003/04 the total number of Fonterra farms has decreased by 13 percent from 12 076 to 10 527 in 2009/10. The trend towards fewer, larger farms is consistent across most of the regions. Small increases in farm numbers since 2008/09 were noted in Northland, Canterbury, Hawke's Bay and Otago. Farm numbers in Southland continue to increase at a greater rate with 100 new dairy farms between 2007/08 and 2009/10 alone.
- Southland in 2009/10 has the highest percentage of farms with waterways (90 percent).
- Northland, Canterbury, Otago and Southland regions have the highest rate of stock exclusion (over 90 percent).

⁵ The Primary Sector Water Partnership is a group of major primary sector organisations that are committed to ensuring the sustainable use of freshwater resources in the primary sector. Its recently released *Annual Report 2009-2010* can be found at <http://www.fonterra.com/wps/wcm/connect/fonterra.com/fonterra.com/Our+Business/Sustainability/Fonterra+Environmental+Publications/>

⁶ A nutrient budget is an annual flow of nutrients within a farm identifying nutrients in and nutrients out. It is a component of a nutrient management plan. A nutrient management plan aims to optimise production and maximise returns from nutrient inputs while avoiding or minimising adverse effects on the environment.

⁷ Northland, Auckland, Bay of Plenty, Waikato, Taranaki, Hawke's Bay, Horizons, Otago and Southland.

⁸ Bay of Plenty and Horizons. Hawke's Bay has no wetlands on or bordering dairy farms.

2. AREAS OF FOCUS

Regional Action Plans implemented

Regional councils and Fonterra continue to implement Regional Action Plans (RAPs) over 2009/10. In general, all RAPs adopt the national level targets, although these can have different target dates or slightly different wording to the national targets. Progress for each region is measured and reported in addition to the national monitoring.

Environmental performance

Councils around the country continue to work with landowners to protect and restore waterways. Examples include the various council riparian planting programmes around the country and the Catchment Care programme administered by Conservation Volunteers New Zealand for Fonterra⁹. These programmes recognise that water quality is influenced by the actions of the whole community in each catchment. They are designed to improve the health of rural waterways with local people, providing advice and support specific.

The Ballance Farm Awards provide a highly successful means for identifying and promoting expected behavior and recognising exemplary performance across the agriculture industry. Fonterra is increasing its support of these programmes.

Effluent compliance

Improving compliance with resource consents and regional plans for dairy farm effluent discharges remains a significant area of concern and a key focus for the Accord partners. Many industry and council led programmes have been implemented to support farmers and continue to raise awareness in this area.

Fonterra's "Effluent Improvement System" (EIS) came into effect in August 2009. In the first year of this system, non-compliant farmers were forwarded correspondence indicating that significant non-compliance would not be tolerated and warning that if the non-compliance continued into the subsequent year, then a deduction from payout would occur. In addition, the Fonterra team of sustainable dairy specialists worked with farmers to produce an effluent improvement plan. Details about the number of suppliers who have had payout deductions imposed on them in the second year of the EIS will be reported in the 2010/11 *Snapshot* report.

A new initiative introduced in August 2010 is the "Every Farm Every Year" independent appraisal of effluent infrastructure. Fonterra is checking every farm's dairy effluent system every year as part of their annual Farm Dairy Assessment. Systems found to be at risk of non-compliance are referred to a sustainable dairy

specialist who then works with the farmer to develop an effluent improvement plan for action and timeframe for implementation. Fonterra has doubled its sustainable dairying specialist team to 10, to support shareholders to achieve compliance.

DairyNZ, supported by others in the industry, has released a Farm Dairy Effluent (FDE) Design Code of Practice and Design Standards. This supports effluent good management practice by ensuring effluent management systems and the advice provided by equipment sales firms and rural professionals, are fit for purpose.

DairyNZ and Fonterra are engaging with regional councils in key dairying regions to establish a "warrant of fitness" approach to effluent management systems. This approach will focus on the design specifications of the effluent management infrastructure that are likely to satisfy regional council requirements in each location.

Individual regional councils also have a range of programmes to help reduce the rate of non-compliance. Some of the examples include the following.

- Collaborative approaches with regular meetings between councils, dairy companies, DairyNZ, Federated Farmers and other key stakeholders to plan monitoring, advisory and compliance activities.
- Horizon's working with farmers to achieve best practice through the work of two recently appointed rural advisors. It was also noted in 2009/10 that there was less technical/administrative non-compliance. Most farmers now have varied their resource consents to accurately reflect their farm practice, that is, cow numbers, addition of feed pads and updated effluent systems.



- Environment Bay of Plenty has developed very good relationships with both Fonterra and with DairyNZ, particularly as a result of work in the Rotorua lakes area. Tools have been developed, in conjunction with Federated Farmers, to assist farmers in being able to achieve compliance. A very successful compliance day was held with Fonterra, DairyNZ, QCONZ and regional council staff ensuring that consistent language was used when out on farms.
- Environment Southland has a dairy farmer-funded staff member dedicated to assisting farmers to set up systems that work and to assist when they have a problem with effluent management on their properties.
- Taranaki Regional Council has initiated the Farm Dairy Discharge Monitoring Programme. The programme is the largest compliance monitoring programme undertaken by the Council. The programme is associated with water quality management which remains a significant resource management issue for the region.
- Greater Wellington is formalising its Dairy Compliance Strategy. This strategy will specify targets and specific areas/catchments that may require further attention in the future. It will also look at consent conditions for catchments with poor water quality.

- In Otago, increased full compliance rates may be attributed to greater farmer awareness of the Otago Regional Council's enforcement regime. Council staff have noted that many farms have significantly improved their effluent management infrastructure by installing effluent storage and fully-automated effluent control and monitoring systems and upgrading irrigation systems.
- The Agriculture Industry Training Organisation is providing an effluent management module for the second year. The module provides dairy farm trainees with proper instruction in the use of effluent systems and good management practice for effluent application.

Nutrient management

Nutrient management remains a priority for the dairy industry. The nutrient management modelling tool OVERSEER® continues to be the main tool for developing a nutrient budget and the basis of a more comprehensive system of nutrient management. OVERSEER® is used extensively by the fertiliser industry, regional councils and rural professionals.

MAF, AgResearch and FertResearch, as the owners of the model, continue to invest in improving the value and efficacy of OVERSEER®. The Massey University nutrient management course continues to train people capable of assisting dairy farmers to make use of OVERSEER®.

OVERSEER® Version 6 will include new and changed farming practices, updated underlying science, integrated cropping and fruit models, will allow for different stock and effluent management techniques, and have a new interface which will allow for easier integration with other farming models. Version 6 is due to be released in mid-2011.

A total of \$1.25 million was invested in an ongoing project to evaluate the performance of nitrification inhibitors as part of a three year \$10 million programme. This project also includes a review of the nitrification inhibitor component of OVERSEER®. Investors in this project include FertResearch, Fonterra, DairyNZ and MAF (*PSWP Annual Report 2009-2010*, p.6).

Dairy farmers are also providing direct leadership in response to local and regional issues. Examples include the collaborative system improvement response of dairy farmers in the Aorere Valley of Golden Bay in response to concerns about the effects of contaminants on adjacent aquaculture ventures and the catchment club approach adopted by Rotorua dairy farmers.



3. LOOKING TO THE FUTURE

Stock exclusion survey

MAF is initiating a nation-wide survey to determine the percentage of stock exclusion from streams. The survey will involve a visual assessment of all Accord-type waterways on a farm and the presence and state of fences. Dairy farms from each Accord region will be randomly selected.

Primary Growth Partnership

The Primary Growth Partnership (PGP) is a government-industry initiative that will invest in research and innovation to boost the economic growth and sustainability of New Zealand's primary, forestry and food sectors. The scheme will boost productivity through investment in innovation and delivering long-term economic growth and sustainability across the primary sectors, from producer to the consumer.

DairyNZ (representing all New Zealand dairy farmers) and Fonterra are leading a PGP programme aimed at transforming the dairy value chain through investment in new people, capability and knowledge. The partnership funding totals \$170 million for the next seven years, with PGP contributing \$84.6 million. As well as improving environmental performance, the funding will support on-farm innovation, facilitate behaviour change and enhance off-farm outputs. The new research will boost on-farm productivity, enable farmers to reduce the environmental footprint of dairying and increase the efficiency of resource use on-farm.

Further information can be found at www.maf.govt.nz.

Land and Water Forum

In June 2009 the Government agreed to a new direction for freshwater management policy in New Zealand – the New Start for Fresh Water Programme – to establish a fairer and more efficient water management system. One of the initiatives to deliver this new direction is building a shared understanding, developed through a stakeholder-led collaborative process, of potential options to achieve outcomes and goals for New Zealand's water management.

The Land and Water Forum (the Forum) is one of the initiatives resulting from this programme. The Forum released its report¹⁰ in September 2010. The report sets out a package of high-level directions, 53 recommendations and a framework for moving water management forward. This is the result of a collaborative process involving a wide range of organisations and viewpoints on water and soil management in New Zealand.

The Forum process and the subsequent report is one of three key components of the New Start for Fresh Water Programme. The remaining two parts are engagement with the Iwi Leaders Group and the officials work programme. The Government will make long-term policy decisions around freshwater management informed by these three components.

¹⁰ Land and Water Forum (2010). *Report of the Land and Water Forum: A Fresh Start for Fresh Water*; www.landandwater.org.nz



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