



**MARLBOROUGH  
DISTRICT COUNCIL**

# **Dairyshed Effluent and Stream Crossing Survey 2014/2015**

**Technical Report No: 15-003  
May 2015**





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## Executive Summary

Marlborough District Council (Council) has monitored dairy farms in Marlborough since 1994. The dairy sector in Marlborough is relatively small, consisting of 58 farms with a combined herd size of approximately 17,300 cows. Please note that at the time of this dairy survey only 56 properties were actively operating as dairy farms. Council has been working alongside the dairy industry to improve environmental performance in Marlborough for some time.

During the 2014/15 milking season, the dairy effluent systems on all operating dairy farms in Marlborough were inspected by Council to check compliance with the plan rules or resource consents. Council also inspected the sites where cows continue to walk through waterways on some farms, to monitor the progress made toward eliminating the use of these waterways by dairy herds.

This report summarises the findings of the 2014/2015 Marlborough Dairyshed Effluent Survey. The purpose of the Dairyshed Effluent Survey is:

- To prevent contamination of groundwater and waterways and the degradation of soil by promoting best practice dairy effluent management
- To gain information on the level of dairyshed effluent compliance in Marlborough
- To ensure compliance with plan rules or resource consent conditions regarding dairy effluent
- To work with farmers who are non-compliant and to information about dairy effluent systems and their management.



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# 1. Introduction

This report summarises the findings of the 2014/2015 Dairyshed Effluent and Stream Crossing Survey. Council inspects the dairy farms to check compliance with plan rules for dairy effluent or relevant resource consents. In the Marlborough Sounds Resource Management Plan (MSRMP) area 40 dairy farms were checked against the permitted activity plan rules and in the Wairau/Awatere Resource Management Plan area 16 farms were checked against their respective resource consent for dairy effluent discharge.

When carrying out the dairyshed effluent inspections, Council also checks any relating components to the dairying activity which may not be specifically included in the resource consent/permitted activity rules which may have potential to result in environmental effects. This can include, for example, raceway entrances to dairy sheds and silage pits.

The Stream Crossing Survey was started in 2002 to identify the places where dairy cows walk through waterways on farms, these are required to be eliminated from use. The identified sites where dairy cows continue to walk through waterways on the farms are monitored for progress made towards excluding stock through culverts, bridges or fencing. There has been a large reduction in the number of waterways used for dairy cow crossings since 2002 but total exclusion has not yet been met.

## 1.1. Dairy Effluent Management Nationally

Reporting rates of dairy effluent compliance has varied dramatically between different regions in the past. As a result of this the majority of regional councils undertook a review of dairy effluent compliance reporting in 2007. A national criteria for categorising dairy effluent compliance for reporting purposes of dairy effluent statistics has been created and it is expected that all regional councils should be using this criteria.

The dairy effluent monitoring changes have achieved national consistency with all regional councils on how compliance grades are assigned to dairy farm effluent systems. Dairy files are audited every two years to provide independent feedback to each Council on its dairy effluent compliance assessment. The Marlborough District Council will continue to annually inspect all dairy farms using the dairy effluent compliance assessment criteria set out below.

The three categories that may be assigned are:

1. Compliance (C)
2. Non-compliance (NC)
3. Significant non-compliance (SNC)

For a system to be assessed as compliant, the compliance officer did not observe any issues of non-compliance at the time of the inspection.

The criteria for assessing a non-compliant classification is that a breach of consent condition or permitted activity rule has occurred but corrective or remedial actions can be undertaken to become compliant.

The criteria for assigning a significantly non-compliant classification are described as follows:

- Continuous non-compliance
- Unauthorised discharges that may enter water (ground or surface water);
- Unauthorised discharges that have entered water (ground or surface water);

- System inadequacies;
- Multiple non-compliances on site with cumulative effects and
- Breach of an abatement notice;

## 1.2. Dairy Effluent Management in Marlborough 2014/2015

The 2014/2015 Dairy Effluent Survey has continued to use the 'traffic light system' to indicate compliance status against plan rules and resource consent conditions where **green** indicates compliance; **amber** indicates environmental non-compliance where corrective or remedial action(s) is required and a time frame for completion has been set, and **red** indicates significant non-compliance.

If a farmer received a non-compliance rating, tasks labelled as 'Action Required' were provided in the compliance report. These are designed to assist farmers by highlighting what parts of their dairy effluent system can be modified or better managed in order to achieve a compliance rating when re-inspected.

**Appendix A** shows an example of a Compliance Report that a farmer received.

A major change for the dairy effluent survey for 2014/15 was to carry out inspections without prior notification or organising a time to meet on site. This 'cold calling' method was adopted so that Marlborough District Council was in line with other regional councils throughout New Zealand. On arrival to the farm, the compliance officer would attempt to find a staff member to alert them to being on the property and to discuss the effluent system.

Once again, the strategy for this survey was to firstly inspect farms with little or no storage, farms that had older systems with short comings and needed upgrading and farms that were rated non-compliant in the previous season.

**Appendix B** outlines a Compliance Officer's approach on each farm visit.

## 1.3. Washdown Collection, Containment and Application Systems

Most dairy farms in Marlborough have effluent collection systems which consist of of a solid separator such as a stone trap, weeping wall or mechanical separator, and a sump and/or a storage facility.

The MSRMP specifies that these systems cannot be within 20 metres of a surface water body or the boundary of a neighbouring property. Marlborough has nine farms which have their collection and containment systems too close to a surface water body. These farmers have been asked to investigate options for upgrading their collection system to be more than 20 metres from a surface water body. Alternatively, some farmers have applied for and been granted resource consent to allow systems to remain in the current state until November 2016. This allows time for planning and resources to be implemented for moving the systems away from any waterbody.

Six farmers with systems too close to waterways which do not have resource consent to retain these systems in the current locations have been rated as significantly non-compliant. Further enforcement action may be required if no changes are made.

### Effluent Storage

Effluent storage has been a major focus for this year's dairy effluent survey. The importance of having a reliable contingency plan for use during adverse climatic conditions or system failure, as required by the MSRMP, has been regularly discussed with dairy farmers during inspections and through post inspection correspondence. It has been a recurring issue that the effluent storage is often compromised due to

ponds being full, solids build-up and/or vegetation not being removed. Effluent storage needs to be of suitable size and well managed to ensure that it can act as a reliable contingency to avoid spreading effluent to land when soils are saturated. Dairy effluent can be a valuable asset when utilised by spreading to land in suitable soil conditions.

Marlborough still has 10 farms that have no contingency measures in place for system failures and/or heavy rainfall events. The current plan rules do not outline how much storage is required. There are many variables to be considered when calculating how much effluent storage is needed, however the pond calculator method is widely used as a tool to measure this.

A plan change requiring resource consent for new conversions to dairying came into effect on 25 April 2013. The scale and intensity of dairy farming has changed over time and the plan change enables Council to stipulate that the farmer must install a sealed effluent storage system, which is accepted current best practice. One farmer has started operating their dairy farm this season following the granting of resource consent through the dairy conversion process.

## Application to land

Dairy shed effluent provides fertiliser savings and improved pasture production for dairy farmers when efficiently applied to land as it contains nitrogen (N), phosphorus (P) and potassium (K). Dairy effluent also contains high levels of organic matter, which can improve soil condition, and faecal bacteria. Any potentially negative environmental effects from faecal bacteria, nutrient loads and organic material are limited if dairy shed effluent is efficiently applied to land when conditions are suitable as required by the relevant plan rules and resource consent conditions.

Throughout the 56 farms inspected, farmers use a range of effluent application methods including K-line, irrigation lines, travelling irrigators and effluent carts.

The MSRMP permitted activity rules and the consent conditions for individual dairy effluent discharges are designed to ensure that environmental effects are less than minor, as required by the Resource Management Act 1991. In order to effectively discharge effluent to land, some simple methods that farmers need to have include;

- having a large enough disposal area for their dairy operation (a recommendation of at least 5ha/100cows has been made for Marlborough),
- low application rates and
- storage to prevent discharge during adverse weather and soil conditions.

The application of dairy shed effluent to land requires close management and some systems are more labour intensive than others. Non-compliance with dairy effluent plan rules and consent conditions can cause significant adverse environmental effects and must be dealt with appropriately.

In the 2014/2015 survey there was an improvement in the application of dairy effluent to land compared with the previous survey. Two farms were rated non-compliant (red) due to ponding of effluent on land. A small number of farmers were requested to demonstrate to Council that their nitrogen loading is not exceeding the permitted limit of 200kg/ha/yr following concern that the discharge area is not large enough.

When dairy effluent is over-applied and allowed to cause ponding in paddocks, soil moisture levels are elevated and a moist nutrient rich environment is created which may allow faecal bacteria to grow. Pasture production can be hindered as the root zone can no longer utilise the effluent as soil saturation may result in dairy effluent moving below the root zone where it can potentially reach and contaminate groundwater and eventually impact of surface waterbody water quality.

## 1.4. Summary of Compliance Ratings 2011/12 – 2013/14

	2011/2012 Percentage	2012/2013 Percentage	2013/2014 Percentage	2014/2015 Percentage	2014/2015 Follow up Percentage
<b>Full Compliance</b>	70%	84%	80%	70%	77%
<b>Non-Compliance</b>	27%	14%	18%	16%	9%
<b>Significant Non-Compliance</b>	3%	2%	2%	14 %	<i>To be determined</i>

The table above shows the compliance ratings for the 2014/15 dairy effluent season compared with the three previous survey results.

Non-compliance reduced in the 2014/15 survey compared with the previous survey however the percentage of dairy farms receiving a significant non-compliance rating has increased substantially. Those farms that received a non-compliance rating was due to compromised storage resulting in no contingency, concerns that the nitrogen loading was exceeding the limit or other consent conditions not being completed. Those farms that received a significant non-compliance rating was due to continuous non-compliance with no change from previous surveys, discharge of effluent to land causing ponding or due to their effluent collection and containment area being located within 20m of a waterway without resource consent.

It is also interesting to note that the percentage of farms operating under permitted activity status that were non-compliant or significant non-compliant following the first inspection was approximately 32% while the percentage of those that were non-compliant or significant non-compliant against their resource consent was approximately 19%.

For all non-compliant dairy farmers, a follow up inspection can be arranged or requested information can be provided to Council. This has reduced the non-compliance rating for 2014/2015 from 16% to 9%.

Council is actively addressing the significant non-compliance through follow up visits and correspondence with the dairy farmers particularly during the winter season when farm maintenance is more practical.

### Dairy Effluent issues noted from the 2014/2015 dairy survey-

- Ongoing issues that were highlighted to many farmers in the 2013/14 survey have continued to occur in this survey. Those that had been rated as non-compliant (amber) in 2013/14 and have not made any changes to the effluent system and/or management have been rated significant non-compliant to reflect this.
- The main issues for those dairy effluent systems rated as non-compliant (amber) was due to a lack of a contingency plan or a disposal area that was too small for the size of the dairy operation.

- Storage systems on some farms were compromised which caused a discharge of effluent to land.
- Poor management of effluent systems including the application to land.

There are currently very few dairy farms in Marlborough that have dairyshed effluent systems that meet current industry best practice standards. Many dairy farmers are reluctant to voluntarily make changes to their current effluent collection, containment and application systems. It also appears that some dairy farms have had very little change to the dairyshed effluent system since the survey began in 1994 while environmental standards and best practice have continued to move forward. It is envisioned that the plan changes to the permitted activity rules for dairy shed effluent may drive those farms that have not yet upgraded the dairy effluent system to do so.

#### **Progress seen during the 2014/2015 dairy survey –**

- One farmer has installed an above ground effluent storage tank as part of their new dairy farm resource consent;
- One farmer has installed a new effluent collection system and extended their disposal area
- Two farmers have installed mechanical solid separators
- Several farmers have extended their effluent dispersal area
- Several farmers have indicated that changes and upgrades to their systems will be taking place once the new dairy effluent rules have been notified and have engaged Fonterra's Sustainable Dairying Advisor for direction.

Council and the dairy industry are continually working with dairy farmers in Marlborough to progress dairyshed effluent infrastructure and management of the system to best practice standards. This is to achieve environmental standards that reduce risk of farm pollutants adversely affecting waterways and coastal areas in Marlborough.

### **1.5. Stream Crossings 2014/2015**

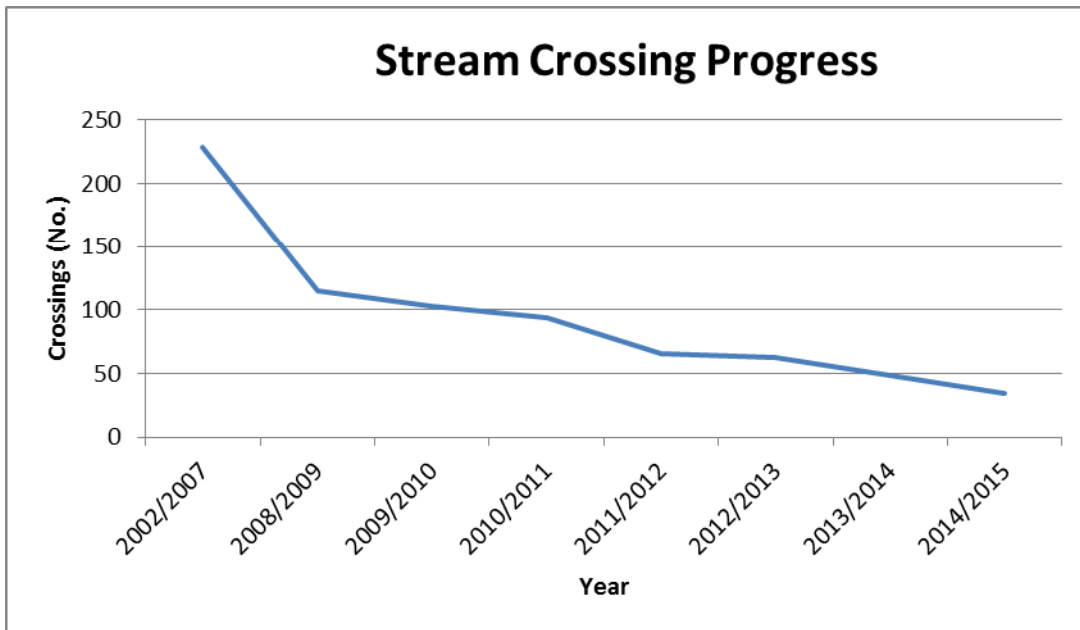
A stream crossing survey is completed in conjunction with annual dairy effluent survey. The purpose of the stream crossing survey is to improve water quality in Marlborough's waterways and to achieve this Council required the elimination of all places where cows walk through waterways. The stream crossing survey was first established in 2002 which identified crossing locations on all operating dairy farms in Marlborough.

During the effluent inspection, any remaining stream crossings are checked to see if they are still in use. Crossings are eliminated through the installation of bridges and culverts or by altering access routes and raceways. The findings of the original stream crossing survey and the progress that the farmers have made to install culverts or bridges, is included in **Appendix C**. The total number of stream crossings has significantly reduced in the Marlborough Region since 2002 from 229 to 34 in 2015.

The dairy industry is proactive in regards to initiatives to remove stock crossings through waterways. Both DairyNZ and Fonterra promote elimination of stream crossings particularly as part of the 'Sustainable Dairying: Water Accord'.

It was initially envisioned that all stream crossings would have been eliminated and fencing completed by the end of December 2013. However, the dairy survey findings for 2014/2015 established there are still 34 stream crossings remaining.

The remaining 34 stream crossings are on 13 farms (1 of which has 11 crossings not eliminated), 2 are high priority stream crossings and 32 are low priority stream crossings. Timeframes for elimination of the remaining stream crossings have been outlined for the dairy farmers concerned, if no changes have occurred by the 2015/2016 dairy effluent survey, further enforcement action may be required. Resource consent applications to eliminate the 2 high priority crossings have been received by Council following enforcement action.



**Appendix C** Shows the stream crossing sites in Marlborough from the first survey until the 2012/2013 dairy season.

## 2. Conclusion

In 2014/15 Council undertook site inspections at all 56 operating dairy farms. The purpose of the inspections was to check compliance with the permitted activity standards of the MSRMP or the dairy effluent discharge resource consents.

This survey has found that many dairy farmers who have previously been rated as non-compliant (amber) have not made the required changes to their dairy effluent system or management of the system and continue to be non-compliant. These farms, and others, have been escalated to significant non-compliance (red) and Council continue to actively address the issues of non-compliance in order to achieve compliance for the 2015/16 dairy season.

Farms which were rated as non-compliance (amber) lacked a reliable contingency plan due to the effluent storage being full while other properties need to increase the area of land that effluent is discharged to ensure that the nitrogen loading is not more than 200kg/ha/yr in the disposal area.


There has not been a lot of change between the 2013/14 and 2014/15 dairy surveys in regards to the elimination of places where cows walk through waterways. After significant reductions in Marlborough, those remaining farms with stream crossings to eliminate are reluctant and slow to undertake the required work when enforcement action has not been undertaken. Timeframes for the elimination of the final

stream crossings have been provided and further enforcement action may be required if no changes are made.

Some farms have begun to make incremental changes to their effluent systems during the 2014/15 dairy effluent survey and it is envisioned that this will increase in momentum when Council's requirements for dairy effluent systems are clarified through the public notification of the new plan rules.

Council continues to monitor dairy effluent operations to current plan standards or conditions of consent as applicable with a focus on resolving breaches through a graduated response process.

## Appendix A - Example

<b>I C Cows – 13/1/1/-</b>		
Inspection:	03/02/2015 00:00a.m.	
Plan:	MSRMP – Plan Rules	
Number of Cows:	175	
Disposal Area:	7 hectares	
Method of Irrigation:	Travelling Irrigator	
<b>Dairy Plan Rules Assessment - Rule 36.1.7.3</b>		
(a)	The discharge shall not be within 20 metres of a surface water body or over any unconfined aquifer; <i>Discharge had been applied to land within 20 metres of a water body. The travelling irrigator unit was positioned too close to a waterway. Application had been applied too thickly.</i>	
(b)	There shall be no run-off of contaminants into surface water resulting from the discharge of the contaminant onto or into land; <i>No run-off noted on the site inspection. The travelling irrigator was within 20 metres of a waterway, however there was no run off into this waterway.</i>	
(c)	The total nitrogen loading on the area to be used for discharging shall not exceed 200 kg N/ha/yr; <i>The effluent from 160 cows is spread over 7 hectares. During this site visit effluent application to land by irrigator was being applied too thickly in some areas.</i>	
(d)	When discharging effluent a buffer zone of a minimum 10 metres in width is to be maintained between the area of discharge and any property boundary; <i>No discharge within 10 metres of property boundaries.</i>	
(e)	The wash water collection, containment and application system shall not be within 20 metres of the boundary of any neighbouring property without that person's prior written consent, a copy of which shall be forwarded to the Marlborough District Council; <i>Council has given permission for the location of the cowshed within 20 metres of the boundary.</i>	
(f)	The wash water collection and containment system shall not be within 20 metres of any surface water body; <i>The old pond next to the stone trap has been decommissioned and a new pond constructed. However, during this site visit there was evidence of a recent effluent discharge to land in this area which is within 20 metres of a surface water body. There are concerns the pond is not being used correctly when storage is needed.</i>	
(g)	The wash water collection, containment and application system shall not be within 20 metres of any area identified by Tangata Whenua as being of special value, or any filed archaeological site; <i>Tangata Whenua and archaeological sites were discussed with the farmer who advised that there are no special value sites on the farm.</i>	
(h)	There shall be no spray drift beyond the boundary of the land to which the effluent is discharged; <i>No spray drift noted on the site inspection.</i>	
(i)	No objectionable odours shall be able to be detected at or beyond the legal boundary of the land to which the effluent is discharged; <i>No objectionable odour noted on the site inspection.</i>	
(j)	There shall be contingency measures in place to ensure that there is no contravention of the above conditions in the event of system failure or adverse climatic conditions; <i>One pond for contingency measures estimated total capacity 23x11</i>	
<b>Stream Crossing</b>		
Stream Crossings:	Surveyed 2003	
Survey Found:	7 sites where cows walk through waterways. 1 bridge and 3 culverts installed.	
Current Situation:	There are 3 low priority crossings remaining. These crossings and fencing of	



	waterways should have been eliminated by 1 December 2013.
<b>Overall Comment</b>	There is no change to the three remaining stream crossings. A new pond was installed and is now more than 20 metres away from a waterway however the pond is used infrequently. It appears that effluent has overflowed into the nearby old pond area from the stone trap. No actions required below have been undertaken since the last dairy inspection.
<b>Action Required to be Undertaken</b>	<p>Things that need to be addressed:</p> <ul style="list-style-type: none"> <li>• Prevent effluent from being discharged through the overflow pipe in the stone trap immediately.</li> <li>• Use the pond for effluent storage during times of heavy rainfall or during mechanical failure. It appears that the seal of the pond has been compromised by vegetation. The lining of this pond needs to be investigated to confirm its integrity.</li> <li>• Bund the bridge located beside the cowshed to prevent effluent discharging into the waterway immediately.</li> <li>• Efficiently spread effluent to receiving land that has recently been grazed so that nutrients are taken up by the soil. Care needs to be taken to prevent thick applications and ponding occurring. Care also needs to be taken to discharge to land well away from nearby waterways. Thought needs to be given to more efficient or low application ways of discharging effluent to land.</li> </ul> <p>New actions required to be undertaken:</p> <ul style="list-style-type: none"> <li>• Alternatively install a sump next to the stone trap / like a second stage stone trap to collect solids and pump effluent to the pond. This needs to be undertaken before next milking season 2015/2016.</li> <li>• Do not use the makeshift stormwater diversion during the milking season. Only use this stormwater diversion during winter until a new system is installed.</li> </ul>

## Appendix B

### A Compliance approach on each farm visit:

Pre inspection letters were sent to all farmers in November to advise farmers that the survey was about to commence and to highlight areas of particular concern that Council will be looking at. The letter also informed Dairy Farmers that Council had adopted the national dairy auditing guideline which required cold calling instead of booking appointments. If the farmer was concerned about this, they could contact Council. A programme of two days a week in the field was designed, leaving three days for preparation of inspection and completing file notes and follow up compliance reports and post inspection letters.

- Equipment consists of camera and GPS, Council vehicle with the water sampling kit, paper work with site inspection form for general notes, report card form (listing permitted activities or resource consent conditions), post inspection letter and stream crossing forms in case any remaining sites where cows walk through waterways have been eliminated.
- Review previous year's inspection results to check history and compliance rating in previous seasons.
- During the site visit stone traps, sumps and effluent ponds are inspected and photographed. All solid and liquid waste from the washwater collection and containment systems must be contained within the system or are being irrigated in accordance with the plan rules or resource consent. Walk over the most recently irrigated part of the disposal field.
- If stream crossings have not been recorded as eliminated, these are checked for progress.
- Following inspections, farmer's inspection sheets, report cards, post inspection letters and stream crossing updates are completed.

- All farmers receive a post inspection letter and their report card indicating the compliance rating of their farm.

**Please note:** In terms of the national standards the compliance rating is only from the washwater collection and containment system. If there is a discharge from other sources (i.e. Cow crossing on roads) then these must be assessed and controlled but in terms of recording compliance for dairy effluent audit they do not affect the rating of the farm.

***Detected Non-Compliance during Inspection***

If any non-compliance is detected, investigation and follow up action is taken as required.

If the non-compliance issue can be fixed, the farmer is asked to fix it straight away, for example, if there was overloading of effluent to the disposal field the farmer needs to turn off the discharge or move the effluent dispersal equipment.

If the farmer requires time to resolve the non-compliance issue, a follow up inspection may be required.

Any significant non-compliance is actively addressed with the dairy farmer, if this is not possible then further enforcement action can be undertaken.

**Note:** that compliance is only what was noted on the site inspection, Council can only say that the farm complied or did not comply at the time and date that the inspection was undertaken. Council staff also rely on information the farmer provides.



**Compliant**



**Non- Compliant**

## Appendix C

The table below shows the stream crossing sites in Marlborough from the first survey to the 2013/2014 dairy season. On the initial survey Council categorised the crossings into high and low priorities. The crossings sites were prioritised by frequency of use, number of cows, size and type of waterway and whether the waterway was permanent or ephemeral.

### Stream Crossings in Marlborough

<b>Stream Crossings (SC) at First Stream Crossings Survey 2002 to 2007</b>				
	Number of Farms with SC	Number of High Priority SC	Number of Low Priority SC	Total Crossings
<b>Rai Valley</b>	27	43	69	112
<b>Pelorus</b>	12	12	25	37
<b>Tuamarina</b>	9	15	29	44
<b>Linkwater</b>	7	12	5	17
<b>Havelock</b>	7	9	5	14
<b>Wider Marlborough</b>	9	2	3	5
<b>Total</b>	71	93	136	229
<b>Stream Crossings (SC) at 2008/09 Dairy Season</b>				
	Farms with SC	High Priority SC	Low Priority SC	Total
<b>Rai Valley</b>	9	9	27	36
<b>Pelorus</b>	7	2	13	15
<b>Tuamarina</b>	8	10	22	32
<b>Linkwater</b>	6	10	4	15
<b>Havelock</b>	6	7	6	13
<b>Wider Marlborough</b>	1	2	3	5
<b>Total</b>	37	40	75	115
<b>Stream Crossings (SC) at 2009/10 Dairy Season</b>				
	Farms with SC	High Priority SC	Low Priority SC	Total
<b>Rai Valley</b>	9	9	30*	39
<b>Pelorus</b>	5	0	9	9
<b>Tuamarina</b>	8	9	22	31
<b>Linkwater</b>	5	6	2	8
<b>Havelock</b>	6	6	6	12
<b>Wider Marlborough</b>	1	1	3	4
<b>Total</b>	34	31	72	103

<b>Stream Crossings (SC) at 2010/11 Dairy Season</b>				
	Farms with SC	High Priority SC	Low Priority SC	Total
<b>Rai Valley</b>	9	6	28	34
<b>Pelorus</b>	3	0	6	6
<b>Tuamarina</b>	8	3	22	25
<b>Linkwater</b>	3	3	1	4
<b>Havelock</b>	6	6	7	13
<b>Wider Marlborough</b>	3	3	9	12
<b>Total</b>	32	21	73	94

<b>Stream Crossings (SC) at 2011/12 Dairy Season</b>				
	Farms with SC	High Priority SC	Low Priority SC	Total
<b>Rai Valley</b>	5	4	18	22
<b>Pelorus</b>	3	0	6	6
<b>Tuamarina</b>	8	3	19	22
<b>Linkwater</b>	2	1	2	3
<b>Havelock</b>	3	0	5	5
<b>Wider Marlborough</b>	2	2	6	8
<b>Total</b>	25	10	56	66

<b>Stream Crossings (SC) at 2012/13 Dairy Season</b>				
	Farms with SC	High Priority SC	Low Priority SC	Total
<b>Rai Valley</b>	6	1	20	21
<b>Pelorus</b>	4	0	5	5
<b>Tuamarina</b>	5	2	19	21
<b>Linkwater</b>	2	1	1	2
<b>Havelock</b>	2	1	3	4
<b>Wider Marlborough</b>	3	2	8	10
<b>Total</b>	22	7	56	63

<b>Stream Crossings (SC) at 2013/14 Dairy Season</b>				
	Farms with SC	High Priority SC	Low Priority SC	Total
<b>Rai Valley</b>	6	1	20	21
<b>Pelorus</b>	2	0	3	3
<b>Tuamarina</b>	4	0	11	11
<b>Linkwater</b>	3	1	2	3
<b>Havelock</b>	1	0	2	2
<b>Wider Marlborough</b>	2	2	7	9
<b>Total</b>	18	4	45	49

<b>Stream Crossings (SC) at 2014/15 Dairy Season</b>				
	Farms with SC	High Priority SC	Low Priority SC	Total
<b>Rai Valley</b>	5	1	16	17
<b>Pelorus</b>	1	0	2	2
<b>Tuamarina</b>	4	0	11	11
<b>Linkwater</b>	0	0	0	0
<b>Havelock</b>	1	0	1	1
<b>Wider Marlborough</b>	2	1	2	3
<b>Total</b>	18	2	32	34