

DairyNZ Sustainable Milk Plan

Contact Person(s):	Doug Dibley - Demonstration Manager	Farm Name:	Owl Farm	Plan Writer:	Mike Bramley DairyNZ
Physical Address:	St. Peter's School, 1716 Cambridge Road, Cambridge	Ownership type:	Owner Operator	Date:	16-Feb-17
Email Address:	doug@owlfarm.nz	Supply Number:	72847	Region:	Waipa River

Farm Identifiers, Location, & Key Statistics:

Title Legal Description:	0	(ha):	0.00	District/Zone:	Waikato main stem		
Additional Title:	0	(ha):	0.00	Catchment:	Central Waikato Catchment		
Additional Title:	0	(ha):	0.00	Climate Site:	Owl farm climate station		
Total Effective Area (ha):	150.00	Total Farm Area (ha):	170.00	Peak Herd Size:	443	Stock Rate:	2.88

Major environmental risks identified for this farm:

These environmental risks shall be managed through practices and actions identified in this plan.

Some high risk areas on the bottom terrace where heavy soils and surface springs make winter and spring management without pugging and potential runoff difficult

The silage pit area and organic recycling area are potential risks

Nitrogen loss could be an issue depending on potential rule changes

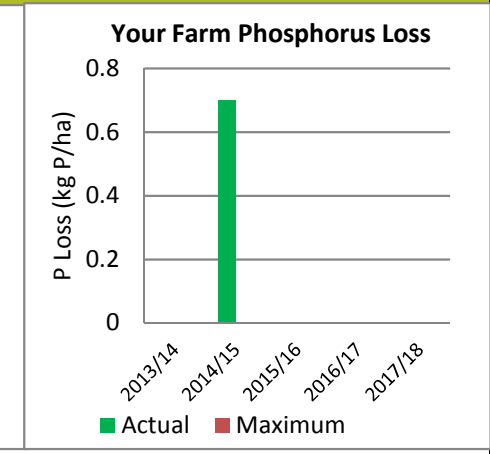
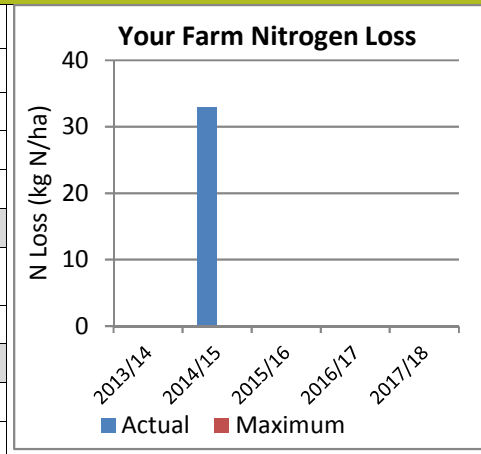
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Resource Consents Held:

Farming land use:	
Effluent:	
Ground Water Take:	0
Surface Water Take:	0
Human Sewage:	
Other:	

Nutrient Management Indicators:

Date of last NB:	01/07/2016	
NB created by:	Fonterra, Ballance and Doug have all	
Overseer Version:	6.2	
Catchment Average N Loss:	0	
Overseer Version:	0	
Nitrogen Leached:	Actual	Max
2014/15 (kg N/ha):	42	0
2015/16 (kg N/ha):	43	0
Phosphorus	Actual	Max
2014/15 (kg P/ha):	0.7	0
2015/16 (kg P/ha):	0	0



Effluent System Indicators:

Application Area (ha):	44	Consented:	
Kg effluent-N/ha/yr applied:	69	Consented:	0
Storage Volume (m³):	3,000	Consented:	
Storage Lining Material:	0		

Comments: 0

Summary of management areas within this farm:

Irrigation System Summary:						Soil & Topography Summary:						
Irrigation Scheme:	0					Soil Type 1:	Otorohanga Deep Clay			Area (ha):	0	
Total Annual Volume (m³):	0	Irrigation Flow (L/sec):		0		Soil Type 2:	Pukehina deep sand			Area (ha):	0	
Irrigation Type:	0	Number:	0	Ha:	0	Soil Type 3:	Kainui deep silt clay			Area (ha):	0	
Irrigation Type:	0	Number:	0	Ha:	0	Contour %:	Flat %:	65	Rolling %:	30	Steep %:	5
Irrigation Type:	0	Number:	0	Ha:	0	Cropping Summary:						
Irrigation Type:	0	Number:	0	Ha:	0	Crop Type 1:	Chicory			Area (ha):	12	
Irrigation Water use efficiency (%):		0%	Target (%):	0%	Water Takes:	0		Crop Type 2:	0		Area (ha):	0
Other livestock classes						Crop Type 3:	0		Area (ha):	0		
Livestock class:	0	Number:	100	Months:	3	Water Use Summary:						
Livestock class:	0	Number:	0	Months:	0	Dairy Shed Type:	Rotary			No of Cups:	36	
Livestock class:	0	Number:	0	Months:	0	Total Water Use (L/day):	32200		L/cow/day:	73		

Remaining compliant with this Sustainable Milk Plan

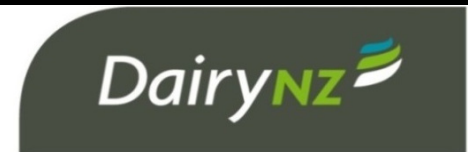
This Sustainable Milk Plan is part of a voluntary project and does not guarantee compliance with your Regional Council.

This plan has been developed with you the farmer to help manage environmental risks associated to this farm taking into consideration Regional Council regulations at the time.

If you the farmer need to make any amendments to this Sustainable Milk Plan please inform your consultant or DairyNZ when required.

As part of this Sustainable Milk Plan project a sample of farms may be reviewed to gauge effectiveness of the project. Farm reviews will be scheduled in advance with the farmer and are carried out by an independent body not your Regional Council.

Auditing:		Targets:		
Last Audit Date:	0	<p>The target document used to generate this Sustainable Milk Plan was:</p> <p style="text-align: right; margin-right: 20px;">Version 3: 31 August 2015</p> <p>These targets being addressed by this Sustainable Milk Plan have been prepared to help you the farmer, meet your Regional Council regulatory requirements and your requirements under the Sustainable Dairying Water Accord at the date the Sustainable Milk Plan is developed. It also takes into consideration requirements of your milk company environmental conditions of supply and conditions of your irrigation scheme resource consents (if applicable). The target document listed above is available through the DairyNZ website. The target documents are subject to change as regulatory conditions change. While all reasonable endeavours have been made to ensure the accuracy of the information in this document, DairyNZ Limited does not accept responsibility for any loss or damage, however caused, which you may directly or indirectly suffer in connection with your use of this document and expressly disclaims any and all liability that may arise from any such loss arising out of your use of or reliance on information contained or accessed through this Sustainable Milk Plan. You as the owner of this document are fully responsible of ensuring your Sustainable Milk Plan meets and continues to meet your regulatory requirements.</p>		
Auditor Name:	0			
Last Audit Result:	0			
Auditor Organisation:	0			
<p>This Sustainable Milk Plan is part of a voluntary project and does not require auditing for regulation but a small number of Sustainable Milk Plan's from this catchment may be reviewed to gauge effectiveness of this project.</p>				
Predicted audit frequency based on audit result (may vary):	0			



Objective: To ensure water use is managed effectively and that the actual use of water is monitored and efficient.

Water & Irrigation Management

Level	Environmental 'Good Management Practices' currently carried out:	Evidence Required:	Note			
Above GMP	Installed Numedic water efficient nozzle for washdown which reduce water use by about 20%	View				
GMP	Water systems well maintained with an on site electrician available when required	View				
GMP	Shed walls are kept wet for easy cleaning and cooler water is recycled to minimise water use	Sighted				
GMP	90% of the stock water lines are now buied to prevent damage from stock or machinary	Questioning				
GMP	Now have water metering in place for stock drinking as well as additional taps to allow us to identify, isolate and fix leaks in a timely manner	Questioning and view				
GMP	Upgraded the washdown pump, which maintained water use, but halved the washdown time	Questioning				
GMP	Upgraded stock water reticulation lines and larger water troughs	Questioning & View				
Above GMP	Halo system monitors water use and informs decision making to improve water use efficiency	Questioning				
0						
Level	Agreed actions for improvement:	By Who?	When?	Evidence Required:	Complete	Note
GMP	Upgrading some stock water lines to a bigger size and upgrading some troughs to a larger size to ensure water supply equals demand	Doug	31/05/2016	Questioning	YES	
0	0	0	00/01/1900	0		
GMP	Train staff on water use via farm meetings, inductions and one on one interactions and develop systems to capture actions	Doug	Ongoing	Questioning	YES	
GMP	There are a mix of water sources from bores, surface water and town supply which will be recorded	Doug	01/12/2015	Questioning, document	YES	
Above GMP	A Halo Water system will be installed and will use the data to improve water use efficiency	Doug	31/10/2015	Visual	YES	
0	0	0	00/01/1900	0		
0						
0						

Objective: To maximise nutrient use efficiency while minimising losses to water.

Nutrient Management

Level	Environmental 'Good Management Practices' currently carried out:	Evidence Required:			Note	
GMP	Spread fertiliser using a certified contractor who provides proof of placement mapping	Questioning				
GMP	Regular soil testing now every March on seven different blocks	Soil test result report				
Above GMP	Management trained to Advanced Sustainable Nutrient Management level	Certificate				
Above GMP	Use N Guru, which takes soil Nitrogen levels into account and matches this to nitrogen fertiliser applications using variable rates for paddocks	Questioning				
Above GMP	New fertiliser spreader allows the farm to improve efficiency by better matching applications to plant requirements. Proof of placement available through GPS system	Questioning				
GMP	Nutrient Budget blocks reflect the blocks used for soil testing to aid fertiliser decisions	Questioning				
0						
0						
Level	Agreed actions for improvement:	By Who?	When?	Evidence Required:	Complete	Note
GMP	Update Nutrient Budgets from Fonterra and Ballance and compare numbers Ensure blocks are set up correctly	Doug, Fonterra & Balance	01/12/2015	Reports	YES	
Above GMP	Develop a Nutrient Management Plan including scenarios and actions to improve nutrient use efficiency and manage losses	Doug, Ballance & Mike B	01/05/2016	Reports	YES	
GMP	Investigate a business case for purchasing own fertiliser spreading equipment with GPS to improve efficiency of fertiliser use	Doug	01/02/2016	Questioning	YES	
0	0	0	00/01/1900	0		
0	0	0	00/01/1900	0		
0	0	0	00/01/1900	0		
0						
0						

Objective: To manage the risk associated with the operation of effluent systems to ensure effluent systems are compliant 365 days of a year.

Effluent Management

Level	Environmental 'Good Management Practices' currently carried out:			Evidence Required:	Note	
GMP	Application depth measured at 6.3mm from a Cobra rain gun, when set at the fastest speed			Questioning		
GMP	Effluent system has been evaluated by Doug (using SDA processes) and opportunities for improvements identified			Questioning		
GMP	Storage pond allows effluent to be applied only under suitable conditions and record activities in Dairy Diary			Questioning / runsheet		
GMP	Effluent pond is fenced and there are warning signs, including on the gate where the irrigator is			Visual		
GMP	Have an an effluent policy / procedure book and includes maps			Questioning and viewing the book		
GMP	The storage pond is emptied of solids x2 per year			Questioning		
GMP	A muck spreader has been purchased to better utilise effluent nutrients			Questioning		
GMP	The updated Health and Safety plan includes the effluent system			Questioning and Plan		
0						
0						
0						
Level	Agreed actions for improvement:	By Who?	When?	Evidence Required:	Complete	Note
Compliance	Repair broken nib wall in yard	Doug	01/07/2016	View	YES	
Above GMP	Investigate safety system options (Inc. People and fail safe): e.g. Halo cut off; proof of placement, text can be used to start and stop the pump etc.	Doug	01/05/2016	Questioning		
GMP	Emergency procedures / safety systems will be updated	Doug	Ongoing	Book	YES	
Compliance	Confirm pond leakage result via Opus consultants	Doug & Opus	01/12/2016	Report	YES	
Above GMP	Investigate system to divert shed roof water	Doug	01/12/2016	Questioning	YES	
GMP	Provide appropriate training to staff on effluent systems policies and procedures	Doug	Ongoing	Questioning and certificates if formal		
GMP	Update effluent policy and procedures. Including policy in relation to soil moisture	Doug	Ongoing	Questioning / Policy		
Compliance	An effluent improvement plan will be developed to scope putting in a new effluent storage pond			Questioning and plan		

Objective: To manage wetlands and water bodies so that stock are excluded as far as practicable from water, to avoid damage to the bed and margins of a water body, and to avoid the direct input of nutrients, sediment, and microbial pathogens.

Waterway & Biodiversity Management

Level	Environmental 'Good Management Practices' currently carried out:			Evidence Required:	Note	
GMP	Strategically graze paddocks depending on conditions (e.g. avoid wet paddocks) ; Use temporary fences in paddocks (75, 34, 35 & 53);			Questioning		
Compliance	All accord waterways are fenced			Map		
Compliance	All defined waterways have crossings with culverts or bridges			Map		
GMP	There has been a lot of riparian planting on the farm			Map		
GMP	Weeds and pests are controlled by spot spraying and shooting			Questioning		
GMP	Have fenced wetlands on the farm. Through paddocks 36,37, 38 and 39			Map, Visualised		
Above GMP	Have a new constructed wetland installed with water quality monitoring equipment to be measured monthly			View		
GMP	A Riparian Management Plan has been developed for the farm			Plan		
0						
0						
Level	Agreed actions for improvement:	By Who?	When?	Evidence Required:	Complete	Note
Above GMP	A new constructed wetland is to be developed on the farm	Doug & Opus	01/12/2016	Questioning and view	YES	
SDWA	Develop a Riparian Management Plan using the DairyNZ tool	Doug	01/08/2016	Riparian Plan	YES	
Above GMP	Install a water quality monitoring system for the wetland to test outputs and model impact of constructed wetland	Doug / Opus	01/12/2016	Map and plan	YES	
GMP	Improve the nib on culvert in the wetland where it runs through the paddock to improve Health and Safety for farm staff	Doug to lead	01/06/2016	Map and visual and report	YES	
Above GMP	Complete an eco blitz on the farm to survey the Biodiversity	Doug	30/05/2016	Questioning	YES	
GMP	#REF!	Doug and Trust	31/05/2017	Questioning	YES	
GMP	A 3 -5 year planting plan is being developed with Ngati Haua Mahi Trust and an application to WRA	Demo manager	30/11/2017	Questioning		
0						

Objective: To maintain or improve the physical and biological condition of the soils in order to minimise the movement of sediment, phosphorus and other contaminants to waterways.

Land & Soil Management

Level	Environmental 'Good Management Practices' currently carried out:	Evidence Required:	Note			
Above GMP	Areas of steeper sidings have been retired and planted	Visual and map				
GMP	Manage the risk of pugging damage with strategic grazing; providing bigger breaks and avoiding wet areas when very wet	Questioning				
Above GMP	Have a sediment bund near the road to prevent soil loss	Questioning; Visual look				
GMP	Ongoing upgrading and maintenance of main and feeder races	Questioning and view				
GMP	When planting crops, are selective over paddocks and no full cultivation and have wide buffers to any waterways	Questioning				
GMP	Have subsurface drainage to reduce paddock saturation and therefore risk of sediment runoff	Questioning				
GMP	All drains identified and mapped	Questioning / Map				
Above GMP	Contractors now have a map which shows risky areas to avoid	Map				
0						
Level	Agreed actions for improvement:	By Who?	When?	Evidence Required:	Complete	Note
GMP	Map vulnerable soils and critical source areas for sediment loss.	Doug	01/12/2016	Map		
GMP	Consider undersowing 40 ha of pasture due to weed issues	Doug	01/05/2016	Questioning	YES	
Above GMP	Identify lower performing hill sides and retire from grazing and plant	Doug	Ongoing	Map, Visual	YES	
GMP	Identify and map drains	Doug	31/05/2016	Map	YES	
0	0	0	00/01/1900	0		
0				0		
0						
0						

Objective: To manage areas used for bulk storage of biological and chemical resources and manage all farm waste effectively to minimise adverse environmental effects.

Storage Infrastructure & Waste Management

Level	Environmental 'Good Management Practices' currently carried out:	Evidence Required:			Note	
Compliance	There is a concrete based silage stack on the farm	Visual				
GMP	Dead stock are collected by AC pet foods	Questioning				
GMP	There is a waste management site for managing rubbish	Visual				
GMP	Chemicals are stored in a locked shed	Visual				
GMP	Silage wrap is collected and removed from the farm	Questioning				
GMP	Plastic containers are now recycled	Questioning				
GMP	Contingency plans for accidental spillages are incorporated into the farm Health and Safety plan	H & S plan				
0						
Level	Agreed actions for improvement:	By Who?	When?	Evidence Required:	Complete	Note
GMP	Look at silage wrap recycling options	Doug	01/05/2016	Questioning	YES	
GMP	Investigate developing contingency plans for accidental spillages: Milk, effluent, fertiliser, Chemical and fuel	Doug	01/05/2016	Plan	YES	
GMP	Review the risk associated with the organic waste site and options to manage better	Doug / School	01/12/2016	Questioning; Visual		
0				0		
0				0		
0				0		
GMP	Investigate using the school organic waste being mixed with effluent and spread on the farm	Property manager	31/12/2017	Questioning		
0						