

Dairy Farmer News

ISSUE 12 | WINTER 2017

IT'S ALL ABOUT WATER QUALITY!

2016/17 Compliance Rate Disappoints

Compliance results from the 2016 -17 routine annual monitoring programme are disappointing. There were 919 farms visited between mid-August and 14 December last year. Of these, 166

(18%) were assessed as significantly non-compliant with Regional Rules and or Resource Consent conditions. This compares unfavourably with the 134 farms (14%) recorded for the previous

season. The number of farms assessed as fully compliant fell from 609 (65%) in 2015-16 to 530 (58%) this season. The graph below shows the compliance trends during the last five years.

How to improve compliance?

The main reason for significant non-compliance in 2016-17 was inadequate management. The key to better compliance is to improve the standard of management of existing systems.

Management:

- Have ponds empty or near empty prior to winter and keep them low by applying wastewater to land, but only when soils are in moisture deficit.
- Routinely check and maintain stormwater diversion systems, sumps, pipework, pond embankments, pumps and irrigators.
- Clean the first pond at least annually and remove all bottom sludge (unless you have effective solids separation before the first pond).
- Closely monitor land application systems during operation.

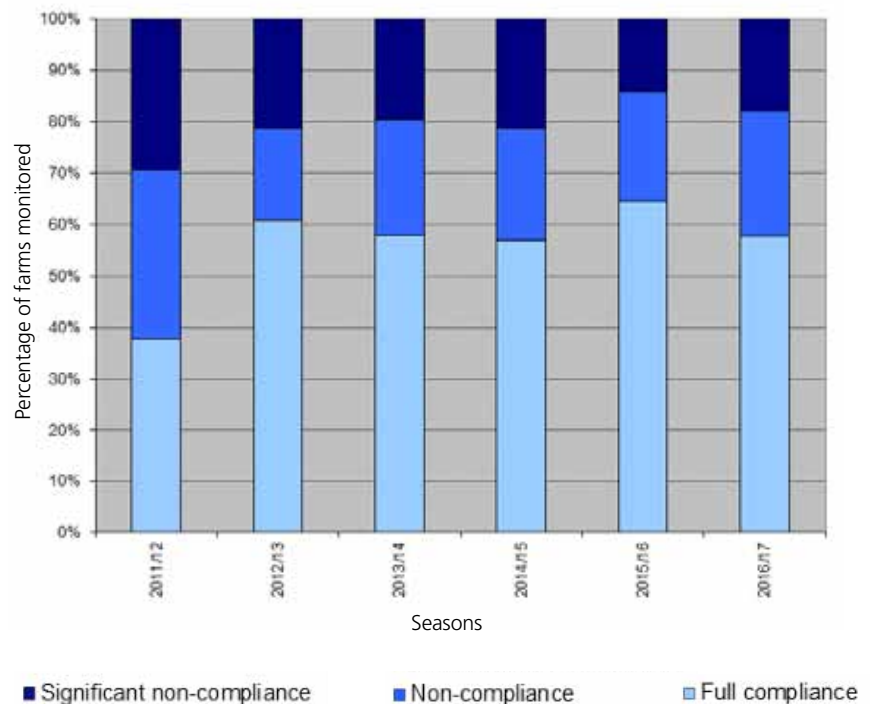
Reduce wastewater volumes:

- Improve water use efficiency at the dairy.
- Divert as much clean rainwater as is practicable away from the ponds.

Infrastructure Required:

- Adequate storage
- Effective land application systems
- Adequate area for application.

Farm dairy effluent compliance (all farms)

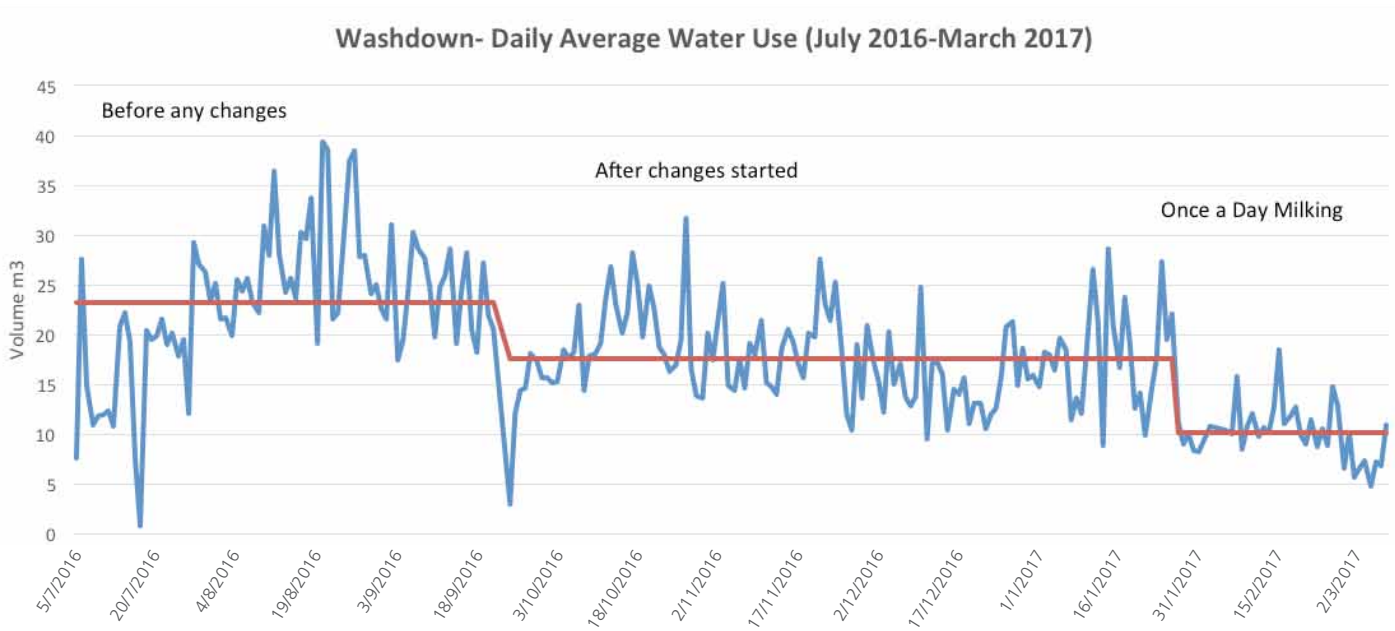


Reason	No of Farms
Water quality test results were outside consented limits	20
Untreated effluent discharged to water from feedpad, entry/exit race, stormwater bypass etc.	39
Discharge from irrigator to water	7
Excessive ponding and/or overland flow from irrigator	29
Broken or blocked pipes, sump overflow etc.	27
Unauthorised discharge of treated effluent to water	16
Inadequate contingency storage	11
Other	7
Total	166

Effluent Volume Reduction Project

Effluent Volume Reduction Project.

We are currently working with three farms and intend to add at least three more for the 2017-18 dairy season. The graph below shows average daily water use before and after some relatively minor changes at one of the project dairies.



Land application

74% of all farms in Northland now have land application systems.



Change of farm ownership

If you sell your farm and hold a resource consent for the farm wastewater discharge (or any other NRC consent) you need to ensure that it is formally transferred to the new owner. Transfer forms are available on our website or you can contact us by phone or e-mail.

Once a day milking

is becoming more common. Significant reduction in water use and effluent volumes is achieved.

Silage storage discharges

Issues with discharges from silage storage areas are increasing. In most cases the discharges result from water intrusion into the stack or from poor management of the face of the stack.



Winter milking

The number of farms winter milking is increasing. Milking through winter can create additional challenges for wastewater management. For example, areas such as entry/exit races and races between dairy and feedpads can accumulate large volumes of waste over the winter months.



Pond Level Survey - April 2016

Our team visited 70 farms, all with land application systems, between 5 April and 12 April last year. We surveyed 168 wastewater storage/treatment ponds on these farms and recorded the approximate amount of freeboard. Freeboard was defined as the distance between the wastewater level in the pond and the bottom of the discharge pipe, or the crest of the pond embankment where there was no discharge pipe.

The objective was to assess how much contingency storage volume was available prior to winter.

Of the 70 farms, 52 did not have even one pond with more than 1.5 metres of freeboard, and of the 168 ponds surveyed, 112 or 66% had less than one metre of freeboard.

Best practice management of land application systems and storage ponds is to apply wastewater to land throughout summer when soil conditions are suitable. Ponds must be at low levels going into winter each year to prepare for peak wastewater loads during spring. This is even more important when cows are milked throughout winter.

The main conclusions that can be drawn from the survey results is that very few of the farms had been irrigating enough to have their ponds at or near empty at a time of the season when they should be. Consequently, many were seriously at risk of not complying with their conditions of resource consent or the "permitted activity" criteria for land application as stated in Rule 16 of the Regional Water and Soil Plan for Northland.

The message is: get your ponds low before soils become saturated and keep them low by irrigating whenever soils are dry enough.

The diagram below shows the best case by farm (the highest amount of freeboard on one or more ponds).

Pond Level Survey - April 2016



Maximum freeboard on one or more ponds at each farm.

Customer Feedback Survey

We would like to know what you think of the service we provide.

If you wish to provide feedback please go to <https://www.surveymonkey.com/r/2017FDE> and complete the survey questionnaire.

Monitoring Reports Change

We're making changes to the way data collection and reporting to farmers is done for the 2017-18 routine monitoring programme with a move to the electronic collection and management of field data.

Monitoring reports to farmers will also change from the old letter format to a more modern template format.

An example of how the new report will look is adjacent. Please Note: The monitoring report and the invoice covering the cost of monitoring will be forwarded separately.

Do you want your reports emailed?

If so, please e mail FDE@nrc.govt.nz

Include your FDE number or Fonterra supply number and phone number/s.

FARM WASTE MONITORING REPORT 2017



Inspection Date	Farm Name	FDE #	REG #
15 October 2017	Farms Limited	XX	xxxxxxx

Compliance with Regional Rules

RULE 16.1 (a)	COMPLIANT	
No discharge to water.	Yes	
RULE 16.1 (b)	COMPLIANT	
No discharge to land within setback distances.	Yes	
RULE 16.1 (c)	COMPLIANT	
Contingency measures in place.	Yes	
RULE 16.1 (d)	COMPLIANT	REASON
Effluent storage facilities are sealed.	No	Wastewater leaked from the southern embankment to land.
RULE 16.1 (e)	COMPLIANT	
Discharge to land does not result in ponding.	Yes	
RULE 16.1 (f)	COMPLIANT	
Effluent is evenly applied to land, does not exceed assimilative capacity of the soil, minimises overland flow	Yes	
RULE 16.1 (g)	COMPLIANT	
Discharge to land does not cause an offensive or objectionable odour.	Yes	

OVERALL COMPLIANCE

Non-Compliant

Action Required

Seal the pond to prevent any leakage of wastewater by 28 February 2018.

Operate the land application system to comply with all Regional Rules.

Invoice

An invoice will follow at a later date. This covers council's travel, fieldwork, any sampling and administration costs for the inspection.

Please contact Dennis Wright or Rachael Anderson at council's Whangarei office if you have any questions.

Contact us

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