

# Dairy Farmer News

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IT'S ALL ABOUT WATER QUALITY!

## Compliance good news

The 2015-16 routine monitoring program was completed in early December with the systems on 944 farms assessed.

It's good news! Over-all, farms' full compliance increased from 57 percent in 2014/15 to 65 percent this season and significant non-compliance has fallen from 21 percent to 14 percent.

As you can see from the graph, there's a gradual trend for improvement in compliance.

These are the best compliance results yet and reflect the investment and efforts of farmers across Northland however the challenge is to not only maintain this level of compliance but to continue the improvement.

Congratulations to everyone who has made the push to achieve full compliance – keep up the good work.

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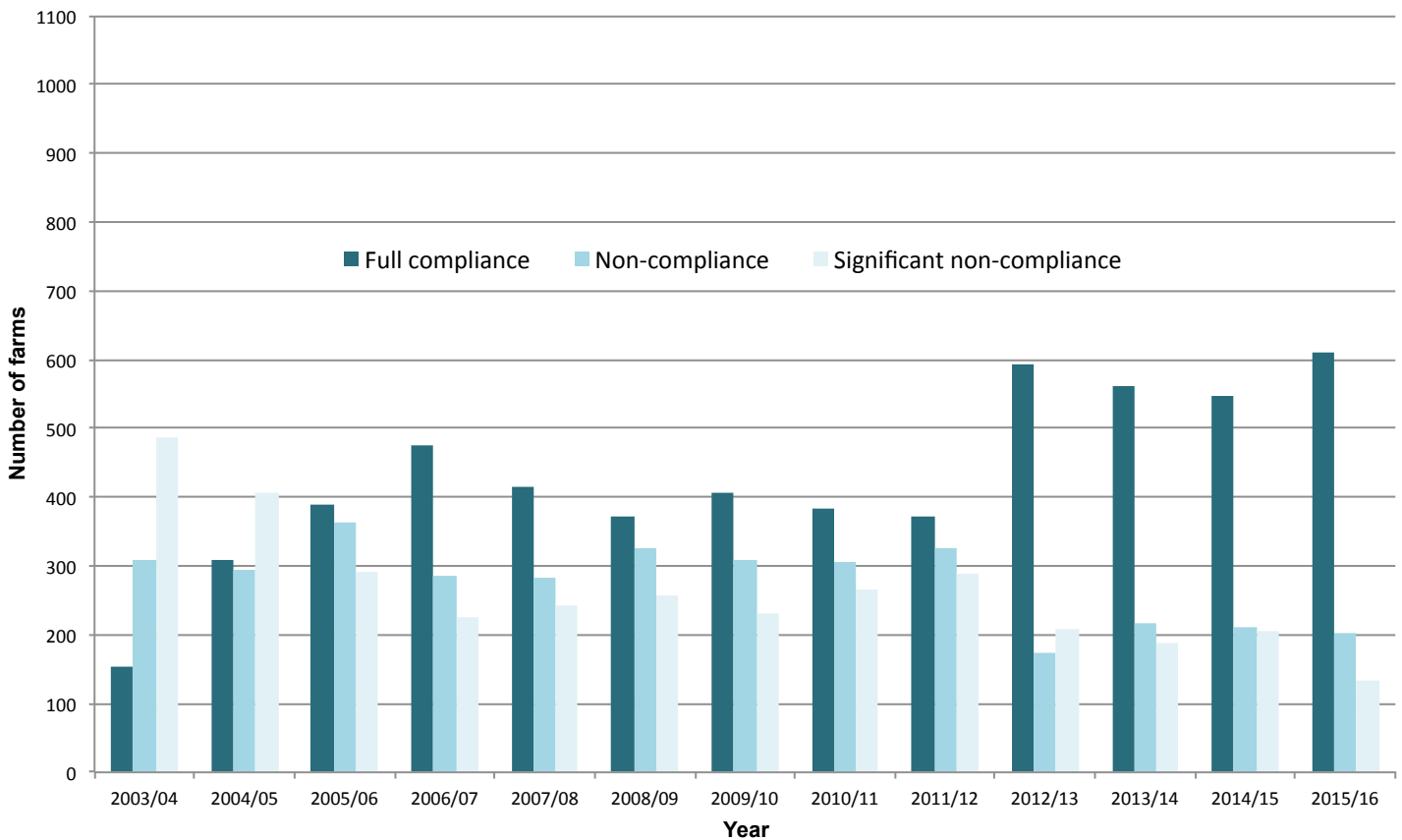
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## Farm dairy effluent compliance (all farms)



## Water quality improves

The Mangere River flows from Pukenui Forest down through the Kokopu area to the Wairua River. There are 18 dairy farms and a large dairy goat farm in the catchment and unfortunately its water quality is one of the most impacted in Northland – however, it's not all bad news.

In 2014, the Mangere River was named as Northland's most improved river at the annual New Zealand River Awards in Wellington and was fourth equal most improved river nationally for reduced phosphorus levels.

Monitoring from January 2012 to December 2014 indicates that the improving trend is continuing in the Mangere with a positive reduction in a number of water quality measures, including E-coli, phosphorus and nitrogen species.

This improvement cannot necessarily be attributed to a single reason. However, over the last 10 years point source effluent management has vastly improved across the catchment – land application is now the primary means of disposal on 18 of the 19 dairy farms in the catchment.

More than 99 percent of the total milking herd (including goats) is on farms which routinely apply effluent to land. It is obvious that the efforts made by the dairy farmers within the catchment have contributed significantly to the improvements in water quality.

The upgrade of farm dairy effluent systems has not been confined to the Mangere catchment. Farmers throughout Northland have upgraded and continue to upgrade their systems and this will continue to have a positive impact on water quality in the region.



Most of the dairy herd in the Mangere catchment is on farms which irrigate effluent to land.

## Extra farm visits



Council intends to visit 100 farms during March/April 2016 to check effluent pond levels and diversion systems. The aim of the visits is to reinforce the need to have ponds empty via land application and emphasise the importance of stormwater diversion.

Visits will be free of charge and those farmers being visited will be sent a letter prior to the visit. Farmers will be given the opportunity to be present to talk with council farm dairy effluent officers.

More than 20 percent of significant non-compliance is due to:

- Excessive effluent ponding at irrigators.
- Excessive overland flow of effluent from irrigators, often to water.
- Unconsented discharges from storage ponds.

The cause is often ponds filling up in spring before soils are dry enough to irrigate however the risk of non-compliance can be reduced if:

- Storage ponds are empty or nearly empty just prior to winter; and
- Storm water diversions are used more diligently.

Reducing the volume of effluent that is being discharged to water will achieve better compliance with consent conditions and regional rules and ultimately lead to improved water quality.

## Volume reduction projects



Water meter on backing gate at Mayflower farms.

Projects carried out at two farms, Mayflower farms Ltd at Brynderwyn and Waiotu Farms Ltd, have resulted in significant reductions in total annual effluent volumes.

Mayflower farms reduced effluent going to its ponds by 58 percent (22,000 litres per day) and Waiotu Farms Ltd at Waiotu, near Hukerenui, has reduced average daily effluent generated by 40 percent.

The major single factor in achieving the savings, in both cases, was the installation of water meters at the dairies to measure the volumes being used and thereby identify areas where improvement could be made.



Multiple meters were installed during the trials on both farms.

On both farms savings were made by:

- Diverting as much clean water as possible away from the ponds;
- Making changes to the drive units on the backing gates;
- Improving holding yard wash-down systems; and

- Installing newly developed more water-efficient nozzles on wash-down hoses.
- More information about effluent volume reduction will feature at our display at the upcoming Northland Field Days in early March.

## Stormwater diversions

A failure to adequately block stormwater diversion systems led to a number of discharges of untreated effluent into freshwater this season. To avoid this, the diversion needs to be checked before each milking to ensure all effluent is directed to the ponds.

Stormwater diversion systems are important to reduce effluent volumes in ponds. Diversions should be used to direct rain water away from the ponds whenever the yard is clean.

Diversions can also be installed on silage pads, feed pads, and other infrastructure with rainwater diverted after seasonal use.

A good system is:

- Close to the dairy;
- Situated before the sump/gravel trap;
- Easy to access and use; and
- Includes a visual reminder, such as a flag close to the system or a bungee-cord across the milking pit entrance to indicate the status of the diversion system.



## In brief...

### MORE LAND APPLICATION

The move to land application of effluent continues with 74 percent of all farms now having systems installed. There are also a number of farms that routinely use contractors to apply effluent to crops and to pasture.

### DIVERSION OF ROOF WATER

Council has encouraged the permanent diversion of roof water away from storage/treatment ponds. The uptake has been good with many farmers reporting significant savings and buying into the premise that turning clean water into high strength contaminant is costly and unnecessary.



## Health and safety – right of entry

Health and safety is a concern of every dairy farm owner and visitors to the farm are usually under their control when it comes to safety.

However, for council’s environmental compliance monitoring visits, the situation is different – health and safety is our responsibility and we’re covered by both legislation and council policies and procedures.

When council staff carry out routine compliance monitoring, our primary objective is to improve water quality by getting more effluent systems compliant.

To do this, our visits are non-notified, that is, farmers don’t know when we will arrive to carry out our monitoring. This means we can identify the actual issues and put in place measures to encourage improvements – if we don’t know it’s broken, we can’t help to fix it.

If there is anybody at or around the dairy at the time of our visit, the officer will identify him/herself and tell you why they’re there.

We operate under legislation so our warranted enforcement officers are entitled (under section 332 of the Resource Management Act 1991) to enter property without notification, to carry out their monitoring duties.

The officers are operating under the health and safety policies and procedures of the council, rather than those of the property owner or occupier.

Should the officer tell you that they’re there, then the person who controls the place of work (the farm) is required to warn the council officer of any significant hazard that is not reasonably expected to be on, or arise in, the place of work (the farm). An example of this type of hazard is stump blasting.



## Contact us

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