

# Environmental monitoring

## Case study – farm dairy effluent

There are approximately 950 dairy farms in Northland creating over 14 thousand cubic metres of farm dairy effluent (FDE) from dairies and feed pads every day.

This effluent can be applied to land, or can be treated to remove contaminants and then discharged to water. It is illegal to discharge untreated FDE to water or onto/into land in any way that is likely to contaminate water.

The Regional Water and Soil Plan (RWSP) for Northland has rules that control the disposal of FDE. The disposal of FDE to land, subject to conditions, is a 'permitted' activity and farms that use this method are termed 'non-consented' farms.

The disposal of treated FDE to water is a 'discretionary' activity, which means that it requires resource consent. Farms which operate under resource consent are called 'consented' farms. The discharge of treated animal effluent to certain important water bodies in Northland is not allowed. These water bodies are listed in the RWSP. For a copy of the RWSP go to [www.nrc.govt.nz/rwsp](http://www.nrc.govt.nz/rwsp).

## Percentage compliance on non-consented farms 2008-09



### Non-consented monitoring

Farms that dispose of FDE to land under the permitted activity rule are inspected annually to make sure they comply with the conditions of the rule.

The treatment/disposal system at each farm is graded on a scale of 1P to 4P. A 1P grade indicates a system that is well managed and meets all the 'permitted activity' criteria, including having adequate emergency storage. The grading 4P indicates a non-complying system that requires urgent or major work and/or better management.

Any system not complying with the permitted activity criteria may be graded 'C', which means it needs resource consent, or 'X', which means that a discharge of untreated effluent to water has been identified.



1P grade complaint farm dairy effluent treatment ponds.

## Environmental monitoring performance targets

To monitor and enforce compliance with farm dairy effluent discharge standards by:

- Inspecting all FDE treatment and discharge systems at least annually, recording inspection details and reporting these to the farmers who are responsible;
- Testing effluent and receiving water quality annually, for systems with resource consents to discharge to water; and
- Following up on all non-complying systems, systems that have had poor grades, or those requiring maintenance or upgrading, when needed.

### Key points: In 2008-09

- ◆ 261 farms were applying FDE to land under the permitted activity rule;
- ◆ 88 were fully compliant with the conditions of the rule (grades 1P and 2P);
- ◆ 81 had minor non-compliance (3P); and
- ◆ 92 were significantly non-compliant (grades 4P, C and X).
- ◆ 697 farms were disposing of FDE under resource consent.
- ◆ 285 were fully compliant with the conditions of their consent;
- ◆ 246 had minor non-compliance; and
- ◆ 166 were significantly non-compliant.

The number of infringement and abatement notices issued in 2008-09 has risen sharply from the previous two years.



Larger herd sizes have increased non-compliance as FDE systems are unable to cope with run-off from feed pads. The lot pictured above is an example of a well-maintained feed pad.

Key:



Achieved



Partially achieved



Not achieved



Not applicable

[www.nrc.govt.nz/amr](http://www.nrc.govt.nz/amr)



## How are rules enforced?

The Council enforces rules, regulations and the conditions of resource consent where non-compliance is identified by:

1. Follow-up visits for consultation with farmers — the objective being to discuss options for upgrading their systems and to agree time frames for improvement.
2. Issue abatement notices — require the recipient to cease unlawful activity or to carry out specified actions by a specified date in order to comply with regional rules or resource consent conditions.
3. Serving infringement notices, which carry an instant fine of \$750.
4. Offenders may be prosecuted in the court, with a maximum fine of \$200,000.

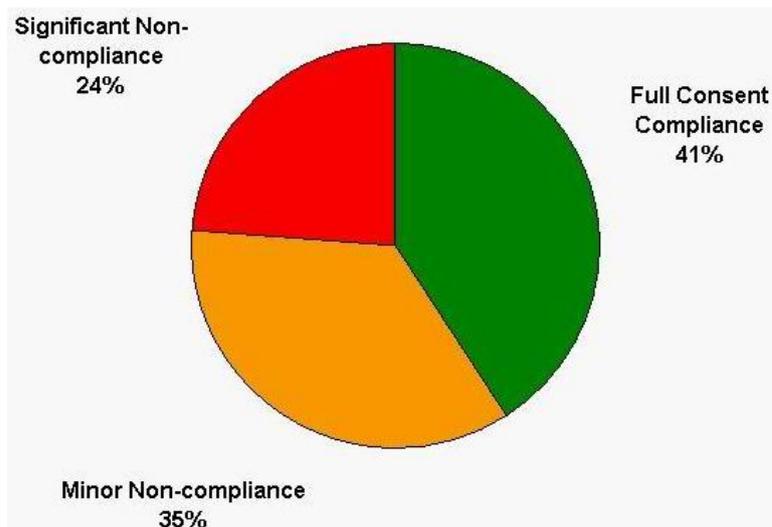


*Regional Council Monitoring Officer, Loren Eagle carries out farm visits.*

### In 2008-09

- ◆ 198 abatement notices were issued for non-compliance on consented and non-consented systems.
- ◆ 200 infringement notices were also issued for non-compliance on consented and non-consented systems.
- ◆ There was an increase in enforcement action taken during this period.
- ◆ One successful prosecution for illegally discharging untreated FDE was made. The fine was \$67,000.

## Percentage compliance of consented farms 2008-09

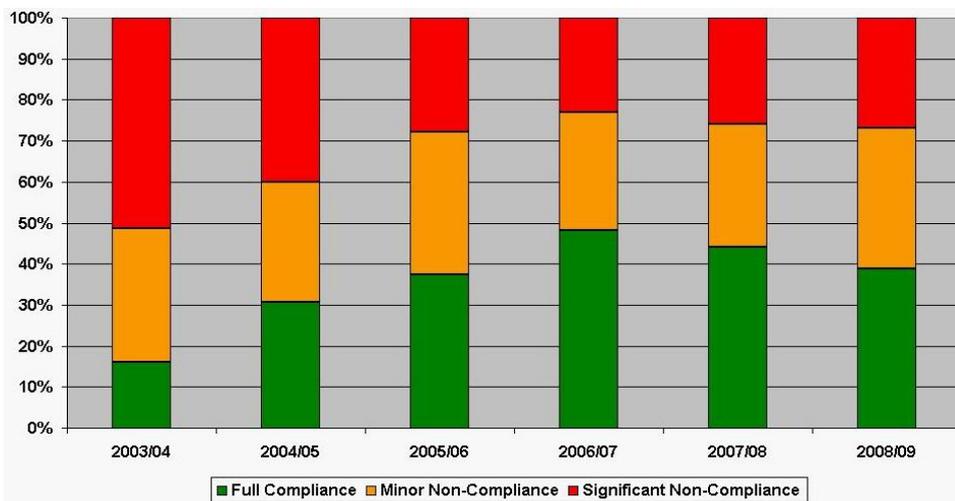


## Resource consent monitoring

Farms that dispose of FDE under resource consent are also inspected at least annually to check for compliance with the conditions of the consent. Water quality samples are taken from any water body receiving treated effluent.

Three samples are taken - one upstream of the discharge (the control), one from the point of discharge and one from downstream of the discharge (also called the 'consent compliance site'). The water quality at the consent compliance site must meet the water quality conditions contained in the resource consent.

## Farm dairy effluent compliance rates for all farms 2008-09



## Compliance trends

Compliance rates for the last six years show a gradual increase in full compliance between 2003 and 2007. Since 2007 there has been a slight decrease in full compliance and a small increase in both minor and significant non-compliance.

The increase in full compliance reflects the progress made in improving FDE systems between 2003-07, as a result of a joint effort by the Council, the dairy industry and farmers.

An increase in cattle numbers has affected compliance since 2007 as more supplements are fed and treatment/disposal systems have not been upgraded.