

File Reference: 4.00212
Significance of Decision: Receives Only - No Decisions



Report To: Operations, Monitoring and Regulation Committee
Meeting Date: 22 February 2012
Report From: Nick Zaman, Pollution Prevention Manager

Farm Dairy Effluent Compliance Monitoring Survey: 2011/2012 Season

Executive Summary

The purpose of this report is to publish the results of the farm dairy effluent compliance monitoring programme carried out over the first half of the 2011/2012 dairy season.

A total of 312 farms were visited. Overall performance for the monitoring season declined, with the amount of farms complying with their consent conditions reduced from 72% last season to 67% this season. Significant non-compliance increased from 13% to 14% for the same period. These are disappointing results given the nationwide efforts of the industry to reduce non-compliance.

1 Recommendations

That the Operations, Monitoring and Regulation Committee under its delegated authority:

- 1 Receives the report, Farm Dairy Effluent Compliance Monitoring Survey: 2011/2012 Season.**
- 2 Notes staff actions to follow up cases of non-compliance.**
- 3 Notes staff action in taking enforcement action where appropriate.**
- 4 Notes staff action to continue undertaking unannounced inspections for the 2012/2013 dairy farm inspection season, as agreed nationally.**
- 5 Notes staff action to continue working with the farming industry and the Bay of Plenty Dairy Stakeholders Group, with a goal of improving compliance levels within the Bay of Plenty region.**

2 Background

The compliance monitoring carried out by Pollution Prevention officers during the 2011/2012 dairy season was undertaken in accordance with the regional council's

Compliance Monitoring Policy (May 2001). The Policy allows for compliance visits to be made on one, two or three yearly frequencies, depending on the compliance history and effluent disposal type for each farm. This season a total of 312 dairy farms were visited as part of the compliance monitoring programme.

All dairy farm consent holders in the region (approximately 700) were sent a letter prior to the monitoring season commencing, reminding them of their responsibilities when managing dairy effluent. The letter included the following quick tips to help ensure 100% compliance. These were developed by the industry working group. They are:

- Check your individual consent conditions closely and make all staff aware of the requirements;
- Ensure you have appropriate effluent storage for extended wet weather periods so that you only apply effluent to pasture when soil conditions are suitable;
- Maintain your system regularly; and
- Visit www.dairynz.co.nz to get helpful information or call **0800 4 DairyNZ** (4 324 7969).

Other than the generic letter, there was no notification given to the farmers inspected. This is in line with most other Regional Councils throughout New Zealand and is the same practice as was undertaken last year.

Staff inspected all aspects of the effluent treatment and/or disposal systems during their visits. This included inspecting effluent sumps, pipework and ponds; inspecting the location of stormwater diversions systems, where possible viewing the irrigation system, and checking for obvious signs of seepage from effluent ponds into watercourses. In addition, staff checked to see whether the property had feedpads/standoff pads, and if so, checked where the runoff from those facilities went.

As with previous seasons, many of the compliance inspections were undertaken on a catchment basis, where several staff inspect numerous sites within the same catchment on the same day. This method has proven to be a very efficient and effective way of progressing through inspections, and also ensures that all farms within a catchment are measured against each other while experiencing the same climatic conditions.

2.1 Identifying risks

As a result of discussions regarding last season's drop in compliance with the industry, it was agreed that we incorporate a "Risk" table into our field sheets. When staff identify a risk that does not necessarily result in non-compliance, they can now clearly identify the risk. This gives the farmer a "heads up" that the area identified may need some attention. The risk options are:

- Stormwater diversion: either no stormwater diversion in place and clean stormwater is potentially overloading the system; or stormwater is being diverted, but in a manner that may result in effluent being discharged to a waterway;

- Effluent storage: Inadequate storage meaning that ponds are at risk of overflowing, or irrigation has to occur in wet weather or onto unsuitable soil conditions;
- Irrigation system: The land area should be extended. Perhaps some of the paddocks in use have the potential to become quite wet and could cause issues with runoff;
- Maintenance: The system is showing signs of degradation. Perhaps pipework requires attention, the pump or irrigator is in need of maintenance, etc.;
- Non-shed sources: Feedpads, silage pits, farm dumps, etc.

3 **Results**

Staff assessed the compliance level of each effluent system with the discharge permit conditions and allocated a rating of “Complying”, “Non-compliance low risk”, “Non-compliance high risk” or “Major non-compliance”.

3.1 **Non-compliance low risk**

Examples include excessive weed growth reducing the storage capacity of a pond system, or a lack of suitable pipe works between ponds or at the outlet of the pond system (where they are discharging to surface waters). These non-compliances are considered to only have minor or no adverse environmental effects. “Non-compliance low risk” sites usually require a second visit; however some of the more minor ones are left to be revisited in the following season.

3.2 **Non-compliance high risk**

Examples include pond levels being less than the minimum freeboard required resulting in a risk of pond overflow to surface waters, or where a pond is overflowing to land but effluent was not reaching surface waters. “Non-compliance high risk” sites require a second visit to ensure that issues have been addressed.

3.3 **Major non-compliance**

Examples include sites where a storage pond or holding sump is overflowing into a watercourse, or where an irrigator is operating too close to a watercourse where effluent can, or is, entering it. These non-compliances always receive a re-visit. All major non-compliances resulted in some form of enforcement action being undertaken. These are discussed later in the report.

Results of the compliance monitoring are reported below.

3.4 **Overall compliance**

Overall compliance levels at the first visit compared with those for the previous three seasons are detailed in Table 1. It shows that for the second monitoring season in a row there has been a significant decrease (5%) in complying sites.

Table 1: Compliance levels over the last four seasons based on first visit inspections

	Complying		Non-Compliance Low Risk		Non-Compliance High Risk		Major Non-Compliance	
	Number	%	Number	%	Number	%	Number	%
2011/12	208	67	61	19	30	10	13	4
2010/11	254	72	53	15	33	9	14	4
2009/10 *	292	79	40	11	28	7	10	3
2008/09	241	73	60	18	18	5	12	4

* Note: For the purpose of this comparison, the routine monitoring and the Rotorua audit results were combined.

3.5 Significantly non-compliant sites

Table 2 contains a list of all sites that were rated as “Significant non-compliance” or SNC at any of their visits. There were four sites re-inspected as a follow-up, where their rating dropped from a “Non-compliance Low Risk” at the first visit, to a “Non-compliance High Risk” at the second visit. For the purpose of reporting, SNC is a combination of the two categories, “Major Non-compliance” and “Non-compliance High Risk”.

Table 2: Sites that were rated as SNC during any inspection

Dairy shed	Consent Number	Consent Holder	Compliance Level
21123	66635-0	DM and JH Johnson	Non-compliance high risk
21205	66795-0	Challenges Farm (2009) Limited	Non-compliance high risk
21225	66680-0	Alan F Rowe Limited	Non-compliance high risk
21264	66793-0	N and C Tomsett	Non-compliance high risk
21283	60887-0	Puketiro Farm Partnership	Non-compliance high risk
21298	66431-0	Tauranga City Council	Non-compliance high risk
21464	66049-0	G and J Black	Non-compliance high risk
21509	66075-0	BW and JE Blackmore	Non-compliance high risk
21593	66050-0	G and J Black	Non-compliance high risk
21665	61409-0	Mallowbay Holdings Ltd	Non-compliance high risk
21721	61709-0	DM Bull	Non-compliance high risk
21808	61688-0	L and A Green	Non-compliance high risk
21906	62061-0	Estate of DR and DM Signal	Non-compliance high risk
21957	62586-0	Angle Park Ltd	Non-compliance high risk
21972	62046-0	G and A Oliver	Non-compliance high risk
22116	62373-0	Maa-Vic Farms	Non-compliance high risk
22149	62615-0	Pekatahi Ayrshires Limited	Non-compliance high risk
22163	62807-0	AL Watene	Non-compliance high risk
22184	62708-0	GM Yates	Non-compliance high risk
22187	63480-0	LK Dunstan	Non-compliance high risk

22232	62075-0	EJ and BY Steiner Family Trust	Non-compliance high risk
22258	62139-0	EJ and BY Steiner Family Trust	Non-compliance high risk
22260	62148-0	T and M Vierboom	Non-compliance high risk
22267	62090-0	PICC Farms Limited	Non-compliance high risk
22457	62771-0	Warneford Farms Limited	Non-compliance high risk
22470	62936-0	Triple D Farms Limited	Non-compliance high risk
22581	63220-0	Hedley Farms Limited	Non-compliance high risk
22672	63486-0	The Trustee of the Waipa Family Trust	Non-compliance high risk
75965	65174-0	R and T Goudie	Non-compliance high risk
78560	60638-0	DEJ Marshall	Non-compliance high risk
78582	65889-0	GRO2 Limited	Non-compliance high risk
78813	61736-0	NB and DA Payne	Non-compliance high risk
78838	61919-0	W and L Watson Family Trust	Non-compliance high risk
78895	61590-0	Lowry Family Trust	Non-compliance high risk
21356	66927-0	Jag Farms Limited	Major non-compliance
21471	65869-0	JR and LM Fowler Family Trusts Partnership	Major non-compliance
21659	60674-0	Bayfield Farms Limited	Major non-compliance
22181	62806-0	Oteki Farms Enterprise	Major non-compliance
22291	62070-0	EJ and BY Steiner Family Trust	Major non-compliance
22443	62874-0	FJ Savage	Major non-compliance
22468	63044-0	WB and SI James	Major non-compliance
22609	62855-0	Breezemere Farms Ltd	Major non-compliance
22662	63028-0	Orete Incorporation	Major non-compliance
22666	63000-0	IKJ Ruff	Major non-compliance
75989	61212-0	Rototawai Farms Ltd	Major non-compliance
78521	60331-0	Dansey Farms Dairy Ltd	Major non-compliance
78548	60671-0	MS and SE Dibley	Major non-compliance

Table 3 shows a comparison of the SNC percentages for the 2011/2012 dairy season compared with the eight previous monitoring seasons. It includes all dairies monitored and is based on results from the first inspection. It reveals an increase in significantly non-compliant sites for the third season in a row.

Table 3: SNC comparison with previous routine compliance surveys

	03/04	04/05	05/06	06/07	07/08	08/09	09/10 *	10/11	11/12
Significant NC % at First Visit	11%	13%	15%	9%	9%	9%	10%	13%	14%
Number of Farms Inspected	315	450	278	366	388	331	370	354	312

* Note: For the purpose of this comparison, the routine monitoring and the Rotorua audit results were combined.

4 National Clean Streams Accord reporting

In mid-2007, a nationally consistent reporting regime was agreed upon amongst all of the Regional Councils and Unitary Authorities for reporting their region's dairy compliance levels. The purpose of this was to allow for regional comparison, as most Council's previously had their own unique method of determining and reporting compliance. This caused issues when trying to determine whether the terms of the Clean Streams Accord were being met in particular 100% compliance with resource consent conditions at all times for Fonterra farms.

The criteria set by the Ministry for reporting is that farms subject to more than one inspection during the season should be reported once only, on the basis of the worst compliance assessment for the year. There have been occasions where the compliance level has worsened from a minor non-compliance at the first visit to a more significant non-compliance at a second or subsequent visit.

As detailed earlier, the rating of "SNC" is a combination of the two categories, "Major Non-compliance" and "Non-compliance High Risk".

Table 4 shows the agreed format for the national reporting of dairy compliance for Fonterra farms only (it does not include any farms that do not supply milk to Fonterra). Therefore the 12 Open Country Dairy sites that were inspected are not included in the table. As discussed, the table shows only the worst compliance rating for the inspection period.

Table 4: National Dairy Accord reporting (%) – Fonterra farms only

	Complying %	Minor Non-Compliance %	Significant Non-Compliance %
2011/12	67	17	16
2010/11	71	15	14
2009/10	79	11	10
2008/09	73	18	9
2007/08	76	15	9

4.1 Disposal types

All of the sites inspected this season were discharging to some form of land disposal. The breakdown by disposal type, and compliance with the various forms of effluent disposal systems used, are detailed in Table 5. The table indicates those sites that irrigate either directly from a sump, or from a small untreated holding pond, have the highest level of SNC. This supports the industry's position, that adequate storage coupled with well-designed irrigation systems will help improve compliance levels.

Table 5: Comparison of SNC levels for various disposal types at first visit (% of SNC for each type of system)

Type	Pasture Irrigation (Treated)	Pasture Irrigation (Untreated)	Soakage Systems (Land and Pond)	Both Soakage and Pasture Irrigation	Discharge to Surface Waters
Number Inspected (2011/2012)	35	158	46	73	0
SNC (2011/2012)	8%	17%	9%	12%	0%
SNC (2010/2011)	10%	17%	4%	10%	0%
SNC (2009/2010)	8%	7%	6%	4%	0%
SNC (2008/2009)	9%	12%	6%	8%	0%
SNC (2007/2008)	14%	8%	9%	9%	0%
SNC (2006/2007)	10%	8%	10%	11%	13%
SNC (2005/2006)	0%	13%	19%	19%	26%

A breakdown of compliance levels for farms by the eight catchments inspected are detailed in Table 6 below. This table shows that the numbers of farms where SNC issues were spread relatively evenly throughout the Bay of Plenty region.

Table 6: Comparison of SNC levels within various catchments based on first inspection results

General Catchment areas	Rotorua	Rerewhakaaitu and Surrounds	Tauranga Harbour and West	Papamoa, Pongakawa to Matata Straights	Rangitaiki/Tarawera	Galatea – Waiohau	Whakatane – Waimana	Ohiwa – East Cape
Number Inspected 2011/2012	17	12	33	77	59	34	21	59
Number of SNC 2011/2012	4	3	7	5	6	5	5	8
Major NC sites 2011/2012	2	0	2	2	0	1	1	5
SNC % 2011/2012	23%	25%	21%	6%	10%	15%	24%	13%
SNC % 2010/2011	12%	5%	7%	13%	12%	7%	18%	32%
SNC % 2009/2010 *	50%	8%	17%	4%	8%	2%	0%	8%
SNC % 2008/2009	7%	12%	16%	10%	3%	12%	10%	6%
SNC % 2007/2008	25%	9%	3%	9%	7%	8%	3%	16%
SNC % 2006/2007	7%	9%	0%	8%	12%	8%	6%	17%
SNC % 2005/2006	8%	7%	2%	29%	16%	11%	22%	16%

5 Enforcement

Staff assess all sites rated as SNC. The more serious of those are referred to the Enforcement Decision Group (EDG) to determine what further action is appropriate. Further action usually involves one or more of the following:

- A formal warning letter: This advises the consent holder of their responsibilities, and places them on final notice.
- An abatement notice: This is a legal document that outlines actions that must be taken by the recipient in order to comply with their resource consent, a regional plan and the Resource Management Act.
- An infringement notice: This is a fine issued to the consent holder and/or the person responsible for any breach. This is fixed by law. The offence fees for discharges directly to water, or to land where they may enter water is \$750. The fee for breaching an abatement notice is also \$750.

- A prosecution: Prosecutions are generally only initiated for the most serious of discharges, or for sites where there has been a long history of repeat offences. Any potential prosecution case is assessed by the Enforcement Decision Group (EDG) made up of senior Council staff and legal counsel. If the EDG agree that a prosecution is warranted, then it makes recommendations to Council for decision. If Council decide a prosecution is warranted, the case is passed to Council’s lawyers for review and for determining which parties are liable. Informations are then served. This process must be completed within 6 months of finding the original breach.
- Enforcement orders: With several of our recent cases, the judge has been including enforcement orders as part of his sentencing decision. The orders issues lately have revolved around the offenders having to develop and submit full Effluent Management Plans, detailing how they will manage their farms in order to comply with their consents. In addition, many of the orders have also required farmers to install failsafe devices on their irrigation systems to help reduce the risk of system failures resulting in uncontrolled discharges to waterways.

A summary of the enforcement action taken by staff is shown in Table 7. Please note that some sites may receive more than one infringement (multiple offences or parties) or more than one abatement notice (served on multiple parties).

Table 6: Enforcement undertaken or recommended for the last 9 seasons

	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12
Abatement Notices	27	34	24	14	8	21	26	22	24
Infringement Notices	7	16	8	8	1	25	18	18	4 ¹
Prosecutions	0	2	1	1	0	5	4	8	7 ²

Note 1: It is likely that further infringement notices will be issued once an enforcement decision has been made on a number of sites.

Note 2: This figure relates only to those sites where Council has approved undertaking prosecution action as of 1 February 2012.

6 Discussion of survey results

Overall the percentage of farms complying with their resource consents at the first visit have worsened for the second consecutive season. Although there were four less farms in total than last season rated as SNC, the total number of farms visited last year was over 10% less than for the 2010/11 season.

This year’s level of SNC was the worst since the 2005/06 season, when 15% of the 278 sites inspected that year were given that rating.

It is difficult to pin point the cause of the drop in compliance levels given the increased efforts from ourselves and our industry partners in raising awareness

around Best Practice and the need to maintain compliance with resource consents 365 days of the year.

In addition, the Regional Council has had some very high profile dairy effluent cases over the last 12 months, which should have helped raise awareness within the farming community. Certainly, from feedback that staff receive, there is a general awareness out there of the need to comply with the effluent regulations and the potential ramifications of not complying.

This season saw a repeat of last year where no notification was given. As with last season, staff do not feel that this would contribute significantly to the poor compliance levels. Based on historical audit results, unannounced audit inspections varied only slightly from the compliance percentages found through the announced inspections, and in some cases had better compliance rates.

The increased level of SNC is most concerning factor of this year's compliance inspections. To be rated SNC there must either be a discharge to a waterbody, or a serious breach of consent must have occurred which could result in a discharge to water (can be via land). Reduction of the SNC category must be the industry's, and our, prime focus.

The high level of enforcement is a direct reflection of the high level of SNC. The numbers of abatement notices issued are similar to the previous season, as are the number of prosecutions initiated. It is expected that the level of infringements issued will increase over the coming month or so, as several sites' investigations are completed.

The numbers of SNC were spread fairly evenly over the whole region, however as a percentage, the area between Pāpāmoa and the Matatā Straights had the least amount of SNC. Both the Rerewhakaaitu and the Rangitāiki/Tarawera areas had no Major Non-compliance rated sites i.e. no sites were found to have discharges making their way into water.

Weather conditions during the monitoring period were predominantly dry, however there were some instances of wet weather encountered. No monitoring of sites was undertaken in what would be described by some as "extreme" conditions.

6.1 **General comments**

- During 2011 the BOP stakeholders group was re-established. This is a group that was initially set up following the problems encountered in the Rotorua catchment two years ago. The group is looking at what instruments could be used to encourage change in the industry.
- This year saw the publishing of the joint document between DairyNZ and the Regional Council entitled "A Guide to Managing Farm Dairy Effluent – Bay of Plenty". This is a document that leads the way nationally, and is expected to be used as a national template.
- In addition, the industry has developed some very good tools recently. These include:
 - The Farm Dairy Effluent Design Code of Practice: This design code is a step in the process of ensuring any effluent system installed is fit for purpose. Accompanying this is a training course that system

- designers/installers can go through to become an accredited installer;
- The Pond Construction Technical Note: This note outlines what is needed to ensure a pond is constructed correctly, and is produced in two versions; one focussed on what the farmer needs to know, and the other focused on what the consultant/contractors need to know;
 - The AgITO course: Although this has now been going for a couple of seasons, there seems to be more people undertaking the course. There are two workshops associated with this course, one aimed at the Farm Managers and Sharemilker's, and the other aimed at the whole farm team. When these courses are run, Council staff present to the trainee's and make themselves available to answer questions. This has been very valuable.
- The Clean Streams reporting for Fonterra farms in our region will show a drop in performance with SNC increasing from 14% last year to 16% this year. This is the third year in a row that the SNC levels have worsened.
 - This year overall SNC level for all farms inspected is the worst since the 2005/06 season when 15% SNC was recorded.
 - There was no substantial changes in performance for the various disposal systems compared to last year. Discharges of untreated effluent to pasture irrigation continues to be the worst performing method of disposal. This generally relates to systems where there is no storage available i.e. they have to pump out each day or two. The Industry (supported by us) now promote that Best Practice is to have storage (deferred irrigation), so irrigating at inappropriate times (wet soils, etc.) can be avoided.
 - If a farmer invests in good infrastructure and installs an appropriately sized holding pond, with associated low application rate irrigation system, then they are likely to get an extended term on their resource consent. However those that do not meet the industry best practice will be assessed on a case by case basis.
 - The Rerewhakaaitu and Pāpāmoa to Matata regions were the only two areas inspected that did not receive any "Major non-compliance" ratings at their first visit. However all regions monitored did receive "Non-compliance high risk" rated sites at some point during the monitoring season.
 - Enforcement over the last few years has remained steady. Of note, during recent prosecution sentencing's, the Judge has delivered Enforcement Orders requiring the offenders to develop Effluent Management Plans and install fail safe devices to their effluent systems.
 - As was stated last year, it is important for Council to not only support Industry's initiatives in managing the problem, but to also take a strong role in ensuring compliance is maintained at all times with resource consents, so the community is safeguarded against uncontrolled discharges of pollutants.

7 **Conclusion**

The results of the 2011/2012 compliance monitoring survey of 312 dairy farms in the region revealed some disappointing results.

Overall there has been a marked drop in sites fully complying with their resource consents, with the level of SNC increasing slightly.

The continued relationship with the industry is essential to improving compliance. Council will continue to work with industry and support farmers to improve compliance, by undertaking arranged farm visits (separate to the routine monitoring visits), providing expertise for training days and developing tools.

The increase in trend in SNC is worrying and continued poor performance reflects badly on the rest of the industry. Ultimately compliance levels must improve or the industry can expect an increase in the level of enforcement as more and more farmers become repeat offenders.

Steve Pickles
Pollution Prevention Team Leader

for Pollution Prevention Manager

14 February 2012