

## ENVIRONMENTAL COMPLIANCE

### SUMMARY 2007-08

#### OVERVIEW

- The Northland Regional Council (NRC) is responsible under the Resource Management Act (1991) for the control of activities that may cause adverse environmental effects.
- These activities are regulated by rules in Regional Plans and, where applicable, resource consents.
- NRC is responsible for monitoring the effectiveness of its rules and compliance with resource consents.
- NRC undertakes assessments of consented activities and grades activities according to their level of compliance.
- In cases of significant non-compliance, NRC can take enforcement action to halt an activity or fine or prosecute the offender.

#### PERFORMANCE TARGETS

<b>To promote sustainable management of resources and minimise adverse effects of people's use of the environment by ensuring compliance with resource consents, Regional Plans and statutory environmental standards:</b>	<b>Target Achieved:</b>
➤ Monitor compliance with, and the effects of, the exercise of resource consents.	✓
➤ Document monitoring programmes on the Council's consent monitoring database and report as required for each programme.	✓
➤ Take appropriate enforcement action in cases of significant non-compliance.	✓
➤ Report results to the relevant consent holders, and the Council on a monthly basis.	✓

#### SUMMARY OF RESULTS 2007-08

- A total of 4006 consented activities in the NRC database.
- 3002 monitoring visits undertaken by NRC staff in 2007-08.
- 1912 of the activities monitored were fully compliant, 799 with minor non-compliance and 291 significantly non-compliant.
- 173 Abatement Notices and 113 Infringement Notices issued by NRC.
- Three successful prosecutions were completed in the 2007-08 financial year.

## INTRODUCTION

Northland Regional Council (NRC) is responsible under the Resource Management Act (1991) (RMA) for the control of activities that may cause adverse environmental effects. In Northland, these activities are controlled by the Regional Policy Statement (RPS), Regional Water and Soil Plan (RWSP), Regional Air Quality Plan (RAQP) and the Regional Coastal Plan (RCP).

In each of the Regional Plans, activities that have a minimal effect on the environment are “permitted” provided that they meet certain conditions. Activities that do not meet the criteria for a permitted activity either require resource consent or are prohibited. Under the Act, NRC is also responsible for monitoring and reporting on the efficiency and effectiveness of rules contained in these plans, and compliance with resource consents issued under the rules.

When resource consents are issued, conditions are set to limit the impact of the activity on the environment to an acceptable level and to meet the objectives of the relevant Regional Plans. All resource consents issued by NRC also contain a condition stating that actions undertaken under the consent will be monitored by the Council for compliance.

The level of monitoring undertaken for resource consent varies depending on the duration and potential impact of the activity. For example, a permanent structure in the Coastal Marine Area (CMA) may be monitored once every three to five years, whereas a short-term, high impact activity may be monitored whilst it occurs, or upon completion. This means that, in any one year, the number of consented activities does not correlate to the number of monitoring visits undertaken by NRC staff.

During each monitoring visit, the consented activity is graded according to compliance (fully compliant, minor non-compliance or significant non-compliance). In the event of significant non-compliance, NRC has a number of tools by which it can enforce the conditions of resource consent. These include on site agreements between council staff and contractors, warning letters, abatement notices (which require a person to stop or not start a non-compliant action, or to do something to ensure compliance), infringement notices (which carry a variety of fines) and enforcement orders. In serious cases, it may also be necessary to prosecute individuals or companies who have broken the law.



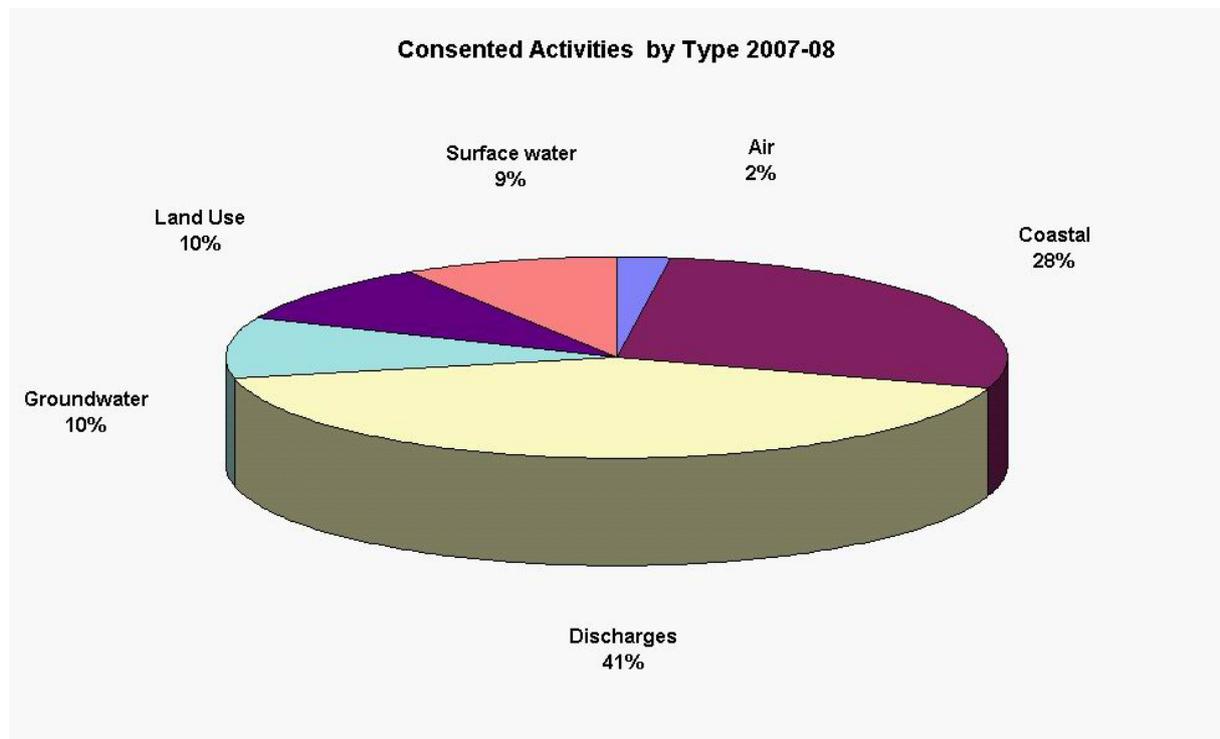
Photo: Structure in the Coastal Marine Area

## MONITORING OF RESOURCE CONSENTS

### Activities Requiring Monitoring

In the 2007-08 financial year, NRC had 4006 active, consented activities in its database. The chart below gives a breakdown of consented activities by type.

1115 consented activities were listed for the coastal environment. These activities include structures, such as moorings and marine farms, and other activities such as earthworks and reclamations in the Coastal Marine Area (CMA). Activities relating to groundwater (389) and surface water (355) include take, use, damming or diversion of water and activities relating to air (88) include the discharge of particulates, smoke or other such emissions. Land-use activities (391) include earthworks, vegetation clearance and land preparation. Many of these tend to be short term and relate to one off projects, such as subdivisions or roading.



The highest percentage of consented activities relate to the discharge of a substance into the environment (1668 activities). This category includes discharges to land or water (including coastal waters), such as stormwater, sewage or farm dairy effluent (FDE).

The number of consented activities recorded for the purposes of monitoring does not represent the number of resource consents issued by NRC and active during the financial year, as a single consent document may cover all activities required for a given proposal. For example, a single consent document may include vegetation clearance, earthworks and stormwater discharge activities at a single site.

### Compliance Monitoring Assessments

All resource consents contain conditions which regulate how the consented activity should be undertaken, in order to prevent or minimise any adverse impact on the environment. The consent holder is legally bound to abide by these conditions.

In Northland, monitoring to check compliance with consent conditions is governed by NRC's Environmental Monitoring Quality Manual. Monitoring requirements are different for each consented activity and are based on the duration of the activity, the scale of the activity and the potential for it to affect the receiving environment.

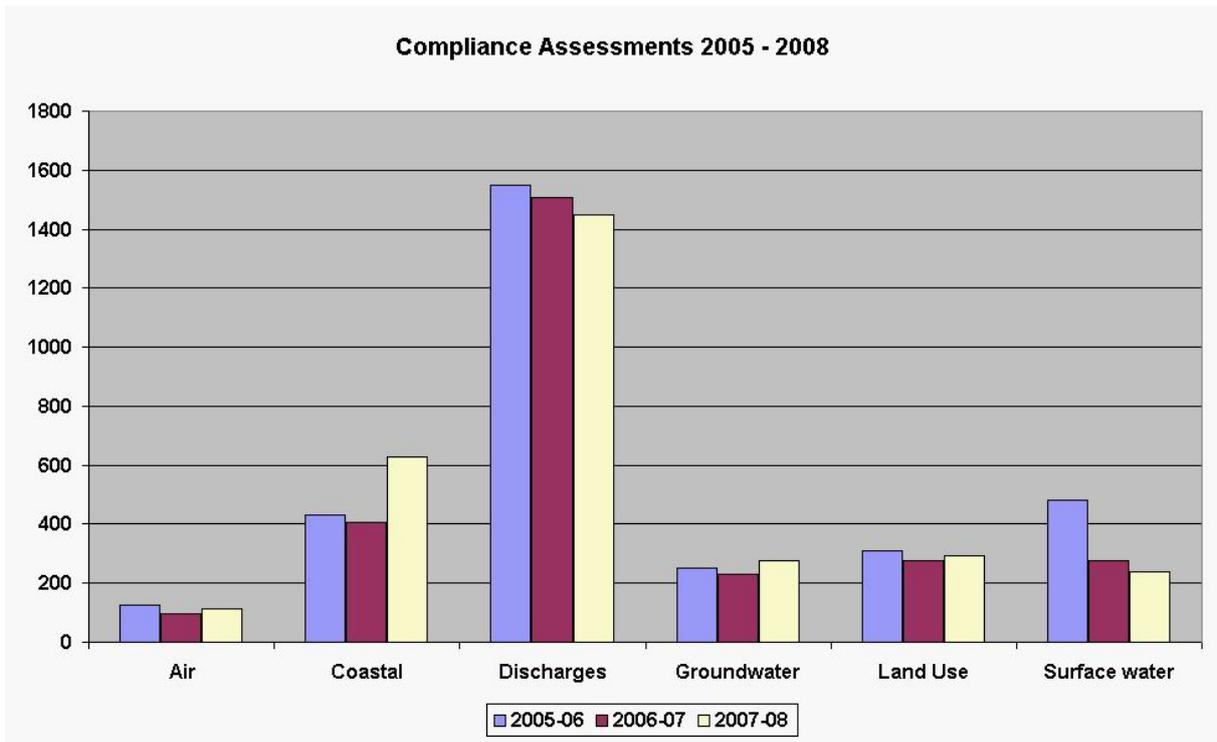
Not all consented activities require monitoring as some may have little or no impact on the environment. Activities which are low risk but which occur over a longer period of time may require monitoring on an occasional basis, for example, once every two to five years. Activities with the potential to have a significant impact on the environment, either in the long or short term, require monitoring on a more frequent and regular basis.

Monitoring is largely undertaken by NRC staff however in some instances, it is more appropriate for the activity to be monitored by the consent holder (termed 'self-monitoring'). Where consents are self-monitored, NRC staff may also undertake random site visits in order to audit the received information against the activity on the ground. In addition, monitoring may be undertaken in response to an "incident" call on the NRC Environment Hotline, which could be an indication that an activity is not being undertaken in line with the conditions of the resource consent.



Photo: Council employee measuring water clarity downstream of a discharge

During the 2007-08 financial year, 3002 compliance assessments were made by council staff. This compares to 2788 in 2006-07 and 3149 in 2005-06. The chart below compares the number of assessments made each financial year from 2005 – 2008 based on type of activity monitored.



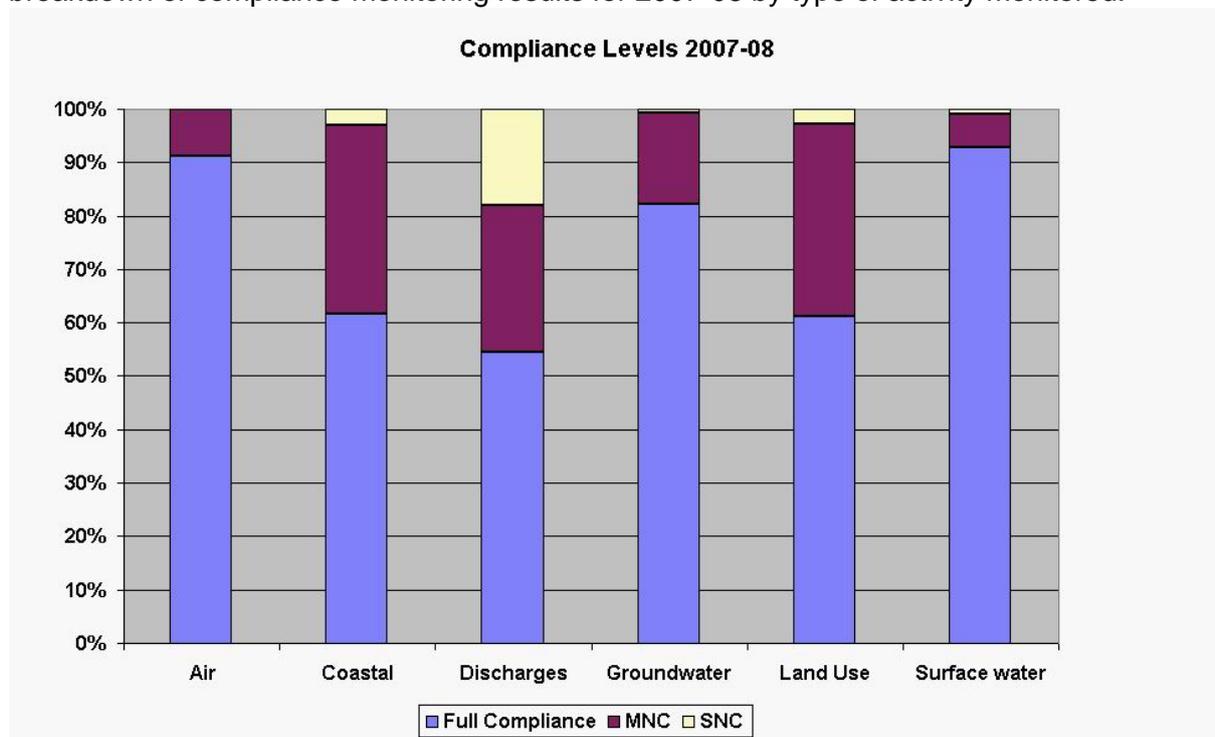
As can be seen, the number of monitoring assessments undertaken for each activity group is proportional to the number of consents issued for that type of activity.

**Compliance Assessment Results**

The results from each compliance assessment are graded using the criteria given below.

Compliance Level	Description	Effect
CL1	Full Compliance	Within consent limits
CL2	Minor non-compliance - Self Monitoring information or one-off data is incomplete or outstanding	Evidence of minor actual or potential for minor effect
CL3	Minor non-compliance - Poor system maintenance and/or construction, or monitoring information indicates minor non-compliance.	
CL4	Combination of CL2 and CL3	
CL5	Significant Non-compliance	Evidence of significant effect or potential for significant effect OR ongoing/repeated minor non-compliance (i.e. more than two)
CL6	Significant Non-compliance	Uncontrolled discharge, major effect or potential for significant effects

During the 2007-08 financial year, the majority of consented activities (64%) monitored were fully compliant with the conditions of their consent, while 26% were found to have minor non-compliance and 10% were found to be significantly non-compliant. The graph below gives a breakdown of compliance monitoring results for 2007-08 by type of activity monitored.



As can be seen, activities relating to the discharge of a substance into water or onto or into land had the highest rate of non-compliance. A high proportion of these discharges are of FDE. These results are discussed in more detail later in this report. Minor non-compliance in a consented discharge system can include incomplete maintenance and/or discharge records. Significant non-compliance can include exceeding consented discharge/receiving environment limits, leading to an adverse impact on the environment.

Incidents of significant non-compliance also include activities which have been undertaken outside of the conditions of resource consent, or a rule in a Regional Plan, but that have not yet had an adverse impact on the environment, i.e., the damage has not yet occurred but would have been unavoidable under different conditions. An example of this is earthworks operations undertaken on a slope without the specified sediment control features. Sediment run-off may not yet have occurred however it would be inevitable in the event of prolonged or heavy rainfall. Relying on the fact that this situation has not yet arisen is not an adequate defence under the RMA.



Photo: Sediment control features – full compliance

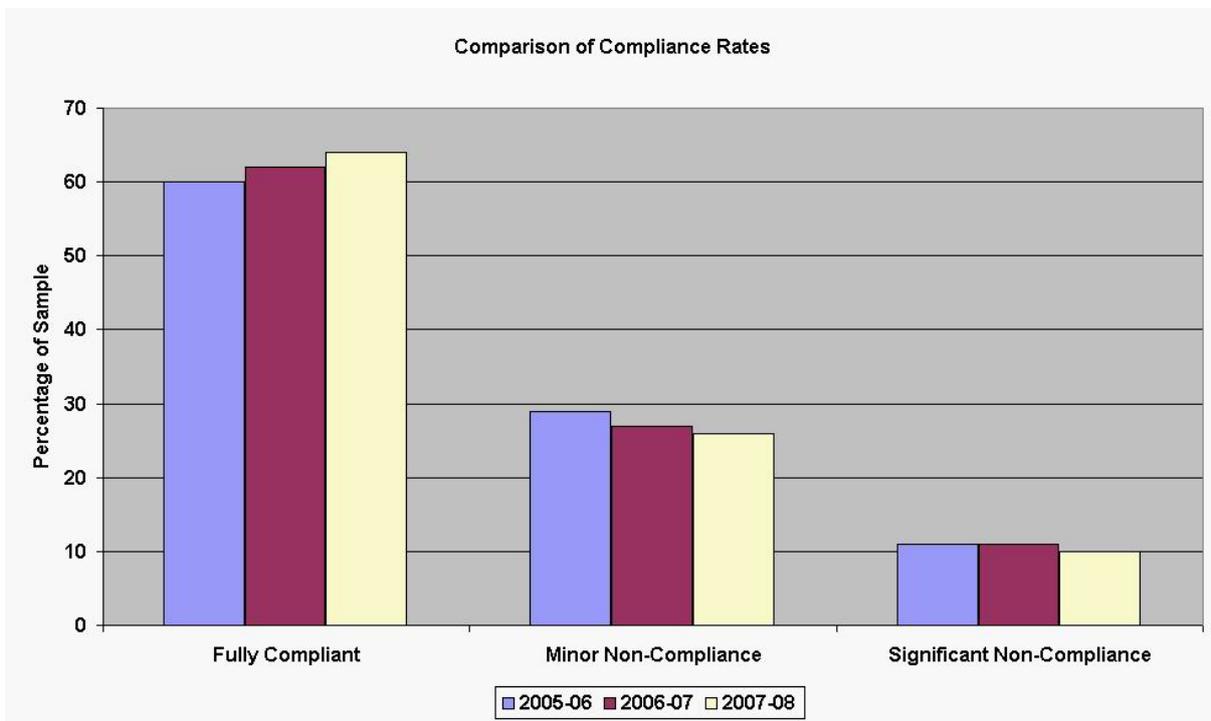


Photo: Poorly maintained sediment pond – minor non-compliance



Photo: Sediment run-off from earthworks activity with no sediment control features – significant non-compliance

The second highest rate of non-compliance comes from coastal activities and the third from land-use. For coastal activities, the most frequently recorded minor non-compliance is that new or existing coastal structures are not numbered as stipulated. More significant non-compliance can include structures that are not the consented size. For land-use activities, minor non-compliance can include incorrect construction or maintenance of sediment control features used during earthworks activities. Significant non-compliance can include a complete lack of sediment control features, leading to excessive sediment run-off from earthworks activities.



In 2007-08, there was a small increase in the number of consented activities that were fully compliant compared to the previous two years. In 2005-06, 60% of consented activities were fully compliant, in 2006-07 this rose to 62% and in 2007-08, this figure rose again to 64%. As a result, there has been a small decrease in the number of activities that have minor non-compliance from 29% in 2005-06 to 26% in 2007-08 and a small decrease in activities that are significantly non-compliant from 11% in 2005-06 to 10% in 2007-08.

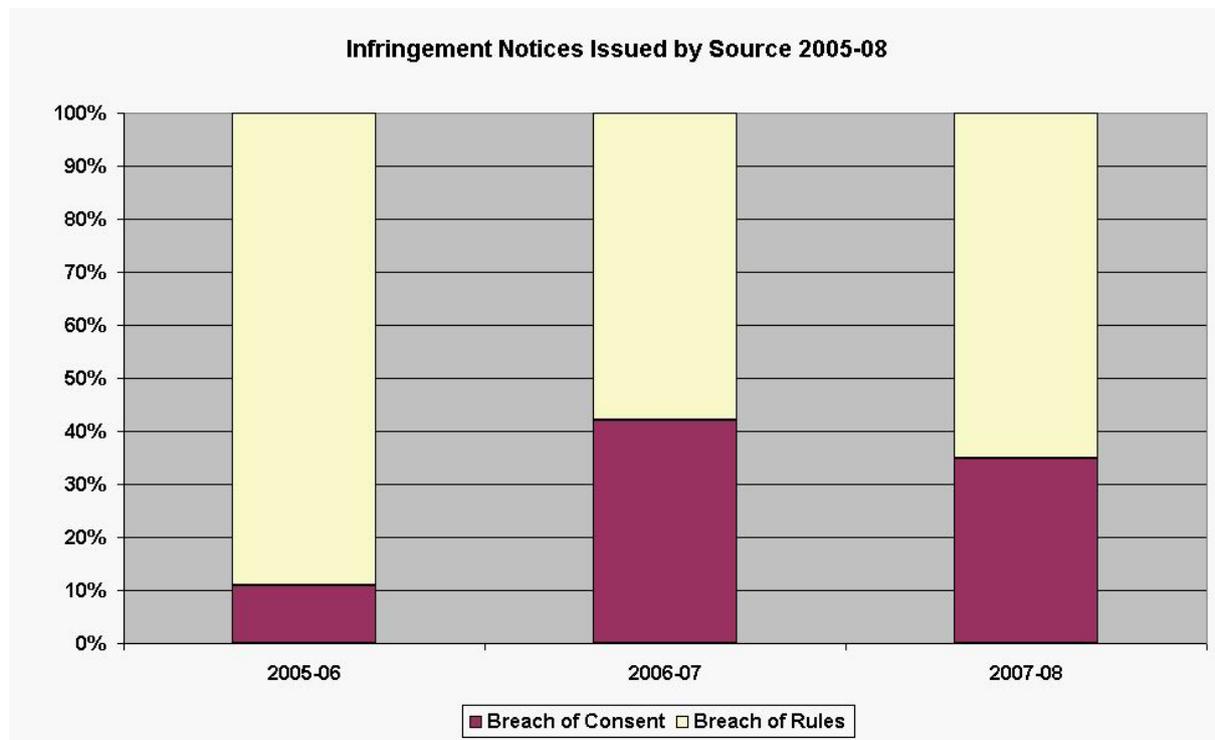
## ENFORCEMENT ACTION

### Infringement and Abatement Notices

If a consented activity is found to be non-compliant during routine monitoring, or if an activity is reported to NRC that is in breach of RMA regulations or rules in a Regional Plan, NRC has several mechanisms by which it can take action. The action taken depends on the severity and nature of the infringement.

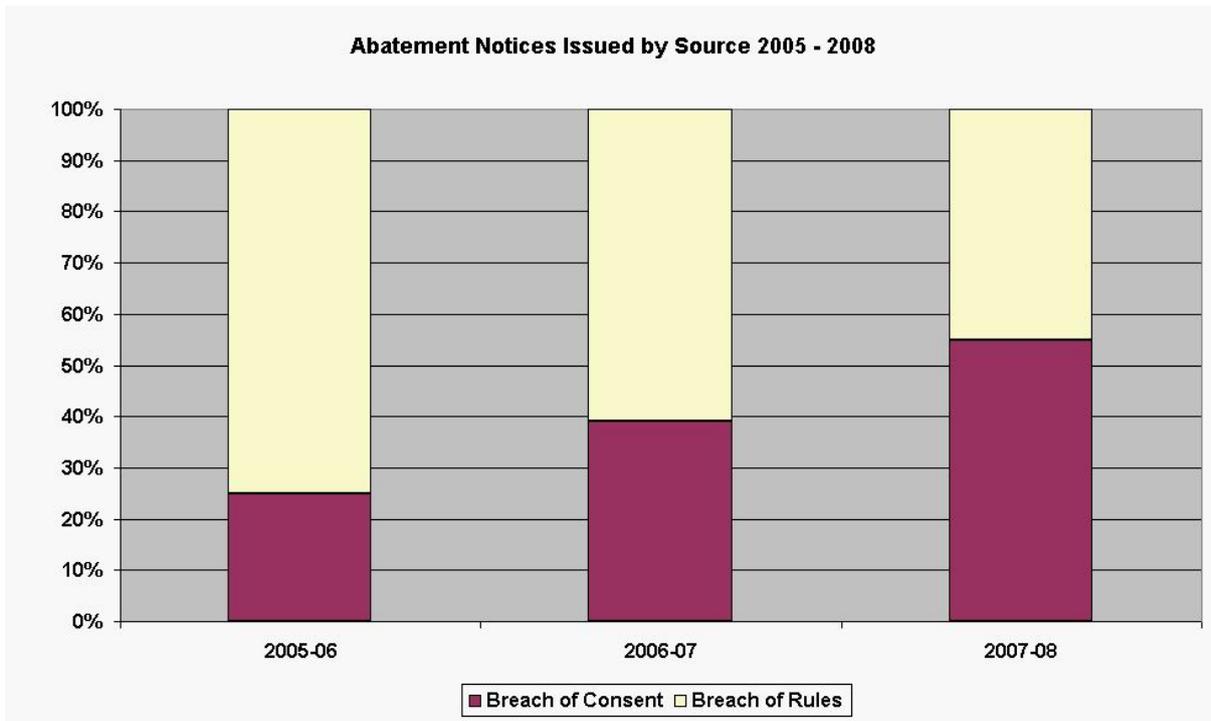
The two main enforcement mechanisms used by NRC are infringement and abatement notices. An infringement notice involves a fine and is usually issued for a minor offence that does not warrant prosecution. An abatement notice requires a person to stop, or not start, an activity that contravenes the RMA, any regulations, a rule in a regional plan or resource consent, or that is likely to have an adverse effect on the environment.

In the 2007-08 financial year, NRC issued a total of 113 infringement notices. This compares to 72 in 2006-07 and 94 in 2005-06. The graph below gives a breakdown of infringement notices issued by reason, i.e., whether the infringement notice was issued for a breach of resource consent or for a breach of a rule in a Regional Plan, over the last three financial years.



As can be seen, there has been an increase in the number of infringement notices issued for a breach of resource consent. This is largely due to NRC taking a harder line with breaches of a consent discovered during compliance monitoring.

During the 2007-08 financial year, NRC issued a total of 173 abatement notices. This compares to 112 in 2006-07 and 142 in 2005-06. The graph below gives a breakdown of the abatement notices issued by reason over the last three financial years.

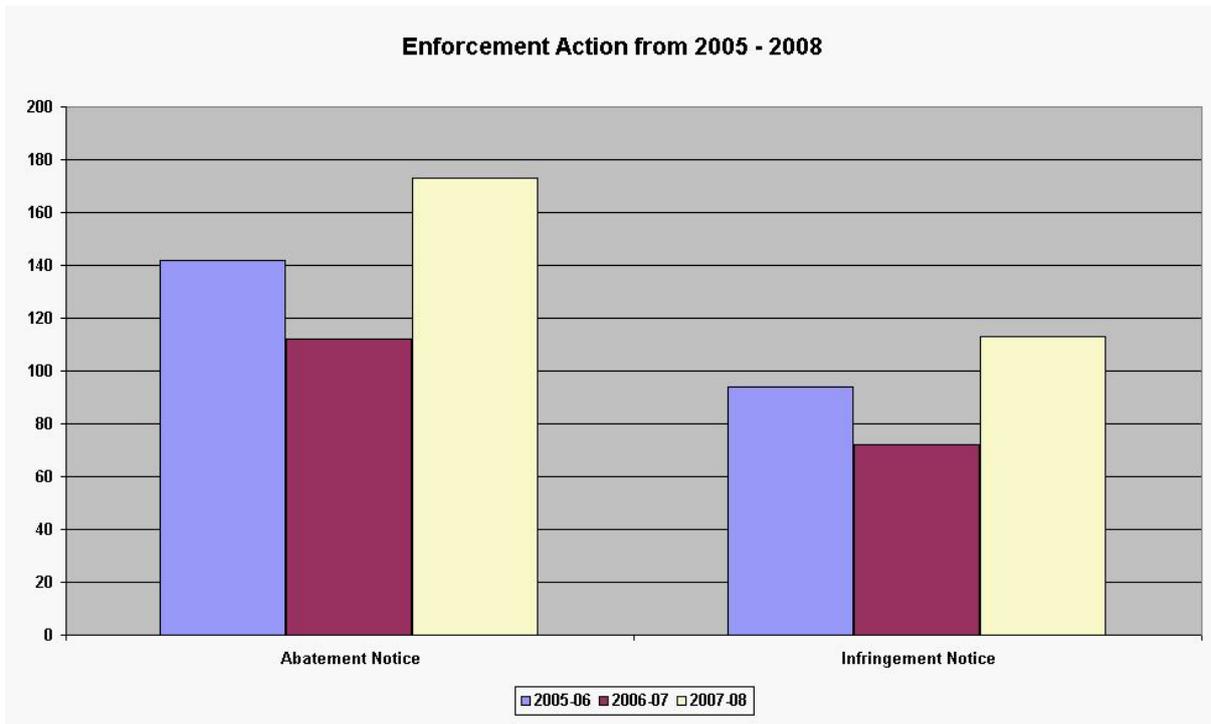


As can be seen, over half (55%) of abatement notices issued in 2007-08 were as a result of a breach of resource consent. The increase in the number of abatement notices issued in 2007-08 reflects the harder line being taken by NRC for breaches of resource consent.



Photo: Discharge of untreated FDE into water – a prohibited activity

The graph below compares the number of infringement and abatement notices issued in each financial year from 2005 to 2008. There has been an increase in enforcement action taken in 2007-08 compared to 2005-06 and 2006-07. Although compliance with resource consents has increased in this financial year, NRC is increasingly taking a harder line on non-compliance.



**Legal Proceedings and Prosecutions**

During the 2007-08 financial year, NRC successfully completed three prosecution cases and commenced a fourth.

Prosecution cases were brought following a discharge of raw sewage from the Kioreroa Road pumping station into Whangarei Harbour, over and above that allowed by resource consent, and against two farm owners/operators who discharged untreated FDE to water, a prohibited activity in the RWSP. Fines for these offences were set around \$19,500, \$20,000 and \$23,000 respectively.

In addition, a further prosecution case was commenced in 2007-08 against a farm company who are alleged to have discharged untreated farm dairy effluent to water.

**COMPLIANCE MONITORING IN DETAIL – FARM DAIRY EFFLUENT**

**Summary 2007-08**

<b>OVERVIEW</b>
➤ Approximately 950 dairy farms in Northland in 2007-08.
➤ Producing 11 thousand cubic metres of farm dairy effluent (FDE) per day.
➤ 684 consented discharges of FDE in 2007-08.
➤ 258 non-consented farms discharging FDE to land under the permitted activity rule in the Regional Water and Soil Plan.
➤ All consented and non-consented farms monitored annually by NRC.

<b>PERFORMANCE TARGETS</b>	
<b>To monitor and enforce compliance with farm dairy effluent (FDE) discharge standards by:</b>	<b>Target Achieved:</b>
Inspecting all FDE treatment and discharge systems annually, record inspection details and report these to the farmers responsible.	✓
Testing effluent and receiving water quality annually, for systems with resource consents to discharge to water.	✓
Follow up on all non-complying systems, systems that have had poor grades, or those requiring maintenance or upgrading, when needed.	✓

<b>SUMMARY OF RESULTS 2007-08</b>
➤ 48% of FDE consented discharges fully compliant.
➤ 19% of FDE consented discharges significantly non-compliant.
➤ 56% of non-consented farms met the “permitted activity” rule.
➤ 44% of non-consented farms graded as significantly non-compliant with the permitted activity rule or requiring resource consent or undertaking a prohibited activity.
➤ 2 successful prosecutions for unlawful discharge of FDE in 2007-08.

### Introduction

There are approximately 950 dairy farms in Northland. Collectively they produce over 11 thousand cubic metres of farm dairy effluent (FDE) per day. This effluent can be applied to land or it must be adequately treated before disposal to water.

The rules that apply to FDE are set out in the Regional Water and Soil Plan (RWSP) for Northland. The disposal of untreated or treated animal effluent and farm wastewater to land is a “permitted activity” subject to conditions ensuring it does not have an adverse effect on the environment or impact on neighbouring properties. All farms that meet the requirements of the permitted activity rule are monitored annually by NRC as **non-consented farms**.

The disposal of treated animal effluent to water, provided that the water is not a listed Dune Lake, watercourse flowing into a listed Dune Lake, or river or lake deemed to have outstanding values, is a “discretionary activity”. This means that resource consent is required to authorise the discharge. The consent holder is required to abide by the conditions contained in their specific consent. Qualified contractors annually monitor **consented farms** for compliance.

The discharge of untreated animal effluent to water is prohibited. The RMA also prohibits the discharge of untreated effluent into or onto land in circumstances that may result in that effluent entering water, unless specifically authorised by resource consent or a rule in a plan.

Monitoring targets are set and followed to gauge compliance with the rules (see **Performance Targets**). In 2007-08, 48% of FDE consented discharges were fully compliant with their consent conditions and 56% of non-consented farms met the ‘permitted activity’ rule.



Photo: Land application of farm dairy effluent via an irrigator

**Resource Consent Monitoring**

Annual inspections are done by contractors or council staff to check if resource consent conditions are being complied with. Water samples are taken to measure if the discharge is having an adverse affect on the receiving water quality. Generally, three samples are taken; an upstream sample, a point of discharge (POD) sample, and a downstream sample. The water quality at the downstream site (also called the consent compliance site) must meet the water quality conditions as specified in the consent. An upstream sample is taken to rule out any other factors that may be affecting the quality of the water at the time of sampling.

Typical Test Results

The water is tested for temperature, dissolved oxygen concentration, faecal coliforms, pH and ammonium. Faecal coliforms are used as an indicator for all pathogenic organisms. The table below shows typical test results for a compliant, consented farm. All test results at the consent compliance site meet their consent conditions.

Consent compliance site



Analysis	Sampling Site		
	20m Upstream of POD	Point of Discharge (POD)	20m Downstream of POD
Dissolved Oxygen (g/m <sup>3</sup> )	8.7	1.8	7.9
Faecal Coliforms (No/100ml)	92	1100	400
Ammoniacal Nitrogen (g/m <sup>3</sup> )	0.01	30.1	0.04
pH	7.9	7.6	7.7
Temperature (°C)	13.9	18.6	14.4

The photo below highlights the difference in samples collected from a non-compliant FDE treatment system with the upstream sample to the far left (numbered one), the point of discharge sample in the centre (numbered two) and the downstream sample (numbered three).



Monitoring Results

In 2007-08, there were 684 consented discharges of FDE, compared to 711 in 2006-07. Of the consented discharges in 2007-08, 328 met all consent conditions and 226 had minor non-compliance. Farms reported as having minor non-compliance had water quality results with only minor transgressions from the standard, or results that complied but maintenance work was required on the FDE system, e.g., an effluent pond needed de-sludging or stormwater controls required attention.

In 2007-08, a further 130 farms had significant non compliance with the conditions of their FDE resource consent, which means their water quality results were considerably outside of their consent conditions. Follow up visits by NRC staff were carried out on all farms with significantly non-compliant FDE treatment/disposal systems and formal enforcement action, including abatement and infringement notices, was taken where required.

The table below summarises the compliance results for FDE consented discharges for 2007-08 compared to the FDE consented discharges in 2006-07. As can be seen from this table, consent compliance has remained static for the last two years.

Full Consent Compliance		Minor Non-compliance		Significant Non-compliance	
2006-07	2007-08	2006-07	2007-08	2006-07	2007-08
48%	48%	33%	33%	19%	19%



Photo: A series of well-constructed farm dairy effluent treatment ponds

**Non-consented Monitoring**

Visual inspections are also carried out annually on farms that do not have resource consent. The treatment/disposal system at each farm is graded on a scale of 1P to 4P, with a “1P” being a good system with no work required (fully compliant), and “4P” indicating an unsatisfactory system which needs urgent or major work (significant non-compliance). The system can also be graded as “C”, which means resource consent is required, or “X” which indicates a prohibited activity is occurring. Water Quality samples are taken where there is a discharge to water.



Photo: A fully compliant FDE treatment and disposal system

Monitoring Results

In 2007-08, 258 farms were discharging FDE to land under the “permitted activity” rule, compared to 274 in 2006-07. In 2007-08, 145 farms met the criteria for the ‘permitted activity’ rule (includes grades 1P to 3P), while 23 had a significantly non-compliant system (grade 4P). 50 farms discharged treated effluent to water and so required resource consent (grade C) or a system upgrade, and a further 40 farms discharged untreated effluent to water, which is a prohibited activity (grade X). Grades “C” and “X” are included in the significantly non-complaint category for the purposes of analysing these results.

Similarly to the consented discharges, NRC staff carried out follow up visits on all farms with significantly non-compliant (grades 4P, C or X) treatment/disposal systems and formal enforcement action was taken where required.

The table below shows the percentage of non-consented farms who complied with the conditions of the permitted activity rule in 2007-08, compared to those monitored in 2006-07. As can be seen from this table, there has been a slight increase in the number of farms that are significantly non-compliant with the conditions of the permitted activity rule in 2007-08.

<b>Compliance</b>	<b>2006-07</b>	<b>2007-08</b>
Fully compliant	48%	34%
Minor non-compliance	18%	22%
Significant non-compliance	34%	44%

**Enforcement Action**

The three main mechanisms used by NRC to enforce RMA regulations, rules in the Regional Plans or the conditions of resource consent are: follow up visits with farmers, infringement notices or abatement notices. In serious cases, it may also be necessary to prosecute individuals or companies who have broken the law.

During 2007-08, **92** infringement notices and **113** abatement notices were issued for non complying FDE systems (this figure includes both consented and non-consented farms).

In addition, NRC successfully prosecuted **2** farms in 2007-08 for illegal discharges of FDE. The fines given by the Court were \$20,000 and \$23,000.

The table below gives the figures for enforcement action taken in 2007-08, compared to action taken in 2006-07. As can be seen, there has been an increase in enforcement action taken, which corresponds with an increase in significant non-compliance on non-consented farms.

	2006-07	2007-08
Infringement Notices	41	92
Abatement Notices	68	113
Prosecutions	1	2

**More Information**

In Northland, heavy soils, hilly terrain and prolonged wet weather often makes effective land disposal difficult. “Environmentally friendly” disposal systems are generally those with high volume storage or treatment ponds, combined with land application when soil conditions are suitable. Several brochures are available on the NRC website - <http://www.nrc.govt.nz/Resource-Library-Summary/Publications/Waste/> - which provide further information for farmers on effective treatment and disposal systems. These include:

- A Guide to Managing Farm Dairy Effluent
- Farm Dairy Effluent – Managing Treatment Ponds
- Farm Dairy Effluent – Managing Stormwater
- Dairying and Clean Stream Accord
- Dead Stock Disposal
- Help protect our coast – keep stock out of the tide

