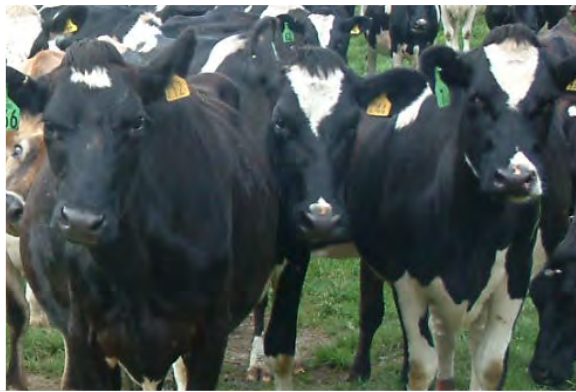


Environmental Compliance Monitoring Report **2013-14**



environment
SOUTHLAND
Te Taiao Tonga



Environmental Compliance Monitoring Report

2013/14

Report by –
Environment Southland
Compliance Division

Environment Southland Publication No 2014/11

Environment Southland is the brand name of
the Southland Regional Council



Foreword

The Compliance Division went through a review during the previous year and has this year begun to implement the recommendations. The Division has built on its processes and invested in staff training and different methods for assessing and reinforcing consent conditions.

It has been a year of pleasing results with industry, incidents and the dairy sector. There has been real effort by the dairy industry, working with Environment Southland staff, to work towards being as compliant with plan rules and the law as possible.

Compliance staff use a range of techniques, including aerial and on-farm inspections, to assess compliance and the approach is seeing significant improvements in perception and relationship building. Particularly pleasing is the decrease in significant non-compliance by dairy farmers with discharge consents, down to 6% this year compared with 11% last year. The council is committed to continuing to work closely with the dairy industry to assist consent holders to become more compliant.

During 2013/14, 712 incidents were recorded which is a decrease on the previous three years. Incidents change and fluctuate from one year to another due to a range of things like extreme weather events, new laws and new industry. Our pollution prevention hotline continues to be a valuable service, but it's pleasing to see the total number of reported incidents declining.

We are also pleased to note a 12% decrease in the number of incidents which are assigned a high priority response time. These are incidents that are more likely to have significant impacts on the environment, or that may be difficult to confirm if not investigated promptly.

In the past year greater amounts of information has been gathered on receiving incident calls, which has allowed staff to assess the negative environmental impacts or nuisance levels. The Compliance Division has also concentrated on thorough investigations at the time of the incident. This has resulted in incidents being resolved on the first occasion and ceasing the need for repeat calls for the same offence.

As can be seen in the report a majority of major industries continue to implement good practice, demonstrating a high awareness and appreciation for their environments. Of note this year are the efforts of Dongwha Patinna NZ, Balance Agri-Nutrients, Meridian Energy, NZ Aluminium Smelters and Solid Energy. These industries have been noted as leaders in complying with their consent conditions.


Compliance technical staff have also noted that Takitimu Coal Limited, Fonterra Co-Operative Limited and Alliance Limited have made efforts, over the past years, to further improve their performance with consent conditions

Throughout the year we have continued to receive positive feedback on the approach our Compliance staff are talking with farmers and industry alike. Much of the progress has been made by a concerted effort to work more

efficiently across the council and share knowledge and resources. In particular, the Compliance and Land Sustainability teams have been working with farmers on an individual and catchment basis, which is now providing the results we are looking for in order to improve water quality.

The coming year will bring many challenges for the Compliance Division, as well as the council as a whole. Changes to the Regional Air Plan and the creation of the Water and Land Plan will mean a busy period ahead as the organisation strives to meet the Government's legislative requirements and our own communities' goals for water and air quality.

The council would like to take the opportunity to thank Compliance Manager, Simon Mapp and his team for their dedication and commitment in carrying out their role in a fair and equitable manner which is appreciated and respected by clients and ratepayers.



A M Timms
Chairman
Environment Southland



N G Horrell
Chairman
Environmental Management Committee

Contents

FOREWORD	i
CONTENTS	iii
FIGURES	vi
INTRODUCTION	vii
COMPLIANCE DIVISION	1
1.0 AGRICULTURAL AUDITS	1
1.1 Dairy Inspection Overview	1
1.1.1 Discharge Consent Inspections	2
1.1.2 Aerial Inspections	3
1.1.3 Wintering Pad Inspections	3
1.2 Dairy Groundwater Quality Sampling	5
1.3 Dairy Surface Water Quality Sampling	7
1.4 Irrigation Water Consents	10
2.0 INDUSTRIAL AUDITS – MAJOR INDUSTRIES	13
2.1 Meat Industry	13
2.1.1 Alliance Group Limited	13
2.1.2 Blue Sky Meats (NZ) Limited	17
2.1.3 South Pacific Meats Limited	18
2.1.4 Prime Range Meats Limited	19
2.2 Dairy Industry	21

2.2.1	Fonterra Co-operative Group Limited	21
2.2.2	Open Country Dairy (NZ) Limited	23
2.3	Energy Industry	24
2.3.1	Pioneer Generation Limited	24
2.3.2	Meridian Energy Limited	25
2.4	Manufacturing Industry	27
2.4.1	New Zealand Aluminium Smelters Limited	27
2.4.2	Dongwha Patinna New Zealand Limited	28
2.5	Fertiliser Industry	30
2.5.1	Ballance Agri-Nutrients Limited	30
2.5.2	Ravensdown Fertiliser Co-operative Limited	31
2.6	Mining Industry	33
2.6.1	Solid Energy New Zealand Limited	33
2.6.2	Takitimu Coal Limited	36
2.7	Sawmill Industry	38
2.7.1	Bright Wood Sawmill	38
2.7.2	Craigpine Timber Limited	40
2.7.3	Findlater Sawmilling	41
2.7.4	Lindsay & Dixon Limited	42
3.0	SEWAGE TREATMENT SYSTEMS	43
3.1	Invercargill City Council	43
3.2	Southland District Council	45
3.3	Gore District Council	49

4.0 QUARRYING	51
4.1 Gravel Extraction	51
5.0 LANDFILLS	52
5.1 S J Timpany Cleanfill	52
5.2 AB Lime Landfill	54
6.0 COASTAL MARINE AREA	56
6.1 South Port and New Zealand Aluminium Smelter Coastal Plan Agreements	56
6.2 Whitebait Stands	57
6.3 Coastal Surface Water Activities in Fiordland	58
7.0 CROWN AGENCIES	59
7.1 Department of Conservation	59
8.1 Cleanfill Sites	61
9.0 INCIDENTS	63
10.0 ENFORCEMENT	69
10.1 Infringement Notices	69
10.2 Abatement Notices	70
10.3 Prosecutions	71
10.4 Enforcement Orders	72
GLOSSARY	74
CONTRIBUTORS	77

Figures

Figure 1 – Comparison of on-site dairy inspection outcomes over the last two years.	2
Figure 2 – Comparison aerial inspection outcomes.....	3
Figure 3 – Comparison of dairy wintering pad inspection outcomes over the past two years.....	4
Figure 4 – Groundwater sampling results November 2013 and April 2014...5	
Figure 5 – Comparison of dairy surface water quality sampling results.	7
Figure 6 – Comparison of monthly sampling results during the 2013/14 season.	8
Figure 7 – Reasons why no samples were collected.	8
Figure 8 – Reasons for irrigation use in Southland.....	10
Figure 9 – Incidents per month for last three years.....	63
Figure 10 – Incident response times.	64
Figure 11 – Priority of incidents over the last three years.	64
Figure 12 – Reasons for infringement notices issued during 2013/14.	70

Introduction

Environment Southland's Compliance Monitoring Report has been designed to provide an overview of compliance activities from across Southland during the 2013/14 year. It does not cover all of the activities of the division in detail.

Activities with similar parameters, particularly enforcement, incidents, dairy discharge consents, and whitebait stands, have been combined to give a broad overview, rather than reporting on individual conditions or circumstances.

In this report, the dairy industry is reported as a collective as the consent conditions for each farm are similar and compliance with these can be easily compared. Other industries reported here are either the only one of their type in Southland, or significant differences exist between them that would make comparison of their consent conditions too difficult.

Dairy inspections result in each farm receiving a grade which ranges from 1: Fully compliant through to 10: Significant non-compliance.

Major industrial consents or those of special interest to Southland have been identified and are included in the report. Industrial consents are often very complex. This is largely due to the nature of the activity and volume of contaminants that an industry uses or discharges. The industries reported here largely have their own environment assessment teams, or use third party contractors to complete the requirements of their consent.

For each of the major industry report, a table has been included to assess how well the company has kept Environment Southland informed of monitoring results and how they respond to issues. Major industries also receive a grade which ranges from Excellent to Poor.

A secondary table has been included to show a rating between the 2012/13 and 2013/14 year. This rating is in the form of a traffic light system. (see below).




Key

Site or Consent holders Name		
Description of noteworthy event	12/13	13/14

Background denotes overall results for year shown in box

Year

Grading

Good to excellent: Consent holder has excellent communication with ES, they have contingency measures in place, Reports supplied on time and compliant, no to minor exceedances with no environmental impact	
Moderate to Technical Issues: Consent holder reports late, or has minor exceedances over period of time or moderate exceedances with minor impact on environment	
Significant non-compliance: Consent holder has exceedances with measurable impact on the environment, reports not supplied, or negligent or intentional non-compliance	

Also considered in the gradings are the completeness and quality of the results, evidence of contingency planning, prompt notification of events, completion of full and thorough investigations, maintenance of good communications with Environment Southland, proactive in addressing or highlighting potential issues and evidence of environmental ethics.

This report is separated into three main parts, Inspection and Audit Activities, Incident Response, and Enforcement. Since the first Compliance Monitoring report in 1998, the format and detail of the report has changed. If there is an area you would to see more detail on or something you would like added to the report next year, please let us know.

Part A

Inspection and Audit Activities

Compliance Division

The Compliance Division has had a year of pleasing results with industry, incidents and the dairy sector. There has been real effort by the dairy industry, working with Environment Southland staff, to work toward being as compliant with plan rules and the law as possible. Dairy farms have also been performing well. The downturn in serious non-compliance is evidence of a commitment by consent holders managers and workers to irrigate effluent responsibly.

It would be easy to say the results gained this year solely reflect the actions of the Compliance Division, however a lot of work has been done by other areas across the council including the consents, policy and planning and land sustainability teams which is now contributing to this success.

The council is committed to continuing to work closely with the dairy industry to assist consent holders to become more compliant

1.0 Agricultural Audits

1.1 Dairy Inspection Overview

The Compliance Division undertakes inspections of dairy farms to ensure that there is compliance with the conditions of the discharge consents. Discharge consents allow farms to irrigate dairy shed effluent to land

Dairy shed effluent is created from the milking shed and platform on clean down and is a combination of water and effluent, as such it is a natural liquid fertiliser. It contains nitrogen (N), phosphorus (P), potassium (K), magnesium (Mg), sulphur (S) and trace elements that the farm would normally pay for to have applied to pasture.

However soil and fauna can only use so much effluent at a time. It's important for the person in charge of the system to match the irrigation depth to the capability of the soil and flora to utilise the nutrients. Over-application of effluent can result in the following outcomes:

- kill pasture – especially where effluent has ‘ponded’ on the soil surface;
- pollute ground water – by seeping too deep into the soil;
- pollute nearby streams and rivers – where it runs off paddocks or enters subsurface drainage systems and into waterways ;
- be an ineffective use of nutrients - by seeping past the root zone before the plant can utilise it.

There are five outcomes that can determine a dairy farms performance scores of 10 have been determined by the inspection officer to have a significant negative effect on the environment, these will result in a re-inspection and in some cases enforcement action.

An inspection can have five possible scores:



- 1 - the farm is *fully compliant* – complies with all conditions of its consent;
- 2 - the farm has *minor non-compliance* – has not complied with ‘administrative’ conditions of its consent;
- 5 - the farm has some *marginal non-compliance* – there is evidence that an incident is likely, or has happened, but the environmental effect does not warrant a significant non-compliance score;
- 7 - that the farm has some *significant non-compliance* – for example, more than the consented number of cows;
- 10 - the farm has *significant non-compliance* – requires re-inspection.

1.1.1 Discharge Consent Inspections

During 2013/14, 1091 on-farm dairy effluent discharge consent inspections were completed. This is an expected increase on the previous year as the division has more staff completing inspections and renewed consents have additional inspection requirements as part of the consent conditions.

Working more closely with the major industries in the dairy sector has led to better knowledge, good practice and information sharing for all parties and developed mutual support between the industry and the council.

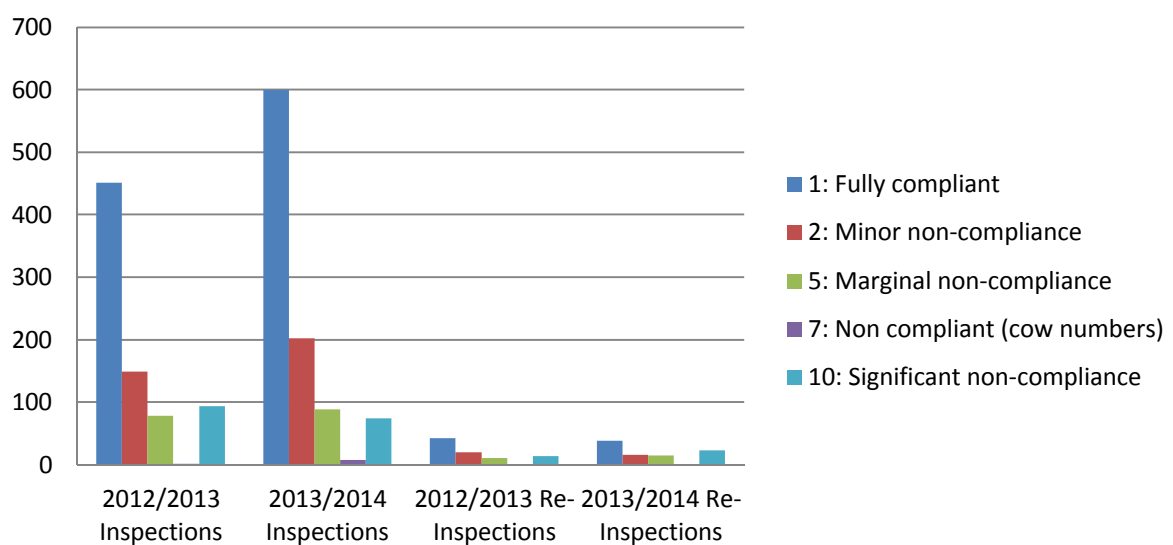


Figure 1 - Comparison of on-site dairy inspection outcomes over the last two years.



1.1.2 Aerial Inspections

In 2013/14 Environment Southland staff completed 491 aerial inspections of farm dairy effluent discharge consents. Staff can only assess full compliance from the air due to evidence sufficiency, although issues can be identified by aerial monitoring, the inspection cannot be downgraded until an on-ground inspection can be completed (these inspections are listed as *unable to grade*).

Please note, as on-farm issues noted from the aerial monitoring revert to on farm inspections and therefore have been included in the discharge consent inspections tables (above).

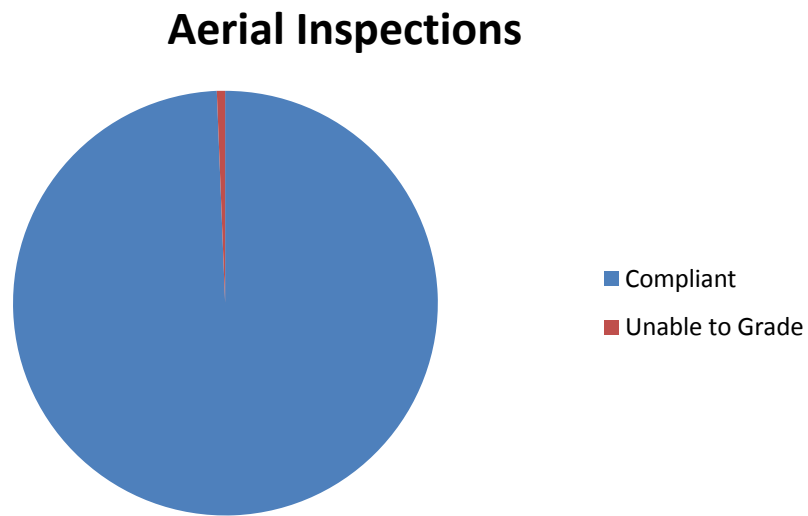


Figure 2 - Comparison aerial inspection outcomes

1.1.3 Wintering Pad Inspections

A wintering pad is a specially built area designed for holding cows for the winter as an alternative to paddock-based wintering. There are 87 current consented wintering pads in Southland. These are usually inspected annually, or as the consent requires. The increase in inspections from 2012/13 to 2013/14 is due to an improvement in the processes for inspecting these consents.



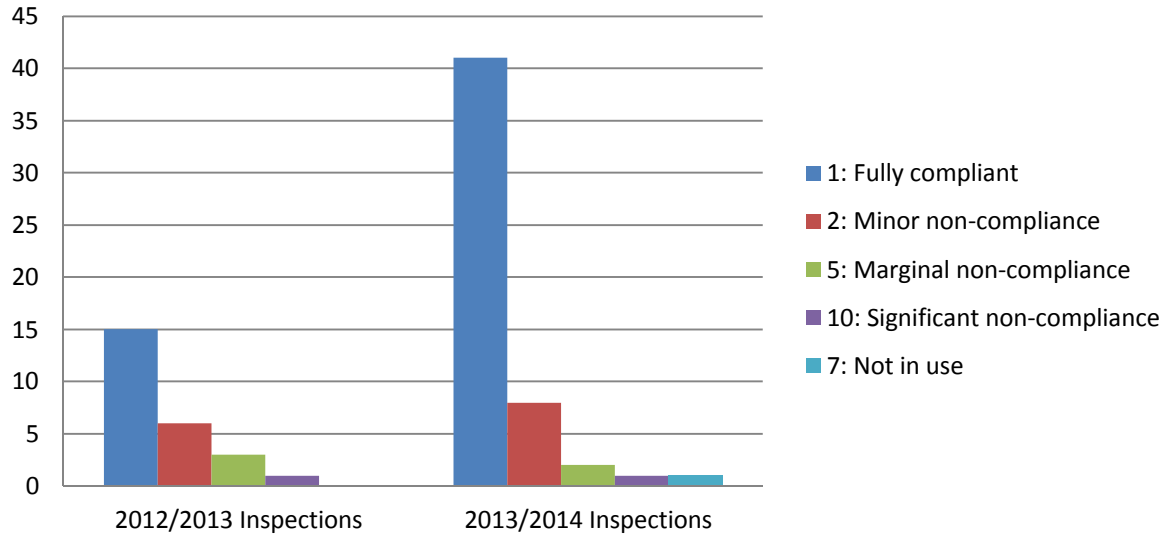


Figure 3 - Comparison of dairy wintering pad inspection outcomes over the past two years.



1.2 Dairy Groundwater Quality Sampling

The groundwater in our aquifers is recharged by water filtering through from the ground above. The quality of the groundwater can be impacted by water carrying contaminants which can impact the suitability of the water supply for certain uses.

Land use activities that have the potential to impact on groundwater quality are typically described as either point or non-point source discharges.

Groundwater sampling is a tool used to monitor compliance with dairy effluent discharge consents. The purpose is to look for measureable changes over time in the groundwater quality in the areas where effluent is applied.

Water samples are collected from shallow bores near the effluent disposal field. They are then analysed and the results from a three to five year period can give a reasonable indication of the effects effluent application is having on groundwater. If deterioration is noted, further investigation will be required to try to identify the cause of the changes and whether the change is associated with land use activities in the area.

In Southland there are 190 dairy effluent discharge consents where groundwater inspection is a requirement. This sampling typically occurs twice a year, in November and April. Groundwater quality does not change as frequently or as rapidly as surface water quality, so does not need to be sampled as often. The results for each sampling period are shown below.

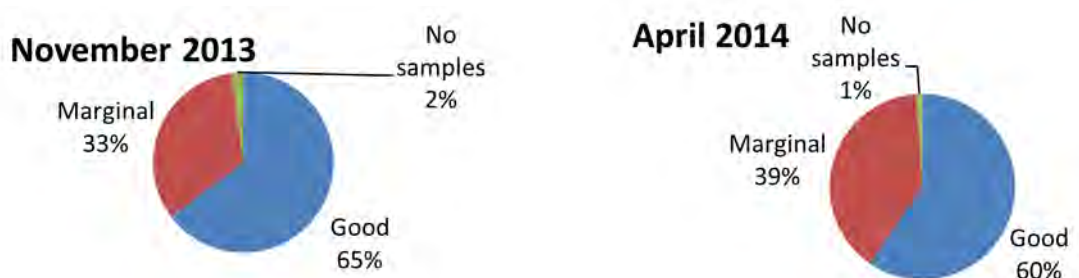


Figure 4 - Groundwater sampling results November 2013 and April 2014.



Results are graded as good or marginal, previous results are also used in the grading.

To be graded as:

- Good –
 - ◆ the *E. coli* result must be less than 1 MPN/100 mL; or
 - ◆ Nitrate Nitrogen less than 9 g/m³; or
 - ◆ a series of results that do not show an increasing trend in the level of Nitrate (an increasing trend is defined as an initial Nitrate-Nitrogen concentration in the order of 6 g/m³ and consistently increasing over a three to five year period);

- Marginal – any results exceeding the above criteria.

In a small number of cases, samples were unable to be collected because, in most cases, the monitoring bore at the time of sampling was dry.

Insufficient well head protection can cause elevated *E.coli* levels and all consent holders with poor *E.coli* results from their bores have been asked to investigate this as a possible source of contamination. If well head protection appears sufficient, and future samples continue to return unsatisfactory results, the source of contamination will need to be investigated further.



1.3 Dairy Surface Water Quality Sampling

In 2013/14, 608 effluent discharge consents required surface water monitoring as a condition in their consent. Where the sample is taken depends largely on where the effluent is being irrigated on the day of the inspection and whether a waterway is likely to be at risk. Most discharge consents specify that samples may be collected up to three times a year. Where possible, samples are collected in conjunction with a routine inspection to minimise costs to consent holders.

Water quality results

Of the 608 discharge consents that required monitoring, 716 site visits were made. Some consent conditions require samples to be collected on more than one occasion per season.

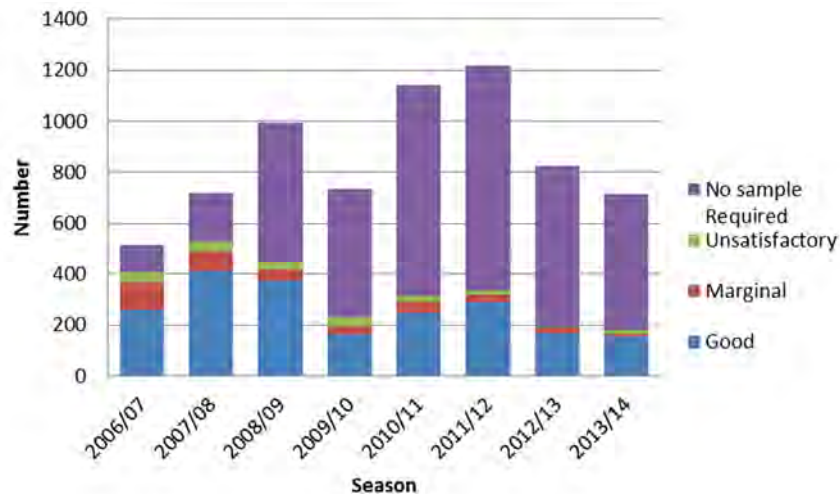


Figure 5 - Comparison of dairy surface water quality sampling results.

Of the 716 sites visited, 181 samples were taken, a decrease of 10 samples on the previous year. The results were interpreted with reference to national guidelines, the weather immediately prior to sampling, comparisons between the upstream and downstream sample water quality and other relevant factors. The samples are then graded as either ‘good’, ‘marginal’ or ‘unsatisfactory’.

Of the 181 samples taken:

- 86 per cent received a ‘good’ grade - this indicated that on the day the samples were collected, the effluent discharge to land was having either no or minimal impact on surface water quality downstream of the effluent disposal field. This is on par with last year;
- four per cent received a ‘marginal’ grade, indicating there had been a change in water quality below the effluent disposal field when compared to the water quality above the disposal field; and



- 10 per cent received an ‘unsatisfactory’ grade, showing that activities on the farm appeared to be having an impact on surface water quality.

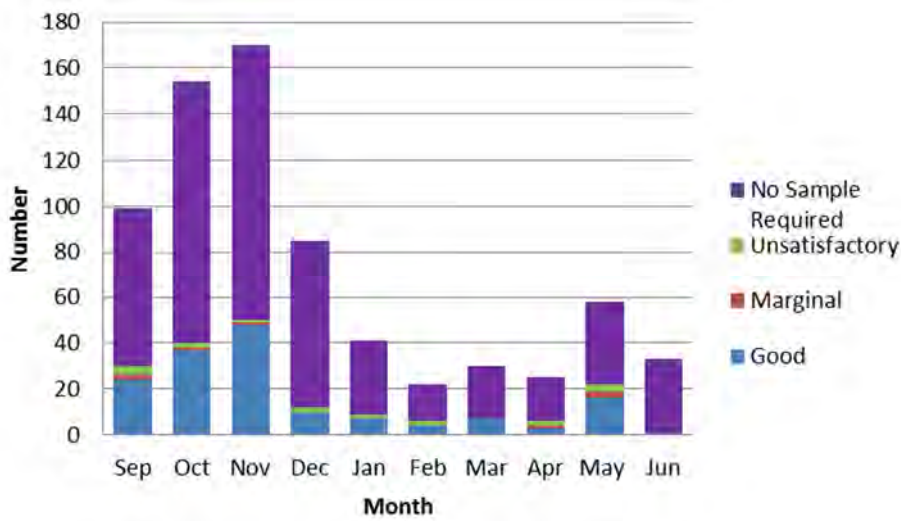


Figure 6 - Comparison of monthly sampling results during the 2013/14 season.

The monthly sampling results show that a large proportion of the samples were taken at the beginning of the season. There are slightly more ‘marginal’ and ‘unsatisfactory’ results during the wetter months as farmers cope with more challenging conditions.

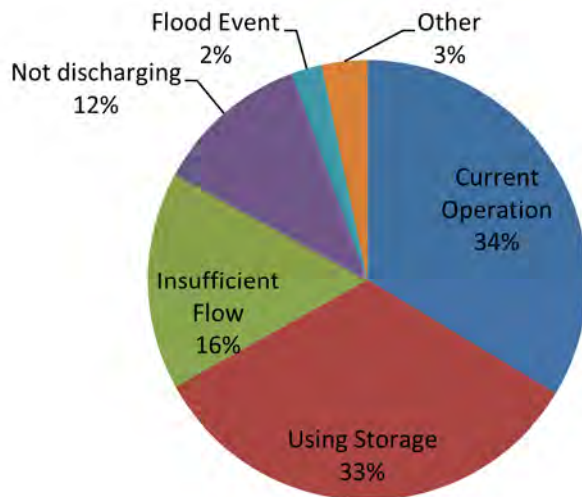


Figure 7 - Reasons why no samples were collected.

No samples were required on 75% of all the properties visited. Of these, two thirds were as a result of good management of the effluent system. Either the farm manager had located the irrigator in a position where it wouldn’t impact on a waterway (Current Operation), or storage ponds were being used to hold effluent while the conditions were not suitable for irrigating (Using Storage).



Other reasons why no samples were required:

- insufficient flow to take a sample;
- consent holders had not irrigated for 2-3 days prior to the visit.



1.4 Irrigation Water Consents

During the 2013/14 irrigation season, there were 90 current irrigation consents in Southland. Of these consents, 72 were abstractions from groundwater, 18 from surface water.

Each consent has a daily abstraction limit and consent holders are required to submit records of the volume of water taken each day to show compliance with their conditions. It is also a condition for consent holders to contact Environment Southland with their intention to commence irrigation. If there has been no irrigation for the season, a NIL return must be reported to Environment Southland.

Irrigation in Southland is predominately for pasture growth, with 74 of the irrigation consents identified as for pasture irrigation, 13 for crop irrigation, four for horticulture and one for recreational use (golf course). Two consents were issued for both pasture and crop irrigation.

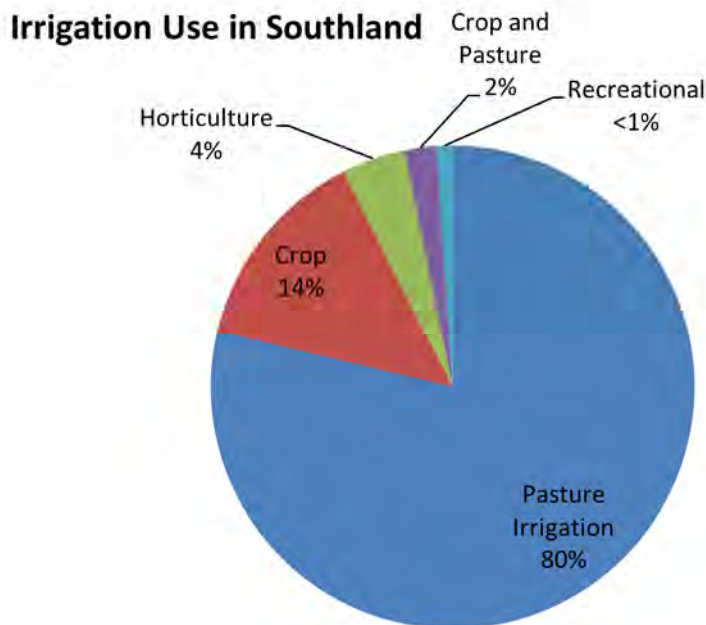


Figure 8 – Reasons for irrigation use in Southland

Water Metering Regulations

The supply of full and accurate data is essential for effective management of the region's water resources. The information provided by consent holders is used during the review, renewal and granting of new consents. A lack of data or the existence of a poor performance history for a site during this time may impact on the flexibility of conditions within the new consent.



The Resource Management Regulations 2010 (Measurement and Reporting of Water Takes) require the measurement and recording of water use for all consumptive water takes greater than 5 litres per second (excluding permitted takes and permits for the abstraction of coastal or geothermal water).

Specific requirements include:

- a. *Installation of a water measuring device or system that is capable of continually measuring the rate of abstraction and which is:*
 - *suited to the qualities of water it is measuring*
 - *sealed and tamper proof*
 - *installed where water is taken*
 - *accurate to within +/- 5 per cent for water taken by a full (pressurised) pipe, or +/- 10 per cent for takes by open channel or partially full pipes*
 - *verified as accurate by a suitably qualified person*
 - *able to provide data in a form suitable for electronic storage.*
- b. *Keeping of daily records of the volume of water taken including records specifying 'zero' when abstraction does not occur.*
- c. *Keeping of water use records in an auditable form, with the supply of annual records to the Regional Council for each year of operation, covering all water taken between 1 July and 30 June that year.*

Within the regulations there was a transitional provision for existing water permits; this provision allows for large, medium and small take consent holders to meet the metering, reporting and verification requirements by certain dates. The next date that all takes greater than 10 litres/sec meet the requirements of the regulations is November 2014.

Environment Southland has been working closely with Irrigation NZ and other Regional Councils to produce a process to have water metering guidelines meet the regulations. Environment Southland has opted for a third party preferred service provider to provide correct data to the council.

Environment Southland asked for expressions of interest, once these providers had been vetted as preferred; their names have been made available to all consent holders.

Developing and implementing this programme has proved to take a large amount of time and effort by technical compliance staff.

Once completely adopted this program will provide up to date information for the council and the government on the use of ground and surface water.

To date consents holders that have abstraction rates of greater than 5 litres/sec have the following rates of compliance:

- 51 (56.6 %) are compliant with their data reporting requirements;
- 6 (6.6%) are not operational yet;



- 3 (3.3%) not in use, or report a NIL take;
- 30 (33.3%) have not supplied data to the standard required by their consent. (these matters are being investigated).

All consented irrigation takes have to have their meters calibrated to standards required by their consent and the National Environmental Standard (NES); and the systems have to be recalibrated at five-yearly intervals. This will need to be conducted by approved suppliers. If a mechanical meter is in place, more frequent calibration may be required.

Environment Southland shall ensure that all consented irrigation takes will be required to provide evidence that the meter and connecting systems are fully compliant with the NES.



2.0 Industrial Audits – Major Industries

2.1 Meat Industry

2.1.1 Alliance Group Limited

Alliance Group Limited operates three meat processing plants in Southland, at Lorneville, Makarewa and Mataura. The compliance performance for the three plants during 2013/14 was assessed against the current resource consents.

What We Look At

The consents issued for the Alliance Group's plants permit the discharge of treated wastewater into water and onto land. Alliance also holds resource consents for discharges to air, as well as land use, and water abstraction.



Lorneville

Consents

Alliance Group Limited holds 11 resource consents for the purpose of meat processing at its Lorneville plant.

They include:

- to discharge waste water to the Makarewa River;
- to take surface water from the Makarewa and Oreti River;
- to discharge sludge to land;
- to discharge contaminants to air;
- to discharge stormwater into an open drain.

Consent Performance

The quality of the effluent from meat processing at the Alliance Group's Lorneville plant met all consent requirements for the 2013/14 period.

12/13

13/14

Alliance Group Limited, Lorneville Plant – liaison and reporting

Issue	Score
Provision of data/results	Excellent
Responsiveness to issues	Excellent
Keeping Environment Southland informed of intentions, changes, etc.	Excellent

Complaints and Self-reported Incidents

Six odour incidents were alleged to be coming from this site. One was confirmed, but was not objectionable or offensive when investigated by Environment Southland staff. One incident was reported by the public regarding irrigation occurring close to consented boundaries. This was not confirmed when investigated by Environment Southland staff.

12/13

13/14



Makarewa

Consents

Alliance Group Limited holds eight resource consents for the purpose of meat processing at its Makarewa plant.

They include:

- to discharge waste water to the Makarewa River;
- to take groundwater from a bore;
- to take surface water from the Makarewa River;
- to discharge waste water and effluent to land;
- to discharge contaminants to air;
- to discharge stormwater to the Makarewa River.

Consent Performance

The quality of the effluent from meat processing at the Alliance Group's Makarewa plant had one result (<i>Total Suspended Solids</i>) that was outside consented limits during the reporting period. In response Alliance shut off the discharge when this result was received, investigations undertaken revealed no obvious issues with the treatment system that contributed to this result. Compliance was achieved with all other consented limits for the reporting period.	12/13	13/14
--	-------	-------

Alliance Group Limited, Makarewa Plant – liaison and reporting

Issue	Score
Provision of data/results	Excellent
Responsiveness to issues	Excellent
Keeping Environment Southland informed of intentions, changes, etc.	Excellent

Complaints and Self-reported Incidents

There were no complaints relating to the Makarewa Plant for the reporting period.	12/13	13/14
---	-------	-------



Mataura

Consents – Mataura

Alliance Group Limited holds nine resource consents for the purpose of meat processing at its Mataura plant.

They include:

- to discharge wastewater to the Mataura River;
- to discharge cooling water to the Mataura River;
- to discharge sludge to land on selected properties;
- to divert water.

Consent Performance		
Alliance Group's Mataura plant reported the quality of the treated effluent from meat processing exceeded the consent limits for cBOD ₅ once, and reported two out of five higher than usual Total Suspended Solids results. Compliance was achieved with all other limits for the reporting period.	12/13	13/14

Alliance Group Limited, Mataura Plant – liaison and reporting

Issue	Score
Provision of data/results	Excellent
Responsiveness to issues	Excellent
Keeping Environment Southland informed of intentions, changes, etc.	Excellent

Complaints and Self-reported Incidents		
There were seven complaints received against Alliance Mataura for the reporting period. Two were confirmed, both of which were odour incidents, however neither were considered objectionable or offensive.	12/13	13/14



2.1.2 Blue Sky Meats (NZ) Limited

Consents

Blue Sky Meats (NZ) Limited holds four resource consents for the purpose of meat processing at its Morton Mains plant.

They are:

- to discharge contaminants to the ground through the operation of offal pits;
- to take groundwater from a bore;
- to discharge wastewater to land via a spray irrigator;
- to discharge contaminants to air.

Blue Sky Meats Limited operates a meat processing plant at Morton Mains, near Woodlands. The compliance performance for the plant during 2013/14 was assessed against the current resource consents.

Consent Performance		
Blue Sky Meats was compliant with monitoring requirements, reporting requirements and limits on its resource consents for the reporting period.	12/13	13/14

Blue Sky Meats (NZ) Limited, Morton Mains Plant – liaison and reporting

Issue	Score
Provision of data/results	Excellent
Responsiveness to issues	Excellent
Keeping Environment Southland informed of intentions, changes, etc.	Excellent

Complaints and Self-reported Incidents		
There was one confirmed incident during the reporting period. This involved irrigation occurring beyond a property boundary. A formal warning was issued.	12/13	13/14



2.1.3 South Pacific Meats Limited

Consents

South Pacific Meats Limited holds three resource consents for the purpose of meat processing at its Awarua plant.

They are:

- to discharge stormwater containing contaminants into the New River estuary;
- to discharge contaminants to air from the rendering plant, wastewater treatment plant, boiler and associated processes;
- to discharge meat works effluent sludge to land.

South Pacific Meats Limited operates a meat processing plant at Awarua, approximately 10 km south of Invercargill.

What we look at

South Pacific Meats has three consents to discharge. Compliance is assessed against current resource consents.

Some key elements referred to are:

- **Total Nitrogen (TN)** – an important element in the growth of plant material. It is required for protein formation and consequently animals have a significant nitrogen content. Total Nitrogen is a measure of all nitrogen present.
- **Loading** - the quantity of contaminants discharged over a set period of time.

Consent Performance

The plant was fully compliant with all but one standard set out in its resource consents. Compliance was not achieved with the Total Nitrogen loading limit for the discharge of sludge to land.

12/13

13/14

South Pacific Meats Limited, Awarua plant – liaison and reporting

Issue	Score
Provision of data/results	Good
Responsiveness to issues	Good
Keeping Environment Southland informed of intentions, changes, etc.	Very Good



Complaints and Self-reported Incidents

No complaints or self-reported incidents were received regarding operations at the South Pacific Meats plant.

12/13

13/14

2.1.4 Prime Range Meats Limited

Consents

Prime Range Meats Limited is in the process of applying to renew its consent and is operating under Rights of Continuance under section 124 of the Resource Management Act (RMA) 1991.

The expired consent allowed:

- a discharge up to 1500 m³/day of treated wastewater to the Waikiwi Stream, approximately 500 metres downstream of the West Plains Road Bridge.

The company also holds the following air discharge consent:

- to discharge contaminants to air from a meatworks and rendering plant, including a wastewater treatment system.

Prime Range Meats Limited is a meat processing and rendering plant on the banks of the Waikiwi Stream in Invercargill.

What we look at

Prime Range Meats has two consents to discharge. Compliance is assessed against current resource consents.

Key elements that are referred to are:

- **Particulate Matter** - the un-burnt material that is commonly discharged along with the gas or smoke from a fire or boiler;
- **Discharge Quality** - does the concentration, and loading, of contaminants in the treated wastewater comply with the consented limits?
- **Waikiwi Stream Quality** - have the concentrations in the Waikiwi Stream, downstream of the treated wastewater discharge, increased beyond the consented limits?



Consent Performance

Prime Range Meats Limited was fully compliant with all standards set out in its resource consent for the discharge of contaminants to water and air.

12/13**13/14****Prime Range Meats Limited – liaison and reporting**

Issue	Score
Provision of data/results	Excellent
Responsiveness to issues	Excellent
Keeping Environment Southland informed of intentions, changes, etc.	Excellent

Complaints and Self-reported Incidents

Environment Southland received one public odour complaint during the 2013/14 period. The presence of an odour was unable to be confirmed during the investigation.

12/13**13/14**

2.2 Dairy Industry

2.2.1 Fonterra Co-operative Group Limited

Consents

Fonterra Co-operative Group Limited holds eight resource consents related to dairy processing at its Edendale Plant.

They include:

- to discharge wastewater to land;
- to take groundwater from bores;
- to discharge wastewater and stormwater to water;
- to discharge contaminants to air;
- to discharge sludge to land.

Fonterra Co-operative Group Limited operates a dairy processing facility in the Edendale township.

What we look at

Fonterra has eight consents to take and discharge. Compliance is assessed against these.

One of the key elements referred to is:

- **Total Phosphorus** – phosphorus is an important element in the growth of plant material. Total phosphorus is a measure of all phosphorus present, including all forms of phosphorous whether it is tightly bound to particulate matter, or potentially available to plant life.

Consent Performance

Fonterra has four consents to irrigate treated wastewater onto four farms in the Edendale area. Regular monitoring is undertaken to assess compliance with these consents. A high level of compliance was achieved with only two issues reported.

- the maximum daily discharge volume limit for the amount of wastewater irrigated was exceeded on one occasion during October 2013;
- bore monitoring was not undertaken on one occasion within the required three monthly timeframe, due to pump failure.

Fonterra fully investigated both incidents and has now put in place measures to prevent any recurrence.

There were no issues arising from the monitoring of the air discharge consent.

Fonterra also has consent to discharge treated wastewater, under certain conditions, as well as stormwater and cooling water to the

12/13

13/14



Consent Performance

<p>Mataura River.</p> <p>Regular monitoring is undertaken to assess compliance with this consent. A high level of compliance was achieved with only two issues reported:</p> <ul style="list-style-type: none"> ➤ total phosphorus concentration limit for stormwater discharges to the river was exceeded once, in September 2013; ➤ the consent requires that 95% of the stormwater discharged over a 12 month period complies with the total phosphorus (TP) loading limit. Only 92% of stormwater TP complied with the limit. <p>Two consents relate to water takes. Static groundwater levels were not measured in three bores as required by these consents. Fonterra will address this issue during 2014/15.</p>		
---	--	--

Fonterra Co-operative Group Ltd, Edendale Plant – liaison and reporting

Issue	Score
Provision of data/results	Very Good
Responsiveness to issues	Excellent
Keeping Environment Southland informed of intentions, changes, etc.	Excellent

Complaints and Self-reported Incidents

<p>Environment Southland recorded three incidents relating to the Edendale plant. One was a public complaint regarding odour from the irrigation of wastewater. This incident was investigated by Environment Southland staff, but wasn't confirmed. The remaining two complaints were reported to Environment Southland by Fonterra staff advising that liquid sucrose had been accidentally discharged to the stormwater collection system. The discharge was contained within this system and resulted in no discharge of contaminants to water.</p>	12/13	13/14
---	--------------	--------------



2.2.2 Open Country Dairy (NZ) Limited

Consents

Open Country Dairy holds two resource consents related to dairy processing at its Awarua Plant. They are:

- to discharge condensate to a farm drain;
- to discharge contaminants to the air from the milk processing plant and boiler.

Open Country Dairy (NZ) Limited operates a milk processing plant at Awarua, approximately 10 km south of Invercargill.

What we look at

Open Country has two consents to discharge. Compliance is assessed against the current resource consents.

Consent Performance		
Compliance was achieved for all limits set by this consent, with the following exceptions:		
<ul style="list-style-type: none"> ➤ one parameter on the discharge was in breach of consented limits. This limit is measured over three out of four sampling occasions; ➤ an additional parameter on the discharge was also in excess of consented limits on one sampling occasion; ➤ one parameter on one sampling occasion was also in breach of consented limits in the receiving environment. 	12/13	13/14

Open Country Dairy, Awarua plant – liaison and reporting

Issue	Score
Provision of data/results	Good
Responsiveness to issues	Good
Keeping Environment Southland informed of intentions, changes, etc.	Good

Complaints and Self-reported Incidents

No complaints or self-reported incidents were received regarding operations at the Open Country Dairy plant.	12/13	13/14
--	-------	-------



2.3 Energy Industry

2.3.1 Pioneer Generation Limited

Consents

Pioneer Generation Limited holds 20 resource consents for the ongoing operation and maintenance of the Monowai Power Station. They control the take, use and discharge of water for power generation, while maintaining minimum flows in all of the existing waterways.

These include:

- to take surface water;
- to use, maintain and alter an existing earth dam;
- to discharge to water;
- to discharge contaminants to land;
- to dam and divert.

The power generation station at Monowai, owned by Pioneer Generation Limited, is a community owned electricity provider and wholesaler. The station was owned by Trust Power until 2003, when it was sold to Pioneer, which is owned by the Alexandra based charitable trust, The Central Lakes Trust. The company operates 13 power stations in Central Otago and Southland.

Consent Performance

Pioneer has achieved compliance with the Operating Guidelines for the management of Lake Monowai. Compliance was also achieved with the requirement to provide a minimum flow from the Lake Control Structure, and the Diversion Weir.

The consented guideline flow regime was mostly complied with. Exceptions occurred for seven days over the reporting period.

Compliance was not achieved with the requirement to provide flushing flows for three months over the reporting period. Investigations into this issue are ongoing.

Independent reviews of proposed fish pass monitoring programmes and effectiveness of fish passage are underway.

Compliance was achieved with all other consented monitoring and reporting requirements for the reporting period.

12/13

13/14



Pioneer Generation Limited, Monowai Power Station – liaison and reporting

Issue	Score
Provision of data/results	Very Good
Responsiveness to issues	Good
Keeping Environment Southland informed of intentions, changes, etc.	Good

Complaints and Self-reported Incidents		
One incident was lodged against Pioneer Generation Limited during the reporting period. This was because of failure to provide flushing flows as required by one of the discharge permits they hold. This was for a period of three months.	12/13	13/14

2.3.2 Meridian Energy Limited

Consents
<p>Meridian Energy Limited holds 33 resource consents related to the operation of Manapouri Power Scheme.</p> <p>They include:</p> <ul style="list-style-type: none"> • to dam and divert the waters for hydro- electric power generation • to take and use water for hydro-electric production, and for domestic supplies • to discharge treated sewage to land • to discharge stormwater to land • to carry out bed disturbance • to discharge contaminants to air • to discharge water and contaminants to the coastal marine area • to occupy Lake Manapouri and coastal marine area with wharves.

Meridian Energy Limited operates the largest hydroelectric power station in New Zealand at West Arm, Lake Manapouri within the Fiordland National Park. Electricity is generated using water stored in Lakes Te Anau and Manapouri. The stored water from the lakes is controlled using structures at the outlet of Lake Te Anau and the Lower Waiau River. The water used to generate electricity is discharged through two tunnels to Deep Cove, Doubtful Sound. The compliance performance during the 2013/14 year was assessed against the current resource consents.



Consent Performance		
Compliance was achieved with consented limits and was also achieved with consented monitoring and reporting requirements.	12/13	13/14

Meridian Energy Limited – liaison and reporting

Issue	Score
Provision of data/results	Excellent
Responsiveness to issues	Excellent
Keeping Environment Southland informed of intentions, changes, etc.	Excellent

Complaints and Self-reported Incidents		
Meridian reported two occasions where compliance with consented flow conditions was not achieved for the reporting period. Strategies employed by Meridian to manage this issue have been successful and investigation into this issue is ongoing.	12/13	13/14



2.4 Manufacturing Industry

2.4.1 New Zealand Aluminium Smelters Limited

Consents

NZ Aluminium Smelters Limited holds six discharge consents that require inspecting.

They include:

- discharge contaminants to land, including circumstances where they may enter coastal water;
- discharge treated sewage to land;
- discharge treated effluent into Foveaux Strait;
- discharge contaminants to air from the aluminium smelter and related activities;
- discharge Haysoms dross to the onsite landfill.

The New Zealand Aluminium Smelters Limited (NZAS) is located on the Tiwai peninsular at Awarua, Invercargill and produces some of the purest aluminium in the world.

What we look at

NZAS has six consents to discharge. Compliance during 2013/14 was assessed against the current resource consents.

Consent Performance		
NZAS remained fully compliant with consent limits during the reporting period.	12/13	13/14

New Zealand Aluminium Smelters – liaison and reporting

Issue	Score
Provision of data/results	Excellent
Responsiveness to issues	Excellent
Keeping Environment Southland informed of intentions, changes, etc.	Excellent



Complaints and Self-reported Incidents		
Environment Southland received three self-reported incidents from NZAS during the 2013/14 year. These related to dust and smoke emissions due to equipment failures. Two complaints were also made by the public, one in October 2013 and the other in November 2013, relating to dust emissions from the Tiwai wharf. Environment Southland confirmed the presence of dust on only one of these occasions. NZAS was notified of the confirmed incident, however it was already aware of the issue and was in the process of taking corrective actions to rectify the situation. Actions employed by NZAS were appropriate and timely.	12/13	13/14
NZAS has employed further measures to minimise any dust emissions.		

2.4.2 Dongwha Patinna New Zealand Limited

Consents
<p>Dongwha Patinna New Zealand Limited holds five resource consents for the manufacture of MDF. They are:</p> <ul style="list-style-type: none"> • to discharge contaminants to the air from fibreboard processing, including the treatment of wastewater; • to discharge effluent and treatment pond seepage to land; • to discharge untreated stormwater and treated wastewater to water; • to discharge stormwater to land; • to discharge from a tile drain to a watercourse.

Dongwha Patinna New Zealand Limited is a mixed density fibreboard (MDF) manufacturing plant, located south of the Mataura township.

What we look at

Dongwha Patinna has five consents to discharge. Compliance is assessed against these.

Some key elements referred to are:

- **Formaldehyde** - formaldehyde is an organic compound that is a by-product of the resins used to bind the MDF particles together.
- **Total Filterable Particulate Matter** - quantity of particles collected on a filter.



Consent Performance		
Dongwha was fully compliant with all the standards set out in its resource consents.	12/13	13/14
To date Dongwha has not exercised the consent that allows the discharge of treated wastewater to the Maitava River and has not indicated any intent to do so. Instead, all wastewater has been irrigated to land.		
Emission testing conducted in March 2014 determined both formaldehyde and total filterable particulate matter levels remained significantly lower than consented limits.		

Dongwha Patinna New Zealand Limited – liaison and reporting

Issue	Score
Provision of data/results	Excellent
Responsiveness to issues	Excellent
Keeping Environment Southland informed of intentions, changes, etc.	Excellent

Complaints and Self-reported Incidents		
No self-reported incidents or odour complaints were received during the 2013/14 year.	12/13	13/14



West and East Cyclones



2.5 Fertiliser Industry

2.5.1 Ballance Agri-Nutrients Limited

Consents

Ballance Agri-Nutrients Limited holds three resource consents for its fertiliser manufacturing plant at Awarua. They are:

- to discharge treated and untreated stormwater from a fertiliser manufacturing, storage and dispatch facility;
- to take groundwater from bores;
- to discharge contaminants to air.

Ballance Agri-Nutrients Limited operates a fertiliser manufacturing facility at Awarua, about 10 km south of Invercargill. Compliance performance during 2013/14 was assessed against the current resource consents. The facility was fully compliant with all standards set out in its resource consents.

Consent Performance

A new air discharge permit commenced in March 2014. The permit required two-hourly readings of the differential pressure in the bag house to be recorded. Ballance self-reported that two readings were not logged and the process is now being changed from manual recordings by operators to automatic loggers. This breach is very minor in nature, with no environmental impact.	12/13	13/14
--	-------	-------

Ballance Agri-Nutrients Limited, Awarua Plant – liaison and reporting

Issue	Score
Provision of data/results	Excellent
Responsiveness to issues	Excellent
Keeping Environment Southland informed of intentions, changes, etc.	Excellent

Complaints and Self-reported Incidents

No complaints or self-reported incidents were received regarding the Ballance Agri-Nutrients facility at Awarua.	12/13	13/14
--	-------	-------



2.5.2 Ravensdown Fertiliser Co-operative Limited

Consents

Ravensdown Fertiliser Co-operative Limited holds two resource consents for the purpose of operating a limestone quarry at its Dipton site. They are:

- to discharge treated stormwater to water;
- to discharge contaminants to air from the Dipton lime works.

The company holds one resource consent for its Balfour site, which is:

- to discharge stormwater from a limestone quarry at Balfour.

Ravensdown Fertiliser Co-operative Limited operates two limestone quarries in Southland, one at Dipton and the other at Balfour. The compliance performance of the two quarries during 2013/14 was assessed against current resource consents.

What we look at

Ravensdown operates two sites and holds three consents to discharge. Compliance is assessed against the current resource consents.

Consent Performance		
The Ravensdown sites at Dipton and Balfour met all the requirements set out in its consents.	12/13	13/14

Ravensdown Fertiliser Co-operative Limited, Dipton Plant – liaison and reporting

Issue	Score
Provision of data/results	Completed by council
Responsiveness to issues	Excellent
Keeping Environment Southland informed of intentions, changes, etc.	Completed by council



Ravensdown Fertiliser Co-operative Limited, Balfour Plant – liaison and reporting

Issue	Score
Provision of data/results	Completed by council
Responsiveness to issues	Excellent
Keeping Environment Southland informed of intentions, changes, etc.	Completed by council

Complaints and Self-reported Incidents		
No complaints were received from the public relating to the consents or operations at the limestone quarries by Environment Southland over the 2013/14 period.	12/13	13/14



2.6 Mining Industry

2.6.1 Solid Energy New Zealand Limited

Solid Energy New Zealand Limited operates three mines in Southland at Ohai and Waimumu (New Vale, Goodwin). In Maitua it also manages a briquetting plant and a disused mine pit. The compliance performance of Solid Energy's sites during the 2013/14 year was assessed against current resource consents.

What We Look At

The consents issued for Solid Energy's mines allow the discharge of treated mine water and stormwater into nearby Morley Stream. The mines also hold consents for the discharge of contaminants to air and ash to land. The quantity that can be discharged is restricted by the consent and compliance with these requirements being audited.

<p>Goodwin and New Vale Mine Sites</p>	<p>Consents</p> <p>Solid Energy New Zealand Limited holds four consents for mining activity at the Goodwin and New Vale mine sites. They include:</p> <ul style="list-style-type: none"> • to discharge ash to land from the operation of a lignite mine into both mine sites; • to discharge contaminants to the air from the mining, crushing, screening and stockpiling of lignite. <p>Applications to renew expired consents are currently being processed.</p>
---	--

The Goodwin and New Vale Mine sites at Waimumu have met all requirements set out in the consents.

Consent Performance		
Both the Goodwin and New Vale Mine sites have met all requirements set out in the consents.	12/13	13/14



Solid Energy New Zealand Limited, Goodwin and New Vale Mines – liaison and reporting

Issue	Score
Provision of data/results	Excellent
Responsiveness to issues	Excellent
Keeping Environment Southland informed of intentions, changes etc.	Excellent

Complaints and Self-reported Incidents		
No complaints or self-reported incidents were received regarding the sites at Waimumu.	12/13	13/14



Consents

Solid Energy New Zealand Limited holds nine consents for mining activities at the Ohai site. They include:

- to discharge contaminants to air from mining, screening and stockpiling of coal;
- to discharge treated mine water and stormwater to Morley Stream.

Consent Performance		
The Ohai Mine site has met all requirements set out in the consents.	12/13	13/14

Solid Energy New Zealand Limited, Ohai Mine – liaison and reporting

Issue	Score
Provision of data/results	Excellent
Responsiveness to issues	Excellent
Keeping Environment Southland informed of intentions, changes, etc.	Excellent

Complaints and Self-reported Incidents		
No complaints or self-reported incidents were received regarding the Ohai Mine.	12/13	13/14



Mataura Sites

Consents

Solid Energy holds 10 consents in the Mataura area. Six are associated with the briquetting plant, one with the abstraction of surface water for mine operations and three with the dewatering of the disused mine pit. They include:

- to discharge contaminants to the air including boiler emissions;
- to take surface water from the Mataura mine pit;
- to discharge water and boiler blow-down water to a former mine pit.

The Mataura briquette plant has met all requirements set out in the consents. The briquette plant ceased operations at the end of September 2013, however Solid Energy remains committed to following its environmental monitoring programme and continues to supply results to Environment Southland as required by its consents.

Consent Performance		
In October 2013 routine dust monitoring found higher than average levels in the Mataura Dust Pot 4 (MDP4) site. Investigations by Solid Energy found the MDP4 collection pot to contain high levels of bird faeces.	12/13	13/14

Solid Energy New Zealand Limited, Matura, Demonstration Briquetting Plant – liaison and reporting

Issue	Score
Provision of data/results	Excellent
Responsiveness to issues	Excellent
Keeping Environment Southland informed of intentions, changes, etc.	Excellent

Complaints and Self-reported Incidents		
One smoke related public complaint was received in September 2013. Environment Southland was unable to confirm the presence of excessive black smoke at the plant.	12/13	13/14
Two self-reported incidents were also lodged by Solid Energy regarding smoke and a fire at the plant.		



2.6.2 Takitimu Coal Limited

Consents

Takitimu Coal Limited holds 13 consents for mining activities at the Company Road and Coal Dale sites at Nightcaps. They include:

- to discharge coal ash from industrial operations, mixed with overburden, to land;
- to discharge treated site water to the Wairio Stream;
- to discharge contaminants to air.

Takitimu Coal Limited operates two mines at Nightcaps – Company Road and Coal Dale. The Coal Dale site has recently commenced operations and has yet to exercise its water discharge consents.

The compliance performance for Takitimu Coal during 2013/14 was assessed against current resource consents.

What we look at

The consents issued for Takitimu Coal's mines allow the discharge of treated site water into the nearby Wairio Stream. The mines also hold consents for the discharge of contaminants to air and ash to land. The quantity they can discharge is restricted by the consent and compliance with these requirements is audited.

Consent Performance

Takitimu Coal Limited was fully compliant with all standards set out in its resource consents for discharges to land, air and water.

12/13

13/14

Takitimu Coal Limited – liaison and reporting

Issue	Score
Provision of data/results	Excellent
Responsiveness to issues	Very Good
Keeping Environment Southland informed of intentions, changes, etc.	Excellent



Complaints and Self-reported Incidents		
<p>One complaint and two self-reported incident were received regarding the Nightcaps Company Road mine.</p> <p>Self-reports were made relating to a dust complaint received by the plant. Investigations found no reason for excessive dust at the time the complaint was received.</p> <p>The second related to an unauthorised discharge to water after a hose coupling broke. Sampling performed showed no adverse effects on water quality of the Wairio Stream in the following 24 hours.</p> <p>Environment Southland received an anonymous complaint relating to discolouration of the Wairio stream. Investigations were conducted and it was found that sediment levels had increased due to a landslip at Mcgregor Park.</p>	12/13	13/14



2.7 Sawmill Industry

There are four sawmill companies in Southland that hold resource consents for discharge purposes. They are at Otautau, Winton, Ryal Bush and Tuatapere. Their compliance performance during 2013/14 was assessed against the current resource consents.

What We Look At

As part of consent requirements for timber treatment plants Environment Southland audits the water sampling results for levels of metals, which in high concentrations can be toxic to aquatic life.

- **CCA Metals (timber treatment)** - Arsenic (As), Chromium (Cr) and Copper (Cu) are the usual metals analysed for when considering the timber treatment process;
- **Total Particulate Matter** - the unburnt material that is commonly discharged with the gas or smoke from a fire or boiler.

2.7.1 Bright Wood Sawmill

Consents

The Bright Wood Sawmill holds two discharge consents. They are:

- to discharge contaminants to the air from timber processing operation;
- to discharge treated stormwater to an unnamed tributary of the Aparima River.

Consent Performance

<p>The conditions were not triggered to require monitoring for the air discharge consent during the 2013/14 year, therefore monitoring during this period was not completed.</p>	12/13	13/14
<p>The twice-yearly stormwater discharge sampling was not completed as required, but the annual sediment sampling was undertaken.</p>		
<p>The sediment sample results showed that the copper and arsenic concentrations in the settling pond were compliant with the low ANZECC guidelines, while the wetland concentrations exceeded the low level guideline but complied with the high level guideline. The results were consistent with previous monitoring data and no measurable impact was seen in surface water bodies.</p>		

Please note, the Bright Wood Sawmill at Otautau did not supply all required monitoring data for the 2013/14 year, meaning an assessment of compliance with its discharge consent conditions could not be made.



Brightwood has held resource consents for discharges from the site since September 1998. CCA has not been used by Brightwood during any of its operations onsite. However, CCA has historically been used on site by previous owners.

Bright Wood Sawmill – liaison and reporting

Issue	Score
Provision of data/results	Poor
Responsiveness to issues	N/A
Keeping Environment Southland informed of intentions, changes, etc.	Poor

Complaints and Self-reported Incidents		
No complaints or self-reported incidents were received regarding the Bright Wood sawmill facility.	12/13	13/14



2.7.2 Craigpine Timber Limited

Consents

Craigpine Timber Limited holds two discharge consents that require inspection. They are:

- to discharge contaminants to the air from timber processing activities;
- to discharge timber yard stormwater and condensate to water.

Consent Performance		
<p>Compliance with consent conditions was achieved for the reporting period.</p> <p>Craigpine Timber Limited has made process changes in order to help achieve a higher quality stormwater discharge.</p> <p>The discharge quality from the Craigpine Timber Limited treatment plant at Winton has shown improving results due to these changes. Both discharge points were compliant with consent conditions. Additionally, receiving waters were compliant with ANZECC guidelines for CCA.</p> <p>The required boiler emission reporting indicated that there was a breach of consented limits for total particulate matter emissions. Craigpine has advised this was due to a fuel issue, which has been resolved, and follow up testing has been scheduled to ensure compliance with this limit is achieved.</p>	12/13	13/14

Craigpine Timber – liaison and reporting

Issue	Score
Provision of data/results	Excellent
Responsiveness to issues	Very Good
Keeping Environment Southland informed of intentions, changes, etc.	Excellent

Complaints and Self-reported Incidents		
Two incidents were logged during the reporting period. Both were regarding coloured discharge into the Winton Stream. These incidents were investigated and neither was found to be a breach of consent conditions.	12/13	13/14



2.7.3 Findlater Sawmilling

Consents

Findlater Sawmilling holds one discharge consent that requires inspection, that is:

- to discharge treated stormwater and wastewater to a wetland from a sawmilling operation.

The Findlater Sawmilling facility at Ryal Bush has met the consent requirements.

Consent Performance

There were no issues arising in the 2013/14 year.	12/13	13/14
---	-------	-------

Findlater Sawmilling – liaison and reporting

Issue	Score
Provision of data/results	Excellent
Responsiveness to issues	Excellent
Keeping Environment Southland informed of intentions, changes, etc.	N/A

Complaints and Self-reported Incidents

No complaints or self-reported incidents were received regarding the Findlater Sawmilling facility.	12/13	13/14
---	-------	-------



2.7.4 Lindsay & Dixon Limited

Consents

Lindsay & Dixon Limited is located in Tuatapere and holds two discharge consent that requires inspection, these are:

- to discharge settling pond sludge to land from a sawmilling and timber processing site;
- to discharge stormwater to water.

The Lindsay & Dixon facility at Tuatapere met all requirements set out in its consent.

Consent Performance		
Monitoring information provided in April 2014 showed the level of Copper in sediment samples breached ANZECC low trigger guidelines. This is, however, consistent with previous monitoring data and no discernable impact was seen in the waterway.	12/13	13/14

Lindsay & Dixon – liaison and reporting

Issue	Score
Provision of data/results	Excellent
Responsiveness to issues	Good
Keeping Environment Southland informed of intentions, changes, etc.	Good

Complaints and Self-reported Incidents		
No incidents or complaints have been received for the 2013/2014 period.	12/13	13/14



3.0 Sewage Treatment Systems

3.1 Invercargill City Council

Consents

The Invercargill City Council holds 11 resource consents for treated sewage discharge. They include consents to:

- discharge treated wastewater to an estuary;
- discharge contaminants to air;
- discharge contaminants to land;
- discharge biosolids to land;
- discharge stormwater and wastewater to land;
- discharge processed wastewater to coastal water.

The Invercargill City Council (ICC) holds resource consents for discharging treated sewage at three locations: Clifton, Omaui and Bluff. The Council also discharges biosolids (dried sludges from the sewerage system) to land at Station Road and Sandy Point. The compliance performance during 2013/14 was assessed against current resource consents.

What We Look At

As part of the consent requirements for the ICC, the quantity of effluent being discharged and the quality of the effluent and its receiving waters are assessed.

Invercargill City Council – Community Sewage Treatment Systems - liaison and reporting

Issue	Score
Provision of data/results	Good
Responsiveness to issues	Very Good
Keeping Environment Southland informed of intentions, changes. etc.	Excellent

Complaints and Self-reported Incidents

A total of nine incidents were investigated between July 2013 and June 2014. Four were received from the public, while five were self-reported. The incidents related to objectionable odours and sewage discharges. Three of the incidents reported from the public were associated with odour. All were investigated by Environment Southland, but none were confirmed. The fourth incident reported by the public related to a sewage discharge. The five incidents self-reported by the ICC all related to sewage discharges.



Consent Performance

Bluff Sewage		
Monitoring has complied with consent conditions for 2013/14.	12/13	13/14

Clifton Sewage		
Monitoring has complied with consent conditions for 2013/14.	12/13	13/14
Three odour complaints were received from the public. Environment Southland investigated the complaints, but did not confirm the presence of any odour.		

Omaui Sewage		
No issues arose during the 2013/14 year. No monitoring was required by the consent during this reporting period.	12/13	13/14

Sandy Point Biosolids to Land		
No issues arose during the 2013/14 year. One round of groundwater monitoring was not undertaken as required, however all other monitoring complied with consent	12/13	13/14

Station Road Biosolids to Land		
No issues arose during the 2013/14 year. No monitoring was required by the consent during this reporting period.	12/13	13/14



3.2 Southland District Council

Consents

The Southland District Council holds 19 resource consents for treated sewage discharge, including consents to:

- discharge processed wastewater to land;
- discharge processed wastewater to water;
- discharge contaminants to air;
- discharge processed wastewater to coastal water.

The Southland District Council (SDC) holds 19 resource consents for the purpose of treating and discharging sewage at 18 locations within the Southland region. The compliance performance during 2013/14 was assessed against current resource consents.

What we look at

As part of the consent requirements for SDC, the quantity of water being discharged and quality of the effluent and receiving waters are assessed.

Some key elements referred to are:

- **Ammoniacal Nitrogen (NH₄N)** - rarely found at high levels in natural waters, its presence is an excellent means of detecting pollution. It is a major component in urine excreted by mammals. High levels of ammoniacal nitrogen can potentially be toxic to aquatic life.
- **cBOD₅** - Carbonaceous Biochemical Oxygen Demand – a measure of the ability of contaminants to remove oxygen from water.
- **Total Phosphorus** – Phosphorus is an important element in the growth of plant material. Total Phosphorus is a measure of all phosphorus present, including all forms of phosphorous whether it is tightly bound to particulate matter or potentially available to plant life.
- **Total Nitrogen** – an important element in the growth of plant material. It is required for protein formation and consequently animals have a significant N content.
- **Dissolved Inorganic Nitrogen** – Nitrate + Nitrite Nitrogen plus Ammoniacal Nitrogen.
- **E. coli** - Escherichia coli - *E.coli* is a bacterium that is commonly found in the lower intestine of warm-blooded organisms. They are a subset of the Faecal Coliform group and are regarded as an indicator of faecal contamination and therefore the presence of pathogenic (harmful) bacteria.



- **Dissolved Oxygen** – Oxygen is important to sustain life. Dissolved Oxygen is the amount of oxygen dissolved in water.

Southland District Council – liaison and reporting

Issue	Score
Provision of data/results	Very Good
Responsiveness to issues	Very Good
Keeping Environment Southland informed of intentions, changes, etc.	Good

Consent Performance

Balfour		
Two exceedances of consented limits on one sampling occasion were reported. Compliance was achieved for the monitoring requirements and all other limits specified by this consent for the reporting period. Southland District Council failed to notify Environment Southland regarding maintenance works on the ditch associated with this scheme, as required by this consent.	12/13	13/14

Browns		
Compliance was achieved with consented limits and monitoring requirements for the 2013/14 year.	12/13	13/14

Edendale/Wyndham		
<p>Compliance with both the consented average daily flow and maximum flow limits was achieved for the 2013/14 reporting period. Consented limits on the discharge were exceeded for mean cBOD₅ on three out of four monitoring occasions. The consented mean dissolved reactive phosphorous limits were exceeded on two out of four monitoring occasions. The consented mean <i>E.coli</i> limit was exceeded on three out of four monitoring occasions. Plant management and maintenance contributed to higher than expected monitoring results for two monitoring occasions during the reporting period, which consequently caused high mean values, and exceedances of these limits.</p> <p>Consented ammoniacal nitrogen limits were breached continuously during the reporting period. Consequently an abatement notice was issued to the Southland District Council to further facilitate the management of this issue. Southland District Council had, in the previous reporting period, commissioned upgrades to this plant to manage this non-compliance. These upgrades were unsuccessful in reducing ammoniacal nitrogen levels in the discharge, and significant further upgrades are planned for the coming year. Environment Southland staff continue to work closely with the Southland District Council on the timeframe for the commissioning of these planned upgrades, and the expected results.</p>	12/13	13/14



Gorge Road		
There was one breach of consented limits for the reporting period, on one sampling occasion, where one parameter was breached. Compliance was achieved with all other consented limits and monitoring requirements.	12/13	13/14

Lumsden		
Compliance was achieved with consented limits and monitoring requirements for the 2013/14 year. Compliance was also achieved with consented flow limits for the 2013/14 year. No issues arose during the reporting period.	12/13	13/14

Manapouri		
Compliance was achieved with consented limits and monitoring requirements for the 2013/14 year. Compliance was also achieved with consented flow limits for the 2013/14 year. No issues arose during the reporting period.	12/13	13/14

Monowai		
The consented faecal coliform limit was exceeded on one monitoring occasion. Compliance was achieved with all other consented limits and monitoring requirements for the 2013/14 reporting period. No issues arose during the reporting period.	12/13	13/14

Nightcaps		
The discharge exceeded the consented daily limit 14 times during the reporting period. Compliance was achieved with all other consented limits and monitoring requirements. No issues arose during the reporting period.	12/13	13/14

Ohai		
The DO concentration in the receiving waters fell outside the consent limit on two out of four sampling occasions for the year. Compliance was achieved with all other consented limits and monitoring requirements for the 2013/14 year. No issues arose during the reporting period.	12/13	13/14

Riversdale		
15 events were recorded where the maximum daily wastewater flow limit was exceeded over the 2013/14 period. One sampling occasion resulted in a breach of consented limits for two parameters. Investigations revealed a leaky pipe to be the cause of this. Repairs were carried out as soon as the issue was discovered. Compliance was achieved with all other consented limits and monitoring requirements for the 2013/14 year. Environment Southland received notification on seven occasions of the contingency to discharge directly to the Meadowburn Stream being employed.	12/13	13/14



Riverton Rocks		
The consented daily limit discharge was exceeded seventeen times. Compliance was achieved with all other consented limits and monitoring requirements for the 2013/14 year. No issues arose during the reporting period.	12/13	13/14

Riverton Township		
Compliance was achieved with all other consented limits (17 exceedances were recorded above the maximum daily wastewater flow limit due to weather influence) and monitoring requirements for the 2013/14 year. No issues arose during the reporting period.	12/13	13/14

Stewart Island		
The Dissolved Inorganic Nitrogen trigger in the surface water monitored for this consent was exceeded on three out of four monitoring occasions for the 2013/14 year. The consented <i>E.coli</i> limit was exceeded on one out of four monitoring occasions. Compliance was achieved with all other consented limits and monitoring requirements for the 2013/14 year. Solutions for improved performance to this scheme are currently being investigated.	12/13	13/14

Te Anau		
Routine monitoring results revealed the consented Dissolved Oxygen limit was exceeded on one out of four monitoring occasions. <i>E.coli</i> results showed an increase in counts on one out of four monitoring occasions greater than 20%, but this result was less than the bathing water standards. The trigger value (initiating additional reporting) for the concentration of Dissolved Inorganic Nitrogen in the lake water was exceeded on all four monitoring occasions. There was no corresponding exceedance of either Dissolved Inorganic Nitrogen or Dissolved Reactive Phosphorous in samples collected downstream of the discharge on any of those monitoring occasions. Compliance was achieved with consented limits and monitoring requirements for the 2013/14 year. Compliance was also achieved with consented flow limits for the 2013/14 year.	12/13	13/14

Tokonui		
The maximum daily wastewater flow limit was exceeded on five occasions. Compliance was achieved with all other consented limits and monitoring requirements for the 2013/14 year. No issues arose during the reporting period.	12/13	13/14



Tuatapere		
Compliance was achieved with consented flow limits for the reporting period. The consented limit for pH in the receiving environment was not met on one monitoring occasion. The Dissolved Oxygen saturation limit was not met on three monitoring occasions; however the receiving environment upstream of this discharge was also less than the consented limit for Dissolved Oxygen saturation on two of those same occasions. The <i>E.coli</i> limits in the receiving environment was also breached on two monitoring occasions, however on both of those sampling occasions the limits were also exceeded in the receiving environment upstream of the discharge. Consented limits for Ammoniacal Nitrogen were exceeded on one monitoring occasion. Compliance was achieved with all other consented limits and monitoring requirements for the reporting period. No other issues arose during the 2013/14 year.	12/13	13/14

Winton Sewage		
One monitoring occasion out of three revealed an exceedance of consented Ammoniacal Nitrogen limits. Compliance was achieved with all other consented limits and monitoring requirements for the 2013/14 year. Investigations are ongoing into improving the quality of the discharge from this scheme.	12/13	13/14

3.3 Gore District Council

Consents

The Gore District Council holds three resource consents for discharging treated sewage. They include consents to:

- discharge processed wastewater to water;
- discharge contaminants to air.

The Gore District Council holds resource consents for the purpose of discharging treated sewage. The compliance performance during 2013/14 was assessed against the current resource consents.

What We Look At

As part of the consent requirements for Gore District Council, the quantity of water being discharged and the quality of the effluent and receiving waters are assessed.

Some key elements referred to are:

- **Dissolved Reactive Phosphorus (DRP)** - a form of phosphorus that is readily available to plants to sustain growth. High levels of phosphorus and nitrogen in receiving waters can promote the growth of nuisance weeds in waterways.



- **Ammoniacal Nitrogen (NH₄-N)** - rarely found at high levels in natural waters. Its presence is an excellent means of detecting pollution. It is a major component in urine excreted by mammals. High levels of ammoniacal nitrogen are potentially toxic to aquatic life.
- **Total Suspended Solids (TSS)** - very small particles that have the potential to affect the colour and clarity of a waterway and can potentially settle out onto a streambed smothering aquatic life in waterways.
- **Escherichia coli (E. coli)** - bacterium that is commonly found in the lower intestine of warm-blooded organisms. They are a subset of the faecal coliform group and are regarded as an indicator of faecal contamination and therefore the presence of pathogenic (harmful) bacteria.
- **Carbonaceous Biochemical Oxygen Demand (cBOD₅)** – a measure of the ability of contaminants to remove oxygen from water.

Gore District Council – liaison and reporting

Issue	Score
Provision of data/results	Very Good
Responsiveness to issues	Excellent
Keeping Environment Southland informed of intentions, changes, etc.	Excellent

Consent Performance

Gore		
All elements with the exception of <i>E.coli</i> were compliant for the 2013/14 year. <i>E. coli</i> was exceeded on two out of six sampling occasions. The quality in the receiving water was fully complied with during the reporting period.	12/13	13/14

Mataura		
The NH ₄ -N concentration in the effluent exceeded the consent limit on four out of six sampling occasions. The DRP concentration in the effluent exceeded the consent limit on five out of six sampling occasions. The TSS concentration in the effluent exceeded the consent limit on two out of six sampling occasions. Gore District Council is currently addressing these issues and a consent amendment is currently being applied for. The quality in the receiving water was fully compliant during the reporting period.	12/13	13/14

Waikaka		
Information provided for the April 2014 sampling period showed all measured parameters remained within consent limits.	12/13	13/14



4.0 Quarrying

4.1 Gravel Extraction

The extraction and use of river sourced gravel in Southland has been instrumental in the social and economic growth of the region. The ongoing development of our roads, new buildings and other infrastructure are drivers behind the continued need for gravel extraction. River sourced gravel is often seen as a renewable resource, however gravel extraction could become unsustainable and produce some adverse effects on the environment if not managed effectively. These effects may include the degradation and destabilisation of riverbeds and impact on fish and their habitats. The extent of the impact depends on the quantity of gravel available, the method of extraction and the quantity of gravel removed.

Environment Southland's Catchment Division has an ongoing river survey programme which considers the river management/stability and resource availability. It uses this information to assist in evaluating applications for gravel extraction resource consents.

Gravel extraction following good practices can help to reduce riverbank erosion, reduce flooding and sedimentation, lessen the risks to people, stock and property and help keep important roading and other transport networks open.

Resource consent is required for all gravel extracted from Southland rivers. Onsite inspections and monitoring are carried out as part of these consents.

Environment Southland had a total of 173 current resource consents to extract gravel from Southland rivers during the 2013/14 year and received monthly returns totalling 4145360.69 m³. It also completed 165 onsite inspections.

During the 2013/14 financial year 17 consents were granted, with a total consented limit of 483,800 m³. Of these 17 new/renewed consents, 10 have yet to commence being exercised.



Oreti River – downstream of Benmore Bridge



5.0 Landfills

5.1 S J Timpany Cleanfill

Consents

S J Timpany holds two resource consents, however only the second consent requires inspection. They are:

- to discharge cleanfill to land;
- to discharge solid waste to land.

S J Timpany operates a cleanfill and a limited-scope landfill accepting solid waste from the demolition of housing and commercial buildings, asbestos and some contaminated soils at its Otatara site. The site also has a holding pad which allows for sample testing of contaminated soils and encapsulation of contaminants prior to discharge.

What we look at

S J Timpany has two consents to discharge. Compliance is assessed against the current resource consents.

Consent Performance		
S J Timpany was fully compliant with all the standards set out in its discharge consents.	12/13	13/14

S J Timpany – liaison and reporting

Issue	Score
Provision of data/results	Excellent
Responsiveness to issues	Excellent
Keeping Environment Southland informed of intentions, changes, etc.	Excellent

Complaints and Self-reported Incidents		
No complaints or self-reported incidents were received regarding the S J Timpany Cleanfill.	12/13	13/14





Holding pad for retaining contaminated soils for sampling and encapsulation of contaminants.



5.2 AB Lime Landfill

Consents

AB Lime Limited holds six resource consents. They are:

- to discharge stormwater to a tributary of the Lochiel Stream;
- to discharge solid waste onto or into land;
- to discharge contaminants to air from a landfill;
- to take ground and surface water for landfill operations.

AB Lime operates an agricultural fertiliser and lime business and a Class A landfill business about 4 km east of the Winton township. The compliance performance during 2013/14 was assessed against the current resource consents.

AB Lime was fully compliant with all standards set out in its resource consents for discharges to land, air and water.

Consent Performance

Peer review was conducted in March 2014 with no major issues identified. Area 13 is partially lined and is expected to be fully operational within the next few months. A leachate reticulation system is now being trialled with promising results being observed.

12/13

13/14

AB Lime Landfill – liaison and reporting

Issue	Score	Additional information
Provision of data/results	Very Good	Minor delays in receiving some reports and/or results
Responsiveness to issues	Excellent	
Keeping Environment Southland informed of intentions, changes, etc.	Excellent	

Complaints and Self-Reported Incidents

AB Lime received one odour complaint regarding the operation of the landfill during March 2014. The presence of an odour was not confirmed by AB Lime at the time. The new deodorizing unit appears to be working well and planting around the Area 13 bund has been planned for the coming autumn.

12/13

13/14





Landfill compactor in action



Leachate reticulation pipework and valves



6.0 Coastal Marine Area

6.1 South Port and New Zealand Aluminium Smelter Coastal Plan Agreements

Southlands port facilities operate out of Bluff and are separated into two separate operations:

- the import and export operations based in Bluff township, managed by South Port;
- the import and export operations based on the Tiwai Peninsula servicing and managed by the New Zealand Aluminium Smelter (NZAS).

Activities on these sites are managed by means of individual agreements as allowed for in the Regional Coastal Plan for Southland. The agreements describe a series of systems which each party has agreed to abide by to ensure that the management of the port activities are compliant with the Resource Management Act (1991).

Any issues are addressed at an annual meeting held to address any outstanding matters.

At both the NZAS and the South Port meetings all:

- on site incidents and remedial action taken are tabled and discussed;
- maintenance programmes for the coming 12 months are discussed;
- monitoring conducted over the previous 12 months is tabled;
- procedural issues that may have arisen out of the agreement over the previous 12 months are discussed.

Incidents Reported

- **South Port** - two incidents were reported that may have been linked to activities at the Port.

One incident was reported to Environment Southland by South Port and was related to an accident on the island harbour. This was managed successfully, minimising any discharge of contaminants to the environment. The other reported incident was unable to be confirmed.

- **NZAS Wharf** - as reported earlier in Section 2.4.1 Environment Southland received three reported incidents at the NZAS wharf. Two of these were self-reported incidents received from NZAS and one was received from a member of the public and related to one of the incidents reported by NZAS.

Environment Southland confirmed the presence of dust from only one of the two incident dates. NZAS was notified of the confirmed incident, however it was already aware of the issue and was in the process of taking corrective



actions to rectify the situation. Actions employed by NZAS were appropriate and timely.

6.2 Whitebait Stands



Whitebait stands on the Mataura River.

Under the Coastal Plan for Southland Environment Southland is responsible for whitebait stands and carries out an annual inspection of these. The huts attached to these stands are controlled by the Southland District Council and the fishing of whitebait is controlled by the Department of Conservation.

The Coastal Plan for Southland has set a limit on the number of whitebait stands in Southland at those that were occupied at 15 February 1997. Any new whitebait stands are prohibited.

In 2013/14 Environment Southland has worked to try and identify illegal stands. These stands received notification (attached to the stand) that they were deemed to be illegal stands and were likely to be removed. The newspapers also ran stories regarding this issue. Time has been given for stand occupiers or owners to approach the council and discuss the issues with the stand. From this, six stands have been identified as having owners and a final decision is yet to be made on these stands. Five have not been claimed and these illegal stands are now being removed.

In 2013/14, whitebait stands were inspected later in the season to allow additional time for repair. It was noted that there was a high level of compliance with these consents.



6.3 Coastal Surface Water Activities in Fiordland

Coastal permits are required for undertaking commercial activities on waterways in Fiordland.

Environment Southland is responsible for ensuring compliance with conditions of coastal permits that have been issued according to the Resource Management Act 1991 and rules in the Regional Coastal Plan for Southland.

This is achieved, firstly, by monitoring activity logs submitted by permit holders. There has been a high level of compliance with this requirement during the past year.

This year one patrol was conducted in conjunction with the Ministry of Fisheries and the Department of Conservation, covering all fiords between Preservation Inlet and Doubtful Sound. The purpose of these patrols was to provide a physical 'on the water' presence in Fiordland and also an opportunity for face to face interaction with consent holders, recreational and other commercial users of the marine environment. The outcome of this was reported to the Fiordland Marine Guardians, which Environment Southland works closely with.

The patrol was completed during April this year. During this visit:

- eight coastal structures were inspected;
- five non-commercial private vessels were spoken to;
- seven commercial vessels were spoken to.

Of the vessels spoken to, staff gave advice and education to the owners and noted three non-compliance issues during this visit relating to unauthorised moorings and poor condition of structures.



7.0 Crown Agencies

7.1 Department of Conservation

Consents

The Department of Conservation holds resource consents for the following purposes:

- coastal - 16
- discharge - 33
- land use - 27
- water - 18

The Department of Conservation (DOC) holds 94 current resource consents, however the majority of these consents have either not been exercised during 2013/14, or do not have inspection conditions attached to them.

The main consents exercised were for discharge along the Milford, Kepler and Routeburn tracks. These consents relate to the disposal of sewage and wastewater from the huts along the tracks.

Department of Conservation – liaison and reporting

Issue	Score
Provision of data/results	Good
Responsiveness to issues	Good
Keeping Environment Southland informed of intentions, changes, etc.	Good

Consent Performance

No issues arose during the 2013/14 year at any of the following locations:		
<ul style="list-style-type: none"> ➤ Clinton Hut ➤ Mintaro Hut ➤ Dumpling Hut ➤ Sandfly Point ➤ Luxmore Hut ➤ Iris Burn Hut ➤ Motorau Hut ➤ McKenzie Hut ➤ Howden Hut ➤ Pit or containment toilets 	12/13	13/14





McKenzie Hut



Howden Hut – Ablution Block



8.0 Small Consented Activities

8.1 Cleanfill Sites

Cleanfill sites are spread throughout Southland. There are 23 consented sites in total with two not currently in use.

Cleanfills are a landfill that only accepts materials that, when buried, have no adverse effects on people or the environment. Cleanfill materials include virgin natural materials such as clay, soil and rock, and other inert materials such as bricks.

It is important that cleanfills are free from combustible, degradable, hazardous or liquid wastes because they are not designed to protect the environment from contact with them in the same way as landfills. Appropriate use of cleanfills helps divert a large portion of the waste stream from landfills.

During 2013/14, 21 inspections were completed. Two were found to have unauthorised materials making them non-compliant, i.e. exposed steel protruding from concrete blocks.



An example of green waste, which is not allowed to be discharged to a cleanfill.



Part B

Incident Response

9.0 Incidents

During 2013/2014, 712 incidents were recorded which is a decrease on the previous three years. It is difficult to quantify the exact reasons for the decrease, however several long term issues have been resolved which would account for a number of calls to the hotline that were disproportionate to the size or environmental effect of the problem.

It is unclear at this stage how future plan changes, such as the changes to the Regional Air Plan, and permitted activities will influence the number of recorded incidents. The council is adopting a graduated approach to the air plan compliance, effectively giving time to people to adopt compliance over long periods of time.

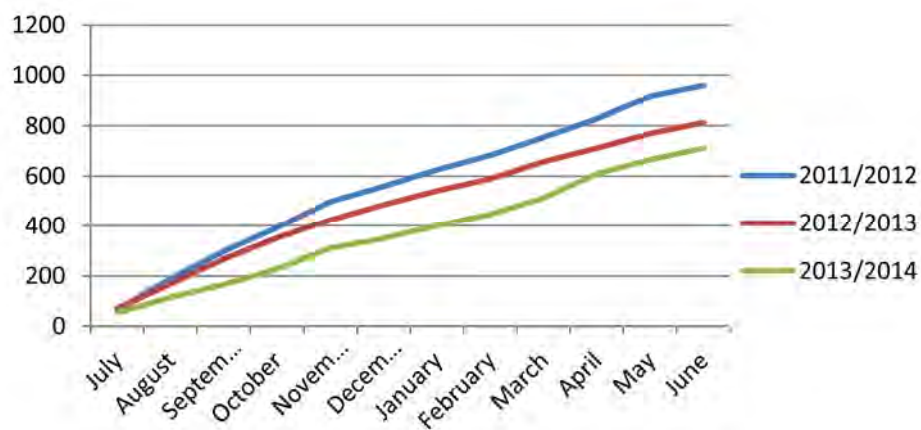


Figure 9 – Incidents per month for last three years.

The reason behind the number of incidents reported to Environment Southland is hard to quantify. Historically, weather and seasonal events have been linked to numbers of incidents reported. An example of this is the traditional decrease over the summer holiday period and a rise leading into our busiest period from August to November.

The 2013/14 year has seen a change in this trend, with the highest number of reported incidents being recorded in April.



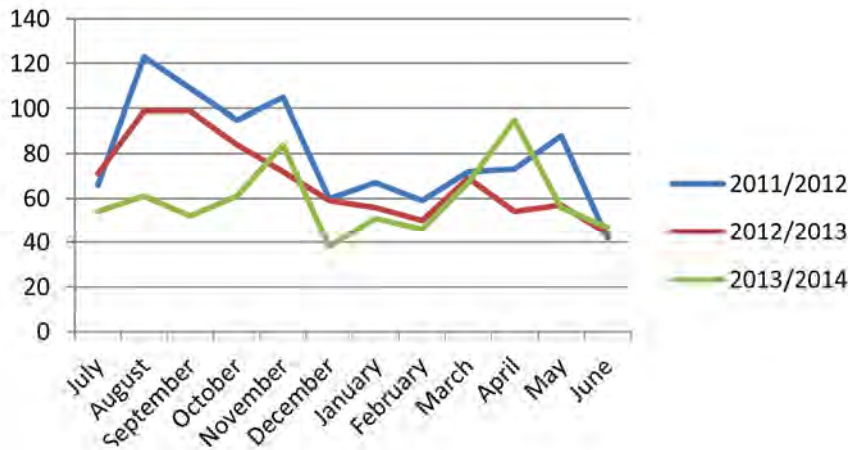


Figure 10 – Incident response times.

Environment Southland’s Compliance Division receives reports of incidents from many different sources, including the public, self-reports from industries, other agencies and our own staff.

Once received, an incident is assigned a priority anywhere from one hour to six months. Priorities are established based on several influencing factors such as potential harm to the environment, changeability of evidence and the receiving environment.

Over the past three years, there has been a significant decrease in the number of reported incidents assigned a high priority response time.

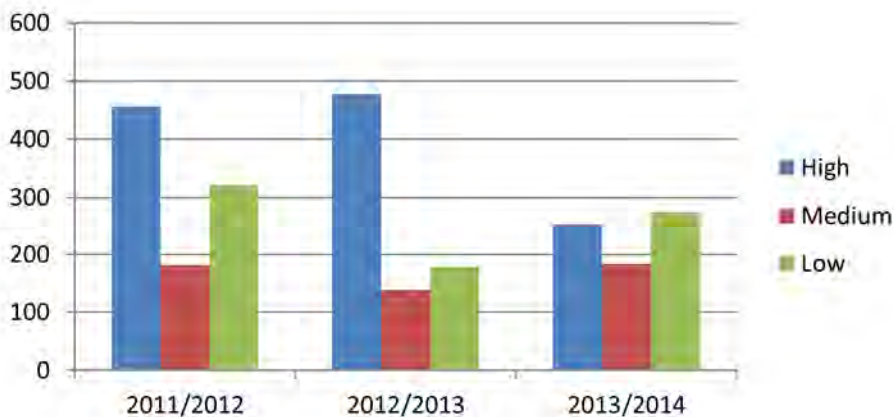


Figure 11 – Priority of incidents over the last three years.

The long term, outstanding issues that have been resolved over the last few years were associated with odours and industrial air complaints. These complaints receive a high priority and faster response because confirming these types of complaints is difficult, due to the nature of the evidence changing or dispersing quickly.



In the past two years greater amounts of information have been gathered on receiving incident calls which has allowed staff to assess the negative environmental impacts or nuisance levels. The Compliance Division has also concentrated on thorough investigations at the time of the incident. This has resulted in incidents being resolved on the first occasion and ceasing the need for repeat calls for the same offence.

Incidents have the ability to change and fluctuate from one year to another due to circumstances beyond the council's control including things like extreme weather events, new laws, new industry to name a few. It is however pleasing to see that the total number of reported incidents are declining.



Part C

Enforcement

10.0 Enforcement

Enforcement is a necessary albeit regrettable part of the administration and implementation of the law. For many, enforcement is more closely associated with the police and law courts, however other organisations (including Environment Southland) have statutory roles and responsibilities with regard to the enforcement of specific laws.

The enforcement tools available to the Compliance Division range from official warnings, infringement notices and abatement notices to enforcement orders and prosecution.

In most cases where an investigation occurs, the costs associated can be recovered.

10.1 Infringement Notices

Environment Southland considers the impact on the environment when deciding whether to prosecute or to issue an infringement notice. Evidence of adverse effects and/or likely adverse effects are collected and considered carefully.

An infringement notice imposes a relatively minor penalty and does not result in a conviction. Hence, it provides less deterrence, and should be used for more minor impacts on the environment.

The advantages of the infringement notice procedure are that it is swift, efficient and inexpensive, however the Resource Management Act infringement still requires a detailed investigation. The penalty able to be imposed is relatively small (\$300-\$1,000).

During the 2013/14 year, 39 infringement notices were issued, which is a slight increase on the previous year when 34 infringement notices were issued.



Infringements

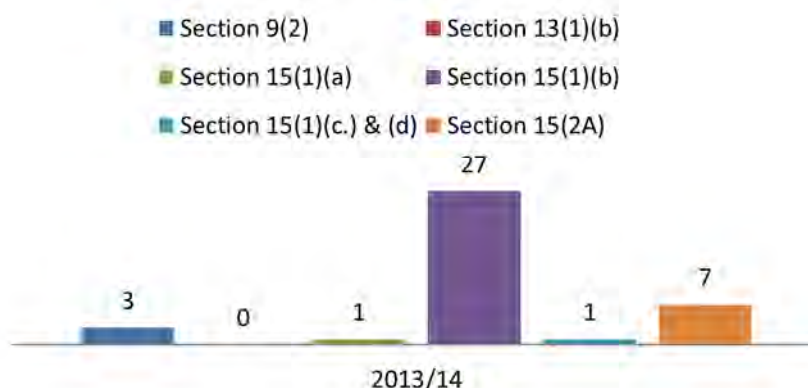


Figure 12 – Reasons for infringement notices issued during 2013/14.

Section 9	Restrictions on use of land
Section 13	Restriction on certain uses of beds of lakes and rivers
Section 15 (1)(a)	Discharge of contaminant or water into water
Section 15(1)(b)	Discharge of contaminant onto or into land in circumstances which may result in that contaminant entering water
Section 15 (1)(c) & (d)	Contaminant from any industrial or trade premises into air; or Contaminant from any industrial or trade premises onto or into land
Section 15(2A)	Discharge of a contaminant into the air, or into or onto land, from a place or any other source, whether moveable or not, in a manner that contravenes a regional rule

10.2 Abatement Notices

An abatement notice requires compliance with the Resource Management Act (RMA) 1991 within the time specified in the notice. Only councils can issue these to get someone to stop, or to start doing something. They are issued to people who breach a rule in the RMA, any regulations, or a resource consent and (unlike enforcement orders) they do not require an application to be made to the Environment Court first.

During the 2013/14 year, 28 abatement notices were issued. The majority of abatement notices issued are complied with, leading to a better outcome for both Environment Southland and the recipient.



10.3 Prosecutions

Prosecutions will only be initiated where the council is satisfied that the test for prosecution is met.

The test for prosecution is met if:

- the evidence which can be adduced in Court is sufficient to provide a reasonable prospect of conviction – the evidential test; and
- prosecution is required in the public interest – the public interest test.

Each aspect of the test must be separately considered and satisfied before a decision to take prosecution action. The evidential test must be satisfied before the public interest test is considered.

The council must analyse and evaluate all of the evidence and information in a thorough and critical manner.

Southland Regional Council v Anthony Russell Gare

Mr Gare was the manager on a Southland farm that had over applied dairy shed effluent to land during unsatisfactory conditions. There was also a separate application of dairy shed effluent that had entered a stream. Mr Gare pled guilty to a charge of discharging a contaminant onto or into land where it may enter water.

Southland Regional Council v Laurence Joseph Bartley

Mr Bartley was the manager on a Southland farm that had over-applied effluent to land. Mr Bartley pled guilty to a charge of discharging a contaminant onto or into land where it may enter water.

Southland Regional Council v Cando Fishing

Cando Fishing was found guilty of 17 breaches of discharging a contaminant onto or into land where it may enter water. The offences were over a period between 7 January and 24 December 2011, where Cando Fishing knowingly discharged large amounts of the kina processing waste to the Foveaux Strait.

Southland Regional Council v Kapuka Transport

Kapuka Transport was charged with one charge of discharging truck-wash wastewater to land. It pled guilty to a charge of discharging a contaminant onto or into land where it may enter water.



Southland Regional Council v Buckingham

Mr Buckingham, was farm worker on a Southland farm that had over-applied dairy shed effluent to land during unsatisfactory conditions. Mr Buckingham pled guilty to a charge of discharging a contaminant onto or into land where it may enter water.

Southland Regional Council v Highland Farms Southland Regional Council v Douglas Martin Sixtus

Mr Sixtus was charged with not constructing an effluent pond to comply with his resource consent. He pled guilty to a section 9(2) Resource Management Act 1991 charge which relates to restrictions on land use. Highland Farms was convicted and discharged.

10.4 Enforcement Orders

An enforcement order is another way of getting someone to comply with the Resource Management Act (RMA) 1991. It is similar in some respects to an abatement notice, in that it is used to get someone to start or stop doing something.

It differs from an abatement notice in that anybody (not just the council) can apply for an enforcement order against somebody else. These are issued by the Environment Court rather than the council.

Enforcement orders offer more options than an abatement notice, including the ability to recover clean-up costs in avoiding, remedying or mitigating any adverse effect on the environment. The Court may also order restoration of a natural or physical resource. If the order is not complied with, council may go ahead and comply on the respondent's behalf (and recover the cost of doing so).

It can be useful to begin enforcement order proceedings to alert people to the seriousness of their actions and highlight solutions. If a problem or the options to resolve it are complex, enforcement proceedings provide a Court-supervised procedure for bringing about a conclusion, and if problems are encountered during the implementation of the solution, direction can be sought from the Court.

Two enforcement orders were applied for and granted during the 2013/14 year.



Southland Regional Council v Miller

An order was issued requiring an engineer's report on a recently constructed weeping wall and effluent pond to ensure the correct methodology and construction.

Southland Regional Council v Douglas Martin Sixtus

An order was issued to have an effluent tank constructed, an engineer's report on the deficiencies of an effluent sump and to prepare a written farm environmental management plan.



Glossary

Ammoniacal Nitrogen (NH ₄ N)	Ammoniacal nitrogen is rarely found at high levels in natural waters. Its presence is an excellent means of detecting pollution. It is a major component in urine excreted by mammals. High levels of ammoniacal nitrogen can potentially be toxic to aquatic life.
ANZECC	The Australia New Zealand Environmental Conservation Council. This organisation is developing guidelines similar to the USEPA but applicable to the Australian and New Zealand situations.
Black Water	Wastewater containing human faeces and urine. Generated from toilets.
CBOD ₅	Carbonaceous Biochemical Oxygen Demand – a measure of the ability of contaminants to adversely remove oxygen from water
CCA	Copper (Cu), Chromium (Cr) and Arsenic (As) are the usual metals analysed for when taking the timber treatment process into consideration. High levels of metals can become toxic to aquatic life.
Clarity	The distance that can be seen through the water. The higher the clarity the greater the visibility in the water.
Chl <i>a</i>	Chlorophyll <i>a</i> – the pigment in plant cells which captures light energy for photosynthesis.
DAF Unit	Dissolved Air Flotation unit. This is an effluent treatment system whereby air is pumped into the effluent under pressure. When the air is discharged into the tank containing effluent, it returns to atmospheric pressure, the dissolved air comes out of suspension and forms bubbles on the particulate matter. These bubbles then float to the surface to be removed as sludge.
DIN	Dissolved Inorganic Nitrogen – Nitrate + Nitrite Nitrogen plus Ammoniacal Nitrogen.
DO	Dissolved Oxygen – Oxygen is important to sustain life. DO is the amount of oxygen dissolved in water.
DRP	Dissolved Reactive Phosphorus – a form of phosphorus that is readily available to plants to sustain growth. High

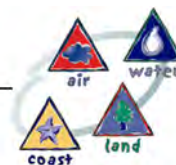


levels of Phosphorus and Nitrogen in receiving waters can promote the growth of nuisance weeds on water beds.

<i>E. coli</i>	Escherichia coli - <i>E.coli</i> is a bacterium that is commonly found in the lower intestine of warm-blooded organisms. They are a subset of the Faecal Coliform group and are regarded as an indicator of faecal contamination and therefore the presence of pathogenic (harmful) bacteria.
EC	Electrical Conductivity – the ability of water to conduct electricity. This gives a conservative measure of the mineral content of water. Generally, the greater the conductivity of the water, the greater the mineral content of the water.
Faecal Coliforms (FC)	These are organisms that are present in the gut and faeces of warm-blooded animals and are used as indicators of the presence of pathogenic organisms.
g/m ³	Grams of material in 1 cubic metre of water – A measure of concentration in a liquid or gas.
Grey Water	Wastewater that is generated from domestic activities like clothes washing, dishwashing and bathing.
Heavy Metals	A set of elements that exhibit metallic properties that typically have high atomic weights and that can damage living things and tend to accumulate in the food chain.
Loading	The quantity of contaminates discharged over a set period of time.
LTP	Long-Term Plan. This is a document projecting Council activities, as required by the Local Government Act 2002.
mg/kg	Unit to measure concentration in a solid (equivalent to ppm (parts per million) or g/m ³ the unit used to measure concentrations in liquids).
MPN	Most Probable Number – a statistical estimate of the mean density of bacteria in a water sample.
N	Nitrogen – An important element in the growth of plant material. It is required for protein formation and consequently animals have a significant N content.



Nitrate-N	An oxidised form of Nitrogen – Nitrate Nitrogen is soluble and is therefore readily available to plant life to sustain growth.
Odour Units (OU)	This is the unit for measuring odour. This unit does not refer to weight or volume as with g/m ³ etc, it is essentially based on the group of people being used, to establish the number of dilutions required before an odour cannot be detected.
PAH	Polycyclic Aromatic Hydrocarbons – A class of over 100 different organic molecules composed of only carbon and hydrogen. PAHs are flat molecules with each carbon having three adjacent carbon atoms similar to the structure of graphite. The USEPA has listed 16 of these as priority chemicals due to their potential health effects.
PM ₁₀ Particulate Matter	The unburnt material that is commonly discharged with the gas or smoke from a fire or boiler. This is measured as PM ₁₀ , meaning a particle size of 10 micrometers or less.
Sewage	A mixture of black and grey water.
TP	Total Phosphorus – Phosphorus is an important element in the growth of plant material. Total Phosphorus is a measure of all phosphorus present, including all forms of phosphorous whether it is tightly bound to particulate matter or potentially available to plant life.
TSS	Total Suspended Solid – Very small particles that have the potential to affect the colour and clarity of a water body and can potentially settle out onto a streambed smothering aquatic life in the waterways.
Turbidity	Turbidity is a laboratory measurement to determine the clarity of the water. The higher the result the more cloudy the water.
µg/m ³	A measure of concentration in a liquid or gas. Micrograms of material in 1 cubic metre of water. 1 gram = 1,000,000 micrograms.



Contributors

Compliance Monitoring Report Authors

Simon Mapp
Graeme McKenzie
Maree Holloway
Kelly Leonard
Ruth Williamson
Noel Hinton

Production/Editing

Adrienne Henderson
Simon Mapp



Corner of North Road and Price Street
Private Bag 90116
INVERCARGILL 9840

Telephone (03) 211 5115
0800 76 88 45 (Southland only)

Fax (03) 211 5252

www.es.govt.nz
service@es.govt.nz



environment
SOUTHLAND

Te Taiao Tonga