



Report 03.380  
Date 5 June 2003  
File Y/12/2/6

Committee Rural Services and Wairarapa  
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## Environmental Discharges

### 1. Purpose

To provide the Committee with an overview of discharges to the environment in the Wairarapa.

### 2. Overview

Environmental discharges can be to air, water or land. The Region's objectives, policies, discharge standards and consent requirements are set out in the Regional Policy Statement and each relevant Regional Plan.

There are currently 432 discharge consents issued in the Wairarapa as shown in Table 1.

<i>Wairarapa Discharge Consents</i>		
<i>Discharge Type</i>	<i>Number of Consents</i>	<i>%</i>
Air	32	7.4
Land	341	78.9
Water	59	13.7
<b>Total</b>	<b>432</b>	<b>100.0</b>

### 2.1 Discharges to Air

The Regional Air Quality Plan became operative in May 2000 with consent applications required by November 2000 for activities not previously covered by the Clean Air Act. All activities are now consented.

Consents can cover both particulate/smoke discharge and odour and have conditions that set discharge standards and monitoring and reporting regimes. Summary categories given in the following table:

<i>Wairarapa Discharge to Air Consents</i>		
<i>Discharge to Air</i>	<i>Number of Consents</i>	<i>%</i>
Industrial boilers and processes	8	25.0
Factory farming - piggery and poultry	4	12.4
Landfill and compost	6	18.8
Crematoria	2	6.3
Quarries	5	15.6
Sewage ponds	5	15.6
Other	2	6.3
<b>Total</b>	<b>32</b>	<b>100.0</b>

Juken Nissho at Waingawa is the largest industrial complex with discharges to air occurring from their boiler and veneer manufacturing plant. Relatively close by is the Renalls Ltd boiler discharge. With intentions of creating an enlarged industrial zone at Waingawa and suggestions of a waste wood fired power station, debate over the wisdom of concentrating industrial air discharges upwind of Masterton are anticipated.

Webstar (formerly Government Print) ink drying operations have given rise to a number of complaints from downwind homes. The company has installed additional pollution reduction equipment. Complaints of dust from industrial premises near Masterton Railway Station have been frequent over recent years, although the industry and houses have been present for many decades.

Complaints about dust, neighbours fires, and spray drift are the most common incidents reported. These can be most difficult to deal with due to timing and wind conditions at the time of response.

Continuous monitoring of Masterton's air quality is undertaken from an automated monitoring station laboratory near Wairarapa College. Readings from this and the previous Dixon Street site show that during winter months the levels of nitrous oxide (NO<sub>2</sub>) and particulate matter (PM<sub>10</sub>) exceed the national air quality guidelines.

## **2.2 Discharges to Land**

These make up close to 80% of all discharges, and may be "surface" or "within soil" discharges. Dairy effluent discharges are by far the largest category with this effluent being a very strong potential contaminant – the waste from a 300 cow herd being equivalent to the sewage from a town of 3000 people.

Agrichemical consents include spraying and 1080 applications which are usually "one off" consents or for a short period of a few years.

Categories of land discharge are summarised in the following table:

<i><b>Wairarapa Discharge to Land Consents</b></i>		
<i><b>Discharge to Land</b></i>	<i><b>Number of Consents</b></i>	<i><b>%</b></i>
Animal Waste	235	68.9
Treated sewage	56	16.4
Agrichemicals & 1080	25	7.3
Landfill	13	3.8
Industrial runoff	8	2.4
Stormwater	4	1.2
<b>Total</b>	<b>341</b>	<b>100.0</b>

Discharges to land of animal waste from landfills, and industrial sites are subject to annual inspection/reporting. Other discharges to land are inspected at installation and intermittently thereafter.

For animal waste this is extended to one inspection every three years where there is a history of good compliance. In 2002/03, 40% of farms were on annual inspections and 60% on triennial inspections. Compliance ratings for farms inspected in 2002/03 were:

- 71% fully complying
- 17% mainly complying
- 8% partially complying
- 4% non complying

Landfill compliance is subject to defined annual monitoring and reporting which is covered in the separate landfills report in this agenda.

## **2.3 Discharges to Water**

These comprise some 14% of discharges with 58 consents issued for point source discharges and application of agrichemicals. Discharges to water from sewage treatment ponds and dairy effluent ponds have the most significant and ongoing impacts. Categories of discharges to water are summarised in the following table:

<i><b>Wairarapa Discharge to Water Consents</b></i>		
<i><b>Discharge to Water</b></i>	<i><b>Number of Consents</b></i>	<i><b>%</b></i>
Agrichemical	22	37.2
Industrial	16	27.1
Sewage Treatment	7	11.9
Landfill	4	6.8
Dairy Effluent	4	6.8
Stormwater	5	8.5
Tracer Dye	1	1.7
<b>Total</b>	<b>59</b>	<b>100.0</b>

Dairy discharges from effluent treatment ponds were previously widespread and having a significant effect on receiving waters. Since treatment ponds were constructed, design criteria have changed considerably and herd sizes increased significantly. Farmers have accepted that it is preferable and beneficial to discharge to land, such that now only four discharges to water remain. These will also change to land in the near future.

In 1999 agreement was obtained from Iwi, Fish and Game, DOC and public health to a process whereby short term, non renewable consents would be issued to farmers who had entered into a written commitment to change to a land discharge within 2 to 3 years. This has proved to be a most successful approach with discharges of dairy effluent to water reducing from 66 to 4 over the past eight years.

All sewage discharges are on “new” consents except for Featherston where the final application is to be lodged shortly. All the new consents contain specific upgrade programmes and timeframes to be achieved that will reduce the impacts on the receiving waters, particularly during low flow summer conditions. To date these have been met for the Masterton and Greytown discharges but not by Carterton.

Discharges of treated sewage are now the major point source discharges to water in the Wairarapa. They are continuous discharges that have their biggest impact and pose the greatest health risk during summer and early autumn when high temperatures and low river flows coincide with the time of greatest recreational activity.

Five of the discharges are within the main Ruamahanga River system which together with Makoura Stream, has been identified as one of the Region’s six worst rivers or streams requiring improvement, based on ecological, chemical and physical condition.

The granting and expiry dates of each consent are given in the following table:

<i><b>Wairarapa Community Sewage Scheme Discharges to Water</b></i>			
<i><b>Consent No</b></i>	<i><b>Treated Sewage Discharge to Water</b></i>	<i><b>Consent Granted</b></i>	<i><b>Consent Expires</b></i>
WAR860047	Featherston	Application pending	Expired 31/5/97
WAR950148	Carterton	1/6/99	30/3/09
WAR960286	Greytown	14/6/01	28/3/08
WAR010245	Rathkeale	28/8/01	1/2/06
WAR930036	Castlepoint	22/9/97	30/9/07
WAR970079	Martinborough	10/7/02	10/7/12
WAR010245	Tinui	20/8/02	31/3/06
WAR020074	Masterton	23/1/03	20/1/10

Significant point source discharges arising from major stock crossings have not been addressed to date. These can have a serious impact on water quality of streams and the smaller rivers.

### **3. From Here?**

#### **3.1 Discharges to Air**

It is believed that all non-permitted discharges are now consented and controlled through consent conditions. When each consent falls due for renewal, a full review of compliance and environmental effects will be made. New applications will be assessed as they arise.

Air quality monitoring will be continued and used as the basis for reviewing the Regional Air Quality Plan.

#### **3.2 Discharges to Land**

Consents will be issued and renewed with respect to plan requirements and environmental effects. This is likely to include some summer applications to land from community sewage treatment plants. Comment and submission will continue to be made on District Council consent applications to ensure that sewage disposal requirements are identified at both subdivision and development.

Where existing permitted sewage discharges are not meeting requirements; encouragement and advocacy for alternative approaches will be made, as has been the case for Lake Ferry and Riversdale.

#### **3.3 Discharges to Water**

As most point sources of pollution are consented and controlled by consent conditions with various requirements for improvement detailed in consent conditions, attention is now turning to non point source pollutant sources of nutrients and micro organisms.

The Ruamahanga River system is the main public focus. The Regional Freshwater Plan identifies the Ruamahanga River and the lower Waiohine River as water bodies requiring enhancement for contact recreation purposes. Compliance with the actions and timeframes of conditions on community sewage discharge consents will give progressive improvements over the next ten years. At the same time development of measures to address non point source pollution need to be progressively implemented.

#### ***Riparian Management Strategy***

The Council now has a Riparian Management Strategy in place with a strong emphasis on education, with some funding available for work in high priority areas. Members have inspected the pilot work on the Enaki

Stream and proposals are now being developed with the community for the Papawai Stream.

As the education and demonstration programme proceeds under the strategy, this will play an important part in achieving long term beneficial changes in reducing non point source pollution.

### ***Dairying and Clean Streams Accord***

This accord sets out to promote sustainable dairy farming in New Zealand, focusing on *reducing the impacts of dairying on the quality of New Zealand streams, rivers lakes, groundwater and wetlands*. It was signed by Fonterra, Local Government NZ, and the Ministers of Environment and Agriculture on 26 May 2003. (Attachments 1 and 2).

The accord is not legally binding on the parties or Fonterra shareholders. It does not in any way restrict any person in the exercise of any power or discretion under any statute.

The accord sets out performance standards and timeframes for improvement in relation to:

- Exclusion of dairy cattle from streams, rivers, lakes and their banks.
- Replacement of stock crossings with bridges or culverts
- Appropriate management of farm dairy effluent.
- Minimum losses of nutrients to ground and surface water.
- Protection of regionally significant wetlands.
- Development of regional action plans to implement the accord by June 2004.

The accord goes on to set out various roles and responsibilities for Fonterra and regional councils, likely regional action plan content, the role of the Fonterra Co-operative Group, and the role of the ministries of Agriculture and Environment.

### ***Stock Waterway Crossings***

To date no action has been taken in cleaning up the severe pollution of waterways that is associated with major stock crossings. Legal opinion supports the contention that these are point source discharges that require consent under existing rules. To date no systematic appraisal of the issue has been made or any action taken.

A programme developed through discussions with Fonterra, Federated Farmers, and interested/affected parties, identifying the scale and scope of the problem, and developing a strategy and timeframe for improvement is

required. Such an approach worked well in shifting dairy discharges to land and should be appropriate in this case.

### ***Non Point Source Pollution***

Current knowledge as to the levels of nutrients and bacteria contributed by different catchments at different times of the year and under different climatic/flow conditions is quite limited. A significant proportion of the Ruamahanga catchment is dry in the summer with little to no stream flow. The proposed annual plan makes provision to undertake this important research.

This information will assist in forming a targeted and co-ordinated approach to reducing this non point source pollution. It will also provide a basis against which the effectiveness of such approaches can be assessed over time.

What is known from New Zealand research is that the effects of land activities on water quality can take anywhere from 1 to 35 years before their impacts show up in surface or ground water. Consequently positive changes in land use cannot be expected to have an immediate beneficial effect on water quality. This means a proactive approach needs to be taken over many years.

Council is actively undertaking riparian enhancement on its own lands and has established pilot programmes on key streams with co-operative farmers. A prioritisation procedure has also been developed. Riparian enhancement now needs to be integrated as part of the Dairying and Clean Streams Accord.

### ***Regional Approaches***

Whilst the greater part of the issues discussed in this paper occur in the Wairarapa, they occur to a lesser extent in the balance of the Region, particularly in Kapiti. Development of programmes, strategies and approaches needs to be on a whole Region basis, consistent with Regional plans.

## **4. Communications**

As this is an overview paper, no additional publicity is proposed.

## **5. Recommendation**

1. *That the report be received and its contents noted.*
2. *That staff meet with Fonterra representatives and progress development of a regional action plan as set out in the Dairy and Clean Streams Accord.*
3. *That a strategy for identifying and preventing contamination from major stock crossings be developed with relevant interests.*

4. *That progress on these issues and other issues identified in this report be reported back to the Rural Services and Wairarapa Committee and the Environment Committee.*

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