Taranaki Regional Council

Farm Dairy Discharge Monitoring Programme

> Taranaki Regional Council Private Bag 713 Stratford

Document 2230257

June 2021

Executive summary

Dairying is a major traditional economic activity in the Taranaki region, and the Taranaki Regional Council has had an extensive programme to monitor the environmental consequences of this activity in place for over 40 years. A review of the programme was undertaken in 2020/21. The programme is the largest and longest monitoring programme undertaken by the Taranaki Regional Council. The programme is associated with water quality management which remains a key resource management issue for the region going forward, notwithstanding the progress made to date.

The programme has contributed significantly to the region's policy objective of maintaining or enhancing water quality, and is a strategic component of resource management in the region. This involves policy being developed with the community; it being implemented by non-regulatory (advice and information) means, under-girded by regulatory (consents and enforcement) provisions; compliance and state of the environment monitoring being undertaken to assess both consent compliance and the overall state of the environment; policy effectiveness being assessed using both sets of monitoring results and science; and policy being reviewed as appropriate in the light of this feedback.

The Council requirement to move, in most cases, from the discharge of treated effluent to water to a discharge to land, means the focus of the programme will become land based and the monitoring programme has accordingly been reviewed.

The requirement to move to land based discharge systems will improve water quality and addresses important tangata whenua cultural concerns regarding waste discharges to water.

This document summarises all aspects of the Council's farm dairy monitoring programme and related activities such as consenting and enforcement. These important activities are considered integral to successful monitoring and resource management. The programme sets out expectations, procedures and standards, and is aimed at providing clarity and certainty for all parties that the Farm Dairy Discharge Monitoring Programme is indeed an integrated, cost effective, fair, comprehensive, robust, and scientifically-based programme designed and managed to deliver sustainable management of natural and physical resources in Taranaki.

In September 2020 the Government released its freshwater package which included a greater recognition of iwi values in resource management and more of a partnering role for the Council and iwi going forward. Given this the monitoring strategy will be reviewed once the operational matters arising from the changes have been determined.

The programme is undertaken by compliance officers otherwise known as inspectors. The key components of the programme are summarised below, with appropriate examples, and further detail is provided in this document:

- Considerable focus on working with farmers and providing advice and information;
- Farm dairy discharges were consented in the 1980's and all dairy farmers hold resource consents;
- All consents are annually inspected and no warning of the inspection is given;
- The Regional Policy Statement (2010) and the Regional Freshwater Plan (2001), developed with community consultation and scientific and technical input, provide the policy framework and direction for the monitoring programme. The Draft Freshwater and Land Plan (2015) strengthens

this policy framework, including the move towards land based discharge systems. The Government's National Policy Statement for Freshwater Management (2020) also applies to resource consents processing and tends to support land based discharge methods;

- The majority of resource consent applications are for controlled activities under the Regional Freshwater Plan The discharge of untreated farm dairy wastewater to water has been deemed a prohibited activity by the Council;
- Farm dairy discharges applications are processed according to standard operating procedures, which include provision for catchment based consent review dates and terms;
- Farm dairy discharges are inspected annually by compliance officers, with the opportunity for advice, consultation, and re-inspections carried out where improvement is needed;
- Relationships established with farmers through the monitoring process with inspectors is recognised as a valuable asset, fostering the potential uptake of other non-regulatory programmes (e.g. riparian, key native ecosystem);
- Consent holders pay for 100% of monitoring and re-inspection costs. Effective management and the use of technology mean the charges are generally low to moderate;
- Compliance officers are generally experienced operators, with individual development programmes in place to address any training needs and provide professional extension;
- Compliance officers are regularly rotated between catchments to maintain standards and consistency, and to avoid potential complacency;
- Compliance officers use the latest technology (e.g. field devices, computers and printers) to deliver cost effective, relevant and timely monitoring information and feedback to consent holders and the community;
- The business of monitoring is integrated with that of processing resource consents. Consent renewal assessments are integrated into the monitoring programme to reduce costs to the consent holder, and to help the farmer anticipate and prepare for achieving rising community expectations;
- The regulatory approach means, when advice and information is unsuccessful, appropriate enforcement action is considered and undertaken under the Council's Enforcement Policy (2017). Policy is provided in the programme to guide these important decisions. This provides integrity to the Act, Council plans, and consents granted under them, and develops trust and respect within the community;
- Extensive and strategic use of enforcement methods (abatement notice, infringement notice, enforcement order and prosecution). All enforcement decisions are delegated to the appropriate Council staff;
- Policy, monitoring and enforcement are all underpinned by targeted science, to validate the approaches undertaken. Strategic research is pursued, to anticipate and resolve future issues;
- The monitoring programme results are regularly reported to the Council and the community, for the sake of accountability and transparency;
- Iwi are involved in prosecutions and provide sentencing submissions; and
- The monitoring and enforcement of farm dairy discharges is reviewed regularly to ensure best practice is achieved. This can include an external audit undertaken by experienced peers.

Table of contents

1	Introduction	2
2	Background	6
3	Policy framework	8
4	Objectives of the monitoring programme	11
5	Resource consents	12
6	Monitoring	27
7	Enforcement	32
8	Education and advice	37
9	Research	38
10	Costs and cost recovery	39
11	Training	41
12	Quality assurance and control	42
13	Review and reporting	43
14	References	44

List of photographs

Photo 1	Farm dairy and cows	2
Photo 2	Condition based monitoring with portable device	27
Photo 3	Visual inspection to check condition of the irrigator and application rate	28
Photo 4	Collecting samples, recording temperature and entering sample information into the	
	laboratory database remotely	29
Photo 5	Officer completing inspection and printing out notice. Also, synchronising to Council	data
	base	30
Photo 6	Inspector provides advice and assistance to the farmer	37

List of figures

Figure 1	Elements of the Farm Dairy Discharge Monitoring Programme	4
Figure 2	Principal components of resource management	7
Figure 3	Resource consent process and timelines	12
Figure 4	Farm dairy compliance with resource consents	32
Figure 5	Abatement Notices issued between 2009 and 2019.	35
Figure 6	Infringement notices issued between 2009 and 2019	36
Figure 7	Prosecutions undertaken and successful between 1999 and 2019	36

1 Introduction

Dairying is the dominant farming in Taranaki, particularly on the ring plain. There are 1,645 dairy farms in the region, accounting for 14% of all dairy farms in New Zealand and almost 20% of New Zealand's total milk fat production. In addition to direct farm income from milk production, the added value brought to the region from the processing of milk, whey, cheese, speciality manufacture of cheese and other products derived from milk is one of the most significant contributors to employment and the economic wellbeing of people in Taranaki.

Presently 61% (1,013) of farm dairy effluent discharge systems in the region involve irrigation to land with a storage facility as a contingency, when pasture is not suitable for irrigation. The remainder 39% (632) involve oxidation pond systems, which subsequently discharge to a watercourse.

Overall, the quality of Taranaki's fresh water and coastal water resources is good when measured against a range of chemical and biological indicators.

However, there is a general tendency for fresh water quality and stream appearance to deteriorate toward lower reaches. This is in part (but not entirely) a direct reflection of the changes in land cover and land use between the National Park and the coast, where intensive dairy farming dominates.



Photo 1 Farm dairy and cows

It is commonly expected by the public of Taranaki that the quality of the region's ring plain streams and coastal waters will be maintained and that water quality is suitable for consumptive use requirements, cultural, recreational and aesthetic demands and the maintenance of `healthy' aquatic ecosystems.

The *Regional Policy Statement for Taranaki* and the *Regional Fresh Water Plan*, prepared by the Taranaki Regional Council ('the Council') on behalf of the community, both contain objectives and policies to maintain the quality of our water resources and to enhance that quality where necessary and appropriate. The *Draft Freshwater and Land Plan (2015)* strengthens this policy framework, including the move towards land based discharge systems.

The Council's Farm Dairy Discharge Monitoring Programme is vital to the achievement of the Council's policies and of community expectations to maintain or enhance the quality of our water resources. The programme has been in operation for almost 40 years.

As part of carrying out that responsibility, the Council recognises that it has the responsibility under the *Resource Management Act 1991* ['the Act']to promote sustainable management of natural and physical resources, a responsibility it takes very seriously given the public expectations for water and environmental quality noted above. Sustainable management is not just about the environment and its quality and involves enabling '.....people and communities to provide for their social, economic, and cultural wellbeing......'

It is therefore important for the dairy industry, as well as the wider Taranaki community, that environmental practices within the industry are sustainable in the long term.

The way this is done is also important. In developing its Farm Dairy Discharge Monitoring Programme, the Council has been guided by its Mission Statement which is set out below: 'To work for a thriving and prosperous Taranaki by: Promoting the sustainable use, development and protection of Taranaki's natural and physical resources; Safeguarding Taranaki's people and resources from natural and other hazards Promoting and providing for Taranaki regionally significant services, amenities, and infrastructure representing Taranaki's interests and contributions to the regional, national and international community

We will do this by leading with a responsibility, working cooperatively, encouraging community participation, and taking into account the Treaty of Waitangi.

The Council's Farm Dairy Discharge Monitoring Programme must also be transparent, that is, it must be able to be seen and understood by a wide range of stakeholders in the community. This ensures that those stakeholders have trust and confidence in the Council and its work.

In March 2017 the Council set out its requirements for good farm management, which included dairy effluent management. As a general rule, farm dairy effluent must be discharged to land. A review of Council requirements is underway and good farming measures are being developed nationally and will apply in the future.

The requirement to move to land based discharge systems will improve water quality and also address important tangata whenua cultural concerns regarding waste discharges to water.

Delivering the mission and Council farm dairy effluent good farming requirements is the purpose of this document.

This document summarises all aspects of the Council's farm dairy discharge monitoring programme and related activities and matters. It was last reviewed in 2007. It sets out expectations, procedures and standards, and is aimed at providing clarity and certainty for all parties that the Farm Dairy Discharge Monitoring Programme is indeed an integrated, comprehensive, fair, cost effective, robust, and scientifically-based programme designed and managed to deliver sustainable management of natural and physical resources in Taranaki.

This document notes and summarises all relevant aspects of the Monitoring Programme contained within Council policy documents, plans and procedure documents, and refers to these other documents for further information and detail. As such, this document sits mid-way between national policies and standards and the Council's own 'high-level' policy documents and plans (such as the *Regional Policy Statement* and the *Regional Fresh Water Plan*), and the more detailed procedure documents and other activities such as science and research, education and advice, and staff training, that make up the programme. The elements of the Council's Farm Dairy Discharge Monitoring Programme and how they fit together are shown in Figure 1.



Figure 1 Elements of the Farm Dairy Discharge Monitoring Programme

This document provides for readers:

- an introduction and background to the Farm Dairy Discharge Monitoring Programme;
- a section on the policy framework adopted by the Council to guide the management of farm dairy discharges;
- the objectives of the Programme;
- a section on how the Council deals with applications for resource consents for farm dairy wastes;
- a section outlining details of the Council's monitoring of resource consents;
- a section on how the Council enforces conditions and requirements of resource consents;
- a section on the role of education and advice to the dairying community in best managing farm dairy wastes;
- some details of the programmes of research that the Council has undertaken and aims to carry out with regard to farm dairy waste discharges and related receiving environments;
- a section on the Council's approach to setting and recovering costs associated with the Programme;
- a section setting out the Council's staff training systems and procedures;
- a section summarising the Council's quality assurance and control systems that ensures that the Council delivers services to the industry and the wider Taranaki community in line with its mission statement and values (above); and
- a section on reporting.

[Refer Regional Policy Statement for Taranaki 2010 Regional Fresh Water Plan for Taranaki 2001 Farm Dairy Discharge Standard Operating Procedures for Consent Processing and Compliance Monitoring Resource Consents Procedures Document Resource Consents Monitoring Procedures Document

4

Enforcement Provisions and Procedures under the Resource Management Act 2017 Resource Management Act Enforcement Policy 2017 Design, Construction and Maintenance Guidelines for Dairyshed and Feed Pad Wastes Design, Construction and Maintenance Guidelines for Spray Irrigation] A farmer's guide to managing farm dairy effluent DairyNZ

Practice Note 21 Farm Dairy Effluent ponds version 3, August 2017 DairyNZ]

2 Background

The dairy industry has been a significant industry in the Taranaki region for over a century. Many people in the community will remember the many small dairy factories dotted around the region, generally all located on a stream or river with sufficient water flow to provide the needs of the factory, both in terms of water supply and waste disposal. But in many cases, the waste disposal practices employed had a significant impact on those streams and rivers.

Similarly, on the farm, milking shed waste was more often than not discharged directly into waterways.

With the advent of the Water and Soil Conservation Act in 1967, and the subsequent formation of the Taranaki Catchment Commission and Regional Water Board (now the Taranaki Regional Council), significant in-roads were made into improving waste disposal practices, initially by encouraging dairy farmers to utilise the nutrient value of shed wastes via pasture irrigation of those wastes, and then more latterly adopting design and management guidelines for farm dairy treatment systems.

Since the late 1970s therefore, the organisation now known as the Taranaki Regional Council has been actively improving the quality of waterways within the region utilising advice and education, the requirement for such discharges to have resource consents, and enforcement of consent conditions as the primary tools. The Council has maintained high quality staff and has invested heavily in the necessary resourcing, technology, equipment, investigations, and training necessary to carry out this work.

In a joint regional council case study coordinated by the Ministry for the Environment in 1999, in which the Council participated, it was considered that policy regimes now being established, effectively managed the environmental risks posed by dairy effluent. As an aside, the working group considered the priority for further improvements in water quality with improvements in riparian management and the control of non-point source contaminants (MFE 1999). The Council's riparian management programme commenced in 1993.

For about the past 40 years the Council has provided both advice to dairy farmers on appropriate wastewater treatment and disposal systems, and as well, undertaken monitoring of those discharges and their receiving environments. As a consequence, there has been a substantial improvement in freshwater quality over this time, coupled with a change in attitude of the dairy farming community as well as the general public as awareness of the effects of inappropriate waste treatment and disposal practices has increased.

The Farm Dairy Discharge Monitoring Programme is the Council's single largest programme, with all farms in the region holding resource consents for their discharge systems. Farm inspections are not contracted out as the task can efficiently be undertaken by well managed and resourced Council inspectors, and the Council strongly believes regulatory functions should stay with the organisation responsible. All farms are inspected annually for compliance with the associated consent conditions. Re-inspections occur where non-compliance is identified and improvement is needed. No warning is given of the farm monitoring inspections.

As such, the Programme is an important part of the Council's strategic resource management framework, which itself involves:

- policy development pertaining to the industry;
- delivery via the resource consent process and related activities;
- consent compliance activities;
- regular state-of-environment monitoring and reporting;
- regular review of all of the above, with changes made to policies as and when required; and finally; and
- regular reporting of results to the community.



This can be best summarised in the following diagram (Figure 2):

Figure 2 Principal components of resource management

As shown in Figure 2, the resource management process begins with policy development and its implementation through resource consents and other, non-regulatory methods (e.g. advice and education).

The main policies adopted by the Council to manage farm dairy discharges and their effects on the environment are set out in the next section.

3 Policy framework

The Regional Policy Statement (RPS) for Taranaki contains as an overall objective for Taranaki.

'To maintain and enhance the quality of the water resources of Taranaki for water supply purposes, contact recreation, shellfish gathering for human consumption, aesthetic purposes, cultural purposes and aquatic ecosystems by avoiding, remedying or mitigating the adverse effects of contaminants discharged to water from point sources'.

This objective reflects the aspirations and expectations of the community of the region, crystallised through the RPS process.

The Regional Fresh Water Plan for Taranaki (2001) contains more detailed policies and methods by which to implement this objective. In relation to managing point source discharges to land and water including discharges from farm dairy waste treatment and disposal systems, the Regional Fresh Water Plan (RFWP) contains the following policies and methods.

- POL 6.2.1 In managing point-source discharges to land and water, the Taranaki Regional Council will recognise and provide for the different values and uses of surface water including:
 - (a) natural, ecological and amenity values;
 - (b) the relationship of Tangata Whenua with water;
 - (c) the maintenance and enhancement of aquatic ecosystems, and water quality for fisheries and fish spawning;
 - (d) use of water for water supply purposes;
 - (e) use of water for contact recreation.
- POL 6.2.2 Discharges of contaminants or water to land or water from point sources should:
 - (a) be carried out in a way that avoids, remedies or mitigates significant adverse effects on aquatic ecosystems;
 - (b) maintain or enhance, after reasonable mixing, water quality of a standard that allows existing community use of that water for contact recreation, and water supply purposes, and maintains or enhances aquatic ecosystems;
 - (c) be of a quality that ensures that the size or location of the zone required for reasonable mixing does not have a significant adverse effect on community use of fresh water or the life supporting capacity of water and aquatic ecosystems.
- POL 6.2.3 Waste reduction and treatment practices which avoid, remedy or mitigate the adverse environmental effects of the point-source discharge of contaminants into water or onto or into land will be required. In

assessing applications for resource consents to discharge contaminants or water to land or water, the Taranaki Regional Council will consider:

- (a) the natural, ecological and amenity values of the water body;
- (b) the relationship of Tangata Whenua with the water body;
- (c) the allowance for reasonable mixing zones and sufficient flows (determined in accordance with (a) to (k) of this policy);
- (d) the potential for cumulative effects;
- (e) the actual or potential risks to human and animal health from the discharge;
- (f) the degree to which the needs of other resource users may be compromised;
- (q) the effect of the discharge on the natural state of the receiving environment;
- (h) measures to avoid, remedy or mitigate the effects of contaminants to be discharged;
- (i) measures to reduce the volume and toxicity of the contaminant;
- (j) the use of the best practicable option for the treatment and disposal of contaminants;
- (k) the availability and effectiveness of alternative means of disposing of the contaminant (including discharge of wastewater into a municipal sewerage system).

POL 6.2.4 The Taranaki Regional Council may, where appropriate, require the adoption of the best practicable option to prevent or minimise adverse effects on the environment from the discharge of contaminants to land or water. When considering what is the best practicable option, the Taranaki Regional Council will give consideration to the following factors, in addition to those contained in the definition in the Act of best practicable option:

- (a) the capital, operating and maintenance costs of relative technical options, the effectiveness and reliability of each option in reducing the discharge, and the relative benefits to the environment offered by each option;
- (b) the weighing of costs in proportion to any benefits to the receiving environment to be gained by adopting the method or methods;
- (c) maintaining and enhancing the existing water quality in the area as far as practicable.
- POL 6.2.5 The Taranaki Regional Council will promote the best practicable option for the disposal of farm dairy effluent. Disposal may either be to land or to surface water. Matters that will be considered in the assessment of the best practicable option include:
 - (a) topography and land area;
 - (b) weather and soil conditions;
 - (c) assimilative capacity of receiving water;
 - (d) cumulative adverse effects on receiving water;
 - (e) use of systems appropriate to the receiving environment.
- POL 6.2.6 The Taranaki Regional Council will advocate the tertiary treatment or land application of farm dairy effluent as a sustainable method of effluent disposal.
- POL 6.2.7 Contingency plans and other measures to reduce the risk and effect of any spill event will be required at all sites which are subject to the risk of a spill that may have significant actual or potential effects.

The following methods are included in the RFWP to implement the Policies:

- Apply regional rules contained in Section 7 of this Plan, to allow, regulate or prohibit pointsource discharges of contaminants or water into water and/or into or onto land where the discharge may have an adverse effect on water.
- Have regard to water quality guidelines contained in Appendix V of this Plan when assessing applications for resource consents to discharge contaminants to water or land.
- Encourage the adoption of waste minimisation or reduction practices to reduce the quantity of contaminants being discharged to the environment.
- Apply, where appropriate, in conjunction with the objectives, policies and rules in this plan, the best practicable option for preventing or minimising any actual or potential adverse effect on the environment of any discharge of a contaminant or water to water or into or onto land.
- Consider the use of riparian planting as a means to mitigate the effects of point-source discharges, where appropriate.
- Support the preparation and implementation of codes of practice and guidelines by industry aimed at reducing the effects of point-source discharges, and support their implementation and adoption where appropriate.
- Promote the continued improvement of the management of all farm dairy waste treatment and land application systems, with an inspection, advice and monitoring focus on those systems which are performing poorly.

Promote or undertake research into methods of water quality management.

The Draft Freshwater and Land Plan has similar methods.

The RFWP also contains detailed information on good management practices for the treatment and disposal of farm dairy effluent. This information provides guidance to assist farmers on selecting the best practicable option for preventing or minimising adverse effects on the environment from the discharge of farm dairy effluent, as required by rules in the Plan. However, there is more recent dairy industry information available (e.g. Farmers guide to managing farm dairy effluent-A good practice guide for land application) on the Council's Land and Farm hub on the Council's website (www.trc.govt.nz). The Council recognises that there may very well be a rising expectation that there will be increasing scrutiny of the effectiveness of the Farm Dairy Discharge Monitoring Programme, including specific field and laboratory monitoring results, in order to ensure that the programme is implementing the Council's policies to maintain and enhance water quality throughout the region. This in turn leads to the need for scientifically-defensible, robust, rigorous monitoring techniques and practices, and transparent Monitoring Programme activity.

These matters are addressed in the remaining sections of this document.

The Government's National Policy Statement for Freshwater Management (2020) applies to resource consents processing and tends to support land based discharge methods.

4 Objectives of the monitoring programme

With the Council's policy objectives in mind, the following are the specific objectives of the Taranaki Regional Council's Farm Dairy Discharge Monitoring Programme:

- Excellent environmental performance within the industry, noting however that there may on occasions be detrimental environmental effects caused by discharges even though resource consent conditions have been complied with (hence the need for the ability to review those conditions on both an individual and a generic basis);
- Innovation and wherever practicable, continuous improvement in performance and outcomes both within the industry as well as for the Council;
- High levels of compliance with resource consent conditions; and
- Council processes which are transparent, fair, cost-effective, efficient, and accountable.

These objectives are built into every monitoring programme undertaken by the Council, including the Farm Dairy Discharge Monitoring Programme, and apply from resource consent processing and administration to monitoring, research and ongoing staff training.

5 Resource consents

In Taranaki, all discharges of dairy shed wastes, whether by spray irrigation to land or treated and then directly discharged to water, require a resource consent.

The Council has adopted a set of standardised resource consent procedures, in the main for use by Council staff but also of use as a general guide for anyone seeking to obtain a resource consent (including for the discharge of farm dairy wastes). The approach by Council in processing an application for a consent to discharge farm dairy waste is therefore no different to any other consent application, in terms of processes involved and matters to be considered before consents are approved. This is appropriate given that the Act sets out the specific steps, considerations and timelines for consent applications, as can be summarised in Figure 3.

The Council has gone further, and adopted standard operating procedures for the processing of consents and for compliance monitoring of farm dairy waste treatment and disposal systems, in essence the 'Bible' for Council staff and the dairy industry. This in effect is a compilation of design and operations guidelines as well as matters considered in the processing of resource consents for these discharges, and is linked directly to the RFWP's Appendices VIIA and VIIB (good management practices for discharging farm dairy effluent to land and to water, respectively) and subsequent guidelines.

Applicants generally use DairyNZ guidelines to design, construct and maintain land based systems.

As well, the RFWP sets out all of the

policy considerations to be used when resource consent applications are processed, as well as specific Rules (35, 36, 39 & 40) which define when a farm dairy discharge meets the standards for a controlled activity or when it requires to be considered as a discretionary activity.





Most applications are processed as controlled activities under the RFWP on a non-notified basis with few affected party approvals required. Applicants tend to favour the certainty provided by this regime in the Plan.

Relevant considerations when processing a resource consent application include:

- farm location;
- herd size;
- proposed method of discharge, and the contingency available when land is not suitable for application;
- positioning of the storage facility or treatment system;
- features of the receiving environment (land or water);
- available dilution and water quality for discharges to water, or
- soil type, slope and climate for discharges to land; and
- other values associated with the receiving environment (other uses, amenity value, natural and cultural values etc); and
- any relevant measures that can be taken to minimize environmental impacts.

Farm dairy discharge consents have generally been issued with long terms [about 18 years], to provide certainty and to reflect investment in treatment systems. However, all have a review condition, which allows a review of the consent. The terms of the review are to establish whether the consent conditions are adequate to deal with any adverse effects on the environment arising from the exercise of the consent, which either were not foreseen at the time the application was considered or which it was not appropriate to deal with at the time of granting the consent. This allows Council policy to be implemented during the term of the consent. A catchment based approach to setting consent terms and review dates is utilised.

Those applicants going from a discharge to water to a discharge to land are given longer consent terms. The Council's standard operating procedures document sets out the following with regard to the conditions that will be attached to resource consents for dairy shed discharges. The numerical standards in the conditions are based on water quality standard assessment and scientific analysis undertaken by the Council in preparing the RFWP.

For the discharge of dairy shed effluent to land.

If such discharges meet the following criteria, they satisfy the conditions as a controlled activity, and the resource consent must be granted. However, the Council may still impose conditions upon the nature of the disposal system's operation and the level of environmental performance required:

Special conditions Activity definition

- 1. For the purposes of this consent:
 - a) Farm dairy includes every area of the dairy cow milking process and includes covered and uncovered areas where cows reside for longer than five minutes for the purpose of milking (including a stand-off pad or yard) but does not include raceways;
 - b) Unless otherwise specified, 'effluent' includes its liquid, slurry and solid forms. It also includes sand trap cleanings; and
 - c) 'Liquid effluent' is any effluent that is discharged through a pipe or spray equipment, any non-liquid effluent is 'solid effluent'.
- 2. All effluent shall be discharged to land in accordance with conditions x to y of this consent.
- 3. The effluent discharged shall be from the milking of no more than xxx cows.
- The consent holder shall advise the Taranaki Regional Council by sending an email to <u>consents@trc.govt.nz</u> if the number of cows to be milked exceeds the number authorised in condition 3. The email shall include the consent number or dairy supply number.
- 5. The consent holder shall at all times adopt the best practicable option, as defined in section 2 of the Resource Management Act 1991, to prevent or minimise any adverse effects of the discharge on the environment.

Effluent treatment and disposal system

6. The effluent disposal system shall include a storage facility, designed by a suitably qualified person, that can contain a volume of effluent that is adequate to manage the discharge and achieve compliance with the conditions of this consent for the number of cows specified in condition 3.

Note. The Chief Executive, Taranaki Regional Council will accept as compliance with this condition a storage volume calculated using the 'Dairy Effluent Storage Calculator' (developed by Massey University and Horizons Regional Council), as determined by a person with appropriate skills employed by a company that has undergone the accreditation programme set by Irrigation New Zealand.

- 7. The design for the storage facility shall be submitted to the Chief Executive, Taranaki Regional Council within 6 months of this consent commencing.
- 8. Any pond or tank for containing effluent shall be sealed to prevent effluent leaking through the bed or sidewalls.
- 9. There shall be no overflow of effluent from any part of the effluent disposal system.
- 10. The consent holder shall, at all times, manage effluent irrigation so that, while complying with the other requirements of this consent, the storage available in the effluent disposal system is maximised.

Maintenance of the effluent treatment and disposal system

- 11. The effluent disposal system shall be operated and maintained to ensure compliance with the conditions of this consent. Operation and maintenance includes, but is not limited to:
 - (a) vegetation control on and around the storage facility;
 - (b) cleaning, repairing and generally ensuring the integrity of any:
 - (i) pond or tank;
 - (ii) irrigator;
 - (iii) stormwater diversion;
 - (iv) sand trap;
 - (v) piping;
 - (vi) pump; and
 - (vii) fence.

Advice Note: For guidance on maintaining the treatment system refer to the Council publications "Design, Construction and Maintenance Guidelines for the oxidation pond treatment of farm dairy and feedpad wastes" and "Design, Construction and Maintenance Guidelines for spray irrigation of farm dairy wastes".

Land discharge standards

- 12. The consent holder shall ensure that over any June to May period, liquid effluent is discharged as evenly as is practically achievable over an area no less than xxx ha.
- 13. Any settled sludges and solids from the bottom zone of a storage facility, and any sand trap cleanings, shall be discharged to an area where there has been no effluent discharged in the previous 12 months.
- 14. Over any 12-month period the Total Nitrogen applied to any hectare of land as a result of the effluent discharge, including solids, shall be no more than 200 kg.

Advice Note: Any Nitrogen applied within effluent should be taken into account in the nutrient budget for that land.

15. The depth of liquid effluent discharged to land in any single discharge event shall not exceed the maximum application shown in the table below for the soil type that corresponds with soil in the area that the effluent is applied.

Soil Type	Maximum Application
Sand	15 mm
Sandy loam	24 mm
Silt loam	24 mm
Clay loam	18 mm
Clay	18 mm
Peat	20 mm

- 16. The discharge shall not result in any effluent reaching surface water, any subsurface drainage system or any adjacent property.
- 17. Discharges to land shall not result in liquid effluent ponding on the surface that remains for more than 30 minutes.
- 18. No contaminants shall be discharged within:
 - (a) 25 metres of any surface water body; or
 - (b) 25 metres of any fenced (or otherwise identified) urupa without the written approval of the relevant lwi; or
 - (c) 50 metres of any bore or well;
 - (d) 50 metres of any spring used for water supply purposes; or
 - (e) 150 metres from any marae, unless the written approval of the marae Chair has been obtained to allow the discharge at a closer distance.

Information provision

- 19. When requested to do so by the Taranaki Regional Council the consent holder shall measure the depth of application and/or the rate of application at representative locations over the full extent of the irrigation area. This information shall be provided to the Taranaki Regional Council upon request.
- 20. The consent holder shall keep a record of effluent discharged to land including as minimum the:
 - (a) date of discharge;
 - (b) depth, volume or rate of discharge of liquid effluent;
 - (c) volume of solid effluent;
 - (d) effluent type (e.g. liquid, slurry, solid);
 - (e) source of any solid effluent (e.g. anaerobic pond sludge, sand trap);
 - (f) the specific area that effluent was applied to (shown on a map, plan or aerial photograph); and
 - (g) the size (in ha or m²) of the area that effluent was applied to.

This information shall be in a format that, in the opinion of the Chief Executive, Taranaki Regional Council, is suitable for auditing and shall be provided to the Taranaki Regional Council upon request.

- 21. If for any reason (accidental or otherwise), effluent enters surface water or a subsurface drainage system, other than in accordance with this consent, the consent holder shall:
 - (a) immediately notify the Taranaki Regional Council on Ph 0800 736 222 (notification must include either the consent number or farm dairy number); and
 - (b) stop the discharge and immediately take steps to control and stop the escape of untreated or partially treated effluent to surface water; and
 - (c) immediately take steps to ensure that a recurrence of the escape of untreated or partially treated effluent to surface water is prevented; and
 - (d) report in writing to the Chief Executive, Taranaki Regional Council, describing the manner and cause of the escape and the steps taken to control it and to prevent it reoccurring. The report shall be provided to the Chief Executive within seven (7) days of the occurrence.

Review of consent conditions

22. In accordance with section 128 and section 129 of the Resource Management Act 1991, the Taranaki Regional Council may serve notice of its intention to review, amend, delete or add to the conditions of this resource consent by giving notice of review during the month of June 2025 and at 6-yearly intervals thereafter, for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the exercise of this resource consent, which were either not foreseen at the time the application was considered or which it was not appropriate to deal with at the time.

To discharge farm dairy effluent onto land and, until a specified date, oxidation pond system to water

If such discharges meet the standards of a controlled activity, the resource consent must be granted by the Council. However, the Council may still impose conditions upon the nature of the disposal system's operation and the level of environmental performance required.

The following resource consent conditions are imposed on a case by case basis and the environmental risks associated with the discharge.

Special conditions Activity definition

- 1. For the purposes of this consent:
 - a) Farm dairy includes every area of the dairy cow milking process and includes covered and uncovered areas where cows reside for longer than five minutes for the purpose of milking (including a stand-off pad or yard) but does not include raceways;
 - b) Unless otherwise specified, 'effluent' includes its liquid, slurry and solid forms. It also includes sand trap cleanings; and
 - c) 'Liquid effluent' is any effluent that is discharged through a pipe or spray equipment, any non-liquid effluent is 'solid effluent'.
- 2. Only liquid effluent treated as described in condition 11 and condition 12 shall be discharged to water.

- 3. There shall be no discharge to water unless any discharge to land in accordance with the conditions of this consent would result in effluent ponding on the surface that remains for more than 30 minutes, or flowing to surface water or a subsurface drainage system.
- 4. From 1 December xxxx there shall be no discharge to water and all effluent shall be discharged to land in accordance with conditions 0 to 0 of this consent.
- 5. The effluent discharged shall be from the milking of no more than xxx cows.
- The consent holder shall advise the Taranaki Regional Council by sending an email to <u>consents@trc.govt.nz</u> if the number of cows to be milked exceeds the number authorised in condition 3. The email shall include the consent number or dairy supply number.

Advice Note: The effects of the treated wastewater discharge were assessed based on the consent holder milking a maximum of xxx cows each day. If the number of milking cows increases beyond that number the adequacy of the existing treatment system will be reassessed.

- 7. The consent holder shall at all times adopt the best practicable option, as defined in section 2 of the Resource Management Act 1991, to prevent or minimise any adverse effects of the discharge on the environment.
- 8. Discharge to water shall only occur at a single designated discharge point located at or about NZTM xxxxxxE-xxxxxN and there shall be no overflow of effluent from any other point in the effluent disposal system.

Effluent treatment and disposal system

9. From 1 December xxxx the effluent disposal system shall include a storage facility, designed by a suitably qualified person, that can contain a volume of effluent that is adequate to manage the discharge and achieve compliance with the conditions of this consent for the number of cows specified in condition 3.

Note. The Chief Executive, Taranaki Regional Council will accept as compliance with this condition a storage volume calculated using the 'Dairy Effluent Storage Calculator' (developed by Massey University and Horizons Regional Council), as determined by a person with appropriate skills employed by a company that has undergone the accreditation programme set by Irrigation New Zealand.

- 10. The design for the storage facility shall be submitted to the Chief Executive, Taranaki Regional Council before 1 December xxxx.
- 11. Any effluent that is discharged to water shall have been treated in a system that includes at least x anaerobic pond and x aerobic ponds. The anaerobic pond shall have a total volume no less than xxxx m³ and a minimum depth of 4 metres. The aerobic ponds shall have a total surface area no less than xxxx m² and a maximum depth of 1.5 metres.
- 12. In addition to the ponds described in condition 11 above, any effluent that is discharged to water shall have been treated in a system that also includes a constructed drain. The dimensions shall be no less than those shown in the table below.

	Length (m)	Width (m)	Depth (m)
Constructed drain	XXX	ХХ	ХХ

- 13. Any pond or tank for containing effluent shall be sealed to prevent effluent leaking through the bed or sidewalls.
- 14. From 1 December xxxx shall be no overflow of effluent from any part of the effluent disposal system.
- 15. From 1 December xxxx the consent holder shall, at all times, manage effluent irrigation so that, while complying with the other requirements of this consent, the storage available in the effluent disposal system is maximised.
- 16. Until 1 December xxxx a flow control structure, such as a 'tee-piece' pipe or other baffle system that achieves the same outcome, shall be maintained and operated on the outlet of the first oxidation (anaerobic) pond so as to minimise the movement of solids from the pond.

Maintenance of the effluent treatment and disposal system

- 17. The effluent disposal system shall be operated and maintained to ensure compliance with the conditions of this consent. Operation and maintenance includes, but is not limited to:
 - (c) vegetation control on and around the storage facility;
 - (d) cleaning, repairing and generally ensuring the integrity of any:
 - (i) pond or tank;
 - (ii) irrigator;
 - (iii) stormwater diversion;
 - (iv) sand trap;
 - (v) piping;
 - (vi) pump; and
 - (vii) fence.

Advice Note: For guidance on maintaining the treatment system refer to the Council publications "Design, Construction and Maintenance Guidelines for the oxidation pond treatment of farm dairy and feedpad wastes" and "Design, Construction and Maintenance Guidelines for spray irrigation of farm dairy wastes".

18. In order for the constructed drain to continually provide effective treatment, it shall be left undisturbed (including by excluding stock) and shall not be sprayed.

Land discharge standards

- 19. The consent holder shall ensure that over any June to May period, liquid effluent is discharged as evenly as is practically achievable over an area no less than xx ha.
- 20. Any settled sludges and solids from the bottom zone of a storage facility, and any sand trap cleanings, shall be discharged to an area where there has been no effluent discharged in the previous 12 months.
- 21. Over any 12-month period the Total Nitrogen applied to any hectare of land as a result of the effluent discharge, including solids, shall be no more than 200 kg.

Advice Note: Any Nitrogen applied within effluent should be taken into account in the nutrient budget for that land.

22. The depth of liquid effluent discharged to land in any single discharge event shall not exceed the maximum application shown in the table below for the soil type that corresponds with soil in the area that the effluent is applied.

Soil Type	Maximum Application
Sand	15 mm
Sandy loam	24 mm
Silt Ioam	24 mm
Clay loam	18 mm
Clay	18 mm
Peat	20 mm

- 23. The discharge shall not result in any effluent reaching surface water, any subsurface drainage system or any adjacent property.
- 24. Discharges to land shall not result in liquid effluent ponding on the surface that remains for more than 30 minutes.
- 25. No contaminants shall be discharged within:
 - (a) 25 metres of any surface water body; or
 - (b) 25 metres of any fenced (or otherwise identified) urupa without the written approval of the relevant lwi; or
 - (c) 50 metres of any bore or well;
 - (d) 50 metres of any spring used for water supply purposes; or
 - (e) 150 metres from any marae, unless the written approval of the marae Chair has been obtained to allow the discharge at a closer distance.

Water discharge standards (Note: No discharge to water is allowed after 1 December xxxx)

26. After treatment in the final pond (approximately NZTM xxxxxE-xxxxxN) the maximum concentration of the constituents shown in the table below shall not be exceeded in the effluent.

Constituent	Maximum Concentration
Total carbonaceous BOD₅	110 gm ⁻³
Suspended solids	100 gm ⁻³

- 27. A minimum dilution rate of 1 part effluent to 100 parts receiving water shall be maintained at all times in the receiving water at the point of discharge.
- 28. The consent holder shall ensure that there is always clear and safe access to a point where the effluent from the final pond can be sampled.

29. The discharge shall not cause the maximum concentration of any constituent shown in the following table to be exceeded in the receiving water more than 20 metres downstream of the discharge to the receiving water.

Constituent	Maximum Concentration
Unionised ammonia	0.025 gm ⁻³
Filtered carbonaceous BOD ₅	2.0 gm ⁻³

- 30. The discharge shall not give rise to any of the following effects in the receiving water more than 20 metres downstream of the discharge point:
 - (a) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - (b) any conspicuous change in the colour or visual clarity;
 - (c) any emission of objectionable odour;
 - (d) the rendering of fresh water unsuitable for consumption by farm animals;
 - (e) any significant adverse effects on aquatic life, habitats or ecology; or
 - (f) the generation of undesirable heterotrophic growths (sewage fungus).

Information provision

- 31. When requested to do so by the Taranaki Regional Council the consent holder shall measure the depth of application and/or the rate of application at representative locations over the full extent of the irrigation area. This information shall be provided to the Taranaki Regional Council upon request.
- 32. The consent holder shall keep a record of effluent discharged to land including as minimum the:
 - (a) date of discharge;
 - (b) depth, volume or rate of discharge of liquid effluent;
 - (c) volume of solid effluent;
 - (d) effluent type (e.g. liquid, slurry, solid);
 - (e) source of any solid effluent (e.g. anaerobic pond sludge, sand trap);
 - (f) the specific area that effluent was applied to (shown on a map, plan or aerial photograph); and
 - (g) the size (in ha or m^2) of the area that effluent was applied to.

This information shall be in a format that, in the opinion of the Chief Executive, Taranaki Regional Council, is suitable for auditing and shall be provided to the Taranaki Regional Council upon request.

- 33. On each occasion that a discharge to water occurs the consent holder shall keep a record of the:
 - (a) date of discharge;
 - (b) estimated discharge duration (in hours);
 - (c) reasons that a discharge to land could not occur; and
 - (d) reasons that the effluent could not be stored.

This information shall be in a format that, in the opinion of the Chief Executive, Taranaki Regional Council, is suitable for auditing and shall be provided to the Taranaki Regional Council upon request.

- 34. If for any reason (accidental or otherwise), effluent enters surface water or a subsurface drainage system, other than in accordance with this consent, the consent holder shall:
 - (a) immediately notify the Taranaki Regional Council on Ph 0800 736 222 (notification must include either the consent number or farm dairy number); and
 - (b) stop the discharge and immediately take steps to control and stop the escape of untreated or partially treated effluent to surface water; and
 - (c) immediately take steps to ensure that a recurrence of the escape of untreated or partially treated effluent to surface water is prevented; and
 - (d) report in writing to the Chief Executive, Taranaki Regional Council, describing the manner and cause of the escape and the steps taken to control it and to prevent it reoccurring. The report shall be provided to the Chief Executive within seven (7) days of the occurrence.
- 35. If, as a consequence of the activity authorised by this consent, an event occurs that may have a significant adverse effect on water quality at the registered drinking-water supply abstraction point downstream the consent holder shall, as soon as reasonably practicable, telephone the Taranaki Regional Council and water supply operator and notify them of the event.

Review of consent conditions

36. In accordance with section 128 and section 129 of the Resource Management Act 1991, the Taranaki Regional Council may serve notice of its intention to review, amend, delete or add to the conditions of this resource consent by giving notice of review during the month of June 2025 and at 6-yearly intervals thereafter, for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the exercise of this resource consent, which were either not foreseen at the time the application was considered or which it was not appropriate to deal with at the time.

To discharge farm dairy effluent onto land and oxidation pond system to water if the land disposal area is not suitable for effluent disposal

If such discharges meet the standards of a controlled activity, the resource consent must be granted by the Council. However, the Council may still impose conditions upon the nature of the disposal system's operation and the level of environmental performance required.

The following resource consent conditions are imposed on a case by case basis and address the environmental risks associated with the discharge.

Special conditions Activity definition

- 1. For the purposes of this consent:
 - Farm dairy includes every area of the dairy cow milking process and includes covered and uncovered areas where cows reside for longer than five minutes for the purpose of milking (including a stand-off pad or yard) but does not include raceways;
 - b) Unless otherwise specified, 'effluent' includes its liquid, slurry and solid forms. It also includes sand trap cleanings; and
 - c) 'Liquid effluent' is any effluent that is discharged through a pipe or spray equipment, any non-liquid effluent is 'solid effluent'.

- 2. Only liquid effluent treated as described in condition 11 and condition 12 shall be discharged to water.
- 3. There shall be no discharge to water unless any discharge to land in accordance with the conditions of this consent would result in effluent ponding on the surface that remains for more than 30 minutes, or flowing to surface water or a subsurface drainage system.
- 4. The effluent discharged shall be from the milking of no more than xxx cows.
- 5. The consent holder shall advise the Taranaki Regional Council by sending an email to <u>consents@trc.govt.nz</u> if the number of cows to be milked exceeds the number authorised in condition 3. The email shall include the consent number or dairy supply number. Advice Note: The effects of the treated wastewater discharge were assessed based on the consent holder milking a maximum of xxx cows each day. If the number of milking cows increases beyond that number the adequacy of the existing treatment system will be reassessed.
- 6. The consent holder shall at all times adopt the best practicable option, as defined in section 2 of the Resource Management Act 1991, to prevent or minimise any adverse effects of the discharge on the environment.
- Discharge to water shall only occur at a single designated discharge point located at or about NZTM xxxxxxE-xxxxxN and there shall be no overflow of effluent from any other point in the effluent disposal system.

Effluent treatment and disposal system

- 8. Any effluent that is discharged to water shall have been treated in a system that includes at least x anaerobic pond and x aerobic ponds. The anaerobic pond shall have a total volume no less than xxxx m³ and a minimum depth of 4 metres. The aerobic ponds shall have a total surface area no less than xxxx m² and a maximum depth of 1.5 metres.
- 9. In addition to the ponds described in condition 11 above, any effluent that is discharged to water shall have been treated in a system that also includes a constructed drain. The dimensions shall be no less than those shown in the table below.

	Length (m)	Width (m)	Depth (m)
Constructed drain	160.00	1.00	.300

- 10. Any pond or tank for containing effluent shall be sealed to prevent effluent leaking through the bed or sidewalls.
- 11. A stormwater diversion system and a sand trap system shall be installed, maintained and operated at the farm dairy. The diversion system shall prevent, as far as practicable, uncontaminated stormwater entering the effluent disposal system. Note. Farm dairy includes any stand-off pad or yard (see condition 1(a)).

12. A flow control structure, such as a 'tee-piece' pipe or other baffle system that achieves the same outcome, shall be maintained and operated on the outlet of the first oxidation (anaerobic) pond so as to minimise the movement of solids from the pond.

Maintenance of the effluent treatment and disposal system

- 13. The effluent disposal system shall be operated and maintained to ensure compliance with the conditions of this consent. Operation and maintenance includes, but is not limited to:
 - (e) vegetation control on and around the storage facility;
 - (f) cleaning, repairing and generally ensuring the integrity of any:
 - (i) pond or tank;
 - (ii) irrigator;
 - (iii) stormwater diversion;
 - (iv) sand trap;
 - (v) piping;
 - (vi) pump; and
 - (vii) fence.

Advice Note: For guidance on maintaining the treatment system refer to the Council publications "Design, Construction and Maintenance Guidelines for the oxidation pond treatment of farm dairy and feedpad wastes" and "Design, Construction and Maintenance Guidelines for spray irrigation of farm dairy wastes".

14. In order for the constructed drain to continually provide effective treatment, it shall be left undisturbed (including by excluding stock) and shall not be sprayed.

Land discharge standards

- 15. The consent holder shall ensure that over any June to May period, liquid effluent is discharged as evenly as is practically achievable over an area no less than xx ha.
- 16. Any settled sludges and solids from the bottom zone of a storage facility, and any sand trap cleanings, shall be discharged to an area where there has been no effluent discharged in the previous 12 months.
- Over any 12-month period the Total Nitrogen applied to any hectare of land as a result of the effluent discharge, including solids, shall be no more than 200 kg.
 Advice Note: Any Nitrogen applied within effluent should be taken into account in the nutrient budget for that land.
- 18. The depth of liquid effluent discharged to land in any single discharge event shall not exceed the maximum application shown in the table below for the soil type that corresponds with soil in the area that the effluent is applied.

Soil Type	Maximum Application
Sand	15 mm
Sandy loam	24 mm
Silt Ioam	24 mm
Clay loam	18 mm
Clay	18 mm
Peat	20 mm

19. The discharge shall not result in any effluent reaching surface water, any subsurface drainage system or any adjacent property.

- 20. Discharges to land shall not result in liquid effluent ponding on the surface that remains for more than 30 minutes.
- 21. No contaminants shall be discharged within:
 - (a) 25 metres of any surface water body; or
 - (b) 25 metres of any fenced (or otherwise identified) urupa without the written approval of the relevant lwi; or
 - (c) 50 metres of any bore or well;
 - (d) 50 metres of any spring used for water supply purposes; or
 - (e) 150 metres from any marae, unless the written approval of the marae Chair has been obtained to allow the discharge at a closer distance.

Water discharge standards

22. After treatment in the final pond (approximately NZTM xxxxxE-xxxxxN) the maximum concentration of the constituents shown in the table below shall not be exceeded in the effluent.

Constituent	Maximum Concentration
Total carbonaceous BOD ₅	110 gm ⁻³
Suspended solids	100 gm ⁻³

- 23. A minimum dilution rate of 1 part effluent to 100 parts receiving water shall be maintained at all times in the receiving water at the point of discharge.
- 24. The consent holder shall ensure that there is always clear and safe access to a point where the effluent from the final pond can be sampled.
- 25. The discharge shall not cause the maximum concentration of any constituent shown in the following table to be exceeded in the receiving water more than 20 metres downstream of the discharge to the receiving water.

Constituent	Maximum Concentration
Unionised ammonia	0.025 gm ⁻³
Filtered carbonaceous BOD ₅	2.0 gm ⁻³

- 26. The discharge shall not give rise to any of the following effects in the receiving water more than 20 metres downstream of the discharge point:
 - (a) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - (b) any conspicuous change in the colour or visual clarity;
 - (c) any emission of objectionable odour;
 - (d) the rendering of fresh water unsuitable for consumption by farm animals;
 - (e) any significant adverse effects on aquatic life, habitats or ecology; or
 - (f) the generation of undesirable heterotrophic growths (sewage fungus).

Information provision

- 27. When requested to do so by the Taranaki Regional Council the consent holder shall measure the depth of application and/or the rate of application at representative locations over the full extent of the irrigation area. This information shall be provided to the Taranaki Regional Council upon request.
- 28. The consent holder shall keep a record of effluent discharged to land including as minimum the:
 - (a) date of discharge;
 - (b) depth, volume or rate of discharge of liquid effluent;
 - (c) volume of solid effluent;
 - (d) effluent type (e.g. liquid, slurry, solid);
 - (e) source of any solid effluent (e.g. anaerobic pond sludge, sand trap);
 - (f) the specific area that effluent was applied to (shown on a map, plan or aerial photograph); and
 - (g) the size (in ha or m²) of the area that effluent was applied to.

This information shall be in a format that, in the opinion of the Chief Executive, Taranaki Regional Council, is suitable for auditing and shall be provided to the Taranaki Regional Council upon request.

- 29. On each occasion that a discharge to water occurs the consent holder shall keep a record of the:
 - (a) date of discharge;
 - (b) estimated discharge duration (in hours);
 - (c) reasons that a discharge to land could not occur; and
 - (d) reasons that the effluent could not be stored.

This information shall be in a format that, in the opinion of the Chief Executive, Taranaki Regional Council, is suitable for auditing and shall be provided to the Taranaki Regional Council upon request.

- 30. If for any reason (accidental or otherwise), effluent enters surface water or a subsurface drainage system, other than in accordance with this consent, the consent holder shall:
 - (a) immediately notify the Taranaki Regional Council on Ph 0800 736 222 (notification must include either the consent number or farm dairy number); and
 - (b) stop the discharge and immediately take steps to control and stop the escape of untreated or partially treated effluent to surface water; and
 - (c) immediately take steps to ensure that a recurrence of the escape of untreated or partially treated effluent to surface water is prevented; and
 - (d) report in writing to the Chief Executive, Taranaki Regional Council, describing the manner and cause of the escape and the steps taken to control it and to prevent it reoccurring. The report shall be provided to the Chief Executive within seven (7) days of the occurrence.
- 31. If, as a consequence of the activity authorised by this consent, an event occurs that may have a significant adverse effect on water quality at the registered drinking-water supply abstraction point downstream the consent holder shall, as soon as reasonably practicable, telephone the Taranaki Regional Council and water supply operator and notify them of the eventReview of consent conditions
- 32. In accordance with section 128 and section 129 of the Resource Management Act 1991, the Taranaki Regional Council may serve notice of its intention to review, amend, delete or add to the conditions of this resource consent by giving notice of review during the month of June xxxx and at 2-yearly intervals thereafter, for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the exercise of this resource consent, which were either not foreseen at the time the application was considered or which it was not appropriate to deal with at the time.

Review of consent conditions

In accordance with section 128 and section 129 of the Resource Management Act 1991, the Taranaki Regional Council may serve notice of its intention to review, amend, delete or add to the conditions of this resource consent by giving notice of review during the month of June 2025 and/or June 2031 and/or June 2037, for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the exercise of this resource consent, which were either not foreseen at the time the application was considered or which it was not appropriate to deal with at the time.

In the event that the proposed discharge cannot meet any of the above criteria as controlled activities, the Council has the discretion to approve, or not, any application, under whatever conditions that may be necessary to ensure that the requirements of the relevant policies, plans and rules relating to environmental quality are met. Such activities are termed 'discretionary' under the RFWP.

All dairy shed discharges within the Taranaki region fall within river catchments which are grouped for the purposes of resource consent considerations – that is, for each group of catchments there is a standard expiry or review date for resource consents, and for the whole region there is a rolling expiry/review date system on a six-yearly rotation. This means that in any one year, all dairy shed discharge consents in a particular group of catchments will either expire, or will undergo review. The main purpose of this is to enable the Council to review all monitoring data and information, river quality and flow information, and any relevant other information (e.g. increased water usage or discharges in the river catchments under review), and thereby lead to a more coordinated catchment-based management regime than would otherwise occur if a more ad-hoc approach was taken.

A critical part of this is the use of effluent, water quality and other monitoring data and information (e.g. changes in herd size, results of the annual inspections etc) at the time of each review and renewal of consents. Details of the Council's monitoring and inspection regimes are set out in the following section of this document.

The Council runs a comprehensive database to support its consents processing and monitoring systems, called IRIS.

The charge for consent processing and transfers is provided in section 9 below.

In all of the above, the Council is keen to ensure that it is utilizing best practices for consent processing – this is measured by benchmarking against other Councils around the country, in terms of:

- turnaround times for processing applications;
- meeting statutory timeframes for resource consent processes;
- quality control (including in terms of internal reporting, supervision, sign-off, staff training etc see separate section below);
- information sharing; and
- costs associated with processing and monitoring.

Comparisons to date show that the Council is at the forefront of best practice within New Zealand. This however is not viewed, as a final achievement in itself – the Council is aware that there can always be improvements made, and is committed to the principle of continual improvement.

[Refer

Resource Consents Procedures document Farm Dairy Discharges Standard Operating Procedures for Consent Processing & Compliance Monitoring Regional Fresh Water Plan, Rules 35, 36, 39 & 40]

6 Monitoring

Introduction

Monitoring is a critical component of ensuring that the Council is achieving its objectives and statutory requirements for environmental performance and sustainable management of natural resources. The Act in fact established new requirements for local authorities to undertake monitoring. Specifically, local authorities are required by section 35(1) of the Act "...to gather such information, and undertake or commission such research, as is necessary to carry out effectively its functions under this Act." In particular, local authorities are required to monitor the:

- a. state of the environment;
- b. suitability and effectiveness of policy statements and plans;
- c. exercise of delegations or transfers; and
- d. exercise of resource consents (section 35(2) of the Act).

The Council has promulgated a Resource Consents Monitoring Procedures document which sets out the framework for its monitoring activities, and how it goes about carrying out this role.

Monitoring "on the ground" generally occurs at two levels:

 ensuring that the holder of a resource consent is meeting all of the requirements and standards stipulated within their consent, "Compliance Monitoring". Monitoring of the discharge itself verifies the anticipated or predicted performance of the disposal system, while impact monitoring verifies that the environmental effects of the activity are as predicted in the consent application, or assesses that the parameters defined by

a resource consent are complied with when the consent is exercised; and

 monitoring of the environment, to ensure that requirements, standards, policies and societal aspirations are being achieved.

Compliance Monitoring

The type of monitoring programme required by the Council for a resource consent is initially assessed during the resource consent granting process (see above) and will depend on the following factors:

- the nature and scale of the consented activity;
- the nature and quantity of the contaminants discharged;
- the sensitivity of the receiving environment;
- any long-term or permanent effects (e.g. structures, contamination);
- any off-site effects (e.g. pollution from spray drift, ground water or surface water contamination);
- any cumulative effects (e.g. where several people may take water from the same aquifer or stream);
- any social and cultural effects;
- any previous complaints relating to the same activity; and
- any previous problems (pollution) from similar activities.



Photo 2 Condition based monitoring with portable device

The different types of compliance monitoring programmes are discussed in detail in the Monitoring Procedures document noted above.

For farm dairy effluent discharges, the Council's Farm Dairy Discharges Standard Operating Procedures for Consent Processing & Compliance Monitoring document sets specifically the rationale and regime for monitoring.

No warning is given to the consent holder about the monitoring visit.

Compliance monitoring is based on annual inspections carried out by Investigating Officers, with additional monitoring (known as follow-up and/or dairy non-compliance re-inspections) undertaken as and when required. For example, if significant ponding had occurred from an irrigator, additional monitoring is undertaken to ensure mitigation of environmental effects and resource consent conditions are complied with.

Upon discovery of a non-complaint discharge, officers have the ability to increase the scope of water quality testing within the receiving environment. The officers have access to specialist staff to assess the health of the biological communities within the affected waterbody or assess the likelihood of ground water contamination for cases of unauthorised discharges to land.

Also, investigating officers are equipped in the field with devices (tablets, mobile phones, GPS, digital

thermometer, a selection of sample bottles to cover the common analysis requirements and note books) to take photographs, video, record information and collect samples (water, air, soil or organic matter) for analysis.

For the disposal of farm dairy effluent to land, the key aspects monitored are:

- Uncovered areas where cows reside for longer than five minutes for the purpose of milking, i.e. stand-off-pads or yards are checked by the officer to ensure all farm dairy effluent areas are bunded and direct all waste water to the disposal system.
- Land suitability- if the land is not suitable for irrigation, what is the disposal system's contingency? For example, if a storage facility is available, the consent



Photo 3 Visual inspection to check condition of the irrigator and application rate

holder must manage farm dairy effluent so that, while complying with the other requirements of the consent, there is sufficient storage available.

• Farm dairy effluent irrigation fields are inspected to ensure, when farm dairy effluent has been applied to pasture, best industry practice has been followed and the application to land adheres to resource consent conditions, For example, no ponding is occurring which may lead to overland flow to surface water or the contamination of ground water.

For the treatment of farm dairy effluent via oxidation pond systems, the key aspects monitored are the:

- Uncovered areas where cows reside for longer than five minutes for the purpose of milking, i.e. stand-offpads or yards are checked by the officer to ensure all farm dairy effluent areas are bunded and direct all waste water to the disposal system.
- Oxidation pond system ensuring it comprises at least an anaerobic pond and an aerobic pond. Also, the ponds are sized correctly for the number of cows milked.

- Condition of the treatment system. For example, an officer will investigate the anaerobic pond to ensure the required volume is being maintained (de-slugging of the anaerobic ponds is required from time to time) and sufficient volume is available to efficiently treat the effluent. Also, ensuring the aerobic pond or ponds surface area is clear and is at the required dimensions. Solids and vegetation encroachment will reduce the surface area of an aerobic pond which will reduce the ponds ability to treat effluent and in some cases turn the pond anaerobic.
- Discharge point and receiving environment. Many oxidation systems discharge to a tertiary system (constructed drain or wetlands) before the receiving waters, an officer will inspect the condition of the tertiary system, insuring lush vegetation is left undisturbed, which includes excluding stock.
- Receiving water including ensuring a minimum dilution rate of one part effluent to one hundred parts receiving water is being maintained and there are no conspicuous change in visual clarity or condition of the receiving waters, i.e. undesirable heterotrophic growths. Oxidation pond system discharges are regularly sampled to check compliance, which is analysed by an accredited external contractor.

A key issue encountered in the field, is the management of uncontaminated stormwater discharging to the disposal system. Regular sampling of oxidation pond system discharges has identified excess stormwater as a contributing factor to non compliance because the effluent residence time and associated treatment are reduced. Oxidation pond treatment of farm dairy effluent, was largely considered a very low maintenance system. However, with farm intensification, an oxidation pond system has become a disposal method which requires a greater degree of management to operate successfully. Oxidation pond discharges to water have a relatively high non compliance rate, compared to discharges to land. This has resulted in some consent holders renewing their consent early and quickly moving to land based discharge systems in



Photo 4 Collecting samples, recording temperature and entering sample information into the laboratory database remotely

their consent early and quickly moving to land based discharge systems in line with best industry practice.

Council officers have the ability to work remotely and input data in the field to mobile devices (tablet or mobile phone) which can be later synchronised with the Council's computer databases. Monitoring processes and technology used are shown in photographs 2, 3, 4, and 5. At the time of monitoring an assessment is made on each special condition, which can include general comments and evidence base comments. This information is then synchronised and downloaded to the IRIS database. The information stored from the compliance monitoring and consent processing programmes includes:

- type of disposal system;
- number of cows;
- GPS location of the farm entrance;
- GPS location of discharge point (central area for land base discharge, oxidation pond system point of discharge and receiving water mixing zone);
- storage facility volume;
- available area for land application;
- storage facility volume and design reports;
- oxidation pond size;
- type and size of tertiary treatment, including dilution requirements;
- parameters for contaminants, which there are consent conditions (BOD₅, treated or untreated effluent; suspended solids; ammonia);
- analysis results and reporting;

- photographs and videos;
- sample sites;
- inspection, advices and information provided history;
- current and historic compliance status;
- consent holder details;
- resource consent application details;
- property legal description;
- submission data;
- statutory acknowledgements to lwi;
- resource consent conditions;
- copy of resource consent;
- links to other relevant documents and information;
- invoicing data. i.e. compliance monitoring invoice, Non-compliance fees, infringement fees and application processing charges;
- resource consent review and expiry dates;
- witness statements, if required;
- prosecution details, if undertaken;
- RMA details, i.e. statutory requirements for application processing and non-compliance breaches;
- plan details, i.e. which rule the resource consent is process under, including regional plan policies taken in to account.

The charge for the monitoring inspections and re-inspections is discussed in section 9 below.



Photo 5 Officer completing inspection and printing out notice. Also, synchronising to Council data base

So what has monitoring to date shown? In the main, that farm dairy effluent waste discharge consents are being complied with, and that the environmental impacts of these discharges is no more than minor in the vast majority of cases. Cumulative environmental effects can arise in some catchments.

The inspection results and monitoring data are, as noted above, fed in to the Council's databases each night and are available for reporting. The results from routine sampling are sent out to the consent holder advising them of the compliance rating for the inspection. The Council's elected members and the community also receive a six-weekly report on any unauthorised incidents (not just dairy shed waste ones).

State of the Environment Monitoring

The Council also prepares a five-yearly report on long-term trends in environmental quality around the region, and obviously all information and monitoring data related to the discharge of dairy shed wastes is incorporated in summary form in those reports.

The scientifically defensible data and statistical assessment undertaken in State of the Environment reporting is used for policy effectiveness monitoring. The reports for the last fifteen years show that the Regional Policy Statement sustainable management objective to maintain or enhance water quality in Taranaki is being met. Finally, the information from this monitoring programme forms a key component of the Council's statutorily-required State of the Environment report.

[Refer Resource Consents Monitoring Procedures document

- Charging policy under section 36 of the RMA, 2001
- Taranaki Regional Council 2018/2028 Long-Term Plan, 2018
- 'Taranaki as One- Taranaki Tangata Tu Tahi: State of the environment Report 2015
- Vaderholm, D H: 'Agricultural Waste Manual'. N Z Agricultural Engineering Institute Project Report No. 32].

7 Enforcement

The regulatory approach means that when advice and information is unsuccessful, appropriate enforcement action ensues. The success with which the Council is able to address its resource management responsibilities is dependent very much upon the efficiency and effectiveness with which it implements, and indeed, enforces its policies and rules (Figure 2). In 2017 the Council reinforced its enforcement policy and prepared and adopted a *Resource Management Act Enforcement Policy*. A separate supporting document introduces enforcement provisions and procedures to implement the policy.

If the Council's policies and rules are not enforced in an appropriate, professional, consistent and comprehensive manner, then their relevance, integrity and worth are undermined. Appropriate enforcement action generally changes community behaviour by sending a specific deterrent to the offender and a general deterrent to those in the sector, which the Council has found results in positive environmental outcomes. Enforcement reinforces the importance of the Council's objectives.

For farm dairies, the non-compliance rate as shown by monitoring is shown in Figure 4. The non-compliance includes significant and minor non-compliance and is discussed further below.

As such, enforcement plays a critical role in achieving the main objective of the RMA that is sustainable management of natural and physical resources.

Enforcement mechanisms can be broadly categorised as being concerned with three inter-related outcomes, namely:

- avoidance, mitigation or remedying of any adverse environmental effects through direct timely intervention by the Council;
- as noted above, ensuring compliance with the RMA, plans and resource consents; and
- compensation for those affected by an unlawfully-generated environmental effect (i.e. the polluter pays principle).

Enforcement also assists in developing trust and respect in the Council's regulatory regime and those involved in administering it, which in turn leads to credibility for the Council. For example, one of the frequentlyencountered comments from a member of the public making a formal complaint to the Council is along the lines of:

"If I'm required to keep to the standards then so can they."

Obviously, the Council has to be fair and equitable in its enforcement dealings, something which is strives to achieve through the Enforcement Policy. It uses a variety of enforcement methods, as detailed below, but in the end it occasionally is forced to initiate prosecution proceedings, something the Council views as a measure of last resort.

The process of enforcement is a staged one of assistance, warnings, and use of enforcement methods or tools and, in extreme cases, prosecution. These tools are used in a number of combinations on a case by case basis. The Council carries out prosecutions where the significance of the effect, or the actions of a person, warrant such action (refer to the Enforcement Policy).





Every incident in which prosecution is considered necessary is essentially the end of the line of the enforcement process.

The Council also responds to complaints generally within four hours, so that there is early intervention to any known pollution incident. The procedures in the monitoring and enforcement guides support this approach and ensure that pollution does not continue unabated.

Where non-compliance occurs, a three-staged approach to enforcement is generally available. Council officers will, in normal circumstances, provide the opportunity for an offending party to correct the situation. In many cases, resource users may not be aware that they have breached the Council's, and indeed the Act's requirements, therefore provision is made for these persons to rectify the situation, prior to punitive enforcement action being taken. An abatement notice is the normal method of presenting a warning and requiring corrective action.

The Act allows the Council discretion over how, when, and where to use the enforcement provisions of the Act. To assist in any assessment, some guiding principles have been developed to act as decision-making guidelines. The Council and its officers will have regard to these when evaluating the use of enforcement provisions and/ or other alternatives. These principles are set out below with a brief explanation:

• Transparency

We will provide clear information and explanation to the community, and those being regulated, about the standards and requirements for compliance. We will ensure that the community has access to information about industry environmental performance as well as actions taken by us to address environmental issues and non-compliance.

• Consistency of process

Our actions will be consistent with the legislation and within our powers. Compliance and enforcement outcomes will be consistent and predictable for similar circumstances. We will ensure that our staff have the necessary skills and are appropriately trained, and that there are effective systems and policies in place to support them.

• Fair Reasonable and Proportional approach

We will apply regulatory interventions and actions appropriate for the situation and all classes of consent holders/resource users may expect to be impartially and fairly treated via the same process regardless of the type and size of resource use. We will use our discretion justifiably and ensure our decisions are appropriate to the circumstances, and that our interventions and actions will be proportionate to the risks posed to people and the environment and the seriousness of the non-compliance.

• Evidence Based, informed

We will use an evidence-based approach to our decision making. Our decisions will be informed by a range of sources, including sound science, the regulated parties, information received from other regulators, members of the community, industry and interest groups.

Collaborative

We will work with and, where possible, share information with other regulators and stakeholders to ensure the best compliance outcomes for our region. We will engage with the community, those we regulate and government to explain and promote environmental requirements, and achieve better community and environmental outcomes.

• Lawful, ethical, and accountable

We will conduct ourselves lawfully and impartially and in accordance with these principles and

relevant policies and guidance. We will document and take responsibility for our regulatory decisions and actions. We will measure and report on our regulatory performance.

Targeted

We will focus on the most important issues and problems to achieve the best environmental outcomes. We will target our regulatory intervention at poor performers and illegal activities that pose the greatest risk to the environment. We will apply the right tool for the right problem at the right time.

• Responsive, effective and efficient

We will consider all alleged non-compliances to determine the necessary interventions and action to minimise impacts on the environment and the community and maximise deterrence. We will respond in an effective and timely manner in accordance with legislative and organisational obligations whilst keeping the costs to the ratepayer to the most practical minimum through providing a system that is unduly bureaucratic or that is unduly costly to administer.

The following enforcement tools available to Council include:

- <u>Abatement Notice</u>: An enforcement officer has the power to issue an abatement notice. An abatement notice is a lower level enforcement tool and requires a person to take or cease action to address adverse environmental effects. The Council can issue an infringement notice or prosecute (see below) for contravention of an abatement notice. Abatement notices are used instead of letters because they have statutory force and are more likely to be complied with.
- <u>Infringement Notice</u>. An enforcement officer has the power to issue an infringement notice to a person committing an infringement offence. The Council is entitled to retain all infringement fees. An infringement notice does not result in a conviction and is another lower level enforcement tool, entailing an economic penalty.
- <u>Application for an Enforcement Order</u>: The Council can apply to the Environment Court for an enforcement order that requires a person to take or cease action to address adverse environmental effects. In relation to a dairy farm, this could say be used to stop the farmer from continuing to discharge dairy shed waste to land without a resource consent. Essentially, in the enforcement order process the weight of the courts and the judicial system comes in behind the authority of the Council to apply the Resource Management Act.
- <u>Application for an Interim Enforcement Order</u>: The scope of an interim enforcement is the same as for an Enforcement Order, but is a quicker method of obtaining an Enforcement Order. It involves the Council making an application without notice to the respondent to a Judge for an Order that requires a person to take or cease action to address adverse environmental effects.
- <u>Emergency work.</u> The Council has the power to invoke emergency works. This mechanism is used when immediate action is required to avoid adverse effects of land, air and water resources. In the case of a dairy farm, this could relate to, say, the imminent collapse of the wall of a dairy shed pond which, if it occurred, would pollute a nearby river.

As noted above, as a last resort, the Council can initiate a prosecution which is a tool not noted above. The decision to prosecute is not taken lightly. The Chief Executive, assisted by other senior staff, makes the decision about whether to prosecute or not. Appropriate Council staff have the delegations in place to use the other enforcement methods. All compliance officers are able to issue abatement notices.

The Council has promulgated two documents, noted below, specifically relating to enforcement, and these can be referred to for further details:

Enforcement Provisions and Procedures under the RMA (2017).

This document serves to set out, as far as is practicable, the manner in which the Council and its officers will act when implementing the Act's enforcement provisions. It provides detailed guidance for staff conduct and procedures when using the various provisions and has been developed within a general enforcement policy framework); and

• RMA Enforcement Policy (2017).

This document sets out in more detail how and when the Council will take enforcement action. The Council has appointed enforcement officers to police its statutory functions and responsibilities. The Act states that the Council may authorise any of its officers to carry out all, or any, of the functions and powers of an enforcement officer. Staff of the Compliance Section of the Council are the first line response to most complaints, spills and investigations. Nevertheless, such authorisations have also been delegated to technical and monitoring staff, and the like, who will on occasion be engaged in monitoring, sampling or survey work, and who may well assist in gathering evidence of possible non-compliance.

The use of enforcement methods under the Act for the last seven years are summarised in Figures 5,6 and 7 below for the dairy production industry and comparative data provided for all other activities. Figure 4 above shows the compliance rate for farm dairy consents for the last seven years. The annual non-compliance rate over the last 15 years ranges from 3% to 9 % and includes the following:

- <u>Minor non-compliance</u> those consents where an abatement notice was issued requiring actions to be undertaken. This is generally where there is no adverse environmental effect. Where a minor adverse environmental effect occurs an infringement notice is issued.
- <u>Significant non-compliance</u> those consents where non-compliance is ongoing and a prosecution may be undertaken.



Figure 5 Abatement Notices issued between 2009 and 2019.



Figure 7 Infringement notices issued between 2009 and 2019



Figure 6 Prosecutions undertaken and successful between 1999 and 2019

[Refer

RMA Enforcement Policy, 2017 Taranaki Regional Council Delegations Manual 2017 Farm Dairy Discharges Standard Operating Procedures for Consent Processing and Compliance Monitoring document]

8 Education and advice

The Council places great store in education and advice as valuable tools to achieve its (and the Act's) aims and objectives. The Council has in fact reflected this in its motto or slogan:

"Working with people – caring for Taranaki."

The Council has for many years recognised that the economic, social and environmental goals of the region can often be more effectively achieved through a collaborative approach, that is, working together with and alongside people and the community rather than relying on regulatory and enforcement methods alone. The basis for this approach is quite straight forward – simply put, it is the philosophy that people are the solution to our issues, rather than the problem.

With regard to the dairy production industry and this document, Council has for over 35 years been providing onfarm advice and assistance with regard to farm dairy shed waste disposal. Council advises a consent holder to engage a professional to design a suitable long term disposal system for their farm, including directing the consent holder or authorised agent to guidelines for storage and spray irrigation, which have been published by DairyNZ. Also, Council has published design and operation guidelines for oxidation ponds systems.

Use is made of material prepared by the dairy industry in the education process and the Council will continue to act collaboratively with the industry and other councils to prepare and make available manuals and other material.

The Council is also committed to communicating the results of its monitoring and other environmental investigations, through its five-yearly state of the environment trends reports, its statutorily-required and more formal State of the Environment reports, and other publications. These publications and advisory tools have the aim of alerting the community to emerging trends, good or bad, and therefore seeking input into what if anything should be done or changed in order to correct any deteriorating situation.



Photo 6 Inspector provides advice and assistance to the farmer

All of the Council's educative and advisory activity is summarised each year in the Council's Annual Report.

[Refer

Design, Construction and Maintenance Guidelines for Dairy shed and Feed Pad Wastes Design, Construction and Maintenance Guidelines for Spray Irrigation]

9 Research

The Council has undertaken in the past, and will continue to undertake, various pieces of research associated with the Taranaki environment, the uses made of it, and any associated environmental effects. Good science is necessary to successfully develop policy, to stay abreast of best current practice, and undertake effective consenting, monitoring, and enforcement.

With regard to the dairy industry, such research has included:

- a detailed investigation of whether oxidation ponds designed, sited, constructed and operated in accordance with the Council's guidelines (updated in accordance with recognised best practice) routinely and reliably achieve the biological and physicochemical water quality objectives and standards required of these discharges;
- regular monitoring of region-wide water quality (surface and ground waters) and aquatic ecosystems, and from this work determining whether or not there are any demonstrable detrimental impacts caused by various uses, including the dairy industry, and determining trends in the state of the region's surface and ground waters to confirm progress towards objectives and goals stated in the Council's planning documents;
- investigations into the impact of irrigation of dairy shed waste on the quality of underlying ground water, including assessing loading rates and loss rates;
- regional continuation of the former national 'best practice in dairying catchments' study; and
- investigations into options for reducing the hydraulic loadings on ponds (and hence enhancing treatment capability at minimal additional cost).

The Council views research as an important component in monitoring whether its policies and plans are effective or not, and ultimately to the aim of continuous improvement.

The research carried out is all what is called applied, that is targeted to specific circumstances and scenarios, and is designed to assist the Council carry out its functions more cost-effectively.

The Council may undertake any research on its own, or may join with other organisations, and for issues of larger, even national significance, may join with other Councils or research providers in carrying out the research.

Council staff also routinely review scientific publications and meet with staff of other councils, in special interest groups), to ensure that they are staying abreast of new developments and findings.

With the trend towards land irrigation of farm dairy effluent waste, research is being directed to land based loading rates and measures to reduce environmental effects.

10 Costs and cost recovery

The Act allows the Council the ability to fix different charges for different costs it incurs in the performance of its various functions, powers, and duties under the Act. Section 36 of the Act allows the Council to fix charges for a number of activities.

When fixing charges and in determining any additional charge, the Council is obliged to have regard to the principles and criteria set out in the Act. In accordance with these principles, charges must be:

- <u>Lawful</u>: The charge fixed is allowed by and provided for in accordance with the requirements of the Resource Management Act and the Local Government Act;
- <u>Reasonable</u>: The sole purpose of a charge is to recover the reasonable costs incurred by the Council in respect of the activity to which the change relates;
- <u>Equitable</u>: The charge set reflects the benefits to the community and to consent holders when setting a charge. It would be inequitable to charge consent holders for resource management work undertaken for the interests of the regional community, and *vice versa*;
- <u>Justified</u>: The charge set reflects the costs incurred as a result of the consent holder's activities and/or must reflect the benefits obtained by that person as distinct from the regional community. The Council can only charge consent holders to the extent that their actions have contributed to the need for the Council's actions and/or to the extent that they derive benefits from the Council's actions;
- <u>Uniformly applied</u>: Irrespective of the location of an activity within the region, the Council will aim to provide the same service, for the same price. Charges should be applied uniformly and consistently to users whose activities require them to hold a consent, and where the Council incurs ongoing costs;
- <u>Simple to understand and administer</u>: Charges set should be clear and easy to understand. The administration and collection of charges should also be simple and cost effective;
- <u>Transparent</u>: Charges should be calculated in a way that is clear, logical and justifiable. The work of the Council, for which costs are to be recovered, should be identifiable; and
- <u>Predictable and certain</u>: Consent applicants and resource users are entitled to certainty about the cost in their dealings with the Council. The manner in which charges are set should enable customers to evaluate the extent of their liability.

In terms of this Programme, the Council may charge for:

- its costs associated with receiving and processing resource consent applications; and
- its costs associated with administering and monitoring resource consents, including for the annual inspection, non-compliance re inspection and consent transfers.

Further details can be found within the Council's document 'Charging Policy Under Section 36 of the Resource Management Act' and in the Long-Term Plan (LTP).

Under the Council's charging policy, the consent holder meets 100% of the cost of the monitoring. For farm dairy effluent discharges, there is an additional non-compliance charge for additional monitoring.

Under the Council's charging policy, the consent applicant meets 100% of the cost of the process.

The cost of a consent transfer is set out in the LTP and the user meets 100 % of the cost.

For specific monitoring and consenting, as noted above the Council recovers 100% of the cost. However, under the LTP the activity of monitoring only recovers 70% of its costs recognising provision of the important advice and information element. A similar situation exists for consent processing except the figure is 60%.

For any non-compliance there may be infringement notices and associated non-compliance costs.

[Refer Charging policy under section 36 of the RMA, 1997 Taranaki Regional Council 2018/2028 Long-Term Plan, 2018]

11 Training

The Council conducts initial and ongoing staff training to ensure that all staff involved in the Farm Dairy Discharge Monitoring Programme have the necessary knowledge, expertise and experience to implement the Programme in a fully competent and professional manner, and to ensure there are sufficient staff for the Council to deliver a comprehensive programme.

Key elements of the Council's training programme are:

- A comprehensive induction programme for new staff to familiarise them with all relevant policies, rules and procedures. This includes one to one guidance and mentoring from senior experienced staff, hands-on training, and familiarisation with equipment, inspection sampling and testing protocols and field procedures, before new staff take on independent duties.
- Information sharing through regular staff meetings to discuss issues that have arisen, problems encountered, and solutions and improvements made to practice.
- Monthly reporting and tracking of performance with review by section managers.
- An annual Individual Development Programme whereby any professional or personal development or training needs relevant to the officers' duties are identified and a programme put in place to meet those needs. Conflict de-escalation training is a recent example. This programme is reviewed at six monthly intervals. Both use the Council's Cognology database tool.
- Regular rotation of Council staff on inspection duties to have them become equally adept and competent in all areas of the Council's inspection regime and to avoid the potential for complacency.
- Attendance at internal or external workshops, seminars, demonstrations etc. relevant to the officers' duties.
- Ongoing liaison and information sharing with other councils, industry groups and other stakeholders on best practice.
- General encouragement and support for officers to keep abreast of changes and developments in science, technology and practices relevant to the management of farm dairy discharges.

Properly qualified Council staff are critical to the successful implementation of the Farm Dairy Discharge Monitoring Programme. Council staff maintain a high profile among the farming community in undertaking regular inspections and in offering information and advice. The Council places a very high priority on competent, professional and well-trained staff.

12 Quality assurance and control

In everything the Council does, from inspecting dairy shed oxidation ponds to preparing its State of the Environment Reports, there requires to be sufficient, robust quality control, to ensure that everything is "above board, ship-shape and as it should be" – the community (as well as the Courts) expects nothing less.

The Council's quality control and assurance programmes underpin all aspects of the Farm Dairy Discharge Monitoring Programme. Key components of quality assurance and control relating to this programme are:

- regular calibration of the field test equipment and devices (computers), even to the extent of formal calibration of Inspection Officers' noses, for dealing with odour complaints;
- a formal quality accreditation for the Council contractors laboratory;
- comprehensive and regular quality control checks of all of the Council's databases, including IRIS and the Incident Register;
- routine water quality testing associated with the catchment renewal regime, to ensure that there are no detrimental environmental effects being caused or likely to be caused by dairy shed discharges within the catchment;
- initial followed by ongoing staff training, including for the purposes of this Strategy a formal liaison with Fonterra and Open Country Cheese and other related stakeholders, which then extends to routine rotating of Inspectorate staff in order to have them become equally adept and competent in all areas of the Council's monitoring regime;
- participation in the Compliance and Enforcement special interest group compliance and enforcement audit programme; and
- the Council's commitments to reviewing its policies and plans every five years, and procedure documents as required, including with stakeholder consultation and input, peer review, public submissions and appeals.

13 Review and reporting

As with anything the Council is involved with, time brings changes, and as a consequence this document will likely require review and, if necessary, amendment.

The Council plans to regularly review this document, and as well whenever changes and improvements have been made (e.g. to treatment technology), more particularly to ensure the continuing effectiveness of the policies, plans, rules and measures outlined above in achieving the region's and Act's objectives for sustainable management of natural and physical resources.

As well, at the end of every monitoring year, the Council's Inspectorate section will undertake a review of the effectiveness and "performance" of this programme, any new issues arising and lessons learned will be formally recorded, and where necessary, changes made to this programme as appropriate.

The results of the monitoring programme, like this one, are reported to the Council and the community each year.

In September 2020 the Government released its freshwater package which included a greater recognition of iwi values in resource management and more of a partnering role for the Council and iwi going forward.

The Council is jointly involved with district councils in negotiations, with most iwi in the region, to formalise iwi involvement in planning, consenting and monitoring (compliance and state of the environment) in a Mana Whakahono a Rohe relationship agreement. Resourcing discussions are part of the process.

Given the above this monitoring strategy will be reviewed once the above matters have been determined.

14 References

Note the following are not all referenced in this document but were used to develop the programme over the years:

Dairying and Environment Committee: 'Dairying and the Environment – Managing Farm Dairy Effluent'. 1996. Dairying and Environment Committee: 'Managing Farm Dairy Effluent'. Revised and updated version. 2006.

- Dexcel: 'Minimising Muck, Maximising Money Stand-off and feed pads design and management guidelines'. 2005.
- Heatley P R: 'Dairying and the Environment Manual: Managing Farm Dairy Effluent.' Dairying and the Environment Committee, NZ Dairy Research Institute, NZ. 1996.
- Hickey C W, Quinn J M, and Davies-Collier R J: 'Effluent characteristics of dairy shed oxidation ponds and their potential impacts on rivers'. NZ Journal of Marine and Freshwater Research. 1989.
- Ministry for the Environment: 'Resource Management -Water Quality Guidelines No 1'. 1992.

Ministry for the Environment: 'Resource Management -Water Quality Guidelines No 2'. 1994.

- Ministry for the Environment: 'RMA Practice and Performance: are designed environmental outcomes being achieved? A case study of farm dairy effluent management'. 1999.
- Taranaki Regional Council: 'Dairy Effluent Pond Guidelines'. 2013
- Taranaki Regional Council: 'Regional Policy Statement for Taranaki '. 2010.
- Taranaki Regional Council: 'Regional Fresh Water Plan for Taranaki '. 2001.
- Taranaki Regional Council: 'Resource Management Act Enforcement Policy'. 2017.
- Taranaki Regional Council: 'Farm Dairy Discharge Standard Operating Procedures for Consent Processing and Compliance Monitoring'.
- Taranaki Regional Council: 'Resource Consents Procedures Document'. 2003.
- Taranaki Regional Council: 'Resource Consents Monitoring Procedures Document'. 2003.
- Taranaki Regional Council: 'Design, Construction and Maintenance Guidelines for Dairyshed and Feed Pad Wastes'.
- Taranaki Regional Council: 'Design, Construction and Maintenance Guidelines for Spray Irrigation'.
- Taranaki Regional Council: 'Charging Policy under Section 36 of the RMA'. 2001.
- Taranaki Regional Council: 'Taranaki Regional Council Delegations Manual'. Updated July 2017.
- Taranaki Regional Council: '2018/2028 Long-Term Plan'. 2018.
- Taranaki Regional Council: 'Freshwater Macroinvertebrate Fauna Biological Monitoring Programme Annual State of the Environment Monitoring Report 2016-2017. 2018.
- Taranaki Regional Council: 'RMA Enforcement Policy'. 2017.
- Taranaki Regional Council: 'Enforcement Provisions and Procedures under the Resource Management Act'. 2017.
- Taranaki Regional Council: 'Freshwater Physicochemical Programme State of the Environment Monitoring Annual Report 2016-2017' 2018.
- Taranaki Regional Council: 'Dairy shed oxidation pond discharges in Taranaki, Volumes I & II'. 2006.
- Taranaki Regional Council: 'Taranaki as One- Taranaki Tangata Tu Tahi: State of the environment Report 2015'.
- Vaderholm, D H: 'Agricultural Waste Manual'. N Z Agricultural Engineering Institute Project Report No. 32. NZAEI, Lincoln College, NZ. 1984.