



Our reference  
F19/13/03-D21/26182

14 September 2023

**Farm and Aerodrome Committee and Audit and Risk Committee**

Notice is hereby given that the Farm and Aerodrome Committee and Audit and Risk Committee meetings of Council will be held in the **Council Chambers, Stratford District Council, 63 Miranda Street, Stratford** on **Tuesday 19 September 2023** beginning at 12noon.

**Timetable for 19 September 2023 as follows:**

12noon	Farm and Aerodrome Committee
1.45pm	Afternoon tea for Councillors
2.00pm	Audit and Risk Committee

Yours faithfully

Sven Hanne  
**Chief Executive**

# 2023 - Agenda - Farm and Aerodrome Committee

19 September 2023 12:00 PM



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# AGENDA

## Farm and Aerodrome Committee



F22/55/05-D23/39177

**Date: Tuesday 19 September 2023 at 12noon**  
**Venue: Council Chambers, 63 Miranda Street, Stratford**

1. [Welcome](#)
  - 1.1 **Opening Karakia**  
D21/40748 Page 5
  - 1.2 **Health and Safety Message**  
D22/17082 Page 6
2. [Apologies](#)
3. [Announcements](#)
4. [Declarations of Member's Interest](#)  
Elected members to declare any real or perceived conflicts of interest relating to items on this agenda.
5. [Attendance Schedule](#)  
Attendance schedule for Farm & Aerodrome Committee meetings.
6. [Confirmation of Minutes](#)
  - 6.1 **Farm and Aerodrome Committee Meeting - 20 June 2023**  
D23/27406 Page 8

### **Recommendation**

THAT the minutes of the Farm and Aerodrome Committee Meeting held on Tuesday 20 June 2023 be confirmed as a true and accurate record.

/  
Moved/Seconded

7. [Matters Outstanding](#)  
D20/11504 Page 13

### **Recommendation**

THAT the matters outstanding be received.

/  
Moved/Seconded

8. Programme of Works  
D20/28552 Page 14

**Recommendation**

THAT the Programme of Works be received.

/  
Moved/Seconded

9. Quarterly Report– Risk Review  
D23/35700 Page 15

**Recommendation**

THAT the report be received.

**Recommended Reason**

To update the Farm and Aerodrome Committee of changes to both the Farm and Aerodrome Risk Registers and advise the Committee of any incidents in relation to the identified risks.

/  
Moved/Seconded

10. Quarterly Report – Farm and Aerodrome Business and Financial Report  
D23/35759 Page 23

**Recommendation**

THAT the report be received.

**Recommended Reason**

This report provides a quarterly business and financial update to the Farm and Aerodrome Committee. It highlights the milk production from the current season at the farm and reports on the key activities at the Aerodrome.

/  
Moved/Seconded

11. Quarterly Report – Health and Safety Update  
D23/35702 Page 96

**Recommendation**

THAT the report be received.

/  
Moved/Seconded

12. Questions

13. Closing Karakia  
D21/40748 Page 99



**Our reference**  
F19/13/03-D21/40748

**Karakia**

Kia uruuru mai  
Ā hauora  
Ā haukaha  
Ā haumāia  
Ki runga, Ki raro  
Ki roto, Ki waho  
Rire rire hau Paimārire

I draw in (to my being)  
The reviving essence  
The strengthening essence  
The essence of courage  
Above, Below  
Within, Around  
Let there be peace.



**Our reference**  
F19/13/03-D22/17082

### **Health and Safety Message**

In the event of an emergency, unless guided to an alternative route by staff, please exit through the main entrance. Once outside the building please move towards the War Memorial Centre congregating on the lawn area outside the front of the council building.

If there is an earthquake, please drop, cover and hold where possible. Remain indoors until the shaking stops and you are sure it is safe to exit or remain where you are until further instruction is given.

5. Attendance schedule for 2022 Farm and Aerodrome Committee meetings.

Date	06/12/22	21/03/23	20/06/23		
Meeting	FA	FA			
Neil Volzke	✓	✓	✓		
Steve Beck	✓	✓	✓		
Grant Boyde	✓	✓	✓		
Annette Dudley		✓			
Jono Erwood					
Ellen Hall		✓	✓		
Amanda Harris	(AV)	✓			
Vaughan Jones	✓	✓	✓		
Min McKay		✓			
John Sandford	✓	S	✓		
Clive Tongaawhikau					
Mathew Watt					

Key	
FA	Farm and Aerodrome Committee Meeting
✓	Attended
A	Apology/Leave of Absence
AB	Absent
S	Sick
	Non committee member
(AV)	Meeting held, or attended, by Audio Visual Link

# MINUTES

## Farm and Aerodrome Committee



F22/55/05– D23/27406

**Date: Tuesday 20 June 2023 at 12noon**  
**Venue: Council Chambers, 63 Miranda Street, Stratford**

### Present

Councillor G W Boyde (the Chairman), the District Mayor N C Volzke, Councillors S J Beck and V R Jones, and Committee Member, the Property Officer – Mrs S Flight.

### In attendance

Councillors E E Hall and W J Sandford. The Chief Executive – Mr S Hanne, the Director – Assets – Mrs V Araba, the Director – Environmental Services – Mr B Sutherland, the Acting Director – Community Services – Mr C Julie, the HR & Governance Administrator – Mrs C Reynolds, Mr P Radich (Fonterra), one member of the public and one member of the media (Stratford Press).

#### 1. Welcome

The Chairman welcomed the Chief Executive, Councillors, visitors, and the media.

##### 1.1 Opening Karakia D21/40748 Page 6

The opening karakia was read.

##### 1.2 Health and Safety Message D21/26210 Page 7

The Chairman reiterated the health and safety message and emergency procedures.

#### 2. Apologies

An apology was noted from Mr J Buckley (consultant).

#### 3. Announcements

There were no announcements.

#### 4. Declarations of Members Interest

The Chairman requested Councillors to declare any real or perceived conflicts of interest relating to items on this agenda. There were no declarations of interest.

#### 5. Attendance Schedule

The attendance schedule for Farm & Aerodrome Committee meetings was attached.



6. Confirmation of Minutes

6.1 Farm and Aerodrome Committee Meeting - 21 March 2023  
D22/11703 Page 9

**Recommendation**

THAT the confirmed minutes of the Farm and Aerodrome Committee Meeting held on Tuesday 21 March 2023 confirmed as a true and accurate record.

BOYDE/VOLZKE  
Carried  
F&A/23/13

7. Matters Outstanding

D20/11504 Page 15

**Recommendation**

THAT the matters outstanding be received.

JONES/BECK  
Carried  
F&A/23/14

8. Programme of Works

D20/28552 Page 16

**Recommendation**

THAT the Programme of Works be received.

BOYDE/BECK  
Carried  
F&A/23/15

The HR and Governance Administrator undertook to make the following amendments:

- Changed the Final Farm Business Report to December and updated the year of report to 2022/2023

9. Decision Report - Approve draft Farm Business Report 2023

D23/24839 Page 17

**Recommendations**

1. THAT the report and draft Farm Business Report 2023 be received.

BOYDE/BECK  
Carried  
F&A/23/16

2. THAT the Committee makes a decision on the allocation of the remaining profit made in the 2022/23 financial year, after the rates mitigation portion.

VOLZKE/JONES  
Carried  
F&A/23/17

**Recommended Reason**

To uphold the Committee's responsibilities in relation to the Council farm.

The Property Officer noted the following points:

- The financial expenditure is based on May figures, and final end of year figures will change these which will also change the net profit.

Questions/Points of Clarification:

- Councillor Beck questioned which way Mrs Flight sees the financial expenditure figures going with the end of year data. It was advised it is likely the profit will go down slightly.
- Councillor Jones enquired if any remaining profit was put into the reserve if and when it can be taken out. It was noted it could be taken out in the next financial year.

Points noted in discussion:

- Councillor Jones noted his preference for loan repayment and also putting some of the remaining profit towards the reserve. He noted that in previous years around \$60,000 was put into the reserve, and he would be in favour in the ballpark of \$60,000 - \$70,000 going into the reserves again and the remaining going towards loan repayment.
- Councillor Beck noted he is also in favour of paying off some debt and putting around \$55,000 into reserve and \$100,000 into debt repayment.
- The District Mayor noted his support for lowering debt as, as a committee, there was some sort of obligation to ensure debt is not increasing. He noted his starting figures would put \$69,882 towards debt repayment and \$100,000 into the reserve. This would give flexibility for fine tuning of next year's budget when the final figures are in.
- Councillor Sandford noted his view that next year is going to be difficult when looking into rate increases and it would be good to have a backup if needed.
- Councillor Hall noted her support with the District Mayors proposal given that the figures are going to change slightly. This will allow the opportunity to make a decision later in the year.
- Councillor Jones noted his support for the District Mayors suggestion if the money put in reserve can later be used towards debt reduction.
- The District Mayor noted he doesn't believe there is any right number, however putting \$69,882 towards debt will reduce debt below \$1.9 million. It was advised only one figure needed to be agreed on, and the other figure would be decided when the figures are finalised.
- The Chairman noted his support of the District Mayor's points.

3. THAT the Committee allocates \$69,882 towards debt reduction with any remaining profit made in the 2022/23 financial year, after the removal of the \$50,000 rates mitigation portion, to go into the reserve.

BOYDE/VOLZKE  
Carried  
F&A/23/18

#### 10. Information Report - Risk Review

D23/22011 Page 37

##### **Recommendation**

THAT the report be received.

BOYDE/BECK  
Carried  
F&A/23/19

##### **Recommended Reason**

To update the Farm and Aerodrome Committee of changes to both the Farm and Aerodrome Risk Registers and advise the Committee of any incidents in relation to the identified risks.

Points noted in discussion:

- The Chairman noted that on Page 41 of the Agenda, the inclusion of the Health and Safety Visits is really important.

11. Quarterly Report - Farm and Aerodrome Business and Financial Report  
D23/21225 Page 45

**Recommendation**

THAT the report be received.

BECK/JONES  
Carried  
F&A/23/20

**Recommended Reason**

This report provides a quarterly business and financial update to the Farm and Aerodrome Committee. It highlights the milk production from the current season at the farm and reports on the key activities at the Aerodrome.

The Property Officer noted the following points:

- With the adoption of the Annual Plan budget was approved for a review to be undertaken on the aerodrome.
- There is currently a commercial proposal to place a hangar at the aerodrome.

Points noted in discussion:

- Mr Radich noted there are many interesting things happening with Fonterra and milk prices. It was shown that the price of whole milk powder has dropped below milk prices and that other products have kept the milk price up. He advised there should be a reasonable dividend to Shareholders this year.
- Mr Radich outlined the special dividend payment has been brought forward from October to August. He explained the dividend was due to the sale of an asset in Chile and was technically a distribution not a dividend.
- Mr Radich noted Council's Farm Insight report shows the farm as performing above average efficiency. He noted Fonterra are interested in farms' greenhouse gas emissions per kg, however the government is interested in the measure per hectare. It was noted that 1% of Fonterra's emissions are from shipping, 9% from manufacturing and 90% comes from Farms. 60% of the emissions from farmers comes in the form of methane.
- Mr Radich noted that as a ratepayer how proud he was of the Council farm.
- The Chairman requested the farm visit from the Health and Safety Advisor be entered into the programme of works to ensure it happens regularly. It was noted that a Health and Safety Report is already included in the programme of works for each meeting.
- Councillor Jones noted on page 53 the annual budget has improved, with operating costs around 50% of milk income.
- Councillor Jones questioned the expense of aerodrome contract services. It was noted this is to pay the consultant for the farm aerodrome management plan.

12. Quarterly Report - Health and Safety Update  
D23/21937 Page 62

**Recommendation**

THAT the report be received.

BOYDE/BECK  
Carried  
F&A/23/21

Points noted in discussion:

- It was noted the Health and Safety Advisor was satisfied after the farm health and safety audit, along with the progress with health and safety with the aerodrome.

*Mr Radich left the meeting at 12.44pm.*

13. Questions

There were no questions.

14. Closing Karakia

D21/40748 Page 51

The closing karakia was read.

*The meeting closed at 12.45pm*

G W Boyde  
**Chairman**

Confirmed this 19<sup>th</sup> day of September 2023.

N C Volzke  
**District Mayor**

# Farm and Aerodrome Committee Matters Outstanding Index

D20/11504

ITEM OF MATTER	MEETING RAISED	RESPONSIBILITY	CURRENT PROGRESS	EXPECTED RESPONSE

2023 - Agenda - Farm and Aerodrome Committee - Programme of Works

FARM AND AERODROME COMMITTEE - PROGRAMME OF WORKS

Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24
		Farm Business Plan/Report	Review Risk Register	Final Farm Business Report 2022/23	Farm Environmental Report
Draft Budget 2023/24		Draft Results 2021/22	Farm Environmental Report Committee Strategic Review	Draft Budget 2024/25	
Farm Operations - Monthly Report	Farm Operations - Monthly Report	Farm Operations - Monthly Report	Farm Operations - Monthly Report	Farm Operations - Monthly Report	Farm Operations - Monthly Report
Health and Safety Report	Health and Safety Report	Health and Safety Report	Health and Safety Report	Health and Safety Report	Health and Safety Report

# INFORMATION REPORT



F22/55/04-D23/35700

**To:** Farm and Aerodrome Committee  
**From:** Property Officer  
**Date:** 19 September 2023  
**Subject:** Risk Review

## Recommendation

THAT the report be received.

## Recommended Reason

To update the Committee of any changes to the Farm and Aerodrome Risk Registers and advise the Committee of any incidents in relation to the identified risks.

/\_\_\_\_\_  
Moved/Seconded

### 1. Purpose of Report

The purpose of this report is to present any changes made to the Farm and Aerodrome Risk Registers in **Appendices 1 & 2**. It is to inform the Committee of any incidents and/or changes in relation to identified risks, since the last Farm and Aerodrome Committee meeting held in March 2022.

### 2. Executive Summary

The Senior Leadership Team (SLT) discusses changes to the Corporate Risk Register weekly. This review of the Farm and Aerodrome Risk Registers are undertaken at the Quarterly Sharemilkers and Aerodrome user group meetings to ensure that all risks are being managed appropriately. In the past quarter, one new risk has been added and two changes have been made on the Aerodrome risk register.

### 3. Local Government Act 2002

Under section 10 of the Local Government Act 2002, the Council's purpose is to "enable democratic local decision making by and on behalf of communities; as well as promoting the social, economic, environmental, and cultural well-being of communities now and into the future"			
Does the recommended option meet the purpose of the Local Government 4 well-beings? And which:			Yes
Social	Economic	Environmental	Cultural
	✓	✓	

Active management and monitoring of farm risks will support the performance of a good quality council owned asset to ensure the health and safety of the sharemilker, contractors, farm workers and visitors to the farm.

### 4. Background

The Farm and Aerodrome Risk Registers - one for each activity - were adopted by the Committee at the September 2020 meeting.

The two Risk Registers are based on the requirements from:

- The Taranaki Regional Council;
- Fonterra Limited;
- Ministry of Primary Industries; and
- Civil Aviation Authority.

The Risk Registers report on all risks identified to be managed by the Sharemilkers, Aerodrome User Group and Council.

## 5. Information Summary

### 5.1 **New Risk identified and added to the Risk Register**

There has been one new risk added to the Aerodrome Risk Register since the last Farm and Aerodrome Committee meeting.

Risk14 "Vehicle collision" has been added – due to the public/users speeding behind the hangars.

*Vehicle speeding along the perimeter road - This is a minor and rare risk. The control is the introduction of a 10Km/h speed limit along the perimeter road. Signs are yet to be installed.*

### 5.2 **Changes to the Risk Register**

There have been 2 changes to the Aerodrome Risk Register since the last Committee meeting.

**Risk Alert Number** has been added to assist with identifying the risk.

**Risk 1 – Contractor vehicles, including moving vehicles crossing the runway and accessing the aircraft manoeuvring area.**

This risk control has been amended to also include fertiliser trucks.

### 5.3 **Incidents or Threats in relation to the Risk Register**

There have been no incidents that relate to the risks identified in the risk registers since the last Farm and Aerodrome Committee meeting.

## 6. Strategic Alignment

### 6.1 **Direction**

This report is consistent with the relevant sections of the 2021-2031 Long Term Plan.

### 6.2 **Annual Plan and Long-Term Plan**

There is no Annual Plan or Long Term Plan implications with this report.

### 6.3 **District Plan**

There are no District Plan implications with this report.

### 6.4 **Legal Implications**

There are no legal implications with this report. There is a requirement from Civil Aviation Authority for aviation risk to be identified and managed.

### 6.5 **Policy Implications**

No policy implications



**Attachments:**

**Appendix 1 – Farm Risk Register**

**Appendix 2 - Stratford Aerodrome Risk Register**



Sara Flight  
**Property Officer**



[Approved by]  
Steven Bowden  
**Acting; Director - Assets**



[Approved by]  
Sven Hanne  
**Chief Executive**

**Date** 12 September 2023

## APPENDIX 1

## Farm Risk Register

Risk Alert Number	Risk Category	Risk Subject	Risk Description	Risk Score Raw	Control Description	Residual Risk Score
1	Reputational and Conduct	Reputational Damage	<ul style="list-style-type: none"> <li>Reputational damage to Council can occur as a result of: <ul style="list-style-type: none"> <li>Lack of operational transparency;</li> <li>Poor Management;</li> <li>Environmental damage;</li> <li>Non-compliance</li> </ul> </li> <li>Reputational damage could lead to hefty fines which may cause ratepayers and the public losing faith in the council-run farm.</li> <li>Change of Government Policy or Legislative change can also have consequences to the reputation of the farm and the council also.</li> </ul>	High	<ul style="list-style-type: none"> <li>Continually working with TRC to ensure that: <ul style="list-style-type: none"> <li>the farm complies with TRC Best On-farm practise;</li> <li>the farm complies with Fonterra requirements in terms of supply;</li> <li>All records are kept up to date on a regular basis.</li> </ul> </li> <li>Ensure transparent decisions are made at all times;</li> <li>Consistently keep all involved in the farm up to date and well informed of any changes to rules and regulations.</li> <li>Review contract with Sharemilkers every three years to ensure everyone is on same page</li> </ul>	Medium
2	Operational	COVID- 19	<ul style="list-style-type: none"> <li>If the sharemilker contracts COVID-19 and is unable to work for a few weeks this could affect the operation of the farm.</li> </ul>	Medium to High	<ul style="list-style-type: none"> <li>Prepare and maintain a Business Continuity Plan.</li> <li>Have a Movement Plan between the Sharemilker and other workers to eliminate the transmission of the virus to others.</li> <li>Limit movement of stock, people and machinery on/off farm.</li> <li>Work with Bio-Security NZ, Ministry Primary Industries (MPI), Taranaki Regional Council (TRC), Farm Vets to ensure the threat is identified and work to minimise the threat.</li> <li>Ensure Staff/committee are kept up to date with everyday decisions. Follow MPI Guidelines - <a href="https://www.biosecurity.govt.nz/growing-and-harvesting/land-care-and-farm-management/biosecurity-on-your-farm/">https://www.biosecurity.govt.nz/growing-and-harvesting/land-care-and-farm-management/biosecurity-on-your-farm/</a></li> </ul>	Medium to Low
3	Operational	Infectious Disease/ Biosecurity Risk and Pandemic	<ul style="list-style-type: none"> <li>If there is a threat to animals on farm through disease, this will affect the wellbeing of all stock on farm.</li> <li>Given the current Sharemilkers have a run-off this will also limit stock from outside the farm coming onto the dairy farm.</li> </ul>	Medium to High	<ul style="list-style-type: none"> <li>Take a proactive approach to any known threats to protect the farm and develop a plan to deal with this threat, in discussion with the Fonterra and the Bank;</li> <li>Prepare and maintain a Business Continuity Plan.</li> <li>Have a Movement Plan between the Sharemilkers runoff farm and the Council's farm to eliminate any infection due to movement between farms.</li> <li>Limit movement of stock, people and machinery on/off farm.</li> <li>Work with Bio-Security NZ, Ministry Primary Industries (MPI), Taranaki Regional Council (TRC), Farm Vets to ensure the threat is identified and work to minimise the threat.</li> <li>Ensure Staff/committee are kept up to date with everyday decisions. Follow MPI Guidelines - <a href="https://www.biosecurity.govt.nz/growing-and-harvesting/land-care-and-farm-management/biosecurity-on-your-farm/">https://www.biosecurity.govt.nz/growing-and-harvesting/land-care-and-farm-management/biosecurity-on-your-farm/</a></li> </ul>	Medium to Low
4	Operational	Aerodrome	<ul style="list-style-type: none"> <li>Cows on runway</li> </ul>	Medium to High	<ul style="list-style-type: none"> <li>Prepare and maintain a clear set of rules for both the Aerodrome users and the Council farms Sharemilkers and employees</li> </ul>	Low
5	Animal Welfare	Reputational Damage	<ul style="list-style-type: none"> <li>Animal Welfare issues – If an animal welfare issue eventuates on-farm then reputational damage to both Sharemilker and Council could occur.</li> </ul>	Medium	<ul style="list-style-type: none"> <li>To ensure there is good animal welfare practice on farm and as the cows are owned by the Sharemilkers, the following codes must be complied with: <ul style="list-style-type: none"> <li>The Animal Welfare Act 1999;</li> <li>An <i>Animal Health Plan</i> provided through a Veterinary Practice; and</li> <li>The Fonterra Welfare Codes and Regulations</li> </ul> </li> </ul>	Low

2023 - Agenda - Farm and Aerodrome Committee - Quarterly Report - Risk Review

Risk Alert Number	Risk Category	Risk Subject	Risk Description	Risk Score Raw	Control Description	Residual Risk Score
6	Financial	Low Pay-out and or significant increase in operational costs.	<ul style="list-style-type: none"> <li>Low pay-out can and will cause financial stress on farm if not handled correctly.</li> <li>Significant increases in essential materials such as feed and fertiliser can and will cause financial stress on farm if not handled correctly.</li> </ul>	Low - Medium	<ul style="list-style-type: none"> <li>Work with the farm owner (Council)/bank/accountant to set up a budget. A low pay-out can be addressed by running the farm on minimal operations and very low costs. For example, maintenance fertiliser only. Only things that need to be done to keep the farm running will be done.</li> <li>Select correct options for current financial climate and low pay-out.</li> </ul>	Low
7	Environmental	Natural Disaster	<ul style="list-style-type: none"> <li>Weather, Eruption, Earthquakes any of these can affect the farm.</li> <li>Any of these disasters can cause major damage to farm buildings and infrastructure.</li> <li>Loss of income also will come into effect.</li> </ul>	Low - Medium	<ul style="list-style-type: none"> <li>Prepare and maintain a Natural Disaster Management Plan.</li> <li>Communicate to the regional /district Civil Defence Authority;</li> <li>Prepare and maintain a Business Continuity Plan.</li> <li>Have an up-to-date Business Interruption Insurance.</li> <li>Secure an alternative power source e.g. generator that is available when required.</li> <li>Work with Sharemilkers to ensure that they are aware of their responsibilities.</li> <li>Ensure industry best practice is followed.</li> </ul>	Low
8	Health and Safety and Wellbeing	Health and Safety	<ul style="list-style-type: none"> <li>Lone worker or staff members seriously injured or killed on farm is a serious health and safety breach.</li> </ul>	Low-Medium	<ul style="list-style-type: none"> <li>Work with the Sharemilkers to ensure that they have quality training and are aware of their responsibilities.</li> <li>Ensure contract is updated in accordance with Health and Safety regulation and best on-farm practices;</li> <li>Ensure that there are processes and measure in place to ensure that all staff are safe at all times and can communicate effectively in emergency and be reached promptly.</li> </ul>	Low
9	Health and Safety and Wellbeing	Injury/Fatality	<ul style="list-style-type: none"> <li>Staff member/Pilot is seriously injured or killed on farm from an aircraft crash.</li> </ul>	High	<ul style="list-style-type: none"> <li>Ensure that there are processes and measure in place to ensure that all staff including visitors are safe at all times and can communicate effective in emergency and be reached promptly.</li> </ul>	Medium

### Aerodrome Risk Register

Risk Alert Number	Source of Risk		Risk Rating (Uncontrolled risk rating)			Hierarchy of Control	Controls	Residual Risk	Persons responsible
	Source of Risk	Risk Description	Consequence	Likelihood	Risk Rating				
1	Contractor vehicles, including moving vehicles crossing the runway and accessing the aircraft manoeuvring area	Service vehicle vs aircraft	Catastrophic	Possible	HIGH	M	Vehicle access to airfield is restricted to ground maintenance vehicles and fertiliser trucks (Downer completes mowing) - these vehicles must have a roof top strobe as per signage at the entrance to the operational area  Pilots to check with the radio room prior to landing for update on conditions / NOTAMS  Contractor to hold a radio dialled in to airside channel (enter channel <b>ENTER CHANNEL</b> )	MED	Operations & Members using the Aerodrome  Stratford District Council
2	Stock on the runway and, or airfield	Damage, injury, distraction	Catastrophic	Probable	HIGH	M	The perimeter of the airfield is fenced  Stock on the airfield to be reported to the Club House who will facilitate clearing the airfield	MED	Operations & Members using the Aerodrome  Sharemilker
3	Birds	Bird strike resulting in damage or injury	Catastrophic	Possible	HIGH	M	Monitor bird activity in the area and manage if a problem is identified - Solutions to bird problems should be made in consultation with the farmer and Stratford District Council	MED	Operations & Members using the Aerodrome  Stratford District Council
4	Debris on Airfield	Damage, injury	Catastrophic	Possible	HIGH	M	Physical check of airfield, including runway and wider manoeuvring area to identify and remove debris, including but not limited to Bale wraps and other wind blow material	LOW	Operations & Members using the Aerodrome
5	Aircraft Crash	Mechanical Error	Catastrophic	Possible	High	M	Complete pre-flight inspection to ensure aircraft is fit for flying, keep up to date with preventative maintenance	Low	Operations

2023 - Agenda - Farm and Aerodrome Committee - Quarterly Report - Risk Review

Risk Alert Number	Source of Risk		Risk Rating (Uncontrolled risk rating)			Hierarchy of Control	Controls	Residual Risk	Persons responsible
	Source of Risk	Risk Description	Consequence	Likelihood	Risk Rating				
6	Tourists and, or members of the public accessing the airfield	Public vs aircraft, aircraft rotor / propeller or service vehicle	Critical	Possible	MED	M	Parking available near the Club House for visitor parking Signage in place identifying the Airfield as an Operational Area - Unauthorised Access Prohibited Gate in place and able to be used as required	LOW	Operations & Members using the Aerodrome
7	Model Aircraft crashing outside the aerodrome in the farmers fields	Distress the farmers stock / cattle Animal vs Member Member injury	Major	Probable	MED	M	Access to farmers paddocks must be recorded in the appropriate log book held at the Club house Model Aircraft flying is restricted and only permitted by members of the Egmont Modellers Club (reducing other recreational users)	LOW	Operations & Members using the Aerodrome
8	Fuel Bowser	Vehicle vs fuel bowser / pump Vehicle fire near bowser/pump	Major	Unlikely	MED	M	Bollards have been installed around the fuel bowser Clear line if sight to minimise accidental collision Fire extinguisher located at the Browser for use as requires Fuel Safety Data Sheet (SDS) located in the Notice Board (Marked in Box labelled MSDS)	LOW	Operations & Members using the Aerodrome
9	Commercial operations conducted from the airfield	Traffic including trucks	Major	Unlikely	MED	M	All activities are carried out in the Operational Area and in line with CAA Guidelines and requirements Vehicles / traffic must use roadways provided, be mindful of speed and pedestrians	LOW	Operations & Members using the Aerodrome
10	Runway markings and general conditions	Markings become faded / damaged / or otherwise unclear over time Damage to runway and wider airfield	Catastrophic	Rare	MED	M	Guide line to be maintained as required to ensure the runway remains clearly visible All damage to runway and surrounding airfield to be reported immediately to the Radio Room so it can be used to update incoming aircraft, NOTAMS and Stratford District Council can be notified as required	LOW	Operations & Members using the Aerodrome Stratford District Council
11	Aircraft fuel and oil spills are likely whilst aircraft are parked and refuelled during refuelling operations	Aviation fuel spills	Moderate	Rare	LOW	M	Follow fuelling procedures Drains and interceptors in place in compliance with Ministry for the Environment	LOW	Operations & Members using the Aerodrome Stratford District Council

2023 - Agenda - Farm and Aerodrome Committee - Quarterly Report - Risk Review

Risk Alert Number	Source of Risk		Risk Rating (Uncontrolled risk rating)			Hierarchy of Control	Controls	Residual Risk	Persons responsible
	Source of Risk	Risk Description	Consequence	Likelihood	Risk Rating				
12	It is of critical importance that the fuel taken on-board at uplift is not contaminated since the effects of any such contamination are likely to affect the engines and this may not be evident until after an aircraft has become airborne.	Fuel Contamination	Moderate	Unlikely	LOW	M	Fuel filtration procedures Fuel Testing Fuel Storage Pre-flight checks	LOW	Operations & Members using the Aerodrome
13	Access into and out of the aerodrome via the driveway	Vehicle collision or vehicle vs stock	Minor	Rare	LOW	M	Traffic is restricted to 30km per hour with signage clearly in place, to this effect	LOW	Operations & Members using the Aerodrome
14	Vehicle collision	Vehicle speeding along the perimeter road	Minor	Rare	LOW	M	Traffic is restricted to 10km per hour along the perimeter	LOW	Operations & Members using the Aerodrome

# QUARTERLY REPORT



F22/55/04 – D23/3579

**To:** Farm and Aerodrome Committee  
**From:** Property Officer  
**Date:** 19 September 2023  
**Subject:** Farm and Aerodrome Business and Financial Report

## Recommendation

THAT the report be received.

## Recommended Reason

This report provides a quarterly business and financial update of the Farm and Aerodrome activities. It highlights the milk production from the current season at the farm and reports on the key activities at the Aerodrome.

\_\_\_\_\_  
 Moved/Seconded

### 1. Purpose of Report

The purpose of this report is to provide an update of the Farm and Aerodrome business activities to the Committee.

### 2. Executive Summary

2.1 The key highlights of this report are:

- 2022/2023 Season the Farm achieved two of the Co-operative Difference Achievements
- Calving is going well with only 75 calves to go
- The Tiaki Farm Environment Plan has been reviewed with only one action to complete
- Aero Clubs new hangar is now complete

### 3. Local Government Act 2002

Under section 10 of the Local Government Act 2002, the Council's purpose is to "enable democratic local decision making by and on behalf of communities; as well as promoting the social, economic, environmental, and cultural well-being of communities now and into the future"

Does the recommended option meet the purpose of the Local Government 4 well-beings? And which:		Yes	
Social	Economic	Environmental	Cultural
	✓	✓	

This report supports the provision of a good quality council owned asset as well as the performance of the council owned farm.

#### 4. Information Summary

##### 4.1 Farm Information

4.1.1 The farm production from July to August, is shown in the Monthly Production graph below (**Figure 1**) with an 14.1% variance (decrease) when compared to the same period last year.

4.1.2 The season has started off well with cow health only 10 cases of mastitis and as of August a total of 6,853.9 kgMS has been produced.



**Figure 1: Total Kg Milk Solids Production from June to August.**

4.1.3 The condition of the cows hasn't deteriorated during calving, currently putting through 4.5kg per cow of feed blend through infeed with a bit of balage outside.

4.1.4 In October TRC will be completing an audit on the riparian plants to identify the gaps and finalise the riparian planting.

4.1.5 From mid-July to end of September is a busy time for the Sharemilkers. In the 2024/2025 season the Farm and Aerodrome Committee meeting will be scheduled in the following months - July, October, January, April

4.1.6 In the 2022/2023 season the farm received two of The Co-operative Difference achievements. Te Putake and Te Puku (see Appendix 4). By achieving Te Putake, Council will receive 7cents per kgMS on base price for all milk supplied during the 2022/2023 season.

4.1.7 A meeting was held with Ravensdown to discuss alternative ways to reduce fertiliser cost, the removal of growing maize is one suggestion. The Sharemilkers consultant has provided cost-comparison of growing maize vs in-shed options (see Appendix 4).

4.1.8 In July/August 2024 a full farm soil test will be completed, to identify the paddocks which need attention.

4.1.9 Fonterra reviewed the Tiaki Farm Environment Plan in June (refer Appendix 5). A meeting was held with the Sharemilker Consultant who advised that two out of the three identified actions are not a requirement therefore shouldn't be listed as an action. Fonterra has been advised but unable to update the plan in time for this report. The outstanding action is;



- *Hazardous storage – When calving is completed the Sharemilker will transfer the remaining chemicals from the shed to the storage container. Fonterra will remove from the list of actions, once this has been completed.*

4.1.10 Repair Work on the Farm

Since the last quarterly meeting the following works have been completed:

- kerbing has been installed along the race outside the milking shed
- painting of the milking parlour

The following repair works have been programmed in;

- exterior painting of the cow shed to be completed in December.
- exterior painting of the farm house

**4.2 Aerodrome Information**

4.2.1 The Aerodrome Management Plan revision commenced in July 2023. A draft has been provided and is being reviewed by Council Officers. The aim is to have the approved plan for the next Farm and Aerodrome Committee meeting in December.

4.2.3 The Aerodrome User group met on the 30<sup>th</sup> August where they discussed potential improvements and identified repair work necessary for the Aerodrome.

4.2.4 The Aero Club's New Hangar is now complete and signed of by Council. (*See Figure 2*)



**Figure 2: Completion Photos of the Aero Club new Hagar**

4.2.5 The aircraft movements by month and type are shown Figures 4 and 5 below.

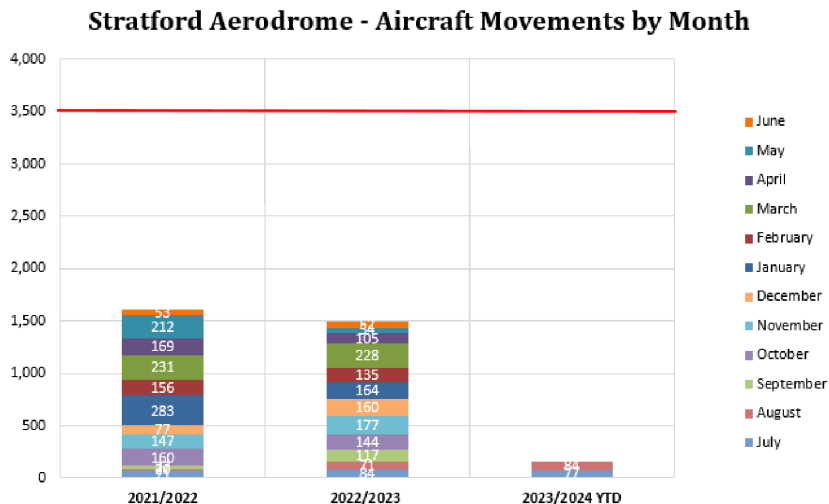


Figure 4: Aircraft Movements by Month

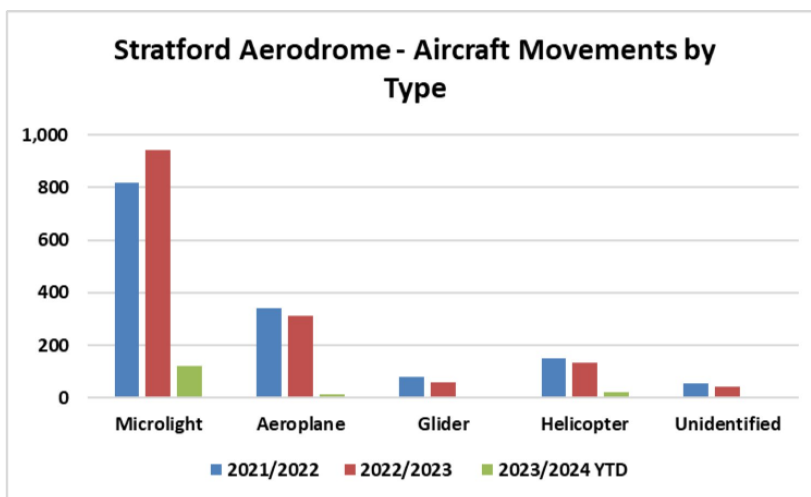


Figure 5: Aircraft Movements by Type

## 5. Financial Report

5.1 An overview of the expenditure to date including the works undertaken has been outlined in **Table 2** below.

Activity	Works completed	Budget	Expenditure to date	Balance Remaining
1 Maintenance – Major Works	Race maintenance	\$35,000.00	\$0	\$35,000.00
2 Repair and Maintenance	General maintenance on the farm, milking plant repairs and services, farm house repairs and installation, and so forth.	\$25,000.00	\$11,268.93	\$13,731.07
3 Capital Works	Water Lines and Trough upgrade	\$12,600	0	\$12,600.00

The figures shown in Table 2 above provide an overall indication of progress mid-way through the financial year on planned works around the farm.

## 6. Strategic Alignment

- 6.1 **Direction**  
This report is consistent with the 2021-2031 Long Term Plan
- 6.2 **Annual Plan and Long-Term Plan**  
This report supports the Farm and Aerodrome activities as indicated in the Annual Plan and Long-Term Plan.
- 6.3 **District Plan**  
There are no implications on the District Plan.
- 6.4 **Legal Implications**  
There are no legal implications.
- 6.5 **Policy Implications**  
There are no policy implications.

### Attachments:

- Appendix 1** – YTD Financial Report – August 2023
- Appendix 2** – Work Programme for the Farm and Aerodrome
- Appendix 3** – Co-Operative Difference Achievement Summary
- Appendix 4** – Cost comparison Maize v's Inshed
- Appendix 5** - Tiaki Farm Environment Plan



Sara Flight  
**Property Officer**



[Endorsed by]  
Steve Bowden  
**Acting Director - Assets**



[Approved by]  
Sven Hanne  
**Chief Executive**

**Date:** 12 September 2023

## APPENDIX 1

## YTD Financial Report - August 2023

	YTD PREVIOUS 2022/2023	YTD ACTUAL 2023/2024	YTD BUDGET 2023/2024	Variance	BUDGET 2023/24
<b>3800 - Farm Investment</b>					
<b>1700 - Income</b>					
Milk Production (KgMs)	7,981	6,854	154,000	-147,146	154,000
Forecast Milk Payout	9.25	6.75	8.00	-1.25	8.00
Council's Share of Milk Revenue*	36,913	23,131.91	616,000	-592,868	
Less adjustments / timing	18,025.82	5,486.54		5,486.54	
	54,938	17,645	616,000	-598,355	616,000
Dividend			17,135	-17,135	102,807
<b>Total Income</b>	<b>54,938</b>	<b>17,645</b>	<b>633,135</b>	<b>-610,003</b>	<b>718,807</b>
<b>1701 - Operating Costs</b>					
Fencing	-	-	583	583	3,500
R&M Major Works	4,810	-	5,833	5,833	35,000
Repairs & Maintenance	6,552	11,269	4,167	-7,102	25,000
Consultants	-	-	86	86	513
Off-Farm Grazing	270	-	8,000	8,000	48,000
Pasture Management	-	77	1,667	1,589	10,000
Fertiliser	3,562	6,998	12,500	5,502	75,000
Urea	-	-	0	0	0
Insurance	8,719	1,083	1,671	588	10,027
Lease	1,083	-	1,083	1,083	6,500
Licences & Permits	-	506	249	-257	765
Rates (Services Only)	1,045	-	174	174	1,045
Subscriptions & Publications	-	2,961	500	-2,461	3,000
Sustenance	-	-	15,167	15,167	91,000
Weed Control	148	-	833	833	5,000
Water Consumption	-	-	0		
Health and Safety Compliance	-	-	0	0	0
	26,190	22,894	52,513	29,619	314,350
<b>1703 - Indirect Costs</b>					
Interest	-	-	11,438		68,629
Depreciation	- 4,157	-	7,840	7,840	47,042
Corporate Services	6,127	1,938	2,029	90	12,171
Assets Director	990	464	1,037	572	6,219
Property Asset Manager	5,356	725	2,058	1,334	12,350
	8,317	3,127	12,964	9,837	146,411
<b>Total Expenditure</b>	<b>34,507</b>	<b>26,022</b>	<b>65,477</b>	<b>39,455</b>	<b>460,761</b>
<b>Net Profit</b>	<b>20,432</b>	<b>8,376</b>	<b>567,658</b>	<b>-570,547</b>	<b>258,046</b>

## APPENDIX 2

### 2023/2024 Work Programmes

#### Farm and Aerodrome Work Programme

<b>Farm</b>	January	February	March	April	May	June	July	August	September	October	November	December
Quarterly Meetings												
Fertiliser Application												
Riparian Planting												
Calving												
Drying off												
Sowing crops												
Mating												
<b>Aerodrome</b>												
<b>Aerodrome</b>	January	February	March	April	May	June	July	August	September	October	November	December
Mowing – SDC Contractors												
Drain Clearing under runway												
Club Day												

#### Farm and Farm Buildings Repair/Maintenance Programme

<b>Repairs/Maintenance</b>	January	February	March	April	May	June	July	August	September	October	November	December
<b>Farm House</b> Ensuite floor and shower renewal												
Exterior painting												
<b>Workers House</b>												
<b>Cow Shed</b> Exterior painting												

## APPENDIX 3

# Co-Operative Difference Achievement Summary

**The Co-operative Difference**

**Fonterra**  
Dairy for Life

### Achievement Summary

Farm 41047

This report shows your farm's performance against The Co-operative Difference achievements for the 2022/2023 season

Te Pūtake	Te Puku	Te Tihi
<b>Achieved</b>	<b>Achieved</b>	<b>Not Achieved</b>
Achievements must be met across 4 focus areas.	Te Pūtake met plus at least 30 days Milk Quality Excellence.	Te Puku met plus Milk Quality Excellence achieved on at least 90% of the days that milk is supplied.
<ul style="list-style-type: none"> <li> <b>Achieved</b></li> <li> <b>Achieved</b></li> <li> <b>Achieved</b></li> <li> <b>Achieved</b></li> </ul>	<b>143 days at Milk Quality Excellence</b>	<b>47% at Milk Quality Excellence</b>
<b>Te Pūtake</b> The start of the journey	<b>Te Puku</b> The mid-point	<b>Te Tihi</b> The summit

For more information on The Co-operative Difference go to: [www.fonterra.com/makethedifference](http://www.fonterra.com/makethedifference)



## Achievement Summary Farm 41047

Here is a summary of your achievements in each focus area



<p><b>Achieved</b> ✓</p> <p>Full and accurate Farm Dairy Records kept and submitted by the 30<sup>th</sup> June 2023*</p>	<p><b>Achieved</b> ✓</p> <p>Completed the DairyNZ Workplace 360 and achieved 100% on the Foundation level and verified</p>	<p><b>Achieved</b> ✓</p> <p>Animal Wellbeing Plan implemented and verified</p>
---	--	--

\*Note: This also includes the "Market Claims" achievement



### Environment

<p><b>Achieved</b> ✓</p> <p>Must have, or have requested a Farm Environment Plan by the 31<sup>st</sup> March 2023 ✓</p>	<p>In addition to your FEP requirement, you must achieve at least three of the five following practices:</p>	<p>Purchased Nitrogen Surplus Target Not Achieved</p> <p>Product Stewardship Scheme Achieved</p>	<p>Winter Grazing Management Achieved</p> <p>Farm Grown Feed Achieved</p>	<p>Effluent Achieved</p>
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### Milk

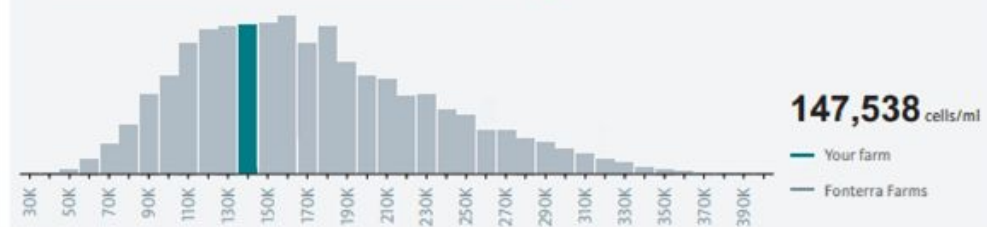
	Your Farm			Co-op Average
	Days Achieved	% of Days Achieved	kgMS Supplied	% of Days Achieved
<span style="color: blue;">●</span> Excellence	143 days	47%	79,293	43%
<span style="color: orange;">●</span> Quality	153 days	52%	62,656	54%
<span style="color: grey;">●</span> Downgrade	2 days	1%	711	3%

**Excellence milk** means every parameter tested meets or exceeds the Milk Quality Excellence standards.

**Quality milk** means that the farm provided the Co-op with high quality milk, but one or more tests fell short of Milk Quality Excellence standards. This milk meets the Co-operative's milk quality standards as set out in the Fonterra Farmer's Terms of Supply.

**Downgrade milk** means the farm failed to meet one or more of the Co-op's milk quality standards. This was previously referred to as grading.

### Your Somatic Cell Count Seasonal Average



The information provided in this report is indicative only and is to be used for the purposes of general illustration and reference. Fonterra makes no representations or warranties as to whether the information or data provided in this report is accurate, correct or reliable. You are solely responsible for any actions or decisions you take in reliance on the information and data generated, and Fonterra disclaims all liability for any loss arising from any actions or decisions taken by you in reliance of the information contained in this report. Note that your milk quality information is based on a combination of actual and estimated data.

Fonterra Co-operative Group, 2023

## APPENDIX 4

## Cost comparison Mazie v's Inshed

Maize Feed Review

A &amp; F Riddick

- Following on from our conversion on the future of growing maize on the current milk platform below is a review on the costs of the maize crop and how to replace the feed.
- The review is based on the continued regrassing programme on the milking platform has meant that a large area of the farm has been regrassed over the last 6 years and currently struggling to find paddocks to crop without major land development which includes major drainage etc.
- Maize has been in the farm system since 2018 and grown on farm since 2019 with oats grown as a crop before the maize
- The cost per kgdm for inshed feed is \$0.48 \$/kgdm v \$0.64 \$/kgdm
- Another saving is that we only pay for the inshed feed as required the maize silage requires growing cost across the year and can be up to 12 months in advance.
- As discussed this will need some more discussion on how everyone feels about the change to the system

**Maize Growing costs**

Maize	6.00	ha
Yield	20000.00	kgdm
Total Yield	120000.00	kgdm
Feed Wastage	24000.00	kgdm
Total maize after wastage	96000.00	kgdm
Growing Costs per ha	5100.00	ha
Total growing Costs	30600.00	kgdm
Maize feed cost per kgdm consumed	\$ 0.26	kgdm
Pasture yield	8000.00	kgdm
Total pasture grown	48000.00	kgdm
Feed shortfall		
Maize growing costs after pasture		
Total yield after pasture removed	48000.00	kgdm
Total growing costs	\$ 0.64	\$/kgdm

**Inshed Options**Spring

PKE	\$ 289.00	50%	\$ 144.50
SBH	\$ 510.00	30%	\$ 153.00
DDG	\$ 620.00	10%	\$ 62.00
TAP	\$ 500.00	10%	\$ 50.00
Blending Fee	\$ 20.00	100%	\$ 20.00
Freight	\$ 18.00	100%	\$ 18.00
Total wet cost			\$ 447.50
Wastage @ 3%			\$ 461.34
Dry Matter @ 90%			\$ 512.60
Summer feed cost per kgdm consumed			\$ 0.51

Summer

PKE	\$ 289.00	70%	\$ 202.30
DDG	\$ 620.00	20%	\$ 124.00
SBH	\$ 510.00	10%	\$ 51.00
Blending Fee	\$ 20.00	100%	\$ 20.00
Freight	\$ 18.00	100%	\$ 18.00
Total wet cost			\$ 415.30
Wastage @ 3%			\$ 428.14
Dry Matter @ 90%			\$ 475.72
Summer feed cost per kgdm consumed			\$ 0.48



**APPENDIX 5**

**Tiaki Farm Environment Plan**





This Tiaki Farm Environment Plan document is the result of a tailored farm environment planning service provided to you through the Co-operative Difference. It's part of the advantage you get through Farm Source as a member of the Fonterra Co-Operative. The purpose of this plan is to describe the environmental conditions present on your farm and the management of these conditions. From this, mitigations to potential impacts to water quality are documented and additional mitigations maybe planned, with sensible timeframes. Underpinning this plan, are the agreed national Good Farming Practices that are supported by the agricultural and horticultural sectors. Industry bodies along with Regional Councils and Central Government have developed the Good Farming Practice: Action Plan for Water Quality 2018 in a commitment to swimmable rivers and improving the ecological health of our waterways. The Dairy Industry Strategy (Dairy Tomorrow), as well as the Good Farming Practice: Action Plan for Water Quality 2018, both align with the goal for all dairy farms to have a Farm Environment Plan by 2025. Now that this plan has been created it's the plan owner's responsibility to ensure it is put into action and kept up to date as actions are completed or conditions on farm change. Farm Source is here to help with that implementation and ongoing management through our team of Sustainable Dairying Advisors who can be contacted via the details below.

**PHONE:** 0800 65 65 68

**EMAIL:** [sustainable.dairying@fonterra.com](mailto:sustainable.dairying@fonterra.com)

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41047

## FARM DETAILS

**SUPPLIER NUMBER** 41047

**FARM OWNER** Stratford District Council  
PO Box 320  
Stratford 4352

**PLAN OWNER**

**FARM ADDRESS** Flint Road  
Stratford

**LOCATION**



**REGIONAL COUNCIL** Taranaki

**PLAN LAST EDITED** 28 August 2023

**POINTS OF NOTE**

**LAND PARCELS** Fee Simple, 1/1, Part Lot 1 Deposited Plan 3176, 368,770 m2, Fee Simple, 1/1, Allotment 1 Deposited Plan 2605, 815,619 m2, Fee Simple, 1/1, Lot 2 Deposited Plan 3176, 531,150 m2, Fee Simple, 1/1, Lot 2 Deposited Plan 3176, 531,150 m2, Fee Simple, 1/1, Part Lot 1 Deposited Plan 3176, 112,806 m2, Fee Simple, 1/1, Part Lot 1 Deposited Plan 3176, 368,770 m2, Fee Simple, 1/1, Allotment 1 Deposited Plan 2605, 815,619 m2, Fee Simple, 1/1, Part Lot 1 Deposited Plan 3176, 112,806 m2

3

## FARM OVERVIEW MAP

The map below presents the land in which the farming operations covered in this document occur and identifies some key points of interest. More detailed maps looking at specific environmental management topics are contained throughout the document.








- |   |  |
|---|--|
|  Major Stock Excluded Waterway     |  Compliant Crossing                 |
|  Major Stock Not Excluded Waterway |  Non-Compliant Crossing             |
|  Minor Stock Excluded Waterway     |  Non-Compliant Non-Regular Crossing |
|  Minor Stock Not Excluded Waterway |  Dispensation Crossing              |
|  Farm Boundary                     |  Dairy Shed                         |



## GOOD FARMING PRACTICES

This section provides an overall snapshot of the Dairy Tomorrow Good Farming Practices.

### FARM MANAGEMENT

The characteristics of the farm and the farm system are identified		<b>ACHIEVED</b>
A risk assessment of the farms inherent and management activity risks is undertaken		<b>ACHIEVED</b>
Accurate and auditable records are kept of annual farm inputs, outputs and management practices		<b>ACHIEVED</b>
Fertiliser is stored and loaded to minimise the risk of spillage and losses to waterways and groundwater		<b>ACHIEVED</b>
Feed is stored, transported and fed to minimise wastage, leachate and soil damage		<b>ACHIEVED</b>
Farm waste is minimised		<b>ACHIEVED</b>
Hazardous substances (agrichemicals and fuel) are stored, handled, used and disposed of to avoid contamination of waterways and groundwater		<b>1 ACTION(S)</b>

### LAND & SOIL MANAGEMENT



Cultivation is managed to reduce the risk of sediment loss and maintain soil structure		<b>ACHIEVED</b>
Erosion-prone land is managed or retired to minimise soil losses		<b>N/A</b>
Grazing of pastures and crops is managed to minimise sediment and contaminant loss		<b>ACHIEVED</b>
Paddocks selected for Intensive Winter Grazing (including intensive baleage wintering) are low risk and managed to minimise the risk of erosion, run-off to waterways and leaching to groundwater		<b>1 ACTION(S)</b>
Critical Source Areas and farm Hot Spots are identified and managed to minimise contaminant losses to waterways		<b>ACHIEVED</b>





Indicates the achievement of the Good Farming Practice will also impact Greenhouse Gas Emissions


## GOOD FARMING PRACTICES

WATER USE & IRRIGATION MANAGEMENT		
Dairy shed and stock water use is efficient and prevents source contamination		<b>1 ACTION(S)</b>
The depth, rate and timing of irrigation is managed to meet plant demand and minimise the risk of leaching and run-off		N/A
The irrigation system is designed, operated and regularly checked to minimise the amount of water applied to meet plant demand, and prevent microbial contamination		N/A

EFFLUENT MANAGEMENT		
Effluent and manure are applied at depths, rates and amounts that match plant requirements and minimise the loss of nutrients or microbial pathogens to waterways and groundwater		<b>ACHIEVED</b>
The effluent system is designed, operated and regularly checked to minimise the risk of nutrient and microbial pathogen loss to waterways and groundwater, and to prevent microbial contamination		<b>ACHIEVED</b>

WATERWAYS & BIODIVERSITY		
Stock is excluded from lakes and waterways		<b>ACHIEVED</b>
Farm indigenous biodiversity and Mahinga Kai values are identified and protected		<b>ACHIEVED</b>

NUTRIENT MANAGEMENT		
Soil phosphorus levels are monitored and maintained below or within the target ranges for the soil-type and crop		<b>ACHIEVED</b>
The amount and timing of fertiliser inputs, takes account of all sources of nitrogen and phosphorus, matches plant requirements and minimises losses to waterways and groundwater		<b>ACHIEVED</b>
Fertiliser spreading equipment is maintained and calibrated		<b>ACHIEVED</b>




GREENHOUSE GAS EMISSIONS		
Farm greenhouse gas emissions are known, and a plan is in place to reduce or offset them, that also considers adaptation to climate change		<b>ACHIEVED</b>

 indicates the achievement of the Good Farming Practice will also impact Greenhouse Gas Emissions

## ACTIONS & RECOMMENDATIONS

This list includes all actions and recommendations that have been agreed as part of this Farm Environment Plan. Actions are required to achieve Good Farming Practices. Actions that have a target date within 2 years are captured as "Current Actions". Actions with a target set more than 2 years in the future are captured as "Future Actions". "Recommendations" cover all other actions that are Leading Practice actions (beyond GFP) or are actions, which are not related to a GFP.

### CURRENT ACTIONS



	<b>Target Date</b>
  Hazardous substance storage to be checked	31 Oct 2023
  Winter cropping management plan	31 Mar 2024
  Install water meter	01 Jun 2025

### FUTURE ACTIONS

**Target Date**

### RECOMMENDATIONS

**Target Date**

	Continue to Monitor pits for leachate	
	Ensure feed is stored a minimum of 50 meters from waterways	

Key: Action Priority

 Low    Medium    High    Critical

## CATCHMENT CONTEXT

The Patea River catchment is made up of two distinct sub-catchments, one that drains from Taranaki Maunga and through the ring plain in the west, and the other, from the Eastern Hill Country. The FMU is about one-third mountain catchment and two-thirds hill country catchment. These sub-catchments converge approximately 16km southeast of Stratford. The Patea river then flows south through Lake Rotorangi before discharging to the Taranaki Sea at the Patea township. To the north, the Patea Catchment FMU is bound by the similar but north-draining Waitara Catchment FMU.

Tangata whenua (people of the land) hold an inherited responsibility through whakapapa (genealogical relationships) to ensure the health and well-being of their ancestral awa (rivers & streams) and other interconnected aspects of te taiao (the natural environment). Awa are a very important source of identity for tangata whenua who maintain an intimate relationship with their ancestral wai (water). The Patea Catchment FMU includes the rohe of Ngāti Ruanui, Te Atiawa, Ngāruahine, Ngāti Maru and Ngāa Rauru iwi.

### Patea River FMU statistics:

- 3 main rivers
- 1,047 square kilometre area
- 692km total stream length with 541km of riparian planting having taken place
- 1,810mm is the average rainfall
- 250 registered wetlands within the catchment
- 1 river catchment
- 70% of the area has a TRC land management plan in place
- 1 known fish spawning site

Monitoring of water chemistry is undertaken at sites adjacent to Te Papakura o Taranaki, downstream of Stratford and in the lower reaches of the Mangaehu River. Monitoring data from these three sites highlights the influence of differing river sources and land use activities on water quality in the Patea Catchment FMU. Water quality is good in the upper Patea River, achieving the highest possible NOF grades for most attributes. The exception being for DRP concentrations, which are naturally high as a result of the volcanic geology within Te Papakura o Taranaki. Further downstream at Stratford, nitrate and ammonia levels still achieve the A and B band for toxicity levels, but Escherichia coli (E. coli) levels fail to achieve national minimum standards. Significantly lower DRP levels (A band) and much higher fine sediment concentrations (C band) are seen in Mangaehu River, characteristic of its hill-country sourced catchment. E. coli levels at this site also fail to achieve national minimal standards.

Bacterial contamination of waterways is an issue within the Patea Catchment FMU, as it is throughout the region. With around 50% of land cover in the FMU used for intensive agriculture, run-off from farmland carries sediment and bacteria into nearby waterways. It is predicted that 65% of the FMU's stream length fails to meet national minimum standards for bacteria (measured as E. coli).

Water quality results are from the Patea River at Skinner Road Bridge TRC-00005

Water quality data is retrieved from the first available monitoring site downstream of the farm. When a farm spans multiple sub-catchments, the site with the least satisfying indicator is chosen. If no sites are located downstream of the farm, the first upstream site is used if, and only if, the farm and the upstream site are within the same sub-catchment.

Water quality state is given as 5-year medians over the 2015-2019 period. Raw data can be accessed via LAWA

If no monitoring site could be associated with a farm, or none of the sites has data for a specific contaminant, modelled water quality state is used instead. The model outputs come from NIWA's 2013-1017 modelled river water quality state. The complete dataset is available on MFE's data portal.

### Key: Water quality indicator at nearest monitoring points

<b>A</b> Q1	Good quality	<b>B</b> Q2	Moderate quality	<b>C</b> Q3	Needs improvement	<b>D</b> Q4	Significantly degraded	<b>E</b>	Needs significant improvement – high human health risk
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\*E Coli is the only recording that has a 5 band rating system (A-E). All others use a 4 band system (A-D or Q1-Q4).



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### SURFACE WATER QUALITY

#### NITROGEN

TON	0.88 mg/L	<b>A</b>	Recorded at monitoring site: TRC-00005
NH <sub>4</sub>	0.049 mg/L	<b>B</b>	Recorded at monitoring site: TRC-00005
TN	1.18 mg/L		Recorded at monitoring site: TRC-00005

#### PHOSPHORUS

DRP	0.04 mg/L	<b>D</b>	Recorded at monitoring site: TRC-00005
TP	0.067 mg/L		Recorded at monitoring site: TRC-00005

#### BACTERIA

E. coli	255 CFU/100ml	<b>D</b>	Recorded at monitoring site: TRC-00005
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#### SEDIMENT

Clarity	1.92 m	<b>A</b>	Recorded at monitoring site: TRC-00005
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Key: Water quality indicator at nearest monitoring points

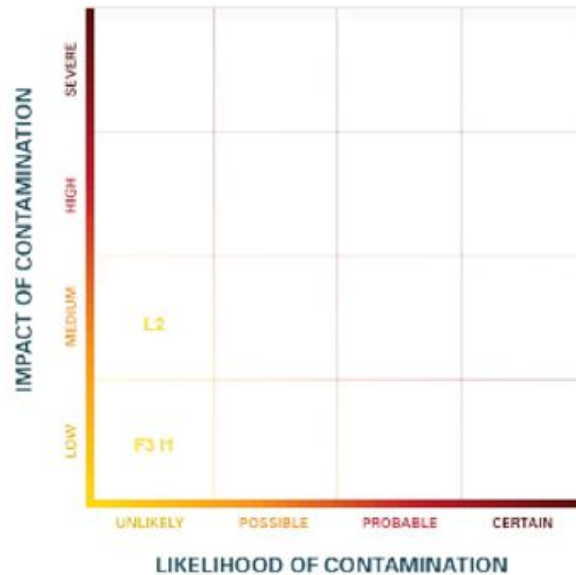
<b>A</b> Q1	Good quality	<b>B</b> Q2	Moderate quality	<b>C</b> Q3	Needs improvement	<b>D</b> Q4	Significantly degraded	<b>E</b>	Needs significant improvement – high human health risk
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\*E Coli is the only recording that has a 5 band rating system (A-E). All others use a 4 band system (A-D or Q1-Q4).

9

## UNDERSTANDING THE RISKS ON YOUR FARM

This section provides some context to help understand the relative impact and likelihood of environmental risks that have been identified on your farm. The chart on this page together with the map on the following page can be useful when thinking about what environmental risk areas on your farm need the most focus.



### HOW ARE RISK RATINGS MEASURED?

The issues plotted on the chart above have been done so based upon two measures that are assigned to a specific area of your farm where an environmental risk has been identified. 1. Impact of contamination (on the vertical axis, or the first dial) is a measure of the potential scale or significance of contaminants that may be lost from this area of your farm. It's about quantifying how bad could the outcome for the environment be; 2. Likelihood of contamination (on the horizontal axis, or the second dial) is about the chance of the contamination actually occurring from that area of your farm. It takes into account things like how far the area might be from waterways as well as the slope or aspect of the area; When combined together the two measures also give an overall 'risk rating'. The measures and the combined rating are presented for each risk area along with other descriptive information about the risk area on the subsequent pages of this document.

**Example:**



## UNDERSTANDING THE RISKS ON YOUR FARM

The map below shows the location of the risk areas identified on your farm. The Risk Rating presented here is a combined measure of the impact and likelihood of contamination occurring from each risk area.

- Low
- Medium
- High
- Critical



F3 Infrastructure, storage, waste Overview

L2 Cropping

I1 Water Use Overview



- F1 Farm Overview
- F2 RELEVANT REGULATIONS
- F3 Infrastructure, storage, waste Overview
- F4 Silage Storage
- F5 Key Feature - Surface water take
- F6 Key Feature - Silage stack
- F7 Key Feature - PKE Storage

## FARM MANAGEMENT

### GOOD FARMING PRACTICES

The characteristics of the farm and the farm system are identified

**Practices:**

- The property and farm enterprise details are recorded, including management and ownership structure
- A map(s) or aerial photograph of the farm is produced at a scale that clearly shows
  - Key infrastructure
  - Natural features
  - Cultural sites

**ACHIEVED**

**Evidence:**

- Map/aerial imagery showing key features
- FEP

A risk assessment of the farms inherent and management activity risks is undertaken

**Practices:**

- Risk factors to water quality associated with the landscape and farm system have been assessed and are managed appropriately

**ACHIEVED**

**Evidence:**

- Map /aerial imagery showing key features
- Action plans
- FEP

Accurate and auditable records are kept of annual farm inputs, outputs and management practices

**Practices:**

- Accurate and auditable records of annual farm inputs, outputs and management practices are maintained that support the actions being undertaken to achieve the Dairy Good Farming Practices and reduce any additional risks identified through the risk assessment

**ACHIEVED**

**Evidence:**

- Farm Dairy Records
- Farm Insights Report
- Maps

Fertiliser is stored and loaded to minimise the risk of spillage and losses to waterways and groundwater

**Practices:**

- The Fertiliser Industry - Code of Practice for Fertiliser handling, storage and use is followed
- Fertiliser storage sites are:
  - Located away from waterways or areas prone to flooding
  - Well ventilated with adequate lighting
  - Appropriately signed
  - Able to contain a spillage and provide secondary containment where appropriate
- Stored fertiliser is covered

**ACHIEVED**

## FARM MANAGEMENT

<p>Feed is stored, transported and fed to minimise wastage, leachate and soil damage</p> <p>Practices: Feed is stored:</p> <ul style="list-style-type: none"> <li>• at least 50 metres away from waterways</li> <li>• away from community drinking-water protection zone</li> <li>• away from critical source areas</li> </ul> <p>Any feed with the potential to create leachate is stored on hard-sealed or compacted areas Rainfall run-off is diverted to land away from feed storage areas Silage is sufficiently wilted before being put into stack</p>	<b>ACHIEVED</b>
<p>Farm waste is minimised</p> <p>Practices: A waste minimisation system is in place which prioritises waste reduction, and where this is not possible focuses on reuse and recycling Recyclable material is recycled (e.g., scrap metal, baleage wrap, agricultural containers, tyres, paint, oil, batteries, and other hazardous substances) There is no burning of waste on farm All inorganic, non-recyclable waste is contained and removed from farm Pests are controlled around feed storage and waste infrastructure</p> <p>Leading Practices: All farm waste is sent off farm for disposal in a registered waste facility</p>	<b>ACHIEVED</b>
<p>Hazardous substances (agricultural chemicals and fuel) are stored, handled, used and disposed of to avoid contamination of waterways and groundwater</p>	<b>1 ACTION(S)</b>

\*Additional GFP relevant to the dairy industry goals

## FARM MANAGEMENT

### FARM OVERVIEW

F1

The Stratford District Council farm is a 158ha (132ha effective) dairy farm located on the outskirts of the Stratford township within the Patea River catchment. The farm is owned by the Stratford district council who use the business as a rate subsidy for the district. The farm is managed by 50/50 share milker Aaron and Fiona who milk 375 cows (all spring calving) with the typical lactation season between Aug - mid/late May, transitioning to 3in2 around March depending on the condition of cows and available feed. The farm is flat throughout with several drains and waterways present and is unique for the Stratford Aerodrome in the centre of the farm. The average rainfall for the area would be approximately 2000mm annually.

This plan aims to highlight the Good Environmental Farming Practices that the farm is achieving already while also identifying potential risk areas to water quality on farm and actions to address these issues.

The farm is split up into two main management blocks: non-effluent (122ha) & Effluent (21ha) blocks. The remaining land is either the aerodrome (11ha) or riparian/houses & buildings etc. According to TRC data, the main soil type on the farm is the Stratford fine sandy loam which is a well-drained Allophanic ash soil.

The dairy farming system would be described as a system 3 with the importation of feeds such as PKE which is feed in shed.

The farm Herd test 3 times a year and pregnancy test annually, this season empty rate was 11% which is the average. From this, the farm then has a cull decision tree of empties, high somatic cells, age, and lameness. The replacement rate is currently 26% looking to bring the herd's average age down. The farm is also looking to breed smaller animals, transitioning from a Frisian to FxJ.

The farm has a goal of 150,000kgMS looking to achieve this through improving the per-cow production and on-farm efficiencies.

There is currently a dual resource consent on farm to discharge treated farm dairy effluent from an oxidation pond treatment system into an unnamed tributary of the Piakau Stream in the Patea catchment and/or to discharge partially treated farm dairy effluent by oxidation ponds and spray irrigation onto and into land expiry 1st December 2028 (discharge to water outlet is however capped).

Your farm's key performance indicators	Units	2019/2020	2020/2021	2021/2022
Dairy herd/stocking rate	kg	470	480	480
Milk yield (average per cow)	kg	300	300	300
Milking machine efficiency	kg/ha	20	20	20
Production per ha of pasture	kg	12,000	12,000	12,000
Production per cow	kg/ha	200	200	200
Production per hectare	kg/ha	300	300	300
Average annual yield	kg/ha	20,000	20,000	20,000
Effluent (litres) applied per hectare	kg/ha	10	10	10
Input of supplementary feed/kg	kg	10	10	10
Input of supplementary feed/kg/ha	kg/ha	10	10	10
Feed cost/kg/ha	kg/ha	10	10	10
Effluent (litres) applied per hectare	kg/ha	10	10	10



## FARM MANAGEMENT





## FARM MANAGEMENT

### RELEVANT REGULATIONS

F2

#### TARANAKI REGIONAL COUNCIL:

Taranaki Regional Council (TRC) works with the Taranaki Community to ensure the sustainable use and development of the region's resources, and the protection of the environment. The Council operates under several key pieces of legislation including the Resource Management Act, Biosecurity Act, and Local Government Act. The Council's strategic direction, policies, and rules are set out in several core documents including five regional plans:

- Regional Freshwater Plan
- Regional Soil Plan
- Regional Air Quality Plan
- Regional Coastal Plan
- Regional Pest Management Plan

These plans utilise a mix of regulatory and non-regulatory methods to promote the sustainable management of natural resources and environmental protection in the region. Links to these plans can be found below.

A range of farming activities are covered by these plans; it is therefore recommended that farmers contact the Council when undertaking or planning farm developments and operational changes to ensure that permitted activity conditions can be met or whether a consent is required.

A review of the freshwater, air, and soil plans are currently underway, and the Council intends to combine these plans into one 'Regional Resources Plan' with a focus on ensuring that the quality of the environment is not only being maintained but improved.

#### ESSENTIAL FRESHWATER:

The National Policy Statement for Freshwater Management 2020 was released in September 2020 by the New Zealand Government. The National Policy Statement provides local authorities with updated directions on how they should manage freshwater under the Resource Management Act 1991. This is commonly referred to as the Essential Freshwater package.

These new regulations apply nationally and sit above Regional Plans. The law of stringency applies, meaning that the strictest of all applicable rules must be adhered to whether they be national or regional rules. In addition, all Regional Councils must review their Regional Plans to ensure that the plans give effect to the Freshwater NPS.

Industry understanding of how the 2020 regulations will be implemented, monitored, and enforced is still developing. Existing and potential requirements for your farm may change as the regulations start to be implemented by the Regional Council.

Key focus areas within the regulation include:

- Stock exclusion from natural waterways over 1 metre wide
- Synthetic fertiliser use capped at 190 kgN/ha/yr
- Land use intensification
- Wetland protection
- Intensive Winter Grazing of forage crops
- Minimum standards for stock-holding areas (such as feed pads, standoff pads, loafing pads)
- Use of Feedlots
- Telemetric water takes monitoring

## FARM MANAGEMENT

It is important to maintain accurate and auditable records of farm inputs to support Essential Freshwater requirements.

These include (if applicable):

- Stock numbers (eg: annual accounts, sale/purchase invoices, digital recording such as Minda);
- Fertiliser (eg: invoices, end-of-year summary).
- Crops grown (eg: area cropped annually, invoice for seed, cultivation, agronomic advice)
- Grazed winter crops (eg: grazing plan including buffer strips etc)
- Fresh Irrigation water (eg: meter records, invoices)

Links to key Essential Freshwater package documents are below.

<b>TRC Regional Plans</b>	<p>Regional Freshwater Plan  <a href="https://www.trc.govt.nz/assets/Documents/Plans-policies/FreshwaterPlan/v3-Public_Regional_Fresh_Water_Plan_as_amended_March_2021.PDF">https://www.trc.govt.nz/assets/Documents/Plans-policies/FreshwaterPlan/v3-Public_Regional_Fresh_Water_Plan_as_amended_March_2021.PDF</a></p> <p>Regional Soil Plan <a href="https://www.trc.govt.nz/assets/Documents/Plans-policies/SoilPlan/Soil_Plan_PDF_final_with_cover_2021.pdf">https://www.trc.govt.nz/assets/Documents/Plans-policies/SoilPlan/Soil_Plan_PDF_final_with_cover_2021.pdf</a></p> <p>Regional Air Quality Plan  <a href="https://www.trc.govt.nz/council/plans-and-reports/strategy-policy-and-plans/regional-air-quality-plan/">https://www.trc.govt.nz/council/plans-and-reports/strategy-policy-and-plans/regional-air-quality-plan/</a></p> <p>Regional Coastal Plan  <a href="https://www.trc.govt.nz/assets/Documents/Plans-policies/CoastalPlanReview/Interim-Version-of-the-Proposed-Coastal-Plan.pdf">https://www.trc.govt.nz/assets/Documents/Plans-policies/CoastalPlanReview/Interim-Version-of-the-Proposed-Coastal-Plan.pdf</a></p> <p>Regional Pest Management Plan  <a href="https://www.trc.govt.nz/assets/Documents/Plans-policies/PestManagementPlan/RPMP-Jun2021.pdf">https://www.trc.govt.nz/assets/Documents/Plans-policies/PestManagementPlan/RPMP-Jun2021.pdf</a></p>
<b>Essential Freshwater Package</b>	<p>The National Policy Statement:  <a href="https://environment.govt.nz/assets/Publications/Files/national-policy-statement-for-freshwater-management-2020.pdf">https://environment.govt.nz/assets/Publications/Files/national-policy-statement-for-freshwater-management-2020.pdf</a></p> <p>Resource Management (National Environmental Standards for Freshwater) Regulations 2020:  <a href="https://www.legislation.govt.nz/regulation/public/2020/0174/latest/whole.html#LMS364323">https://www.legislation.govt.nz/regulation/public/2020/0174/latest/whole.html#LMS364323</a></p> <p>Resource Management (Stock Exclusion) Regulations 2020:  <a href="https://www.legislation.govt.nz/regulation/public/2020/0175/latest/LMS379869.html?search=qs_act@bill@regulation@deemedreg_stockexclusion_resele_25_h&amp;p=1&amp;sr=1">https://www.legislation.govt.nz/regulation/public/2020/0175/latest/LMS379869.html?search=qs_act@bill@regulation@deemedreg_stockexclusion_resele_25_h&amp;p=1&amp;sr=1</a></p>

## FARM MANAGEMENT

### INFRASTRUCTURE, STORAGE, WASTE OVERVIEW

F3



Stock feed is stored in a number areas on farm. PKE Blend is stored in a silo for the in shed feed system. PKE is stored in a covered implement shed near the dairy shed (well away from any waterways). Silage is either stored in individually wrapped bales (stored across farm for convenience) or stored as pit silage in a stack near the dairy (old silage bunker retired - see report below). Hay is stored in several hay barns around the farm.

No fertiliser is stored on farm

Waste is managed in a number of ways depending on the item. Plastic containers are triple rinsed and dropped off at Central Spraying through the AgRecovery programme. Silage wrap is collected in Plasback liners and dropped off at Hintons Contracting. Deadstock are either collected by Taranaki By-products or via a local slink calf run. All other organic rubbish/waste is dumped in a rubbish hole and all other in-organic waste in a wheelie bin

#### Procedures burying stock or utilising offal pits

- Do:**
- Slit the stomach of the carcass to release the intestines (this helps speed up the decomposition process).
  - Puncture the rumen on its left side to release the gases to prevent toxic gas build-up.
  - Add a small amount of bacteria starter such as effluent sludge to speed up the decomposition process.
  - Cover offal holes securely with a lid always.
  - Once an offal hole is full to within 1m of the surface it should be retired and filled up with earth, compacted, and regrassed.
- Do not:**
- Do not establish offal holes or stock burial sites near waterways, property boundaries, or areas with high groundwater.
  - Do not add lime to an offal hole or burial area as this slows down the decomposition process.
  - Do not use an offal hole as a rubbish dump.
  - Do not dispose of chemicals in offal holes.
  - Do not light fires anywhere near offal holes.
  - Do not locate offal holes and/or burial sites within 45m of the farm dairy.

#### ACTIONS | RECOMMENDATIONS

Target Date



#### Hazardous substance storage to be checked - To Achieve GFP

31 Oct 2023

Hazardous substances (fertilisers, agrichemicals and fuel) are stored, handled, used and disposed of to avoid contamination of waterways and groundwater

Practices:

An inventory of all hazardous substances stored on-farm is kept, including Safety Data Sheets (SDS)

## FARM MANAGEMENT

All hazards are identified, and staff made aware of these and how they are to be managed

Hazardous substance information and training is provided

A Certified Handler certificate is held if Class 6.1A or 6.1 B are stored or used on site by farm staff

Appropriate Personal Protective Equipment is made available, well-maintained, and worn

Procedures are in place for managing emergencies

Fertilisers, agrichemicals, and fuels are stored separately

Applications follow the Safety Data Sheet (SDS) conditions and are only when weather conditions are suitable

Re-entry and withholding periods are adhered to

Storage locations are:

- Located away from waterways or areas prone to flooding
- Well ventilated with adequate lighting
- Appropriately signed
- Able to contain a spillage and provide secondary containment where appropriate
- Agrichemicals are stored in containers constructed of non-flammable material



### Ensure feed is stored a minimum of 50 meters from waterways

All feed needs to be stored 50 meters from waterways, away from any community drinking water protection zone, and away from any critical source areas on the farm. Something to consider when storing wrapped bales.



## FARM MANAGEMENT



## FARM MANAGEMENT

### SILAGE STORAGE

F4






During my visit to farm on the 1st June 2023 the farm has now stopped using the silage pit that is located next to the waterway.

The farm only uses the stack at the front of the farm, which has a concrete base.

A silage pit is positioned on farm near a waterway. The farm has had trouble with spring/ground water entering the silage pit and when this combines with the silage it begins to form leachate. Last season the farm used an alternative silage stack and are looking to decommission the old pit for storing silage (other uses may be found e.g. machinery storage)

#### ACTIONS | RECOMMENDATIONS

#### Target Date

- |  |  |                    |
|--|--|--------------------|
| <p> </p> | <p><b>Decommission silage pit - To Achieve GFP</b></p> <p>Decommission old silage pit and use new silage stack near the cow shed. Ensure that silage is sufficiently wilted and kept covered in the stack to prevent leachate from forming. Also, try to divert rainwater/overland flow from this area where possible</p>  | <p>01 Jan 2020</p> |
| <p></p>   | <p><b>Continue to Monitor pits for leachate</b></p> <p>Develop a leachate management plan. This will ensure leachate risk can be effectively minimised and managed should it occur.</p> <p>Continue to monitor silage stack for leachate and if the issue continues then use a carbon rich material like sawdust.</p> <p>To ensure continued efficient leachate collection, clean and inspect the walls, floors, and drainage channels when pits are empty and mend any cracks, corrosion, or other faults before refilling.</p> <p>Wilting is the key to minimising silage leachate. If grass is cut and ensiled without wilting, over 500 litres of leachate per tonne of grass would be produced; if the grass is wilted to 25% dry matter (DM), less than 30 litres per tonne is produced.</p> |                    |

## FARM MANAGEMENT





- L1 Land & Soil Overview
- L2 Cropping

L3 Soil



## LAND & SOIL MANAGEMENT

### GOOD FARMING PRACTICES

<p>Cultivation is managed to reduce the risk of sediment loss and maintain soil structure</p> <p>Practices: The suitability of each paddock for cultivation is assessed, and high-risk cultivation activities avoided. Considerations include:</p> <ul style="list-style-type: none"> <li>• Topography and soil type</li> <li>• Proximity to waterways</li> <li>• Erosion susceptibility</li> <li>• Crop sowing and harvest dates</li> <li>• Cultivation methods</li> <li>• Previous cropping history</li> </ul> <p>Crop rotations are planned to enable timely resowing and to minimise the time in bare cover during the high-risk winter period Pugging and compaction of soils is avoided</p>	<b>ACHIEVED</b>
<p>Erosion-prone land is managed or retired to minimise soil losses</p>	N/A
<p>Grazing of pastures and crops is managed to minimise sediment and contaminant loss</p> <p>Practices: A farm grazing policy is developed that considers and manages:</p> <ul style="list-style-type: none"> <li>•Erosion susceptibility</li> <li>•Soil pugging and compaction</li> <li>•Overgrazing</li> <li>•Adverse climatic events</li> <li>•Stock type, class and intensity</li> <li>•Grazing rounds/ rotation lengths</li> </ul> <p>If paddocks near waterways are used during wet periods, a buffer strip beside the waterway is fenced off A larger feeding area is offered in cold conditions when demand is high and utilisation low When break feeding pasture or crops:</p> <ul style="list-style-type: none"> <li>• Feeding is towards the waterway and any critical source areas are not grazed</li> <li>• Fences are moved daily rather than offering a few days feed at a time</li> <li>• Land that has already been grazed is back-fenced</li> <li>• Long narrow breaks are offered rather than wide breaks</li> </ul> <p>Evidence: Winter management plan</p>	<b>ACHIEVED</b>
<p>Paddocks selected for Intensive Winter Grazing (including intensive baleage wintering) are low risk and managed to minimise the risk of erosion, run-off to waterways and leaching to groundwater</p>	<b>1 ACTION(S)</b>
<p>Critical Source Areas and farm Hot Spots are identified and managed to minimise contaminant losses to waterways</p> <p>Practices: Stock crossings are present on all permanently flowing or intermittent waterways &gt; 1 m that stock cross more than once per month</p>	<b>ACHIEVED</b>

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## LAND & SOIL MANAGEMENT

Supplement is fed out away from waterways  
Troughs are located away from waterways, low points in the landscape or wet areas  
The area surrounding troughs is maintained to prevent ponding

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## LAND & SOIL MANAGEMENT

### LAND & SOIL OVERVIEW

L1

Nearly all land of across the farm would be considered flat (under 7 degrees in slope) with minimal amounts of contoured land mainly around the riparian margins/waterways (No land would be considered LUC7e/8). According to TRC soils data the underlying soil type across the property is the Stratford fine sandy loam. This soil is a Allophanic ash soil deprived from volcanic eruptions and are characterised as free draining, moderately leached with a high P retention. There are also several man-made drains and sub-soil drainage that has been installed over the years with a vague knowledge of where some of these are. Re-fencing has also occurred along the aerodrome raceway to prevent & restore damage.

The stocking rate is 2.8 cows/ha, which is in the medium-risk range for the area. Higher stocking rates increase the N loss risk (as more urinary N is returned to pastures).

During the winter cows are split into smaller mobs and are managed in a number of ways. Firstly, 100 cows are wintered on an oats crop (5ha). Another 50 cows are wintered around the aerodrome paddocks which aren't a part of the dairy platform. The remaining cows are grazed on pasture and fed supplementary feed such as hay & silage etc. During the winter the farm plans to graze wetter paddocks earlier before conditions worsen but is generally fortunate with the land/contour in that there aren't many high-risk areas. Cows are shifted on early if heavy rainfall is predicted and stock are back fenced to reduce pugging. Cows are occasionally stood off on the cowshed yard overnight if the weather is severe, but this generally only occurs about 5 times per year.

There is a significant amount of cropping that occurs on farm. Firstly, a 5ha winter oats crop is used for cows to graze during June/July on 48-hour breaks, this is direct drilled. The same land is then fully cultivated, and maize is planted, once this maize is harvested in the autumn the land returns to a permanent pasture through a strip tillage method. In addition to this 5.5ha of summer turnips are planted during the spring and cows graze for 2 hours during the drier summer months. The land then returns to a permanent pasture in the autumn. Paddock selection for cropping is based upon several criteria's such as: poor-performing paddocks, location to the cowshed etc.

TRC soils data identifies that the dominant soil types on the farm are:

-Stratford Fine Sandy Loam which is well-drained Allophanic Soil.

Further information on the properties of Allophanic Soils is provided in the soils section.

These soils are typically low risk in relation to the effluent application due to their good drainage properties. However, the farm has subsurface drainage which increases the risk.

The crossing points on farm consist of culverts and bridges as indicated on the riparian map. The culverts and bridges were assessed the majority of them had good buffers to prevent sediment and effluent from directly flowing to the waterway, the bridge which is nibbed does have areas on the encroach to the bridge where sediment could be washed into the waterway. Ideally directing surface runoff away from crossings and into vegetated areas will trap sediment before making it to the waterway.

## LAND & SOIL MANAGEMENT

Raceways on farm are all well designed and maintained regularly. Due to the contour of the farm there were no areas of concern from a sediment loss point of view. The only hotspot identified was the entry/exit race which is nibbed and effluent is directed towards a sump and into the effluent system.



## LAND & SOIL MANAGEMENT

### CROPPING

L2



Due to the amount of cropping that occurs on farm this could be a potential risk area if Good Farming Practice is not followed which could have significant adverse effects on the environment. Ensuring the following Good Farming Practices are followed will reduce the environment impact of cropping.

<b>Slope</b>	<15 Degrees
--------------	-------------

#### ACTIONS | RECOMMENDATIONS

**Target Date**

- ⚠
Winter cropping management plan - To Achieve GFP
  - Identify/use paddocks with low risk of pugging, flat contour and are further away from waterways as possible
  - Avoid areas that have critical source areas (swales/gullies) etc. If not possible try to leave these areas uncultivated/un-grazed to reduce/filter any runoff of sediment/nutrient
  - Grazed paddocks strategically for top to bottom
  - Retain a grass buffer zone along waterways where riparian margins are not present
  - Graze towards the waterways and use portable troughs if needed.

31 Mar 2024



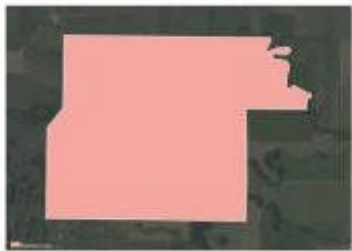
## LAND & SOIL MANAGEMENT

### SOIL



The below information has been sourced from Manaaki Whenua - Landcare Research where the data is available and may not be 100% accurate <https://smap.landcareresearch.co.nz/>

<b>Allophanic Soils:No Data</b>	FEP coverage: 100.00% Depth: No Data Texture: No Data PAW 60: NAm PAW 100: NAm
	Orthic Allophanic Soils are deep Allophanic Soils.
	Allophanic Soils are dominated by allophane (also imogolite or ferrihydrite) minerals. These stiff, jelly-like minerals coat the sand and silt grains and maintain porous, low density structure with weak strength. The soils are identified by a distinctly greasy feel when moistened and rubbed firmly between the fingers. The soil is easy to dig and samples crumble easily when crushed in the hand.
	Allophanic Soils occur predominantly in the North Island volcanic ash, and in the weathering products of other volcanic rocks. They also occur in the weathering products of greywacke and schist in the South Island high country. They cover 5% of New Zealand.



41047

# WHAKAMĀKŪKŪ WATER USE & IRRIGATION MANAGEMENT



11 Water Use Overview

## WATER USE & IRRIGATION MANAGEMENT

### GOOD FARMING PRACTICES

Dairy shed and stock water use is efficient and prevents source contamination **1 ACTION(S)**

The depth, rate and timing of irrigation is managed to meet plant demand and minimise the risk of leaching and run-off N/A

The irrigation system is designed, operated and regularly checked to minimise the amount of water applied to meet plant demand, and prevent microbial contamination N/A



## WATER USE & IRRIGATION MANAGEMENT

### WATER USE OVERVIEW

11



Water for the farm is sourced from two different locations: surface/stream water take and the Stratford town water supply. The Stratford town supply is mainly used for the dairy shed plant wash system while the surface/stream water take is used for the remaining dairy shed use and stock drinking. There is however the ability for the town supply to feed both the dairy shed and stock drinking if needed. Only the town supply is currently metered.

#### TRC Regional Fresh Water Plan

Ensure compliance with the TRC Regional Fresh Water Plan which states the following conditions. For groundwater:  
 -The daily volume of abstraction shall not exceed 50m<sup>3</sup>.  
 -The rate of abstraction shall not exceed 1.5l/s.  
 -A bore should be located no less than 500m from the sea or adjacent bores.  
 -A well should be located no less than 25m from the sea or adjacent wells or surface water bodies.  
 -A well or bore should be located no less than 50m from any effluent treatment pond, septic tank, silage stack, or pit.  
 -Abstraction should not cause the intrusion of saltwater into any freshwater aquifer.  
 For surface water:  
 -The rate of abstraction for any one property described in a particular certificate of title shall not exceed 1.5l/s; or 5l/s for not more than 30 mins/day for temporary taking and use of surface water.  
 -The volume of abstraction for any one property described in a particular certificate of title shall not exceed 50m<sup>3</sup> in any one day

<b>Water Use</b>	Town supply + surface water
<b>Water Meter</b>	Yes - town supply only

### ACTIONS | RECOMMENDATIONS

#### Target Date

 <b>Install water meter - To Achieve GFP</b> If the farm wished to align with the Good Farming Practices, all water should be actively monitored by checking troughs regularly measuring and recording to enable any dairy shed or stock water efficiencies to be identified and to help identify leaks, best practice is to install a water meter. At a minimum ensure the farm is compliant with the TRC Regional Fresh Water Plan as stated above.	01 Jun 2025
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## WATER USE & IRRIGATION MANAGEMENT



41047

# PARAKAINGAKI EFFLUENT MANAGEMENT



- E1 Effluent Overview
- E2 Effluent Storage

- E3 Stormwater Diversion
- E4 Old cowshed ponds

## EFFLUENT MANAGEMENT

### GOOD FARMING PRACTICES

Effluent and manure is applied at depths, rates and amounts that match plant requirements and minimise the loss of nutrients or microbial pathogens to waterways and groundwater

**Practices:**

An effluent management plan is in place that includes:

- Regional rules and consent conditions
- A farm effluent map that highlights:
  - Waterways
  - Buffer and exclusion zones
  - High and low risk soils
  - Effluent system layout (hydrants and runs)
- System maintenance checks
- System operating procedures
- Health and safety
- Emergency procedures and contacts

**ACHIEVED**

Effluent application timing and rates are adjusted based on soil moisture levels

Nutrient load is spread evenly across the largest area practical

Effluent is not applied when soils are at or above field capacity

Effluent is not applied when rainfall that would result in the soil becoming saturated is forecast

Failsafe mechanisms are in place

All effluent applications are recorded, including date, location and depth applied

Staff are trained in the effluent systems operation and maintenance

Odour impact is considered during application

**Evidence:**

Effluent application area risk map

Effluent management plan

The effluent system is designed, operated and regularly checked to minimise the risk of nutrient and microbial pathogen loss to waterways and groundwater, and to prevent microbial contamination

**Practices:**

All new effluent systems are designed to meet the Farm Dairy Effluent Design Code of Practice using an Effluent Design Accredited company and/ or a Certified Effluent Designer where Effluent is collected from all sources:

- Dairy sheds
- Yards
- Barns, feed-pads and stand-off pads
- Underpasses
- Feed storage areas (if applicable)

**ACHIEVED**

The system design is appropriate for the soil type, topography, and climate

The effluent storage volume is sized to meet the:

- Consent conditions; or
- Regional Plan requirements; or
- 90th percentile storage volume as calculated by the Dairy Effluent Storage Calculator (DESC)

Effluent solids that accumulate are routinely removed

**Evidence:**

Dairy Effluent Storage Calculator report

## EFFLUENT MANAGEMENT

\*Additional GFP relevant to the dairy industry goals

## EFFLUENT MANAGEMENT

### EFFLUENT OVERVIEW

E1

The farm currently has resource consent to discharge treated farm dairy effluent from an oxidation pond treatment system into an unnamed tributary of the Piakau Stream in the Patea catchment and/or to discharge partially treated farm dairy effluent by oxidation ponds and spray irrigation onto and into land which is valid until Dec 2028. Although there is consent conditions to discharge to water the farm has stopped this practice and generally manages the first pond level and uses the second as a spill over if needed. The second pond outlet discharge has also been capped.

All effluent from the dairy shed & surrounding holding yards is nibbed and directed towards two sand traps at different locations on the yard. From their sediment/some solids are allowed to settle and the liquid effluent drains through to first holding pond. Liquid effluent is then stored in a clay lined effluent pond until conditions allow for it to be irrigated back to land. Effluent is pumped out via floating platoon and spreading back to land using a travelling irrigator. Sand trap cleanings are removed regularly and spread back to land immediately.

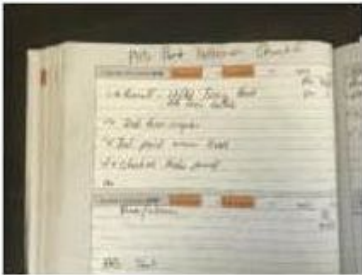
Stormwater diversion is used year round. The farm has now installed a failsafe/reminder system for the stormwater system to ensure it gets changed back over once cows are back on the yard. All effluent applications are recorded (date & location) and put into the dairy diary. A failsafe system is installed on the irrigator which will cut the pump out when PSI gets too high or too low.

The entry/exit race has also been nibbed with concrete blocks along the edges to capture effluent and divert it towards a sump near the culvert crossing at the bottom. Effluent is then pumped back via a float switch to the first effluent pond.

Effluent has the ability to be applied to 21.3ha however there is approximately only 18ha that is used due to 'no go zones' that have been created due to the proximity of waterways on farm. At 17ha this is above the TRC minimum requirement of 15ha to achieve a maximum loading rate of 200kgN/ha. The soil type across the effluent area is Stratford fine sandy loam which is a low risk soil in terms of effluent irrigation and nearly all land within the 21ha would be under 7 degrees in slope.



## EFFLUENT MANAGEMENT



# EFFLUENT MANAGEMENT

## EFFLUENT STORAGE

E2



An effluent storage calculation has been completed by accredited company DairyMaster Milking Systems NZ Ltd in March 2018. The current pond size will meet the storage requirements as per the DESC which means the farm is likely to use the current pond in place as their storage facility.

Currently the farm is not required to complete a pond drop test this should be done if it is suspected the pond is leaking.

The farm had Dairy Master out on farm in June 2023, this was to ensure the effluent system was operating as it should and to ensure the pond was not leaking.

<b>Solids management</b>	Spread immediately
<b>Stormwater diversion</b>	Yes
<b>Pond lining</b>	Clay
<b>Dairy effluent storage calculator</b>	Yes

### ACTIONS | RECOMMENDATIONS

Target Date



**Complete pond drop test - To Achieve GFP**

31 May 2025

Long term you may be required to complete a pond drop test to ensure the pond is sealed and not leaking. Contact Agfirst to arrange a pond drop test to be completed if requested.

Calculations

Method	Feed		Residual		Water Quality		Water
	Volume	Concentration	Volume	Concentration	Volume	Concentration	
1	1000	100	1000	100	1000	100	1000
2	1000	100	1000	100	1000	100	1000
3	1000	100	1000	100	1000	100	1000
4	1000	100	1000	100	1000	100	1000
5	1000	100	1000	100	1000	100	1000
6	1000	100	1000	100	1000	100	1000
7	1000	100	1000	100	1000	100	1000
8	1000	100	1000	100	1000	100	1000
9	1000	100	1000	100	1000	100	1000
10	1000	100	1000	100	1000	100	1000

Dairy Effluent Calculator Report

DESC

Calculator

Parameter	Value
Volume	1000
Concentration	100
Residual	1000
Water Quality	100
Water	1000



# EFFLUENT MANAGEMENT

BIOLOGICAL

**Dairy Effluent Storage Calculation  
Summary Report**

**Project Authority:** Dairy Effluent Storage  
**Project Name:** Dairy Effluent Storage, 40 Ha  
**Client:** Dairy Effluent Storage  
**Project Location:** Rural, 10/10/2022  
**Project Start Date:** 10/10/2022  
**Project End Date:** 10/10/2022  
**Project Status:** Completed

**Design:**  
**Design Date:** 10/10/2022  
**Design Status:** 10/10/2022

**Effluent Flow:**  
**Effluent Flow (m³/day):** 100  
**Effluent Flow (m³/year):** 36,500

**Water Flow:**  
**Water Flow (m³/day):** 100  
**Water Flow (m³/year):** 36,500

Item	Quantity	Unit	Value
Water	100	m³/day	36,500
Effluent	100	m³/day	36,500
Sludge	100	m³/day	36,500
Gas	100	m³/day	36,500
Other	100	m³/day	36,500
Water	100	m³/day	36,500
Effluent	100	m³/day	36,500
Sludge	100	m³/day	36,500
Gas	100	m³/day	36,500
Other	100	m³/day	36,500

**Summary:**  
**Total Effluent:** 36,500 m³/year  
**Total Water:** 36,500 m³/year  
**Total Sludge:** 36,500 m³/year  
**Total Gas:** 36,500 m³/year  
**Total Other:** 36,500 m³/year



m

## EFFLUENT MANAGEMENT

### STORMWATER DIVERSION

E3

IMPACT OF CONTAMINATION



+



LIKELIHOOD OF CONTAMINATION

=

LOW RISK RATING

The farm has a stormwater diversion (SWD) system in place which is only used during the winter for peace of mind and practicality of getting the entire yard clean. There are benefits of using this during heavy rainfall events throughout the year however a system needs to be put in place that signals the SWD in in use

#### ACTIONS | RECOMMENDATIONS

Target Date



**Stormwater diversion signal feature - To Achieve GFP**

01 Aug 2023

Install a system/feature which indicates that SWD is being used and needs to be changed once cows are back on the yard. This could be done through a warning flag or reminder in/around the cowshed for staff to change it over.



## EFFLUENT MANAGEMENT

### OLD COWSHED PONDS

E4



A resource consent is still in place on the old dairy shed (#41048) which gives consent to discharge to water via a pond oxidation system into the Kahouri stream. This is valid until Nov 2022 but after this date this consent may have to cease. This will have implications of still using the old dairy shed yard as a standoff facility.

The ponds are now capped and no effluent is going into them, the pond will eventually be filled in.

### ACTIONS | RECOMMENDATIONS

Target Date



#### Decommission effluent ponds

Once the consent expires either look to cap the outlet and apply the effluent back to land or cease the use of the dairy shed yard. If you do wish to stop using the effluent ponds the following guidelines for decommissioning ponds are below:

#### Farm Dairy:

As long as the farm dairy and yards have been washed down and no effluent remains, then any stormwater runoff from the yards can be safely diverted to a nearby paddock. If however, the concrete area is later used to feed/stand-off cattle then the effluent must again be captured and dealt with appropriately.

#### Effluent Ponds:

Effluent treatment or holding ponds will need to be completely pumped out – likely this will need to be done by a contractor due to the thicker effluent slurry that will be present at the base of the pond.

The ponds will likely need to be scraped out in order to remove effluent around the base of the pond, this can be tilled into a cropping paddock. Once the ponds have been cleaned out they can be filled in with clean fill or left to fill up with rainwater depending on what the farmer would like to do with them.

## EFFLUENT MANAGEMENT



41047

# RARENGA RAUROI WATERWAYS & BIODIVERSITY



- W1 Waterways & Biodiversity Overview
- W2 Riparian Management Unit
- W3 Key Feature
- W4 Key Feature
- W5 Key Feature

## WATERWAYS & BIODIVERSITY

### GOOD FARMING PRACTICES

Stock are excluded from lakes and waterways

**Practices:**

Stock are excluded from ephemeral waterways if grazing occurs while water is flowing

Stock are excluded from lakes and permanently flowing or intermittent waterways

A riparian management plan has been developed (include any plantings)

An appropriate buffer is maintained:

- that accounts for slope,
- to filter runoff,
- even if only temporarily during vulnerable periods.

The setback (riparian area) is managed, including the control of plant and animal pests

**ACHIEVED**

**Evidence:**

Riparian management plan

**Leading Practices:**

A riparian planting plan is in place and being actively implemented

Farm indigenous biodiversity and Mahinga Kai values are identified and protected

**Practices:**

Areas are identified on the farm map

Stock are fenced out of the area

Weeds are controlled within the area

Animal pests are trapped or poisoned

**ACHIEVED**

**Evidence:**

Farm map

\*Additional GFP relevant to the dairy industry goals

## WATERWAYS & BIODIVERSITY

### WATERWAYS & BIODIVERSITY OVERVIEW

W1

There are numerous drains, streams/creeks etc across the farm that range in both size and significance. The two major rivers on farm are the Kahouri stream which runs through the southern end of the farm and the Plakau stream on the north eastern boundary. There are a few smaller waterways which are tributaries of these major waterways and other smaller man-made drains. All of these waterways have been incorporated into the Taranaki Regional Council Riparian management plan with the overall goal to stock exclude and plant (where needed) the riparian margins on farm.

The farm has been working towards a riparian management plan in conjunction with the Taranaki Regional Council. This has involved permanently fencing and planting (where needed) the riparian margins of all waterways on farm in a range of native & exotic plants which have been recommended by the TRC. The plan is now 100% completed with the plantings that were planted in June 2023 as per the plan. Setbacks on farm would be between 1-8m depending on the size of the waterway. There are also some areas on farm where pine trees are planted along the top of riparian margins.

There are several culverts and one bridge on farm. All of these are well constructed and designed to prevent run off/containments from entering the waterways. Most of these have a grass buffer/nibbed sides to prevent stormwater/containments from running off.

In terms of biodiversity there is a 0.7ha native bush block which is permanently fenced and protected. The TRC complete their self-help pest control programme on the property and results are showing that possum numbers are decreasing. Along with the riparian plantings there are a small amount of pine & exotic trees species planted throughout the farm.



## WATERWAYS & BIODIVERSITY





## WATERWAYS & BIODIVERSITY

### RIPARIAN MANAGEMENT UNIT

W2



The farm has been working towards a riparian management plan in conjunction with the Taranaki Regional Council for over 10 years. This is now completed with the plants planted in June 2023 as per the plan.

<b>Riparian Management Plan</b>	Yes
<b>Planting progress</b>	100 %
<b>Vegetation status</b>	Mixed Exotic/Native
<b>Waterway type</b>	Stream/Creek
<b>Fencing status</b>	Permanently Fenced
<b>Planting completion date</b>	June 2023

#### ACTIONS | RECOMMENDATIONS

Target Date

- 

**Complete TRC riparian plan - To Achieve GFP**  
 Complete the remaining riparian management plan work by Dec 2020 when it likely to become regulation. Seek a completion certificate from them once this is completed.

31 Jul 2023



## WATERWAYS & BIODIVERSITY





**N1** Nutrient Overview

**N2** Nitrogen Efficiency Improvements

## NUTRIENT MANAGEMENT

### GOOD FARMING PRACTICES

Soil phosphorus levels are monitored and maintained below or within the target ranges for the soil-type and crop

**Practices:**

P-fertiliser applications maintain Olsen-P levels in the target range for the soil type and crop  
 Nutrient budgeting is used as a decision making tool to assess and inform farm nutrient management.

**ACHIEVED**

The amount and timing of fertiliser inputs, takes account of all sources of nitrogen and phosphorus, matches plant requirements and minimises losses to waterways and groundwater

**Practices:**

All fertiliser applications are recorded – product, rate, date, location (if a contractor is used the information is gathered from them)  
 Soil temperature and moisture levels are assessed before applying fertiliser (i.e. avoid winter months)  
 Fertiliser is not applied: --When heavy rainfall is forecast and runoff is likely –Close to waterways  
 Feed budgets, feed wedges and nitrogen plans are used to minimise the use of synthetic N-fertiliser  
 Pasture or crop growth rates are considered along with feed requirements before applying N  
 The pasture response of fertiliser use on farm is understood (eg pasture meter or satellite readings)  
 The availability of the nitrogen in fertiliser used is understood

**ACHIEVED**

Fertiliser spreading equipment is maintained and calibrated

**Practices:**

Paddocks are checked for paddock stripes after spreading

**ACHIEVED**

\*Additional GFP relevant to the dairy industry goals

## NUTRIENT MANAGEMENT

### NUTRIENT OVERVIEW

N1

Farm Dairy Records (FDRs) are provided at the end of each season to produce a farm-specific Farm Insights Report that models purchased nitrogen surplus and identify environmental risks on the farm. For the 22/23 season, the purchased nitrogen surplus for the farm was 164kgN/ha.

The farm's nitrogen use policy is to use nitrogen as a tool which ranges in use from 130-180kgN/ha. All applications are geo-spatially mapped and recorded. All nitrogen application rates are above 25kgN/ha with approximately 4-5 applications throughout the season. Soil temperature and weather forecast are checked before fertiliser is applied and buffer zones around waterways are maintained. External contractors 'Corletts' are used to apply fertiliser and use Hawkeye (proof of placement) which are provided once fertiliser is applied.

The farm pasture meters along with using feed budgets compiled by a farm advisor. This is what triggers the use of nitrogen use on farm.

The farm has block soil tests completed every two-three years, the last soil test were not available on the day of the visit, but the farm works with Ravensdown and a farm advisor on a maintenance strategy

When the farm applies phosphate fertiliser (Super) this is spread by a contractor Corlett, who are geo-spatially mapped.

Phosphate in soils is strongly sorbed onto soil particles, and this is particularly noticeable in Allophanic Soils which have high phosphate retention. Therefore, when soil erosion occurs, for example as sediment is transported in surface runoff, phosphate is lost to waterways along with that soil. Soils that have high Olsen P levels may also have a higher soil solution phosphate concentration, so surface runoff can also contain significant amounts of dissolved phosphate. Soil and phosphate loss increase with increasing slope, therefore farms with rolling to steep terrain are more at risk of sediment and phosphate loss than flat farms.

Timing of application of phosphate fertiliser to avoid periods of high rainfall is an important strategy in reducing the amount of phosphate lost from fertilised pastures. Where Olsen P levels are high, phosphate fertiliser applications should ideally be reduced or withheld until Olsen P levels fall within the optimum range for pasture growth. Vegetated riparian buffers have also been shown to be effective at mitigating phosphate loss in diffuse runoff from grazed pastures.

#### Synthetic nitrogen fertiliser rules

Synthetic nitrogen fertiliser rules (cap 190kgN/ha/yr) from 1 July 2021, synthetic nitrogen use is capped at 190kgN/ha/year. This means all nitrogen fertiliser spread (to dairy platform and any attached land) needs to be recorded (including the product, rate, date, and location). Keep records of fertiliser purchases/receipts to back up this information.

The information will need to be submitted to Taranaki Regional Council at the end of each season. There is a form online that you can use as an option for recording N fertiliser. Other forms of recording are also suitable, provided they include relevant information, or working with your Ballance rep to ensure data is submitted.

Synthetic nitrogen use recording tool ([teurukahika.govt.nz](https://teurukahika.govt.nz))  
Nitrogen cap guidance for regional councils | Ministry for the Environment

# NUTRIENT MANAGEMENT

Fertiliser Nitrogen Applied	<b>164</b> kg/ha	Urea Applied	<b>12,257</b> kg/ha
YOUR FARM			
Stock feed efficiency score	70%		
Feed cost	270 cents		
Stocking rate (cows/ha)	2.2 cows/ha		
Production (kg milk/ha)	140,000 kg/ha		
Production per cow	600 kg/ha		
Production per hectare (kg milk effective area)	1,000 kg/ha		
Urea applied per hectare (kg milk effective area)	60 kg/ha		
Stocking rate (kg milk effective area)	400		
Efficient nitrogen use	85%		

Sustainable Dairy 2018/19  
 Page 18/27  
 Submission Type: Nitrogen Risk Scorecard  
 User: Shane Hooper-Martin (127562)

### NITROGEN RISK SCORECARD

2018 / 19 SEASON

TIAKI

**YOUR FARM'S NITROGEN RISKS**

- Stocking Rate
- Urea Applied
- Production per hectare
- Stocking rate per hectare
- Efficient nitrogen use
- Stocking rate
- Production per hectare

**YOUR FARM'S PURCHASED NITROGEN SURPLUS**

**116**

### ANALYSIS REPORT LABORATORY

ARL

Sample	Location	Date	Time	Analyst
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
10	10	10	10	10
11	11	11	11	11
12	12	12	12	12
13	13	13	13	13
14	14	14	14	14
15	15	15	15	15
16	16	16	16	16
17	17	17	17	17
18	18	18	18	18
19	19	19	19	19
20	20	20	20	20

IANZ

## NUTRIENT MANAGEMENT

### NITROGEN EFFICIENCY IMPROVEMENTS



These strategies are focused on a more tactical use of nitrogen to fill feed deficits rather than relying on nitrogen fertiliser all year round. The strategies are all based on maintaining the current milk solids production and stocking rate. It is strongly recommended that the strategies are trialed using a staged approach over the coming seasons.

Initial guidance on the efficiency of nitrogen use was determined by comparing your farms purchased nitrogen surplus against the average nitrogen surplus of farms in your region producing similar milksolids per ha. This indicates there may be opportunities to use nitrogen inputs more efficiently without impacting on milk solids production.

#### Clover Content

For most of the strategies outlined below paddocks must have a well-managed ryegrass/clover mix with good swards of clover present to promote nitrogen fixation. Care needs to be taken to avoid long-lasting shading of clover runners in spring by prolonged canopy closure (i.e. heavy silage cuts). Shading will reduce clover branching and reduce clover production. This will impact nitrogen fixation later in the year, risking lower summer pasture yields.

<b>Utilise more uniform spreading technology</b>	Consider utilising newer forms of spreading technology such as Fine Particle Application (FPA), these give a more accurate and uniform application of fertiliser with associated pasture growth benefits and reduced nitrogen fertiliser rates can be obtained for the same pasture growth.
<b>Remove late autumn applications of Nitrogen Fert</b>	Reduce or do not apply nitrogen fertiliser in late autumn, when average covers are generally sufficient, soil temperatures are falling (lower response to nitrogen) and there is an increased risk of nitrogen loss through soil drainage.
<b>Utilise an Environmental Plantain in Pasture Mix</b>	Research has shown that utilising an environmental plantain cultivar can reduce nitrogen leaching as less nitrogen ends up in cow urine (main driver of nitrogen leaching) and urine patches have a lower nitrogen load due to a greater urine volume per animal per day. Depending on the proportion of plantain in the cows diet, this will reduce the nitrogen leached.
<b>Fill Feed Deficits with Low Crude Protein Feed</b>	If additional feed is required to fill a deficit a low crude protein supplement such as cereal silage, maize silage, fodder beet, etc could be used. This will result in less nitrogen being imported into your farming system and less nitrogen being available to leach via cow urine patches.
<b>Reduce Nitrogen Fertiliser on the Effluent Block</b>	Reduce the frequency and/or rate of nitrogen fertiliser applications on the effluent block to account for the nitrogen being supplied from farm dairy effluent. It is recommended this is progressively decreased over the coming seasons to approximately 150kg/N/ha. This could be reduced further if the full effluent area is not utilised.
<b>Reduce Nitrogen Application Rates</b>	Reduce nitrogen fertiliser application rates. Using an application of 25-30kg/N/ha is likely to be enough to overcome any spring nitrogen deficiencies. Higher rates (40kg/N/ha max) should be restricted to when conditions for pasture growth are optimal and surplus pasture is going to be harvested for silage. This will avoid high pre-grazing covers and residuals.

## NUTRIENT MANAGEMENT

### **Remove a Summer Nitrogen Fertiliser Application**

In late autumn to early spring, low temperatures usually restrict clover growth, nitrogen fixation and mineralisation, resulting in less nitrogen being available to grow grass. This results in nitrogen deficiencies being more pronounced in spring, when soil temperature and moisture don't limit grass growth, and a rapid response to nitrogen fertiliser can be expected. During summer, clover content is at its highest, when combined with favourable soil temperatures and soil moisture clover is able to fix significant amounts of nitrogen for grass growth, resulting in reduced responses to nitrogen fertiliser.

### **Skip Individual Paddocks and Optimise Round Length**

It takes 20 (spring) and up to 40 (autumn) days after an application of nitrogen fertiliser to get a significant yield response. Ensure your round length is not faster than the number of days needed for a significant yield response (e.g. 20 days in spring) and that pasture is consistently grazed at the 2.5- to three-leaf stage. This may reduce the total number of grazings per year and automatically reduce the number of nitrogen applications, if routinely following the cows with pasture. A longer round length also reduces the nitrogen content in pasture and, therefore, urinary nitrogen excretion from stock.

In addition to the above, a feed wedge and weekly pasture walks should be used to identify when pasture growth rates are high and silage making is not required, enabling an application of nitrogen to be skipped from these paddocks.





**G1** Greenhouse Gas Emissions Overview

## GREENHOUSE GAS EMISSIONS

### GOOD FARMING PRACTICES

Farm greenhouse gas emissions are known and a plan is in place to reduce or offset them, that also considers adaptation to climate change

Practices:  
Greenhouse gas emissions are calculated each year for the farm

**ACHIEVED**

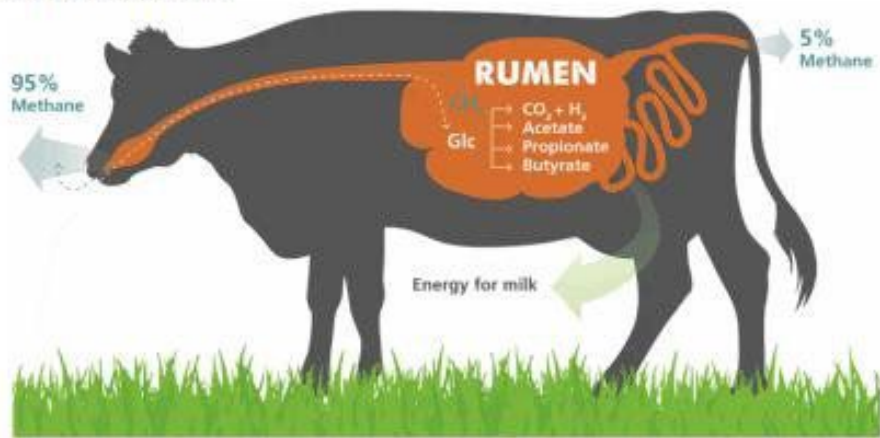
## GREENHOUSE GAS EMISSIONS

### WHAT ARE GREENHOUSE GAS EMISSIONS?

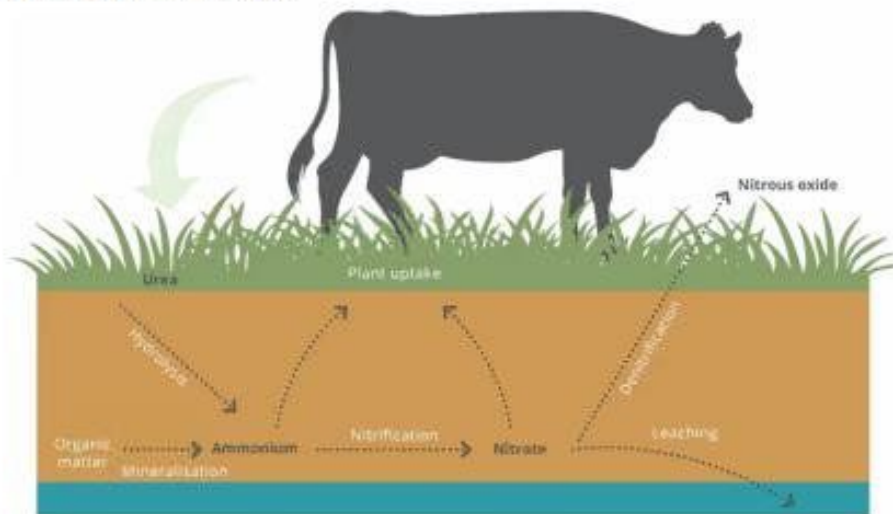
The main agricultural GHGs are methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O). Methane is produced by ruminants (e.g., cows and sheep) by methanogen microbes that are naturally present in the rumen. Most methane is emitted when cattle burp. The amount of methane produced for each farm is directly related to the total feed intake for that farm (including cows, heifers and calves).

Nitrous oxide is emitted from soil when urine, faeces and fertilisers are broken down by microbes in the soil.

#### How methane (CH<sub>4</sub>) is produced



#### How a nitrous oxide (N<sub>2</sub>O) is produced



## GREENHOUSE GAS EMISSIONS

### GREENHOUSE GAS EMISSIONS OVERVIEW

Greenhouse gas (GHG) emissions vary depending on farm size, inputs, outputs and management. Fonterra uses Farm Dairy Records information to estimate the GHG emissions for the dairy farm effective area. The farm's greenhouse gas production for the season is detailed in the Farm Insights Report each year.

Emissions per kg milk solids provide a measure of emissions intensity, this is an indication of the efficiency of your system. Your farm's emissions intensity is (12.3kgCO<sub>2</sub>e/kgMS). Reducing emissions intensity is an important first step for farmers to make toward reducing their farm's absolute emissions.

Emissions per hectare provide a measure of absolute emissions, this is the amount of greenhouse gases emitted per farm. Your farm's total emissions are (12,025kgCO<sub>2</sub>e/ha).

To maintain milk production and profitability, actions to reduce GHG emissions should focus on efficiency gains and reduction of inputs. This will help to reduce both the total emissions from the farm (absolute) and the emissions intensity of the milk (emissions per kg milksolids). He Waka Eke Noa has identified 5 opportunities to reduce absolute GHG emissions on-farm. These are:

- Improving the efficiency of pasture and crop production
- Optimise feed eaten
- Matching feed demand with pasture growth and utilisation
- Improving the management of livestock effluent
- Capture and store carbon in vegetation

Other actions within your FEP may also have a co-benefit of reducing impacts on water quality while reducing emissions (look for the co-benefits symbol in the Good Farming Practice Dashboard).

Opportunities the farm could explore which the farm may already be doing.

- Use coated urea products (urease inhibitors) to increase effectiveness of urea applications. Sustain & N Protect
- Fertility is optimised for the soil type, slope, and climate.
- Use soil tests such as the Nitrate Quick Test and Deep Soil Mineral N-tests for cropping.
- Use nutrient budgeting tools to plan N fertiliser inputs for crops (e.g., Crop Calculators and OVERSEER).
- Use feed and nutrient budgeting tools to plan N fertiliser inputs for pasture (e.g., FARMAX and OVERSEER).
- Maintain high levels of clover in pasture to reduce the need for N fertiliser applications.
- Pests and diseases are regularly monitored and addressed as appropriate.
- Grazing rotations are managed to optimise pasture grown.
- Pugging and compaction are minimised.
- Less productive and empty dairy cows culled early in the season rather than carried through.
- Dairy herds sequentially dried off in autumn instead of using supplementary feeds or N fertiliser to boost pasture growth.

## GREENHOUSE GAS EMISSIONS

- For dairy, replacement rates can only be optimised and reduced when wastage rates are minimal. If wastage rates are high through high empty rates and animal health issues, this creates risk for sustaining herd numbers and profit from using low replacement rates. Reduced total feed demand from fewer replacements results in a reduction in the use of N fertiliser and/or supplementary feed.
- Improved animal health leads to gains in efficiency and productivity.
- Pasture-based farming systems with good grazing management that maintain year-round quality pasture production reduce total dry matter demand.
- Use of alternative forages to reduce protein in the diet
- Good grazing management includes practices such as:
  - Regular pasture assessments and feed budgeting
  - Setting and managing pre-grazing covers and post-grazing residuals (intensive systems)
  - Choosing rotation lengths that optimise both quality and quantity of pasture
  - Managing pests and diseases
  - Optimising soil fertility
  - Actively managing any pasture surplus
- Carry out solids separation to prevent solids entering anaerobic storage ponds.
- Actively manage the effluent pond to its lowest level, regularly remove and apply any solids to pasture.
- Treat stored effluent to reduce methane production
- Regularly monitor effluent composition and record location of effluent appl

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### Resources online

He Waka Eke Noa is a primary sector climate action partnership that are working together to implement a framework to reduce agricultural GHG emissions <https://hewakaekenoa.nz/>

The Aq Matters website has useful information on how farmers can reduce emissions <https://www.agmatters.nz/>

The DairyNZ website has a range of information and resources <https://www.dairynz.co.nz/environment/agricultural-greenhousegases/>

Farm Source - Our approach to on farm emissions  
Our-approach-to-on-farm-emissions-May2023.pdf  
([nzfarmsource.co.nz](https://nzfarmsource.co.nz))

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 (nzfarmsource.co.nz)

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## GREENHOUSE GAS EMISSIONS



# QUARTERLY REPORT



D23/35702

**To:** Farm and Aerodrome Committee  
**From:** Property Officer  
**Date:** 19 September 2023  
**Subject:** Health and Safety Update

**Recommendation**

THAT the report be received.

**Recommended Reason**

To update the Committee on Health and Safety matters from the period between June and September 2023.

\_\_\_\_\_  
 Moved/Seconded

**1. Purpose of Report**

The purpose of this report is to provide to this committee the Health and Safety update for the period between June and September 2023.

**2. Executive Summary**

2.1 There have been no reported incidents or near misses at either the Farm and Aerodrome since the last Committee meeting.

**3. Local Government Act 2002**

Under section 10 of the Local Government Act 2002, the Council's purpose is to "enable democratic local decision making by and on behalf of communities; as well as promoting the social, economic, environmental, and cultural well-being of communities now and into the future"

Does the recommended option meet the purpose of the Local Government 4 well-beings? And which:

Yes

Social	Economic	Environmental	Cultural
✓	✓	✓	

It supports the provision of a good quality council owned asset for the economic benefit to the community through ground leases of the land occupied by the various hangers on the aerodrome.





#### 4. Information Summary

- 4.1 This report provides a summary of the Farm and Aerodrome's Health and Safety performance in the last quarter.
- 4.2 The Council has recorded no incidents at the Farm and Aerodrome in the last quarter.

#### 5. Sharemilker and Aerodrome Health and Safety Report

The operational summary of the Farm's and Aerodrome Health and Safety performance is provided below:

##### 5.1 Incidents/Near-Misses

**Incident:** 0 incidents to report

**Near-Misses:** 0 Near-Misses to report.

##### 5.2 Health

At the start of the 2023/2024 season the Sharemilkers were faced with a shortage of staff. This was due to the high demand for farm assistants throughout New Zealand. With having one permanent staff, this has put additional pressure on the Sharemilkers.

The Sharemilker now has a team of three staff, which will provide the Sharemilkers with the support they require.

#### 6. Strategic Alignment

##### 7.1 **Direction**

This report is consistent with the 2021-2031 Long Term Plan.

##### 7.2 **Annual Plan and Long-Term Plan**

This report supports the Farm and Aerodrome activities as indicated in the Annual Plan and Long-Term Plan.

##### 7.3 **District Plan**

There are no implications on the District Plan.

##### 7.4 **Legal Implications**

There are currently no known legal implications.

##### 7.5 **Policy Implications**

There are no policy implications.



A handwritten signature in black ink, appearing to read "Sara Flight".

Sara Flight  
**Property Officer**

A handwritten signature in black ink, appearing to read "Steve Bowden".

[Approved by]  
Steve Bowden  
**Acting Director - Assets**

A handwritten signature in blue ink, appearing to read "Sven Hanne".

[Approved by]  
Sven Hanne  
**Chief Executive**

**Date** 12 September 2023



TE KAUNIHERA Ā ROHE O  
**WHAKAAHURANGI**  
**STRATFORD**  
DISTRICT COUNCIL

**Our reference**  
F19/13/03-D21/40748

### **Karakia**

Kia uruuru mai  
Ā hauora  
Ā haukaha  
Ā haumāia  
Ki runga, Ki raro  
Ki roto, Ki waho  
Rire rire hau Paimārire

I draw in (to my being)  
The reviving essence  
The strengthening essence  
The essence of courage  
Above, Below  
Within, Around  
Let there be peace.