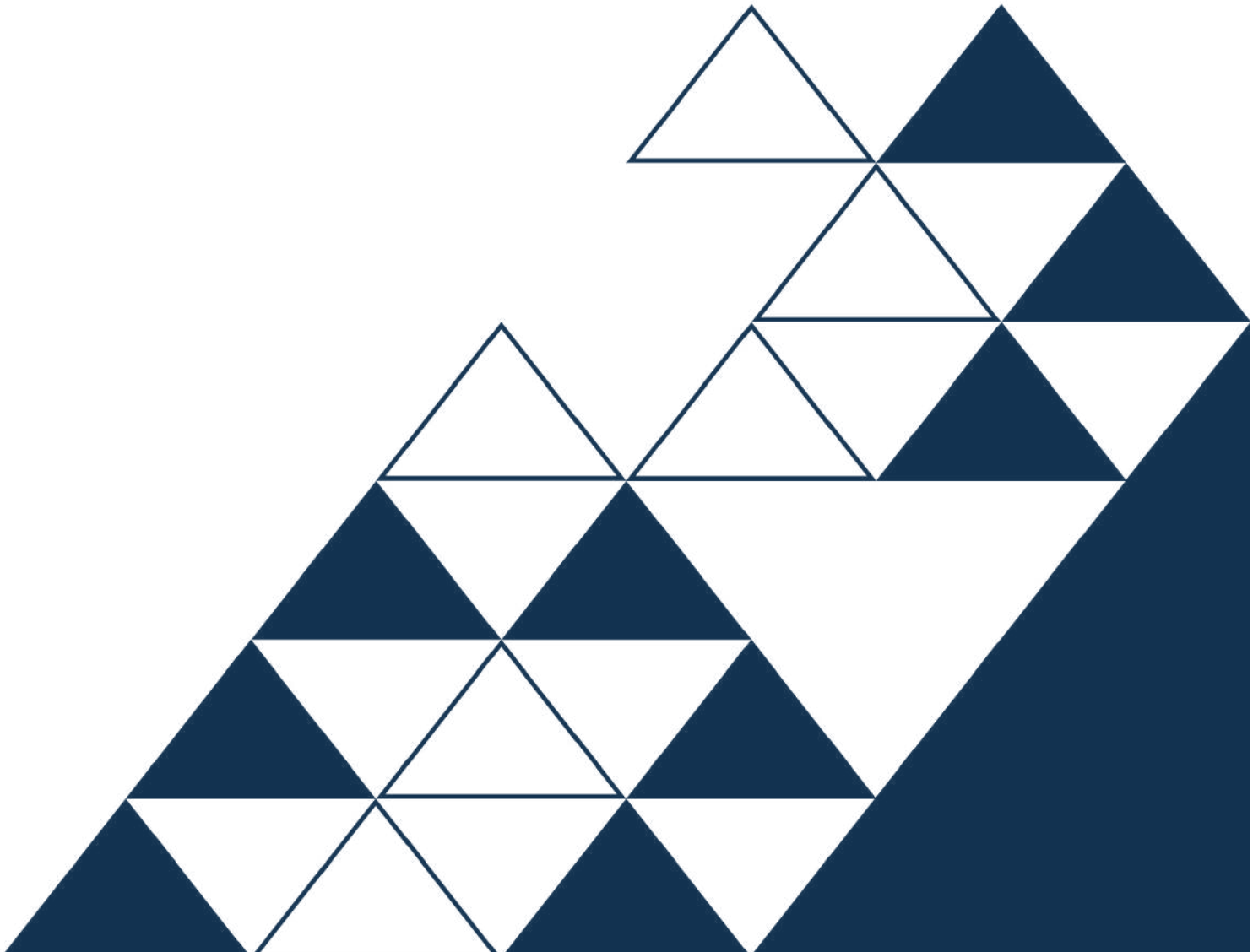
Waikato Regional Council Internal Series 2025/02

Freshwater farm plan: Dry stock example



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This example was not completed in accordance with any requirements of Proposed Waikato Regional Plan Change 1 (PC1)[3], which is subject to appeal to the Environment Court.

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[1] Resource Management (Freshwater Farm Plans) Regulations 2023 (SL 2023/113) – New Zealand Legislation
[2] Resource Management (Freshwater and Other Matters) Amendment Act 2024 No 43, Public Act Contents – New Zealand Legislation
[3] Volume-2-Proposed-Waikato-Regional-Plan-Change-1-Decisions-version.pdf

Acknowledgement

We would like to extend our gratitude to the individuals who supported, advised and contributed to the completion of this report. It would not have been possible without the support of Aaron Dodunski and Joel Perry. We are also grateful to Greenlea Premier Meats and Ballance Agri-Nutrients for providing the necessary funding and resources to carry out this project. Thanks also to the Primary Sector Technical Support Team and our Principal Advisor for reviewing the plan and providing feedback. Thank you all for your hard work and dedication.

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Abstract

This report provides an example of the structure and components of a Freshwater Farm Plan (FWFP) developed for a drystock property within the Waipā Freshwater Management Unit (FMU). A FWFP is a regulated farm plan that details how a farmer has, or intends to, manage the impact of their farming practices on the environment. This FWFP example was completed in August 2024 using the QCONZ FWFP digital tool. The report encompasses various examples of data collected during the development of the FWFP, such as, catchment details, land units, risk assessments, maps, and proposed actions. It shows how these components come together to form a FWFP alongside the regulations in effect prior to the October 2024 pause. The purpose of presenting this example is to give farmers, and other rural support professionals, a general idea of how a farm plan might be structured to meet the regulations set out in the Resource Management (Freshwater Farm Plan) Regulations 2023.

1 Introduction

Freshwater farm plans (FWFP) are part of a nationally regulated farm planning system (Resource Management (Freshwater Farm Plan) Regulations 2023[4]). A FWFP details how a farmer has, or intends to, manage the impact of their farming practices on the environment.

Farm planning as a regulatory requirement is new, having yet to fully embed as part of usual practice for both farmers and farm advisors. Through discussions with the drystock sector, it was identified that there was confusion and uncertainty surrounding what a "real-world" FWFP might look like, what content should be included, and the time/resources needed to complete it. Waikato Regional Council partnered with industry to create this document and a report that captured the learnings gained throughout this process. This report can be accessed by emailing the team at pie@waikatoregion.govt.nz

This FWFP example was completed in August 2024 for an approximately 800ha drystock property in the Waipā Freshwater management unit, located in the Waikato Region. It was developed by an agricultural consultant using the QCONZ FWFP digital tool[5]. The user can generate a report to submit for certification using the tool. The plan presented below is not the full report produced by the QCONZ tool. Sections of the plan have been removed to preserve the privacy of the Farmer. Excerpts of the drystock FWFP example from the QCONZ FWFP tool are shared below alongside excerpts of the Resource Management (Freshwater Farm Plan) Regulations 2023[4] in red boxes. The order of contents reflects the approach taken by the developer for building this plan. Where information has been omitted, this has been noted and guidance from the regulations has been added. Additional commentary has purposefully been kept to a minimum and has been italicised to distinguish it from the regulations and farm plan outputs.

[4] Resource Management (Freshwater Farm Plans) Regulations 2023 (SL 2023/113) – New Zealand Legislation
[5] Freshwater Farm Plan Tool | Developed by QCONZ

2 Administrative information

The regulations:

Administrative information in freshwater farm plan

A freshwater farm plan must contain the following information:

(a) the name, contact details, and New Zealand Business Number (if any) of the farm operator:

(b) the names and contact details of any other persons who are the owners, leaseholders, or licence-holders of land on the farm:

(c) the name of the individual who has prepared the plan:

(d) the physical address of the farm:

(e) legal land titles and parcels of the farm:

(f) the total farm area in hectares:

(g) the leased or licensed area (if any) in hectares:

(h) any current resource consents held in respect of the farm that are relevant to the preparation of the freshwater farm plan:

(i) land use.

The administrative information for this example is not shown for privacy considerations.

3 Catchment context

The regulations:

Farm operator must have regard to catchment context, challenges, and values

If information relating to the catchment context, challenges, and values is available from the relevant regional council, a farm operator must have regard to the following when identifying the risks and actions under regulation 8:

(a) the catchment context, challenges, and values for the local area in which the farm is situated; and

(b) the impacts that farming has on the receiving environment.

Contaminants

Nitrogen, Phosphorus, Sediment, Pathogens (Ecoli)

Freshwater Values, Priorities, or Outcomes

The Waipa Catchment Plan takes a proactive, prioritised and integrated 'whole of catchment' approach to managing the Waipa River catchment's land and water, and includes actions to:
-improve water quality
- conserve soil
- restore and protect important biodiversity habitats meet iwi aspirations for the Waipa River.

Cultural and Community Significance

Relevant Tangata Whenua

Maniapoto

Cultural Significance and Te Ao Maori values

The [redacted] stream runs through the back of the property. The [redacted] joins the Mangawhero. Which was a known tuna fishery according to "Maniapoto Priorities for Restoration of the Waipa River Catchment" (2014)

Significance Sites and Species of interest

Significant sites and species are mapped in detail below. Additionally the following have been considered:

• Does the property have any threatened species and/or species significant to tangata whenua or the community?	No
• Does the property have any recreational site(s) and/or site(s) significant to tangata whenua or the community?	No

4 Mapping

The regulations:

Maps to be provided in freshwater farm plan

Features related to inherent vulnerabilities

1. To support the risk assessment under regulation 8(1)(a) and (b)(i) and the identification of actions under regulation 8(2), a freshwater farm plan must contain maps that show—
   (a) farm boundaries, noting on the map any land that is leased or licensed:
   (b) areas of land use, if the farm is split into distinctly different land uses:
   (c) location of land units:
   (d) surface freshwater bodies:
   (e) artificial freshwater bodies:
   (f) soils:
   (g) landforms, including slope:
   (h) potential areas of intensive winter grazing and critical source areas within areas of intensive winter grazing:
   (i) critical source areas that are not within areas of intensive winter grazing:
   (j) drainage systems and areas:
   (k) irrigation and frost protection.

Features related to farming

2. To support the risk assessment under regulation 8(1)(b)(ii) and the identification of actions under regulation 8(2), a freshwater farm plan must contain maps that show—
   (a) fencing to exclude stock from freshwater bodies:
   (b) planted riparian areas:
   (c) soil erosion control plantings or works:
   (d) effluent systems and application areas:
   (e) water-take bores and surface water abstraction points or intakes, including fish screens:
   (f) freshwater crossings, including formed crossings, such as bridges, culverts, and fords, and unformed crossings:
   (g) stock-holding areas, including feedpads, winter pads, stand-off pads, and loafing pads:
   (h) other stock-related infrastructure, including milking sheds, wintering barns and shelters, and stock yards:

(i) farm accessways (for example, formed roads, tracks, races, and under- passes):

(j) point source discharges, including—

i. rubbish dumps, offal pits, and silage pits;

ii. feed storage bunkers or sheds; and

iii. agrichemical, fertiliser, and fuel storage sites; and

iv. agrichemical washdown areas:

(k) private drinking water supply points.

Features

Infrastructure

Infrastructure features and items have been evaluated, mapped, assessed for risk, and in some cases, actions have been raised directly against the items.

- 17 features evaluated and mapped
- 3 associated with risks
- 5 associated actions

Mapped Itms				
Map Id	**Name**	**Description**	**Type**	**Action(s)**
1	Agchem storage	Agchem storage	Ag chemical storage	
2	Main House	Farm operators dwelling.	House	
3	Stock yards 1	Stock yards on road side north of main house.	Stock yards (include wool sheds etc)	#3789
4	Farm Dump	Farm Dump	Rubbish dumps	
5	Water Take	Water wheel - Stock water	Water Take	
6	Cattle yards 2	Cattle yards. Walkers block	Stock yards (include wool sheds etc)	#3792
7	Wool shed	Wool shed	Stock yards (include wool sheds etc)	
8	Quarry 2	Managed by independent operator. Bunding and sediment traps are in place.	Other	#3783
9	Quarry 1	Managed by independent operator. Bunding and sediment traps are in place.	Other	#3784
10	Offal Hole	Offal hole - Situated well away from waterway and above water table.	Offal pits	
11	Cattle Yards 1	Cattle Yards. A5.	Stock yards (include wool sheds etc)	#3791
12	Sheep Yards	Sheep Yards	Stock yards (include wool sheds etc)	
13	Wate take	Spring	Water Take	
14	Water take	Stock and House water	Water Take	
16	Offal Hole	Offal Hole	Offal pits	
17	Offal Hole	Offal Hole	Offal pits	

MAP 05
Infrastructure features

NOTE: Map scale is set at 200m and map orientation is due North

This is an example of how the infrastructure mapped points are shown on the property map, this is the case for all mapped points related to Land and Erosion (44 mapped features) and Waterways (69 mapped features).

New physical works

4. A freshwater farm plan must contain maps that show new physical works (if any) to be undertaken on the farm as set out in the action plan. Examples of physical works are set out in subclause (2).

New physical works that are planned are also mapped in the same way as the infrastructure points above.

Additional externally generated maps are provided in the plan appendix such as soils and slope.

Date	Name	Detail
25-06-2024	Soils Map	

Date	Name	Detail
25-06-2024	Slope Map	

Date	Name	Detail
26-06-2024	Land use map	

Land use key

Hay Country	This area is used for finishing lambs and cattle and conserving surplus pasture and occur on the paddocks on the Rolling and River Flats land units.
Predominantly Cattle	Predominantly cattle. Winter crops rotate through this area on the cultivaatalbe contour. Winter cropping is used to contour paddocks and at 5 hectares per year this is a small area. This land use occurs mainly on the paddocks covered by the Easy Hill and Valley land units.
Predominantly Sheep	Predominantly sheep with breeding cows spread out across this area over the winter. On the steep land unit
Pines	Areas in pinas on the steep land unit
Native	Retired areas on the steep land unit

5 Land units

The regulations:

Freshwater farm plan must identify risks and actions

1. In order to identify the risks of adverse effects of farming activities on freshwater or freshwater ecosystems, a farm operator must—
   (a) identify, map, and describe each land unit of the farm; and
   (b) identify and assess for each land unit—
      i. its inherent vulnerabilities; and
      ii. the risks from farming activities being carried out.
2. The operator must—
   (a) identify existing and new actions to avoid, remedy, or mitigate the risks identified under subclause (1) of adverse effects of farming activities on freshwater or freshwater ecosystems; and
   (b) set a time frame within which each action must be implemented.
3. When identifying actions and setting time frames, the farm operator must consider—
   (a) the significance of the risk to freshwater or freshwater ecosystems; and
   (b) whether a time frame for a particular action is required under a specified instrument.

Land Units

Land Units Overview

There are a total of 5 land units on this farm with a total area of 815.7 ha.

The land units have been divided as below.

LAND UNIT DETAIL				
Map Number	Land Unit	Colour	Size (Ha)	Farming Activities
1	River Flats		4.4	1/4 Finn Romney - Sheep farming,Finishing - Beef cattle farming
2	Rolling		122.1	1/4 Finn Romney - Sheep farming,Breeding - Beef cattle farming,Finishing - Beef cattle farming
3	Valley		29.6	1/4 Finn Romney - Sheep farming,Breeding - Beef cattle farming,Finishing - Beef cattle farming
4	Steep		302.3	1/4 Finn Romney - Sheep farming,Breeding - Beef cattle farming
5	Easy Hill		357.3	1/4 Finn Romney - Sheep farming,Breeding - Beef cattle farming,Finishing - Beef cattle farming

Soils

Soils on each of the land units have been recorded as below.

ID	Land Unit	Colour	Size (Ha)	Topography	Soil (Predominant)	Soil (other)
1	River Flats		4.4	Flat	Clay Loam (90%)	Clay (10%)
2	Rolling		122.1	Rolling	Clay (100%)	
3	Valley		29.6	Rolling	Clay Loam (60%)	Clay (40%)
4	Steep		302.3	Steep Hill	Clay (50%)	Clay Loam (50%)
5	Easy Hill		357.3	Easy Hill	Clay (60%)	Clay Loam (40%)

MAP 04
Land units / Soils

NOTE: Map scale is set at 200m and map orientation is due North

Land Unit Details and Inherent Vulnerabilities

1 River Flats

River Flats. 90% Imperfectly drained Airfield_8a.1 silt over clay soils with a medium P Anion storage capacity of 36%. 10% Well drained Mairoa 4a.1 clay soils with a high Anion storage capacity of 83%. The the [redacted] and [redacted] Streams run through this LU. Flooding can occur, usually as a thunderstorm event. There is 25 m of fall in the next kilometre after the flats and water levels go down quickly, generally within two hours.

Size and Topography

Overall size (ha)	4.4	**Leased Area (If any)**	
Effective Area (If different)		**Topography**	Flat

Soils	**Type**	**%**	**Drainability**
Predominant	Clay Loam	90	Poorly Drained
Other	Clay	10	Well Drained

Inherent Vulnerabilities

The following inherent vulnerabilities have been identified on this land unit

- Flood
- Streambank erosion
- Nutrient loss through drainage
- Surface erosion
- Soil compaction and pugging

Farming Activities

The following farming activities and enterprises are performed on this land unit

- 1/4 Finn Romney - Sheep farming
- Finishing - Beef cattle farming

2 Rolling

Rolling to strongly rolling contour. 100%. Well drained Mairoa 4a.1 clay soils with a high Anion storage capacity of 83%. Similar to Land use capability unit nz4e-2. There a no major waterways in this land unit. Intermittent waterways can occur from rainfall events, but few permanent waterways.

Size and Topography			
Overall size (ha)	122.1	**Leased Area (If any)**	
Effective Area (If different)		**Topography**	Rolling

Soils	Type	%	Drainability
Predominant	Clay	100	Well Drained
Other			

Inherent Vulnerabilities

The following inherent vulnerabilities have been identified on this land unit

- Nutrient loss through run-off
- Nutrient loss through drainage
- Pathogen loss through run-off
- Surface erosion

Farming Activities

The following farming activities and enterprises are performed on this land unit

- 1/4 Finn Romney - Sheep farming
- Breeding - Beef cattle farming
- Finishing - Beef cattle farming

3 Valley

Valley. Flat to rolling contour. The main waterways run through this LU. including the [redacted] Stream. River Flats. 60% Imperfectly drained Airfield_8a.1 silt over clay soils with a medium P Anion storage capacity of 36%. 40% Well drained Mairoa 4a.1 clay soils with a high Anion storage capacity of 83%. Flooding is generally not an issue due to depth of river banks. water level goes down quickly within 2 hours of thunderstorm events.

Size and Topography

Overall size (ha)	29.6	**Leased Area (If any)**	
Effective Area (If different)		**Topography**	Rolling

Soils	Type	%	Drainability
Predominant	Clay Loam	60	Poorly Drained
Other	Clay	40	Well Drained

Inherent Vulnerabilities

The following inherent vulnerabilities have been identified on this land unit

- Streambank erosion
- Nutrient loss through run-off
- Pathogen loss through run-off
- Nutrient loss through drainage
- Surface erosion
- Soil compaction and pugging

Farming Activities

The following farming activities and enterprises are performed on this land unit

- 1/4 Finn Romney - Sheep farming
- Breeding - Beef cattle farming
- Finishing - Beef cattle farming

4 Steep

Steep

Predominantly Steep hill contour similar to Land use capability unit nz6e-46. Moderately steep to steep slopes. Soils are approximately 50% well drained Mairoa 4a.1 clay soils with a high Anion storage capacity of 83% and 50% moderately well drained Mokau_17a.1 loam soils with a medium P Anion storage capacity of 36%.

Size and Topography

Overall size (ha)	302.3	**Leased Area (If any)**	
Effective Area (If different)		**Topography**	Steep Hill

Soils	Type	%	Drainability
Predominant	Clay	50	Well Drained
Other	Clay Loam	50	Well Drained

Inherent Vulnerabilities

The following inherent vulnerabilities have been identified on this land unit

- Mass movement erosion
- Streambank erosion
- Nutrient loss through run-off
- Pathogen loss through run-off
- Nutrient loss through drainage
- Surface erosion

Farming Activities

The following farming activities and enterprises are performed on this land unit

- 1/4 Finn Romney - Sheep farming
- Breeding - Beef cattle farming

5 Easy Hill

Predominantly Easy hill contour with with slopes generally between 16 and 25 degrees. Similar to Land use capability unit nz6e-3. Strongly rolling to moderately steep stable slopes. This LU covers the slopes between the steep slopes and the rolling contour. There are numerous small areas of flat to rolling contour and some with steep slope as well. There are also are numerous small streams in this landscape leading from hillside springs to the main streams. Soils are approximately 60% well drained Mairoa 4a.1 clay soils with a high Anion storage capacity of 83%. and 30% Imperfectly drained Airfield_8a.1 silt over clay soils with a medium P Anion storage capacity of 36%.

Size and Topography

Overall size (ha)	357.3	**Leased Area (If any)**	
Effective Area (If different)		**Topography**	Easy Hill

Soils	Type	%	Drainability
Predominant	Clay	60	Well Drained
Other	Clay Loam	40	Poorly Drained

Inherent Vulnerabilities

The following inherent vulnerabilities have been identified on this land unit

- Mass movement erosion
- Streambank erosion
- Nutrient loss through run-off
- Pathogen loss through run-off
- Nutrient loss through drainage
- Surface erosion

Farming Activities

The following farming activities and enterprises are performed on this land unit

- 1/4 Finn Romney - Sheep farming
- Breeding - Beef cattle farming
- Finishing - Beef cattle farming

6 Risk assessment

The regulations:

Freshwater farm plan must identify risks and actions

1. In order to identify the risks of adverse effects of farming activities on freshwater or freshwater ecosystems, a farm operator must—
   (a) identify, map, and describe each land unit of the farm; and
   (b) identify and assess for each land unit—
      i. its inherent vulnerabilities; and
      ii. the risks from farming activities being carried out.
2. The operator must—
   (a) identify existing and new actions to avoid, remedy, or mitigate the risks identified under subclause (1) of adverse effects of farming activities on freshwater or freshwater ecosystems; and
   (b) set a time frame within which each action must be implemented.
3. When identifying actions and setting time frames, the farm operator must consider—
   (a) the significance of the risk to freshwater or freshwater ecosystems; and
   (b) whether a time frame for a particular action is required under a specified instrument.

The group headings in the table below are specific to the QCONZ platform (i.e. Animal, water, nutrient etc.). This example is only one way to show information and is by no means the only way. This platform also supports the population of risks based on prior inputs which can be added to by the user.

Risks, Land Units, and Significance Ratings

A total of 11 Risks have been recorded on the property.

Animal

The risk assessment is based on the land use on the various land units and there is a broad correlation between land use and land units. [redacted] The Farm has been broken into 5 land use areas.

Risk	Description	Contaminants	Detail		
Intensive winter grazing of animals on crops	Where animals are intensively winter grazed on a crop there is risk of nitrogen, phosphorus, sediment and e-coli runoff. The risk of this runoff is higher when there is exposed soil or pugging during or following the cultivation or grazing of these crops	Nitrogen; Phosphorus; Pathogens (Ecoli)	**Land Units**	**Significance Rating**	**Number of Actions**
			Easy Hill	High	2
Pathogen (Faecal) leaching	Faecal matter and its associated pathogens (e.g. bacteria) present a risk to human and animal health through waterborne infections and diseases. The extent of this risk is often assessed by measuring water concentrations of the indicator organism, E.coli. Sources include stock defecation into water, and faecal material being washed from pasture to streams via runoff.	Nitrogen; Phosphorus; Pathogens (Ecoli)	**Land Units**	**Significance Rating**	**Number of Actions**
			River Flats	Low	1
			Rolling	Low	1
			Valley	Med	1
			Steep	Med	1
			Easy Hill	High	1
Winter grazing of stock on pasture near waterways	Where animals are winter grazed on pasture there is risk of nitrogen, phosphorus, sediment and e-coli runoff. The risk of this runoff is higher when there is pugging and exposed soil during or following the grazing.	Nitrogen; Phosphorus; Pathogens (Ecoli)	**Land Units**	**Significance Rating**	**Number of Actions**
			River Flats	High	1
			Rolling	Low	1
			Valley	High	1
			Easy Hill	High	1

Water

Risk	Description	Contaminants	Detail		
Critical Source Areas are present on farm	Critical Source Areas (CSAs) are overland flow paths that can accumulate and convey water (and contaminants) to waterways, especially when the CSA has connectivity with a waterway. CSAs are common on farms, and it's important to identify and manage them, particularly those located on hilly, rolling and undulating land. CSA can create risks for the contamination of waterways with nitrogen, phosphorus, sediment and/or e-coli	Nitrogen; Phosphorus; Pathogens (Ecoli); Sediment	**Land Units**	**Significance Rating**	**Number of Actions**
			River Flats	Low	2
			Rolling	Low	2
			Valley	High	3
			Steep	High	2
			Easy Hill	High	2

Intermittent or Ephemeral streams run through farm	During rainfall events areas of the farm can become intermittent or ephemeral water courses that water flows through. This can cause runoff of nitrogen, phosphorus, e-coli and sediment	Nitrogen; Phosphorus; Sediment; Pathogens (Ecoli)	**Land Units**	**Significance Rating**	**Number of Actions**
			River Flats	High	1
			Rolling	Med	1
			Valley	High	1
			Steep	High	1
			Easy Hill	High	1
Waterways, ponds, drains, crossings etc present on farm or near boundary	A potential risk of runoff exists to waterways, ponds, drains and/or cross waterways which increase risk of sediment, nitrogen, phosphorus and e-coli contamination depending on farm activity.	Nitrogen; Phosphorus; Pathogens (Ecoli)	**Land Units**	**Significance Rating**	**Number of Actions**
			River Flats	High	2
			Valley	High	6
			Steep	Med	1
			Easy Hill	High	2
Sediment runoff to waterways	Some practices and land types can lead to soil degradation, compaction, pugging, over -grazing etc. That exposes the soil and makes it susceptible to sediment runoff. Sediment runoff risk is higher as the slope on the land increases	Sediment	**Land Units**	**Significance Rating**	**Number of Actions**
			River Flats	Low	2
			Rolling	Low	2
			Valley	Med	2
			Steep	High	3
			Easy Hill	High	2

Nutrient

Risk	Description	Contaminants	Detail		
Nitrogen leaching	Nitrogen leaching is a risk to groundwater and surface water when using high N fertiliser applications and/or imported feed. if you are farming animals this risk increases due to urine patches. if you have free draining soils this risk increases.	Nitrogen	**Land Units**	**Significance Rating**	**Number of Actions**
			River Flats	Low	1
			Rolling	Low	1
			Valley	Low	1
			Steep	Low	1
			Easy Hill	Low	1
phosphorus runoff	Phosphorus (P) can lead to algal blooms and eutrophication (excess nutrients) when P is limiting. These can cause problems for the health of waterways, humans and animals that drink the water or use it for recreation. P binds to soil particles, therefore P mainly enters waterways via erosion and farm runoff or direct application (from animals or fertiliser). The risk of P-loss increases when soils are bare, P concentrations are high, and runoff is significant.	Phosphorus	**Land Units**	**Significance Rating**	**Number of Actions**
			River Flats	Low	2
			Rolling	Low	2
			Valley	Med	2
			Steep	Med	2
			Easy Hill	Med	2

Infrastructure

Risk	Description	Contaminants	Detail		
			Land Units	**Significance Rating**	**Number of Actions**
Point Source runoff	Areas where animals congregate (Stock camps/races/troughs/Animal holding facilities etc) have the potential to be a source of nitrogen, phosphorus, e-coli and/or sediment contamination to waterways if facility is located near a waterway, used regularly and manure not contained and/or manged well.	Nitrogen; Phosphorus; Pathogens (Ecoli)	River Flats	Low	1
			Rolling	Low	1
			Valley	Med	2
			Steep	Med	1
			Easy Hill	Low	1

Catchment

Risk	Description	Contaminants	Detail		
			Land Units	**Significance Rating**	**Number of Actions**
Crop Establishment	Establishing a crop can create a risk of sediment loss and and create flow paths for E.coli and Nutrient loss with runoff particularly on slopes and with cultivation.	Nitrogen; Phosphorus; Sediment; Pathogens (Ecoli)	Easy Hill	High	1

7 Actions

The regulations:

Freshwater farm plan must identify risks and actions

1. In order to identify the risks of adverse effects of farming activities on freshwater or freshwater ecosystems, a farm operator must—
   (a) identify, map, and describe each land unit of the farm; and
   (b) identify and assess for each land unit—
      i. its inherent vulnerabilities; and
      ii. the risks from farming activities being carried out.
2. The operator must—
   (a) identify existing and new actions to avoid, remedy, or mitigate the risks identified under subclause (1) of adverse effects of farming activities on freshwater or freshwater ecosystems; and
   (b) set a time frame within which each action must be implemented.
3. When identifying actions and setting time frames, the farm operator must consider—
   (a) the significance of the risk to freshwater or freshwater ecosystems; and
   (b) whether a time frame for a particular action is required under a specified instrument.

Action plan

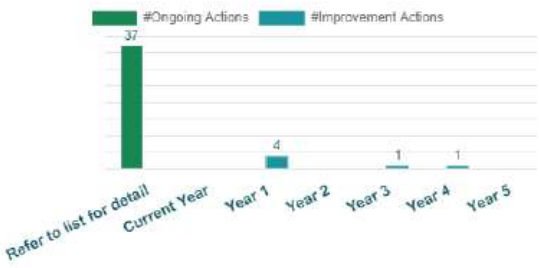
1. A farm operator must set out an action plan in the freshwater farm plan.
2. The action plan must, for each action identified under regulation 8,—
   (a) state whether it is an existing action that is already being carried out on the farm or a new action that the operator intends to take during the next 5 years; and
   (b) describe how each action relates to the identified risk that the action is intended to address; and
   (c) describe the land units in which each action is to occur; and
   (d) categorise each action in accordance with subclause (3); and
   (e) state the time frame within which each action must be implemented.
3. The operator must categorise each action in the action plan as belonging to one of the following categories:
   (a) catchment actions:
   (b) regulated actions:
   (c) supplementary actions.

Improving Water Quality

A brief table below showing a count of actions and the 5-year forecast for implementation.

Action Summary	
Total Actions	43
Supplementary	
Catchment	27
Regulatory	16
Type of Actions	43
Improvement	6
Ongoing Management	37
Completed Actions	

5 year Action Plan



The following examples of actions are taken from the plan and detailed below:

Winter crop grazing management		Due	Ongoing / Management
		ID	# 3771
Crops are cell grazed down the slope with a portable trough. Breaks are back fenced. An ungrazed crop buffer is left in place at the base of the slope and grazed 3 weeks later or when conditions are suitable. Break sizes are adjusted suit the crop yield in every break and ensure adequate feeding but this also ensures areas are not over grazed resulting in soil damage.			
Action Category	**New or Existing**	**Regulatory Requirement**	**Land Unit(s)**
Regulatory	Existing	NES for Freshwater IWG regulations	Easy Hill
Associated Risk(s)			
Intensive winter grazing of animals on crops			
Mapping Detail			
Action Map Pin ID	**Mapped Item Name**	**Mapped Item Type**	**Mapped Item Page**
1	Farm Centre	Whole Property	Land and Erosion

Nitrogen Fertiliser		Due	Ongoing / Management
		ID	# 3774
Nitrogen fertiliser use is low. Nitrogen fertiliser is applied upto 2 times per year based on projected feed supply in the spring or autumn, at 25 to 35 kg/ha per application and the new grass and crops at recommended rates.			
Action Category	**New or Existing**	**Regulatory Requirement**	**Land Unit(s)**
Regulatory	Existing	NES FW - Part 4 Synthetic nitrogen fertiliser	River Flats, Rolling, Valley , Steep, Easy Hill
Associated Risk(s)			
Nitrogen leaching			
Mapping Detail			
Action Map Pin ID	**Mapped Item Name**	**Mapped Item Type**	**Mapped Item Page**
1	Farm Centre	Whole Property	Outline

Aerial Spreading	Due	Ongoing / Management
	ID	# 3775

Waterways and exclusion zones are mapped and fertiliser is applied by GPS to avoid these areas.

Action Category	New or Existing	Regulatory Requirement	Land Unit(s)
Regulatory	Existing	WRP 3.9.4.11	River Flats, Rolling, Valley , Steep, Easy Hill

Associated Risk(s)

Phosphorus leaching

Mapping Detail

Action Map Pin ID	Mapped Item Name	Mapped Item Type	Mapped Item Page
1	Farm Centre	Whole Property	Outline

Images

Culverted Crossings	Due	Ongoing / Management
	ID	# 3907

Culverts are constructed in a way to reduce the risk of sediment runoff. They are crowned and cutouts are used at the culvert approaches to direct flow away from the waterways.

Action Category	New or Existing	Regulatory Requirement	Land Unit(s)
Catchment	New	N/A	River Flats, Valley , Steep, Easy Hill

Associated Risk(s)

Waterways, ponds, drains, crossings etc present on farm or near boundary

Mapping Detail

Action Map Pin ID	Mapped Item Name	Mapped Item Type	Mapped Item Page
1	Farm Centre	Whole Property	Waterways & Crossings

Farm Infrastructure Maintenance	Due	Ongoing / Management
	ID	# 3910

Tracks, fences, culverts, troughs, bridges and other farm infrastructure is maintained as required and as soon as possible to minimise the impact of contaminants on waterways.

Action Category	New or Existing	Regulatory Requirement	Land Unit(s)
Catchment	Existing	N/A	River Flats, Rolling, Valley , Steep, Easy Hill

Associated Risk(s)

Point Source runoff

Mapping Detail

Action Map Pin ID	Mapped Item Name	Mapped Item Type	Mapped Item Page
1	Farm Centre	Whole Property	Infrastructure

Campsite	Due	Ongoing / Management
	ID	# 3788

The riverbank has been fenced to exclude cattle with a 3m or wider buffer to reduce the risk of contaminants entering the stream from the river bank and the slopes above it. The area will also be planted with native vegetation in the winter of 2024. Approximately 1.6 ha to plant.

Action Category	New or Existing	Regulatory Requirement	Land Unit(s)
Catchment	New	N/A	

Associated Risk(s)

Waterways, ponds, drains, crossings etc present on farm or near boundary

Mapping Detail

Action Map Pin ID	Mapped Item Name	Mapped Item Type	Mapped Item Page
23	CSA - Riparian Planting 5	Erosion areas	Land and Erosion

Walls 23	Due	01/07/2025
	ID	# 3753

The riverbank will be fenced to exclude cattle with a 3m or wider buffer to reduce the risk of contaminants entering the stream from the river bank and the slopes above it. The area will also be planted with native vegetation in the winter of 2024. This consists of 300m of fencing.

Action Category	New or Existing	Regulatory Requirement	Land Unit(s)
Regulatory	New	Resource Management (Stock Exclusion) Regulations 2020 & Resource Management (Stock Exclusion) Amendment Regulations 2023	

Associated Risk(s)

Waterways, ponds, drains, crossings etc present on farm or near boundary

Mapping Detail

Action Map Pin ID	Mapped Item Name	Mapped Item Type	Mapped Item Page
12	CSA - River bank 1	Erosion areas	Land and Erosion

Fence [redacted] Stream between Raupo 4 and M14	Due	01/07/2027
	ID	# 3766

The [redacted] stream between Raupo 4 and M14 will be fenced to exclude stock with an average 3 metre or more buffer from the edge of the stream to create a vegetated zone or grass strip around the stream to act as a filter and slowing overland flow to the stream. Cattle will be excluded from 1/7/2025. If required by legislation, temporary fencing will be used for this until permanent fencing is in place by 1/7/2027. There will be approximately 2.2 km of fencing encompassing 3.1 ha of riverbank and slope.

Action Category	New or Existing	Regulatory Requirement	Land Unit(s)
Regulatory	New	Resource Management (Stock Exclusion) Regulations 2020 & Resource Management (Stock Exclusion) Amendment Regulations 2023	Valley

Associated Risk(s)

Waterways, ponds, drains, crossings etc present on farm or near boundary

Mapping Detail

Action Map Pin ID	Mapped Item Name	Mapped Item Type	Mapped Item Page
16	CSA - River bank 7	Erosion areas	Land and Erosion

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