



QCONZ
FreshWater
Farm Plan

FWFP

Fresh water farm plan report

Test Farm - SINGLE ENTERPRISE
(Crops)

February 2024

CONTENTS	Map # (Note some maps may be excluded if not relevant)
Associations	
Regional Council Rural Professional Umbrella and Related Organisation	
Certification and Audit	
Certification Status	
Audit Status	
Executive Summary	
Brief overview	
Improving Water Quality	
Risk Assessment	
Risks, Land Units, Significance & Count of Actions	
The Property	
Farm Detail	01
Contacts & Administrative detail	
Farm Story and Farming activities	
Community and Catchment	
CCCV, Community and Cultural Significance	
Lawa Water Test Site(s) and Results	02
Sites and Species	03
Land Units	
Overview	04
Details and Inherent Vulnerabilities	
Soils	05
Features	
Overview	06
Infrastructure	07
Waterways	08
Land & Erosion	09
Nutrient	13
5 year Action Plan	
Brief Summary and Action Map	14
Action list and complete detail	
Physical Works	
Planned Physical Works	15
APPENDIX	
Previously completed Actions	
Waterway Fencing	
Riparian Planting Summary	
Forestry and Bush Areas	
Stock	

Associations

Regional Council

Waikato Regional Council

Our responsibilities are far reaching and diverse. We plan for and manage the use of natural resources (water, soil, air, geothermal areas and coasts), regional transport and passenger transport services, biodiversity and biosecurity.



Umbrella and Related Organisation

Potatoes New Zealand

New Zealand uses more land for growing potatoes than any other crop, with over 10,000 hectares grown by 175 commercial potato growers each year.



Certification and Audit

Certification

Certification Status	FWFP is in draft - not yet submitted
Certifier Name & ID	
Date of Certification	
Next Certification Due	

Audit

Last Audit	Not yet audited
Audit Grade	
Auditor Name & ID	
Next Audit Due	

Executive Summary

Brief Overview

This plan has been prepared by Jim Smith

Test Farm - SINGLE ENTERPRISE (Crops) is a property located in this is street address, this is address2, this is town . The property has a total size of 7.4 (ha), and is operated by Justin Moss.

The property was assessed and divided into 6 land units, of which the following inherent vulnerabilities were identified:

- Mass movement erosion
- Streambank erosion
- Flood
- Drought
- Soil compaction and pugging
- Surface erosion
- Sheet erosion

Of particular note, the property has 0.9 (ha) where not farmed comprising land which is not actively farmed or retired.

On the remainder of the land units the following farming activities are performed:

- Vegetable growing - Potato Farm
- Sheep farming - Dozen ewes

In preparing this Fresh Water Farm Plan several risks to freshwater have been detailed, that are particular to this property and its landform. A total of 11 of actions and mitigations against each risk have been raised. In addition, a number of actions may have already been completed which are also detailed.

Some actions have a financial cost, and in the action plan, an estimated commitment of \$17700.00 over the next 5 years has been outlined.

The following pages in this report outline several areas that were considered in putting together this Fresh Water Farm Plan, including catchment and regional information, community and cultural considerations, land areas and soils, areas and items of infrastructure and features on the property, and planned future physical works.

This Fresh Water Farm Plan has been developed in accordance with regulations and guidance information provided from the Ministry for the Environment.

I hereby declare that the contents are true and correct.

Jim Smith

Consultant

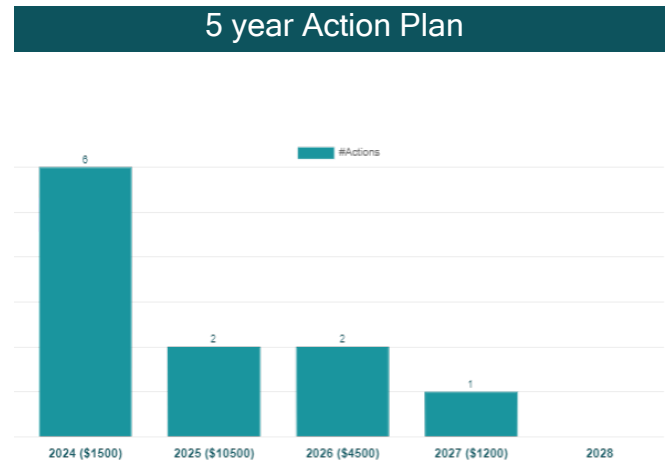
021 123 4578

jim@jimsmith.com

Improving Water Quality

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

Action Summary	
Total Actions	11
Supplementary	6
Catchment	4
Regulatory	1
Type of Actions	
Improvement	9
Ongoing Management	2
Completed Actions	3



Brief action list (see section “5 year Action Plan” further on for full detail.)

Due Date	Action	Category	ID
Ongoing / Management	Review grass strips in and around overland flow	Supplementary	AC0364
Ongoing / Management	Habitat is being enhanced through native plantings	Catchment	AC0439
22/02/2024	Plan the usage of the facility to avoid using during high rainfall periods if no manure controls in place	Catchment	AC0367
28/03/2024	Maintain surrounds of troughs located close to waterways or relocate	Regulatory	AC0388
30/05/2024	Ensure waterways have a planted or grass riparian margin to act as a buffer. If animals are present then they will need fencing	Supplementary	AC0350
31/12/2024	Create buffer zones or grass strips in and around CSAs to act as filters by slowing overland flow	Supplementary	AC0440
28/02/2025	Fertiliser shed rebuild	Supplementary	AC0438
27/06/2025	Have a riparian margin of grass or plants between the waterways and growing areas	Catchment	AC0436
28/05/2026	fix rubbish dump	Supplementary	AC0408
23/07/2026	Consider installing culverts or bridges at stock crossings	Supplementary	AC0441
01/12/2027	Ensure riparian buffer between raceways/facilities/stock camps and waterways	Catchment	AC0442

Risk Assessment, Actions and Mitigations

Risks, Land Units, Significance & Actions

When preparing the Fresh Water Farm Plan the following risks were assessed.

Each risk was evaluated against each Land unit, based on what type of farming is being performed, then evaluated for significance while considering the inherent vulnerabilities.

Farming Activities

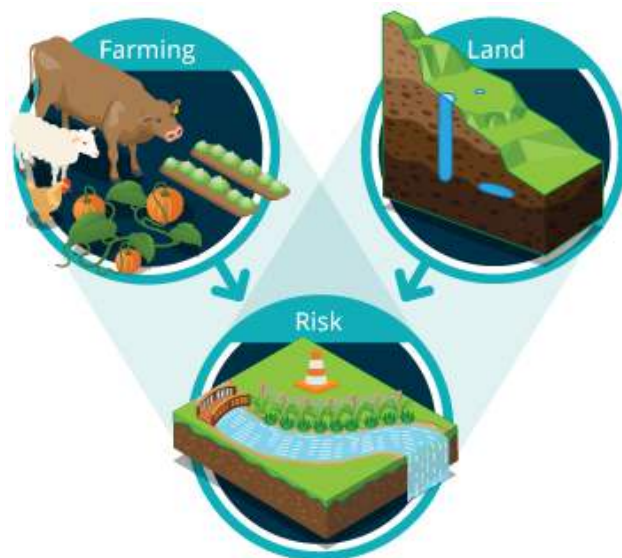
Farming activities on this farm include.

- Vegetable growing - Potato Farm
- Sheep farming - Dozen ewes

Land Units

There are a total of 6 land units on this farm with a total area of 7.4 ha. Each Land unit has been mapped and the soils, inherent vulnerabilities, and distinct characteristics outlined.

- Mass movement erosion
- Streambank erosion
- Flood
- Drought
- Soil compaction and pugging
- Surface erosion
- Sheet erosion



Risks to Fresh Water

See the following page for the list of risks, which Land Units the risks we assigned these risks against, the significance rating for each risk, and a count of current actions as recorded against each risk.

Each risk has been categorised for reporting purposes and correlated against contaminants.

OTHER INFORMATION ABOUT RISKS

- Mapped features and items of infrastructure can also be associated against risks - please see further sections which map and show any features/items associated against which risk.
- All Risks and actions have been associated with Ministry for Environment and INFDP data grouping lists - please see the separate .CSV report including a list of actions, risks, and other details including data grouping.

Risks, Land Units, and Significance Ratings

A total of 9 Risks have been recorded on the property.

Animal					
Risk	Description	Contaminants	Land Units	Significance Rating	Number of Actions
Faecal contamination	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)	Crop Area	Med	
			North paddock	Low	
			Farming Operations Area	Med	1
			Secondary Crop Area	Low	1

Water					
Risk	Description	Contaminants	Land Units	Significance Rating	Number of Actions
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	Crop Area	Low	1
			North paddock	Low	3
			Farming Operations Area	Low	1
			Secondary Crop Area	Med	1
Waterways, ponds, drains, crossings etc present on 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)	Crop Area	Low	1
			North paddock		
			Farming Operations Area		
			Secondary Crop Area		
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	Crop Area	Low	1
			North paddock	Med	
			Farming Operations Area	Low	
			Secondary Crop Area	Med	

Nutrient					
Risk	Description	Contaminants	Land Units	Significance Rating	Number of Actions
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	Crop Area	Low	
			North paddock	Med	
			Farming Operations Area	High	
			Secondary Crop Area	Med	
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	Crop Area	Low	
			North paddock	Med	
			Farming Operations Area		
			Secondary Crop Area	Med	

Infrastructure					
Risk	Description	Contaminants	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)	North paddock	Med	2
			Farming Operations Area	High	1
Aging infrastructure	Some of the buildings and sheds were built in the 1950s and are showing signs of wear and tear, and in some cases water intrusions.	Chemical; Fuel; Nitrogen	North paddock	Med	1
			Farming Operations Area	Med	1

Catchment					
Risk	Description	Contaminants	Land Units	Significance Rating	Number of Actions
Impact on a threatened species species and/or species significant to tangata whenua	There is a species significant to tangata whenua and/or threatened, either on the property, or down stream from the property, that is impacted by the farming activity carried out on the property	Nitrogen; Phosphorus; Sediment; Pathogens (Ecoli)	Crop Area	Low	2
			North paddock	Low	
			Farming Operations Area	Low	
			Retired Bush and Trees		
			Accommodation Area		
			Secondary Crop Area		

The Property

Farm Detail

Name: Test Farm - SINGLE ENTERPRISE (Crops)

Address: this is street address
this is address2
this is town

Legal Titles and Parcels: LG 879-HY6

Total size: 7.4 (ha)

Lease area (if any): 1.4 (ha)

MAP 01



Contacts & Administrative detail

Farm Operator

Name: Justin Moss

Address: 50 Church Road
Pukete
Hamilton

Phone: 027 209 3495

Email: justin@qconz.co.nz

New Zealand Business Number: NZBND12343

Other contacts

Role	Name	Address 1	Address 2	Town / City	Phone	Email
Consultant	Jim Smith	81 Tuojo Road	RD1	Morrinsville	021 123 4578	Consultant

Current Resource Consents

Consent Type	Number	Consent Condition(s) relating to Freshwater Farm plan	Expiry Date
Water take	H0001		30/11/2024

Other Regulatory Requirements

Not being used to meet any other Regulatory Requirements

Farm Story and Farming activities

Farming Activity(s)

The following farming activities are performed on this property.

- Vegetable growing - Potato Farm - Beginning with soil preparation the process involves planting seed potatoes, and maintaining plant health throughout the summer. Integrated pest management minimizes pesticide use. Harvesting employs machinery followed by manual sorting for quality assurance. Potatoes are stored in monitored facilities. Sustainable farming practices ensure soil health through crop rotation and delivers high-quality produce.
- Sheep farming - Dozen ewes - Farming 12 sheep involves daily care, feeding, and maintenance of pasture, ensuring their health and well-being year-round.

Farm Story, background, and other information.

History

Eric purchased the property in 2015, the system is predominantly cropping. Several sheep are grazed on the property and fed on Kale a crop grown on the Northern end of the farm on the Pallic soils.

Potential Goals

- Protection and enhancement of natural wetland areas and water race with native plantings.
- Continue ornamental plantings for animal shade and shelter

Interesting Features

The property is characterised by a poorly drained Gley soil at the Southern end and then halfway through the farm the soil type changes to the Darnley Pallic Silt loam which is moderately well drained.

Some information on work already done

Riparian Areas / Wetlands

Natural wetland area at the southern end of the farm has been fenced and planted. Water race has temporary fencing and riparian planting. There are plans to increase the density of planting as funding allows.

Areas that have been retired (QEII)

Not applicable

Fencing of Waterways

Water race at the Northern end has a large buffer strip with plans on installing permanent fencing.

Stock Policy

Approximately 12 sheep are purchased in May and then sold around Christmas time.

Community and Catchment

CCCV, Community and Cultural Significance

This property is part of catchment The Little Waipa and Pokaiwhenua sub-catchments.

Catchment

Background

The Little Waipa and Pokaiwhenua sub-catchments are in the Upper Waikato Freshwater Management Unit and located in the rolling hills between Putaruru and Tokoroa. The combined catchments are about 43,350 ha of mainly rolling and strongly rolling hills with undulating lower land at their base. Some steep bluffs and ravines lead up to a higher plateau in the upper part of the Pokaiwhenua catchment.



Contaminants

Nitrogen, Phosphorus, Sediment, Pathogens (Ecoli)

Overview

The headwaters of River catchment begin in the east in and pass through several townships and farmland before ending

Agricultural land use and sewage discharge from the five main Wairarapa townships both influence catchment water quality.

The river is a popular spot for recreational fisherman, swimmers, and other water-based activities. The Regional Council monitors the environmental health of the river at 23 locations and recreational water quality at 10 locations within the catchment.

Generally, water quality is poorer in the eastern tributaries with E. coli and sediment the main water quality issues in the catchment.

Average rainfall for the area is around 1100mm/yr with an average temperature of around 12.6 degrees.

The soils on farm are formed by alluvial sand, silt or gravel deposited by running water and have a hard sandstone parent material.

Freshwater Values, Priorities, or Outcomes

The Committee made up of elected and community-appointed members and includes mana whenua representatives from iwi are responsible for making recommendations on how to implement the National Policy Statement for Freshwater

Some of the main objectives for catchment include:

- Improving water quality for recreational purposes including E. coli
- Periphyton and macroinvertebrate health is improved in many streams and rivers, including to ensure that all water bodies meet the national bottom line for periphyton by 2040
 - By 2050, sediment loads reaching waterways are substantially reduced in order to contribute to improving macroinvertebrate and indigenous fish health in streams and rivers and to improving ecosystem function and mahinga kai values in lakes
 - The health of indigenous fish communities is improved in all water bodies, including to ensure that mahinga kai and cultural values are provided for.
 - The natural character of streams, rivers and lakes is restored, including to ensure there are healthy macroinvertebrate native fish and plant communities in these water bodies

External Link(s)

- <https://www.waikatoregion.govt.nz/services/regional-services/river-and-catchment-management/catchment-management-zone-map/your-catchment-waipā-zone/>
- <https://www.pokaiwhenua.org.nz/catchment/>

Contaminants

E. coli, phosphate and sediment

Further Detail

Catchment vision: Healthy water, land and people, growing together.

Cultural and Community Significance

Relevant Tangata Whenua

Local iwi Ngati Kahungunu

Cultural Significance and Te Ao Maori values

This abundance of fresh water which was constantly being replenished through (freshwater springs) was utilised by the tangata whenua who constructed Pa in the immediate area north-west of the confluence of the two streams. Kai awa (river food) would have been in plentiful supply, and the rivers would have provided the necessary escape routes if they were required.

Regional Council

This property is part of the Waikato Regional Council.

Our responsibilities are far reaching and diverse. We plan for and manage the use of natural resources (water, soil, air, geothermal areas and coasts), regional transport and passenger transport services, biodiversity and biosecurity.

Lawa Water Test Site(s) and Results

Latest water quality assessments from nearest recording stations. This information is sourced from LAWA (Land Air Water Aotearoa - see <https://www.lawa.org.nz/>).

Nitrogen		
TON	0.73 mg/L	A Recorded at site EBOP-00023 Rocky Stream at Mangatawa Lane
NH4	0.063 mg/L	B Recorded at site EBOP-00023 Rocky Stream at Mangatawa Lane
TN	1.04 mg/L	Q3 Recorded at site EBOP-00023 Rocky Stream at Mangatawa Lane

Phosphorus		
DRP	0.012 mg/L	C Recorded at site EBOP-00023 Rocky Stream at Mangatawa Lane
TP	0.048 mg/L	Q4 Recorded at site EBOP-00023 Rocky Stream at Mangatawa Lane

Bacteria		
E. coli	175 CFU/100ml	D Recorded at site EBOP-00023 Rocky Stream at Mangatawa Lane

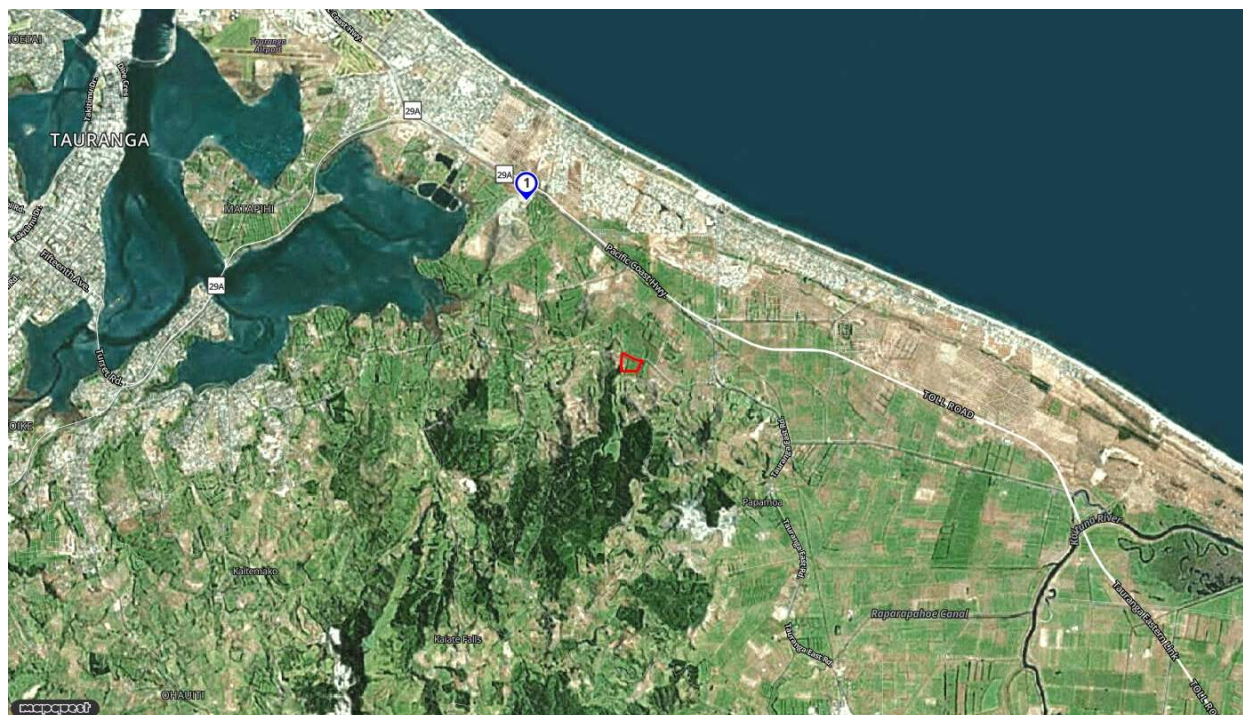
Sediment		
Clarity	1.08 m	A Recorded at site EBOP-00023 Rocky Stream at Mangatawa Lane

Key

- A** Good Quality
- B** Moderate Quality
- C** Needs improvement
- D** Significantly degraded
- E** Need significant improvement - high health risk

Note: E.coli is the only recording that has a 5 band rating system (A-E). All others use 4 bands (A-D or Q1-Q4)

MAP 02



Data thanks to:



The Farm Action Prioritisation Tool (FarmAPT) contains management practices and mitigation actions for dairy. It was developed by DairyNZ with funding from the DairyNZ dairy farmer levy, in collaboration with AgResearch, and co-funded by the Our Land and Water National Science Challenge Rural Professionals Fund 2020-21.

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

MAP 03



1 NATIVE FROG HABITAT

small green frogs living in the bush alongside the stream



Land Units

Land Units Overview

There are a total of 6 land units on this farm with a total area of 7.4 ha.

The land units have been divided as below.

LAND UNIT DETAIL				
Map Number	Land Unit	Size (Ha)	Topography	Farming Activities
1	Crop Area	4.5	Flat	Vegetable growing - Potato Farm
2	North paddock	1	Flat	Sheep farming - Dozen ewes
3	Farming Operations Area	0.8	Easy Hill	Vegetable growing - Potato Farm, Sheep farming - Dozen ewes
4	Retired Bush and Trees	0.5	Easy Hill	
5	Accommodation Area	0.4	Flat	
6	Secondary Crop Area	0.2	Flat	Vegetable growing - Potato Farm

MAP 04



Land Unit Details and Inherent Vulnerabilities

1 CROP AREA		4.5 HA	
block comprised of tussock, pastures, clover and scattered scrublands. Relatively undeveloped and run at a low stocking rate and intensity. This block is farmed in harmony with the environment with most gully's left in scrub providing natural erosion protection.			
Size and Topography			
Overall	4.5	Leased Area (If any)	1.2
Effective Area (If different)	4	Topography	Flat
Soils	Type	%	Drainability
Predominant	Loamy Silt	100	Well Drained
Other			

Inherent Vulnerabilities

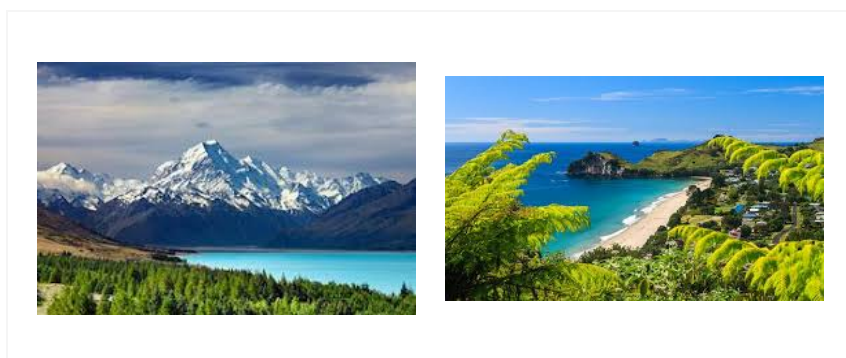
The following inherent vulnerabilities have been identified on this land unit

- Mass movement erosion
- Streambank erosion

Farming Activities

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

- Vegetable growing - Potato Farm



2 NORTH PADDOCK 1 HA

North paddock used for Sheep Grazing

Size and Topography

Overall	1	Leased Area (If any)	0.2
---------	---	----------------------	-----

Effective Area (If different)		Topography	Flat
-------------------------------	--	------------	------

Soils

Soils	Type	%	Drainability
-------	------	---	--------------

Predominant	Silty Loam	100	
-------------	------------	-----	--

Other			
-------	--	--	--

Inherent Vulnerabilities

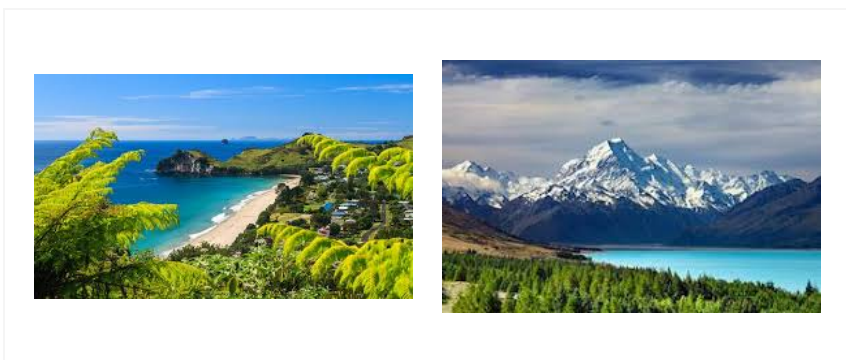
The following inherent vulnerabilities have been identified on this land unit

- Flood
- Drought

Farming Activities

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

- Sheep farming - Dozen ewes



3 FARMING OPERATIONS AREA

0.8 HA

Farming Operations Area

Size and Topography

Overall	0.8	Leased Area (If any)	
Effective Area (If different)		Topography	Easy Hill
Soils	Type	%	Drainability
Predominant	Sandy Loam	80	Well Drained
Other	Volcanic Ash	20	Fully Drained

Inherent Vulnerabilities

The following inherent vulnerabilities have been identified on this land unit

- Soil compaction and pugging

Farming Activities

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

- Vegetable growing - Potato Farm
- Sheep farming - Dozen ewes

4 RETIRED BUSH AND TREES 0.5 HA

Retired Bush and Trees

Size and Topography

Overall	0.5	Leased Area (If any)	
---------	-----	----------------------	--

Effective Area (If different)		Topography	Easy Hill
-------------------------------	--	------------	-----------

Soils Type % Drainability

Predominant	Volcanic Ash	100	Fully Drained
-------------	--------------	-----	---------------

Other			
-------	--	--	--

Inherent Vulnerabilities

The following inherent vulnerabilities have been identified on this land unit

- Soil compaction and pugging
- Surface erosion

Farming Activities

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

5 ACCOMMODATION AREA 0.4 HA

Accommodation Area

Size and Topography

Overall	0.4	Leased Area (If any)	
---------	-----	----------------------	--

Effective Area (If different)		Topography	Flat
-------------------------------	--	------------	------

Soils	Type	%	Drainability
-------	------	---	--------------

Predominant	Peat	80	Well Drained
-------------	------	----	--------------

Other	Sand	20	Well Drained
-------	------	----	--------------

Inherent Vulnerabilities

The following inherent vulnerabilities have been identified on this land unit

- Sheet erosion
- Mass movement erosion

Farming Activities

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

6 SECONDARY CROP AREA 0.2 HA

Secondary Crop Area

Size and Topography

Overall	0.2	Leased Area (If any)	
---------	-----	----------------------	--

Effective Area (If different)		Topography	Flat
-------------------------------	--	------------	------

Soils Type % Drainability

Predominant	Peaty Loam	100	Well Drained
-------------	------------	-----	--------------

Other			
-------	--	--	--

Inherent Vulnerabilities

The following inherent vulnerabilities have been identified on this land unit

- Mass movement erosion
- Surface erosion

Farming Activities

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

- Vegetable growing - Potato Farm

Soils

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

Land Unit	Size (Ha)	Topography	Soil (Predominant)	Soil (other)
Crop Area	4.5	Flat	Loamy Silt (100%)	
North paddock	1	Flat	Silty Loam (100%)	
Farming Operations Area	0.8	Easy Hill	Sandy Loam (80%)	Volcanic Ash (20%)
Retired Bush and Trees	0.5	Easy Hill	Volcanic Ash (100%)	
Accommodation Area	0.4	Flat	Peat (80%)	Sand (20%)
Secondary Crop Area	0.2	Flat	Peaty Loam (100%)	

MAP 05



Features

Overview

Various features have been mapped and detailed in the following pages. These mapped features have been broken into categories including Infrastructure, Waterways, Land & Erosion, and if applicable, the property-specific categories including effluent or irrigation.

Additionally, some mapped items may also have been associated further with :

- 1) Evaluated for Risk to Freshwater
- 2) Have a detailed description environmental significance or attached photograph(s)
- 3) Have actions or mitigations raised directly against the item

Features which meet any of the above criteria are further detailed after the summary table and map for each category.

The map below shows all features on the property (note - for some properties with a large number of items this may be difficult to interpret. See the category breakdown for detail)

MAP 06



Infrastructure

No farm rubbish, very little rubbish generated, recycle as much as possible with the remainder taken to landfill

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

- 10 features evaluated and mapped
- 2 associated with risks
- 3 associated actions

Brief Summary			
Item	Number of items	Freshwater Risk Evaluation	Actions
Fertiliser storage	1		1
Formed Road	1		
Sheds	1		
House	1		
Water Take	2		
Rubbish dumps	1		1
Fuel storage	1		1
Septic tank	1	1 - flagged for risk - see detail	
Ag chemical storage	1	1 - flagged for risk - see detail	

MAP 07



1 FERTILISER SHED		
Shed was constructed in the 1990s and is made from timber and iron, It is structurally sound and easily holds 50 tons of fertiliser.	Category	Infrastructure
	Container	Fertiliser storage
	Associated Risk	N/A
	Actions	#438



2 DRIVEWAY		
Driveway	Category	Infrastructure
	Container	Formed Road
	Associated Risk	N/A
	Actions	

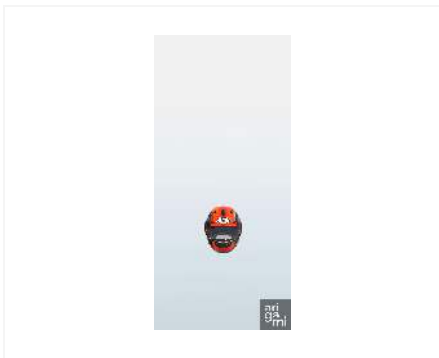
3 VEGE SORTING SHED

Vege Sorting shed	Category	Infrastructure
	Container	Sheds
	Associated Risk	N/A
	Actions	



4 FAMILY HOME

Family Home	Category	Infrastructure
	Container	House
	Associated Risk	N/A
	Actions	



5 WATER INPUT VALVE		
Water Input valve	Category	Infrastructure
	Container	Water Take
	Associated Risk	N/A
	Actions	

6 RUBBISH		
The rubbish dump is legacy and no longer used (stopped using in 2015). Some leechage risk remains from the previous 30 years of use (different owners)	Category	Infrastructure
	Container	Rubbish dumps
	Associated Risk	N/A
	Actions	#408



7 SEPTIC TANK		
Septic Tank	Category	Infrastructure
	Container	Septic tank
	Associated Risk	Faecal contamination
	Actions	

8 SHED		
shed	Category	Infrastructure
	Container	Ag chemical storage
	Associated Risk	Phosphorus runoff
	Actions	

Waterways

A bridge and large culvert is installed over the two major crossing points of the stream. Fencing and riparian planting improvements of water ways is ongoing

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

- 3 features evaluated and mapped
- 1 associated actions

Brief Summary			
Item	Number of items	Freshwater Risk Evaluation	Actions
Creek or stream	1		
River	1		1
Pond	1		

MAP 08



1 EASTERN CREEK			
Eastern creek		Category	Waterway
		Container	Creek or stream
		Associated Risks	N/A
		Actions	
		Fenced	
Width		Fencing %	
Riparian Planted		Riparian Planting %	
Riparian planting margin			



2 WIAHOUHOU RIVER

This small river intersects the property through directly from the Southern boundary and exits at the Northern end. While small, the river is an important water source.	Category	Waterway	
	Container	River	
	Associated Risks	N/A	
	Actions	#439	
	Fenced	Yes	
Width	<1m	Fencing %	100%
Riparian Planted	Yes	Riparian Planting %	100%
Riparian planting margin	4m		



3 DUCK POND

A small pond is situated near the northwestern corner. The pond is murky and contaminated with insect life, but no aquatic creatures.		Category	Waterway
		Container	Pond
		Associated Risks	N/A
		Actions	
		Fenced	
Width		Fencing %	
Riparian Planted		Riparian Planting %	
Riparian planting margin			



Land & Erosion

Very little risk of erosion due to the flat contour of the farm

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

- 3 features evaluated and mapped
- 2 associated with risks
- 2 associated actions

Brief Summary			
Item	Number of items	Freshwater Risk Evaluation	Actions
Areas that hold water	1	1 - flagged for risk - see detail	1
Bush Area	1		
Critical source areas	1	1 - flagged for risk - see detail	1

MAP 09



1 SWAMPY AREA

There is a small swamp near the South western boundary which after rain will retain water for several weeks. It is an unused area of the property.	Category	Land and Soil
	Container	Areas that hold water
	Associated Risk	Sediment runoff to waterways
	Actions	#440



2 NATIVE PLANTINGS

A small area of native plantings exists in the northwestern corner of the property. Consisting of radiata trees, ferns, flax and tussock grasses it well established.	Category	Land and Soil
	Container	Bush Area
	Associated Risk	N/A
	Actions	

3 CRITICAL SOURCE AREA

An area of boggy land which if stock allowed on results in sediment loss.	Category	Land and Soil
	Container	Critical source areas
	Associated Risk	Nitrogen leaching
	Actions	#367

Nutrient

No phosphate fertiliser is being applied to pastoral blocks due to high Olsen P levels on the farm. Soil tests taken in the 2020 season showed elevated Olsen P levels, further soil testing of the farm is required to ascertain whether this is an anomaly or a trend.

OLSEN P

Name	Date	Soil ID	Land Unit	Optimal Olsen P Range	Latest Olsen P Range
Test strip 1	25/05/2023	9	Crop Area	20	23

NUTRIENT DETAILS

Season	Nitrogen Total Loss Kg/Yr	Nitrogen Load Loss Kg/Ha/Yr	Nitrogen Conversion Efficiency %	Phosphorous Total Loss Kg/Yr	Phosphorous Load Loss Kg/Ha/Yr	N Purchased Surplus
2023-2024	45	30	36	17	1.1	88

MAP 13



5 Year Action Plan

Quick Summary

The five-year action plan has been created following the evaluation of risk and feature assessment. As a brief summary:

- 11 actions raised
 - o 9 improvement actions
 - o 2 ongoing / management actions
- \$17700 estimated implementation commitment

Actions			
Category	Regulatory	Catchment	Supplementary
Improvement	3	1	5
Ongoing / Management	1		1



Where actions have been recorded against specific features (i.e. mapped locations), they are indicated below.

MAP 14



Action Plan

Actions are sorted with Ongoing / Management actions listed first, then Improvement Actions listed in date order by oldest to newest.

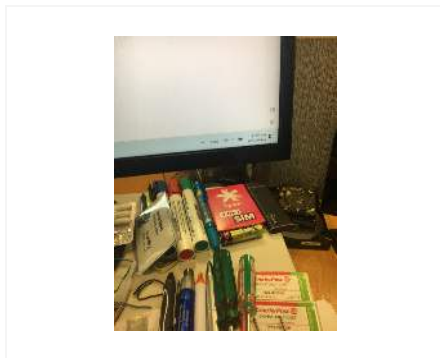
Review grass strips in and around overland flow			Due	Ongoing / Management
			ID	# 364
Review grass strips in and around overland flow				
Action Category	New or Existing	Map Number	Page Category	
Supplementary	New	07	Infrastructure	
Regulatory Requirement	Mapped Item Type	Mapped Item Name	Land Unit(s)	
N/A	Whole Property	Farm Centre (1)	Crop Area, North paddock, Farming Operations Area, Secondary Crop Area	
Risk				
Critical Source Areas are present on farm				

Habitat is being enhanced through native plantings			Due	Ongoing / Management
			ID	# 439
Additional native plantings including overhangs for additional shade to improve the habitat				
Action Category	New or Existing	Map Number	Page Category	
Catchment	New	08	Waterways & Crossings	
Regulatory Requirement	Mapped Item Type	Mapped Item Name	Land Unit(s)	
N/A	River	Wiahouhou River (2)	Crop Area	
Risk				
Impact on a threatened species species and/or species significant to tangata whenua				

Plan the usage of the facility to avoid using during high rainfall periods if no manure controls in place		Due	22/02/2024
		ID	# 367
New plan to implement			
Action Category	New or Existing	Map Number	Page Category
Catchment	New	09	Land and Erosion
Regulatory Requirement	Mapped Item Type	Mapped Item Name	Land Unit(s)
N/A	Critical source areas	Critical source area (6)	North paddock
Risk			
Point Source runoff			

Maintain surrounds of troughs located close to waterways or relocate		Due	28/03/2024
		ID	# 388
Maintain surrounds of troughs located close to waterways or relocate			
Action Category	New or Existing	Map Number	Page Category
Regulatory	New	07	Infrastructure
Regulatory Requirement	Mapped Item Type	Mapped Item Name	Land Unit(s)
plan 238	Whole Property	Farm Centre (1)	Secondary Crop Area
Risk			
Faecal contamination			

Ensure waterways have a planted or grass riparian margin to act as a buffer. If animals are present then they will need fencing		Due	30/05/2024
		ID	# 350
Ensure waterways have a planted or grass riparian margin to act as a buffer. If animals are present then they will need fencing			
Action Category	New or Existing	Map Number	Page Category
Supplementary	New	07	Infrastructure
Regulatory Requirement	Mapped Item Type	Mapped Item Name	Land Unit(s)
N/A	Whole Property	Farm Centre (1)	Crop Area
Risk			
Waterways, ponds, drains, crossings etc present on on farm or near boundary			



Create buffer zones or grass strips in and around CSAs to act as filters by slowing overland flow		Due	31/12/2024
		ID	# 440
New buffer zone under development with extra large grass strip			
Action Category	New or Existing	Map Number	Page Category
Supplementary	New	09	Land and Erosion
Regulatory Requirement	Mapped Item Type	Mapped Item Name	Land Unit(s)
N/A	Areas that hold water	Swampy area (5)	North paddock
Risk			
Critical Source Areas are present on farm			

Fertiliser shed rebuild		Due	28/02/2025
		ID	# 438
this shed is showing its age and need some repairs, and a new section added. These are planned to be completed in early summer 2025 which will involve digging out some new areas and rebuilding other parts.			
Action Category	New or Existing	Map Number	Page Category
Supplementary	New	07	Infrastructure
Regulatory Requirement	Mapped Item Type	Mapped Item Name	Land Unit(s)
N/A	Fertiliser storage	Fertiliser Shed (3)	Farming Operations Area
Risk			
Aging infrastrucuture			

Have a riparian margin of grass or plants between the waterways and growing areas		Due	27/06/2025
		ID	# 436
Increase the margin of grass or plants between the waterways and growing areas			
Action Category	New or Existing	Map Number	Page Category
Catchment	New	08	Waterways & Crossings
Regulatory Requirement	Mapped Item Type	Mapped Item Name	Land Unit(s)
N/A	Whole Property	Farm Centre (1)	Crop Area
Risk			
Sediment runoff to waterways			

fix rubbish dump		Due	28/05/2026
		ID	# 408
Improve rubbish disposal			
Action Category	New or Existing	Map Number	Page Category
Supplementary	New	07	Infrastructure
Regulatory Requirement	Mapped Item Type	Mapped Item Name	Land Unit(s)
N/A	Rubbish dumps	Rubbish (4)	North paddock
Risk			
Aging infrastrucuture			

Consider installing culverts or bridges at stock crossings				Due	23/07/2026
				ID	# 441
Improvements of the crossings underway					
Action Category	New or Existing	Map Number	Page Category		
Supplementary	New	07	Infrastructure		
Regulatory Requirement	Mapped Item Type	Mapped Item Name	Land Unit(s)		
N/A	Whole Property	Farm Centre (1)	Farming Operations Area		
Risk					
Faecal contamination					

Ensure riparian buffer between raceways/facilities/stock camps and waterways				Due	01/12/2027
				ID	# 442
new riparian buffer to be created					
Action Category	New or Existing	Map Number	Page Category		
Catchment	New	07	Infrastructure		
Regulatory Requirement	Mapped Item Type	Mapped Item Name	Land Unit(s)		
N/A	Whole Property	Farm Centre (1)	Farming Operations Area		
Risk					
Point Source runoff					

Physical Works

Future physical works have been mapped as follows:

MAP 15



fix rubbish dump		Due	28/05/2026
		ID	# 408
Improve rubbish disposal			
Land Unit(s)	Page Category	Container	Item
North paddock	Infrastructure	Rubbish dumps	Rubbish

Fertiliser shed rebuild		Due	28/02/2025
		ID	# 438
this shed is showing its age and need some repairs, and a new section added. These are planned to be completed in early summer 2025 which will involve digging out some new areas and rebuilding other parts.			
Land Unit(s)	Page Category	Container	Item
Farming Operations Area	Infrastructure	Fertiliser storage	Fertiliser Shed

APPENDIX

Previously Completed Actions

Actions which have been closed are listed below.

Habitat is being enhanced through native plantings			Due	Closed (was due 02/10/2023)
			ID	# 352
Habitat is being enhanced through native plantings				
Action Category	New or Existing	Map Number	Page Category	
Catchment	New	08	Waterways & Crossings	
Regulatory Requirement	Container	Item	Land Unit(s)	
N/A	N/A	Whole Property	Crop Area	
Risk				
Impact on a threatened species species and/or species significant to tangata whenua				

Close Date	Detail
11/01/2024	Plantings now completed and habitat improved

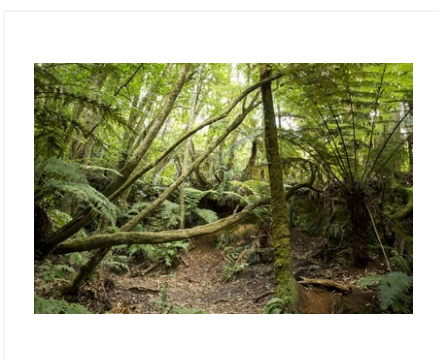
Ensure riparian buffer between raceways/facilities/stock camps and waterways			Due	Closed (was due 28/10/2023)
			ID	# 365
Ensure riparian buffer between raceways/facilities/stock camps and waterways				
Action Category	New or Existing	Map Number	Page Category	
Supplementary	New	07	Infrastructure	
Regulatory Requirement	Container	Item	Land Unit(s)	
N/A	Fuel storage	Fuel storage item	North paddock	
Risk				
Point Source runoff				

Close Date	Detail
20/10/2023	sdfsfs

Temporarily fence off CSA when grazing the paddock during risk periods		Due ID	Closed (was due 30/05/2024) # 404
asdasfsgsdfgdfg			
Action Category	New or Existing	Map Number	Page Category
Regulatory	New	07	Infrastructure
Regulatory Requirement	Container	Item	Land Unit(s)
dfgdfg	Fuel storage	Fuel storage item	North paddock
Risk			
Critical Source Areas are present on farm			



Close Date	Detail
19/01/2024	fixed now



Waterway Fencing

Type	Length or Perimeter	Fenced		Unfenced	
		km	%	km	%
Creek or stream	0.2			0.2	100
River	0.3	0.3	100		
Pond	0.1			0.1	100
Total	0.6	0.3	50	0.3	50

Riparian Planting Summary

Size	Fenced	
	km	%
No Riparian	0.3	
4m	0.3	50
Total	0.6	N/A

Forestry and Bush Areas

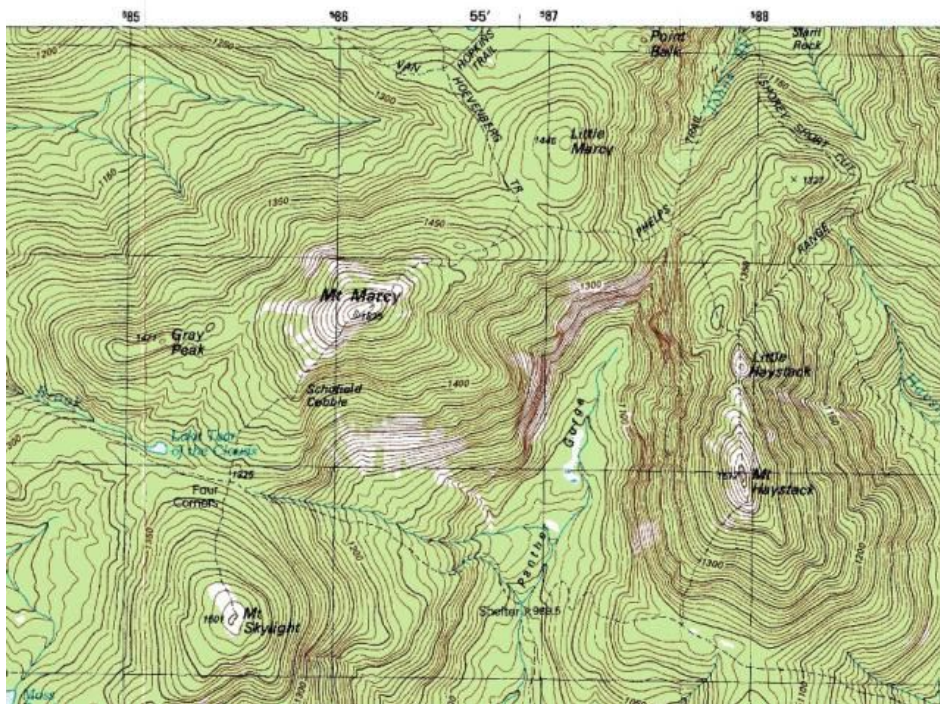
Type	Size	Harvested Last 10 Yrs		in ETS		Not in ETS		Unsure	
		%	ha	%	ha	%	ha	%	ha
Native	0.2					100	0.2		
Total	0.2					100	0.2		

Stock

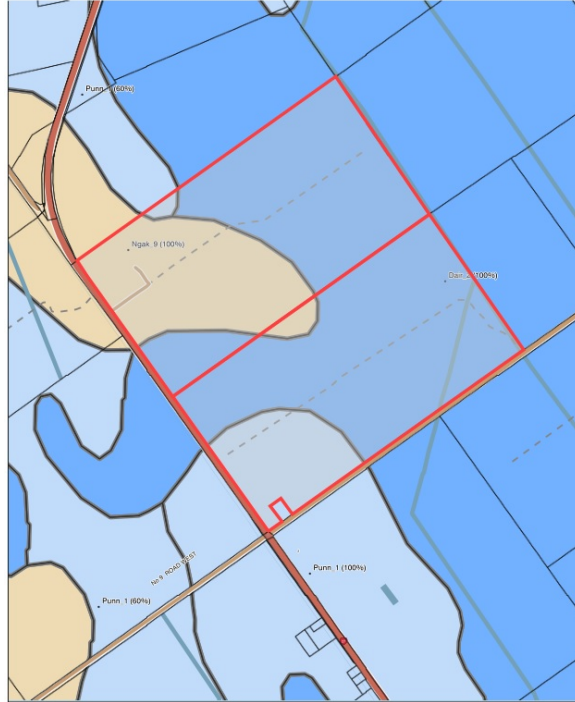
Type	If type other, please specify	Breed	Class	If class other, please specify	Numbers
Sheep			Breeding ewes (mixed age)		12

Additional Maps

Date	Name	Detail
18/12/2023	Topography layer	Landscape DNA export of topography



Date	Name	Detail
18/01/2024	Advanced soil map	SMAP export of soil layers



Legal Information

Disclaimer

The information in this Fresh Water Farm Plan is based on the information and assumptions from farmers and their agents. QCONZ accepts no responsibility for omissions or errors, and farmers are ultimately responsible for the environmental compliance of their farm and on farm practice.