Proposed Waikato Regional Plan Change 1 - Waikato and Waipa River Catchments Hearing - New Zealand Deer Farmers' Association, Waikato & Waipa Branches

5/06/2019 | Presented by Jacqui Wellington, William Oliver, Lindsay Fung, Leith Chick

NZDFA
NZ Deer Farmers Association

Outline

Topic	Speaker
• NZDFA-Waikato & Waipa position on Farm Environmental Plans • Comments on the S42A report recommendations	Lindsay Fung (DINZ)
• Impact of PC1 on a large hill country deer farm	Jacqui Wellington
• Impact of PC1 on a smaller hill country deer farm	Lindsay Fung, William Oliver
• Deer Industry Initiatives	Leith Chick
• Ongoing collaboration with Waikato Regional Council	Leith Chick

Farm Environment Plans

RESOURCE CHART

LMU	Description	Strengths	Weaknesses	Uses and management
Lucerne 70ha	Compacted shingle pan at 500mm with pea gravel below & clay & topsoil above. Hororata very stony silt loam	Excellent for lucerne for growing out weaners and lucerne balage. Interested in planting trees (Eucs for coppicing-firewood) and keen to be part of discussion on carbon credits for riparian areas	Has small stream with spring head in an upper paddock, fenced along 1 side. .	lucerne for feeding weaners on. Make lucerne balage. trials of deep ripping to see if lucerne will go down further. Tested for aluminium (is low) so ok for further lucerne. Possibility planting radish to go thru pan
River terrace 74ha	gravel terrace Taitapu complex	usually summer safe fertile	flood prone from Hawkins River, happening more regularly and with bigger impact, requires a lot of work and money in restoring fairway and clearing of debris on land and fences. Dissected by stream and river No flood protection works or vegetation	Plantain-Ecotain to take up extra nitrate leaching grass include prairie grass in mix
Irrigation 72ha 10ha	very good soils for cropping -spud patch 2 different soil types- 1 more stonier than the other on lower area which needs more water. Mayfield shallow soil non irrigated but treated the same	constructed private dam provides security of water so only irrigated when crops need it.	Dam is haven for ducks free draining which doesn't help leaching N dries out very quickly prone to wind blow of light soils- direct drill	Cycle of barley-winter feed , fodderbeet and swedes(x2 for swedes)- barley, to uptake nutrients and protect soil. limit N applications so they don't readily leach, use agronomists for advice of best practice
hill block 138ha	East facing moderate slopes (can drive all of it) very fertile heavy soils with clay base Pahau mottled argillic pallic soil	summer safe (winter nightmare) reasonably sheltered from wind	water retention high in winter so take all livestock off in winter	hind fawning block, set stocked from September- 1 June, when destock completing. Wean in late Feb when weaners come to home block and put on lucerne
forestry 1.6ha	top corner of property P.radiata, planted mid 1990s, haven't been thinned or pruned. same soils as above	part of fawning block, not fenced off, ist calvers use the block, good shelter	due to be logged in next 10 years tucked away in top gully	will replant

Farm Environment Plans

Summary

Overall Grading

B

Medium Level of Confidence (LOC) of meeting objectives for one or more Management Area BUT on-track of meeting objectives.

Re-audit in 2 years.

Change in manager and/or significant farm system will trigger a re-audit in 1 year.

Management Area - Level of Confidence (LOC)

		Objective	Target Levels of Confidence					
		Overall LOC	T1	T1A	T2	T3	T4	
Irrigation		Medium	N/A	N/A	Medium	Medium	Medium	Check
Nutrients (Objective 1)		High	High	High	High	High	High	Check
Nutrients (Objective 2)		High	High	N/A	N/A	N/A	N/A	Check
Soil		Medium	Medium	N/A	High	N/A	N/A	Check
CollectedAnimalEffluent		N/A	N/A	N/A	N/A	N/A	N/A	Check
Waterbody		Medium	Medium	N/A	Medium	High	Medium	Check
PointSource		High	High	N/A	N/A	N/A	N/A	Check
WaterUse_NonIrrigation		N/A	N/A	N/A	N/A	N/A	N/A	Check
Selwyn Waihora - Mahinga kai		Medium	Medium	N/A	N/A	Medium	N/A	Check

Farm Environment Plans

Management Area: Waterbody			
Objective	*Wetlands, riparian areas and the margins of surface waterbodies are managed to avoid damage to the bed and margins of the water body, and to avoid the direct input of nutrients, sediment, and microbial pathogens.*	**Medium**	Further actions are required in order to meet the objective. Plans are in place to complete.
Target 1	*Stock is excluded from waterbodies in accordance with regional council rules or any granted resource consent.*	**Medium**	
Reasons ***For*** the Assessment	Evidence	Tick	Additional comments
Cattle are excluded from waterways in accordance with Regional Council requirements	Field observation	✓	
Deer are excluded from waterways on the property in accordance with regional council rules	Field observation	✓	[redacted] River fenced with one wire - no deer in this area Other streams fenced on on-side - planned programme of fencing - emphemeral streams can run for 4-6 months if wet Sediment traps at last section of streams Water race in irrigated area will be fenced for winter grazing
Stock are excluded from waterways, wetlands, springs, and riparian margins and known mahinga kai sites.	Field observation	✓	Stock excluded from springhead in xxx paddock
Reasons ***Against*** the Assessment		Tick	Additional comments
Stock access to waterways potentially breaches regional council stock exclusion requirements		✓	Still to be checked particularly in relation to deer access to channels on hill block
Target 2	*Vegetated riparian margins of sufficient width are maintained to minimise nutrient, sediment and microbial pathogen losses to waterbodies.*	**Medium**	
Reasons ***For*** the Assessment	Evidence	Tick	Additional comments
Most riparian margins are of sufficient width to adequately filter runoff of nutrients, sediment and pathogens	Field observation	✓	
Reasons ***Against*** the Assessment		Tick	Additional comments
Some riparian margins are of insufficient width to act as a reasonable filter for nutrients, sediment or pathogens		✓	
Waterways are fenced but some low spots adjacent to waterways provide limited filtering of runoff		✓	

Farm Environment Plans

Management Area: Waterbody			
Objective	*Wetlands, riparian areas and the margins of surface waterbodies are managed to avoid damage to the bed and margins of the water body, and to avoid the direct input of nutrients, sediment, and microbial pathogens.*	**Medium**	Further actions are required in order to meet the objective. Plans are in place to complete.
Targets 3	*Farm tracks, gateways, water troughs, self-feeding areas, stock camps wallows and other farming activities that are potential sources of sediment, nutrient and microbial loss are located so as to minimise the risks to surface water quality.*	**High**	

Reasons ***For*** the Assessment	Evidence	Tick	Additional comments
Runoff from stock camp wallows is directed away from waterways or filtered trough riparian buffers	Field observation	✓	
Deer are provided with separate out of creek wallow areas	Field observation	✓	

Reasons ***Against*** the Assessment	Tick	Additional comments

Targets 4	*Mahinga kai values are protected as a result of measures taken to protect and enhance water quality and stream health*	**Medium**	

Reasons ***For*** the Assessment	Evidence	Tick	Additional comments
Wetland, spring and waterway management and enhancement			
Areas of wetlands and springs are being protected.	Field observation	✓	Springhead in Lucerne paddock is fenced along one side

Reasons ***Against*** the Assessment	Tick	Additional comments
Some springheads still to be protected.	✓	I think we discussed this but we didn't sight these on the day

Required Actions	Tick	Additional comments
Prepare and implement a specific programme for enhancing Mahinga kai habitat and/or sites on the property - specifically the springhead areas	✓	
Continue with programme of fencing of waterways - programme needs to be welll documents	✓	
Continue with programme of providing sediment traps - programme needs to be documented	✓	

Actions to consider (A Grades or for High LOC Objective and Targets Only)	Tick

Comments on the S42A report recommendations

- Proposed Southland Water and Land Plan (Decisions Version), 4 April 2018:

Rule 70 – Stock exclusion from waterbodies

...(c) The disturbance of the bed of a river (excluding ephemeral rivers where stock access is permitted under Rule 20(aa)) or modified watercourse for the purposes of moving stock including cattle, deer, pigs or sheep (but excluding dairy cattle on a dairy platform or on land used for dairy support) is a permitted activity ***provided the stock are being supervised and are actively driven across the water body in one continuous movement***

Comments on the S42A report recommendations

- Proposed Regional Plan for Northland (Decisions Version), 16 April 2019:

C.8.1.2 Access of livestock to the bed of a water body or continually flowing artificial watercourse – permitted activity

...provided:

5) livestock crossing points used by livestock (excluding deer) more than once per week must be bridged or culverted by the dates in Table 12..., and

Comments on the S42A report recommendations

- Proposed Regional Plan for Northland (Decisions Version), 16 April 2019:

C.8.1.2 Access of livestock to the bed of a water body or continually flowing artificial watercourse – permitted activity

6) at a livestock crossing point that is not required to be bridged or culverted, livestock are:

a) led or driven across the water body or artificial watercourse in one continuous movement, and

b) effectively excluded from the river or drain between crossings by the dates in Table 12.

Environment Waikato Technical Report 2010/38

Faecal Contamination of Rural Waikato Waterways

Sources, Survival, Transport and Mitigation Opportunities

A review for Environment Waikato

www.ew.govt.nz
ISSN 1172-4005 (Print)
ISSN 1177-9284 (Online)

Environment Waikato REGIONAL COUNCIL

- "When dairy cattle can freely access water, they defecate at a higher rate than when on land, and this is more pronounced at herd crossing points. However, ***beef cattle freely accessing water have not been found to defecate at a more frequent rate in water than on the paddock***." (page 5)

- "In catchments where deer wallows were not connected to streams, ***E. coli levels were similar to other dry stock pastoral systems***." (page 30)

NZDFA
NZ Deer Farmers Association

Wellington Farm Plan

Farm Infrastructure

- Unknown
- Barn
- Fertiliser Bin
- House
- Pump
- Silage Pit
- Tank
- Woolshed
- Yards

Water Courses

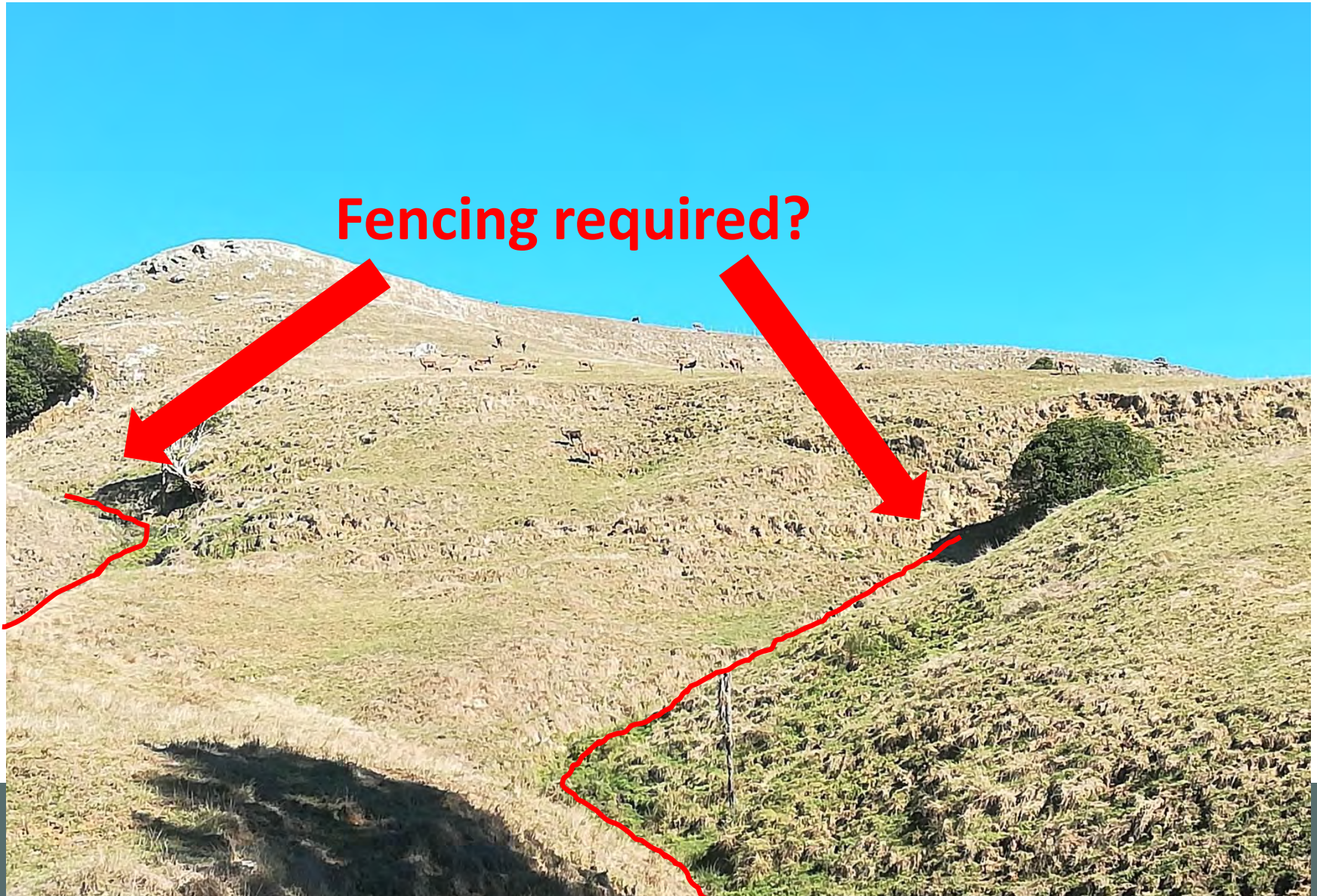
- Permanent
- Seasonal
- Stormwater

Other

- Tracks
- Sub-Catchments

Wellington Farms Ltd

Wellington Farms Ltd



Deer rest and spend much of their time on high ground

Where would you deer fence here?

Where would you deer fence here?

Wellington Farm Plan

Farm Infrastructure

- Unknown
- Barn
- Fertiliser Bin
- House
- Pump
- Silage Pit
- Tank
- Woolshed
- Yards

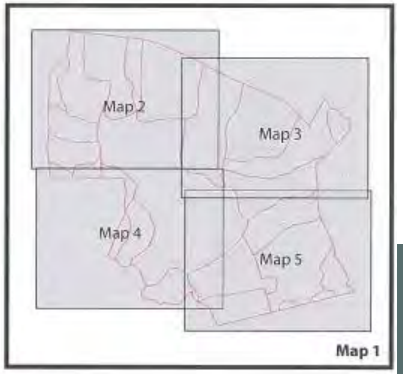
Water Courses

- Permanent
- Seasonal
- Stormwater

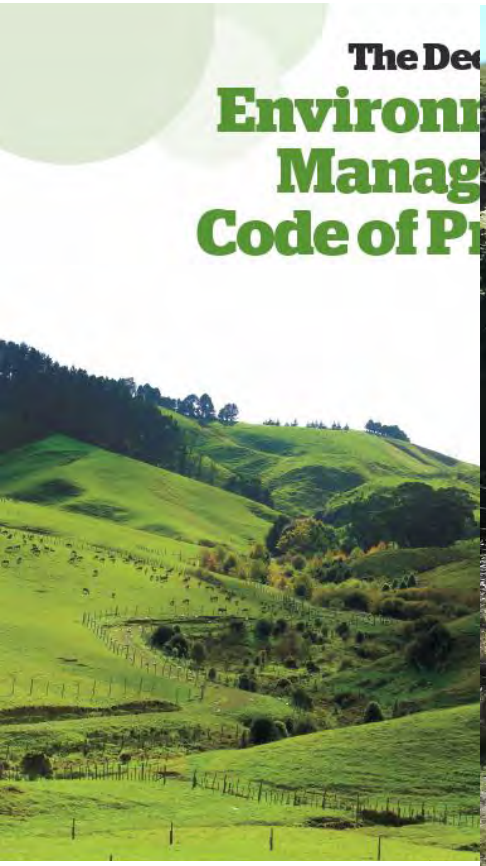
Other

- Tracks
- Sub-Catchments

Plan No GIS - 459722
Map 1



Ongoing maintenance to retain a grassy filter



Wallowing - Good Management Practice!

Track maintenance - Good Management Practice!

Self-feeding silage pit - Good Management Practice!

Two-stage effluent pond - Good Management Practice!

Two-stage effluent pond - Good Management Practice!

Templeton Farms Ltd

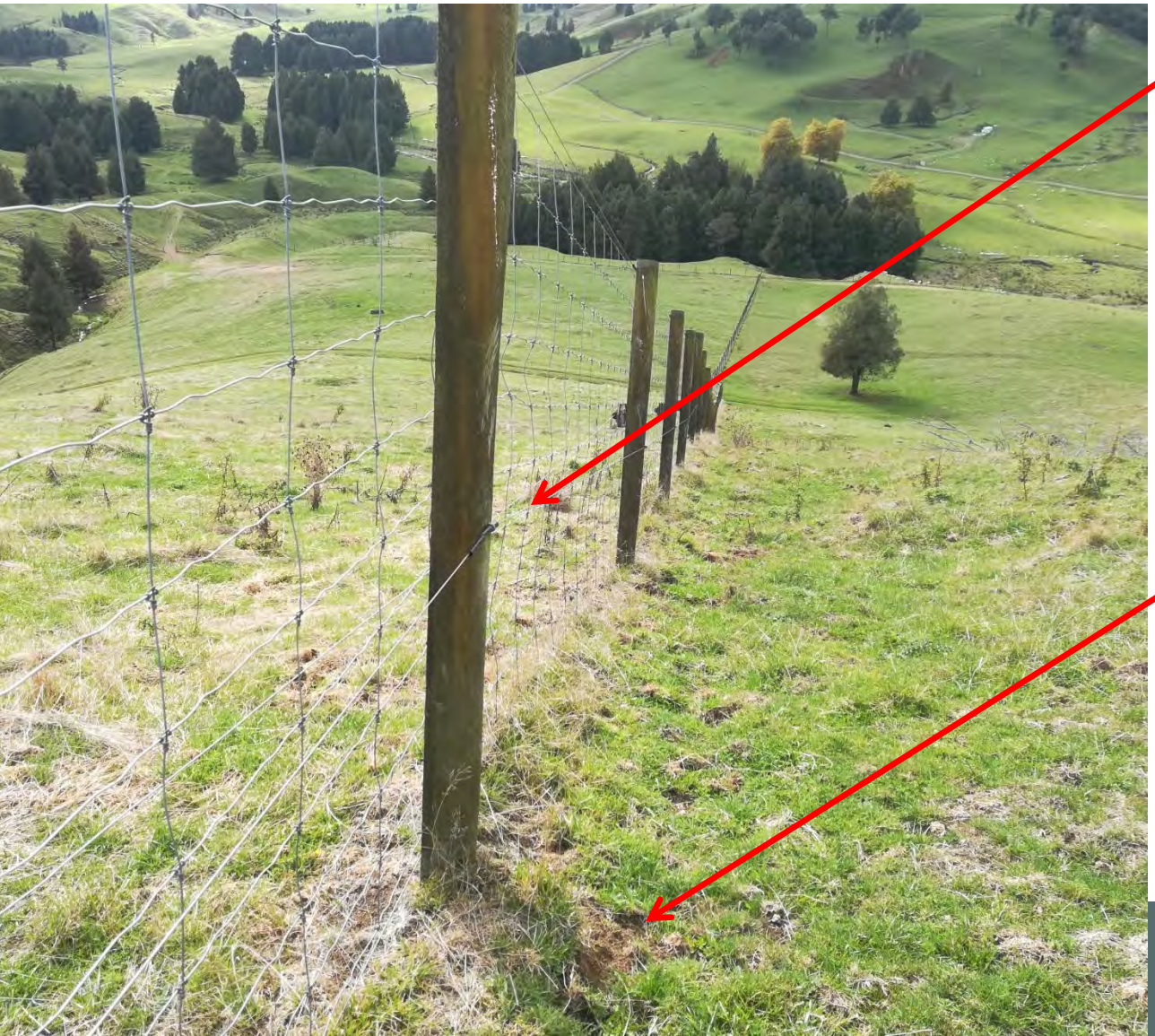
NZDFA
NZ Deer Farmers Association

Rolling with steep sidelings

Soil conservation plantings – 15 year project

Deer-fenced lower stream with grass strip (sheep grazing)

Upper slope GMP – hot wire



Hot wire

Slight evidence of fence pacing – no erosion.

Good animal husbandry is also important and well understood by deer farmers.

NZDFA
NZ Deer Farmers Association

Fence pacing on upper slope – managing deer behaviour

Fence pacing is minor and away from waterways. It will grass over quickly

NZDFA
NZ Deer Farmers Association

Unintended consequences – deer/human behaviour

Fence pacing exacerbated by runoff from track. Tyres will prevent pacing.

NZDFA
NZ Deer Farmers Association

Unintended consequences – deer behaviour

Wallow formed following fencing off of waterway!

Where would you deer fence here?

Where would you deer fence here?

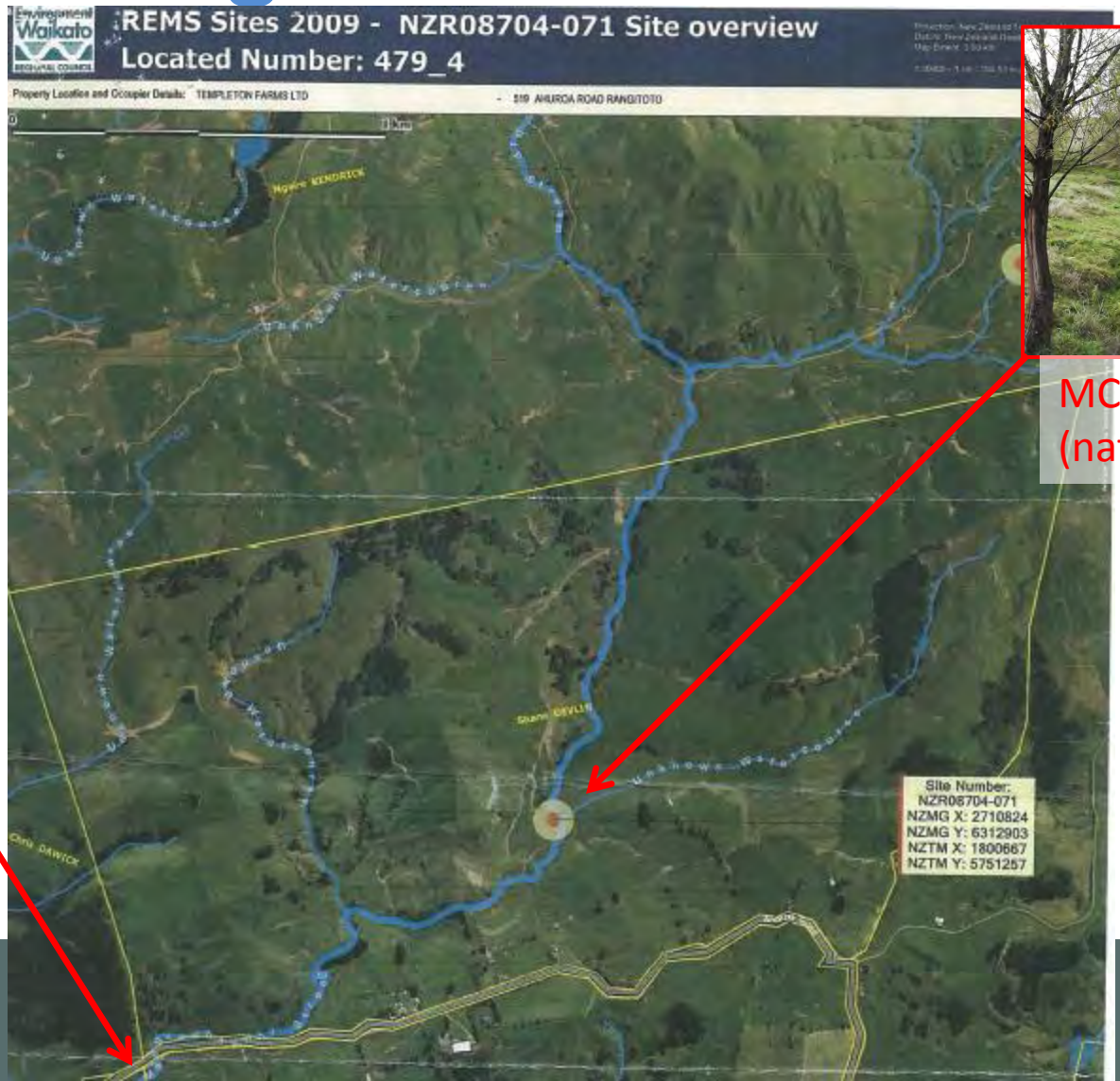
Lower stream water quality monitoring site

MCI score:

- Native Forest – 134
- 60 sites avg – 102
- **Here – 120**
  - *Koura*
  - *Longfin eel*
  - *Shortfin eel*

NZDFA
NZ Deer Farmers Association

Lower stream water quality monitoring site

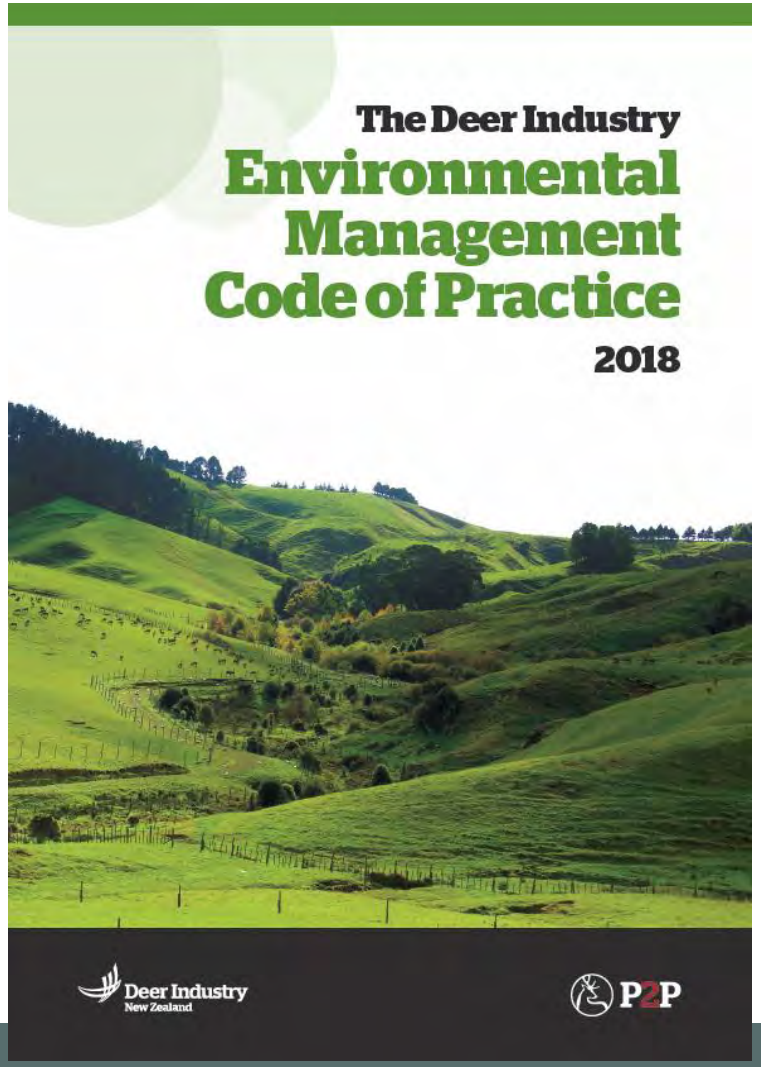


MCI score: **120**
(native forest – 134)

Stream exit point from farm

NZDFA
NZ Deer Farmers Association

Deer industry initiatives



Code of Practice

- Released in May 2018.
- Combination of Landcare Manual and Industry Agreed GMPs
- Can be used to complete a farm environment plan

NZDFA
NZ Deer Farmers Association

Deer industry initiatives

Deer Facts

- Fact sheets on environmental issues.
- Provided to all deer farmers.
- www.deernz.org/deer-facts

NZDFA
NZ Deer Farmers Association

Sustainable Deer Farming videos

Landcare Trust Playlist (15 videos) Link Here

- Riparian Management – Lyal Cullen (Canterbury) Link Here (3:40 – 4:28)
- Farm Environment Plans – John Somerville (Southland) Link Here (0:36 - 1:31)
- Developing a deer block whilst applying best practice – Steve Borland (Waikato) Link Here

Deer industry initiatives – by region

Region	DINZ/DFA Activity
Southland	Aparima workshop; Environment Advance Party; Fiordland Environment Group
Otago	Environment Advance Party (Central Otago)
Canterbury	Three Environment Groups, ECan auditor training
West Coast	
Tasman	
Marlborough	Environment Group
Greater Wellington	
Manawatu-Whanganui	
Taranaki	
Hawkes Bay	Four Environment Groups
Gisborne	Advance Party focusing on FEPs
Bay of Plenty	
Waikato	Environment Group; 2nd group in development
Auckland	
Northland	

Collaboration

ECan

- Training auditors - Informing farmers

Environment Southland

- Workshop for 13 Aparima catchment deer farmers (ACE project)

Environment

What happens when your environment plan is audited?

by Phil Stewart, *Deer Industry News* Editor

Mentioning the words "audit" and "regional council" in the same breath is likely to provoke eye-rolling and elevated blood pressure amongst some farmers. But deer farmer [redacted] recently hosted not one, but seven auditors at his mid-Canterbury property and found that, on the contrary, it was actually a positive experience.

[redacted]

[redacted] **HAS COMPLETED** a Farm Environment Plan (FEP) using the Beef+Lamb template and is on the way to applying for a farming consent. Having an interesting property with various environmental challenges, he could provide an ideal setting for Environment Canterbury (ECan) to run a mock audit of the plan in a real-life situation.

Led by ECan Principal Land Management Adviser Ian Brown,

The Farm Environment Plan

[redacted] FEP begins with a series of farm maps and resource chart that breaks the farm into land management units (LMUs) – areas or resources with similar characteristics (topography, land use, soils and so on) – and spells out the environmental strengths and weaknesses for each. The LMUs include watercourses and mahinga kai (the value of natural resources that sustain life and provide food).

It then spells out a series of high-level environmental objectives for management areas such as nutrient and soil management, documenting the practices being used to help achieve these. And most importantly it asks how you can demonstrate that you are doing what you say you are (e.g. stock records, correspondence, photos).

Finally it lists additional actions or targets needed to achieve those overall objectives, using good management practices, putting a timeframe and priority level around them. Once listed out like this, these actions – e.g. getting an Overseer® report done or changing from cultivation to direct drilling – can be fed into the farm's annual work plan and budget.

The Deer Industry Environmental Management Code of Practice is an excellent resource for helping flesh out an FEP.

Wait! There's more: Plan Change 5

ECan has recently released a Plan Change