

Farm Environmental Plans – the whys and hows of preparing them

Why spend time creating a Plan?

A Farm Environmental Plan (FEP) – also known as a Land Environmental Plan or a Land Environmental Management Plan – outlines the land, soil and water resources of a farm. It identifies aspects of the farm and its management that pose risks to the environment and lists what needs to be done to minimise those risks.

Water and soil are your farm's productive heart. Drawing up an FEP and applying it to your farm will give you confidence that you are sustainably using these valuable resources.

Persistent erosion, slips/slumps, reduced water quality, silt build-up in streams, loss of native cover and degraded wetlands can indicate that the farm's soil and water are at risk.

Importantly, not all the solutions are expensive. A well thought-out plan should not only focus on areas to remedy or manage risk, but should also help identify parts of the farm where productivity could be increased without harm to the environment. Some opportunities identified through FEP planning come at little or no cost.

FEPs are compulsory if you farm in the Lake Taupo, Lake Rotorua and Tukituki Catchments, and in Canterbury or Gisborne. At the time this *Deer Fact* went to press it was likely that Southland would also require most farms to have an FEP.

Even in regions where they are not yet required, the NZ Deer

Key points

- Farm Environmental Plans (FEPs) are also known as Land Environment Plans (LEPs). They identify risks to the farm environment then list and schedule the actions needed to minimise those risks.
- Having an FEP will help you protect some of your most valuable farm assets – soil, water, vegetation and bio-diversity – and to identify key environmental risks.
- FEPs are legally required by some regional councils. Even in regions where they are not yet required, the NZ Deer Farmers Association encourages its members to draft one.
- Many environmental 'fixes' come at little cost. Indeed, you may identify ways to improve productivity during the planning process.
- The key resource to help you draw up an FEP is the Deer Industry Environmental Management Code of Practice. Consider attending a Beef + Lamb New Zealand Environment Plan Workshop to help get the ball rolling.
- Putting an FEP in place helps you meet the expectations of consumers and the wider community.

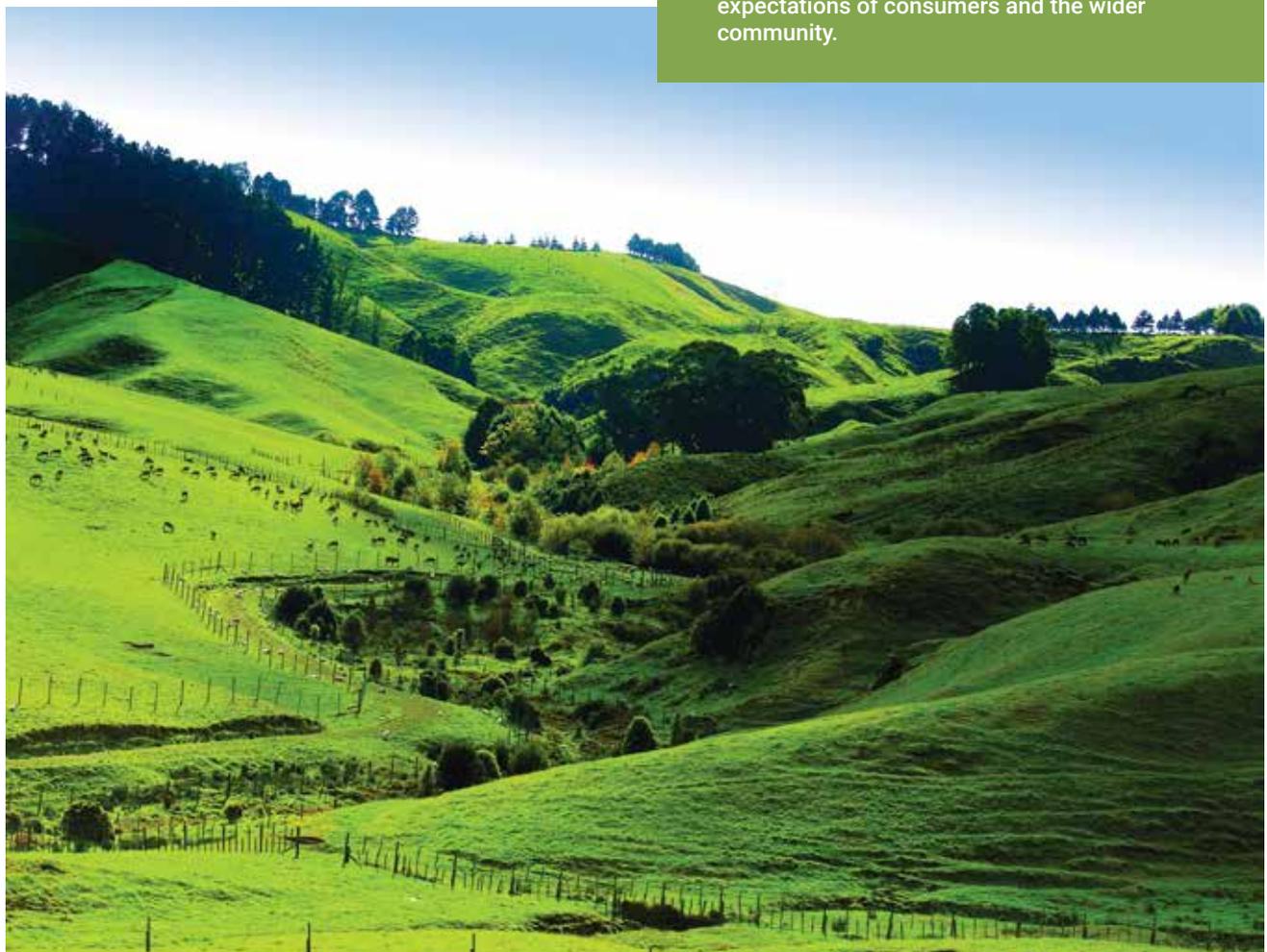


Photo: Brian & Jacqui Wellington

An FEP will help protect some of your most valuable farm assets: soil, water, vegetation and bio-diversity.

Farmers Association encourages its members to have a formal FEP to identify and record actions that they are taking to reduce risk and improve environmental management.

That's because a well written plan that's being implemented demonstrates to regulators, the New Zealand community and customers that you are taking your environmental and legal responsibilities seriously.

Farmers who have a 'live' plan in place say it is worth the commitment. It helps guide their stock and paddock management and gives them a better understanding of how their management decisions impact on the environment. Because it is written down it can be easily shared with family and staff involved with the farm.

They also point to other co-benefits of an FEP: less mud and more shelter mean happier deer and a better work environment. There may also be personal enjoyment from more birdlife and clean streams to swim and fish in.

Where to start?

Environmental Management Code of Practice

The best starting point when drawing up an FEP is the *Deer Industry Environmental Management Code of Practice*, released in May 2018. Hard copies are free to farmers on request and can be downloaded from the DINZ website: www.deernz.org/deer-hub/farm-environment/environmental-management-code-practice

The Code is a practical guide to good environmental practice,

based on deer farmer experience and the current state of environmental knowledge. It updates and replaces the *NZ Deer Farmers Landcare Manual*, last published in 2012.

The Code outlines how to manage deer behaviour that often compromises environmental care, like fence pacing and wallowing. It also offers practical advice on how to improve management practices like feeding crops and spreading fertiliser to reduce their impact on the environment.

Another good resource is the *Menu of Practices to Improve Water Quality* available on www.beeflambnz.com. Each mitigation practice is rated on cost and benefit, based on the latest research.

Beef + Lamb New Zealand Environment Plan Workshops

To help you write an FEP, you may like to attend one of the environment plan workshops being run throughout the country for farmers by Beef + Lamb New Zealand (B+LNZ).

A facilitator will provide you with advice and support as you work on building a plan for your farm, using a workbook.

Landcare videos and manuals

NZ Landcare Trust has produced a series of 15 videos showcasing good deer farming practices for environmental management: www.youtube.com/user/nzlandcaretrust/playlists.

What does an FEP (LEP) cover?

There are three levels of FEP, with level 1 the most basic and level 3 the most comprehensive.

If your regional council requires you to have an FEP, you will need to complete the equivalent of a L2 FEP. You will

also need to provide an OVERSEER® farm nutrient budget prepared by a qualified operator.

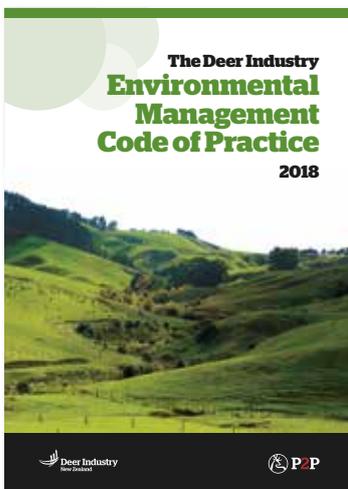
Most farmers are confident developing a L1 or L2 FEP for their farm after attending a B+LNZ workshop. Where the plan is required by the regional council, a council-approved FEP template should be used. Otherwise you may use a B+LNZ or commercial template. If you don't have the time or inclination to do your own plan, you can hire a rural consultant to do one for you.

A L3 FEP requires input from outside specialists.

Level 1

A L1 FEP involves:

- A stocktake of land, soil and water resources: such as steep slopes, heavy soils, areas of bush and tussock, waterways, flood-prone areas etc.
- Identifying Critical Source Areas: landscape features like gullies, swales or depressions where farm runoff accumulates before it flows to streams, rivers and lakes.
- Identifying the risks and opportunities of undertaking deer farming activities in Critical Source Areas.



- d. Developing a framework to manage these areas.
- e. Recording on a farm map(s) or aerial photograph(s) management actions and where they will be undertaken.
- f. Implementing the plan in practical and affordable stages.
- g. Checking progress.

Level 2

There are three main steps in completing a L2 FEP:

- a. Stocktake of the farm's land and soil resources
- b. Define Land Management Units (LMUs) as a basis for nutrient budgeting, analysis of strengths and weaknesses, and yield gap appraisal (the gap between actual and potential productivity)
- c. Summarise opportunities for more sustainable farming as a three-year response plan.

Level 3

A L3 FEP provide farmers with a set of standards that are designed to help them comply with quality assurance and similar land and environment programmes.

The steps are similar to those for a L2 FEP, but with

more emphasis on specifications and methods used by professional farm planners, including monitoring how the farm environment is improving.

- a. An accurate paddock-scale map showing features relevant to land and environmental management.
- b. A paddock-scale inventory describing the land resource according to published standards for either soil mapping or Land Use Capability (LUC).
- c. OVERSEER® farm nutrient budget prepared by a qualified operator.
- d. A Land and Environment Works Programme prepared with input from a resource management specialist.
- e. Achievements are recorded, and changes in freshwater quality, soil condition, and natural biodiversity (if relevant) are monitored at least once every 3 years.

An example of a L3 FEP Plan for high country stations is available from B+LNZ, the *High Country Lakes Catchment Project Summary*, October 2017. This shows key actions to improve environmental management at Mt Burke, Mt Aspiring and Rees Valley Stations based on challenge, response, action



Farm maps “bring an FEP to life”

A farm map will typically be the basis of an FEP. It is a great way to show the at-risk areas, the waterways, different vegetation, infrastructure, soil types etc. Options include using an existing digital farm map and adding text and colours to the map.

Councils can often provide free aerial maps and there are many software companies that can provide mapping services. Digital maps can also be created by your fertiliser company, often for a small fee.

To avoid making your FEP map too complicated, consider having several versions (or layers), each showing different things. For example, one for infrastructure like tracks, offal pit, feed pads, silage pits, sheds; one showing the Critical Source Areas; one showing winter feeding paddocks.

Southland farmer John Somerville has gone down this track as the basis of his FEP.

“When I did an FEP in 2016 I used the maps provided by Environment Southland as part of a project we were working on together. The council helped map the creeks, fences, critical source areas and vegetation.

“Having them separated out means it’s easier to see and manage. I can point to a paddock used for cropping and show the environmental risks around that block.

“I found the mapping process really helpful and we use the maps most days.”

John also did a B+LNZ workshop and said it helped add more information to his FEP.

CASE STUDY



John Somerville

Damage by deer hooves to a gully system was identified so it was fenced off and trees planted to give stability.

Actions following an FEP

John and Mel Somerville run a deer and sheep farm near Wyndham, Southland. They completed a L1 FEP in 2016, a process John rates highly.

He says it helped him pinpoint environmental issues on the farm, especially around water quality.

The area feeds into a stream so was a high-risk for water quality.

He also chooses the paddocks in which to grow fodder beet, keeping in mind that he needs to manage the risk of higher nitrate loss and phosphorus run-off than would occur under pasture. This was identified as an action in his FEP.

“I chose a paddock with a tree block below it and keep the plough line up a bit.”

His grazing management plan in the FEP includes grazing the steeper sidings close to the edge last, so stock don't camp on it.

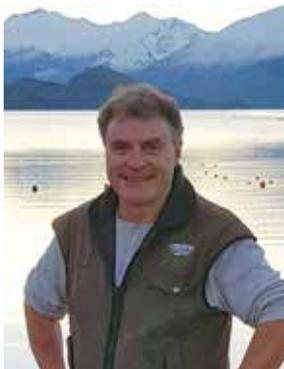
More >> A YouTube video of John talking about environmental aspects of his farm, http://bit.ly/LEP_Somerville

and regional council plan requirements.

More >> Workbooks for FEPs 1-3 can be found on the Beef + Lamb NZ website

Working with neighbours on a joint plan

Where a waterway runs through several properties, there can be benefits in neighbours working together on a co-ordinated environment plan for the catchment.



Chris Arbuckle

farm planning and working together across a catchment, has been expanded and is now funded by the farmers involved. Of the 15 farms, seven farm deer.

The project includes creating a detailed map showing at-risk areas and a response plan and timetable to address issues. FARMAX™ and OVERSEER® are being used to look at profit scenarios given different environmental

This can help improve the effectiveness of the mitigation work, by improving water quality the full length of a stream, or for an entire lake. If a consultant is required, the costs can be shared.

Chris Arbuckle, Aspiring Environmental, is helping 15 farmers in the Lake Wanaka catchment prepare L3 FEPs. What started as a B+LNZ funded High Country Lakes project to promote the benefits of comprehensive

management decisions.

Chris said it is a good example of farmers mobilising themselves in response to community interest, consumer concerns and stricter compliance requirements.

“Farmers have more chance of influencing compliance direction through having an FEP and by measuring and monitoring their farm environment. At the very minimum an FEP provides an understanding of where the farm is now.”

He said Environmental Response Plans are being developed that define how to mitigate the risks to water from Critical Source Areas on each of the 15 farms in the catchment.

More >>

Refer to www.deernz.org for:

Regional Council policy and plan changes that will affect deer farming compliance.

The Deer Industry Environmental Management Code of Practice

Deer Fact: Effective nutrient management on deer farms

Deer Fact: Fence pacing: costs and solutions

Deer Fact: Protecting waterways from wallow and feed pad run-off

Hard copies of the Deer Facts and Code of Practice are available free of charge from DINZ.



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This *Deer Fact* was produced by Deer Industry New Zealand (DINZ) as part of the Passion2Profit (P2P) strategy. P2P is a Primary Growth Partnership joint venture between DINZ and the Ministry for Primary Industries.

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