FARM PLAN
ENVIRONMENT MODULE

User guide

Your step-by-step process to creating the Environment Module of your Farm Plan and keeping it active, for your farm

beef+lamb new zealand

By Farmers. For Farmers™

UG10

Introduction

Welcome to Beef + Lamb New Zealand's Farm Plan - Environment Module, a process and a bunch of tools to help you manage the natural resources on your farm.

B+LNZ have a goal that every sheep and beef farm will an active farm plan by 2025. There are a number of reasons why we feel this process on farms is important

- It helps farmers and farming families achieve their vision and realize their values for their family, their business, their home and their lifestyle
- It helps farming communities thrive, and helps all New Zealanders to value those communities
- It supports the red meat sector's Taste Pure Nature brand to have beef and sheepmeat from New Zealand valued by consumers around the world.

Most important of all, an active farm plan helps farmers look after the natural resources which are the foundation of sustainable and profitable farms and thriving communities.

The Environment Module focuses on seven main areas:

- ☐ Soils
- ☐ Freshwater
- ☐ Biodiversity
- ☐ Climate change
- ☐ Waste and chemical management
- ☐ Forage cropping
- ☐ Irrigation

This user guide is a step by step process to help **create** your plan and to keep it **active** – keeping an eye on and looking after your natural resources is a day to day part of managing a farm, just like keeping an eye on stock, an eye on pastures, and an eye on your finances.

How to use this guide

We have broken the process down into a **series of steps**, to help you work through the process to create your plan and having it active day to day for your farm.

You can **tick off these steps as you go**, to get an idea of progress; you don't have to do them all at once; you don't even have to do them in the same order as we suggest. And some steps you can skip as they may not apply – irrigation management, for example.

We've split the steps up into two groups:

1

Before
workshop

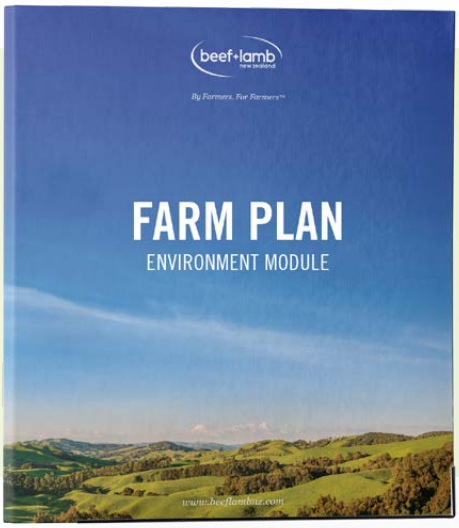
Those you do before attending a B+LNZ Farm Plan workshop

2

During and after
workshop

Those you will do during and after the workshops when back on the farm, to create and implement your own plan

Some of these steps you may have already done – for example if you've already done a B+LNZ LEP 1 or LEP 2 (Land & Environment Plan) workshop. Much of that material can be reused or adapted for this Farm Plan (LEP 1 and LEP 2 are replaced by this Farm Plan).



For each step, you can refer to the material in the Guidelines for more background, for examples, and for places to find more information or definitions. Plus B+LNZ will have a bunch of handy links online at **www.beeflambnz.com/farmplan**

The material in the Farm Plan will help you address the areas of most importance to your farm. You don't have to read through all of the Guidelines – this Guide to Farm Planning is your roadmap, so follow it!

1 Before you attend the workshop

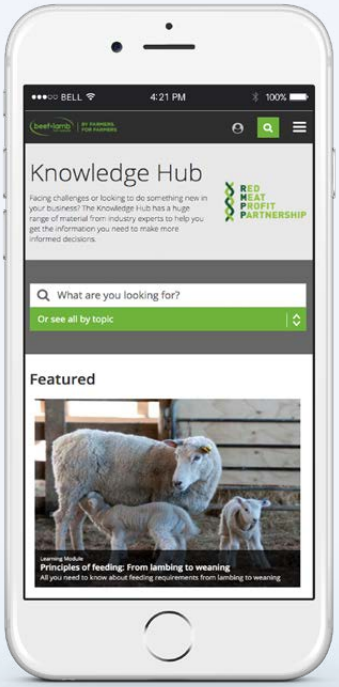
B+LNZ likes to use the 'flipped classroom' approach – where homework comes before the class! This homework is not what you'll remember from school though – its about gathering the information you will need in the first workshop, and also its some resources that might be handy to learn more about our farms' natural resources, before jumping straight into creating a Plan.

Part A: Understanding Farm Plans and the natural resources it is based on

B+LNZ has created a wide range and large number of information resources, if you'd like a refresher on some subjects, or to find out more. These aren't compulsory, just if you're interested in the information and material that forms part of creating an active plan.

B+LNZ Knowledge Hub – resources

All these resources can be found on the B+LNZ Knowledge Hub at **www.beeflambnz.com/knowledge-hub**. Or for factsheets, we can send you a copy – call **0800 233 352** or email **resources@beeflambnz.com**.



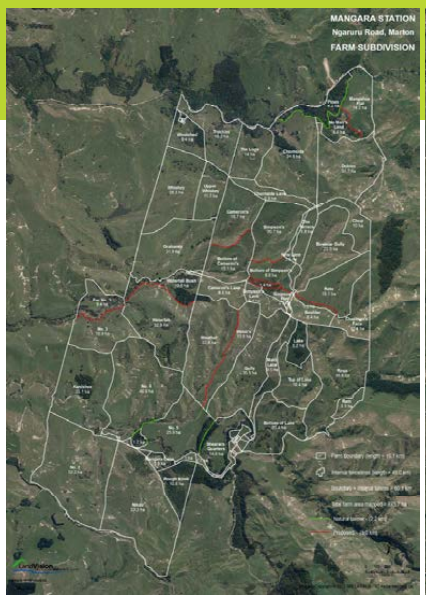
Online Learning Modules are like 'online workshops' – a chance to read material, watch videos, hear commentary and work through quizzes and exercises, all online and from the comfort of your home. Each has sections, and you can complete a section whenever you like, you don't have to do the entire module in one setting.

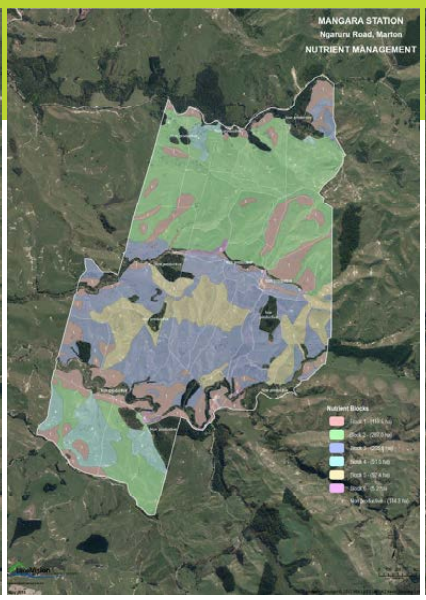
There are 5 key modules for Farm Planning:

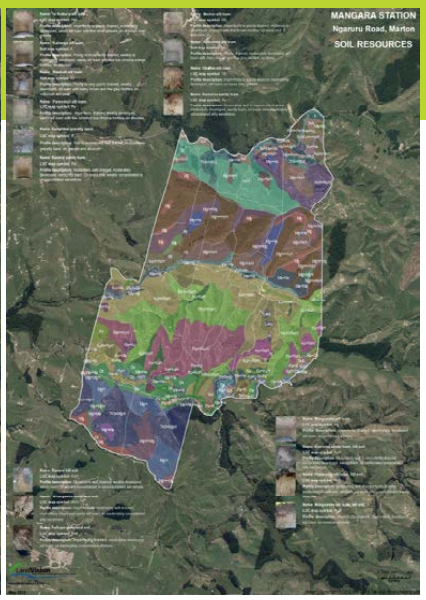
1. Farm Plan: Natural Resource Management – an introduction to the Farm Plan process
2. Understanding your soils
3. Introduction to freshwater quality
4. Managing native biodiversity on your farm
5. Climate Change

Other resources linked on **www.beeflambnz.com/farmplan** include:

Videos Podcasts Booklets Factsheets







Part B: Gather resources and information you will need for your plan

This is the information you should bring to the first workshop, if at all possible:

- [ ] Outline of your Vision and Values, which are central to all decisions made in the Farm Plan. (See BizPlan on the B+LNZ website for an online Business Planning tool, and a template to use; or use the B+LNZ Business Plan template)
- [ ] Farm Maps - several copies
- [ ] Farm soil maps if possible
- [ ] OverseerFM report (or similar)
- [ ] Soil test results
- [ ] Completed Risk Assessment (Part C of this section)

Part C: Natural Resources Risk Assessment

The Natural Resources Risk Assessment should be completed before you attend the first workshop. It is a simple Yes/No questionnaire that helps you identify the things that are already going well, the things you are doing that are valuable and to be celebrated. It also helps narrow down on the key things that are the highest risk and need more urgent attention

B+LNZ's approach to Farm Planning is risk based – focus on the stuff that matters and prioritise actions. Work through the questions, and at the end of each part it will tell you if that topic is something that is a higher risk for you and your farm. And then when you create your plan, those are the things to target first.

Don't miss an opportunity to note the things you do well or have already addressed - its good to celebrate the strengths and successes!

Risk Assessment checklist

Soils	Do you have any areas on your farm at risk of soil erosion?	■ YES	☐ NO
	Do you graze forage crops in the winter?	■ YES	☐ NO
	Do you carry out any regular (every 2-3 year) soil nutrient testing?	☐ YES	■ NO
	Do you have a current nutrient budget?	☐ YES	■ NO
Freshwater	Do you know the current state of health of waterways on your property?	☐ YES	■ NO
	Are stock excluded from all waterways on your property?	☐ YES	■ NO
	Do you know what critical source areas (CSA) are and where they are on your farm?	☐ YES	■ NO
	Do you have a reticulated stock water system that supplies all paddocks on your farm?	☐ YES	■ NO
Biodiversity	Do you have any areas of native vegetation on your property that you consider important?	■ YES	☐ NO
	Is your farm located near any important areas of native vegetation, such as reserves, national parks or on neighbouring properties?	■ YES	☐ NO
	Have you had an assessment of native biodiversity on your farm?	☐ YES	■ NO
	Do you carry out any pest or weed control on your property?	☐ YES	■ NO
Climate change	Do you know the major sources of greenhouse gas emissions on your farm?	☐ YES	■ NO
	Do you know the areas on your farm that are sequestering (storing) carbon?	☐ YES	■ NO
	Do you know your greenhouse gas emission number?	☐ YES	■ NO
	Do you think that changes in climate will impact your farm business?	☐ YES	■ NO

If you ticked any of the highlighted boxes, then your farm may have an elevated level of risk. Note down the potential risks in the summary on Page 8, and briefly comment on each.

Summary of Risk Assessment - Example

- Note down risks identified in the Risk Assessment checklist
- Focus on these key risks as you attend the workshops and work through the creation of Your Plan
- When creating your Plan, you will further assess how significant these risks are, and if something needs to be done to avoid/remedy/mitigate them

Managing soil health

Risk Identified	Comments
Soil erosion	*Slips in some areas in past*
Forage Crops	*Dairy cows wintered on brassicas*
Soil testing	*Parts of farm not tested for over 5 years*
Nutrient budget	*Have not completed one*

Freshwater ecosystem health

Risk Identified	Comments
Waterway health	*No testing/assessment*
Stock exclusion	*Still some area of main creek unfenced*
Critical Source Areas	*Not yet mapped*
Stock water reticulation	*Dams used on hill block*

Integrating native biodiversity

Risk Identified	Comments
Native vegetation	*2 small areas of bush*
Important areas of vegetation nearby	*Large QE2 covenant on north boundary*
Assessment of native biodiversity	*Not yet done*
Pest/weed control	*Regular weed control but not for pests*

Responding to a changing climate

Risk Identified	Comments
Sources of Greenhouse Gases	*Not analysed*
Sequestration	*Not analysed*
Greenhouse gas emission number	*Not analysed*
Impacts of climate change	*Not analysed*

Summary of risks identified for our farm

Managing soil health

Risk Identified	Comments

Freshwater ecosystem health

Risk Identified	Comments

Integrating native biodiversity

Risk Identified	Comments

Responding to a changing climate

Risk Identified	Comments

2 During and after you attend the workshop

Each section has a series of steps to work through. We've listed the steps here for you to tick off as and when you work through them. You don't have to do each section in order, some of the steps are optional and some won't apply to your farm.

Use these pages as a guide for creating your plan, and keep track of your progress.

Introduction and overview

Blank copies of the templates referred to can be found in Section 8 "Our Plan". Copies can also be downloaded from **beeflambnz.com/farmplan**

Details	Pages	Document	Date Completed
STEP 1 > Outline your Vision, Values and Goals			
Write down your overall farm business Vision, Values and Goals	4-5	Template OT1; or Existing Farm Business Plan; or B+LNZ's BizPlan (online); or Business Plan template (PDF)	
STEP 2 > Outline the objectives for your catchment			
Objectives for a Catchment Community Plan – can use existing if you have them	6-9	Tables 0.1 and 0.2 for examples	
STEP 3 > Describe your farm system			
Outline your current farm system	10	Template OT2	
STEP 4 > Identify your farm features on a map			
Record, as applicable: farm infrastructure; biophysical features; Critical Source Areas; irrigation; subsoil drainage; forage cropping; significant sites	11-12	Farm Map	
STEP 5 > Farm Team			
Record farm team members	12	Template OT3	
STEP 6 > Map the Land Resource			
1) Divide Farm into primary landforms **2) Focus and refine** **3) Group similar landtypes into Land Management Units (LMUs)**	13-17	Farm Map	
STEP 7 > Complete a Resource Chart for your Land Management Units (LMUs)			
For each LMU, note strengths, weaknesses, uses and management	18	Template OT4	

1. Managing soil health

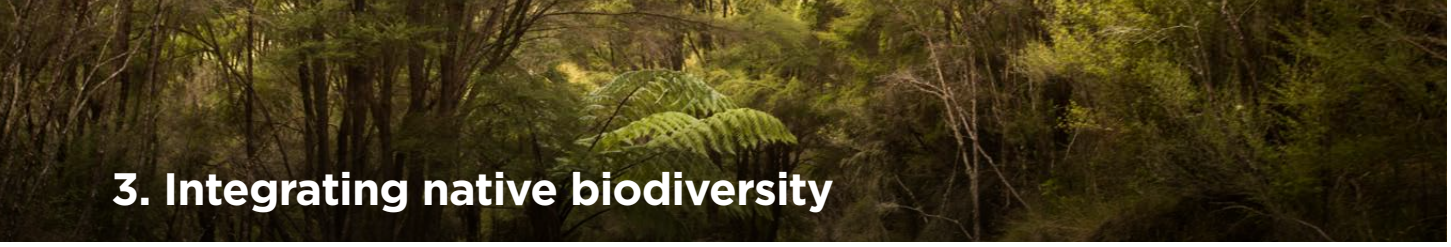
Blank copies of the templates referred to can be found in Section 8 “Our Plan”. Copies can also be downloaded from **beeflambnz.com/farmplan**

Details	Pages	Document	Date Completed
STEP 1 > Identify your goals for managing your soil resource			
Add some specific goals for managing the soils on your farm. Consider the soils you have, and their specific risks	1	Template OT1	
STEP 2 > Visual Soil Assessment (VSA)			
A way of getting objective information on the characteristics and health of the different soils you have	1-4	VSA guides Templates ST1 & ST2 IT1 for actions identified	
STEP 3 > Earthworm Abundance Survey (Optional)			
A simple method to assess the number and types of earthworms you have, as a key soil indicator	4-6	Template ST3	
STEP 4 > Record Soil Test Results			
Keep a record of your soil test results	7	N/A	
STEP 5 > Cotton Strip Test (Optional)			
A simple measure of soil biological activity	7-9	N/A	
STEP 6 > Mapping Soils			
Add VSA information to LMUs on the farm map	10	Farm Map	
STEP 7 > Complete and OverseerFM Nutrient Analysis			
Obtain and review a nutrient budget from OverseerFM	11	OverseerFM reports Include actions in Template IT1 Soils Action Plan	
STEP 8 > Risk Assessment - Soils			
Identify risks for your soils and assess their overall risk using the assessment matrix	12	Table 1.2 Risks to Soil Health and options to mitigate, Template ST4	
STEP 9 > Identify Actions			
Identify actions to achieve goals for soils, and to address any issues identified such as high risks in Step 8	13	Template IT1	
STEP 10 > Develop a regular soil monitoring programme			
Plan future VSA/earthworm/cotton strip tests, as appropriate, as well as soil testing and updates of nutrient budgets	17	Template IT3	
STEP 11 > Refine Land Management Units (LMUs)			
Reconsider LMUs in light of information about soils; identify Strengths, Weaknesses, and Conditions of Use	18	Template OT4	

2. Freshwater ecosystem health

Blank copies of the templates referred to can be found in Section 8 “Our Plan”. Copies can also be downloaded from **beeflambnz.com/farmplan**

Details	Pages	Document	Date Completed
STEP 1 > Freshwater Values and Goals			
Add some specific goals for managing the freshwater on your farm. Consider the water bodies you have, and the aspects that are important to you	1	Template OT1	
STEP 2 > Assess your waterways			
Map your waterways, and for each carry out a Stream Health Check	2-9	Template FW1 Freshwater Assessment Summary Template FW2 Stream Health Check	
STEP 3 > Identify Risks for Freshwater Ecosystem Health			
For each freshwater body, identify possible risks, and rate these risks	10-15	Table 2.1 Risk Factors and drivers for freshwater ecosystem health Template FW3 Freshwater Risk Template	
STEP 4 > Identify Actions			
Record actions completed to date **Identify actions to improve freshwater ecosystem health**	16-18	Template FW4 Freshwater actions completed to date Template IT1 Action Plan	
STEP 5 > Develop a regular monitoring programme for freshwater ecosystems			
Establish a programme for regular, long-term monitoring of your waterways	19-20	N/A	



3. Integrating native biodiversity

Blank copies of the templates referred to can be found in Section 8 “Our Plan”. Copies can also be downloaded from **beeflambnz.com/farmplan**

Details	Pages	Document	Date Completed
STEP 1 > Identify your goals for integrating native biodiversity into your farming system			
Identify specific goals for native biodiversity on your farm	1	Template OT1 Vision, Values and Goals	
STEP 2 > Update and review farm map			
Ensure you have identified major areas of native vegetation; it may be helpful to note areas on adjacent properties	2	Farm Map	
STEP 3 > Map Significant Natural Areas			
Include any areas identified as being of ecological significance by Local/Regional Councils	2	Farm Map	
STEP 4 > Whole Farm Biodiversity Assessment			
Stocktake of your farm’s native biodiversity assets	3	Template BT1 Farm Biodiversity Assessment – Whole Farm	
STEP 5 > Farm Native Biodiversity Assessment – Individual Sites			
Assess each identified area of native biodiversity	4	Template BT2 Farm Biodiversity Assessment – Individual Sites	
STEP 6 > Identify individual species on farm (Optional)			
Identify native animals and invertebrates on your farm	5	Template BT3 Recording sheet for birds Template BT4 Recording sheet for native invertebrates, lizards and bats	
STEP 7 > Identify risks to biodiversity on your farm			
Identify risks, and assess their significance	6-7	Template BT5 Risk Assessment - Biodiversity	
STEP 8 > Identify actions to protect and enhance biodiversity assets			
Outline actions you will take to address risks	8	Template IT1 Action Plan	
STEP 9 > Develop a regular monitoring programme for your biodiversity assets			
Establish a programme for regular, long-term monitoring of your native biodiversity assets	10	Template IT3 Monitoring Plan Template BT6 Photo-point Record Data Sheet	

4. Responding to a changing climate

Blank copies of the templates referred to can be found in Section 8 “Our Plan”. Copies can also be downloaded from **beeflambnz.com/farmplan**

Details	Pages	Document	Date Completed
STEP 1 > Goals for responding to climate change			
Identify specific goals for responding to climate change on your farm	1	Template OT1 Vision, Values and Goals	
STEP 2 > What are my emissions and sinks?			
“Know your number” – get an estimate of your emissions and sinks, and make some plans to measure and manage.	2-4	Template CC1 Our Farm’s Emissions and Sinks Template CC2 Plans to measure and manage on-farm emissions	
STEP 3 > Identify Sequestration Opportunities			
Identify current areas of woody vegetation	5	Template CC3 Current Areas of woody vegetation	
STEP 4 > Develop a plan to respond, adapt and be resilient to adverse events			
Develop a plan to respond to adverse events	6	Template IT1 Action Plan	
STEP 5 > Develop a regular monitoring programme for your climate change response			
Outline your monitoring programme for your climate change response	7	Template IT3 Monitoring Plan	

5. Waste and Chemical Management

Blank copies of the templates referred to can be found in Section 8. Our Plan. Copies can also be downloaded from **beeflambnz.com/farmplan**

Details	Pages	Document	Date Completed
STEP 1 > Goals for Waste and Chemical Management			
Identify specific goals for waste and chemical management on your farm	1	Template OT1 Vision, Values and Goals	
STEP 2 > Ensuring you meet local compliance requirements			
List Resource Consents and other relevant compliance documents	1	Template WC1 Local Compliance Requirements	
STEP 3 > Review Risk Areas and Management Practices			
Identify opportunities to mitigate risks from waste and chemicals	2	Table 5.1 Risks and management practices to mitigate	
STEP 4 > Waste and chemical risks, and management practices to minimise risks			
Develop a plan to respond to waste and chemical risks	3	Template IT1 Action Plan	

6. Forage cropping management – if applicable

Blank copies of the templates referred to can be found in Section 8 “Our Plan”. Copies can also be downloaded from **beeflambnz.com/farmplan**

Details	Pages	Document	Date Completed
STEP 1 > Why am I forage cropping?			
Outline your main reasons for forage cropping	1-2	Template FC1 Why am I forage cropping?	
STEP 2 > Forage Crop Goals			
Outline your goals for Forage Crops	2	Template OT1 Vision, Values and Goals	
STEP 3 > Description of Forage Cropping			
Outline each year the planned forage crops	3	Template FC2 Forage Crop Programme Farm Map	
STEP 4 > Intensive winter forage cropping (if applicable)			
If applicable, record details of farms and people involved in your winter grazing, and record details of the stock grazed	4-6	Template FC3 Winter forage crop grazing farm details Template FC4 Winter forage crop grazing animal details	
STEP 5 > Risk Assessment			
Identify and assess potential risks from forage cropping,	7-11	Table 6.1 Risk Factors Template FC5 Risk assessment for forage cropping	
STEP 6 > Identify actions and mapping			
Set out actions to manage risks from forage cropping. Include a plan for each paddock intensively grazed in winter	12-17	Table 6.2 Management options for winter grazed forage cropped areas. Template IT1 Action Plan Template FC6 Winter grazing paddock plan	
STEP 7 > Adverse weather plan			
Set out plans for adverse weather events	18	Template FC7 Adverse weather event planning	
STEP 8 > Monitoring and Review			
Review forage cropping each year	19	Template FC8 Forage Cropping Monitoring and Review Template FC9 Forage Cropping checklist	

7. Irrigation – if applicable

For irrigators, B+LNZ recommends completion of Irrigation New Zealand's 'Irrigation Farm Environment Plan'. Link to this can be found at **beeflambnz.com/farmplan**

8. Our Plan

You will have completed most sections of Our Plan as you worked through the steps up till now. There are two specific steps in this section to finish creating your Plan

Details	Pages	Document	Date Completed
STEP 1 > Action Plan for Specific Projects			
Through the sections of the Plan, you have created Action Plans for each topic (such as forage cropping or climate change). You may have identified specific projects you wish to complete, such as creating a wetland, fencing off an area of native vegetation, or putting in place sediment traps. This template will help create a plan for those specific projects		Template IT2 Action Plan – Specific Projects	
STEP 2 > Annual Review			
Each year, review your Farm Plan – Environment Module, makes sure your Goals are still appropriate, tick off actions completed and set new ones for the year ahead		Template IT4 Annual Review	

Notes:

Summary

The Farm Plan - Environment Module is designed to be comprehensive, but doesn't need to be seen as daunting. Beef + Lamb New Zealand will be organising additional opportunities for support and to get help, such as specialised workshops and online webinars.

For information about Farm Plan resources and events, visit **www.beeflambnz.com** or call **0800 BEEFLAMB (0800 233 352)**

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