good farm
PLANNING HUB

Taking an Integrated Approach to Farm Planning:

Module 5: Biodiversity

Biodiversity

Note: The plan you develop will be entirely customised to your farm and the natural ecosystem that the farm is situated in.

There is helpful guidance in the Biodiversity Module (the Module) found on the IFP tools and support page. The Module includes links, farmer tips and further resources that will help you with your biodiversity plan.

This plan can be used in conjunction with other Ministry for Primary Industries (MPI) modules to form an integrated approach to farm planning, or you can use it to supplement your already existing farm plan (such as one you might have as part of your industry assurance programme).

Purpose: The Module is to support you either to get started or to continue with your biodiversity farm actions. You may already be doing things that improve biodiversity on your farm as part of your freshwater or greenhouse gas strategies. Your completed biodiversity plan should provide sufficient detail and content to demonstrate a programme of on-farm continuous improvement. It is important to work with others as there is help available through your regional council, catchment groups, your local marae/hapū, farm advisers, and other not-for-profit agencies.

Step 1: Know your farm, obligations, and goals

What are the key parts of your vision, and the values and goals regarding biodiversity that you want to achieve in this plan?

Values and goals:

1. What biodiversity plans do you have in place?
2. Do all staff and visitors understand their role in protecting the property?
3. Where is the designated place for visitors to park when arriving at the farm?
4. Do you have appropriate cleaning facilities for equipment cleaning and disinfection, and is all equipment entering or leaving the property cleaned to prevent cross-contamination?
5. Do you keep a record of livestock movements (NAIT)?
6. Do you know where your plant materials (seeds, forage, compost, etc.) are sourced and do you keep a record?
7. How do you introduce new livestock or plant materials to your farm?
8. Is the property boundary identified and secured - are your fences well maintained?
9. Do all staff and visitors know where they can record any unusual observations that may indicate a biosecurity threat?
10. How do you manage the risk of future incursions?

Knowing your farm and writing down this knowledge can help identify any gaps, risks and adverse effects that might be present and can form a base for the rest of your farm plan.

Have a think through these questions and answer them here:

Photos can be a great way to show information about your farm and to highlight any of the work you are already doing. Some of this information may also be easier to record on maps, making it easier to identify potential actions

Steps 2 & 3: Assess and Develop

Based on your vision, the values, and goals you have identified, and the information you have just recorded, what are the risks, adverse effects and opportunities for your farm and catchment? This risk assessment matrix helps set out how to highlight areas of your risks:

	Impact				
	Negligible	**Minor**	**Moderate**	**Significant**	**Severe**
Very likely	Low-medium	Medium	Medium-high	High	High
Likely	Low	Low-medium	Medium	Medium-high	High
Possible	Low	Low-medium	Medium	Medium-high	Medium-high
Unlikely	Low	Low-medium	Low-medium	Medium	Medium-high
Very unlikely	Low	Low	Low-medium	Medium	Medium

Once you have identified the risk, identify any existing actions already in place to manage this risk and whether they are still appropriate. Do these existing measures do enough to mitigate the risk? If needed, identify new actions to supplement or replace the existing actions. It is also important to record who is responsible for managing these actions and, if possible, the date these need to be reviewed or completed by. Some of these actions may also be connected to improving freshwater quality or reducing GHG emissions on your farm.

Use any maps you might have (including any maps you may have pulled together in your basic farm plan) to record where you are implementing any actions. Take photos of the current state to use as a reference point and to highlight any improvement.

Note that you are likely to have more risks than this table provides space for. There is an actions table on the **IFP support and tools page** that provides additional tables you can use to make sure all your risks and actions are identified.

For example:

Risk identified	Rating	Existing actions	New actions (if needed)	Due date	Responsible person	Evidence
Eels located in stream. Unsure of how many there are.	Low/ medium	The stream where they are located is fenced.	Have recording sheets available for staff to get a better understanding of how many eels there might be.	n/a April 2023	xxx xxx	Site inspection Recording book
Old man's beard in riparian strip paddock 2.	Medium/ High		Stump treatment + spraying if needed.	Dec 2022 – with continued monitoring.	xxx	Site inspection, logged use of spray and treatment.
Loss of trees in remnant bush area. Bottom bush block not fenced.	Medium	Automatically resetting traps are placed throughout bush block.	Fence bottom bush block to stop cattle entering the bush area. Once fencing is completed, replace traps with bait stations.	Service and re-bait every 2 weeks. Begin fencing by Nov 2022. Fencing completed by Nov 2023. Dec 2023. Re-bait every 4 weeks.	xxx xxx xxx xxx	Site inspection, trap records. Site inspection. Site inspection. Site inspection, trap records.
Wetland located in paddock 4. Needs continued restoration.	Low/ medium	Wetland area is fenced. Planting completed in zone 1 and is under-way in zones 2 and 3.	Plant Mānuka, Toetoe and Tī kōuka (cabbage tree) in zones 4 and 5 of wetland.			Photos, site inspection Photos, site inspection Photos, site inspection

Risk identified	Rating	Existing actions	New actions (if needed)	Due date	Responsible person	Evidence

Step 4: Monitor

The use of performance measures to track and record progress helps with deciding actions and reporting progress. Record what worked well, what went wrong, and why. Take photos to keep record and monitor progress, and map what you have completed.

Action	Yes/No	Notes
What did you achieve that you were proud of?		
Were there any issues with your actions?		

Monitoring points		Notes
Existing biodiversity vegetation summary.	☐	
New plantings and names of plants.	☐	
List of fish, plants, and bird species observed.	☐	
Any adverse event effects such as tree/plant loss or damage.	☐	
Gully swales that could be retired and planted after being fenced off.	☐	
Before and after photos.	☐	
Record of completed pest management.	☐	
Record of the length and type of new fences or repairs to existing infrastructure such as bridges and culverts.	☐	
New fish passages.	☐	
Record of the costs for anything completed and/or started.	☐	
Record any delays and what happened and why.	☐	
Have you noticed any changes in water clarity, bird types and numbers?	☐	
Next year will there be any new management changes required?	☐	
Are your priorities still the same?	☐	
Have you asked for some off-farm advice and do you need more?	☐	
What will you show visitors to your farm that you are proud of?	☐	
Is there more shade and shelter for mahinga kai to breed?	☐	

Step 5: Review

It is important to review and update your farm plan regularly. Reviews are a 'snapshot' of your operational issues and should be used to improve implementation.

This is a good opportunity to involve farm staff to help identify challenges and find new solutions. What, if anything, would you change and why? Write down notes so when you are reassessing your risks and actions, you can adapt and do things differently.

For example, you may have planted too early and had to water for a couple of weeks which was time consuming and frustrating, maybe it would have been better to wait a bit longer. Your pest management may have underestimated a rabbit or possum problem or more protection was required to avoid pūkeko destruction. Remember it's tough for young plants to get started. They are competing with the environment, weather, predators, and weeds.

Here is some advice that may help for the future:[1]

Contact your council before you start – there may be some financial support available, as well as people with expertise that can help you achieve good farm outcomes.

Get advice on the right tree, right place – what species grow well in the soil and aspect, and your area? Have you checked out about correct spacing, site preparation and ongoing maintenance? Consider:

- Flood prone or dry
- Steep, rolling, flat
- Critical Source Area or not
- Soil types (peat, sandy, clay, loam)

Planting at the right time is critical – watch for changes in when you experience summer dry spells, droughts, and/or severe frosts and snow. One size does not fit all and for some areas planting will be in late autumn/winter and others in late winter/early spring.

You may get away with one release spray of the plants, but be careful, you do not want to have a big loss after the first year and to replant. This is expensive in time and cost.

When deciding on areas to pick, try for the low hanging fruit first and do a little bit each year.

Question	Notes
Are we doing the right thing?	
Are there better ways to achieve the same results?	
Was there enough time, money, and people to get the job done?	

Notes

Useful links/information

The Department of Conservation (DOC) has multiple resources available regarding biodiversity, including **Guidance on biodiversity offsetting in New Zealand**, the **Te Mana o te Taiao implementation plan for Biodiversity**, and potential **funding options** for Māori landowners.

NIWA and DairyNZ have developed a wetland practitioner guide and **Otago University** has information on how to identify plants in your area. The **Tasman District Council** have a **guide on restoring native vegetation** in the Tasman Region and a lot of the information is transferable across other regions in New Zealand.

Beef + Lamb New Zealand has information on improving biodiversity on your farm, and its own resources on **native biodiversity** and **tree planting on farm**. **FAR** has biodiversity guidance available for arable farmers, as well as Farm Environment Plan templates which include a biodiversity module.

The Dairy Tomorrow Sector Strategy has a focus on improving water quality and biodiversity, and **DairyNZ** has information available, including its **land management guide** and **riparian planner**. **Deer NZ** also has information available online on biodiversity.

Industry assurance programmes (IAP) and processors such as **Westland Milk Products**, **Dairy Goat Co-operative**, **Miraka**, **Zespri**, **Synlait Lead with Pride**, **Tatua Dairy**, **Fonterra Tiaki**, **ZQ Natural Fibre**, **NZFAI**, **Syngenta** and **Blueberries NZ** have guidance, standards or initiatives regarding biodiversity.

Further links and information can also be found in the MPI biodiversity module, found on the **IFP tools and support page**.