

FARM ENVIRONMENT PLANNING: WHAT WOULD HELP US GET TO A BETTER DESTINATION?

Brendan Powell and Nathan Heath

*Hawke's Bay Regional Council,
Private Bag 6006, Napier 4142*

Abstract

Farm environmental plans have a long history. The first were prepared in the early 1950's.

Over the succeeding 60 years the context and breadth of issues we are seeking to address and improve through farm planning has changed hugely. This has led to some differing expectations of what farm plans are for, and can do. Farm plans represent a pressure point between the search for policy solutions to environmental issues and the reality of implementation challenges.

In this paper we will briefly reflect on where farm plans have come from and possible future directions. We will cover some essential components of current plans, as well as some of the major challenges in building the necessary supporting structures and human capacity around the processes of plan preparation.

Some questions remain:

- Currently government and councils are driving the imperative to get farm plans done. Primary industry bodies and independent providers have responded to this driver but are we missing “out of scope” opportunities with this approach?
- Do we have consistent and compatible, or differing expectations of what these plans are for?
- Is it possible, or even desirable, to have a single plan template to encompass and satisfy all expectations?
- How do we ensure plans connect to their purpose and prioritize the most important issues to address?
- How do we integrate the dynamism of the farm system with the inertia of a plan?

History:

Farm environmental plans have a long history. The first were prepared in the early 1950's following the development of the first catchment plans. Many of the early individual farm plans prepared by Catchment Boards and later, Regional Councils were largely focused on soil conservation. Conservation farm planning was one of the soil conservation ideas adopted from the USA.

Farm plans were seen as a way to overcome deficiencies of previous soil conservation work, which had come to be seen as a collection of "individual attempts at the control of individual problems... all completely unrelated" to each other.¹ Farm plans treated "farms as a whole rather than a series of individual disconnected issues to be treated." The whole farm approach, linked "various soil conservation practices to support each other... together with the best local farm management practices... which vitally improved the benefits"

Initially a team of up to 6 specialists went to the farm and had input into the farm plan. This proved to be too expensive, and the psychological effects on the farmer were reportedly not good. This approach was modified to a single farm planner doing the plan, and drawing on specialist advice when needed. Land use capability was adopted as a system to ensure a basis for a consistent approach and standards when interpreting land features and making soil conservation recommendations.²

In 1961 farm plans for soil conservation were widely adopted across New Zealand. Ambitious targets were set for numbers of farm plans.³

In Hawke's Bay a target was set to complete 2000 plans in 10 years. After 10 years 69 had been achieved. Progress increased later with a total of 714 completed by 2005. 157 plans completed between 1998 and 2005 covered roughly 10% of the farmed land area in Hawke's Bay. This represented some of the most erodible land in the region.⁴

In these early days of farm planning, following the 1961 targets, some concerns were expressed by catchment boards:

1. Lack of capacity – It was difficult to recruit and retain enough staff to get the work done.
2. Lack of integration of goals – Central government's land development agenda was not integrated with soil conservation needs.
3. Standards set – There needed to be proper training for staff, standards set and attained, and cooperation and communication between staff and national and regional levels.

¹ McCaskill. L.W. 1973. Hold This Land; A History of Soil Conservation in New Zealand. A.H and A.W. Reed Ltd. Pg 188.

² McCaskill. L.W. 1973. Hold This Land; A History of Soil Conservation in New Zealand. A.H and A.W. Reed Ltd. Pg 189.

³ Manderson. A.K. 2003. Volume Two. Chapter 5: New Zealand Farm Plans & Land Capability Classification: pgs 315 and 327 (for dates of early farm plans)
https://mro.massey.ac.nz/bitstream/handle/10179/2010/03_whole_vol2.pdf?sequence...

⁴ Stokes. S. 2007. A Review of the Effectiveness of the Current Farm Plan Programme. HBRC. pg 5.

Some lessons from the early days of farm planning work are still applicable in our current context:

- Farm plans were used where solutions were not simple and follow up was required.⁵
- Processes and standards were required
- People needed to communicate and collaborate within and between organisations.
- Progress was restricted by human capacity and capability to do the work.
- Plans were seen as a way to prioritise and justify the benefits of investment of (public) funds.

Changing Farm Plan Content; Developments 1980's – 90s and onwards

Through the 1980's and 90's the content of environmental farm plans changed and started to become more diverse, as issues other than soil conservation were recognized and addressed within plans.

Table 1. (below), from a 2003 report (Blaschke and Ngapo, 2003), shows the variation of issues addressed in farm plans from different regional councils.⁶ While the content varied, the common elements covered, were; erosion control, planting of trees and protection of streams, wetlands, and native bush.

⁵ <https://teara.govt.nz/en/soil-erosion-and-conservation/page-5>

⁶ Blaschke, P. and Ngapo, N. 2003. Review of New Zealand Environmental Farm Plans. For the Ministry for the Environment. <https://www.mfe.govt.nz/sites/default/files/environmental-farm-plans-review-may03.pdf>

Table 1. From Blaschke and Ngapo, 2003.

Question 6. Criteria or issues addressed in Environmental Farm Plans

	ARC	Env Waikato	Env BOP	HBRC	Taranaki RC	Horizons MW	Wellington RC	Ecan	Otago RC	EnviroSouth
Stream margin protection	v	v	v	v	v	v	v	v	v	v
Erosion problems	v	v	v	v	v	v	v	v	v	v
Control of farm runoff	v	v	v		v	v	v	v	v	v
Protection of springs or wetlands	v	v	v	v	v	v	v	v	v	v
Water supply	v	v	v			v		v	v	
Water quality	v	v	v		v	v	v	v	v	v
Pest plants	v	v	v		v	v	v	v	v	v
Pest Animals	v	v	v		v	v		v	v	v
Use of chemicals	v					v		v	v	v
Farm dumps	v							v	v	v
Offal holes	v							v	v	v
Disposal of effluent	v							v	v	v
Protection of landscape or heritage values	v		v		v			v		v
Protection of forested remnants and other natural features	v	v	v	v	v	v	v	v	v	v
Other biodiversity management	v	v	v		v	v	v	v	v	
Tree planting	v	v	v	v	v	v	v	v	v	v
Animal welfare						v				
Fertiliser management	v					v		v	v	v
Soils management	v				v	v	v	v	v	v
Nutrient management	v					v		v	v	v
Land and soils capability	v		v	v	v	v	v			v
Other	Holistic approach	Primarily target water and soil issues								

ARC: Auckland Regional Council
 Env Waikato: Waikato Regional Council
 Env BOP: Bay of Plenty Regional Council

HBRC: Hawkes Bay Regional Council
 Horizons MW: Manawatu Wanganui Regional Council
 Ecan: Canterbury Regional Council

EnviroSouth: Southland Regional Council
 DIY: Do it yourself (landowners own plans)

Farm plans for purposes other than addressing environmental concerns have also emerged. We now have plans for farms that are:

- A broader farm management tool
- Part of market accreditation and assurance programmes
- Plans addressing other concerns such as; health and safety, animal welfare, food safety.

From a regional council perspective farm plans and farm planning involves dealing with issues and management of land, and dealing with people, to ultimately take care of, or improve water quality in catchments. From a farmer perspective there may be value in including broader issues from the list above.

Here is a quote from a Hawke’s Bay farmer in relation to farm plans:

“Bring it on! We need this. It’s our shop window to the world that allows customers to look in and have confidence that things are in order and they can buy with a clear conscience”

The type of farm plan that will achieve that aim, will include a broader set of considerations than a farm plan required by a regional council to comply with a catchment based statutory plan.

There are four key questions which determine how to go about getting farm plans done in a catchment. They are:

- Who is the plan for?
- What is the purpose of the plan? There are often differing expectations and opinions on the purpose.
- What do they need to have in them?
- Who will do it?

In Hawke's Bay currently we are close to a regulatory deadline for Farm Environmental Management Plans (FEMPs). The Tukituki Catchment Plan became operative on 1 Oct 2015. It required 1100 FEMPs to be completed by May 31st 2018 (2 years and 8 months). Council (HBRC) decided the best way to achieve that was not for the council to do the plans, but to help grow the capacity for other people and other options to prepare FEMPs. There are currently 15 HBRC approved providers who can work with farmers to prepare plans. There are also industry run workshop processes that have been developed to help farmers grow their understanding of the catchment issues, and on-farm actions to address these. These workshops also have the potential for farmers to save money by completing as much of their own plan as they can.

Some of the essential, required contents in these plans are:

- Location of the farm and owner
- Map – clearly showing - Boundaries, waterways, LUC areas, land management units, areas of significant biodiversity.
- Nutrient budget, to check compliance with the N limit for the farm and to identify areas and practices contributing to nutrient losses
- Phosphorus management plan – To identify and manage critical source areas for P loss.
- Identify risks to water quality and how they will be managed.
- An action plan with targets and timeframes to achieve.

Tukituki plan – Lessons learnt from implementation

- We still struggle to integrate environmental improvements with productive and economic goals
- We need to prioritise action to where it is needed most. This is particularly important when faced with a large number of farm plans and large amount of work to do. Prioritisation involves focusing on the most important or most risky places, practices and people.
- Current FEMP's don't require the prioritisation of actions, or the cost effectiveness assessment that earlier farm plans had (which involved the use of public funds). Identifying and doing the most important actions first, would be an advantage.
- We still need to develop the human capacity to do plans. The lack of enough available people with appropriate skills, restricts progress.
- We still need to communicate and collaborate within and between organisations

- It is not just the plan that will lead to success, but all the structures, processes and standards that need to be built to surround and support it.
- We need to develop suitable and diverse pathways for farmers to get a plan. Otherwise the risks are; excessive costs for simple low risk operations, and farmers contracting out the development of their plan rather than being involved in a process that helps build a deeper understanding of environmental issues and risks, and appropriate management of them.

References:

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