

THE HEALTHY RIVERS CHALLENGE

– 5,000 FARM PLANS IN EIGHT YEARS

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Abstract

In October 2016 the Waikato Regional Council (WRC) notified its Proposed Plan Change 1 – Waikato and Waipa River Catchments. This plan aims to take the first of eight ten-year steps to improve water quality for four contaminants to help achieve the Vision and Strategy for the catchments under the co-governance arrangements for the catchments.

This first step addresses diffuse discharges of nitrogen, phosphorus, sediment and bacteria and its objective is to achieve ten percent of the required change between current water quality and the 80 year targets. One of the key policies to achieve this is to require almost all of the 5,000 farms in the catchments to prepare a tailored Farm Environment Plan (FEP). The use of land for farming activities is either permitted as part of an industry scheme, or requires a consent. In either case a FEP must be approved by a certified person and submitted to WRC. The FEP must identify risks of losing the four contaminants and include actions and timeframes to reduce discharges.

Implementing the policies involves establishing a training and certification process for farm planners, developing a FEP guide, templates, an electronic submission process, monitoring, audit and compliance systems, as well as data management and reporting processes. Engaging farmers in the process will be key to ensuring the eventual success of the policies, so significant effort is also going into developing and testing methods to engage farmers at a sub-catchment and community scale.

The policies

Healthy Rivers is the name given to Waikato Regional Council's Plan Change 1 (PC1) which proposes new policies and rules for agriculture in the Waikato and Waipa river catchments. This is the first of eight ten year policy steps to restore and protect the health and wellbeing of the Waikato River, in keeping with the Vision and Strategy for the river.

The key policies in Healthy Rivers are;

- All rural properties over 2ha must register with WRC and provide information on how the land is used.
- Most properties over 20ha must provide a Nitrogen reference point (NRP) detailing the nitrogen leaching from the property in 2014/15 or 2015/16 (whichever is higher).
- Land use change to higher intensity uses is a non –complying activity requiring a consent, and the applicant must show that the new use will have lower contaminant losses than the original use.

- Most farms over 20ha must have an approved FEP within a prioritised timeframe based on sub-catchment condition.

PC1 is currently going through the RMA Schedule 1 process of submissions and hearings, so it is expected that there will be changes to the policies.

Farm Environment Planning

The use of FEPs as a key policy instrument is supported by modelling that has identified that a 10% improvement in outcomes can be achieved if every farmer adopts good practices. The FEP tool enables each farmer to tailor GMPs to the specific circumstance of their farm system. Having the farmer involved in that design is essential to ensure that the FEP is workable and will be implemented.

The FEP must be approved by a Certified Farm Environment Planner and submitted to WRC with a Controlled Activity Consent application, unless the farm is part of a Certified Industry Scheme, in which case the FEP is still submitted to WRC but farming is a Permitted Activity.

Each FEP will include the following key elements

- A risk map showing where contaminants may be released and transported into water bodies.
- Actions to reduce those risks and the timeframes in which those mitigations will be completed.
- A description of where and how stock (Cattle, deer pigs and horses) will be excluded from water bodies, or alternative mitigations where fencing is impractical.
- A description of nutrient management practices to ensure that nitrogen leaching, measured by the five-year rolling average does not exceed the NRP.

Farms with an NRP above the 75th percentile must reduce their leaching to that level by July 2026.

Farmer engagement

Having farmers engaged in the process of farm planning has been identified as a critical requirement for successful implementation of PC1. The approach being applied involves working through the sub-catchments according to their identified priorities, focusing on the local context and communities.

Engagement is supported by a 'Profile' of the sub-catchment which provides context on which contaminants are of particular concern in the catchment and where it is likely to be coming from. That encourages farmers to look at their farms with the in mind, to identify the risk areas that are specific to their place.

Importantly the Profile also provides information on the ecosystem in which the farm operates. The expectation is that farmers will relate to what lives in their waterways, woodlots and riparian areas. When the FEP is prepared they can then design with connectivity and biodiversity enhancement in mind – if they choose to.

Early engagement meetings and discussion are followed up with field days and workshops on locally relevant topics to arm farmers with the knowledge and appreciation of risk recognition required to begin preparation of an FEP.

A Beef + Lamb NZ FEP workshop is then scheduled locally so that farmers can draft their FEP alongside their neighbours. That allows cross fertilisation of ideas and potentially coordinated effort, for example to enhance bird habitat across a landscape using networks of woodlots, riparian planting and wetland rehabilitation.

This approach is still being tested, but the results so far are promising, albeit with a self-selected cohort of pro-active early adopters. It is hoped that if farmers are engaged in what their FEP can create rather than what it can prevent, they will be more likely to fully implement it.

The numbers

The catchment is 1.1m ha 61% in pastoral farming (28% dairy, 33% sheep and beef) >670,000ha farmed, 31% in forest (15% forestry, 16% natives).

- ~ 5,000 farms
- ~ 2,500 dairy (industry schemes?)
- ~ 2,500 others
- 8 years to complete
- Requires an average of 300 non-dairy FEPs per year
- ~ 15 to 20 farmers per FEP workshop
- ~ 20 workshops per year
- = 300 to 400 FEPs per year

Farmer engagement is critical to achieve that. We expect that there will be relatively slow uptake at the beginning of each 3 year tranche, followed by a rush to complete as the deadline approaches. That will put pressure on farmers, and on WRC and our systems.

Certification

Because PC1 requires every FEP to be approved by a Certified Farm Environment Planner (CFEP), it is necessary to develop a certification system and to recruit and prepare people to become CFEPs.

There is widespread interest in FEP certification systems across the country as the regions progressively work through the policy processes required to address the issues of agricultural impacts on water quality. This has led to a national discussion aimed at creating a single certification system to avoid duplication of effort. That work is under way with New Zealand Institute of Primary Industries Management working to develop a draft approach.

This is not expected to deliver an operating system in the timeframes required to meet the needs of PC1, so an interim system is needed.

In addition, the NRP must be calculated by a Certified Farm Nutrient Advisor (CFNA) and although the Nutrient Management Advisory Certification Programme covers the technical

aspects required and will form the basis of our certification system, it is still necessary to add a number of legal and administrative elements to meet the needs of the plan.

To complete the package, a certification system for Certified Industry Schemes is also required to provide for the Permitted Activity option for FEP submission.

The CFEP requirements are defined in PC1 and include five years' experience in farm systems management, advance nutrient management training, and experience in soil conservation and sediment management.

Professional development

It is expected that the CFEP s will be drawn from farm consultants because they already have the base knowledge of farm systems management. WRC has been supporting running the Massey Advanced Nutrient Management course in Hamilton for several years to make it easier for consultants to attend, so many have also completed that. There are over 120 people with this qualification based in the Waikato region.

It was recognised however that there is a significant skills gap in soil conservation within the farm consultancy industry. As a result a Soil Conservation and Land Management course was established and has now been run three times in Hamilton to provide basic knowledge of these disciplines. This course has attracted 179 participants from across the country. Massey University has refreshed its approach to soil conservation, so WRC has decided not to offer this course again.

Additional training will also be provided for certification candidates. This will cover the content of the Waikato FEP guide and how to use the template (currently under development), how to read and interpret the policies in PC1, understanding the Resource Management Act and how to write a good consent application.

New systems required

Because the PC1 approach is new it has generated the need for a number of new systems, some of which have already been described above. Other systems under development include;

- Audits for the certification systems.
- A two-way 'portal' or access point at which base information for FEPs can be accessed and FEPs can be submitted.
- A tool for creating and managing FEPs electronically. This must be capable of simple adjustments over time, but also provide certainty that minimum requirements are not lost.
- On-line consent application process
- New databases to manage the mass spatial information as well as annual Overseer files from 5,000 farms.

Challenges

There are of course many challenges arising from the policies of PC1. This is an inevitable consequence of any new policy package. Some of the critical challenges in this instance are;

- Timing. The policies contain fixed dates, some of which occur before the hearings of submissions will begin. This is of particular significance in relation to the requirement to provide an NRP which is one of the most debated policies.

- The scale of change required. There are approximately 5,000 farms that will require an FEP by 2026. Approximately half of these are dry stock farms operating complex systems on diverse hill country and they have major changes to make. The costs and timeframes of these changes are a particular challenge for those farmers, even if they are highly engaged and supportive of the objectives.
- Farmer engagement. These policies represent a very significant change, especially for hill country dry stock farmers who have not so far been targeted with environmental regulation. Getting the FEPs prepared and approved on time and then implemented will be heavily reliant on having farmers engaged in the need and the benefits. This is made more difficult while the policies remain open to changes arising from the upcoming hearings.
- The tailored approach. While this is clearly an opportunity and recognises the inherent variability of circumstances between and within farm systems, it provides a particular challenge from a regulatory and a public perception perspective.

Opportunities

A key factor in the development of implementation approaches has been the relationship with stakeholder organisations across all sectors. Two factors are observed in this. The first is that these kinds of challenges have been coming up across the country for several years now so industry stakeholders have recognised that they aren't going to go away and have developed considerable experience in policy implementation, so they have lessons to share.

Secondly, the networks of long-standing interpersonal relationships between councils and industry stakeholders has built trust which supports robust and open discussion. This enables the testing of implementation ideas in a blame-free environment, so new ideas can flourish. This remains possible despite (or possibly because of) the often very challenging nature of the task, and the movement of key people between organisations. This is to be celebrated and offers a key opportunity for New Zealand agriculture.

The engagement process described above is showing signs of creating a proactive atmosphere at least in some communities. This approach has been possible because of the active support and cooperation of Beef + Lamb NZ, supported in part by the Waikato River Authority.

Conclusion

Waikato Regional Council's Plan Change 1 has adopted Farm Environment Plans as a key policy approach to bring about changes on farms that will result in improvements in water quality in the Waikato and Waipa catchments.

The implementation of the policies presents a number of administrative, legal and social challenges and as a consequence has driven a range of innovations.

In addressing the challenges of the policies, Council staff, industry stakeholders, farm consultants and farmers have all made changes and are preparing to make more over the coming decade. This adaptation and resilience is a characteristic of New Zealand agriculture that offers considerable hope for the future of the industry, our waterways and our international reputation.