

Considerable effort is expended on- and off-farm to achieve catchment water quality objectives. Various procedures have been trialled and implemented over several decades, with varying levels of success. Among the issues associated with traditional approaches to achieve catchment water quality outcomes are the “rigid” nature of formally developed farm plans, which generally fail to recognise the dynamic nature of farming and farmer decision-making. FOCUS was developed to be deliberately solution-oriented and to encourage discussions leading to behavioural and land management change.

### What is FOCUS?

FOCUS is a framework that formalises the link between catchment land use activities and farm water quality planning undertaken by Land Management Officers (LMOs). LMOs play a unique role - they are the front-line workers for Regional Councils, building relationships with land owners (on behalf of the community), sharing knowledge, linking people, and instigating and observing change. FOCUS was developed with LMOs from Greater Wellington Regional Council, and builds on a long history of farm planning with the goal of ensuring that farm planning is focused, efficient and most importantly, results in effective action on the ground.

### Use what works

No FOCUS user (i.e., LMO) will be starting from scratch with farm or catchment planning. FOCUS is designed to “tweak” and build on your current process to make it more effective.

FOCUS is designed to

1. Help you identify **what is working and to do more of it** (and if it doesn't work – STOP!). Solution Focused approaches are embedded in many FOCUS documents and more general guidance is available in the Progress-focused conversations Layer. We used Solution Focused workshops to build FOCUS and one major outcome was that writing lengthy farm plans with annual reviews might not result in much the ground action; a more efficient route might be use of a simple document, completed on-farm together with the farmer and reviewed at customised intervals.
2. Introduce some **new ideas** to your work practices. For example, constructing local mitigation pyramids, concept maps, facilitating progress-focused conversations and encouraging reflection on work practices.
3. Make effective use of the **best available science**. Users are encouraged to browse original research papers and technical reports to create local mitigation pyramids and catchment concept maps to build their knowledge. Users might also choose to become proficient in the use of existing models (without becoming “power users”). Examples of these models include s-map P leaching vulnerability maps (Webb et al. 2010), CLUES national default N generation maps (Woods et al. 2006), etc.
4. **Be customised**. For example, all the LMOs involved in developing FOCUS took notes after each farm visit - some made formal file notes, others recorded verbal notes and some kept notebooks. These notes tended to be about the farm and the farmer's ideas (now part of the FOCUS Farm Action Plan) and attitude to change. We believe there is additional value to be gained from noticing what worked well for you and your interaction with the farmer and opportunities to document change or likelihood of change. We suggest using the method you currently use (if it works!) and, in addition to your usual observations and notes, ask the questions in the Farm Visit Evaluation. Objectively noting change will allow you to document progress (for chosen criteria), which is vital information for your catchment Outcomes Map/Information Gathering Plan.
5. **Help notice change**. Noticing change is vital for maintaining motivation of the LMO and farmer. For example, the FOCUS Farm Action Plan includes a question about noticing change. A simple series of open questions might be used to encourage a farmer to establish their own simple monitoring programme to

allow detection and quantification of change. For example, a simple programme to monitor change in stream bed condition after fencing cows out of a stream channel might comprise:

- a. photographing the stream using a smart phone placed on an angle bracket on a fencepost after lunch on the first day of each month, then
- b. pinning a printed photo on the office wall to create a record that documents change over a period of months.

6. **Ensure change is documented.** We found that the personal and programme KPIs in general use, such as “produce X number of farm plans within a 12 month period” were not working. We replaced this KPI with an outcome map and information gathering plan to allow information documenting social and physical change to be collected and evaluated.

## FOCUS structure

Albert Einstein once commented that “Things should be made as simple as possible - but no simpler”. Anyone can simplify something by leaving things out - the challenge is to eliminate unnecessary complexity whilst ensuring the process remains effective. We have reflected on “what was wanted” and “what was already working” to build FOCUS to:

- a. encourage action on the ground that will make a difference to catchment water quality AND
- b. to track and document social and physical change.

The result of this process is a modular, flexible, living and simple framework delivered in five modules – “Signal of Harm”, “User Training”, Catchment”, “Farm” and “Outcomes” (Figure 1, Table 1). The LMO works on four of the tasks individually for a particular catchment, and works with the farm decision maker(s) on the “Farm” module.

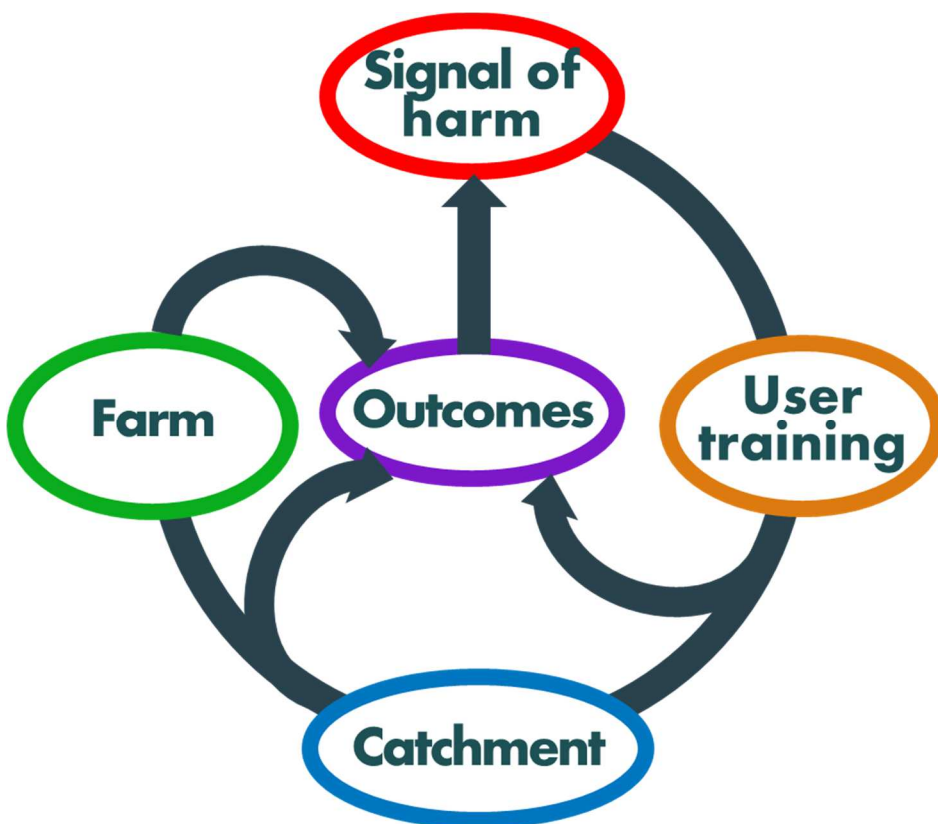
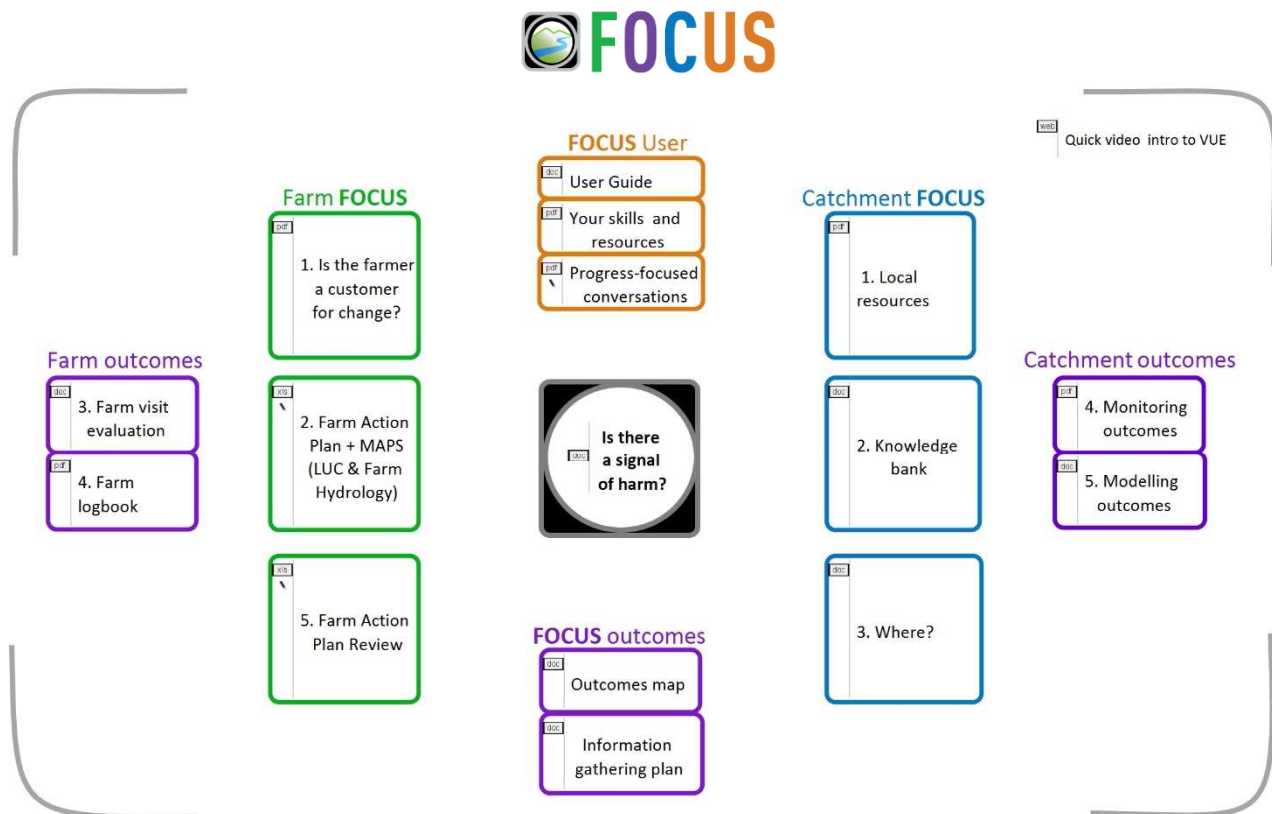


Figure 1: FOCUS modular structure

**Table 1. FOCUS module descriptions**

Module	Description
Signal of harm	Starts with a quick review of the identified signal of harm
LMO training	LMO training includes: progress-focused conversation introductory guides, individual reflection on personal skills and resources, FOCUS training
Catchment	Catchment priorities includes: quickly assembling a catchment knowledge bank and conceptual model, then moves to identifying target farms in catchment using existing measurements and models (such as CLUES, SMap, NZeem, LRI, Land Use)
Farm	Farmer solutions – finding out what farmer is willing and able to change before proceeding to Farm Action Plan (FAP) based on desired catchment outcomes. The FAP is structured around the questions ‘what’s wanted?’, ‘what’s working?’ and ‘what’s next?’ Accompanied by farm-scale Land Use Capability and Hydrology mapping. List of agreed actions reviewed at least quarterly (by phone or in-person). Flexible – LMO and farmer use any existing tools that suit the current situation and decision.
Outcomes	Outcomes include both catchment WQ and FOCUS outcomes. Catchment WQ outcomes are modelled (e.g., spreadsheet model or CLUES). FOCUS immediate, intermediate and long term outcomes are “mapped” and an information gathering plan and evaluation plan is included.

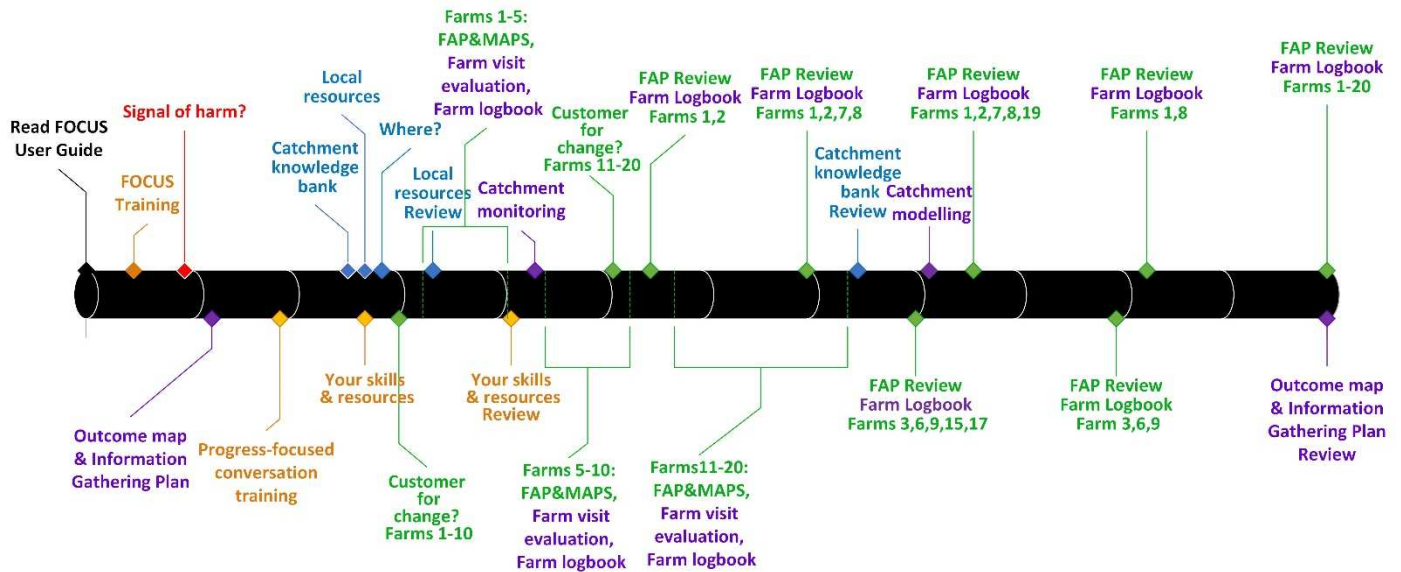
FOCUS is delivered electronically as a series of dynamic documents, rather than a report. This different format might initially be challenging for new users. We believe this format offers several benefits: (1) the ability to edit and customise documents, (2) inclusion of supporting documents/guides, (3) inclusion of real examples as required, (4) finding documents is visual and easy. FOCUS is delivered within the VUE software package as a “content map” (nodes and links with URLs, pdfs, other files, notes attached). The FOCUS VUE package mirrors a camera focus frame (Figure 2). The main 15 tasks are at the centre of the content map and supporting information lies outside the focus frame. Supporting information nodes (User Guides, web links, pdfs) are colour coded and on separate layers so that users can view the information for the tasks they are currently using.



**Figure 2. FOCUS main layer in VUE. The main starting point is the central focus point. Module tasks are farm related are on the left, catchment tasks on the right and outcomes are distributed. All nodes are colour coded (Farm = green, Outcomes = purple, Catchment = blue, User Training = orange.)**

Although FOCUS is a flexible framework, and not linear or cyclical, for many applications there is a logical workflow. Figure 3 indicates how use of the various modules identified in Figure 2 may be prioritised:

1. user training,
2. Signal of Harm for a catchment
3. outcome planning,
4. identifying catchment priorities and monitoring opportunities,
5. the first round of farm planning,
6. catchment modelling and
7. on-going farm plan reviews.



**Figure 3. A hypothetical time line spanning 6 months. All nodes are colour coded (Farm = green, Outcomes = purple, Catchment = blue, User Training = orange.)**

As with all other elements of the FOCUS approach, the priorities indicated in the workflow of Figure 3 may be altered or customised in response to farmer requirements or changing circumstances.

## Use of FOCUS

There is no substitute for trying something. FOCUS provides a suite of tasks that have been developed in consultation with experienced users. As with any process, the usefulness or effectiveness is largely determined by the proficiency of the workers. In the case of FOCUS, a team is established comprising the LMO and the farmer. FOCUS facilitates the effective use of the unique combination of their knowledge, skills and experience to make land management changes that are likely to deliver catchment water quality improvements. The proficiency of the partners in the team will increase as they use the techniques and principles embodied in FOCUS.

## References

- Webb, T., A. Hewitt, L. Lilburne, M. McLeod & C. Murray. 2010. Mapping the vulnerability of nitrate and phosphorus leaching, microbial bypass flow, and soil runoff potential for two areas of Canterbury. Christchurch: Canterbury Regional Council.
- Woods, R., V. Bidwell, B. Clothier, S. Green, S. Elliott, U. Shankar, S. Harris, A. Hewitt, R. Gibb, R. Parfitt & D. Wheeler. 2006. *The CLUES project: predicting the effects of land-use on water quality*. Wellington [N.Z.] :: Ministry of Agriculture and Forestry.