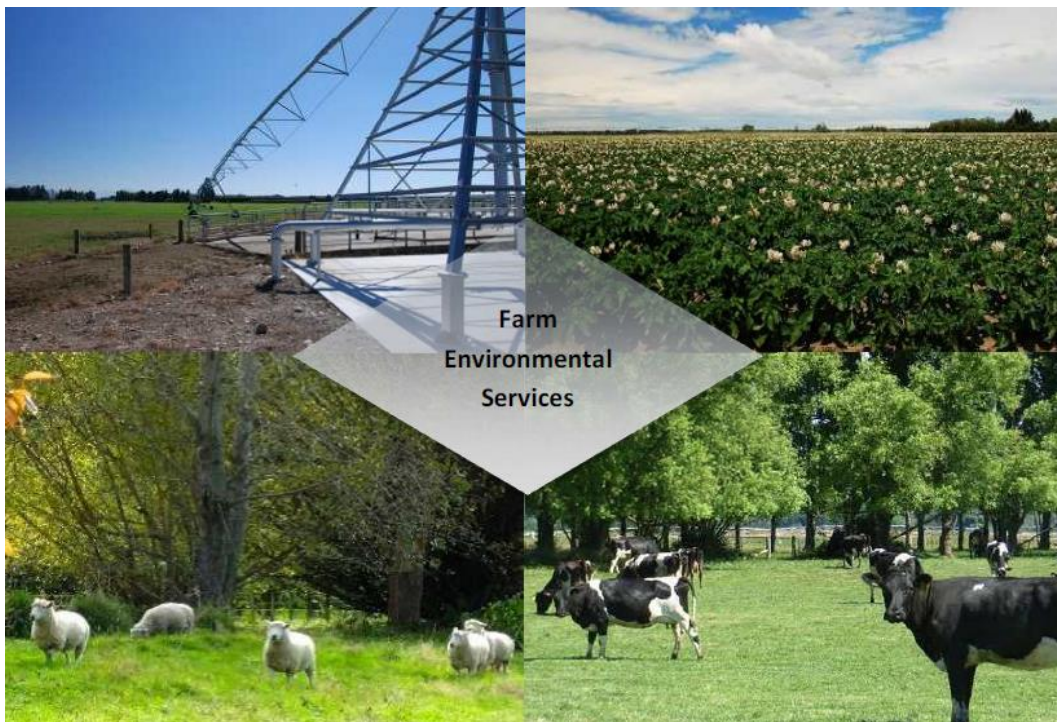


"Achieving Outcomes by Building Capability"



Kaikoura Plains Recovery Project.

Mock Audit Summary Report
October 2019



Please Read

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1. Background – Farm Environment Plans and Auditing

A workstream component of the Kaikoura Plains Recovery Project was to focus on:

Farming in wet conditions – Due to efficiency reduced since the earthquake – investigate possibilities of renewal of farm infrastructure, including advanced effluent management systems, irrigation efficiency and other infrastructure to adapt to farming in ‘wet’ conditions.

Many farm businesses are operating in a wetter, less stabilised environment and having to adjust their farm practices to align with regulatory expectations. To this end The AgriBusiness Group was contracted to complete one on one mock farm environment plan audits to help farmers assess where they are and provide some options in achieving good management practice where required. The mock audits had the intention to:

- a. Work through the FEP sections on Irrigation and Effluent (note: not all farms have irrigation)
- b. Identify any additional actions that are needed to get the irrigation and effluent to at least a B grade or if at a B grade already, then move up an audit grade.
- c. Expectation that increase farmer awareness and knowledge of GMP.
- d. Plus, address other audit management areas that can be covered in the appointment time slot
- e. Provide each farm with a one-page summary from the pre audit visit
- f. Provide the Kaikōura Plains Recovery Project an overall summary report at the completion of the work.

This report addresses ‘f’ of this list.

2. Mock Audits October 2019

Eighteen of the 22 dairy farms were visited. Three farmers postponed their visits and one farmer declined the offer of a mock audit.

Each farmer received a report detailing the good management practices that were expected from an audit covering all management areas (where appropriate) of a schedule seven farm environment plan standard.

The original intent was to grade each farm under the FEP auditing grading system of either an A, B, C, or D. However, some of the farms would be a fail (D) because they did not have a consent and imposing a ‘fail’ grade would detract from the educational purpose

of the mock audit. The result was some farmers received quite clear audit reports with a grade and why, whereas others received audit reports that gave them a list of ways they could provide evidence to show good management practice.

All farmers received information describing the requirement to get to good management practice where it was lacking. The following tables show a summary of required actions presented in the reports.

Irrigation

Complete application depth testing of long lateral sprinklers at different altitudes of the farm
Calibrate an electric fence standard (for example) or a Frizzell portable soil moisture probe with the buried soil moisture monitoring probe
Continue to have the Wildeye soil moisture probe telemetered to your computer so that you can monitor 'live' soil moisture data
Identify the irrigation high risk areas on the property and develop procedures for managing these areas
Ensure irrigation training is provided for those staff that are actively involved in the operation of the system.
Develop written irrigation procedures for the property.

Nutrient

Develop a winter forage grazing management plan that covers: Paddock selection, Paddock preparation, Grazing management (including contingency plans in adverse climatic conditions), Post grazing paddock management.
Record fertiliser applications; Paddock names, fert type, fert rate and date applied on a farm paddock map
Ensure that all farm owned equipment used spreading fertiliser on the property, is correctly calibrated for the product used.
Increase the width of buffer strips near waterways to ensure no fertiliser is directly applied to the waterway.
Ensure no nitrogen fertiliser is applied during the high leaching loss risk months of May, June and July
Ensure no phosphate fertiliser is applied during the high loss risk months of June to September.
Ensure that all farm owned equipment used spreading fertiliser on the property, is correctly calibrated for the product used.
Provide soil test and advisor recommendation reports at time of audit

Effluent

Continue to bucket test on effluent irrigator annually and adjust if necessary, to ensure it is applying the correct amount for the soil type and consent conditions.
Upgrade effluent management records to ensure sufficient records are available at the time of next audit.
Develop effluent training records and procedures
Complete storage effluent calculator
Upgrade effluent management plan

Waterway

Ensure buffer filter strips are adequate for slope and stock management. This may include the use of temporary fencing during wet weather
Add nibs or pasture strips to ensure sediment does not enter waterways
Ensure drain cleaning and/or development aligns with GMP of leaving filtering areas where required

Water non-irrigation

Attend to water trough or pipe leaks as they occur
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3. Recommendations to Project Group

I thought farmers were mentally in a normal farming space and coping well in post-quake times. Their concerns regarding regulatory environment implementation were typical with farmers I have met throughout Canterbury. The main concern derived from uncertainty and the risk that has to their livelihood and sense of place. Another concern expressed strongly by one and less so by others was to ensure there was an even 'playing field' for all farmers. Some felt targeted because they were dairy farmers.

I believe the educational approach to the mock audit helped the farmers listen to future requirements in a relaxed state. This was apparent in the questions asked and the willingness to show me 'issues'.

A number of farms are family farms that have been doing the same thing for a long time and have had little requirement for recording farm activities, therefore providing measurable evidence at a FEP audit can be challenging, especially in regard to the upcoming winter management grazing plan requirements. I have attached some templates to assist in this.

Momentum is key going forward and I like Pete Bradshaw's idea of taking templates out to farmers to keep the continued improvement rolling. A training day on bucket testing and distribution uniformity is a good idea, but the majority of the irrigation is long lateral type sprinklers, therefore it is more important to have farmers quantify the application depths of these systems at different altitudes of their farm and make sure they do not exceed the infiltration and field capacity of the soil.

In discussions with farmers and ECan staff, drain management has been a discussion point for quite a while. There are areas where improvement is required but overall drains and setbacks were typical to what I have seen across Canterbury. The farmers are open to changes in waterway management but do need good reasoning to back requirements. For example, it is not just the N and P which upsets ecosystems but also the abrasiveness of fine sediment to invertebrates that can start the breakdown of the ecosystem.

I am confident the farmers I have met can reach an A or B grade at their first audit. This is conditional that they have the relevant consents, updated FEPs and nutrient budgets.