

Block 3 hearing

Thursday August 8th 1.30pm

Introduction

Issues raised from Block 2 hearing – Jeremy Leigh

Water testing results at Upper Maire exit – Hills Laboratories

(E coli and how best to manage as a sub catchment using 20ha as an example)

Soil map data – updating Overseer with more accurate S map data

Focus on 3 main items

1. **Working with a sub catchment group** – Scott Fraser, Landcare Research & Don Harford, WRC (TBC)
 - a. Benefits and incentives for PC1 stakeholders
 - i. Supports community and environmental stewardship
 - ii. Funding vessel for greater environmental protection
 - iii. WRC works more efficiently and proactively with Sub catchment groups than individual farmers – acts as an extension arm to farmers that don't participate in off farm extension
 - iv. Educates all members rather than B+LNZ etc preaching to converted (farmers on their database that have attended fielddays)
 - v. Members are enticed to improve farming practices by group / peer pressure

2. **Working within a sub catchment group - Dave Watson (TBC), Jeremy Leigh, all welcome**
 - a. The benefits for members
 - i. Guidelines and proposed rules can be translated to individuals in a safe group setting rather than making individuals feel overwhelmed
 - ii. Easier for individuals to keep up with compliance in a group
 - iii. Individuals feel protection within a group rather than as an individual that could be picked on
 - iv. Access to high quality technical support – best mitigation options, funding options etc
 - v. Financial incentive than allows savings to be used for improved environmental outcomes
 - vi. Getting to know your neighbours and the importance of a strong (rural) community

3. How sub catchment groups could work within PC1 – Jeremy Leigh

- a. PC1 recognises the importance of sub catchment groups
 - i. Failing to incorporate threatens SC and could undermine good efforts of those inexistence and halt new SC groups
- b. How to manage Sub catchment groups
 - i. Suggest those not in sub catchment groups will have to abide by PC1 rules
 - ii. Those actively engaged in sub catchment groups will have some flexibility in PC1 rules as described below to encourage and maintain engagement
 - iii. The sub catchment will need to have elected sub catchment leaders that will be the first point of contact with WRC
 - iv. If WRC identifies an issue with a sub catchment member – they will ask sub catchment (leaders) to intervene first and allow the group to educate
 - v. If Sub catchment has a member that is not willing to improve their farming practices to benefit the environment despite their best efforts, they may ask WRC to assist. They are likely to require more frequent FEP reviews
- c. How does this translate into encouraging engagement and formation of sub catchment groups?
 - i. One benefit will be that those that are members of a sub catchment group will enjoy longer FEP review periods (financial incentive) (see below)
 - ii. Non compliance handled within SC first
 - iii. Also less likely to require NRP?
 - iv. Initial baseline NRP useful to estimate catchment load but unless input changes then Level of Confidence (LOC) high that N use efficient and minimised loss to waterways
- d. What constitutes a sub catchment group?
 - i. May start small, say 50% of land area but the important measure is whether the sub catchment group is increasing engagement and having a positive effect on the environment and water quality
 - ii. Realise sub catchment members will have different levels of knowledge and understanding and willingness to engage. However a sub catchment group is the best way of improving environmental outcomes
 - iii. In order to become a vehicle for funding, the sub catchment will probably need to form an Incorporated society (or similar)
 - iv. It could be that one umbrella Inc Society is created for the purpose of funding applications, while smaller SC hubs can then operate more independently for practical matters i.e. defining GMPs at a local scale and peer-to-peer support, knowledge sharing and monitoring
- e. Farm Environment Plans
 - i. It is likely that FEPs will be an important part of PC1
 - ii. Support Landowners preparing their own FEP
 - iii. CFEPs will approve these FEPs and other CFEPs will audit and review
 - iv. FEP should include Sub catchment name and useful information eg. SC leaders contact details, SCEP, objectives etc

- v. Whether a NRP is required depends on whether the CFEP has a high Level of Confidence (LOC) on whether Nitrate is an issue on the farm or sub catchment
 - vi. Regulating practices based on an NRP Overseer file can be greatly inaccurate for complex hill country farms and is a poor incentive for GFPs. In contrary it distracts farmers from finding working alternatives and encourages data manipulation. One of the many benefits of sub catchment groups is that we can test out alternatives in the field, applied over multiple properties which truly achieve a reduction in N loss, regardless of land use intensity
 - vii. Most farms in an extensively run sub catchment should therefore not have to have an Overseer file and calculate NRP as this can be accurately estimated via inputs (stocking rate) and monitored by water testing
- f. Good Farming Practices (GFPs)
- i. Support the promotion of the 21 Good Farming Practices and using these as a base for FEPs
 - ii. Work collectively to identify those GFPs which are effective in your SC
 - iii. Support additional GFPs for Sub catchment objective that will enhance the FEP for those farms that are members of Sub catchment groups. For Example
 - 1. GFP 22 – Actively engaged in their sub catchment group
 - 2. GFP 23 – Have evidence of the importance of the 4 contaminants in their sub catchment through (modelling or water testing etc) bearing in mind cumulative downstream effects
 - 3. GFP 24 – Have a Sub Catchment Environment Plan (SCEP)
- g. Review grades and Confidence ratings (Rob Dragten Report June 2019)
- i. Support using a LOC rating and review grades to determine frequency of review
 - ii. For those that score a high LOC for GFP 22 -24 (proposed), suggest an A+ grade that lengthens review interval to 5 + years
 - iii. This is because WRC will be working with Sub catchments and will know if they are achieving the vision and strategy
 - iv. This will also encourage engagement and participation in sub catchments

Promoting good farming practices

At the national level, the Governance Group will promote the Good Farming Practice Principles outlined below.

AGREED NATIONAL GOOD FARMING PRACTICE PRINCIPLES

GENERAL PRINCIPLES

1. Identify the physical and biophysical characteristics of the farm system, assess the risk factors to water quality associated with the farm system, and manage appropriately.
2. Maintain accurate and auditable records of annual farm inputs, outputs and management practices.
3. Manage farming operations to minimise direct and indirect losses of sediment and nutrients to water, and maintain or enhance soil structure, where agronomically appropriate.

NUTRIENTS

4. Monitor soil phosphorus levels and maintain them at or below the agronomic optimum for the farm system.
5. Manage the amount and timing of fertiliser inputs, taking account of all sources of nutrients, to match plant requirements and minimise risk of losses.
6. Store and load fertiliser to minimise risk of spillage, leaching and loss into water bodies.
7. Ensure equipment for spreading fertilisers is well maintained and calibrated.
8. Store, transport and distribute feed to minimise wastage, leachate and soil damage.

WATERWAYS

9. Identify risk of overland flow of sediment and faecal bacteria on the property and implement measures to minimise transport of these to water bodies.
10. Locate and manage farm tracks, gateways, water troughs, self-feeding areas, stock camps, wallows and other sources of run-off to minimise risks to water quality.
11. Exclude stock from water bodies to the extent that is compatible with land form, stock class and stock intensity. Where exclusion is not possible, mitigate impacts on waterways.

LAND AND SOIL

12. Manage periods of exposed soil between crops/pasture to reduce risk of erosion, overland flow and leaching.
13. Manage or retire erosion prone land to minimise soil losses through appropriate measures and practices*.
14. Select appropriate paddocks for intensive grazing, recognising and mitigating possible nutrient and sediment loss from critical source areas.
15. Manage grazing to minimise losses from critical source areas.

EFFLUENT

16. Ensure the effluent system meets industry specific Code of Practice or equivalent standard.
17. Have sufficient, suitable storage available for farm effluent and wastewater.
18. Ensure equipment for spreading effluent and other organic manures is well maintained and calibrated.
19. Apply effluent to pasture and crops at depths, rates and times to match plant requirements and minimise risk to water bodies.

WATER AND IRRIGATION

20. Manage the amount and timing of irrigation inputs to meet plant demands and minimise risk of leaching and runoff.
21. Design, check and operate irrigation systems to minimise the amount of water needed to meet production objectives.

*Implementing this principle may mean that Class 8 land is not actively farmed for arable, pastoral or commercial forestry uses as this land is generally unsuitable for these activities as described in the Land Use Capability Handbook.

Table 2 Level of Confidence ratings for assessing individual GFF principles.

| LOC Rating | Meaning |
|------------|---|
| High | The CFEP concludes the farm practices likely to be consistent with the FEP objective or principle. The farmer has appropriate evidence to demonstrate their practice achieves the principle and can explain or show what/how their practices have been undertaken. |
| Medium | The CFEP concludes the farm practices are possibly consistent with an objective or principle. The farmer either has appropriate evidence to demonstrate their practices achieves the principle or can show what/how their practices have been undertaken. |
| Low | The CFEP concludes the farm practices are unlikely to be consistent with an objective or principle. The farmer cannot produce evidence to demonstrate how their practices achieve the objective or principle and cannot show what/how their practices have been undertaken, OR the farmers evidence or practice is not consistent with the relevant objective or principle. |
| N/A | The objective or principle is not relevant to the farming operation. |

Table 3 Defining Objective LOC ratings based on principle LOC ratings

| Principle LOC ratings | Objective LOC rating ⁷ |
|--|--|
| All high LOC | High |
| Mostly high LOC, with 1 or more medium LOC | Either High or Medium LOC, depending on importance of the principle with the medium LOC rating to the objective. |
| Mostly high LOC, with 1 or more low LOC | Either Medium or Low LOC, depending on importance of the principle with the low LOC rating to the objective. |
| All medium LOC | Medium |
| One or more Low LOC | Low or Medium LOC depending on importance of the principle with the low LOC rating to the objective. |

Table 4 Defining Overall Review Grades

| Review Grade | Meaning ⁸ |
|--------------|---|
| A | Has received LOC ratings of "High" for all objectives. |
| B | Has received one or more "Medium" objective LOC ratings, no "Low" objective LOC ratings, has an appropriate action plan to improve LOC ratings, and is on track to achieve the plan |
| C | Has received one or more "Medium" objective LOC ratings, no "Low" objective LOC ratings, but either does not have an appropriate action plan to improve LOC ratings, or is not on-track to achieve the plan |
| D | One or more "Low" objective LOC ratings. |

Table 5 Frequency of FSP reviews

| Previous Review Grade | Interval to next review |
|-----------------------|-------------------------|
| A | 3 years |
| B | 2 years |
| C | 1 year |
| D | 6 months |