Appendices: Evidence - Wairakei Pastoral Ltd - Nicholas Conland - Block 3 Hearing Topics

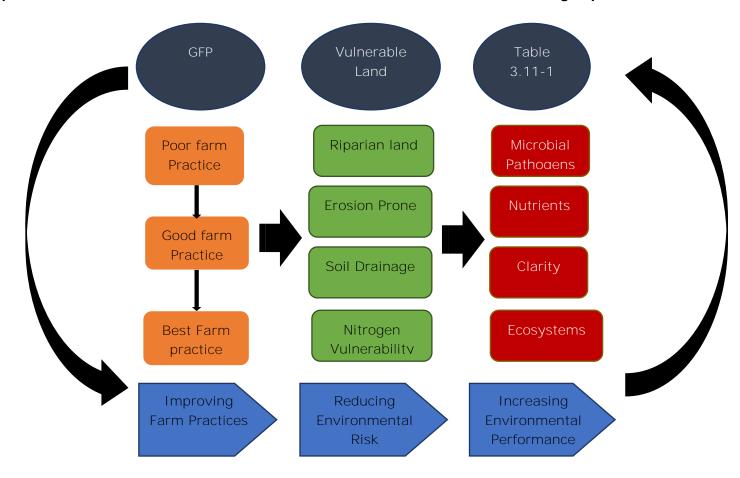


Figure 1 : Adaptive Management under Schedule 1

Appendices: Evidence – Wairakei Pastoral Ltd – Nicholas Conland - Block 3 Hearing Topics

Table 1: Vulnerable Land Guidance

Type	Description	Risk Attribute	Mitigation
Турс	Description	Misk Attribute	Mitigation
Riparian Margins	Land forming riparian boundaries for all permanent watercourses		A uniform buffer of 15 metres from waterbodies (Note: Schedule C – provides minimum criteria for stock exclusion)
Hill Slope Erosion	Land defined as erosion prone in WRP (including LUC Class 8)	Sediment and clarity; Phosphorus to lesser extent.	All erosion prone land is avoided for pastoral, cropping and grazing; sediment detention bunds are installed in gullies feeding watercourses.
Gully erosion	Land around the (gully heads) top of the erosion prone land areas.		10 metre vegetated buffer and stock exclusion.
Shallow Groundwater	Land where shallow groundwater is directly connected to surface water through a drainage network.	All attributes and ecosystem services.	All drainage land land is avoided for pastoral, cropping and grazing.
Nitrogen Risk Areas	Land with rapid groundwater travel (response) times based on proximity to a waterbody; soil and/or aquifer transmissivity	Nitrogen.	Intensive landuse is avoided and/or mitigated in all nitrogen risk areas.

Adaptive Management Triggers

- Weather events
- Vulnerable Land evaluation
- Incident notifications by stakeholders, contractors, tenants and staff
- Routine farm inspections
- Maintenance reports
- Environmental data from monitoring data
- Farm data from business units
- New development plan

Evaluation and screening

- NRP review
- DST predictions
- Quarterly inspections
- Incident response report
- Rain event survey
- Farm risk survey
- · Environmental data review
- · Farm data review
- Farm development plan
- LAWA results
- WRC advice

Mitigation Actions

- Gulley Protection
- Riparian retirement
- Wetland protection
- Sediment Bund installation
- Erosion Prone Land retirement
- Nutrient Management review
- Irrigation Management review
- Culvert/Crossing upgrade
- Farm infrastructure upgrade
- FDE system review
- 'on-farm actions'

Figure 2 : Adaptive Management Cycle in an FEP