Parkers Gardens Submission 731181

A mixed enterprise -Horticulture

Arable -Maize

Livestock – During fine weather

Farm Features.

- Home bock 15ha.
- Flat to very gentle rolling.
- No ephemeral streams.
- Drains may have water 2-3days/annum (depending on severity of rainfall)
- Two soil types –Horitou silt loam and clay loam.
- Annual rainfall -1125mm.
- Irrigation limited to Horticulture only and generally only in January/February.
- Some additional leased land. (same contour and soil type)

Submission in 3 parts

- Oppositions to rules.
- Mitigations
- Practical solutions to improving water quality

Overseer and Nitrogen reference point Including opposition to Rule 3.11.5&7.

- By now I hope other submissions have given sufficient evidence to show for Horticulture and cropping, NRP's using current Overseer modelling are incorrect (my solutions later).
- Flexibility required. NRP makes no allowance for changes in cropping activity, changes in land use (lease land for crop rotation) and would devalue land with a low NRP.
- A sub-catchment approach based on the scientific measurement and monitoring of contaminant levels would allow a targeted approach to reducing contaminant levels and viewed with greater respect than a blanket approach.
- Given all the approximations and errors in Overseer NRP results on our farm, our NRP is low and therefore the current system penalises those, like us, who have already mitigated.

Overseer cannot manage multi- crops

Stock exclusion and Farm E. Plans. Schedule C and 1.

- We use cover crops direct drilled in early Autumn and graze during fine breaks with dairy cows that are present from 7-30am to 2-30pm. If you exclude stock then mowing off cover crops would incur much higher costs and burn more carbon.
- While I support FEP's in principle I see farmers/growers as the best qualified to know their properties and develop plans but use compliance schemes such as NZGAP to sign off and auditors tick off as mitigations are put in place. Consultants could still be an option as guides for some but most growers are far more aquainted and qualified to draw up a FEP. Dollars spent on expensive consultants represent money lost for investing in mitigations.

Setbacks, slope and cultivation. Opposition to schedule 1 points 2(b)iii,2(f)iid,and (f)i

- A defined 5m setback is too prescriptive and should be based on scientific and engineering information NOT regional rules. Setbacks are important but **width** should not be prescribed in the rules. The design of setbacks depends on slope, soil type, overland flow paths and cultivation frequency and intensity.
- While sediment movement from cultivated land is a risk, preventing cultivation on slopes exceeding 15 degrees is impractical. Proximity to receiving waterways, measures to divert overland flows and ways to trap sediment can be addressed in individual farm environmental plans and NOT by a blanket rule.
- Research shows that 91% of incoming sediment through a grass filter strip was deposited in the first 0.6m (Parklyn,S 2004). At a slope of 10 degrees a 0.6m grass strip will reduce soil loss between 63-85% depending on cultivation intensity (Yuan et al,2009).

Summary of concerns-

- The lack of science and monitoring at a sub-catchment level to differentiate between those with low and high environmental risk.
- The cost and practicality of implementing the rules and negative effect on rural communities.
- The cost and inaccuracy of a Nitrogen Reference Point for vegetable production and cropping and the restrictions on future land use and lease land.
- The costs, both cash and loss of opportunity, and the practicality of the rules for stock exclusion, cultivation and setback width and the specificity of the rules.
- The inflexibility and cost of restricting the drawing up of FEP's to consultants when compliance schemes (eg NZGAP) exist and growers themselves understand their land better than anyone else.
- Consideration needs to given to those already showing current Best Management Practice and mitigating environmental risks.

Environmental Solutions.

- Until such time as Overseer can give an accurate NRP, Vegetable and Cropping growers should follow current Best Management Practices by –
- Regular soil testing (including deep mineral N, nitrate quick test) and using data to help make science based decisions based on crop requirements.
- Using crop models (eg. Amaize –N) and guides (nutrient Management for Vegetable Crops in NZ, Menus for cropping land, B.M.Practices for growing Maize, Franklin Sustainability guidelines).
- Minimising the time between harvest and the next crop establishment.
- Applying as little N as possible(or use slow release) during the wet and cold winter period.
- If soil temperature is low, applying lower rates of N.
- Allowing growers to draw up FEP's and giving credit for mitigations already in place while allowing industry compliance schemes to signoff and tick off when Best Management Practice and mitigations are carried out.

USEFUL GUIDES

Closing remarks

- We all agree that improving water quality is necessary and that loss of farm nutrients is a farm cost as well as environmentally undesirable. However, we all need to work together within flexible guidelines and not within prescriptive rules if we are to achieve an improvement. Educating and bringing people's hearts and minds with you works far better than draconian rules.
- "The current water management in NZ needs a change of emphasis so that community-based solutions, including infrastructure, are considered alongside or preferably before regulatory constraints on farm" (Andrew Curtis).