

Bill Garland presenting for F4PC Block 2 4th June 2019

Thank you for the opportunity to present to the block 2 hearings.

Rather than talk about whether the rules in PC1 are right or wrong, I thought it might be more useful to talk about block 2 matters in the context of how we make decisions on the ground regarding lessening the environmental footprint of our farming business.

For me this is the most critical issue. If the decision making process that James, Rick, and ourselves have used to determine what's going to work best on our farms, throws up answers that are inconsistent with the PC1 rules then everyone's got a problem.

To best explain the decision making process around managing the environmental impacts of our farming business I want to use a live example of the approach we take.

Before that I want to explain the difference between the PC1 model and the approach we take. PC1 adopts what I call "an add on approach" In other words it requires and farmer to complete certain actions defined in the PC1 rules, in a certain time frame on the presumption that these actions are the most effective irrespective of the site and the risk profile of that site.

The model that Farmers for Positive Change, Beef and Lamb are advocating and James Rick and ourselves have adopted is "a planning and progressive redesign over time model". Actions are determined through a process of developing an understanding of the natural land resource and planning how those resources are best used with regard for sustainable use, minimising negative impacts on the environment, biodiversity enhancement and of course profitability.

The best analogy of the distinction between the two models is the different approaches taken to road safety, The "add on model" " involves things like building crash barriers, reducing speed limits and more aggressive policing of driver behaviour". The "planning and redesign model" is about planning and building a redesigned roadway that is not only safer but improves traffic flows and may include other attributes such as provision for cyclists.

As with road safety in the case of improving water quality both models work and have a place. Neither model should be exclusive or favoured over the other.

On sheep and beef properties such as James's, Rick's and ours that are characterised by complex landscapes and multiply land capability classifications the planning and progressive redesign model delivers far superior environmental outcomes, The outcomes are more holistic and are more durable. The journey of implementation will take longer and is more costly. Being able to offset costs by improving profitability and having certainty beyond the ten year planning cycle are critical components of this model.

James has been able to tap into modern technologies to assist in the planning process Rick and ourselves have relied on advice from a variety of sources, gut feel, and trial and error. While we have got there in the finish if modern technologies were available when we started out our journey ahead would have been better defined.

To demonstrate what a planning and progressive redesign looks like in the paddock I have a series of photographs taken in a 12.4 Ha block within our property.

While the site has a range of challenges in terms of managing the natural environment and is made up of 4 separate land use classifications it is by no means the only complex site on the property.

The 12.4ha comprises 9ha pasture, 1.5ha restoration planted areas, 0.5ha sheep only area. The rest is made up of unfenced wetlands and a small wood lot. The area is subdivided into two paddocks based on different L.M.U.s.

The major environmental threats ranked into three blocks are

1. - Unstable gully floor wetlands
 - Sediment transfer from hill slopes above the two paddocks via overland flow paths
 - Soil loss from hill slopes within the paddocks
 - Stock camping in bush and woodlot areas adjacent to water courses
2. - Tracks in and around waterways
 - Stream bank erosion
 - Stock access to water bodies.
3. - Saturated peat soils and ponding within the riparian zone.
 - Stock access to wetlands.
 - Fertiliser applied directly to water bodies.

MB - the ranking would alter if dairy support became the major land use option for this area.

The first photos show the redesign work undertaken under the WVA water and soil management plan completed in the 1980's. At the beginning of 2000 another wave of redesign was completed. This involved extending the earlier work to include gully floor wetlands and broken hill slopes.

The catalyst for this redesign work was the need to replace fences that had passed their useful life and a realisation that the original retirement areas were not large enough to do what they were supposed to do. In addition by then water testing was being done on the farm and we had the Whatawhata research findings to assist in our decision making.

As part of this redesign phase we subdivided the block to separate out the steeper more sensitive land from the easier country enabling us to better align stocking policy with land capabilities.

The last phase of redesign started five years ago. Once again replacement fencing was a factor in prioritizing this work. We made a conscious decision to use the need to replace perimeter fences as an opportunity to fence stock out from repaired areas within the block.

This last series of photos shows the work just completed in this area, In addition to extending stock exclusion along the Mangapiko stream several other critical source areas needed addressing as a part of the redesign. Having paddock scale land classification modeling done on the property and PC1 had an influence on how we redesigned this area.

Critical source areas included

1. A track adjacent to the stream that doubled as fencing platform
2. Stream bank erosion
3. Three open drains leading into the mainstream
4. Steep section of track in proximity to the stream
5. Low lying saturated peat soils and ponding within the riparian zone
6. An unfenced woodlot and stock campsite adjacent to the stream

There will always be a debate on whether we could have done more or could have done it differently. I guess it comes down to whether you are writing out the cheques and whether you are the one who has to spray the weeds and clear the debris off the fences after a flood.

In the end Sue is still angling for that overseas trip and I have a desire to make the area easier to farm not harder. Obviously we are both keen to see environment improvements as a result of our spend.

To come back to my starting point what would the final outcome of the 12Ha redesign looked like if we had taken a strictly PC1 compliant approach.

The answer is quite different. Currently 150 metres of water courses as defined in PC1 and 400 metres of gully wetlands remain unfenced.

To figure out whether the costs influenced the decisions we have made I calculated the cost of the redesign and then compared it to the cost of achieving the PC1 compliance.

The calculation is in today's prices and excludes fencing that doubled as paddock subdivision.

Total 8 wire fencing 1018 metres @ \$20/metre = \$20369

2 wire fencing electric 266 metres @ \$10/metre = \$2660

Culverts associated with fencing 7 @ \$750 = \$5250

Restoration planting 1ha \$15000

Total Cost \$43270 or approximately \$3500 per/HA

Had we not created the upper gully retirement areas and instead fenced the 550 metres of gully wetlands and watercourses the difference in costs are:

Savings \$22570

Additional costs of fencing \$21800

What this demonstrates is there are no significant difference in the cost between the two approaches.

However the more important question is whether the PC1 approach delivers better water quality outcomes compared to what we have done.

The short answer is not a chance.

The three gully buffers play a critical role in lessening sediment transfer from the hill slopes above and slows down heavy rainfall runoff.

In contrast the unfenced water courses comprise three short drains that we have adapted to function as silt traps. Fencing would do little to improve water quality and instead would make management of these silt traps more difficult.

The gully wetlands have formed post land clearance, They sit on rocky bottom stream beds and have an average gradients of 1 in 10. The greatest environment threat relating to these wetlands under our farming practices is the potential of whole gully subsidence. In the short term fencing elevates this risk.

In addition over time fencing will trigger a process of channeling and gradual reversion of these wetlands back to a rocky bottom stream.

Conclusions

As I said earlier both the “add on model” and the “planning and progressive redesign over time” model work. The difference in hill country sites is the latter model and the one championed by F4PC will result in better outcomes. Planning and decision on redesign follows a more logical thought process and the end result is a more effective outcome that deals with multi interacting risks.

While PC1 includes a requirement for a FEP the flaw in the PC1 FEP relates to schedule 1. Schedule 1 turns what should be a planning process and prioritising of actions into a statement on how the land owner is going to comply with the rules.

To achieve the high quality outcomes in complex landscapes PC1 must incentivise those land owners willing to adopt the approach we are advocating as opposed to the PC1 one size fits all framework and schedule 1 FEPs. The incentives must include a time frame to complete actions that extends well beyond PC1. We need certainty that the actions that we have invested in aren't going to be overturned in future plan changes. We also need to be judged by the administering body on how well we have addressed the wider environmental issues as opposed to whether a single action is right or wrong in their eyes.

I have indicated in the past that I support the principle of using FEPs as a licence to farm. If we are forced to use the schedule 1 FEP format I will have two farm environment plans. One the proper one. And one that meets the rule requirements in PC1 and will be as minimalistic as I can get away with.

In the end our goal is no different to the goal of PC1 with an exception. As the payer we have a burning desire to maximise the environmental gains from the dollars we spend.

Finally I want to take this opportunity to acknowledge the huge amount of work put in by Graeme Gleeson, Rick Burke and James Bailey on behalf of Waikato sheep and beef farmers. They have done it because they are passionate about their industry and they are passionate about doing the right thing by the environment. I'm just the guy who flicks up a few photos and says is as I see it out on the farm.

Thank you Bill Garland

Bill Garland F4P.C.