

Farmers for Positive Change The spokespeople who are here today representing F4PC

- Rick Burke
- Rob Macnab
- Bob Thomson
- John, Janet & Ian Evans
- Graeme Gleeson

Advocating for and on behalf of fellow farmers who are a broad church of independent individuals wanting fair and equitable opportunity



Farmers for Positive Change - Block 3 Topics F4PC Vision of Success Overview of Subcatchment and LEPs

- Certified Farm Advisor
- Subcatchment Collectives
- Rob Macnab
- Bob Thomson
- John, Janet and Ian Evans
- Rick Burke

F4PC – What does success look like?

F4PC acknowledge that we must restore the mana and mauri of the Wai Te Mana o te Wai

F4PC – What does success look like?

F4PC hope we all recognise and acknowledge : Farm business – a long term investment (generational) An investment in Property and the activity of Farming Farming is the management of biological systems and the annual pattern of production cycles Farming is often an inter-generational business

Farm practice change and remedial actions take time – to have a conversation, to transition

This demands a good degree of certainty What comes next?

It is most important to start in right direction Preparing the foundation, having the right plan to leverage

F4PC – What does success look like?

Balance - Opportunity - Fairness Equitable – Precautionary - Adaptive Flexibility – Certainty - Innovation Pragmatic – Reasonableness - Transitional

No Offsetting / No Subsidisation / No theft of Natural Capital

No Grandparenting – No blanket One-size-fits-all

What does success look like? Vibrant rural communities Primary land use is proper, legitimate and justified Fairness and Equity for all land users Contaminant loss preferentially mitigated at source Owners prerogative to choose land use mindful of ecosystem & human health limits as a constraint Farming Fits the Land

F4PC Vision of Success -

Land use is sustainably managed to support ecosystem and human health in a common (shared) landscape that includes profitable and purposeful agricultural land usage contributing to everyone's wellness.

The common (shared) landscape transforms to become a mosaic of diverse and different use optimised to match the versatility, capability and assimilative capacity of the natural resource i.e. the land, with an environmental footprint having minimal degraded impact – Farming Fits the Land



Plan Change 1 must provide opportunity to achieve good water quality outcomes by encouraging better and more optimised land use within limits.

There must be allowance for low N loss farm systems some ↑↓ shift change in individual contaminant loss particularly nitrogen.

- Farm system redesign
- No under / overs offsetting
- The versatility, capability and assimilative capacity of the natural resource establishes land use opportunity
- Flexibility of land use within limits

Farming Fits the Land

Land use opportunity Versatility, capability and assimilative capacity



Allocable N loss needs to be apportioned accordingly to reflect opportunity



Success is enhanced by developing a tailorised and integrated Land and Environment Plan after comprehensive understanding of the natural resource and opportunities for productive usage acknowledging constraints and limits Farming Fits the Land

Success is not business-as-usual



A successful outcome is not where we have -Misplaced and / or Poorly managed land use High (externalised) contaminant loss? Environmental harm and nuisance?



Too much Nitrogen? Too much Sediment?

This is not a successful outcome

Land users cannot be denied rightful opportunity by poor and inappropriate policy and rules

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No Offsetting / No Subsidisation / No theft of Natural Capital

Where is the lead into the next Plan Change? Certainty about what comes next?

Policy 7 must be retained and emboldened noting that Te Ture Whaimana is a staged, progressive and transitional journey and this highlights and signals the need for:

- Ongoing reduction of diffuse discharge
- Future allocation

Where is the lead into the next Plan Change?

There is a need for clear well-articulated targets we can all relate to providing water quality yardsticks: Swimmability Mahinga Kai **Ecosystem and Human health** We are suggesting interim water quality targets for the above attributes established for the year-2050 Nitrogen allocation 'Natural Capital' framework **Transitioned over three Plan Changes**

Note we are not going swimming every day of the year!

A need to provide certainty – direction and pace of travel

Interim Target State of Water Quality Year - 2050

NPS Freshwater DIN and DRP in-stream concentrations Human health microbial pathogens Swimmability Swimming when good to go

Not 'pristine'

An acceptable environmental footprint All human activity has a footprint



Framework of Actions (desire for seamless transition into next plan change)

Interim target State of Water Quality year - 2050

- Certainty, direction and pace of travel
- Measurable and auditable
- Seamless transition Plan Change 2 & 3

Subcatchment Focus

- A spatial scale to foster Community focus
- Prominent contaminant loss emphasised
- Subcatchment Collectives

Nitrogen delete one-size-fits-all

- No 75th, No Grandparenting, No 5-yr averaging
- No share-the-pain subsidisation
- No under / overs offsetting

Nitrogen Flexibility

- ≤ 20 kgN / ha
- Extensive farm systems threshold
 - ≤ 18 su / ha ~ 1000 kgLW / ha

Nitrogen Allocation Framework

- Natural Capital + LUC proxy
 - Versatility, capability & assimilative capacity

Nitrogen Horticulture

Land and Environment Plan

- Farmer developed and owned as a 'living document
- Comprehensive review natural resource
- Land use opportunities regarding versatility, capability and assimilative capacity **Farming Fits the Land**

Certified Farm Advisor

- **Good Management Practice**
- Compliance module(s)

Critical Source Areas

- **Prioritised focused mitigations**
- **Tailorised and Integrated**

Livestock Exclusion delete one-size-fits-all

- Lowland ≤ 15-degree
- Steep > 15-degree Intensity risk threshold
 - 18 su / ha ~ 1000 kgLW / ha

Winter Forage Crop Grazing

- **Buffer widths**
- Critical source areas flow pathways

Cultivation on slope

Point Source Discharge – Offset?

Certified Farm Advisor Planner

- Empowering farmers, creating awareness
- Consistent, credible, transparent, repeatable, locally adaptable - equal playing field
- Understanding of good practice across all farms
- Adaptation and encouragement of innovation
- Third party auditable

Concerns - Lack of trained and experienced professionals for the S&B + Deer sector

Farmers do not like being told what to do however if the farmer is recognised as a stakeholder and the objectives are clearly and honestly explained then farmers can be very innovative, motivated and solution focused



Land and Environment Plan preparation A learning and advisory process

- Farmer / Community workshops 1.
- One-on-one professional advice, *trained & experienced* 2. guidance and assistance

"One good conversation can shift the direction of change forever" Linda Lambert

Empowering Farmers to Protect Water

Farming Fits the Land



There is a need for good information and knowledge to complete a detailed Land and Environment Plan



A Subcatchment Focus

Freshwater Management Units



1 Upper Waikato Huka Falls to Karapiro

2 Middle Waikato Karapiro to Ngaruawahia

3 Lower Waikato Ngaruawahia to Port Waikato

4 Waipa Waipa River Catchment

5 Shallow lakes Selected lowland lakes nested within their local catchment

Existing FMUs do not relate to rural communities

Sub Catchment water quality

Water quality can only be achieved by having target outcomes established at the subcatchment scale. The solutions will then be more focused and specific.

The focus on water quality at a subcatchment scale is observable and actionable by the farmers where they live, work and have vested interests, and encouraged by active support from communities and stakeholders





Subcatchment Collectives

- Lake Whangape
 - Upper Maire / Naike
- Upper Puniu
- King Country River Care
- Wairakei Pastoral
- Miraka
- others







The water quality from each and every tributary subcatchment will be the outcome upon which success will be measured A montage of different yet neighbouring land use The whole community and all stakeholders are part of the problem and so need to be involved in the solution

A Common (Shared) Landscape

Land and Environment Plans



The Canterbury Farm Plan (tick-the-box) template is not suitable nor fit-for-purpose for the Waikato – Waipa Healthy Rivers Plan Change 1

Land and Environment Plan



- + Farm map(s)
- + Identify land use risk
- + Critical source areas
- + Good Management Practice
- + Nutrient budget
- + Mitigation options
- + Work program timeline

Livestock enterprises having a good fit with the land Diversified land use Farming Fits the Land



The Land and Environment Plan at its core contains informative farm maps – soil type, geology, Land Management Units, Land Use Capability LUC classes, waterways and riparian zones, paddocks, water reticulation, cultivation and more... LUC Classes identifies land use opportunity Versatility, capability and assimilative capacity



N loss needs to be apportioned accordingly to reflect opportunity

LAND MANAGEMENT UNIT



LMU A Ash soil Undulating South to South-West aspect LMU B Peat soil Flat East aspect Draining directly to stream LMU C Hay paddocks Gentle slope East aspect LMU D Riparian margin Roads

Understand the farm's natural resource i.e. the Land Identify the Land Management Units (LMUs)

Reference - Fertiliser code-of-practice/nutrient-managementplanning/preparing-a-nutrient-management-plan/step_2 B+LNZ LEP 2 & 3


Pasture growth and animal requirement curves

Pasture Production – best fit livestock policies Farming to the natural grass growth curve Seasonal production maximises the efficient usage of pasture and assists reduce cost of production

A tailorised and integrated Land and Environment Plan ascertains and prioritises mitigation actions according to contaminant loss risk in the knowledge that risk will differ for each farm type and locale Land and Environment Plans are hugely advantageous to advance mitigations that instigate water quality improvement because they will be unique and tailored for issues specific for the farm and sub-catchment.



Land and Environment Plans prioritising mitigation to reduce contaminant load as profiled and ranked in each subcatchment





TN Sub-Catchment Ranking

There are many subcatchments with predominant S&B land use where nitrogen is not a problem

We should be targeting reduction of high contaminant loss where it occurs?

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The Land and Environment Plan incorporates collective knowledge to identify high contaminant loss risk to which cost effective mitigative solutions can be assessed and applied to reduce as appropriate.

livestock policy, stocking rate, grazing management, land type, leaky soils + high rainfall, critical source areas, fertiliser placement etcetera







Bob Thomson

John, Janet and Ian Evans



Submission for Farmers for Positive Change

Submitter

RD (Bob) Thomson AgFirst Waikato

12th September 2019

Background



- Farm Consultant specialising in sheep and beef.
- 44-years of experience in agricultural extension, advisory and consultancy work.
- I specialise in strategic farm business analysis with emphasis on farm system management on a whole farm basis.
- I am a subject matter expert in these areas of expertise.
- I am not an environmental consultant.



Position Statement

• I contend that an accredited Land & Environment Plan (LEP) is the only practical way of addressing and mitigating water contaminants leaving a farm.



What is an LEP?

- Defines natural resources in terms of:
 - landforms, soils, water and vegetation cover through a Land Use Capability (LUC) assessment.
- Details the risk of nitrogen, sediment, phosphorus and E. coli and relates these to the sub-catchment
- Details current land management and recommends opportunities to better manage natural capital and the enhancement of water quality.
- Provides a tailored Works Plan to address the mitigation of contaminants specific to the farm and sub-catchment to which it contributes.



What is an LEP?

- Includes the farmers experience in managing the land in the development of the plan.
- Is developed in the context of the whole Farm Business Plan and therefore will include economic and social factors in addition to environmental factors.
- Preserves and/or enhances the farms natural capital status as a significant part of the process.

What is the Outcome?



- The contaminants are identified, addressed and mitigated at farm and sub-catchment level.
- The land manager 'owns' the LEP and understands the inherent value of the plan. It is a living document.
- The LEP is accredited and therefore can withstand the scrutiny of regulators and the wider community.
- A strong community of interest develops which fosters a real sense of social responsibility.
- The sum of the LEP's, collectively, mitigates the contaminants and therefore leads to Healthy Rivers.



Questions























Brodick Farms Ltd John, Janet & Ian Evans

Farmers for Positive Change Submission

12th September 2019

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About us

- Joined Farm Cadet Scheme
- Contract fenced and shore sheep to build up a deposit to ballot for a farm
- Married in 1981
- Lands & Survey Ballot farm in 1982 at Reporoa
 - 320 hectares
 - Era of LDEL and LIS
 - SMP's removed
 - Sold to forestry in 1995

About us

- Bought 240 hectares at Mamaku
 - Developed from cut-over bush and scrub
 - Conserved standing bush areas and fenced off
 - Grants from EBOP to fence-off waterways and bush
 - Sold in 2001

About us

Purchased at Matahuru in 2002; Brodick Farms

- 396 hectares steep hill country
- 10 paddocks, now 40 paddocks
- Low soil fertility now moderate to high
- Low performance now high performance
- Stock policy changes implemented
 - Matching stock to the land

Drone View



About the farm

- 396 ha Total
 - 369 ha Effective
- Slopes classified as follows:
 - more than 250
 - between 15-240
 - less than 150 hill
- = 24% i.e. very steep hill
- = 48% i.e. steep hill
- = 28% i.e. moderately steep
- Soils predominately:
 - Te Ranga Clay Loam and Stoney Loam
 - Marua Clay Loam Hill Soil
 - Small areas of Ngaio Silt Loam and Otorohanga Compact Silt Loam at front of property
- Farm performance

Stock Policy

• Breeding ewes, breeding own replacements

- ~2,000 high performance, composite ewe breeding flock makes up 80% of stock units
- Terminal ewe component 35-40% of ewes
- Lambing 135% and lambs 29.7kg at 90 days of age.
- Finish >90% of lambs to works at >18kg carcase
- Cattle trading policy:
 - Purchasing weaners anytime from February to June at 170-220kgLW
 - Marketing store anytime from February to June at 370-390kgLW
 - Numbers vary anywhere from 200-300 and may interchange with winter finishing lambs
 - Only winter once and mid-winter weight does not exceed 250kgLW.

Feed Supply / Demand – pasture utilisation



Environmental Planning

- Stock policy considerations
- Drought in 2007 prompted development of dams where possible
- Started fencing off bush in 2010
- Weather bomb in 2014
- Set up poplar pole nursery
- Realised I had a lot of stuff in my head
- B+LNZ initiated the concept of LEP
- Prompted us to document what we were doing

The LEP

Maps of:

- Paddocks
- LUC (Land Use Capability)
- Soils
- Farm Description
- LMU (Land Managements Units)
- Works Program





By: Lan Han










Overseer Nutrient Budget – Whole Farm

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- John & Janet Evans
- Brodick Farms Ltd

Client reference: Field Day

Farm name: 3022771 Brodick Farms 1718 (2017/18)

Farm Nutrient Budget - Whole farm

Jessica Shailer

Ballance Agri-Nutrients Version 6.3.0 - 26.04.2018

	N	P	K	S	Ca	Mg	Na	
		(kg/ha/yr)						
Nutrients added								
Fertiliser, lime & other	2	22	0	39	47	0	0	
Rain/clover N fixation	63	0	2	3	2	5	15	
Irrigation	0	0	0	0	0	0	0	
Supplements imported	0	0	0	0	0	0	0	
Nutrients removed								
As products	8	1	0	1	1	0	0	
Exported effluent	0	0	0	0	0	0	0	
As supplements	0	0	0	0	0	0	0	
To atmospheric	21	0	0	0	0	0	0	
To water	17	0.7	13	57	28	9	32	
Change in internal pools								
Plant material	1	0	1	0	0	0	0	
Organic pool	14	6	0	-16	0	0	0	
Inorganic mineral	0	2	-23	0	-4	-6	-7	
Inorganic soil pool	5	14	10	0	24	2	-10	

Summary



- Reflections on 40 years of hill country farming
- What we have learnt
- Concerns for future generations of sheep and beef hill country farmers

Succession

- July this year Ian and Kirsten purchased the stock and plant and now lease the farm with right of purchase
- Made possible through a family subdivision and lan and Kirsten's capital
- Janet and I purchased a property just out of Hamilton and have moved off farm on 15th May

Introduction



- Ian and Kirsten Evans 2 kids Connor 5, Lucy 3.
- Started as a shepherd, worked way up through roles to be managing farms for last 9 years.
- Kirsten works part time.

Goals

Pay off debt

- EFS of \$450/ha constantly
- Keep FWE to 50% of GFI
- To grow business to 8000su +
- To be a example of being profitable in conjunction with being environmentally sustainable
- To provide our children with opportunities

Tweaks to existing business

- Increase in ewe numbers- less cattle
- Focus on more lambs produced
- Selling more lambs earlier in season
- Development of longer term high performance forages e.g. red clover

The now

- Winter 200 young light cattle off the hills on some easier country.
- Keeping cattle off steep hills as per LEP
- Investigating the economic return of investing in a small reticulated water system for this area.
- \$20,000 min spend for 15ha

LEP on going work

- On going pole planting- 150 this year
- Continuing growth of on farm nursery
- Further fencing of "sheep only areas"
- Development of buffer zones of where the x2 streams leave the property



Technology

- - Using technology to grow business
 - EID in sheep
 - Farmax
 - Cash manager Rural
 - Cloud farmer App
 - GPS technology aerial fertiliser application

Fertiliser Map



Challenges

- Paying off debt
- Concerned with potential future costs
- How do we expand (and or survive) as well as service potential future regulatory costs



Summary

- Advantages of having a LEP
- Live/working document
- Farmers buy in
- Previous experiences with creating a LEP



Any questions or comments?



Te Mania Catchment

Community-led ecological restoration & water quality

improvement

The Te Mania Catchment



Project Parore

Katikati community project under Uretara Estuary Managers (UEM) covering 4 catchments:

Tahawai, Uretara, Rereatukahia and Te Mania



Starting Point: Te Mania Catchment

1,300 hectares: small but steep

28 km of stream margins

1.7 km of harbour margin

Versatile but erosion prone volcanic soils

Interesting & diverse land use: commercial, residential, recreational

Very mixed primary sector.



COMMUNITY FOCUS IS THE PARORE FISH!

- Native herbivore fish, also know as black bream
- Was previously abundant
- Habitat degradation has led to decline
- The result being a proliforation of algae & sea lettuce in the Tauranga harbour.

The vision of success will be the replication of Project Parore across the 17 x Tga Moana Sub-atchments

And ultimately the restoration of the Parore's habitat.



First phase of Project PARORE:

Development of Entity Relationships

 BOPRC introducing the concept of a Sub-catchment initiative to leaders within the community.

- Appointment of lwi as Kaitiaki.
- Development of Governance Structure & Budget.
- Apply for funding from BOPRC & MfE.
- Engagement with Industry Beef+Lamb, Dairy NZ,

Zespri & Avocado NZ.

- Signing of Memorandum of Understanding with Industry.
- 'We are stronger working together'
- Development of engagement strategy with the Community.

Entity Relationships



Second Phase: Environmental Forensics a key step in community engagement!

- Analysis of 23 sites in the Te Mania catchment.
- A health check of natural resources over 2-year period.
- Analysis of water quality including nutrient attributes & Macroinvertebrate Community Index (MCI)
- Analysis of biodiversity flora & forna.
- A summary of evidence to present to the community!



STARTING POINT: COMMUNITY ENGAGEMENT

First part of engagement was to outline the concept to the community and ask for feed back!

Which included:

- The vision......WHY!
- The process / timeline.
- Up and coming workshops identifying the low hanging fruit!
- How to get involved in projects already underway!
- What land owners could do now to make a difference!



The Project Vision

Te Mania catchment will be a place where people can enjoy an engaged community that cares for and has a sense of pride in the environment in which they live.

> Landowners and residents will manage the ecosystems that provide livelihoods in a sustainable way and will collaboratively take action to restore and maintain the health and quality of the catchment's land, water and native wildlife.

Community Objectives

Looking after our soils & water quality Looking after our natural areas & wildlife

Looking after our fresh & saltwater fishery

THE SECOND PART OF COMMUNITY ENGAGEMENT 2-YEARS LATER.

<u>Second part</u> of engagement was to present the summary of findings from the Environmental Forensics.

- Presenting the hard evidence of environmental issues........... 'The WHY'!
- Talking about HOW we as a community can take responsibility of the issues of our properties.
- 'TEAM' approach pan sector outlining the tools available LEP/FEP to get started!

A commitment from the community, we can do this!



Water Quality Issues

- 1. Bacteria E.coli
- 2. Sediment soil erosion
- 3. Nutrient ammonia, nitrate, phosphorous



TOOLS TO DRIVE CHANGE: PAN SECTOR LEP / FEP

Pan sectors working together alongside the BOPRC to:

- Share resources.
- Run workshops.
- Work with farming leaders.
- Identifying high priority areas within the Te Mania catchment.
- Helping land owners identify the issues on their own properties.
- Helping land owners implement GFP.
- Helping land owners with subsidies.
- Helping land owners complete their LEP/FEPs and implement works programme.



SO WHAT IS HAPPENING NOW?

- The community is super excited!
- The community wants to take ownership of its environmental issues!
- The community wants to get ahead of the game!
- There is interest in Project Parore across the BOP & beyond.
- Farming leaders elsewhere are starting similar initiatives.
- MfE has provided funding towards Project Parore and along with Central Govt are taking a keen interest in its progress.
- Project Parore is a 'bottomup' approach empowering community stakeholders to carry out action on the ground which we believe will have a far more meaningful effect in improving water quality than 'Topdown' regulation.
- In the first instance we will go faster with this approach!



Conclusion:

- PC1 in its current form will fail to achieve a 'Team' community approach as outlined in Project Parore because of Grandparenting/ offsetting principles.
- Grandparenting/offsetting principles has driven an unhealthy wedge between the sectors and needs to be condemned to the scrapeheap.
- Hill country farmers across the Waikato and NZ have woken up to grandparenting and won't tolerate being the 'whipping boys' to offset someone else's pollution!
- The solution to improving water quality is everyone taking equal responsibility for their own issues whether it be farming, urban or industrial.
- There is nothing more powerful than a SC community taking ownership of water quality issues within their Rohe as outlined in Project Parore.
- All the stakeholders within a SC have the ability to set short term and long term objectives and develop a 'Team' strategy to achieve those objectives alongside Regional Council, setting the guidelines and targets to aim for.
- The BOPRC and Central Government have now recognised that supporting and promoting SC initiatives will create a positive culture of farmers and their communities 'wanting to instead of having to'.

Thankyou From Rick Burke

