



# Waikato Regional Plan Change 1

Block 2 Hearings - 2 July 2019

Strang and Strang Ltd, Waiawa Farms Ltd, Pukerimu Farms Ltd

# Evidence

- Overview of our farms
- Overall concerns with PC1 approach
- Overseer concerns
- Officer recommendations



## Farm locations

- South Waikato District
- Karapiro catchment
- Little Waipa Catchment



# Strang home farm – Richard and Sally Strang

307ha (270 effective)





Westley Rd property – Richard and Sally Strang

56 ha



# Waiawa Farms Ltd - Stuart and Deborah Ranger

205 ha (191 effective)





Pukerimu Farms Ltd – Andrew and Megan Ranger  
203 ha (193 effective)





# Farming operations

- Arable cropping – maize
  - Fattening – steers, lambs (in the past bulls)
  - Breeding – sheep
  - Contract grazing – cows, heifers
  - Silage – grass, sorghum
  - Hay
  - Vegetable production (Strang only) – potatoes, onions
- 
- Significant variation within season and between seasons
  - Flexible to change to meet markets due to land, contour, climate
  - Flexibility has been key to economic viability

# Riparian Management

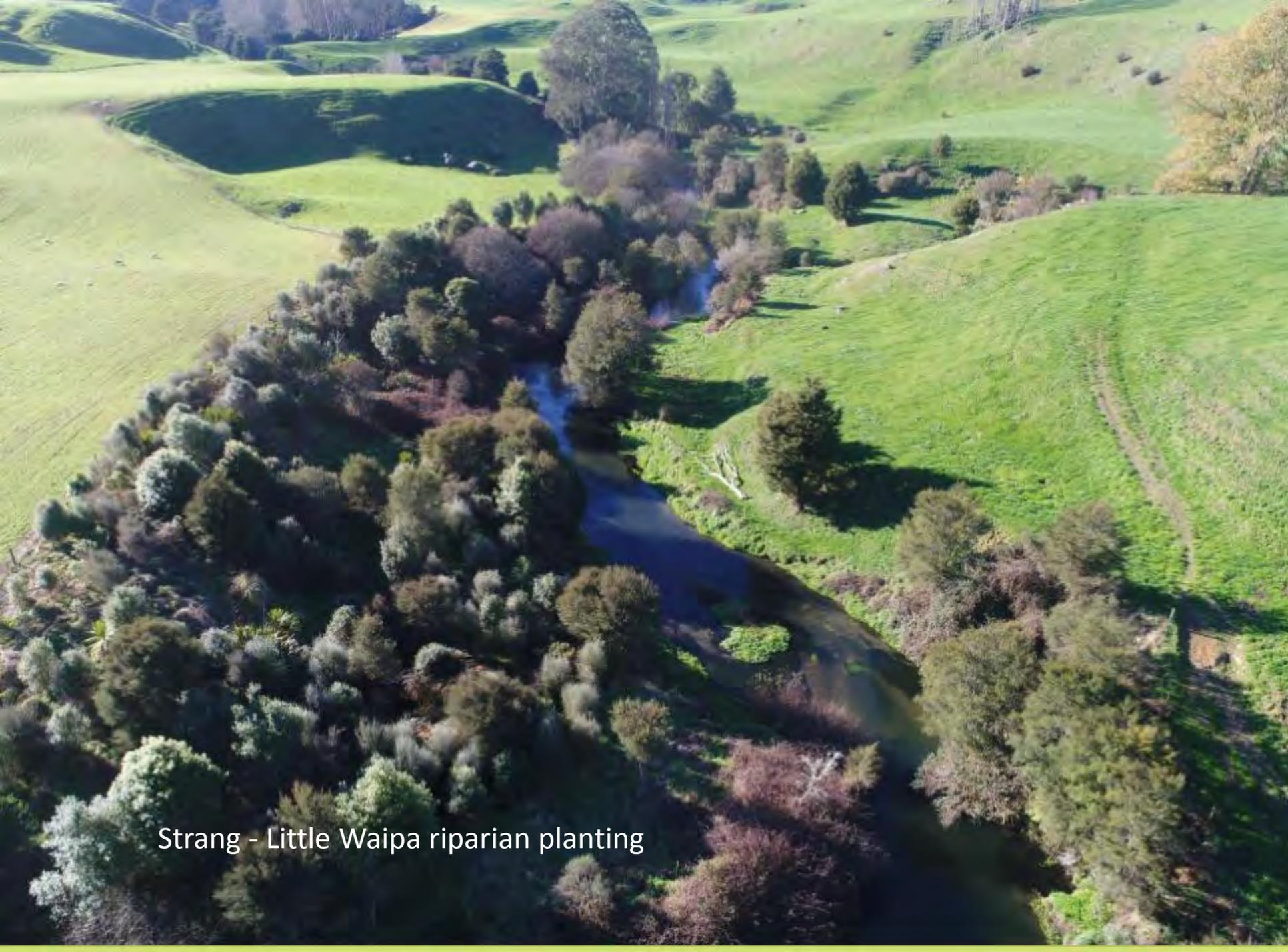


Strang farm - Waikato River frontage



2019 retirement & planting

2017 retirement & planting



Strang - Little Waipa riparian planting

Strang – retired wet areas - Little Waipa boundary





Mangaroa Stream boundary – Stuart and Deborah Ranger



Raporahi Stream – Andrew and Megan Ranger



# Precision agriculture



# Fertiliser and stocking

- Annual soil testing
- Fertiliser application based on expert advice – matched to soil nutrients and demand
- Stocking rates on all three properties vary during the year:
  - Max 14-16 SU/ha
  - Min 5 SU/ha
  - < half a typical dairy farm on equivalent land
- Farm Environment Plans completed for Strang property (three to date)

# PC1 Approach

- We support the water quality goals of PC1 and the Vision and Strategy



- Support development of FEP's provided they're undertaken by experienced knowledgeable people, include on farm inspections and undertaken from a consistent baseline

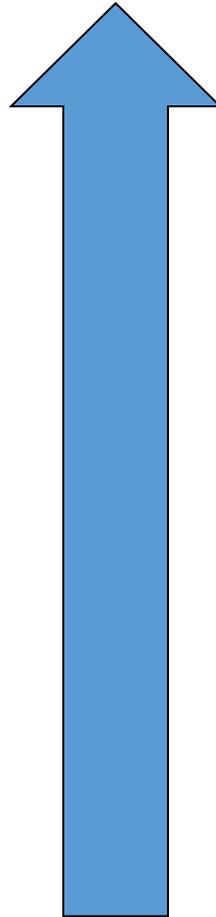
# Strongly oppose grand parenting

## - NRP's and land use change rule

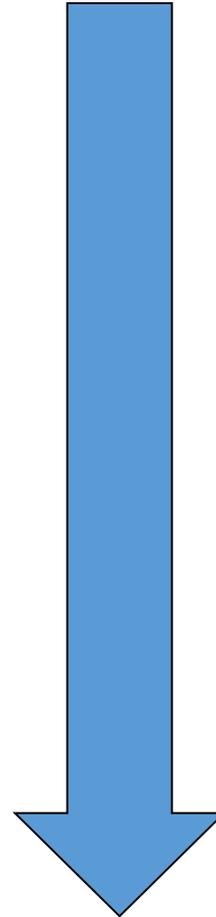
- Our model of farming does not match a 'freeze' approach – existing operations vary significantly within seasons - and from season to season
- Rewards highest polluters with highest land use flexibility
- Only those with excessive losses will have the head room to intensify
- Deters voluntary improvement – incentive to farm up to the cap to retain future flexibility
- Significant land value impacts for those operating below their property's maximum land use intensity

# Effect of PC1

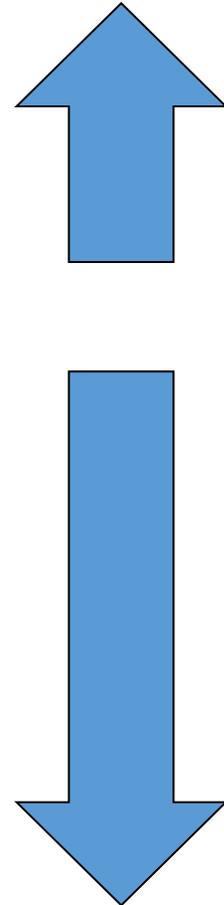
Contribution to  
water quality  
problems



Future land  
use flexibility



Land value  
impacts





Motivation

# Overseer concerns

- Using a modelled approximation to allocate future property rights
- Our personal experience - significant variation in results between different Overseer modellers – three different users got three different results -70% difference between lowest and highest numbers for our farm?
- Mixed farming is more difficult to model due to changing land use, stock and stock numbers through the season
- Questionable accuracy – particularly for cropping operations

**Table 3.1. Calibration extent of Overseer.<sup>28</sup>**

Source: Shepherd et al., 2015; Pers. comm. Richard McDowell, 2018.

Management block	Nitrogen calibration	Phosphorus calibration
Pastoral	Calibration (undertaken in 2012) used nutrient loss measurements from farmlet studies at eight locations. These were: Edendale, Southland (intensive beef); Tussock Creek, Southland (dairy); Kelso, Otago (dairy); Lincoln University Dairy Farm, Canterbury (dairy); Massey University Dairy Farm, Manawatū-Whanganui (dairy); Ruakura, Waikato (dairy); Scott Farm, Waikato (dairy); and Wharenui, Bay of Plenty (dairy). A recalibration exercise is currently underway.	Calibration (undertaken in 2005) used data from 23 sites: Canterbury (2), Otago (3), Southland (2), Manawatū (5), Northland (2), Waikato (4), West Coast (2), Wellington (1), Hawkes Bay (2).
Crop	Arable crops – very limited calibration (one Lincoln site).	Arable crops – none due to a lack of experimental sites. Forage crops – limited to 2 sites in Otago and 1 in Southland.
Fruit crop	None due to a lack of experimental sites.	None due to a lack of experimental sites.
Trees and scrub	None due to a lack of experimental sites.	None due to a lack of experimental sites.
Wetlands and riparian	Very limited calibration based on published studies.	Very limited calibration based on published studies.
House	Very limited calibration (based on one international study).	None.

**Source:**  
*PCE 'Overseer and  
 Regulatory Oversight'  
 Report Dec 2018*

Overseer assumes best practice – no direct discharges?











Achieving just basic good practice requirements must surely be high a priority?

## Less than one quarter of all Waikato dairy farms meet their effluent obligations



Gerald Pidcock · 11:40, Aug 14 2017



## Council to seek court orders to force non-complying farmers to improve effluent storage

Gerald Pidcock · 16:06, Dec 14 2018



SUPPLIED

# Block 2 officer's recommendations:

- Support approach of increasing activity status with increasing intensity
- Support use of stock units per hectare as a key measure of risk for pastoral farming:
  - More stock = more contaminants produced = more risk
- Need sensible practical resource consents – and compliance monitoring
- Volume of consents a concern – Council's ability to manage - and monitor compliance?
- Can be mitigated by:
  - Avoiding overly complex consenting processes
  - Use of sensible permitted activity rules for low risk farming activities

# Concerns with officer's recommendations

Arbitrary requirements in amended rules:

- Cannot be part of a 'farming enterprise'?
- No dairy farming or grazing of 'dairy cattle' (undefined)
- Potential slope limit on grazing...
  - Needs to take into account:
    - stock class (sheep vs heifers vs cows)
    - Length and location of slope – connectivity to water?
    - LUC a better measure of slope related risk?



# Concerns with officers recommendations

- Currently unclear how stock units per hectare to be calculated – total area, productive area (or hybrid)
- Potential to be a powerful disincentive (or motivation) to retiring land



# Concerns with officer's recommendations

- Deletion of 10 year sunset clause on land use change rule - removes indication of direction of travel to a Land Use Suitability approach (a key factor to inclusion in the rules)

Long term land use options under PC1.....



Limited to drystock/arable cropping/forestry



Current dairy farm – any land use allowed other than vegetable production

Change is coming!

...now the most popular late-night



...synthetic milk's a big threat to New Zealand because of our reliance on exports of the real thing

JASON DORRDAY/STAFF

# Solutions?

- Avoid over complication and keep the bureaucracy to a manageable level
- FEP's and action plans
- Graduated consents based on easy to interpret measures of risk:
  - Stock units per ha for high intensity pastoral
  - LUC for low intensity pastoral
  - Higher risk activities – cultivating on steep slopes, vegetable production, fertiliser application, effluent management
  - Allow for other land uses (existing and new)
- Focus Overseer use where it adds value – high intensity land use

# Last thoughts...

- Change is coming at us:
  - Climate change
  - Regulatory change (ETS?)
  - Markets
  - Community expectations
- Need to switch from a backward looking 'holding as we are' - to adapting and changing to meet future needs
- Flexibility will be critical to be resilient in the face of change
- Allocating ability to participate in change based on estimated past polluting levels doesn't seem a recipe for success
- Focus efforts on where the problems lie – and leave no stone unturned to find new and better ways to farm
- Opportunities for farmers to improve without creating a massively complex bureaucracy

# Use of LiDAR to assist with correcting LUC

