



Lochiel Farmlands Ltd Hearing Submission

17th Sept 2019

Kim Robinson (CEO) and Rob
Macnab

Total-Ag.com

Agenda



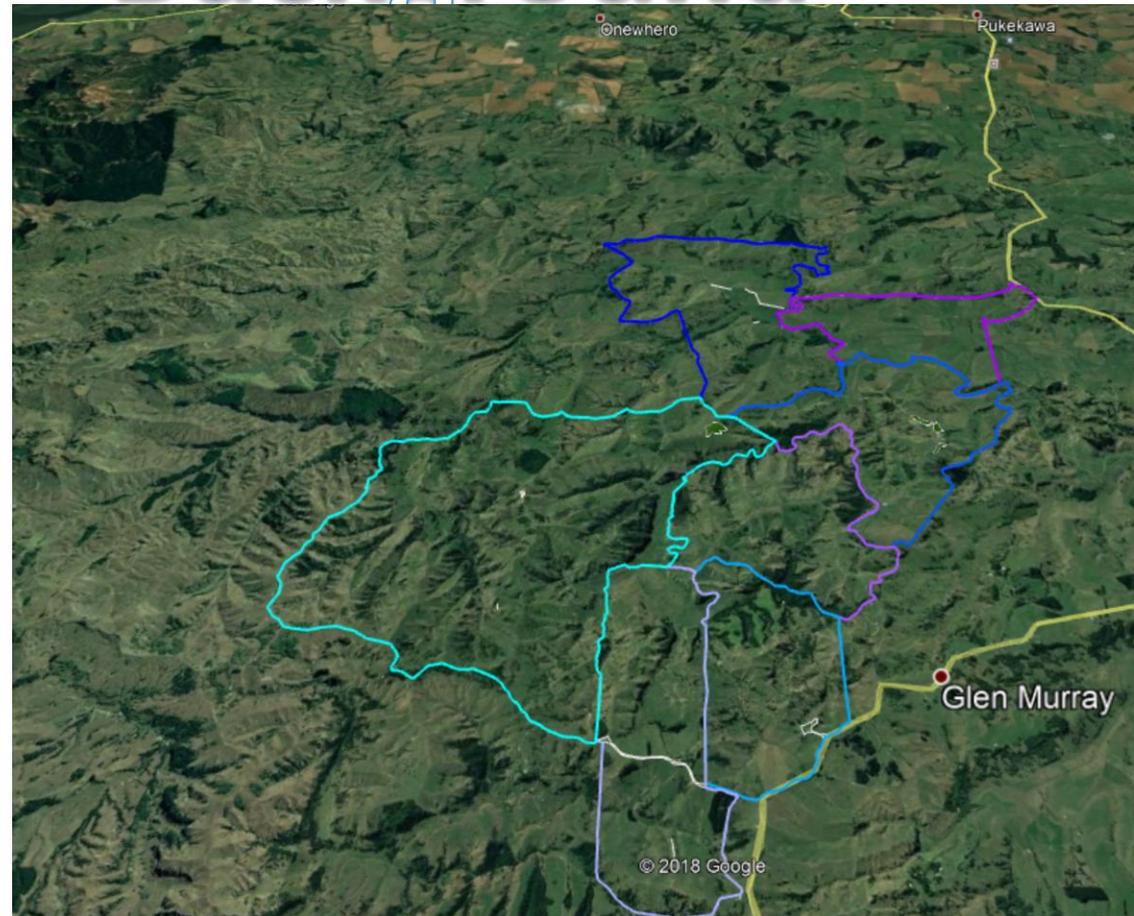
- Background –Kim Robinson
- Farm Environment Plan
 - Maximum stocking rate
 - Affect on Nitrogen Reference Point
- Farm Environment Plan
 - Affect on Water quality

Lochiel Farmlands



Background

- Purchased in 2001
- Currently 3,523ha running 50,000SU.
- Stocking rate 9SU/ha with balance grazed off farm.
- Over 8,000 Poplar Poles planted with 155ha getting full canopy coverage.
- Farm Environment Plan written up and Overseer Nutrient budget regularly updated.
- Employ 8 staff plus contractors.
- Water testing since 2006
- Winner of Ballance Farm Environment Livestock Award 2007



Farm Environment Plan Maximum Stocking Rate



Farm Plan identified capability of the land

Farm system was designed to maximise

Stocking rate (winter) at 9SU/ha with consideration of
protecting wet soils.



Nitrogen



Reference Point

Overseer 6.3 assessed Nitrogen lost to water as 14kgN/ha

This matches the water testing done on the property

Farm Environment Plan only confirmed what was occurring

(kg/ha/yr)	N	P	K	S	Ca	Mg	Na
Nutrients added							
Fertiliser, lime & other	3	26	48	27	57	5	0
Rain/clover N fixation	51	0	3	6	4	9	39
Irrigation	0	0	0	0	0	0	0
Supplements	7	1	5	1	1	1	0
Nutrients removed							
As products	9	2	1	1	3	0	0
Exported effluent	0	0	0	0	0	0	0
As supplements and crop residues	0	0	0	0	0	0	0
To atmosphere	22	0	0	0	0	0	0
To water	14	3.1	27	45	111	25	54
Change in farm pools							
Plant Material	0	0	0	0	0	0	0
Organic pool	14	16	1	-13	0	0	0
Inorganic mineral	0	5	-10	0	-95	-4	-5
Inorganic soil pool	1	1	38	0	42	-8	-9

Water Testing

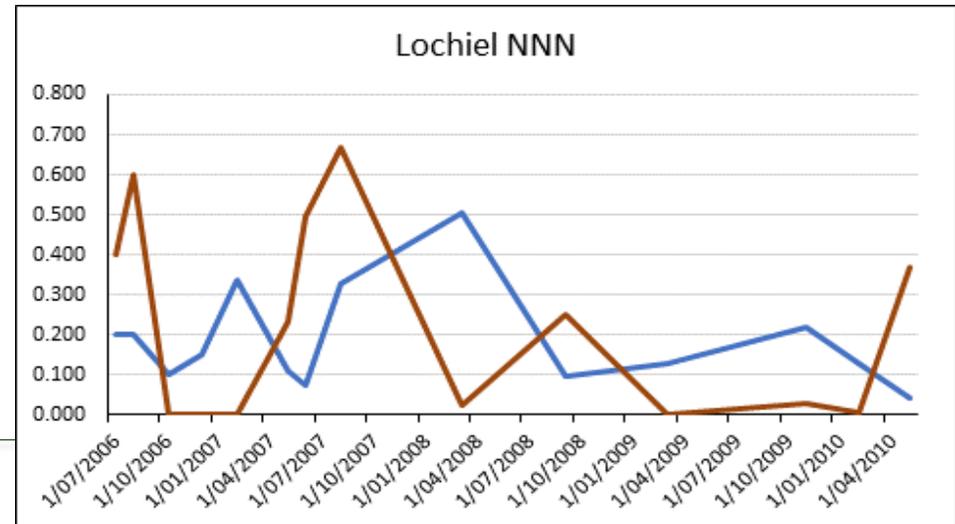
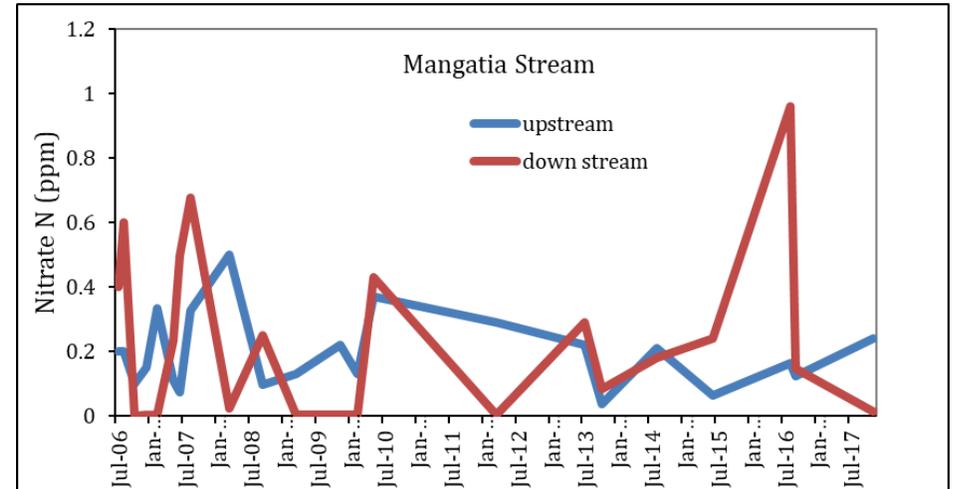


Testing done on Maungatui and Opuatia Stream consistently (22 samples) since 2006.

Results analysed by Bob Wilcock (NIWA) and Doug Edmeades (Agknowledge)

Both conclude that N concentration in water are not impacted by farming at Lochiel and are lower than the 80 year targets already.

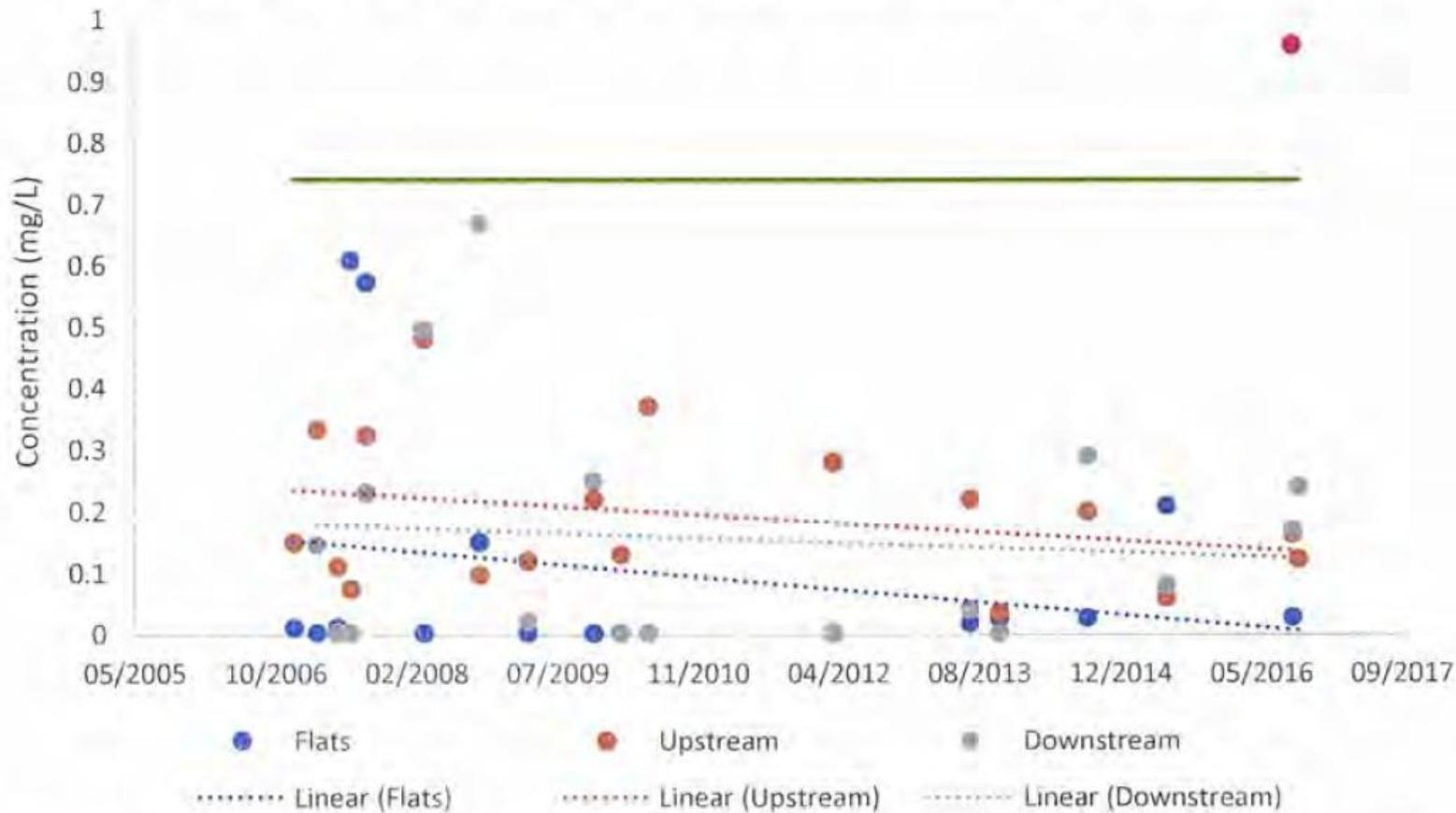
Whilst at risk of P loss, this testing doesn't indicate any detrimental effects.

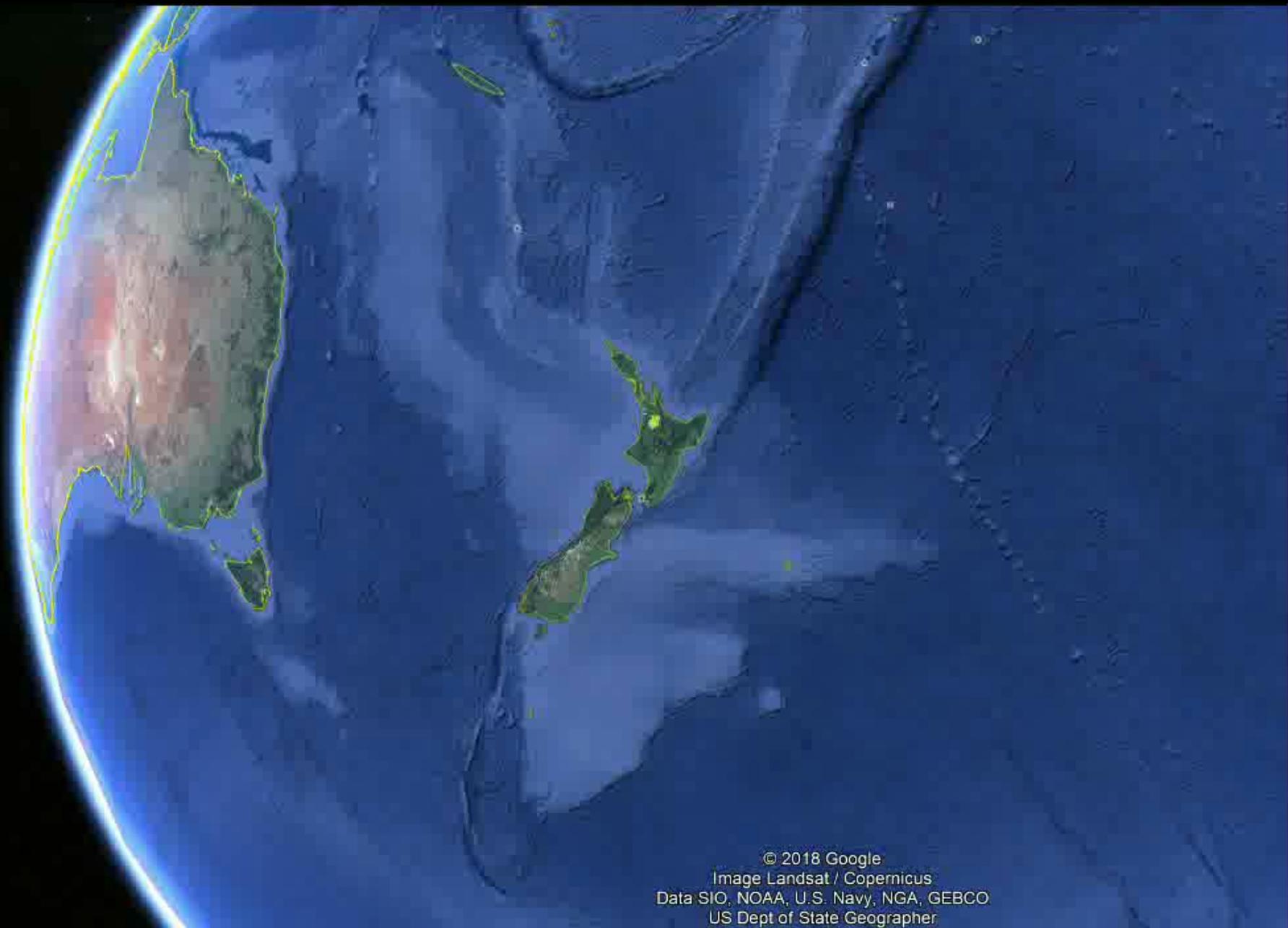


Water Testing



Nitrate-N Concentration in the Mangatia Stream





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Image Landsat / Copernicus
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
US Dept of State Geographer









Relief Sought



- Farm Environment Plans designed so can be completed by Farmers at little cost as they are already being implemented.
- Remove requirement for NRP as there is little effect on N in water from Drystock farms