
Memo

To: Paul Barrett, HBRC

From: Colin Tyler, Ravensdown

Date: 19 November 2021

Subject: Tranche 2 water-Springhill Dairy Partnership

In regard to water usage, Springhill Dairy Partnership plans to increase the irrigated area on a 349ha dairy support and cropping farm located at 82 Butler Rd, Tikokino from the current 65ha to 120ha with the additional water.

Springhill Dairy Partnership is still planning how the 120ha of irrigation will be structured. So, in regard to assessing the impact of additional irrigation we are working through nutrient budgets for a “baseline” and a status quo system if the 120ha of irrigation is in place.

This work is also being used to address the farm’s requirements in regard to both the Tukituki Plan Change and NES regulations. This is a complex but interrelated situation so current work is indicative and preliminary only but once completed will be used to support the property’s Farm Environmental Management Plan and Resource Consent application.

However, at this stage the baseline budget has an estimated N loss of 32kgN/ha/yr and 0.3kgP/ha/yr. The forecast system has an estimated N loss of 28kgN/ha/yr and a P loss of 0.4kgP/ha/yr.

Given the government review of Overseer, these figures are supporting data only but farm practices that appear to be reducing or at least stabilising nutrient loss are

- Increased area of maize silage being grown and exported due to additional irrigation
- Similar amount of N fertiliser applied overall, but less/ha on the irrigated blocks and a reduction in application in high risk months
- A plan to phase out existing lucerne areas
- No imported feed
- No winter cropping
- As a self contained dairy support unit, the stocking rate will be relatively static with irrigation providing additional pasture growth so limiting the need to additional inputs. In a good pasture growth season, stocking rate will not be increased, but will allow for more supplements to be cut and exported.

Not modelled in Overseer, but other potential mitigations planned, in place or possible are

- Ongoing GMPs re irrigation practices with soil moisture meters in place and experienced staff to manage the irrigation along with support from irrigation company
- Waterway retirement. There is a process to retire approximately 2.5km of waterway and install reticulated water which is currently not present. Given the P status of the Mangaonuku subcatchment this is a large positive. All other existing waterways on the rest of the farm are fully retired, with potential for small areas of additional planting which may assist eco-system health
- An opportunity to add Plantain to the pasture sward
- The whole Springhill Dairies group has in recent years been focusing on reduced N fertiliser, no winter crops, all regrassing/summer crops by direct drilling and improved grazing management. This will continue on this block as well

