

FARM PLAN ANALYSIS UNDER THE TUKITUKI CATCHMENT PLAN LUC FRAMEWORK

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In Hawke's Bay, the first catchment plan became operative in 2015, and encompassed the Tukituki River and associated sub catchments. The catchment plan stipulated that all primary production landscape larger than 4ha must have a farm environmental management plan (FEMP). The FEMP framework required that critical source areas be identified for each property and proposed mitigations applied within a specified timeline to reduce all on farm contaminant risk, to ground and surface water. Mitigations included the adoption of industry good management practises (GMP). Farms greater than 10 ha must use the Overseer™ nutrient model as part of the nitrogen analysis.

The Land Use Classification (LUC) system and the Overseer™ nutrient model were used to generate a nitrogen leachate limit table. The framework assessed and categorised the nitrogen compliance of individual properties into, either *Permitted Activity status*, *Restricted Discretionary* or *Non-Complying activity*. In addition to the nutrient modelling framework, instream DIN levels are measured and all sub catchments must comply with a 5-year mean of 0.8 mg/L.

More than 1,000 farm plans were submitted to the Hawke's Bay Regional Council between 2016-2019 and FEMP data was analysed to estimate the nitrogen load contribution at the farm and sub catchment scale. Estimated loads were compared that against the LUC framework and instream nutrient concentrations.

Analysis of FEMP data has indicated that sub catchments could be under or over the total sub catchment LUC allocation with varying compliance with the instream DIN limit.

Future analysis will include the number GMP adopted by farms across each sub catchment and restoration metrics such as riparian fencing length and trees planted.

Editor's note: An extended manuscript has not been submitted for this presentation.
