

BENCHMARKING OF FARMS AROUND LAKE TAUPO AND ALTERNATIVE FARM SYSTEM OPTIONS: ISSUES AND IMPLICATIONS

Stewart Ledgard¹, G Law², R Dragten³, R Webby¹ and L Dooley¹

¹AgResearch Ruakura Research Centre, Hamilton

²Taupo Lake Care, Taupo

³Environment Waikato, Hamilton

A Variation to the Regional Plan for the Lake Taupo catchment is being developed by Environment Waikato. The current proposal for the catchment is for each farm to have a nutrient management plan with practices calculated to give an average nitrogen (N) leaching loss equivalent to the farm average for the 3 year period between 2001 and 2004. The OVERSEER nutrient budget model is proposed to be used to estimate N leaching.

This paper reports on a study involving 5 farms as a preliminary evaluation of the benchmarking process and assessment of future management scenarios for the farms. Farm data was obtained for the 2001-2004 years, and for current practices. Farm production, economics and N leaching were then estimated using STOCKPOL, UDDER and OVERSEER models. In addition, the models were used to examine the implications of changing to some alternative farm systems or management practices, including those with potential to reduce N leaching. This paper also reports on an associated research study using a Multiple Criteria Decision Making (MCDM) methodology to assess the relative importance of different criteria in farmer decision making on alternative land management practices for the Lake Taupo catchment. The results and practical implications from these studies will be presented.