

PROJECT REREWHAKAAITU

Bob Parker, M O'Connor, I Power, M Hawke and C Sutton

¹*Fruition Horticulture, Bay of Plenty*

²*Agresearch, Hamilton*

³*Bay of Plenty Farm and Pastoral Research*

⁴*Farmer*

Lake Rerewhakaaitu is one the Rotorua lakes. To date it is in a relatively healthy state and farmers in the lake catchment want to retain and improve on its current status.

This project was initiated by farmers who had concerns about water quality in the lake and the need to have evidence based information that would allow for decision making that had the least impact on reducing water quality in the lake.

The project started in July 2003 and ends in June 2006. The project is managed by Fruition Horticulture with AgResearch and Bay of Plenty Farm Pastoral Research as the science providers. The project is funded by MAF Sustainable Farming Fund, Fert Research, Fonterra and Environment Bay of Plenty. The purpose of the project is to identify farm management decisions that can minimise leaching of nutrients to groundwater and the lake while at the same time ensuring the farm business is sustainable and profitable.

Work so far has shown no clear linkage between current farm management practises and nutrient levels in groundwater or Lake Rerewhakaaitu.

The project used OVERSEER nutrient budgets on all farms in the catchment to get a picture of the nutrient flows. Four farms close to the lake were then selected for detailed OVERSEER analysis and used to assess the practicality of management options which will assist in reducing nutrient losses to the lake. A further group of farms is scheduled have this detailed OVERSEER analysis.

Other features of the project are:

1. Regular farmer meetings are held to discuss progress followed with a newsletter.
2. Evaluating how a denitrification trench can reduce nitrogen levels in a catchment stream.
3. Evaluating “phosphate sock” technology to reduce phosphate levels in the Mangakino stream which runs into the lake
4. Utilising a grass strip on the lake riparian boundary managed on a cut and carry basis to remove/reduce nutrients from entering the lake is an option that is yet to be set up.

The end point of project is to develop a “toolbox” of management options to improve farm management decisions with respect to lowering nutrient flow to ground and surface waters while maintaining a sustainable and profitable farm business.