

# Memo



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<b>To</b>	Warwick Pascoe and Greg Burrell
<b>From</b>	Meridian HDI AEE Team
<b>Date</b>	13 June 2007
<b>Subject</b>	<b>HDI – Potential Effects of Increased Nutrients on Aquatic Ecology</b>

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This draft report provides an assessment of the potential effects of increased nutrients on aquatic ecology values in rivers and Wainono Lagoon.

The report complements, and is subsequent to, a report lodged with HDI consent applications (URS 2006) that made estimates of increased nutrient concentrations in surface waters if the HDI scheme were to go ahead unmitigated. The URS (2006) report described the possible ecological consequences of an increase in these nutrients in general terms. This draft report expands on that assessment; it documents key scientific findings to date, and it draws conclusions about potential unmitigated effects and options to reduce or mitigate these effects.

It is important to note that the report assesses the effects of increased nutrients without any mitigation measures being implemented. It therefore represents a worst-case situation being made available for Ecan's review team. The report lists a range of available mitigation measures (e.g., on-farm and off-farm nutrient reduction measures), many of which are incorporated into the draft scheme and farm management plans that Meridian is currently preparing. We will continue to refine our estimates of the likely effectiveness of these mitigation measures in reducing the identified effects.