

**Dr. Timothy Denne for Fish and Game 19 March 2019**

**Review of other economic evidence**

**1. Comments on the Economic Evidence of Submitters**

1.1 I have reviewed the economic evidence submitted by:

- a) Matthew Newman for DairyNZ Ltd
- b) Stuart John Ford for Horticulture New Zealand
- c) Stuart John Ford for Wairakei Pastoral Limited
- d) Francis Gordon Scrimgeour for OJI Fibre Solutions (NZ) Ltd
- e) Philip Brent Wheeler

1.2 Mr Newman and Mr Ford comment on the catchment-level modelling, including the use of OVERSEER and FARMAX. Mr Newman suggests these are the right modelling tools for the work, whereas Mr Ford notes the gaps and uncertainties in the modelling and its failure to consider all mitigation options (including vegetable grower-specific options and land use changes) and faster speeds of water quality improvement.<sup>1</sup>

1.3 I share Mr Ford's concerns with the absence of modelling of all options, particularly in limiting the potential for land use change. In my evidence I have noted that restricting land use change may have been partly in response to a '*realistic*' selection criterion for options, but that significant land use change (and a wide variety of other responses) is feasible (and *realistic*) within a ten-year timeframe.

1.4 In a similar vein, Professor Scrimgeour, Dr Wheeler and Mr Ford (for Wairakei Pastoral) note that PC1 has failed to consider more flexible and efficient policy options for achieving reductions in nutrient discharge. Rather it has limited its consideration to regulatory options that protect status quo land uses. I agree with these concerns.

1.5 Least cost policy options are those which provide the same incentives to all dischargers and the greatest flexibility in how reductions are achieved. This includes discharge allowance trading.

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<sup>1</sup> Mr Ford discusses the absence of mitigation techniques for commercial vegetable growers in his evidence for Horticulture NZ and the absence of land use change options in his evidence for Wairakei Pastoral.