Additional Information for Point 20
Reasons Berl Report Understates the Economic Impacts and Reduction in FTEs

1. The Berl report has identified the current irrigated land from the Lindis catchment as being 3,131 hectares

a) The Berl report uses only 2,204 hectares (Table 5 of the Berl report) which is defined as those dependent on the Lindis catchment for their irrigation needs areas exclusively
b) They have effectively carved out 927 hectres or 30% of the current land area irrigated from the Lindis River
This was because they were assumed to have two sources of water even though irrigators can use two soucres of water on the same land as long as it is efficient.

2. The report identifies (on page 2 of the executive summary) that producers in the Lindis dependent irrigation area can increase irrigation efficiency of their use of the Lindis water. This improved efficiency is however not modelled into their calculations even though it is encouraged and allowable under the current Otago Regional Council water plan.

3. Model for Berl overinflates Dryland returns and under estiamtes returns for Irrigated Land

	Dryland	Irrigated	Difference $/ Hectare	Difference %
Berl Income $/Ha	$1,040	$1,672	$632	61%
Porter Derived Income $/Ha	$712	$3,122	$2,410	338%
Berl Gross Margin $/Ha	$528	$797	$269	51%
Porter Derived Gross Margin $/ha	$305	$1,337	$1,032	338%
Berl Implied Productivity increase				61%
Porter Pastue Prodution Kg/Ha	2,889	12,721	9,832	340%

Note :
1. The Berl model only has a 61% increase in productivity by changing from dryland to irrigated in the Lindis catchment whereas the Porter model is based on a 338% increase in pasture production (3.4 times) grown and utised per hectare by changing from dryland to irrigated
If there was only a 61% increase in pasture productivity by devleoping irrigation there would be no irrigation in the Lindis catchment

2. Berl uses farm revenue and expenses from other regions of New Zealand for their irrigated model

3.The minimum flows are modelled on the difference in income of dryland compared to irrigated of $632/ha in the Berl Model compared to a difference of $2,410/ha for the Porter model
This means if the Lindis catchment had no irrigation in the Berl model income would drop by $632/ha whereas in the Porter model income would drop by $2,410/Ha . This is significant in that the impacts of minimum flows will be very small in the Berl model compared to the Porter model.