

BEFORE INDEPENDENT HEARING COMMISSIONERS

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of the hearing of submissions on Proposed Variation 1
(Selwyn-Te Waihora) to the Proposed Canterbury Land and
Water Regional Plan

**MEMORANDUM OF COUNSEL FOR DUNSANDEL GROUNDWATER USERS
ASSOCIATION INCORPORATED AND IRRIGATION NEW ZEALAND
INCORPORATED**

Dated: 4th November 2014

**MEMORANDUM OF COUNSEL FOR DUNSANDEL GROUNDWATER USERS
ASSOCIATION INC AND IRRIGATION NEW ZEALAND**

- 1 The purpose of this Memorandum is to provide the Commissioners with:
 - 1.1 a list of references referred to in the Statement of Evidence of Ian McIndoe on behalf of Irrigation New Zealand Incorporated and Dunsandel Groundwater Users Association Incorporated; and
 - 1.2 confirm the reference to "14%" in paragraph 47(c) of the Statement of Evidence of Andrew Robert Curtis on Behalf of Irrigation New Zealand Incorporated dated 29 August 2014.

- 2 Mr McIndoe refers to the following sources:
 - 2.1 Clark, D. 2012: Cumulative allocation in the Selwyn Catchment; Internal memorandum, Environment Canterbury dated 1st October 2012, 12 p
 - 2.2 Williams, H.R. 2011: Modelling of groundwater levels and stream discharge in the Lake Ellesmere/ Te Waihora catchment. Environment Canterbury Technical Report, R10/05, 88 p.
 - 2.3 Lilburne, L., Webb, T., Ford, R. and Bidwell, V., 2010. Estimating nitrate-nitrogen leaching rates under rural land uses in Canterbury. R10/127, report prepared for Environment Canterbury.
 - 2.4 Lilburne, L., Webb, T., Robson, M., Watkins, N., 2013. Estimating nitrate-nitrogen leaching rates under rural land uses in Canterbury (updated).
 - 2.5 Morgan, M. Bidwell, J., Bright, J., McIndoe, I. and Robb, C. 2002: Canterbury Strategic Water Study. Lincoln Environmental Report No 4557/1, Lincoln University, New Zealand.
 - 2.6 Hill, Z., Lilburne, L., Elley, R., Ford, R., Pairman, D., 2012. Preparation of a GIS based land use map for the Canterbury Region. R12/119, Environment Canterbury.

- 3 Mr McIndoe did not refer to any sources in his Rebuttal Evidence.

- 4 Mr Curtis has reviewed his notes again and confirms the reference to "14%". He notes that the overall levels of reduction expected on top of GMP varied between 12.5% and 14% depending upon what version of the Look Up Table was in use. The level of reduction is 12.5% in the ZIP addendum but this then increased to 14% due to an update in the modelling process.

Dated this 4th day of November 2014



A C Limmer / C J McCallum

