

SUBMISSION ON HURUNUI WATER PROJECT LIMITED'S RESOURCE CONSENT APPLICATION

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Name of Submitter: Irrigation New Zealand Incorporated
Postal Address: PO Box 3872
Christchurch 8140
Telephone: 03 379 3820
Facsimile: 03 372 3520
Email: acurtis@irrigationnz.co.nz

Irrigation New Zealand Inc. wishes to be heard in support of its submission. However, if others make a similar submission we are happy to present jointly.



(Andrew Curtis CEO Irrigation NZ)

Overview

INZ is a national body that promotes excellence in irrigation development and efficient water management throughout New Zealand, based on the principles of responsible and sustainable management of water resources.

INZ has reviewed the Hurunui Water Project Limited's consent application and fully supports it.

The consent application is also consistent with the draft CWMS (Canterbury Water Management Strategy) - Annex J - Infrastructure Options, North Canterbury.

Irrigation and Water Storage

NIWA climate change predictions for the East Coast of NZ (New Zealand) (particularly for North Canterbury) depict a scenario of higher temperatures, lower rainfall and more frequent, extreme climatic events. Ultimately this will jeopardise farm and thus community viability. However, greater (though less reliable) flows are predicted for Canterbury's alpine rivers. As a result, the development of on-farm irrigation combined with water storage infrastructure, for both new irrigation and future proofing existing scheme's, are key to building resilience to NZ's primary sector and thus the country's export earnings.

The development of irrigation and water storage infrastructure creates opportunities for considerable economic, cultural, social and environmental

benefits. This has been clearly demonstrated by the Opuha Dam and associated irrigation development in South Canterbury. Based on the 2006 Opuha *ex post* economic study, irrigation from the Opuha Dam is estimated to have increased farm output by \$124million per annum and to have created 480 full-time jobs.

From a purely economic viewpoint, it is estimated that the resulting increased productivity from run-of river irrigation, in comparison to dry-land farming, enables a two to three fold increase in gross farm income. Increasing run-of river reliability, through water storage, opens up additional land use opportunities, for which the increase in gross farm income can be greater still. Irrigation and water storage therefore, have a major role in maintaining and developing NZ's rural capital.

There is much potential to increase the area of land under irrigation in New Zealand, with associated economic, environmental, social and cultural benefits. For Canterbury this has been recognised in the draft CWMS. In the strategy a target of 850,000ha of irrigation has been set to be achieved by 2040. There is approximately 640,000ha of irrigation currently consented. However, due to un-reliable run-of river supplies, some of the 640,000 ha consented is not irrigated. Therefore, without the development of water storage infrastructure, the region will fail to realise its potential. As recognised in the CWMS, the development of water storage infrastructure is dependent on utilising the alpine water resources, such as proposed by the Hurunui Water Project.

In addition to the potential increase in irrigated area, water storage increases the reliability of water supply for irrigation. This in turn enables increases in the effectiveness and efficiency of water used for irrigation. The reliability provided by water storage is a key factor in delivering both economic and environmental outcomes. An assured supply of water, on an 'as and when' basis, gives irrigators the confidence to adopt high value land uses. It also enables irrigators to optimise water use efficiency, running deficit irrigation strategies that minimise losses (both water and nutrient) from the system and therefore the environmental footprint. This is in direct contrast to run-of- river systems, where a 'just in case' irrigation strategy has to be used if productivity losses are to be minimised.

INZ acknowledges there are environmental concerns around the potential indirect impacts of intensive agriculture. However, practical on-farm research, such as is occurring at the Lincoln University Dairy Unit, has clearly shown that the desired environmental outcomes are more than achievable. However, to attain these, potential consent conditions should be output and not input focused. This ensures that NZ's world leading innovative farming culture is not hindered in the development of new novel farm management practices and systems.

Water storage infrastructure is vital to the future efficient and effective use of New Zealand's water resources. Future proofing primary production, community water supplies and electricity generation, whilst enabling

environmental and community outcomes, is essential for the sustainable development of New Zealand's greatest asset – its water resource.

Decision Sought

INZ requests the Hurunui Water project Limited's consent be approved.

INZ Submission Ends