

IN THE MATTER OF

The Environment Canterbury (Temporary
Commissioners and Improved Water Management
Act) 2010 and The Resource Management Act 1991

AND

IN THE MATTER OF

Proposed Canterbury Land and Water Regional
Plan

STATEMENT OF EVIDENCE OF LYNN TORGERSON

1. INTRODUCTION

- 1.1 My name is Lynn Torgerson and I am an Environmental Engineer with Pattle Delamore Partners Ltd. I have a Bachelor of Science in Civil and Environmental Engineering from the University of Wisconsin (Madison) USA (1988). From 1988 to 1998, I worked for the Wisconsin Department of Natural Resources as a Water Regulation Engineer. My duties involved the review, analysis and design of surface water resources projects, including flood management projects. In 1999, I was an Investigating Officer for the Canterbury Regional Council. From 1999 to 2005, I was a Hydrology Lecturer for the Natural Resources Engineering Group at Lincoln University. My lecture topics included hydrology and fluid mechanics, as well as wastewater management. I have been employed with Pattle Delamore Partners (PDP) since 2006 working on the design, analysis and consenting of surface and groundwater related projects.
- 1.2 I have been involved in the preparation of numerous resource consent applications, including the assessment of the relevant planning matters and the assessment of environmental effects for groundwater and surface water projects in Canterbury.
- 1.3 I acknowledge that I have read and agree to comply with the code of conduct for expert witnesses as contained in the Environment Court's practice note 2011, which took effect 1 November 2011.

2. SCOPE OF EVIDENCE

- 2.1 I have been engaged by the Waimakariri Irrigation Ltd (WIL) to prepare and present this evidence. The evidence I will present deals with the specific policies and rules set out in the Proposed Land and Water Regional Plan (PLWRP) which are of concern to Waimakariri Irrigation Limited. My evidence proposes changes to selected Policies and Rules which may assist the panel.
- 2.2 I have read the planning report for the Group 1 hearing prepared by the Investigating Officers of Environment Canterbury (ECan) under section 42A of the Resource Management Act 1991 (RMA) and have commented on these below. It is noted that some parts of WIL's original submission are not

covered under the Group 1 hearings, but will be part of the Group 2 hearings. Therefore this brief of evidence only covers Group 1 matters.

- 2.3 To provide the panel with some background, WIL operate and manage the Waimakariri Irrigation Scheme. This scheme relies on the flows of the Waimakariri River, and currently delivers the water to shareholders within a 44,000 ha command area between the Waimakariri and Ashley Rivers. At present it abstracts up to 10.5 m³/s to supply 18,000 ha of irrigated land but the area of supply is expected to increase through the more efficient use of consented water. The water used by the shareholders primarily supports the irrigation of lands supporting a mixture of sheep, dairy cattle and cropping, including some lifestyle blocks. The irrigation scheme has been operating since 1999, and WIL holds resource consents to take, use and store water for irrigation. Consent applications have been lodged for a large storage dam, which will store water and allows for a better reliability of supply to its shareholders during drier periods.
- 2.4 Environmental monitoring, including that of the groundwater quality, has been undertaken by WIL prior to the scheme's commencement and continues on a regular basis.

3. OVERVIEW OF WIL'S POSITION

- 3.1 The taking and use of water for irrigation is of critical importance to WIL and the community it serves. Therefore WIL is concerned about aspects of the proposed plan that could limit their contribution to the economic and social wellbeing of the community which benefits from the water they provide.
- 3.2 WIL supports the Canterbury Water Management Strategy (CWMS) and wants to ensure that the Objectives, Policies and Rules of the PLWRP do not unnecessarily restrict the implementation of that strategy. In particular the CWMS seeks an optimised use of water to achieve a wide range of beneficial outcomes, however this plan appears in some circumstances to unnecessarily limit and restrict land development opportunities, which is counter to the best outcome promoted by the CWMS.
- 3.3 In this particular case, the Waimakariri Irrigation Scheme plays a significant part in the social and economic strength of the Waimakariri District. I would expect the plan to recognise this and at the very least, not to unnecessarily hinder the potential development of the WIL activity. I note

that there is no mention of the WIL scheme or the positive effect of the scheme in the Section 8 Waimakariri sub-regional chapter.

4. SUBMISSIONS TO SPECIFIC OBJECTIVES AND POLICIES CONTAINED IN THE PROPOSED PLAN

Page 3-1, Objective 3.11

- 4.1 In its submission, WIL offered its support to Objective 3.11 and is pleased to see that the regional plan has a clear objective supporting the social and economic benefits arising from water use. A similar objective (Objective 3.4) is included in Recommendation R3.0 (p98) of the Section 42A report. It is disappointing that there is not more balance towards this approach in many of the other policies.

Page 4-1 ff. Policies 4.1 and 4.2, Table 1, all references to Table 1 and Policy 4.31

- 4.2 WIL is not presenting any technical evidence about the content of Tables 1 (a), (b) and (c) or the nutrient zone map that accompanies Policy 4.31, but has a general concern about the specification of outcomes to be achieved that are defined on a generic region-wide basis. Instead WIL supports the sub-regional zone committee approach for defining limits and outcomes that consider the particular matters of concern for the local community.
- 4.3 In my opinion that is a preferred approach and there is a concern that the Table 1(a), (b) and (c) numbers become a default that must be complied with in the current absence of any sub-regional numbers. For example, it is apparently due to the criteria in Table 1(a) that the WIL scheme area has been included in a nutrient red zone on page 4-8 of the PLWRP. That could have significant implications on the WIL community aspirations to use their water more efficiently to achieve greater productivity.
- 4.4 No consideration of the impact on the WIL community have been taken into account when the outcomes in Table 1 were defined. Those are matters that will be dealt with at the sub-regional chapter level. But until that chapter is completed (estimated to be 2018), then the current Table 1 supposedly hampers any proposed irrigation development.

- 4.5 A preferred alternative is to allow WIL to address concerns about environmental effects through a consenting process until the sub-regional zone limits are defined. That process is not aided by somewhat arbitrarily defined values in Table 1 and it would be preferable to replace Table 1 with a note referring to outcomes that will be defined through the sub-regional chapters.

Page 4-10, Policy 4.47(b)

- 4.6 In its submission, WIL expressed concern that Policy 4.47 (b), which seeks to replace existing resource consents at a lesser rate of take and volume, does not fully recognise the long term investments and obligations of an irrigation scheme. WIL has put considerable money into building and maintaining its infrastructure, and the feasibility of such a large investment is in part based on the expectation that renewal of the resource consents, particularly the take and use of water, can be fully granted in the future. It is my view that without recognition of an irrigation scheme's long term investment, an unintended consequence could be to undermine an irrigation scheme's ability to deliver a reliable source of water to their shareholders.
- 4.7 The Canterbury Regional Policy Statement 2013 (RPS) in Policy 7.3.11 recognises and provides for the continuing of existing irrigation schemes which involve substantial investment of infrastructure.
- 4.8 The Canterbury Water Management Strategy (CWMS) refers to improving existing infrastructure and the links to new infrastructure in relation to water use efficiency and reliability. It is my view that this implies that the investment of existing and new infrastructure is also intended to be considered in conjunction with the reduction of adverse effects.
- 4.9 Objective 3.16 of the PLWRP (and the similar Objective 3.9 on p98 of the Section 42A report) aims for infrastructure to be resilient and positively contribute to economic, cultural and social well-being through efficient and effective operation, on-going maintenance, repair, development and upgrading. This objective recognises role of infrastructure over time in addressing the community's needs.

- 4.10 To recognise this long term investment, the following additional wording to Policy 4.47(b) could be incorporated:

Policy 4.47 “(b) the replacement of existing resource consents at the same or a lesser rate of take and the same or a lesser annual or seasonal volume, provided that there are significant and ensuring improvements in the efficiency of water use and reductions in any adverse effects, and provided that the investment in infrastructure, the longer term water requirements and the economic viability of the water abstraction have been taken into account.”

- 4.11 The Section 42A report does not discuss the relevance of the long term investment of an irrigation scheme with respect to Policy 4.47, nor does the Officer recommendation R4.47 (p225) reflect this request. It is my opinion that the inclusion of wording in Policy 4.47 (b) provides the recognition to the long term investment by an irrigation scheme that is addressed in both the RPS and the CWMS, and does not undermine the aim to improve the efficiency or reliability of using the resource.

5. USE OF OVERSEER™

- 5.1 WIL has a concern that many of the provisions of the PLWRP require all farming activities to carry out Overseer™ modelling assessments to quantify their contribution to nutrient losses. However for a scheme such as WIL this may be an onerous requirement for many shareholders, especially those carrying out small scale farming activities. It is preferred that irrigation schemes should be allowed to carry out representative nutrient loss assessments sufficient to estimate the nutrient loss from their scheme as a whole, rather than requiring each individual farmer shareholder to undertake their own assessment. In my opinion that is a pragmatic and reasonable approach to obtain the necessary level of information that ECan seeks.

6. SUBMISSION TO SPECIFIC RULES IN THE PROPOSED PLAN

Page 5-23 and 5-25, Rules 5.98 and 5.104 (mislabelled in the submission as 5.102)

- 6.1 Rules 5.98 and 5.104 classify the take and use of surface water and groundwater as prohibited when the take, in addition to all existing resource consented takes, does not comply with any rate or volume limits set in Section 6 – 15 for that water body. WIL, in its submission, opposed use of the prohibited status for these rules.
- 6.2 The *prohibited* activity status means that no resource consent can be applied for, nor can any consent authority grant consent for such an activity. This approach unnecessarily restricts development without allowing for advances in science, technology or economics.
- 6.3 It is my understanding that unless a plan change is undertaken, which could take years or require technical information beyond that of the individual project owner, no further consents can be sought. This constraint, in my view, appears to be contrary to the CWMS.
- 6.4 By removing *prohibited* activity status, I do not mean to suggest that I do not consider that abstractions in excess over rate or limits should be routinely consented. Instead, it is my opinion that the PLWRP already has a solution available. In Section 2.3 Rules of the PLWRP as notified (p 2-1), the plan describes non-complying activities are those which are generally inappropriate, though there may be an “exceptional case” for when a resource consent is granted. By this definition, the plan has signalled its intent that such an activity status will have to be considered more thoroughly, and that granting of such of consent would not be routine.
- 6.5 Section 104D of the RMA outlines the particular restriction for non-complying activities. This section requires that the applicant demonstrate that the activity either has adverse effects which are minor **or** the activity will not be contrary to the objectives and policies of relevant plans.
- 6.6 By using the non-complying status, the Council can still decline an application for the activity (and must if it does not meet the terms outlined in Section 104D), but does not prevent an application being made.
- 6.7 In the section 1.44 of the Section 42A report (pp 34-35), the Officer discusses the use of prohibited activity status and suggests that it is appropriate, particularly when intended to restrict the allocation of resources with respect to water quantity and quality. It allows the Council,

in the Officer's opinion, to give effect to the Freshwater NPS and to implement the CWMS.

- 6.8 It should be recalled that both the Freshwater NPS and CWMS intend to manage the allocation of water resources at a local catchment level and it is the purpose of the sub-regional chapters to develop rules appropriate to the catchment.
- 6.9 Further in the Section 42A report, Officer recommendation R5.98 (p282) and R5.104 (pp 288-289) both seek to retain the rules without amendment. I do not agree.
- 6.10 The Officer states that there are significant effects associated with over abstractions and that control should be arrived at on a local basis. This would seem to suggest that it is more appropriate to develop the specific limits at a sub-regional basis, rather than the use of a generic approach across the region. It also suggests the use of the non-complying activity status would be appropriate in that it allows the control to be arrived at a local basis, but does not unnecessarily prevent an application which may be consistent with the local desired outcome.

Page 5-25 and 5-26, Rules 5.107

- 6.11 Rule 5.107 sets out the conditions for the transfer of water permits. Condition 5 of this rule identifies the proportion in which any transferred water in exceedance of allocation limits set out in Rule 5.96 or Section 6 - 15 shall be surrendered. Condition 5 (a) recognises the importance of a managed irrigation scheme with storage in the efficient and sustainable management of the resource and therefore does not penalise the permit transfer, however the remaining subsections of condition 5, and particularly (d), impose severe reductions on the amount of water to be transferred without consideration that the consent could be transferred to a managed irrigation scheme, and that the use of water might be an efficient and beneficial requirement for the user.
- 6.12 I note that Condition 5 (a) applies only to the transfer of *surface* water to managed irrigation schemes *which include a storage component*, and therefore does not apply to the transfer of groundwater consents, nor to

transfer of surface water to managed irrigation schemes that may not have a storage component. Policy 4.73 (p 4-13) seeks to enable the transfer of water permits to take or use where water is *moving into an irrigation scheme*, and this policy applies to both surface water and groundwater. Further, this policy does not make distinction as to whether there is a storage component.

- 6.13 It is my opinion that the limitations created by the current wording of Condition 5 may undermine Policy 4.73 as it restricts the full consented transfer of water to an irrigation scheme, and by doing so, does not enable the water to be moved to an irrigation scheme.
- 6.14 I suggest the following change to Rule 5.107, Condition 5(a):

"(a) 0 % in the case of transferring surface water and groundwater to an irrigation scheme ~~which includes a storage component~~;"

Page 5-29 and 5-30, Rules 5.128 – 5.132

- 6.15 It is my view that the regional rules for damming, the application of Rules 5.128 to 5.132 is limited to damming water on the beds of rivers. In the operative Natural Resource Regional Plan (NRRP), Rule WQN23 applies to the damming of water not on the bed of river. The planning status under Rule WQN23 varies from permitted, if all conditions are met, to a controlled activity if one or more conditions are not met, and a restricted discretionary activity if the activity has not been lawfully established. The matters for control and discretion under Rule WQN23 are limited to effects on flooding, wetlands, safety of the structure and passage of migratory species.
- 6.16 This rule, as currently worded, encourages the use of storage for irrigation systems which is consistent with the principles of the CWMS and Policy 7.3.10 of the RPS which seeks to recognise the potential benefits of harvesting and storing surface water for improving the reliability of irrigation water, and thus the efficiency of use, increasing the irrigated land area and reducing the pressure on surface water bodies during periods of low flow.

- 6.17 In the case of the PLWRP, Rule 5.6 (p 5-2) states that "*any activity that is not a recovery activity that would otherwise contravene sections 13(1), 14(2), 14(3) or 15(1) of the RMA and is not listed as a permitted, restricted discretionary, discretionary, non-complying or prohibited activity in this Plan is a discretionary activity.*" The activity status for the damming of water not on the bed of river under the PLWRP becomes discretionary, where the matters for discretion are unlimited. While a discretionary activity status does not prevent the application of resource consent for the damming of water not on the bed of the river, it can be seen as a procedural impediment which could *discourage*, rather than encourage, the use of storage systems for irrigation schemes.
- 6.18 In the Section 42A report, the Officer reported WQN23 as it is currently worded potentially catches a number of everyday activities, such as cultivation, that were unintended. The Officer does not provide a discussion about WIL's submission, but rather states that there are other controls available to deal with submissions concerned about damaging swales etc. As such, Officer recommendation RN12 (p 201) states that there is no need for a rule.
- 6.19 I disagree, and it is my opinion that relying on the default of Rule 5.6 is not entirely consistent with the RPS, CWMS or the PLWRP as it could discourage storage. It is my suggestion that a rule similar WQN23 be developed, and could be worded so that it applies to the damming and/diverting of surface water that is not on the bed of a surface water or is in an artificial watercourse **for the purpose of providing storage for an irrigation scheme**. This new rule would also have the same matters for control and discretion as Rule WQL23 currently has.



Lynn Torgerson

On behalf of Waimakariri Irrigation Limited (Submitter Number 174)

Dated: 4 February 2013