

BEFORE INDEPENDENT COMMISSIONERS

UNDER the Resource Management Act
1991

IN THE MATTER of Variation 1 to the Proposed
Canterbury Land and Water
Regional Plan

SPEAKING NOTES OF DAVID JOHN PAINTER

WYNN WILLIAMS
LAWYERS
CHRISTCHURCH

Solicitor: P A C Maw
(philip.maw@wynnwilliams.co.nz)

Canterbury Regional Council's
Solicitor
Homebase, Unit B,
195 Marshland Road,
P O Box 4341, CHRISTCHURCH
Tel 0064 3 3797622
Fax 0064 3 3530247

1. My full name is David John Painter. I have been a community member of the Selwyn Waihora Zone Committee since its inception in September 2010. I have lived in this Zone for more than 45 years. In my professional life I am a Water Resource Engineer with more than 40 years' experience.
2. Members of the Committee are listed in Paragraphs 4.8 and 4.10 of the Section 42A report. I would like to introduce those members present: *{ "Please stand briefly as I identify you." The Committee Chair, Pat McEvedy; Deputy Chair, Terrianna Smith; Maree Goldring; John Sunckell; etc. as appropriate. }* There are six members representing runanga with interests in the Zone; three representatives of councils; a Canterbury Regional Council Commissioner; and either five or six community members at various times.
3. The Committee operates as a joint committee of all three councils: Canterbury Regional Council; Christchurch City Council; Selwyn District Council; under Terms of Reference provided to us in 2010 and revised in November 2013. In brief, the primary purpose of the Committee is to facilitate community engagement in the development and periodic review of a Zone Implementation Programme that gives effect to the Canterbury Water Management Strategy.
4. Section 4 of the Section 42A report outlines the process the Committee has been through in preparing a Zone Implementation Programme approved by the Councils between December 2011 and February 2012. Subsequently, an Addendum to the Zone Implementation Programme was requested which was to contain a Zone Committee Solutions Package for water management in the Zone. This Addendum was approved by the Councils in September and October 2013. The Addendum has been used in formulating Variation 1 to the proposed Land and Water Regional Plan now being heard.
5. The Committee operates collaboratively and with a consensus approach to decision-making at its meetings. The extensive and useful engagement with communities and organisations is described in Section 4 of the Section 42A report. It has been challenging to satisfy the wide range of interests in the Selwyn Te Waihora

catchment and not always possible to meet all of the wishes of individual parties.

6. I would like to highlight four aspects of the Committee's work leading to the Zone Implementation Programme Addendum. These examples have been included in Section 4 of the Section 42A report because they are significant, or potentially contentious, or both. The first two of these concern process. The Committee was aware that they were engaged in a new way of going about water management in the region. Facilitating community engagement was part of our primary purpose and more than simply informing the public at meetings was required. We needed to understand the views of stakeholders and have feedback on our own deliberations. This was done through Focus Groups described in Paragraph 10 below.
7. In developing the Solutions Package, the Committee was provided with a very large volume of data and information: cultural, social, economic, environmental, scientific and statutory data and information as well as information from persons with local knowledge and experience. The cultural information included cultural opportunities mapping, assessment and response (COMAR) reporting. Much scientific and technical information was created through the modelling and evaluation of the scenarios, which is described in more detail in Section 6 of the Section 42A report. The scientific and technical information was a particular challenge, due to the varied backgrounds of Committee members, the volume of information to be understood and, sometimes, apparently incomplete or contradictory information. The ways in which the Committee came to be informed, but not led, in making decisions based on an understanding of this information are briefly described in Paragraph 11 below about technical information.
8. It was clear to the Committee that when considering land use and its relationship with water quality and quantity it was dealing with a 'wicked problem': incomplete knowledge and understanding; many people and opinions involved; significant impacts of solutions; and a high degree of inter-connection with related problems. The Committee had to provide recommendations to respond to community aspirations while recognising the complexity and time constraints. Several aspects within this larger problem, related to the storage and movement in the catchment, its waterways, aquifers and lakes, of

nutrients (especially N and P), microbes and sediment, which were themselves 'wicked problems'. Choosing just one example, involving one nutrient, from the complex array the Committee considered, Paragraph 12 below is about nitrate-nitrogen.

9. Water quantity and quality need to be understood and managed together. Groundwater and surface water interact and also need to be understood and managed together. Minimum flows in streams involve all of the above. They are related to: hydrological low flows; ecologically appropriate flows; and culturally acceptable flows but are not always distinct from one another. Committee members needed to become clear about the distinctions and Paragraph 13 is about minimum flows.

Focus Groups (Paragraphs 4.30 to 4.38 of the Section 42A report)

10. A wide range of community members met in fourteen Community Focus Group Workshops between December 2011 and October 2013. There would typically be 60-80 participants in interest groups of 4 to 10 people. Various scenarios from current state to possible futures were presented by the Canterbury Regional Council technical team, assisted by planning and facilitation staff and Committee members. The modelled consequences of each scenario were described using a set of social, cultural, environmental and economic indicators. Each Focus Group provided feedback on the acceptability of the consequences of the scenarios for their Focus Group. Ideas were also gathered on actions that could be incorporated into a solutions package to assist with achieving, or better achieving, the outcomes sought. The Focus Groups were also presented with the draft Solutions Package for their comments in September 2013.

Technical Information (Paragraphs 4.40 to 4.42 of the Section 42A report)

11. An 'Expert Workshop' arranged by the Committee on 30 September 2011 was particularly helpful for Committee members to understand the strengths and limitations of the science advice available to us. More than a dozen invited science experts joined Committee members

in a very open discussion of the state of knowledge relevant to the Committee context and its concerns. This Workshop provided an excellent background for the later provision to the Committee of technical information, which is described in Section 6 of the Section 42A report. Technical and planning experts were available at Committee meetings and workshops to answer questions, outline uncertainties in the information and provide expert guidance. They made it clear to the Committee that they were there to inform, but not lead, the Committee's decision-making. They were also a conduit to other experts not present for questions which could not be answered at the time and were able to commission further work when requested by the Committee.

A Nitrate-Nitrogen Catchment Load (Paragraphs 4.49 to 4.60 of the Section 42A report)

12. The Committee found recommending a catchment agricultural nitrate-nitrogen load limit particularly complex and challenging. It was clear that there was nitrogen 'in the post' from decades of prior land use on the plains which would continue to cause nitrate-nitrogen levels in shallow wells that would exceed half the Maximum Allowable Value national drinking water standard and which would adversely impact on ecosystem health, especially in Te Waihora with its plentiful supply of legacy phosphorus in the lake-bed sediments. With the help of technical experts, the Committee reviewed its understanding of many facets of the problem, including: nitrogen effects on lake algal blooms and mahinga kai; other cultural aspects of lowland stream and lake water quality; trends in potable groundwater nitrate levels; lag times between land use change and nitrogen inflows to the lake; current understanding of on-farm good management practices; land use intensification, especially by irrigation and dairy conversion; economic and farm viability effects of better farm management practices being required; and the likelihood of successful lake interventions to address legacy phosphorus and restore beneficial macrophyte beds. The Zone Committee decided at its May 2013 meeting to recommend setting a catchment agricultural nitrogen load limit based on nitrogen leaching losses that would require all farming activities to perform at the mid-way point between losses under good management practice

and those under maximum feasible mitigation. This was understood to mean that, if applied equally to all farming activities in the catchment, everyone would need to make a further 12.5% reduction in their nitrogen losses beyond good management practice loss rates.

Minimum Flows (Paragraphs 4.61 to 4.63 of the Section 42A report)

13. Minimum flows on the Selwyn/Rakaia side of the Zone had been examined extensively during the consent review process in 2005 to 2006 and minimum flows in the catchment to date had been set through the consent process. The Committee had received ecological and cultural (COMAR) minimum flow recommendations. An economic assessment of the impact of these recommendations on reliability of irrigation water supply had also been undertaken and discussed with the Committee. Committee members first needed to understand the information provided and make the distinctions referred to in Paragraph 9. Community meetings were held in Darfield, Lincoln and Southbridge in early June 2013 to present minimum flow recommendations to potentially affected consent holders and seek their feedback. Some Committee members were concerned that the recommended minimum flows would not have effect until after 2025 and therefore streams would not have protection until then. It was, however, accepted that there were existing minimum flows in place and the lowland streams would not receive the benefits of increased flow until alpine water was brought into the catchment. Increased statutory minimum flows would not benefit cultural and ecological values if there was simply not enough water in the streams. The Committee recognised that new alpine water would become available as part of the proposed irrigation scheme in the central plains area, but in stages, with the effects from the final stages occurring as late as 2025. The recommendations were adopted by the Committee in July 2013, with some modifications that took into account the specific values of particular water bodies and/or reflected some middle ground between the cultural and ecological recommendations and economic considerations.

Conclusion

14. The four aspects of Committee work in Paragraphs 10 to 13 are examples of the work undertaken. Overall, the key pathways to achieve the Zone Committee Solutions Package are: Te Waihora Lake Ellesmere rehabilitation; farming at significantly better than Good Management Practice; reformed water allocation to deliver ecological and cultural flows in streams; enhanced provision of 'alpine' water; recognition of the cultural importance to Ngāi Tahu of Te Waihora Lake Ellesmere and its margins. The Zone Committee Solutions Package includes non-regulatory lake, waterway and catchment interventions that are important to achieve the outcomes sought to satisfy targets of the Canterbury Water Management Strategy. Section 5 of the Section 42A report provides information on current and proposed non-regulatory interventions. The Committee is continuing to work on implementation of the non-regulatory interventions and on communication of the importance of the recommendations in their Zone Committee Solutions Package to improve water quantity and quality outcomes in the catchment.

David John Painter

16 September 2014