

IN THE MATTER OF the Resource Management Act 1991

And

IN THE MATTER OF the Central Plains Water Trust (CPWT) and The Ashburton
Community Water Trust (ACWT)

Statement of evidence by Murray James Rodgers on behalf of the Water Rights Trust (WRT)

Introduction

1. My name is Murray James Rodgers. I live at 106 Soleares Ave, Mnt Pleasant, Christchurch. I grew up on farms in Western Southland, and South Canterbury. I am a graduate of Canterbury University (MA, Economics) and a Fellow of the NZ Institute of Management. My working life comprised several years with the Mount John Observatory at Lake Tekapo where I met my wife in 1962, then some ten years with IBM and Fletcher Timber in various management roles. I became self-employed as a management consultant in 1980 as the means of fulfilling my family's wish to live in Christchurch. The next 26 years of work in senior level recruiting and organizational change included consulting to local and central government, large and medium sized commercial organizations, and not-for profit organizations. I was able to provide a sound and stable lifestyle for my wife and our two daughters, and from time to time pursued my enjoyment of the Canterbury hinterland as a tramp and fly-fisher. My family came to share my love of our rivers, streams and mountains. I have written two books on these experiences (*Magic in the Mountains*, published by Penguin 1993 and *Running with the River*, published by Hazard, 2003). I retired from management consulting late 2006 to continue my commitment as chairman of the Water Rights Trust.

Background

2. The Canterbury Rivers & Streams Heritage Group came into being during the run-up to the local body elections in 2001. Our aim at the time was to highlight the destruction of our lowland waterways because of the right of families of the future to have a picnic on the banks of a stream, to paddle, swim or catch a fish as we once did. Later we learned of the threat to much of the regions drinking water from the rapid expansion of intensive farming, giving a vastly different dimension to our mission.
3. The Water Rights Trust, as the successor to the Heritage Group, was registered as a charitable trust November 2002. We are supported by Te Runanga o Ngai Tahu in an ex officio capacity; Fish & Game; The Ecologic Foundation; several business organisations; St Albans and Halswell Residents Associations; Christchurch Combined Residents Association, angling and canoeing clubs and many other concerned groups and citizens.

4. The Trust is represented on the Ministerial Advisory Group and Technical Reference Group for the Governments Sustainable Water Programme of Action (SWPoA), and the steering group and reference group for the Canterbury Strategic Water Study (CSWS).
5. We have represented our concerns to 3 successive Ministers for the Environment and as a co-signatory in a submission to the Prime Minister along with NZ Fish & Game, the Ecologic Foundation, NZ Forest & Bird, and the NZ Recreational Canoeists Association. We have made many submissions on resource consent applications to take water for irrigation, and have submitted to ECans NRRP. The Trust has shared its concerns at some fifty gatherings, comprising Rotary Clubs, Lions, U3A, political groups, farming groups, University students, citizens associations and various other groups and written around a dozen perspective articles for The Press over the last 6 years.
6. Our aim is to help ensure that the legacy we leave our grandchildren and their children comprises rivers, streams and lakes that they can swim in, are ecologically healthy, and ground-waters that they can drink in the sure knowledge that their health will not be compromised. The work of the Trust is based entirely on voluntary effort and is funded by donations from various groups and citizens. The Board of WRT, currently comprises 6 trustees and the Trust secretary, plus several working supporters, and meets monthly. Further details on WRT are on our web-site: www.waterrightstrust.org.nz
7. Our concerns encompass our regions drinking water, still among the very best in the world, the importance of maintaining potable water for our food processing industries, and the significance of our country's clean, green image to international markets for our produce and tourists. We acknowledge the spiritual importance of water to Maori, and in nurturing mahinga kai. And just knowing that it's there; the sense of timelessness and tranquility offered by a clean, vibrant river or stream has significance for people of all ages and ethnicities. It's an implicit part of who we are; something we don't even think about, until it's been taken from us.
8. Because Canterbury leads New Zealand in the development of irrigation based farming, with over half of New Zealand's allocated water consumption, we should also lead the country in how we manage it. We don't. The despoliation of our waterways that has already occurred is demeaning and erodes our pride of self and place.
9. Of special interest is the response from Sir Kerry Burke, the current chairman of ECan, to our request for ECan council candidate views on water management issues, Sept 2001.

“With regard to the questions, may I answer as follows:

 - I believe that the question of water allocation is the most important regional issue facing the Canterbury regional council
 - There should have been a Natural Resources Regional Plan, (Water), for Canterbury by now. Councillors were promised it by 30 June 2001. At the end of June the Council was told that the deadline had been missed by “a couple of weeks”. It is now almost 3 months since then. There are many complicated, technical issues to deal

with, as you will be aware, but much of the present concern would have been allayed had a plan been produced and made available to the public.

- The particular devices for water allocation, such as consents, will be part of the framework of the Plan. In terms of matters of judgement, however, a balance must be struck between competing demands. This isn't rocket science. It is a question of having a global view and an ability to eschew extreme ideologies in order to achieve a reasonable solution, where everyone's key interests are secured. We have enough water in Canterbury to achieve that!

We need enough sense around the Council table to ensure that Canterbury's rivers and streams have their vitality restored and that recreational, economic, social and environmental benefits are all achieved. A Natural Resources regional Plan should do that”.

10. But nearly seven years later, even the 'rocket scientists' are still struggling. **No balance** has been struck between competing demands, **no global view** has been achieved and the Natural Resources Regional Plan (NRRP) is still many years away from becoming law.

Our management of environmental effects

11. Our performance in managing our water resources thus far is in the context of:

- a large gap in our knowledge regarding the location, depths, flow rates, volumes, and linkages between our groundwater systems - especially the unconfined aquifers; and between aquifers and surface waters, to the extent that scientists cannot agree on how data is to be interpreted.
- lack of adequate knowledge of the rate of absorption and transport, by the different soil types, of nitrates from increasing intensification of land use.
- lack of knowledge on the difference between the amounts of water allocated for abstraction and the amounts actually taken, because of lack of metering of water takes (although some initial steps are now being taken to implement metering of water takes)
- Lack of controls that prevent bacterial contamination of waterways.
- lack of a supportive legislative framework that sets clear standards for water management, including the basis for managing long term cumulative impacts from intensive farming.
- the 'first come first served' imperative under the Resource Management Act (RMA) which forces competition for water where the amount of water available for allocation is failing to meet demand or is breaching sustainability limits for surface waterways and/or aquifer recharge.
- lack of a precautionary approach to land use intensification.
- lack of robust enforcement practices that ensures compliance by all farmers to existing rules.
- lack of an overarching strategy would ensure the best overall sustainable use of water resources, throughout the region.

12. The development of new regulatory frameworks and science based research is progressing slowly, but the pace of conversion of dry-land to irrigated land is accelerating. The prospect of large capital gains, competition for water resources (under the first come, first served requirement of the RMA), and the current strength of prices for dairy products, means that much of this work may well be irrelevant to planning and investment decisions currently being made.
13. In addition to ECan's NRRP still being many years away from becoming fully operative, the government's SWPoA; the CSWS; the Integrated Research into Aquifer Protection (IRAP) programme and various other research, legislative and planning initiatives still have many years to go before the beneficial effects will begin to emerge. By then, much of the damage may well be irreversible, or at best, take several generations to repair. The economic assumptions for new developments to extend intensive farming on an *environmentally sustainable* basis may well be badly flawed.
14. These concerns which have been consistently stated by WRT to central and local government politicians over the last seven years are reinforced by many of the submissions on the CPWT applications, including those from ECan, Fish & Game, Ngai Tahu, The Malvern Hills Protection Society and the Canterbury District Health Board in their assessments of the impact of increased intensive farming on the environment.

The barriers to sustainable water management

15. The barriers against achieving timely change to a sustainable water management framework are partly systemic in the way our bureaucracy functions, partly to do with farmers traditional freedoms to manage their land as they see fit, and partly the strong corporate commercial drive for profit. Use of water by the rural sector has been developed in Canterbury in the absence of national policy and national environmental standards and a regional water management plan. This has allowed access to water by the rural sector without adequate measures to protect environmental flows in rivers and streams and the quality of our ground-waters.
16. The conventional wisdom of the rural sector carries strong elements of pioneering New Zealand, with deeply held attitudes around the right of farmers to determine land use, as well as use of the water that flows through or under their land. Independence, self reliance and innovation are key values on which our rural sector is based. The growth in corporate farming is adding to these values the right to make profit from the best use of resources. Traditional family owned farms are being acquired by big businesses, most of which are focused on dairy farming. Return on investment opportunities are driving these large corporates to reshape our rural hinterland. Shelter belts and forested areas are bulldozed to make room for centre pivot irrigation systems, drawing from aquifers hundreds of metres below. While many rural towns and villages seem to be prospering, the huge, hidden social and environmental costs are not entered on any balance sheet or profit and loss accounts.

17. Science-based tools developed to control nitrate contamination, such as Eco-N, may help mitigate or defer effects, but do not eliminate them. In any event, only around a quarter of Canterbury farmers have adopted this technology, despite the technology having been available for several years. Many dairy farmers continue to flout ECan regulations concerning on-farm effluent management, with ECan enforcement characterized by ineffectual penalties for non-compliance. Around 100 farms have been rated by ECan in each of the last two years (2006; 2007) as “*seriously non-compliant*”. Fonterra has also instituted a penalty framework for non-complying farmers, but the token scale of penalties indicate this also is likely to be ineffectual in achieving the necessary degree of compliance.
18. Not only does the rural sector wish to drive ahead with its huge development plans for irrigating the remaining dry-lands of the Canterbury plains, it seems not to want to take seriously alternative farming strategies that would be environmentally much less damaging. ECan and the rural sector have failed to embrace the wide ranging recommendations in “*Growing for Good*” (Dr. Morgan Williams, Parliamentary Commissioner for the Environment, October 2004) as a platform from which to lead essential change to land and water-use management practices across the region. The report identified the environmental (and ultimately economic) unsustainability of New Zealand agriculture. In that report Morgan Williams called for a redesign of New Zealand farming systems to protect the natural capital that underpins our agricultural economy.
19. The essence of his findings was that agriculture should act more strategically, in terms of its longer term planning, and take greater responsibility for avoiding, remedying and mitigating its adverse environmental effects – which is precisely what Parliament intended in the Resource Management Act (section 17). Morgan Williams questions much of the conventional wisdom of farming in New Zealand and points the way towards a sustainable future for farming. But his suggestions have largely been ignored or put down by the rural sector. There seems to be inertia, stretching to open resistance that prevents the sector from embracing these new ways of thinking.
20. We must assume there is a *one-best-way* to profitably *and* sustainably produce from our rich land and water resources and be rigorous in how we go about finding and implementing it. We owe this search not only to our future citizens in maintaining clean water for their use, but also to the growing global population by maximising our *environmentally sustainable* contribution to food production. We must believe such a way is there, and we must put in place the means of finding it with greater urgency than is evident now.
21. The conventional wisdom of farming that has always encouraged farmers to use their skills to make a living from the land in the manner they best see fit is locking us into our present conundrum. The whole dynamic of farming changes when water and fertilizer are poured over the land to feed large polluting animals that otherwise would not be an economic proposition. More water, more fertilizer, more cows, more milk, more money, and more pollution.

22. With water must come not only new disciplines but a new conventional wisdom of farming. Either there are limits for each catchment placed on the amount of fertilizer and number of stock units that can be carried without contaminating aquifers and waterways, or a prescriptive approach is taken to determine what particular areas of land may or may not be used for specific purposes. Or, perhaps it is a combination of both. The short of it all is that farmers must accept restraint on their freedom to farm, if their social and moral contract to the rest of the community, and their intended legal responsibility under the RMA are to be honoured.
23. The economic assessments of CPW (submissions from Hazledine, Brown, Donnelly and Butcher) point to considerable uncertainty regarding the economic contribution from the scheme, which together with significant concerns over the impact on flow levels in the Waimakariri, and contamination of lowland streams and ground-waters all point to the scheme in its current form failing the intention of the RMA, section 5.
24. The evidence thus far is that we can not rely on the rural sector to impose and live by sustainable standards voluntarily. And in the absence of robust legislation and enforcement practices, the sector continues to grow without being accountable for visiting huge collateral damage to the environment.

The Canterbury Strategic Water Study

25. With consents already issued for well over half the irrigable land in Canterbury, the current pace of demand to irrigate the rest is outstripping the completion of the Canterbury Mayoral Forum's CSWS, ECan's NRRP, the Government's SWPoA and many research projects, all of which could inform sensible decision-making on water and land management. Developers committing now to large investments associated with irrigation-based farming are likely to be confronted with significant land-use constraints later on, either to their financial cost, or that of the community at large. Or, we may find ourselves locked into environmentally destructive use of our resources because the costs of reversal are simply too high.
26. To make sure we get this right now seems the obvious and sensible thing to do, yet so far support has not been forthcoming from central and local government politicians who are fully aware of the disconnection between the rapid development of intensive farming and management of the impacts on the environment. This conundrum is the basis for Water Rights Trust continuing to ask for a pause in issuing new resource consents to take water for irrigation until the necessary legislative changes and management frameworks have been put in place that will ensure we get this right.

27. The costs in implementing such a pause would be small compared with the alternative scenario. The payoff from the huge amount of money and effort from many people towards achieving sustainable outcomes could be lost in Canterbury as investors and developers commit the region to driving for some economic aspirations at the expense of long-term environmental ones.
28. The CSWS was set up by the Canterbury Mayoral Forum following the drought of 1998 to look at the strategic development of Canterbury's water resources. The study involves farmers, irrigators, recreationalists, conservationists, community representatives, politicians and bureaucrats. Among the key findings and conclusions so far identified in the *Final Report, Canterbury Strategic Water Study Stage 3* are the following:
- “Impacts of both land use intensification and larger areas of intensively used land must be rigorously addressed with good science and understanding of mitigation and management options **before** any major water storage option proposal can be progressed. In the evaluations of all the water storage options (and discussion with interest groups) the risk to water quality from land intensification (particularly dairying) from increased dairying was a major concern.
 - Current approaches to river management do not adequately protect flow variability and the water storage options proposed would lead to substantially reduced flow variability in some rivers, at or near, minimum low flow for much of January through March. All water storage options will affect river flows through takes to storage (mainly outside the irrigation season), and by both releases from storage and run of river takes to meet irrigation demand during the irrigation season.
 - The CSWS stage 3 evaluation indicates a desire for an integrated and reasonably equitable solution to Canterbury's future water that addresses water demand in mid-central Canterbury regions including south of the Rangitata River, minimizes the major storages required, puts water back into lowland streams, protects flow variability and low flows in major alpine rivers, and fully and properly accounts for environmental and social impacts”.
29. CSWS stage 3 thus “identified two overarching critical issues (land use intensification and its effects on water quality; and maintaining or improving flow variability in major rivers) that need to be rigorously explored (including improved mitigation and management systems) and subjected to comprehensive public debate before Canterbury is in a position to make sustainable long term decisions about water storage or water management more broadly”.
30. Extensive public engagement is planned on all water related issues as part of developing a Canterbury Water Management Strategy (CSWS stage 4)
31. The CSWS is a research and evaluation programme. The CSWS does not have a statutory basis and is not part of the RMA process. However, **WRT submits that the CSWS**

process is critical to Canterbury halting the widening divisions that are now occurring across our community around water.

32. Among the options for central Canterbury is putting a large dam in Lees Valley, perhaps in conjunction with using water from Lake Coleridge, to irrigate land from north of the Waimakiriri, South to the Rakaia. This scheme is an *alternative* to CPW, with the potential to more than double the amount of irrigated land available from CPW. Because of the ‘first come-first served’ requirement in the RMA, hearings in progress for the CPW scheme pre-empt these considerations. CPW may well be the better option. It may also be a sub-optimal solution – we simply don’t know at this time. The intensity of emerging concerns around the scheme reflect in part the absence of any community supported strategic context. **The CSWS, if allowed to inform community decision making, has the potential to alleviate some of these concerns.**
33. Much of the CPW irrigation water will find its way through our aquifers into Lake Ellesmere/Te Waihora, but a substantial part of the central plains lies outside the scheme area, and would therefore not be subject to whatever standards might apply within the scheme boundaries. The Water Rights Trust has the view that all water catchments and sub catchments across the region should be allocated nutrient budgets that protects the health of down-stream waterways and aquifers, and be subject to regular review as science emerges on what a catchment can sustain. Only then can best practice standards be in the best financial interests of individual farmers and at the same time meet what is needed to ensure these practices protect the whole catchment. Consent hearings are proceeding without such regulatory requirements in place.
34. An editorial in the Christchurch Press (15 March 2008) referred to water quality as a major issue of contention between the parties, concerning CPW, especially after a draft health impact assessment, co-authored by the Canterbury District Health Board's Medical Officer of Health, said that Christchurch's water supply could be contaminated by heightened nitrate levels. The report, rejected by CPW as contrary to its own scientific advice, raised a number of health risks. The editorial goes on to say: **“The intensity of such disputes provides clear evidence that Cantabrians regard water issues as being of vital importance. They rightly appreciate that decisions about water use can have massive implications not only for the parties competing for water but for the entire community today and for future generations. And: “What is required is, first, a thorough and independent inquiry, perhaps led by central government, into the future optimum water use in Canterbury, including sensitive issues like the role of dairying. Then an allocation process must be developed which gives greater certainty and coherence, rather than scheme-by-scheme decision-making, based on the long-term interests of the entire region”.**
35. Water in Canterbury is the key to the prosperity of the region. All the more reason, therefore, to ensure that this resource is not squandered by committing to sub-optimal

solutions, being driven by the current ‘first come, first served’ consents process. There is no strategic overview, no drive towards the highest and best use, just a scramble by competing development interests. There is widespread acknowledgement that the current process is flawed and the science is inadequate. The region needs time to improve both these aspects before we commit ourselves to critical developments with such long time frames.

36. It is to give us the time to evaluate our options sensibly that despite opposition from local and central government, we continue to ask for a pause in issuing new resource consents to take water for irrigation. Such a pause should apply to small as well as large consent applications to take water for irrigation so that the potential for large schemes is not foreclosed by the accumulation of multiple small consent applications to take water.

SUMMARY

36. **The key question of concern to Water Rights Trust:** *Are the risks understood such that there is confidence that the proposed actions of CPW are the right ones, at the right level, in the right order, to ensure the economic objectives for the scheme are achieved while protecting and enhancing associated rivers and streams, groundwaters and Te Waihora/Lake Ellesmere, and that the scheme is the best option available for irrigating the central plains?*
37. The understanding of Canterbury’s water resources, and the impact of our interventions (science based information and regulation for use of water) is still developing.
38. The Governments SWPoA talks about the need for more strategic assessments of water, and the National Policy Statement (NPS) and National Environmental Standards (NES) on water are currently being developed. Under the current timeframes, hearings on the CPW scheme precede the establishment of the NPS and NES on water, and also the development of science based knowledge necessary to adequately inform and regulate the scheme concerning the use of water for intensive farming.
39. The CPW scheme has not been assessed in the context of an overall development strategy for the region, because such strategy does not exist. The CSWS currently in progress excludes consideration of CPW because the statutory process for the scheme is underway.
40. As an example of the basis for our concerns, we refer to the conclusions from a paper titled “*Managing leaching of nitrates to groundwater: an emerging issue for Canterbury*”, by ECan scientists Ken Taylor and Raymond Ford, Feb 2006.

42. **“Conclusions:** Water quality monitoring has shown that groundwater in Canterbury is vulnerable to nitrate contamination and it is now recognised that management intervention is necessary if the high values of the groundwater resource are to be maintained in the long term. In the face of increasing intensification of land use, and upward trending nitrate concentrations in both the aquifers and coastal spring fed streams, it is also becoming clear that the assimilative capacity of the groundwater system is limited. There are still significant knowledge gaps – much needs to be understood about the transport and fate of inputs of nitrogen at the land surface, particularly in terms of the distribution of those inputs across both space and time within a heterogeneous hydrogeological system. Such knowledge will be critical in determining how the limited assimilative capacity is to be allocated.

More fundamentally, we need to improve our understanding of the nutrient fluxes and to acknowledge the linkages between groundwater, spring-fed streams and near-shore coastal waters. Future nitrate policy development will be required to encompass a more integrated or “whole hydrological systems” approach. High groundwater nitrate concentrations are not just a problem for groundwater users. Future management will need to consider the linkages between the different types of water bodies, and to identify those water bodies or values that are the most vulnerable to nitrate inputs. It may be that nitrate management will require the establishment and implementation of maximum loadings for particular catchments, and the allocation of discharge permits in a way that is analogous to the current allocation of water for abstractive use.

What may be particularly challenging to our thinking in this regard, is the prospect that such allocation limits may be determined not on the basis of the potential impacts of land-based activities on other groundwater users or the values in coastal spring-fed streams, but on the implications of those activities for the uses and values of waters overlying the continental shelf, and beyond.”

This paper is available in full on our web-site, www.waterrightstrust.org.nz , under ‘learn more; further reading’

43. There are no exit criteria and strategies for the scheme, if after construction has commenced there are unforeseen natural events, economic or social changes that affect the basis on which the scheme was approved.
44. The legislative and operational structure under which our water resources are managed is seriously flawed. It is not yet too late for Canterbury to take up the opportunity to lead the world in how it manages its water. But we are getting close to that time. Comparing the return on investment to the community over a 35 year period of fulfilling such an aspiration with the present scenario of contaminated waterways and contaminated drinking water across many parts of the region would, you would reckon, be a no-brainer. Regrettably, for some, that seems not to be the case. We need time out to find the best of both worlds; the *one best way*, and put it into place.

Conclusion

- 45 Water Right Trust holds that these are critical areas requiring further research, consultation and agreement before the scheme is approved. The scheme should be fully understood from a cost/benefit perspective and compared with other options. The risks and causal relationships should be properly quantified for expert and public scrutiny in terms of seriousness of adverse consequences, should they materialise. Areas where 'no risk' outcomes are appropriate should be identified, plus the associated strategies necessary to achieve these.
46. **The Water Rights Trust requests that the consenting authority declines the application, pending resolution of these matters.**

Murray Rodgers
Chairman
Water Rights Trust
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