

Canterbury's emerging water-use crisis 9 September 2003

While the science behind sustainable land-use in Canterbury is presently being developed (Professor Cameron, *The Press*, 27 May 2003), sustainable management has lagged far behind the needs of the region - to the extent that most of our once clean and vibrant low-land streams are now degraded. There are increasing levels of nitrate contamination in our pristine ground-waters in areas which are irrigated and intensively farmed. (ECan scientist, Dr Carl Hansen, "Nitrate Concentration in Canterbury groundwater", August 2002.) Nitrate contamination of water supplies is recognised by the World Health Organisation (WHO) as a carcinogenic hazard.

This issue arises at a time when there is growing pressure to transform the Plains by irrigation through major water storage schemes. Irrigated land in Canterbury has increased from 150,000ha to nearly 500,000ha since 1985. Most of this land is used for dairy farming. Are the increasing nitrate concentrations referred to by Dr. Hansen really the result of 150 years of agriculture on the Plains, as John Henzell's article "Watery myths and realities" *The Press*, 2 August, would have us believe? Or are we seeing the early impacts of the more recent intensive irrigated farming developments? That 53% of dairy sheds throughout Canterbury are still not complying with one or more conditions of their resource consents (ECan Report R03/23; July 2003) is an indictment of the effort made by dairy farmers and ECan to ensure sustainable management. Major water storage schemes are expected to double the irrigated land in Canterbury to more than 1,000,000ha over the next 20 years.

Development of the Plains with water may be a wonderfully productive thing to do. It may also be destructive, if we do not proceed with caution. We must wait until we have the knowledge and regulatory structures in place to ensure that what we do is sustainable.

International guidelines (adopted by the European Commission, 2 February, 2000) suggest a precautionary approach to development is necessary where scientific data are uncertain, insufficient, or inconclusive, and where preliminary scientific evaluation shows that potentially dangerous effects for the environment on

human, animal or plant health can be reasonably feared. In such a circumstance, they recommend a complete scientific evaluation be carried out by an independent authority in order to determine the degree of scientific uncertainty; that the potential risks and consequences of inaction should be assessed; and that all interested parties are able to participate in the study under conditions of maximum transparency. Water Rights Trust endorses this approach to set the platform for sensible development of our water resources, in the context of the regions long-term social, economic and environmental aspirations. .

ECan's long overdue Natural Resources Regional Plan (NRRP) will probably arrive too late to save some waterways. This plan is still going through the public consultation process. Based on past experience, the NRRP will probably be appealed in the Environment Court, and possibly higher courts. It therefore looks unlikely that the required management practices referred to by Professor Cameron will begin to be regulated for until long after substantial damage has been done. Responsibility for this administrative vacuum lies firmly with ECan.

We agree with Professor Cameron's assertion that most individual farmers are conservation minded and do not want to see the region's water capital wasted or destroyed. But as with all sectors of the community, there are some among them who don't care, and others who refuse on principle to let anyone tell them how or what to farm. Federated Farmers resists Fonterra's requirements for sustainable management practices. Cost to the farmer is a factor, and we can sympathize with a dairy farmer's objection that the same rules do not apply to the beef farmer down the road.

Education and self-monitoring will do part of the job. The rest has to be done by regulation and enforcement that is much more effective than we have seen to date. Yet you can't have rules for some, and not for others. All properties should have their water-takes measured, and be subject to periodic audits. Sensible planning of farm activities must be based on knowledge of the relationship between the range of soil types across the Plains and the shallow unconfined aquifers; the linkages between aquifers and rivers and streams; and what particular land-use activities are indeed sustainable.

All of this will cost money and time. Where is the plan to do this work, and the associated budget? Where will the money come from? And should ECan continue to issue resource consents to enable conversion of dry land properties to irrigated ones when it still lacks the required knowledge on collective, cumulative impacts, and when specific management practices still haven't been defined, regulated and enforced?

Self-interest and profit are already taking a huge toll on the region's water reserves and ECan either does not have the ability to manage the situation or is choosing not to. Public pressure now can prevent a major environmental and social disaster, and this is a better option than outrage after the event. We are told that science will solve the problems 'in time'. We do not have time. Already our rivers and aquifers are under huge stress and no one knows how they will react to further strain, or when the ill effects will become alarmingly and suddenly apparent. We would find no joy in saying "we told you so". Overseas experiences demonstrate the huge costs involved should we allow this to happen.

ECan, as the statutory regulator, needs to become part of the solution, rather than continue to be a large part of the problem. ECan's continued denial that the issue is serious will not make it go away. Canterbury needs strong, visionary leadership on this issue. In the meantime, a freeze should be placed on all new water-consent applications for conversion of dry-land to irrigated properties, unless there is proof that both the abstraction and use of the water are sustainable.

We anticipate that by highlighting this critical issue, we will help to advance a speedy solution.

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