

IN THE MATTER of the Resource Management Act
1991

AND

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

**STATEMENT OF REBUTTAL EVIDENCE OF JAMES GREGORY RYAN
FOR GROUP 2 HEARING**

1. INTRODUCTION

1.1 My name is James Gregory Ryan and I have the qualifications and experience described in my Evidence in Chief for the Group 1 Hearing.

2. SCOPE OF EVIDENCE

2.1 In this statement of evidence, I address issues raised by Dr Marsh in relation to audited self-management.

3. AUDITED SELF-MANAGEMENT

3.1 In paragraph 33 of his evidence, Dr Marsh expresses concerns about audited self-management and the perceived reliance by the Proposed Plan on the voluntary adoption of good management practice. It is my understanding that the Proposed Plan seeks to embed good management practice in a regulatory framework. Fonterra and DairyNZ support the role of audited self-management and the adoption of good management practices, alongside a regulatory framework, as a means of achieving a range of outcomes including environmental objectives. This approach is consistent with the recommendations of the Land and Water Forum of which the Fish and Game Council were an integral member and supporter.¹

1. <http://www.fishandgame.org.nz/newsitem/cherry-picking-would-derail-water-clean>

3.2 The Land and Water Forum recognises that:

*"Audited self-management schemes allow industry and regulators to put in place templates of good practice developed with wide stakeholder involvement, and assure themselves that outcomes are being met."*²

*Good management practice (GMP) can be nested in the regulatory framework, and contains a suite of methods and tools which collectively manage the range of contaminants from a particular land use in an integrated way. GMP should be adopted in all catchments.*³

- 3.3 In paragraph 251 through to 255 of his evidence, Dr Marsh suggest that decision-makers can either opt for a regulatory framework **or** voluntary adoption of good management practices and audited self-management as a means of managing resources. DairyNZ and Fonterra contend that audited self-management can be implemented effectively **alongside**, not instead of, resource management policies and rules. This approach is also consistent with how the Land and Water Forum viewed audited self-management being developed. In order to be effective, however, it is critical that there are robust governance processes in place to ensure independent auditing together with a series of graduated sanctions in place to ensure remedial action in case resource users are not managing resources responsibly.
- 3.4 It is not evident to me whether Dr Marsh has any practical experience in developing any initiatives that might be considered to fit broadly under an audited self-management approach. However, the concept of audited self-management is not new to the dairy sector. Audited self-management has been used successfully over a number of years by the dairy sector as a tool to address a range of outcomes including milk quality improvements.
- 3.5 A number of agencies are pursuing audited self-management as a means of achieving environmental outcomes. For example, in the Hawkes Bay the regional council is supporting the use of audited self-management as a means of managing the effects of land use from a new water storage scheme.⁴ In Otago, the North Otago Irrigation Company brings together water scheme users under an audited self-management approach, agreed with the regional council

2. Land and Water Forum 2010. A Fresh Start for Freshwater. p X.

3. Land and Water Forum. Third Report of the Land and Water Forum. Managing Water Quality and Allocating Water 2012. p 25.

4. Hawkes Bay Regional Council 2012. Nutrient Management Approaches for the Tukituki catchment 2012.

and local runanga, to actively manage the effects of land use upon water quality.⁵ Additionally, the Ministry of Primary Industries, which is implementing the Government's Accelerated Irrigation Fund, requires that new irrigation schemes are contingent on a credible audited self-management scheme to manage both water use and water quality impacts.⁶

- 3.6 It is not clear to me whether Dr Marsh is aware of the work of Professor Elinor Ostrom. In 2009 Professor Ostrom was awarded the Nobel Prize in Economics for "her analysis of economic governance, especially the commons."⁷ Ostrom's work is relevant because it has influenced the debate about the role of audited self-management in New Zealand, including by members of the Land and Water Forum and Environment Canterbury. Through research carried out across the world, examining land uses including farming, irrigation systems, forests, fisheries and oil fields, Ostrom demonstrated that community outcomes were maximised when resource users collaborated at the local scale through clearly defined rules and boundaries.
- 3.7 Ostrom identified eight "design principles" of stable local common pool resource management which provide useful insights into the development of a regulatory framework in Canterbury:⁸
- (a) Clearly defined boundaries (effective exclusion of external un-entitled parties);
 - (b) Rules regarding the appropriation and provision of common resources that are adapted to local conditions;
 - (c) Collective-choice arrangements that allow most resource appropriators to participate in the decision-making process;
 - (d) Effective monitoring by monitors who are part of or accountable to the appropriators;

5. <http://www.noic.co.nz/>

6. <http://www.mpi.govt.nz>

7. [Sveriges Riksbank's Prize in Economic Sciences in Memory of Alfred Nobel 2009](#), Sveriges Riksbank, 2009.

8. Ostrom, Elinor (1990). *Governing the Commons: The Evolution of Institutions for Collective Action*. [Cambridge University Press](#).

- (e) A scale of graduated sanctions for resource appropriators who violate community rules;
- (f) Mechanisms of conflict resolution that are cheap and of easy access;
- (g) Self-determination of the community recognized by higher-level authorities;
- (h) In the case of larger common-pool resources, organization in the form of multiple layers of nested enterprises, with small local common pool resources at the base level.

3.8 In New Zealand, research carried out in a number of dairy catchments confirms that the adoption of good management practices by farmers supports environmental improvements.⁹ There are widespread examples in Canterbury where farmers have taken voluntary action to improve environmental outcomes.¹⁰ If the Proposed Plan is to be effectively implemented then it is essential that a range of industry initiatives are implemented (such as those identified by me in my statement of evidence for the Group 1 hearing and Mr Cullen), and that these initiatives complement a robust regulatory framework.

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- 9. Wilcock, R.J., Monaghan, R.M.; Quinn, J.M.; Srinivasan, M.S.; Houlbrooke, D.J.; Duncan, M.J.; Wright-Stow, A.E.; Scarsbrook, M.R. (2012). Trends in water quality of five dairy farming streams in responses to adoption of best practice and benefits of long-term monitoring at the catchment scale. Marine and Freshwater Research (in press).
 - 10. Cawthron Institute 2012. Broad-Scale Trout Habitat Mapping in a Best Practice Dairy Catchment.