

**BEFORE THE ENVIRONMENT COURT
I MUA I TE KOOTI TAIAO O AOTEAROA
ŌTAUTAHI ROHE**

UNDER the Resource Management Act 1991

IN THE MATTER of appeals under clause 14(1) of the First Schedule

BETWEEN **FEDERATED FARMERS OF NEW ZEALAND INC**
(ENV-2018-CHC-40)

AND **SOUTHLAND REGIONAL COUNCIL**
Respondent

**REBUTTAL EVIDENCE OF DARRYL SYCAMORE
ON BEHALF OF FEDERATED FARMERS OF NEW ZEALAND INC
20 MAY 2019**

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Introduction

1. My full name is Darryl Allan Sycamore.
2. I am a Senior Policy Advisor for Federated Farmers of New Zealand (Federated Farmers).
3. My qualifications and experience are set out in my evidence in chief dated 15 February 2019.

Code of Conduct

4. I confirm I have read the Code of Conduct for expert witnesses as set out in Environment Court Practice Note 2014 and agree to comply with it. I confirm that the issues addressed in this brief of evidence are within my area of expertise.
5. The data, information, facts and assumptions I have considered in forming my opinions are set out in my evidence. The reasons and justifications for those opinions are also set out in my evidence.
6. I have not omitted to consider any material facts known to me that might alter or detract from the opinions that I express.

Scope of Evidence

7. My evidence provides a response to the issues raised in the evidence of other experts that have not been addressed in my EIC dated 15 February 2019 or my s274 evidence dated 15 March 2019. I have reviewed the evidence prepared by other witnesses on the appeal and the two Joint Witness Statements dated May 2019.
8. This rebuttal evidence addresses Objective 6.

Objective 6

9. The decisions version of the Plan reads as:

There is no reduction in the overall quality of freshwater, and water in estuaries and coastal lagoons, by:
(a) maintaining the quality of water in waterbodies, estuaries and coastal lagoons, where the water quality is not degraded; and
(b) improving the quality of water in waterbodies, estuaries and coastal lagoons, that have been degraded by human activities.

10. A number of appellants¹ seek that the term “overall” be removed.
11. I support the decision version. The reference to “overall” water quality provides a necessarily broad qualifier otherwise the more specific trends of up, down or indeterminate would fail to meet the objective.
12. The relief sought by the appellants to remove the term “overall” is both impractical and inconsistent with the NPS-FM Objective 2 seeking “the overall quality of fresh water within a FMU is maintained or improved...”
13. The phrasing of the Objective remains unclear in how it may be interpreted. In my view, the Objective should apply and be assessed against an individual waterbody or catchment proper. This would avoid the approach of prioritising the improvement in water quality in one waterbody (or catchment) at the expense of another to degrade.
14. Mr Farrell in his rebuttal² does not consider the suite of objectives and policies in the decision version of the Plan can maintain or improve water quality in the interim prior to the completion of the FMU process. Specifically, his concern relates to halting the decline of freshwater, particularly if an “unders and overs” approach is adopted as a consequence of removing the term “overall” from the Objective. Like Mr Farrell, I do not consider the “unders and overs” approach of picking winners appropriate or aligned with the intent of the plan to maintain or improve water quality in Southland.

¹ Forest & Bird, Fish & Game, DoC and Nga Runanga

² 15 May 2019

15. The experts in the water quality JWS recognise that Objective 6 is directive, but subjective. Its application can be interpreted in a number of ways. Ms Bennett and Mr Kitto rightly recognise the consequences of the absolute nature of the objective by including the term “overall”. I agree.
16. While there is some uncertainty by experts, in my opinion any confusion can be easily clarified by adding the underlined words:

There is no reduction in the overall quality of freshwater within a discrete catchment or waterbody, and water in estuaries and coastal lagoons, by:

(a) maintaining the quality of water in waterbodies, estuaries and coastal lagoons, where the water quality is not degraded;

and

(b) improving the quality of water in waterbodies, estuaries and coastal lagoons, that have been degraded by human activities.
17. In my view, such an approach would require the catchment or waterbody as a whole to experience no reduction in overall water quality when measured along a number of sampling points within that catchment whilst allowing for localised areas where water quality may degrade.
18. The management of water quality in totality within a catchment raises a number of complex issues. In particular diffuse discharges or those nutrient inputs that are challenging to manage.
19. To illustrate, during high rain events waterbodies can experience slumping of banks, or slips. These result in pulses of sediments and nutrient inputs. Water quality during such an event will fail to meet the objective.
20. Diffuse discharges from land to water may similarly result in pulses of nutrients. While the Plan has rules specific to address farming nutrient losses, the issue is not confined to the farming sector.

Nutrients may be from roadside runoff, stock runoff or managed animal communities on river margins such as ducks³.

21. Irrespective of the improvements made by land users, managing water quality requires a sound planning framework, and also objectivity by recognising that nutrient inputs are complex. This is why the term “overall” should be retained from the objective.
22. Irrespective of the source of any discharge, adopting a zone of reasonable mixing is a misnomer when contemplating an exclusion to the objective should the term “overall” be removed from the objective.
23. Irrespective of what the zone of reasonable mixing may be, the water quality beyond the defined extent will still be degraded at a chemical or physical level, it will simply be homogeneously mixed within the receiving water body.
24. Irrespective of water quality state or trends, should the term ‘overall’ be removed as sought by the appellants from the objective, it would be impractical for any consent authority to determine whether an activity is consistent, inconsistent, contrary or repugnant with the objective as part of any consenting process.
25. I agree with the other witnesses⁴ that the suite of objectives and policies as set out in the decisions version will maintain or improve water quality during the interim period prior to the completion of the FMU process.
26. It is therefore my opinion the term ‘overall’ in the objective should remain as set out in the decisions version.

³ Mean faecal output per individual duck is 336 grams. The estimated daily microbial output per bird is 3.18×10^{10} for E.coli and similar numbers for Enterococci. Faecal indicators and pathogens in selected New Zealand waterfowl. E.Moriarty, N.Karki, N MacKenzie, L Sinton, D Wood & B Gilpin, NZ Journal of Marine and Freshwater Research, 45:4, 679-688

⁴ Ms Taylor in her EIC at [2], Dunning at [31] and Kyle in his EIC at [47-59]

A handwritten signature in black ink, appearing to read 'Darryl Sycamore', with a horizontal line crossing through the middle of the letters.

Darryl Sycamore