

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

UNDER the Resource Management Act 1991

IN THE MATTER of appeals under Clause 14 of the First Schedule of the Act

BETWEEN **TRANSPOWER NEW ZEALAND LIMITED**
(ENV-2018-CHC-26)

FONTERRA CO-OPERATIVE GROUP
(ENV-2018-CHC-27)

HORTICULTURE NEW ZEALAND
(ENV-2018-CHC-28)

(Continued next page)

**SUPPLEMENTARY STATEMENT OF EVIDENCE OF MATTHEW
MCCALLUM-CLARK IN RESPONSE TO COURT'S MINUTE DATED 25
MARCH 2022**

6 April 2022

Judicial Officer: Judge Borthwick

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ARATIATIA LIVESTOCK LIMITED
(ENV-2018-CHC-29)

WILKINS FARMING CO
(ENV-2018-CHC-30)

**GORE DISTRICT COUNCIL, SOUTHLAND DISTRICT
COUNCIL & INVERCARGILL CITY COUNCIL**
(ENV-2018-CHC-31)

DAIRYNZ LIMITED
(ENV-2018-CHC-32)

H W RICHARDSON GROUP
(ENV-2018-CHC-33)

BEEF + LAMB NEW ZEALAND
(ENV-2018-CHC-34 & 35)

DIRECTOR-GENERAL OF CONSERVATION
(ENV-2018-CHC-36)

SOUTHLAND FISH AND GAME COUNCIL
(ENV-2018-CHC-37)

MERIDIAN ENERGY LIMITED
(ENV-2018-CHC-38)

ALLIANCE GROUP LIMITED
(ENV-2018-CHC-39)

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

HERITAGE NEW ZEALAND POUHERE TAONGA
(ENV-2018-CHC-41)

STONEY CREEK STATION LIMITED
(ENV-2018-CHC-42)

THE TERRACES LIMITED
(ENV-2018-CHC-43)

CAMPBELL'S BLOCK LIMITED
(ENV-2018-CHC-44)

ROBERT GRANT
(ENV-2018-CHC-45)

**SOUTHWOOD EXPORT LIMITED, KODANSHA
TREEFARM NEW ZEALAND LIMITED, SOUTHLAND
PLANTATION FOREST COMPANY OF NEW ZEALAND**
(ENV-2018-CHC-46)

**TE RUNANGA O NGAI TAHU, HOKONUI RUNAKA,
WAIHOPAI RUNAKA, TE RUNANGA O AWARUA & TE
RUNANGA O ORAKA APARIMA**
(ENV-2018-CHC-47)

PETER CHARTRES
(ENV-2018-CHC-48)

RAYONIER NEW ZEALAND LIMITED
(ENV-2018-CHC-49)

**ROYAL FOREST AND BIRD PROTECTION SOCIETY
OF NEW ZEALAND**
(ENV-2018-CHC-50)

Appellants

AND

SOUTHLAND REGIONAL COUNCIL

Respondent

Introduction, qualifications and experience

- 1 My name is Matthew Eaton Arthur McCallum-Clark. My qualifications and experience are set out in full in my statement of evidence dated 22 October 2021.
- 2 This statement of evidence responds to the Court's directions at paragraph 13(c) of the Minute dated 25 March 2022.
- 3 In this evidence, I respond to the Court's concerns regarding Policies 15A, 15B and 16A.

Code of conduct

- 4 I confirm that I have read the Code of Conduct for expert witnesses as contained in the Environment Court Practice Note 2014. I have complied with the Code of Conduct when preparing my written statement of evidence and will do so when I give oral evidence.
- 5 The data, information, facts, and assumptions I have considered in forming my opinions are set out in my evidence. The reasons for the opinions expressed are also set out in my evidence.
- 6 Other than where I state I am relying on the evidence of another person, my evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

Policies 15A, 15B and 16A – Background and implications

- 7 The Court's questions on Policies 15A, 15B and 16A in the Minute of 10 March 2022 and commentary in the Minute of 25 March 2022 indicate a range of concerns about the policies, including their implementation of Objective 6, the potential for enabling a further decline in water quality, and a general difficulty understanding the problem that the policies are directed to (particularly in relation to Policy 15B).
- 8 By way of background, when the proposed Southland Water and Land Plan (**pSWLP**) was notified, it included a broad ranging Policy 13, which applied to land use activities and discharges, and Policy 15, related to maintaining and improving water quality. Both of these policies are set out in **Appendix 1** to this statement of evidence. Early in the Council hearing process the Hearing Panel identified that it held concerns about these policies and suggested a different policy structure should be

considered. As a result, Policy 13 essentially became a linkage to Policies 15A, 15B and 15C, rather than the directive, objective-like notified policy.

- 9 Policy 15 was split into three policies. Policies 15A and 15B are the subject of this statement of evidence. Policy 15C related to the management of water quality after the limit-setting Plan Change Tuatahi is complete. It is my understanding that all parties have agreed that Policy 15C ought to be deleted as its content is now superseded by the National Policy Statement for Freshwater Management 2020.
- 10 The Hearing Panel also considered that it was appropriate to add a policy specific to industrial and trade waste discharges, recognising the best practicable option (Policy 16A) and splitting the policy on effluent discharges into a farming effluent policy (Policy 17) and a policy relating to community sewerage schemes and on-site wastewater (Policy 17A). This resulted in a policy suite that had Policies 15A, 15B and 15C for general application, then more specific policies related to the most common kinds of discharges in Southland:
 - (a) diffuse discharges from farming - Policy 16
 - (b) industrial and trade waste discharges - Policy 16A
 - (c) farm effluent discharges - Policy 17
 - (d) community sewerage schemes and on-site wastewater - Policy 17A
- 11 Through the Council hearing process and more recently through the Court process, it has become clear that these policies are serving several, potentially competing purposes, including providing direction on:
 - (a) where water quality standards are met, and where they are not met;
 - (b) point source and diffuse discharges;
 - (c) discharges directly to surface water and discharges to land that may enter water;
 - (d) replacement consents, and “new” discharges.
- 12 Points (b) and (c), to which types of discharges the policies apply, was the subject of some discussion at the all of parties’ hearing, and arises

again in the Court's Minute at paragraph 11(a)(ii). Clearly, there remains uncertainty over that, which could be improved.

- 13 Point (d), regarding "new" versus replacement potentially leaves some gaps, as Policy 15A addresses all discharges, whereas Policy 15B address "new discharges" and "replacement of expiring permits". As I understand it, there are other situations not addressed, such as variations of existing consents, changes to the nature or location of a discharge on replacement, or a plan rule requiring resource consent for an activity that was previously permitted. In these circumstances, the chapeau would need to be relied upon, but this would create uncertainty.
- 14 The Court's suggestion at paragraph 11(b) of the 25 March 2022 Minute, to construct the policy based on maintenance distinguished from improvement of water quality, is a further variation that has, in my understanding, not previously been considered.
- 15 I agree that improvement of water quality does fall to existing activities. Many of these activities are undertaken in ways, either as permitted activities or under resource consents, that have effects on water quality that could be reduced. It is unrealistic to expect a new activity, contributing a new discharge, to lead to an improvement in water quality.
- 16 In the discussion of new activities, leading to entirely new discharges, it has become clear that achieving the direction set by Objective 6, to maintain water quality where it is not degraded and improve it where it is degraded, is difficult, if not impossible in an absolute sense, as the nature of almost all discharges is to add contaminants. To illustrate this, some hypothetical examples could be used:
 - (a) If a new agricultural industry became established in Southland, for example one with lesser diffuse discharge impacts than existing farming, this is likely to require some form of new primary industry processing to be established. In my experience, this typically involves new discharges, which even if managed exceptionally well, is likely to result in some contaminant increase, while the industry as a whole may lead to an improvement in water quality across Southland if it were to replace some existing high loss activities.
 - (b) If a new section of State Highway was planned, for example to bypass an existing township, it would lead to new discharges, both

during construction and of stormwater and road run-off following construction. These discharges would likely be in locations where existing water quality is degraded. Even presuming it was unrealistic to expect improvement in water quality, the new road will inevitably generate some additional contaminants.

- (c) Several small townships in Southland are serviced by a multitude of existing, old on-site effluent systems. These are known to be poorly designed by current standards and some are poorly performing. From time to time territorial authorities investigate constructing reticulation, treatment and discharge of the wastewater for these townships. Inevitably, these systems would pipe the effluent for disposal some distance away, potentially affecting different land and water bodies to that directly affected by the township.
- 17 For all of these examples, there will be additional contaminants released to the environment, possibly with some improvement elsewhere, but the waterbodies are not likely to be the same. Having a policy construct that prevents these kinds of activities occurring is, in my opinion, problematic for Southland's communities and may hinder some of the water quality improvements sought by the pSWLP, which in reality will need to be achieved by changes to existing activities.

Policy 15A – Maintain water quality where standards are met

- 18 The version of Policy 15A agreed at mediation reads:

Where existing water quality meets the Appendix E Water Quality Standards or bed sediments meet the Appendix C ANZECC sediment guidelines, maintain water quality including by:

- 1. —avoiding, where reasonably practicable, or otherwise remedying or mitigating any the adverse effects of ~~new~~ discharges, so that ~~beyond the zone of reasonable mixing,~~ those standards or sediment guidelines will continue to be met (beyond the zone of reasonable mixing for point source discharges); and*
- 2. —requiring any application for replacement of an expiring discharge permit to demonstrate how the adverse effects of the discharge are avoided, remedied or mitigated, so that beyond the zone of reasonable mixing those standards or sediment guidelines will continue to be met.*

- 19 In my opinion, this Policy is clear in its application, to all discharges, and the outcome it seeks, which requires water quality to be maintained. In my opinion, this Policy is most likely to be applied at the time of considering a resource consent for a new activity, or the replacement or modification of an existing resource consent.
- 20 There was some discussion at the hearing on 14 and 15 March 2022 regarding whether it was possible that mitigation could lead to a reduction in water quality. At that time, I agreed that the risk of this potential interpretation could be addressed by changing the phrase “avoiding, where reasonably practicable, or otherwise remedying or mitigating any adverse effects” to “avoiding where practicable or otherwise minimise any residual adverse effects”. Subject to some minor editing, I remain of the view that where existing water quality meets the relevant standards, this more directive policy (i.e., the use of “minimise any adverse effects”) is appropriate, given the clear direction in Objective 6 to maintain water quality where it is not degraded. The inclusion of ‘residual’ before ‘adverse effects’ has some attraction, as it points more strongly to avoidance as a first option. However, I recognise that it may cause an interpretation difficulty if no effects can be avoided. At this stage, I have omitted it from my recommended wording, but I would be equally supportive of its inclusion.
- 21 Therefore, the wording I support for Policy 15A is (red strikethrough and underline show my changes from the agreed version at paragraph 18 above):
- Where existing water quality meets the Appendix E Water Quality Standards or bed sediments meet the Appendix C ANZECC sediment guidelines, maintain water quality including by:*
- 1. —avoiding, where reasonably practicable or otherwise minimising any ~~where reasonably practicable, or otherwise remedying or mitigating any~~ the adverse effects of new discharges, so that ~~beyond the zone of reasonable mixing,~~ those standards or sediment guidelines will continue to be met (beyond the zone of reasonable mixing for point source discharges).*

Policy 15B – Improve water quality where standards are not met

22 The version of Policy 15B agreed at mediation reads:

Where existing water quality does not meet the Appendix E Water Quality Standards or bed sediments do not meet the Appendix C ANZECC sediment guidelines, improve water quality including by:

1. *avoiding ~~where practicable and otherwise remedying or mitigating~~ any adverse effects of new point source discharges to surface water on water quality or sediment quality that would exacerbate the exceedance of those standards or sediment guidelines beyond the zone of reasonable mixing; and*
- 1a. *avoiding where reasonably practicable and otherwise remedying or mitigating any adverse effects of other new discharges on water quality or sediment quality that would exacerbate the exceedance of those standards or sediment guidelines; and*
2. *requiring any application for replacement of an expiring discharge permit to demonstrate how and by when adverse effects will be avoided where reasonably practicable and otherwise remedied or mitigated, so that ~~beyond the zone of reasonable mixing~~ water quality will be improved to assist with meeting those standards or sediment guidelines (beyond the zone of reasonable mixing for point source discharges).*

23 Taking into account the discussion in the paragraphs above in relation to the application of the Policy, the uncertainties in its application, and the Court's prompts regarding new discharges merely maintaining water quality, I have suggested a range of amendments to Policy 15B below. In my opinion, provided water quality is improved by the raising of standards for existing activities, and new discharges are significantly constrained, this Policy will give effect to Objective 6. In coming to this conclusion, I am also cognisant of Policies 16, 16A, 17 and 17A that provide more specific direction for the most common types of discharges, such as from farming, communities or industry.

24 I also note that there has been considerable discussion on the use of the word "minimise". In the decisions version of the pSWLP, minimise is used in Policy 16A. The section 42A report prepared for the Council hearing noted the possible different interpretations of "minimise", and

recommended a definition be added to the plan: “to reduce (an adverse effect) to the least practicable degree or amount.” The Hearing Panel did not recommend this definition be added, for reasons that it did not state. In the Planning Joint Witness Statement on Subtopic B5, a definition of minimise was agreed: “to reduce to the smallest amount reasonably practicable”.

25 In my opinion both of these definitions incorporate the same concept, and provide helpful clarity to users of the pSWLP. I continue to support the inclusion of a definition of minimise, and the use of that word in a policy context.

26 Therefore, the wording I support for Policy 15B is (red strikethrough and underline show my changes from the agreed version at paragraph 22 above):

Where existing water quality does not meet the Appendix E Water Quality Standards or bed sediments do not meet the Appendix C ANZECC sediment guidelines, ~~improve~~ water quality will be including by:

1. *maintained by avoiding ~~where practicable and otherwise remedying or mitigating~~ any adverse effects of new point source discharges to surface water on water quality or sediment quality that would exacerbate the exceedance of those standards or sediment guidelines beyond the zone of reasonable mixing; and*
- 1a. *maintained by avoiding where reasonably practicable and otherwise ~~minimising remedying or mitigating~~ any adverse effects ~~of other new discharges~~ on water quality or sediment quality ~~from new discharges to land, new discharges to groundwater or new diffuse discharges to water so that would exacerbate the~~ exceedance of those standards or sediment guidelines is, as a minimum, not exacerbated; and*
2. *improved by requiring any application for the replacement of an expiring discharge permit, ~~or the varying or seeking a different discharge permit for an existing activity,~~ to demonstrate how and by when adverse effects will be avoided where reasonably practicable and otherwise remedied or mitigated, so that ~~beyond the zone of reasonable mixing~~ water quality will be improved to assist with meeting those standards or sediment guidelines*

(beyond the zone of reasonable mixing for point source discharges).

Policy 16A – Industrial and trade processes that may affect water quality

27 My evidence with respect to Policy 16A is brief. As noted above, Policy 16A was added in response to submissions on the notified pSWLP and formed an integral part of the discussions at the hearing on the discharge policies.

28 At mediation, agreement was reached on replacement wording for the Policy:

Subject to Policies 15A and 15B, require the adoption of best practicable option to manage the treatment and discharge of contaminants by:

(a) Avoiding where practicable, or otherwise remedying or mitigating the adverse effects of discharges from any new industrial or trade process

(b) At the time of any replacement discharge permit, minimising the adverse effects of discharges from any existing industrial or trade process.

The adverse effects to be managed in accordance with (a) and (b) above include effects on the quality of water in lakes, rivers, artificial watercourses, modified watercourses, wetlands, tidal estuaries, salt marshes and groundwater.

~~Minimise the adverse environmental effects (including on the quality of water in lakes, rivers, artificial watercourses, modified water courses, wetlands, tidal estuaries, salt marshes and groundwater) by requiring the adoption of best practicable option to manage the treatment and discharge of contaminants derived from industrial and trade processes.~~

29 The Court's Minute of 10 March 2022 raised a number of questions in relation to Policy 16A, and I explained my reservations about the internal inconsistency of the mediation version of Policy 16A in answers to those questions. In the Courts Minute, an alternative Policy 16A was suggested. That option reads:

Pursuant to Policies 15A and 15B require the adoption of the best practicable option to manage the treatment and discharge of contaminant from trade and industrial processes.

The adverse effects to be managed include effects on the quality of water in lakes, rivers, artificial watercourses, modified watercourses, wetlands, tidal estuaries, salt marshes and groundwater.

- 30 In considering that option, I was initially unsupportive of it, due to its opening phrase of “Pursuant to...”. During questioning it appeared to be clarified that this was not the Court’s intention and that “Subject to...” would be a more appropriate construct for the Policy. After further consideration, I support a revised Policy based on the option in the Court’s Minute, as it contains a clear linkage and inherent consistency with Policies 15A and 15B, clearly sets out expectations with respect to the application of best practicable option and retains the wider range of water bodies that it applies to.
- 31 The wider range of water bodies that it applies to does potentially create a small inconsistency with Policies 15A and 15B, as the Appendix E and C standards do not apply to some water bodies listed in the Policy, such as coastal lagoons and groundwater. However, in these situations the best practicable option will continue to apply. In my opinion, the following revision of Policy16A is preferred:

Subject to Policies 15A and 15B, require the adoption of the best practicable option to manage the treatment and discharge of contaminants derived from industrial and trade processes.

The adverse effects to be managed include effects on the quality of water in lakes, rivers, artificial watercourses, modified watercourses, wetlands, tidal estuaries, salt marshes and groundwater.



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Matthew McCallum-Clark

06 April 2022

Appendix 1 – Notified versions of Policies 13 and 15

Policy 13 – Management of land use activities and discharges

Manage land use activities and discharges (point source and non-point source) to land and water so that water quality and the health of humans, domestic animals and aquatic life, is protected.

Policy 15 – Maintaining and improving water quality

Maintain and improve water quality by:

1. despite any other policy or objective in this Plan, avoiding new discharges to surface waterbodies that will reduce water quality beyond the zone of reasonable mixing;
2. avoiding point source and non-point source discharges to land that will reduce surface or groundwater quality, unless the adverse effects of the discharge can be avoided, remedied or mitigated;
3. avoiding land use activities that will reduce surface or groundwater quality, unless the adverse effects can be avoided, remedied or mitigated; and
4. avoiding discharges to artificial watercourses that will reduce water quality in a river, lake or modified watercourse beyond the zone of reasonable mixing;

so that:

1. water quality is maintained where it is better than the water quality standards specified in Appendix E “Water Quality Standards”; or
2. water quality is improved where it does not meet the water quality standards specified in Appendix E “Water Quality Standards”; and
3. water quality meets the Drinking-Water Standards for New Zealand 2005 (revised 2008); and
4. ANZECC sediment guidelines (as shown in Appendix C of this Plan) are met.