IN THE ENVIRONMENT COURT
AT CHRISTCHURCH
I MUA I TE KOOTI TAIAO O AOTEAROA
KI OTAUTAHI

ENV-2018-CHC-34

IN THE MATTER OF	the Resource Management Act 1991
AND	
IN THE MATTER OF	appeals under clause 14 of the First Schedule to the Act
BETWEEN	**BEEF+LAMB NEW ZEALAND LIMITED**
	Appellant
AND	**SOUTHLAND REGIONAL COUNCIL**
	Respondent

EVIDENCE IN CHIEF OF CHRISTINE ANNE FOSTER FOR BEEF+LAMB NEW ZEALAND LIMITED
20 December 2021

FLETCHER VAUTIER MOORE
LAWYERS
PO BOX 3029
RICHMOND 7050

Telephone: (03) 543 8301
Facsimile: (03) 543 8302
Email: cthomsen@fvm.co.nz
cluisetti@fvm.co.nz
Solicitor/Counsel: CP Thomsen/ CH Luisetti

QUALIFICATIONS AND EXPERIENCE

1. My name is Christine Anne Foster. I am a planning consultant and sole director of CF Consulting Services Limited, based in Wellington. I hold a Bachelor of Regional Planning and have worked as a resource management planner in New Zealand for over 35 years.

2. This statement of evidence is within my area of expertise as a resource management planner, except where I state that I rely on the evidence of others. I have read the Code of Conduct for Expert Witnesses set out in the 2014 Environment Court Practice Note (and, in particular section 7 in relation to an expert's duty to the Court) and confirm that the opinions I have expressed represent my true and complete professional opinions. I am aware of the obligations imposed on expert witnesses by the Code and agree to comply with the Code. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

3. My planning experience has included drafting and implementing resource management plan provisions, the compilation of resource consent applications, assessment of the environmental effects of a variety of projects, and community consultation. That experience has been gained in a number of roles including as a staff planner for local authorities, policy analyst with the Ministry for the Environment and, since 1992, as a consultant planner working on contract for a variety of clients including regional councils, unitary authorities, territorial authorities and sector interest groups. I have assisted local authorities with the preparation of district and regional plans under the Resource Management Act 1991 (the RMA) and with plan changes and variations.

4. I recently assisted Manawatū-Whanganui Regional Council[1] as author of the section 42A report on that Council's Plan Change 2 (addressing an issue with the Plan's existing policy and rule framework for managing diffuse nutrient discharges from intensive agricultural and horticultural land use). I am currently assisting Nelson City Council (a unitary authority) and Manawatū-Whanganui Regional Council with the development of their regional plan policy initiatives to give effect to the

[1] Also known as 'Horizons Regional Council'

National Policy Statement for Freshwater Management 2020 (the 'NPS-FM').

5. I am a qualified RMA decision-maker (with chairperson endorsement) under the 'Making Good Decisions' programme and have heard and determined a number of proposed plan changes and numerous applications for consent, including applications in the 'freshwater' realm.

MY ROLE

6. I have been asked by Beef+Lamb NZ Limited (**B+LNZ**) to advise it on its appeal on Policy 18 and Rule 70 of the proposed Southland Water and Land Plan (**PSWLP**). B+LNZ are an appellant, with their appeal focusing on these two provisions. I am advised by B+LNZ that it is not a s 274 party to any other appeals.

7. I have not previously provided advice to B+LNZ on any matter relating to the PSWLP and did not appear at the first instance hearings. My involvement began in mid October 2021 when I was asked to consider the appeal points, and the proposed wording of Policy 18 and Rule 70. I prepared a will say statement dated 29 October 2021 and participated in planner expert conferencing on 17 to 19 November and 9 and 10 December 2021 (and my participation was limited to Policy 18 and Rule 70).

SCOPE OF EVIDENCE

8. My evidence sets out what I understand to be the significant resource management issues that Rule 70 seeks to address and presents a s. 32AA assessment of the amendments to Rule 70 recommended by the planning witnesses, insofar as they relate to the matters B+LNZ has appealed.

9. I am advised that B+LNZ's appeal against Policy 18 has been resolved following expert conferencing and has now been withdrawn. I therefore do not comment any further on that policy.

10. In preparing this brief of evidence I have reviewed:

(a) Relevant sections of the decisions-version of the PSWLP relating to stock exclusion.

(b) Relevant sections of the s. 32 report for the PSWLP relating to stock exclusion.

(c) The Topic B overview evidence dated 28 October 2021 and Topic B supplementary evidence dated 28 October 2021 of Mr McCallum-Clark (together, **Overview Evidence**).

(d) The will say statements of:

(i) A Cain.

(ii) T Davidson.

(iii) S Dines.

(iv) S Ruston.

(v) C Jordan.

(vi) B Farrell.

(vii) G Willis.

(viii) C Taylor.

(ix) L Kirk.

(x) J Whyte.

(xi) P Wilson.

(xii) L Maciaszek.

(e) The will say statements and evidence in chief of:

(i) Dr Corner-Thomas.

(ii) Mr Orchiston.

(f) Joint witness statements of the land management and farm systems experts (dated 22 November 2021), the science and water quality experts (dated 24-26 November 2021) and the ecology experts (dated 1 December 2021).

(g) Joint witness statements of planning witnesses dated 18 November 2021 (**JWSP#1**), 19 November 2021 (**JWSP#3**) and 10 December 2021 (**JWSP#2**) respectively.

EXPERT WITNESS CONFERENCING OUTCOMES

11. On 17 to 19 November 2021 the planning witnesses participated in three days of conferencing to identify questions for technical experts to address. I attach the relevant questions resulting from those conferencing sessions: Appendix CF-1 contains a copy of JWSP#1 (questions to farm systems experts). Appendix CF-2 contains a copy of JWSP#3 (questions to ecology experts). The relevant questions for my evidence are set out at page 5 of CF-1 (questions 15 and 16) and at page 4 of CF-2 (question 1). An amended Appendix N from the PSWLP is also attached to JWSP#1 (CF-1).

12. The farm systems experts answered the questions posed by the planners in their joint witness statement dated 22 November 2021. The science and water quality experts answered the questions posed by the planners in their joint witness statement dated 24-26 November 2021. The ecology experts answered the questions posed by the planners in their joint witness statement dated 1 December 2021 (not produced).

13. A second conferencing session for the planning witnesses was held on 9-10 December 2021 and produced JWSP#2 (a copy of which I attach as Appendix CF-3).

14. I confirm the conclusions as set out in CF-3 remain my expert opinion.

THE SIGNIFICANT RESOURCE MANAGEMENT ISSUE RULE 70 ADDRESSES

15. In my opinion the significant resource management issue that Rule 70 seeks to address should be understood within the paradigm shift

required by the PSWLP and described in Mr McCallum-Clark's Overview Evidence. Particularly, Rule 70 is addressing the management of contaminants of concern arising from stock presence and interaction in and near water bodies, in light of the direction provided in Policy 18.

16. I confirm I have read and understand Mr McCallum-Clark's analysis of the policy framework of the PSWLP following the decisions on the Topic A hearings as set out in his Overview Evidence.

17. A key policy is Policy 18 which, amended as agreed in JWSP#2, states (amendments coloured red):

> **Policy 18 – Stock exclusion from water bodies**
>
> ~~Reduce~~ Avoid where practicable, or otherwise remedy or mitigate, any adverse effects from the discharge of sediment~~ation~~ ~~and~~ or microbial ~~contamination of~~ contaminants to water bodies and improve river ~~(excluding ephemeral rivers)~~ and riparian ecosystems and habitats by:
>
> 1. requiring progressive exclusion of all stock, except sheep, from lakes, rivers ~~(excluding ephemeral rivers)~~, natural wetlands, artificial watercourses, and modified watercourses on land with a slope of less than 15 degrees by 2030;
>
> 2a. requiring the management of sheep in critical source areas and in those catchments where *E.coli* levels could preclude contact recreation;
>
> 3. encouraging the establishment, maintenance and enhancement of healthy vegetative cover in riparian areas, particularly through use of indigenous vegetation; and
>
> 4. ensuring that stock access to lakes, rivers ~~(excluding ephemeral rivers)~~, natural wetlands, artificial watercourses and modified watercourses is managed in a manner that avoids ~~significant~~ adverse effects on water quality, bed and bank integrity and stability, mahinga kai, and river and riparian ecosystems and habitats; and
>
> 5. showing, in a Farm Environmental Management Plan prepared and implemented in accordance with Appendix N, how 1-4 will be achieved and by when.

18. Clauses 1 and 2a of Policy 18 make a distinction between sheep and other livestock. That is appropriate, in my opinion, recognising the lesser risk of adverse water quality outcomes attributable to sheep compared with other livestock. The differences in risk profile for sheep are explained helpfully in the evidence in chief of Dr Corner-Thomas and Mr Orchiston.

RULE 70

19. The intention of Policy 18 is implemented in Rule 70 which (as recommended by the planning witnesses) includes a specific clause and permitted activity conditions for sheep (Rule 70 (ca)). I support the separate provision for sheep in Rule 70 as set out in CF-3 with the exception of clause 70 (ca)(iii) (and I explain the reasons for this in the following paragraphs).

20. I note that the planning witnesses agreed that clause 70 (ca) (ii) would not be required if winter grazing is managed by a specific rule (see paragraph 49 of CF-3). The planning witnesses have proposed two rules intended to manage winter grazing: Rule 20A ('intensive winter grazing') and Rule 20B ('high risk winter grazing on pasture'). My opinion is that, if Rules 20A and 20B are confirmed, they would comprehensively address the risks of winter grazing such that Rule 70 (ca) (ii) would not be necessary.

21. I include in Appendix CF-4 the text of Rule 70 amended as agreed in the planning JWS dated 10 December 2021. For the convenience of the Court I have included the full text of the rule. I do not agree that Rule 70 (ca) (iii) is required. Rule 70 (ca) (iii) specifies the following condition to manage sheep access to water bodies:

> (iii) there is no significant de-vegetation leading to exposure of soil of the bed and banks, pugging or alteration to the profile of the bed and banks, other than at fords or stock crossings; …

22. In my opinion, the matters addressed by clause (iii) are already managed through the Farm Environmental Management Plan required under clause 70 (ca) (iv). The requirements for a Farm Environmental Management Plan are specified in Appendix N. Part 5 of Appendix N

requires a description of how six objectives are to be met. Objective 5 (d) is:

> Waterways and wetland management: To manage activities within waterways, critical source areas, natural wetlands, and their margins, by avoiding stock damage, and avoiding where practicable, or otherwise minimising inputs of nutrients, sediment and faecal contaminants to ground and surface water

23. It is my opinion that the matters listed in Part 5 (d) of Appendix N comprehensively address the adverse effects of concern in Rule 70 (ca) (iii) and are capable of ensuring appropriate management of the risks of these adverse effects. My opinion is supported by the evidence of Mr Orchiston (at paragraphs 19 to 32 of his evidence in chief dated 20 December 2021). In my opinion, inclusion of clause (ca) (iii) in addition to (ca) (iv) creates unnecessary duplication.

RULE 70 SECTION 32AA ANALYSIS

24. JWSP#2 records that the planning witnesses substantively agree on the appropriate drafting of Rule 70.

25. Sections 32 and 32AA impose on plan-making processes the discipline of evaluating a range of approaches and determining the extent to which the objectives are the most appropriate way to achieve the purpose of the Act, and whether the proposed plan provisions (including policies and rules) are the most appropriate way to achieve the objectives. In particular, s 32AA requires a further evaluation[2] where changes are proposed to a proposed plan under consideration.

26. I include in Appendix CF-5 a s. 32AA assessment of the amendments to Rule 70 proposed by the planning witnesses. My analysis is focuses on the clause managing sheep (that is: Rule 70 (ca). While I support the other amendments proposed by the planning witnesses to Rule 70, I understand that the other parts of Rule 70 have not been appealed by B+LNZ so I do not analyse them under s 32AA.

[2] Further to the evaluation required under s 32.

27. In my opinion, the relevant PSWLP objectives for the purpose of any s. 32AA evaluation include objectives 1, 2, 3, 4, 6, 7, 13, 14, 15, 17 and 18. I set out at my Appendix CF-6 the appeals version wording of these proposed Plan objectives.

28. The policies and rules implement the objectives, so section 32 (1) (b) is relevant (whether the proposed provisions are the most appropriate way to achieve the objective). For the reasons summarised in Appendix CF-5, I conclude that the proposed amendments to Rule 70 are a more appropriate way to achieve the Proposed Plan's objectives than the decisions version of the plan.

DEFINITION – STOCK UNIT

29. CF-3 (JWSP#2) records the planning witnesses' recommendation to insert into the Plan a definition of *stock unit*.

30. The expression 'stock unit' is used in the PSWLP in Table 1 within Rule 70. It is used in a way that, in my opinion, requires precision to ensure it can be implemented and enforced.

31. The farm systems experts were not asked to comment on the proposed definition (this is not one of the questions put in JWSP#1). Mr Orchiston confirms in paragraphs 42 and 43 of his evidence in chief that the wording of the proposed definition is commonly used nationally and is well understood by farmers.

32. I confirm the definition of *stock unit* is contemplated in my s. 32AA analysis.

CA Foster
20 December 2021

Expert Conference – Planning – Joint Witness Statement #1

Topic: Proposed Southland Water and Land Plan – Southland Regional Council

Date of conference: 17 - 18 November 2021

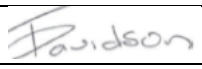
Venue: Remote AVL

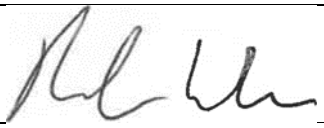
Facilitator: Commissioner Anne Leijnen

Recorder: Isabelle Harding

Attendees

1 Witnesses who participated and agreed to the content of this Joint Witness Statement (JWS) by signing it on 18 November 2021

Name	Employed or engaged by	Signature
Treena Davidson	Nga Rūnanga	
~~Ailsa Cain~~	~~Nga Rūnanga~~	
Sharon Dines	Wilkins Farming Company Ltd	
Sue Ruston	Ballance Agri-Nutrients Ltd	
Claire Jordan	Aratiatia Livestock Ltd	
Ben Farrell	Southland Fish and Game Council and Royal Forest and Bird Protection Society of New Zealand Inc	
Christine Foster	Beef + Lamb New Zealand	
Jerome Wyeth	Rayonier New Zealand	
Gerard Willis	Fonterra Co-operative Group and DairyNZ Ltd	

Carmen Taylor	Ravensdown Ltd	
~~Janan Dunning~~	~~Gore District Council, Southland District Council, Invercargill District Council (TAs)~~	
Linda Kirk	Director-General of Conservation	
~~Jane Whyte~~	~~Meridian Energy Ltd~~	
Peter Wilson	Federated Farmers of New Zealand	
Lauren Maciaszek	Southland Regional Council	
Matthew McCallum-Clark	Southland Regional Council	

Environment Court Practice Note

2 All participants confirm that they have read the Environment Court Consolidated Practice Note 2014 and in particular Section 7 (Code of Conduct, Duty to the Court and Evidence of an expert witness) and Appendix 3 – Protocol for Expert Witness Conferences and agree to abide by it.

Experts' qualifications and experience

3 These are set out in each expert's Will Say statement.

Participants

4 Ailsa Cain has not signed this JWS, as she is not a planning expert.

5 Jane Whyte has not signed this JWS as it is not a matter she has an interest in, and has not participated.

6 Janan Dunning has not signed this statement as it does not address matters that he has an interest in or has participated in.

7 All of the experts unanimously agree the content of Appendix 'N' contained in Attachment 2, subject to the answers from other technical conferencing, but

acknowledge that not all of the witnesses have directly addressed all aspects of Appendix ‘N’ or have instructions to prepare evidence on Appendix ‘N’.

Attachments to this JWS

8 List of Questions for the Farm Systems Experts.

9 Amended Appendix N.

Conference outcomes

10 The background and context relating to the appeal process is set out in the Topic B Overview evidence of Matthew McCallum-Clark

11 The Planning conferencing identified a number of technical questions to form the basis of the agenda for the Farm Systems experts – this is attached, along with an amended Appendix N

Attachment 1 - Farm Systems Expert Questions:

Farming practice improvements/Farm Environment Management Plans (Appendix N)

1. To what extent will there be water quality improvements achieved by farming in accordance with farm environmental management plans prepared and implemented under Appendix N?
2. Would Farm Environment Management Plans under Appendix N deliver water quality improvements that progress Te Mana o te Wai?
3. Could improvements from an implementation perspective be made to Appendix N?
4. How can Ngāi Tahu indicators of health be incorporated into Appendix N? What would their purpose be?
5. How do you think hauora can be recognised and monitored through Appendix N and farming practice? Are additional tools, methods and/or indicators needed? If so, what should be included?
6. Does the current resourcing in the Southland's farm systems advice sector have the capacity to deliver on the FEMPs now or will there be a lag in implementation?

Setbacks for cultivation

7. Rule 25 (cultivation) regarding effectiveness of setback differences: how much more effective at reducing sediment and nutrient runoff would it be to have 10m for 4-16 degree slopes and 20m above 16 degree slopes than the current suggestion of 5m up to 10 degree slopes and 10m between 10 and 20 degree slopes?

Critical Source Areas

If the suggested definition for critical source areas is: *a landscape feature like a gully, swale or a depression that accumulates runoff (sediment and nutrients) from adjacent flats and slopes, and delivers it to surface water bodies (including lakes, rivers, artificial watercourses and modified watercourses) or subsurface drainage systems.*

8. Does this definition miss any landscape features that could be a critical source area?
9. What are the factors that determine the riskiness of critical source areas?
10. Are some critical source areas riskier than others?
11. What is the best way of determining what/where a critical source area is?

Intensive Winter Grazing

12. Is reducing or restricting mob size (i.e., no more than 120 cattle or 250 deer) important for avoiding or mitigating adverse effects of IWG (assuming the same stocking density)? Could there be perverse outcomes for water quality? If stocking density is a more critical factor to the extent of adverse effects, is there a simple measure for that?
13. If intensive winter grazing is to occur in a critical source area, what controls and restrictions should be in place to result in minimising sediment and nutrient loss? Are there any practices that could be adopted that make this appropriate?
14. Is it possible to increase the land area subject to IWG from 10% to 15% of the farm area without increasing adverse environmental effects?

Stock Exclusion (sheep)

15. How do sheep behave and what are the potential adverse effects of sheep in and around natural wetlands and what risk to water quality and impacts on vegetation in natural wetlands do sheep present? How are those potential adverse effects best managed? For example, is fencing required? Where? What type?
16. What are the differences in fencing required to exclude sheep from freshwater bodies compared with other stock? What are the cost differences associated with those differences?

Attachment 2 - Appendix N – Day 2 of Conferencing

Further changes shown in Purple

Appendix N – Farm Environmental Management Plan Requirements

A Farm Environmental Management Plan must be:

(1) A Freshwater Farm Plan prepared, implemented and audited in accordance with regulations prepared under Part 9A of the RMA and which apply within the Southland region, plus any additional information or components required by Parts B (3) and (6)(b) as below; or

(2) if Freshwater Farm Plans, under Part 9A of the RMA, are not yet required in the Southland region, a Farm Environmental Management Plan prepared and implemented in accordance with Parts A to C below.

Part A – Farm Environmental Management Plans

A Farm Environmental Management Plan (FEMP) can be based on either of:

1. the ~~material~~ default content set out in Part B below; or
2. industry prepared FEMP templates and guidance material, with Southland-specific supplementary material added where relevant, so that it includes the default ~~material~~ content set out in Part B below; or
3. A management plan and nutrient budget prepared in accordance with a condition of resource consent to discharge industrial wastewater onto land that is also used for farming activity, provided it includes the material set out in Part B below in relation to each farm receiving industrial wastewater'.

Part B – Farm Environmental Management Plan Default Content

~~1. A written FEMP that is:~~

~~(a) prepared and retained, identifying the matters set out in clauses 2 to 56 below; and~~

~~(b) reviewed at least once every 12 months by the landholding owner or their agent and the outcome of the review documented; and~~

~~(c) provided to the Southland Regional Council upon request.~~

2. The FEMP contains the following landholding details:
   (a) physical address; and
   (b) description of the landholding ownership and the owner's contact details; and
   (c) legal description(s) of the landholding; and
   (d) a list of all resource consents held for the landholding and their expiry dates~~.~~; and
   (e) The type of farming activities being undertaken on the property, such as "dairy" or "sheep and beef with dairy support".
3. The FEMP contains a map(s) or aerial photograph(s) of the landholding at a scale that clearly shows the locations of:
   (a) the boundaries; and
   (b) the physiographic zones (and variants where applicable) and soil types (or Topoclimate South soil maps); and
   (c) all lakes, rivers~~,~~/streams (including ~~ephemeral or~~ intermittent ~~flow paths~~ rivers~~/streams~~), ponds, artificial watercourses, modified watercourses and natural wetlands; and
   (d) all existing and proposed riparian vegetation and fences (or other stock exclusion methods) adjacent to waterbodies; and
   (e) places where stock access or cross water bodies (including bridges, culverts and fords); and
   (f) the location of all known subsurface drainage system(s) and the locations and depths of the drain outlets; and

(g) all land that may be cultivated and land to be cultivated over the next 12-month period; and

~~(h) all land that may be break fed and/or intensively winter grazed and the land to be planted for winter grazing for the next period 1 May to 30 September; and~~

(ha) all critical source areas not already identified above; and

(i) ~~for~~ land to be cultivated or intensively winter grazed, or break fed on pasture between 1 June and 31 July, ~~shows~~ and the slope[1] of the land and intended setbacks from any lake, river, artificial watercourses, modified watercourse or natural wetland and any other critical source areas; and~~:~~

~~(i) critical source areas; and~~

~~(ii) intended setbacks from any lake, river (excluding ephemeral or intermittent rivers), artificial watercourses, modified watercourse or natural wetland; and~~

~~(iii) land with a slope greater than degrees~~

(j) any areas of the land within a degraded catchment identified in Schedule X; and

(k) any heritage site recorded in the relevant district plan, on the New Zealand Heritage List/Rārangi Kōrero or on the New Zealand Archaeological Association website; and

(l) the presence of taonga species listed in Appendix M within water bodies on the farm (if known).

4. Nutrient Budget/Nutrient Loss Risk Assessment

For all landholdings over 20ha, the FEMP contains either:

(a) a nutrient budget (which includes nutrient losses to the environment) calculated, using a ~~the latest version of the OVERSEER~~ model ~~in accordance with the latest version of the OVERSEER Best Practice Data Input Standards (or an alternative model nutrient loss assessment tool~~ approved by the Chief Executive of Southland Regional Council); or

(b) a nutrient loss risk assessment undertaken using a nutrient loss risk assessment tool approved by the Chief Executive of Southland Regional Council~~)~~;

and the Nutrient Budget or Nutrient Loss Risk Assessment is repeated: ~~which is repeated:~~

(~~a~~1) where a material change in land use associated with the farming activity occurs (including a change in crop area, crop rotation length, type of crops grown, stocking rate or stock type) at the end of the year in which the change occurs, and also every three years after the change occurs; and

(~~b~~2) each time the nutrient budget or nutrient loss risk assessment is repeated all the input data used to prepare it shall be reviewed by or on behalf of the landholding owner, for the purposes of ensuring the nutrient budget or nutrient loss risk assessment accurately reflects the farming system. A record of the input data review shall be kept by the landholding owner; and

(~~c~~3) the nutrient budget or ~~must be prepared by a Certified Nutrient Management Advisor and the~~ nutrient loss risk assessment must be prepared by a suitably qualified person that has been approved as such by the Chief Executive of Southland Regional Council.

5. Objectives of Farm Environmental Management Plans

A description of how each of the following objectives will, where relevant, be met:

(a) Irrigation system designs and installation: To ensure that all new irrigation systems and significant upgrades meet Industry best practice standards;

(b) Irrigation management: To ensure efficient on-farm water use that meets crop demands ~~and minimises losses~~, including through upgrading existing systems to

[1] Slope is the average slope over any 20 metre distance.

meet Industry best practice standards, and ensuring that water and contaminant losses to waterbodies are avoided where practicable or otherwise minimised;

(c) Nutrient and soil management: To avoid where practicable, or otherwise minimise, nutrient and sediment losses from farming activities to ground and surface water, to maintain or improve water quality;

(d) Waterways and wetland management: To manage activities within waterways, critical source areas, natural wetlands, and their margins, ~~to~~by avoiding stock damage, and avoiding where practicable, or ~~and to~~ otherwise minimising inputs of nutrients, sediment and faecal contaminants to ground and surface water~~, to maintain or improve water quality~~

(e) Collected ~~animal~~ agricultural effluent management: ~~To manage the operation of animal effluent systems to avoid adverse effects on water quality avoid contaminant losses to water bodies do not have …adverse effects on water quality; contaminant losses to water bodies do not occur;~~ To manage ~~the operation of~~ collected agricultural effluent ~~management systems~~ in accordance with best industry practice, to ensure contaminants derived from collected ~~animal~~ agricultural effluent do not cause adverse effects on water quality.

(f) Drainage maintenance: To manage drainage maintenance activities to ensure contaminant losses to water bodies and damage to aquatic habitats are avoided where practicable, or otherwise minimised ~~significant adverse effects on water quality and aquatic habitat~~.

The FEMP may also identify additional objectives relevant to the farming activities or to address environmental risks identified in accordance with Part (6) below.

6. The description for (5) above shall include, for each relevant objective in 5 above:

(a) an ~~assessment~~ identification of the adverse environmental effects, and risks associated with the farming activities on the property, including, ~~where relevant,~~ consideration of the risks associated with the relevant physiographic zone/s ~~characteristics of the property,~~ and how the identified effects and risks will be managed ~~or~~ and mitigated ~~(i.e., 'mitigations')~~; and

~~and risks associated with the farming activities on the property and how the identified effects and risks will be managed; and~~

(b) where the farm is located within a degraded waterbody identified in Schedule X, the ~~measures~~ mitigations that ~~to demonstrate how farming activities~~ will achieve a reduction in the discharge of the contaminants where relevant to the farming activity that trigger the degraded status of the catchment; and

(c) defined mitigations that clearly set a pathway and timeframe for achievement of the objective; and

(d) the records to be kept for measuring performance and achievement of the objective; ~~target;~~ and

(e) identification of any specific mitigations ~~measures~~ required by a resource consent held for the property.

7. If any Intensive Winter Grazing is occurring on the landholding, the Farm Environmental Management Plan must also include an intensive winter grazing plan that ~~addresses~~ takes into account and responds to the risk pathways for the relevant physiographic zones. ~~that includes:~~

~~(a) downslope grazing or a 20 metre 'last-bite' strip at the base of the slope; and~~

~~(b) back fencing to prevent stock entering previously grazed areas; and~~

~~(c) transportable water troughs; and~~

~~(d) supplementary feed (including baleage, straw or hay) being fed in such a way as to prevent the supplementary feed being trampled into the ground, such as by placing the supplementary feed in portable feeders or behind an electrified wire; and~~

~~(e) limiting the mob size to no more than 120 cattle or 250 deer; and~~

~~5. Good Management Practices~~

~~The FEMP contains a good management practices section which identifies:~~

~~(a) the good management practices implemented since 3 June 2016; and~~

~~(b) the good management practices which will be undertaken over the coming 12-month period. These must include practices for:~~

~~(i) the reduction of sediment and nutrient losses from critical source areas, particularly those associated with overland flow;~~

~~(ii) cultivation (including practices such as contour ploughing, strip cultivation or direct drilling);~~

~~(iii) the use of land for intensive winter grazing (including those practices specified in Rule 20(a)(iii);~~

~~(iv) riparian areas (including those from which stock are excluded under Rule 70) and the type of riparian vegetation to be planted, how it will be maintained and how weeds will be controlled;~~

~~(v) minimising of the discharge of contaminants to surface water or groundwater, with particular reference to the contaminant pathways identified for the landholding.~~

~~Examples of general good management practices are provided on the Southland Regional Council, Dairy NZ and Beef and Lamb New Zealand websites and in the document146 titled "Industry-agreed Good Management Practices relating to water quality, Version 2, 18 September 2015".~~

Part C – Farm Environmental Management Plan Certification, Auditing, Review and Amendment

1. Farm Environmental Management Plan Certification

(a) The FEMP must be certified, prior to implementation on the farm, by a Suitably Qualified Person (SQP) that has been approved as such by the Chief Executive of Southland Regional Council.

(b) The purpose of FEMP certification is to confirm that the farming activities on the farm will be carried out in a way that will achieve the Objectives in this Appendix and will comply with any resource consent for the property.

(c) The FEMP must be re-certified, prior to implementation, following any amendments to the FEMP carried out in accordance with Part C(3)(a) of this appendix.

(d) Within one month of a FEMP being certified, a copy of the certified FEMP must be provided to the Southland Regional Council.

2. Auditing of the certified Farm Environmental Management Plan

(a) Within 12 months of the landholding's first FEMP being certified, the landholding owner must arrange for an audit of the farming activities' compliance with the certified FEMP. Thereafter, the frequency of auditing will be in accordance with ~~the~~ any conditions of consents held for the landholding, or alternatively, where there are no consent or consent conditions requiring auditing, auditing timeframes associated with the audit grade assigned. *Note: Southland Regional Council will provide, on its website, a schedule of the auditing frequency required for ~~each~~ FEMP's based on the audit grade assigned to each landholding.*

(b) The auditor must be a Suitably Qualified Person (SQP) that has been approved as such by the Chief Executive of Southland Regional Council and must not be the same person or from the same organisation that prepared the FEMP.

(c) The auditor must prepare an audit report that:

(i) sets out the auditor's findings;

(ii) stating whether compliance has been achieved and the final compliance grade; and

(iii) any other recommendations from the auditor.

(d) Within one month, of the final audit report being prepared, the audit report must be provided to the Southland Regional Council by the auditor.

3. Review and Amendment of the Farm Environmental Management Plan

The FEMP must be reviewed, by the landholding owner, or their agent, as follows:

(a) when there is a material change to the nature of the farming activities occurring on the landholding, and where that material change is not provided for within the landholding's certified FEMP; and

(b) at least once every 12 months; and

(c) to respond to the outcome of an audit.

The outcome of the review is to be documented and amendments to the FEMP must be made where Part C(3)(a) applies and in circumstances where the annual review identifies that amendments are required.

Expert Conference – Planning – Joint Witness Statement #3

Topic: Proposed Southland Water and Land Plan – Southland Regional Council

Date of conference: 17 - 19 November 2021

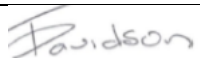
Venue: Remote AVL

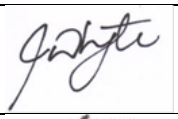
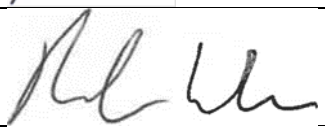
Facilitator: Commissioner Anne Leijnen

Recorder: Isabelle Harding

Attendees

1 Witnesses who participated and agreed to the content of this Joint Witness Statement (JWS) by signing it on 19 November 2021

Name	Employed or engaged by	Signature
Treena Davidson	Nga Rūnanga	
~~Ailsa Cain~~	~~Nga Rūnanga~~	
Sharon Dines	Wilkins Farming Company Ltd	
Sue Ruston	Ballance Agri-Nutrients Ltd	
~~Claire Jordan~~	~~Aratiatia Livestock Ltd~~	
Ben Farrell	Southland Fish and Game Council and Royal Forest and Bird Protection Society of New Zealand Inc	
Christine Foster	Beef + Lamb New Zealand	
Jerome Wyeth	Rayonier New Zealand	
Gerard Willis	Fonterra Co-operative Group and DairyNZ Ltd	
Carmen Taylor	Ravensdown Ltd	

Janan Dunning	Gore District Council, Southland District Council, Invercargill District Council (TAs)	
Linda Kirk	Director-General of Conservation	
Jane Whyte	Meridian Energy Ltd	
Peter Wilson	Federated Farmers of New Zealand	
Lauren Maciaszek	Southland Regional Council	
Matthew McCallum-Clark	Southland Regional Council	

Environment Court Practice Note

2 All participants confirm that they have read the Environment Court Consolidated Practice Note 2014 and in particular Section 7 (Code of Conduct, Duty to the Court and Evidence of an expert witness) and Appendix 3 – Protocol for Expert Witness Conferences and agree to abide by it.

Experts' qualifications and experience

3 These are set out in each expert's Will Say statement.

Participants

4 Ailsa Cain has not signed this JWS, as she is not a planning expert.

5 Claire Jordan has not signed this statement as it does not address matters that she has an interest in or has participated in.

Attachments to this JWS

6 List of Questions for the Ecology Experts.

Conference outcomes

7 The background and context relating to the appeal process is set out in the Topic B Overview evidence of Matthew McCallum-Clark

8 The Planning conferencing identified a number of technical questions to form the basis of the agenda for the Ecology experts – this is attached.

Attachment – Questions to Ecology Experts:

1. What are the potential adverse effects of sheep in and around natural wetlands and what risk to water quality and impacts on vegetation in natural wetlands do sheep present?

Rule 78 – Weed and sediment removal for drainage maintenance

2. Are the proposed permitted conditions sufficient to avoid or minimise effects on indigenous species? If not, why not?
3. Are there additional or alternative best practice water course maintenance measures that can be applied across the modified rivers in Southland that avoid or minimise the effects on indigenous species and their habitat? What are they? How easy are these to be applied by those undertaking the works or do they require relevant experts onsite during the works?
4. Can species, particularly taonga species, be protected by best practice conditions alone or should some species and habitats be specifically mapped so site specific management occurs?

5. Is mapping required to provide for some/all aquatic taonga species and if not, what are the risks of not providing for these habitats?

Expert Conference – Planning

Topic: Proposed Southland Water and Land Plan – Southland Regional Council

Date of conference: 09-10 December 2021

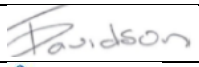
Venue: Remote AVL

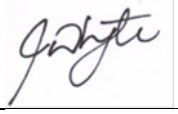
Facilitator: Commissioner Anne Leijnen

Recorder: Isabelle Harding

Attendees

1 Witnesses who participated and agreed to the content of this Joint Witness Statement (JWS) by signing it on 10 December 2021.

Name	Employed or engaged by	Signature
Treena Davidson (TD)	Nga Rūnanga	
Ailsa Cain (AC)	Nga Rūnanga	
Sharon Dines (SD)	Wilkins Farming	
Sue Ruston (SR)	Ballance	
Claire Jordan (CJ)	Aratiatia Livestock Ltd	
Ben Farrell (BF)	Southland Fish and Game Council	
Christine Foster (CF)	Beef + Lamb New Zealand	
~~Jerome Wyeth (JW)~~	~~Rayonier New Zealand~~	
Gerard Willis (GW)	Fonterra and Dairy NZ Co-operative group	
Carmen Taylor (CT)	Ravensdown	

~~Janan Dunning~~	~~Gore District Council, Southland District Council, Invercargill District Council (TLAs)~~	
Linda Kirk (LK)	Director General Conservation	
Jane Whyte (JW)	Meridian Energy Ltd	
Peter Wilson (PW)	Federated Farmers	
Lauren Maciaszek (LM)	Southland Regional Council	
Matthew McCallum-Clark	Southland Regional Council	

2 For ease of reference throughout this JWS, all experts are planning experts except Ms Cain, who is a cultural policy expert.

Participants:

Jerome Wyeth did not participate in the topics addressed in this JWS as his involvement was limited to the definition of cultivation as it relates to plantation forestry. That matter is addressed in a separate Planning (Forestry) JWS

Christine Foster participated in the discussion of Policy 18 and Rule 70 only.

In relation to Topic B5 the only matter Jane Whyte participated in was Policy 16.

All other participants participated in the discussions that related to the provisions traversed in their Will Says.

Environment Court Practice Note

3 All participants confirm that they have read the Environment Court Consolidated Practice Note 2014 and in particular Section 7 (Code of Conduct, Duty to the Court and Evidence of an expert witness) and Appendix 3 – Protocol for Expert Witness Conferences and agree to abide by it.

4 Lauren Maciaszek acknowledges in her evidence that she is an employee of the Respondent, Southland Regional Council. Notwithstanding that, Lauren confirms that she has prepared and will present her evidence as an independent expert and in compliance with the Code of Conduct.

5 Treena Davidson acknowledges in her evidence that she is engaged by Te Rūnanga o Ngāi Tahu. She also acknowledges that she is bound by the Code of Conduct and professional ethics of the New Zealand Planning Institute (NZPI) and is therefore required to be impartial and unbiased in her professional opinions expressed.

6 Ailsa Cain acknowledges that her expertise is partially derived from cultural associations with Murihiku and whakapapa to Waitaha, Kāti Mamoe and Ngāi Tahu. She acknowledges that although she is Ngāi Tahu, she is required to be impartial and unbiased in her professional opinions expressed. She also acknowledges that her husband Ben Farrell is providing evidence for Fish and Game New Zealand, and the Royal Forest and Bird Protection Society of New Zealand. She notes this in order to avoid any perceived conflicts. Likewise, Mr Farrell advises that he is married to Ms Cain, who is providing evidence on behalf of Nga Runanga, but he does not consider that any conflict of interest arises out of this.

7 Claire Jordan notes that while she has planning expertise, she is not providing independent expert planning evidence as she considers herself too close to the matter to be independent. Counsel for Aratiatia Livestock Ltd obtained permission for Claire to participate in Planning Expert Conferencing at the Pre-Hearing Conference of 19 October 2021.

8 Linda Kirk acknowledges in her evidence that she is engaged by the Director-General of Conservation to provide independent planning evidence. She confirms she is bound by the Code of Conduct and is required to be impartial and unbiased in her professional opinions expressed.

Experts' qualifications and experience

9 These are set out in each experts' Will Say statement.

Purpose of expert conference

10 The purpose of the expert witness conferencing is to enhance the efficiency of the court hearing process by providing for expert witnesses to confer and identify the issues on which they agree, with reasons. They are also to clearly identify the issues on which they do not agree and give reasons for their disagreement. This will enable the court to focus primarily on matters that remain in dispute, while understanding the basis for agreed matters.

11 And specifically, to address:

a) Topic B2 – Discharges;

b) Topic B3 – Wetlands;

c) Topic B4 – Beds of lakes and Rivers;

d) Topic B5 – Farming;

Key information sources relied on

12 The experts relied on the following key sources of information:

a) The Topic A Interim Decisions

b) The National Policy Statement for Freshwater Management

c) The Southland Regional Policy Statement

d) The National Environmental Standards for Freshwater and Forestry

e) The 'tracked changes' relief sought by each party

f) The Will Say statements of each planner and technical expert

g) The Topic B Overview Evidence of Matthew McCallum-Clark

h) The Council's preferred "track changes" relief, prepared in response to the tracked changes relief provided by the parties on 29 October 2021.

i) JWS signed by Freshwater Ecology experts (1st December 2021)

j) JWS signed by Forestry experts (29th November 2021)

k) JWS signed by Farm Systems experts (22nd November and 6th December 2021)

l) JWS signed by Science experts (26th November 2021)

Attachments to this JWS

13 Tracked Changes to B2, B3, and B5.

Introduction

14 The background and context relating to the appeal process is set out in the Topic B Overview evidence of Matthew McCallum-Clark

15 On the first day of the planning conferencing, Matthew McCallum-Clark and Ailsa Cain set out the position as the following:

16 The opening paragraphs of the first Interim Decision outline the Court's understanding, confirmed in subsequent Interim Decisions, that this Plan has, at its heart, a paradigm shift in the planning approach from managing the effects of resource use to the protection of the health and mauri of freshwater. Those opening paragraphs also record acknowledgement that work is required to understand what degraded water quality means, significant change will be required to effect change, and that this is a long-term process.

17 In the context of Te Mana o te Wai and ki uta ki tai, the Court came to three "key understandings":

(a) As a matter of national significance, the NPS-FM requires users of water to provide for hauora (health) and in so doing, acknowledge and protect the mauri of water.

(b) As a matter of national significance, the health and wellbeing of water are to be placed at the forefront of discussion and decision-making. Only then can we

provide for hauora by managing natural resources in accordance with ki uta ki tai.

(c) The NPS-FM makes clear that providing for the health and wellbeing of waterbodies is at the forefront of all discussions and decisions about fresh water.

18 The Interim Decisions clarified the overall architecture of the Plan, and confirmed through an interpretation statement, the emphasis to be placed on Objectives 1 and 2 (renumbered from 3). The interpretation statement provides clear direction that the provisions of the plan are to be interpreted and applied in a manner that considers and recognises Te Mana o te Wai and implements it in accordance with ki uta ki tai.[1]

> *The Interpretation Statement expressly recognises Objectives 1 and 2 as being foundational to the plan, providing an overarching statement on the management of water and land. All objectives are to be read together and considered in this context. Secondly, the entire plan - not just Objectives 1 and 2 - embody ki uta ki tai and uphold Te Mana o te Wai. Consequently, these approaches are at the forefront of all discussions and decisions about water and land. As a matter of process, this does not allow for the Regional Council (particularly in its capacity as consent authority) to trade off those fundamentals to enable other approaches. As a matter of interpretation, the plan's provisions are not to be read down and considered in isolation separate from Objectives 1 and 2. Rather, land, water and people are to be considered holistically.*[2]

19 In addition, Ailsa Cain explained that hauora is a key consideration within the plan's approach and the Southland context for Te Mana o te Wai. As articulated in the JWS – Water Quality and Ecology (Rivers and Lakes), 3-4 September 2019:

> *Hauora is not just a reference to one's health but to a state of health. Hauora is defined in English as meaning 'fit, well, healthy, vigorous, robust.' A human analogy for hauora is that you can take a knock, such as have a cold, and have the resilience to bounce back to a healthy and vigorous state.*

20 Te Mana o te Wai puts the mauri and needs of the waterbody first. When a waterbody is no longer in the state of hauora, then is it degraded. If a waterbody continues to degrade over time, it may come to a place where remedial actions to a state of te hauora o te wai is no longer possible or irreversible. Between the states of hauora and "terminal" is a continuum – degradation is both a state (i.e., it is either degraded or it's not) and a process (i.e., a continuum of degradation).

21 Ngai Tahu ki Murihiku understand Te Mana o te Wai to be a process as well as an outcome and the way it is conducted. Te Mana o te Wai is not considered to be a 'tick box' of having been done or not. The term has high status and contains inherent meanings, mātauranga and tikanga that have been reflected or provided for in its expression as a modern RMA policy in the NPS-FM 2020.

[1] Second Interim decision, para 7.
[2] Second interim decision, para 10.

Conference outcomes

Topic B2

22 All elements agreed, except:

a. addition to Rule 5. Jane Whyte considering implications and scope. MMC retains concern as to scope for the addition.
b. planners agreed with Jane Whyte's suggestion that the changes to clause (b) at the beginning of Appendix E is better dealt with in Topic B6.

Topic B4

23 Agreement has not able to be reached, but constructive discussions are continuing.

Topic B5

Ephemeral Rivers

24 The planners agreed that the term "ephemeral rivers" is unclear, in that these landscape features are not waterbodies and the use of the word "river" is not how members of the community see them. Therefore, these flow paths could be addressed in other ways and the term "ephemeral rivers" not be used within the pSWLP and references to this term could be deleted. This is on the basis that ephemeral flow paths are addressed by the pSWLP's definition of "Critical Source Areas" (and the associated provisions for managing CSAs). To avoid doubt, it is included in that definition.

Farming General

Schedule X

25 The planners agreed that mapping of all areas where water quality is degraded should occur. The planners agreed that a single map that identified where water quality is degraded by any one or more of nitrogen, phosphorus, sediment or microbial contaminants or cultural health would be helpful.

26 The planners agreed that reference to "degraded waterbodies" could be worded more positively as "waterbodies where improvement is required".

Policy 16

27 All elements agreed.

28 On the basis that clauses (b)(i)-(iv) supersede and is more stringent than clause (b)(v) the planners agreed that clause (b)(v) should be deleted.

Rule 20

29 All elements agreed.

Intensive Winter Grazing - Rule 20A

30 All elements agreed, except those specifically identified from paragraph 31. What was clause 20(a)(iii)(3)(D) and (E) in the Decisions Version of the pSWLP (which contained the requirement to place supplementary feed in portable feeders and restrictions of mob sizes) has been deleted based on the advice received in the Farm Systems JWS. Namely that they are not aware of any science suggesting these controls will have a positive effect on water quality.

31 Points of disagreement:

32 Wilkins Farming Limited is a s274 party to an appeal seeking to amend Rule 20(a)(iii)(1) of the Decisions version of the pSWLP as follows:

> from 1 May 2019, intensive winter grazing does not occur on more than 15% of the area of the landholding ~~or 100 hectares, whichever is the lesser area~~;

33 A number of amendments to the intensive winter grazing provisions of the Decisions version of the pSWLP have since been proposed by Matthew McCallum-Clark including changing the above provision to:

> intensive winter grazing does not occur on more than 50ha or 10% of the area of the land holding, whichever is the greater;

34 Sharon Dines and Peter Wilson consider that as proposed by Council in the pSLWP tracked changes version (as at 6 December 2021), although Rule 20A(a)(i) is on its face, consistent with clause (4)(a) of the NES-FW, other elements of the rule are not consistent with the NES-FW, particularly clauses 26(3) and 26(4). The pSWLP is more stringent than the NES-FW but does not implement the NES's policy allowing flexibility in intensive winter grazing where a certified freshwater farm plan (FW-FP) can show that the effects of that activity are the same as that permitted by the NES. We note that the NES-FW specifically considers intensive winter grazing in Southland (see clause 26(7)). Sharon Dines and Peter Wilson consider that this is likely to cause confusion for farmers, require additional regulation and be less efficient.

35 In an effort to reach agreement, Sharon Dines and Peter Wilson proposed on a without prejudice basis the following additions to Rule 20A for consideration by the planners:

> (aa) Intensive winter grazing is a permitted activity if it occurs on more than 50 ha and on more than 10% of the landholding and a certifier certifies, in accordance with Appendix N Part C, that the adverse effects (if any) allowed by the winter grazing plan in a Farm Environment Management Plan are no greater than those allowed by 20A(i)-(v).

36 TD, BF and MMC considered that the addition of a rule to enable winter grazing on greater than 10% of land area is not appropriate for three main reasons:

(a) Intensive winter grazing is a significant contributor of contaminants in the Southland context, and given the degraded water quality in large parts of Southland, a conservative approach is warranted;
(b) The Farm Systems JWS advice states that "an appropriate and robust assessment process can verify that these [mitigation] measures will at least

offset the (otherwise) expected increases in contaminant discharges if winter grazing areas are increased from 10 to 15%", and the framework proposed does not do this, or provide an upper limit to the percentage of Intensive Winter Grazing that could be permitted;

(c) The framework proposed has too much uncertainty, particularly in relation to untested processes and the current unavailability of assessment tools.

37 GW agrees that the permitted activity rule should not provide for more than 10% of a farm as IWG for the reasons set out in (b) and (c) above, but considers that an additional area could be possible provided the requirements of the NES-F can be demonstrated to be met.

38 Gerard Willis and Peter Wilson consider that insufficient evidence is available to justify increasing the setback in (iii)(2) from 5m to 10m.

39 Peter Wilson considers that the setbacks in Rule 20 and Rule 25 should be consistent.

Rule 24

40 Fish and Game is seeking additions to Rule 24 (incidental discharges). The relief is not supported by the planners. GW and MMC raised significant concerns with this relief, including that it would undermine the intent of the farming provisions and would be impracticable to measure and apply given the rule relates to incidental discharges from land use. Reflecting on the modified farming provisions BF agrees with GW and MMC that the relief sought would undermine the farming rules and would unlikely provide an effective of efficient method.

Grass wintering

41 The planners agree that the Plan does not control high risk winter grazing of all stock on grass beyond the controls of Rule 20 and associated FEMP (which applies all year round).

42 They are conscious that they have very limited farm systems technical evidence on the scale of the problem, or the nature of the activity (and its effects) that may require specific control. Accordingly, planners have identified the following questions for technical experts/evidence:

a. How would you define what is high risk winter grazing on grass based on characteristics of the activity?
b. Are the other risk factors (such as biophysical factors) that would need to be taken into account to appropriately target the high risk activity?
c. How prevalent is this activity?
d. What are the adverse effects of the activity?
e. How different are these from adverse effects of intensive winter grazing as defined in the Plan?
f. What controls would be necessary to manage these adverse effects?
g. Are there any potential perverse outcomes (including from imposing a size area limit)?

43 We note that the scope for addressing this matter derives from the Fish and Game appeals seeking that the definition of intensive winter grazing is expanded as follows:

"Grazing of stock at any time between 1 May and 30 September of the same year inclusive on fodder crops or pasture to the extent that the grazing results in the exposure of soil and / or pugging of the soil."

44 There are a range of alternative approaches to address this matter. This may require defining high risk winter grazing on grass. The alternative approaches include a further condition in Rule 20, or add an additional Rule 20B, to target the specific activity of concern.

45 We note that many of the conditions of Rule 20A are likely to be potentially appropriate to apply to any new condition or rule that targets higher risk winter grazing on pasture although some planners have identified such limits on area, slope and the need for transportable troughs, may not be appropriate when regulating this activity.

46 One way to achieve this would be through a provision similar to that below:

Rule 20B – High risk winter grazing on pasture

(a) High risk winter grazing on pasture is a permitted activity provided the following conditions are met:
- (i) livestock must be kept at least:
  - (1) 20 metres from the bed of any Regionally Significant Wetland or Sensitive Water Bodies listed in Appendix A, estuary or the coastal marine area; and
  - (2) 10/5 metres from the bed of any other river, lake, artificial watercourse (regardless of whether there is any water in it at the time), modified water course or natural wetland; and
- (ii) critical source areas within the area being winter grazed on pasture must:
  - (1) be identified in the Farm Environmental Management Plan; and
  - (2) have stock excluded from them; and
- (iii) On areas where significant de-vegetation occurs, vegetation is re-established as soon as practicable; and
- (iv) a Farm Environmental Management Plan for the landholding is prepared and implemented in accordance with Appendix N, that also includes a grazing plan that includes:
  - (1) downslope grazing or a 20 metre 'last-bite' strip at the base of the slope; and
  - (2) back fencing to prevent stock entering previously grazed areas; and
- (v) no high risk winter grazing on pasture occurs at an altitude greater than 800 metres above mean sea level; and

(b) The use of land for high risk winter grazing on pasture that does not meet conditions (a)(i)-(vi) of Rule 20B is a restricted discretionary activity provided the following conditions are met:
- (i) a Farm Environmental Management Plan is prepared and implemented in accordance with Appendix N

The Southland Regional Council will restrict its discretion to the following matters:
1. the quality of and compliance with Appendix N and the Farm Environmental Management Plan for the landholding;
2. mitigation actions and good management practices to be undertaken, including those to minimise the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land, taking into account contaminant loss pathways;

3. the potential benefits of the activity to the applicant, the community and the environment;
4. the potential effects of the farming activity on surface and groundwater quality and sources of drinking water;
5. monitoring and reporting undertaken to assess the effectiveness of any mitigation implemented.

(c) The use of land for high risk winter grazing on pasture that does not meet conditions of Rule 20B(b) is a non-complying activity.

(d) The use of land for high risk winter grazing on pasture that does not meet condition (vii) of Rule 20A(a) is a prohibited activity.

Stock Exclusion

Policy 18

47 All elements agreed.

Rule 70

48 All elements agreed, except those specifically identified below:

49 Rule 70 (ca) agreed by all planners except Christine Foster. CF endorses (iv) and considers that (i) to (iii) are adequately covered by (iv) which requires Appendix N Farm Environmental Management Plans. CF supports the proposed amendment to (i) (specifying sheep fencing). All planners agree clause (ii) is not required if a 'grass wintering' rule is included in the pSWLP.

50 Rule 70 (cb) agreed by all planners except Peter Wilson. Christine Foster notes the distinction in the NPS-FM and NES-Freshwater relating to areas that are not 'natural wetland' but are actually 'improved pasture'. CF is aware that there is work under way at a national level attempting to refine the definition and note the conclusion of the Farm Systems experts, Kate McArthur and Dr Kitson that there are difficulties in defining the extent of natural wetlands that will need to be resolved in Plan implementation. Peter Wilson considers Rule 70 Rule (cb) introduces additional stringency than that in the Stock Exclusion Regulations and the NES-F without an evidential case.

51 C.F expressed no opinion on Table 1 of Rule 70.

Cultivation (Rule 25)

52 All elements agreed, except those specifically identified below:

53 Peter Wilson does not agree with the cultivation rule. PW concerns are that the cultivation rule does not enable the replacement and maintenance of pasture on land with a slope of above 20 degrees in a permitted activity framework. PW considers that this part of Rule 25 is acting as a proxy general land use control on farming that would be better dealt with in Rule 20, or elsewhere. Rule 25 is limited to the activity and effects of cultivation, and not farming in general. If there are concerns or a need to manage the sediment effects of farming in the hill country, that is better placed in the farming rule, and may be already handled by the proposed and supported changes to Rule 20 and Appendix N.

54 Peter Wilson considers that due to the definition of 'cultivation', the rule includes all types of mechanical and non-mechanical cultivation, which is a wide spectrum of risk. On steep land (above 20 degrees) the least risky cultivation activities, which are spray and pray, and direct-drilling, have been inadvertently captured with the most risky activities (ploughing).

55 Peter Wilson considers the following amendments to be appropriate (in green):

Rule 25(a)(ii)(2) - 10 metres from the outer edge of the bed of a lake, ~~or~~ river, or modified watercourse or the edge of ~~the~~ a natural wetland on land with a slope of greater than ~~between~~ 10 ~~and 20~~ degrees;
Rule 25(b) - The use of land for cultivation that does not meet the setback distance of Rule 25(a)(ii)(2) or Rule25(a)(iii) is a permitted activity provided the following conditions are met:
Rule 25(c)(new iv) - cultivation is by spray and pray and direct drilling methods only on land with a slope of greater than 20 degrees.

Insert new definitions of no till and minimum till cultivation:
No till cultivation
Spray and pray – where existing pasture is sprayed off and replacement seed is introduced before vegetative cover is lost.
Hoof and tooth – a variation of spray and pray whereby pasture height is reduced through grazing, replacement seed introduced, and pushed into the soil by the weight of the animals.

Minimum till cultivation
Direct drilling – where soil is minimally disturbed by a needle shaped mechanical device to plant or place seed.

Topic B3

Rule 51

56 Planners are in agreement that changes to wording should specify 'natural wetlands' rather than 'wetlands'.

57 Agreement has not been reached on activity status. Ben Farrell considers that Rule 51(a) should not apply to diversions from natural wetlands or Regionally Significant Wetlands.

58 There is disagreement as to whether Rule 51(e) should make all diversions from natural wetlands a non-complying activity. Ben Farrell considers that diversions from natural wetlands for all purposes should be a non-complying activity. Lauren Maciaszek and Jane Whyte consider that it is more appropriate to specify that diversions from natural wetlands for the purpose of land drainage are non-complying activities, to allow for better alignment with the NES-F. Jane Whyte is comfortable with the Council relief if the activity of land drainage that is a non-complying activity is clarified so that it does not apply to activities that are addressed in the NES-F regulations 45, 46 and 47.

59 Peter Wilson considers that the proposed changes to Rule 51 to introduce the broad non-complying activity without consideration of the permitted activity natural hazard provisions in clause 51 of the NES-F take Rule 51 well beyond the its notified intent and as such may be ultra vires, or, may reopen appeal scope He notes that he does not currently have scope on the issue.

Rule 74

60 Planners are in agreement that ‘drainage’ is more appropriately addressed through Rule 51 as a diversion of water, rather than in Rule 74 as a land use rule. Ben Farrell and Lauren Maciaszek agree that Rule 70(cb) as attached would address the relief sought in Rule 74.

B2 – Discharges

Tracked changes key:
Blue = previously agreed by parties
Red = changes that show Council's preferred relief
Green = changes post first tranche of conferencing

Policy 13

As per parties agreed changes circulated 29 October 2021:

1. Recognise that the use and development of Southland's land and water resources, ~~including for primary production,~~ enables people and communities to provide for their social, economic and cultural wellbeing.
2. Manage land use activities and discharges (point source and non-point source) to enable the achievement of Policies 15A, 15B and 15C.

Policy 15A

As per parties agreed changes circulated 29 October 2021:

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

Policy 15B

As per parties agreed changes circulated 29 October 2021:

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).

Policy 15C

Delete Policy 15C:

~~Following the establishment of freshwater objectives and limits under Freshwater Management Unit processes, and including through implementation of non-regulatory methods, improve water quality where it is degraded to the point where freshwater objectives are not being met and otherwise maintain water quality where freshwater objectives are being met.~~

Rule 5

As per parties agreed changes circulated 29 October 2021:

(a) Except as provided for elsewhere in this Plan the discharge of any:
- (i) contaminant, or water, into a lake, river, artificial watercourse, modified watercourse or natural wetland; or
- (ii) contaminant onto or into land in circumstances where it may enter a lake, river, artificial watercourse, modified watercourse or natural wetland;

is a discretionary activity provided the following conditions are met:

1. where the water quality upstream of the discharge meets the standards set for the relevant water body in Appendix E "Water Quality Standards", the discharge does not reduce the water quality below those standards at the downstream edge of the reasonable mixing zone; or
2. where the water quality upstream of the discharge does not meet the standards set for the relevant water body in Appendix E "Water Quality Standards", the discharge must not further reduce the water quality below those standards at the downstream edge of the reasonable mixing zone; and
3. ~~except for discharges from a territorial authority reticulated stormwater or wastewater system,~~ the discharge does not contain any raw sewage; and
4. the discharge is not into any Regionally Significant Wetland or Sensitive Waterbodies listed in Appendix A.

Rule 13

Largely as per parties agreed changes circulated 29 October 2021, with change to clarity clause, as preferred by Dairy Interests:

(a) The discharge of land drainage water to water from an on-farm subsurface drainage system is a permitted activity, provided the following conditions are met:
- (i) the discharge does not cause:
  - (1) a ~~conspicuous~~ change to the colour or clarity of the receiving waters beyond 20 metres from the point of discharge that exceeds the maximum percentage change specified for the relevant water body class in Appendix E; or

(2) more than a 10% change in the sediment cover of the receiving waters beyond 20 metres from the point of discharge; or

(3)~~(2)~~ conspicuous oil or grease films, scrums or foams, or floatable or suspended materials beyond 20 metres from the point of discharge;

(ii) the discharge does not render freshwater unsuitable for consumption by farm animals;

(iii) the discharge does not cause the flooding of any other landholding;

(iv) the discharge does not cause any scouring or erosion of any land or bed of a water body beyond the point of discharge;

(vi) the discharge does not cause any significant adverse effects on aquatic life;

(vii) the subsurface drainage system does not drain a natural wetland; and

(viii) for any known existing drains and for any new drains, the locations of the drain outlets are mapped and provided to the Southland Regional Council on request.

(b) The discharge of land drainage water to water from an on-farm subsurface drainage system that does not comply with Rule 13(a) is a discretionary activity.

Rule 14

As per the overall position on ephemeral rivers:

(a) The discharge of fertiliser onto or into land in circumstances where contaminants may enter water is a permitted activity provided the following conditions are met:

(i) other than for incidental discharges of windblown fertiliser dust, there is no direct discharge of fertiliser into a lake, river ~~(excluding ephemeral flow paths rivers)~~, artificial watercourse, modified watercourse, or natural wetland or into groundwater;

(ii) there is no fertiliser discharged when the soil moisture exceeds field capacity;

(iii) there is no fertiliser discharged directly into or within 3 metres of the boundary of any significant indigenous biodiversity site identified in a district plan that includes surface water; and

(iv) where a lake, river ~~(excluding ephemeral flow paths rivers)~~, artificial watercourse, modified watercourse or wetland:

(1) has riparian planting from which stock is excluded, fertiliser may be discharged up to the paddock-side edge of the riparian planting but not onto the riparian planting, except for fertiliser required to establish the planting; or

(2) does not have riparian planting from which stock is excluded, fertiliser is not discharged directly into or within 3 metres of the bed or within 3 metres of a wetland.

(b) The discharge of fertiliser onto or into land in circumstances where the fertiliser may enter water that does not meet the conditions of Rule 14(a) is a non-complying activity.

Rule 15

As per parties agreed changes circulated 29 October 2021:

(a) The discharge of stormwater onto or into land in circumstances where contaminants may enter water, or into a lake, river, artificial watercourse, modified watercourse or wetland, is a permitted activity provided the following conditions are met:

(i) the discharge is not from a reticulated system; and

(ii) the discharge does not originate from industrial or trade premises where hazardous substances are stored or used unless:

(1) hazardous substances cannot enter the stormwater system; or
(2) there is an interceptor system in place to collect stormwater that may contain hazardous substances and discharge or divert it to a trade waste system; or
(3) the stormwater contains no hazardous substances except oil and grease and the stormwater is passed through an oil interceptor system prior to discharge; and

(iii) the discharge does not contain any sewage, contaminants from on-site wastewater systems and mobile toilets, or agricultural effluent; and

(iv) for discharges to a lake, river, artificial watercourse, modified watercourse or wetland, the discharge does not result in:
(1) the production of any conspicuous oil or grease films, scums, foams or floatable or suspended materials; or
(2) the rendering of freshwater unsuitable for the consumption by farm animals; or
(3) significant adverse effects to aquatic life; or
(4) ~~any conspicuous change in the colour or visual clarity of the receiving waters at the downstream edge of the reasonable mixing zone; and~~ more than a 20% change in the colour or visual clarity of the receiving waters at the downstream edge of the reasonable mixing zone; or
(5) more than a 10% change in sediment cover of the receiving waters at the downstream edge of the reasonable mixing zone;

(v) except for the discharge of stormwater from a roof, road or vehicle parking area, the discharge is not into water within natural state waters; and

(vi) for discharges to land, the discharge does not cause flooding, erosion, or land instability to any other person's property.

(ab) The discharge of stormwater and any contaminants contained within, from a reticulated system onto or into land where contaminants may enter water, or into a lake, river, artificial watercourse, modified watercourse or wetland, that does not meet Rule 15(a)(i) is a discretionary activity provided the following conditions are met:

(i) the reticulated system is owned by a territorial authority and is operated by them or their agent; and

(ii) a management plan is provided with the application that sets out, in a manner that reflects the scale and significance of water quality improvements required in the catchment:
(1) targets for the reduction in the volume and frequency of wastewater overflows into the stormwater network, and methods to monitor the volume and frequency of those overflow discharges; and
(2) a monitoring and investigation programme to identify and remedy wastewater cross-connections on private and public land; and
(3) methods to improve the quality of the discharge, which may include capital works, bylaws, investigations, education and preventative activities; and

(iii) demonstration of funding for implementing the management plan is provided with the application~~.~~; and

(iv) the discharge does not contain any contaminants from on-site wastewater systems and mobile toilets, or agricultural effluent; and

(v) where the water quality upstream of a point source discharge meets the standards set for the relevant waterbody in Appendix E "Water Quality Standards", the discharge does not reduce the water quality below those standards at the downstream edge of the reasonable mixing zone; or

(vi) where the water quality upstream of a point source discharge does not meet the standards set for the relevant water body in Appendix E "Water Quality Standards", the discharge must not further reduce the water quality below those standards at the downstream edge of the reasonable mixing zone.

(b) The discharge of stormwater onto or into land in circumstances where contaminants may enter water, or into a lake, river, artificial watercourse, modified watercourse or wetland, that does not meet one or more of the conditions in Rule 15(a), excluding condition (a)(iii), a(v) or a(vi), and which is not otherwise specified in Rule 15(ab) is a discretionary activity.

(c) The discharge of stormwater onto or into land in circumstances where contaminants may enter water, or into a lake, river, artificial watercourse, modified watercourse or wetland, that does not meet Rule 15(a)(iii), a(v) or a(vi) and which is not otherwise specified in Rule 15(ab)is a non-complying activity.

Rule 40 – Silage storage

(a) The use of land for a silage storage facility is a permitted activity provided the following conditions are met:

(ii) there is no overland flow of stormwater into the silage storage facility;

(v) no part of the silage storage facility is within:

(1) 50 metres of a lake, river ~~(excluding ephemeral rivers)~~, artificial watercourse, modified watercourse, natural wetland or any potable water abstraction point; or

(2) 100 metres of any dwelling or place of assembly, on another landholding constructed or in use prior to the silage storage facility being lawfully established; or

(3) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; or

(4) a critical source area; and

[rest of rule unchanged]

Appendix E

As per parties agreed changes circulated 29 October 2021:

Appendix E – Receiving Water Quality Standards

These standards apply to the effects of discharges following reasonable mixing with the receiving waters, unless otherwise stated. They do not apply to waters within artificial storage ponds such as effluent storage ponds or stock water reservoirs or to temporarily ponded rainfall.

The standard for a given parameter will not apply in a lake, river, artificial watercourse or modified watercourse or natural wetland where:

(a) due to natural causes, that parameter cannot meet the standard; or

(b) discharges associated with the maintenance ~~due to the effects of the operation~~ of the Manapōuri hydro-electric generation scheme that ~~alters natural flows~~, results in that parameter ~~cannot~~ not meeting the standard for up to five days.

Plan users should contact the Southland Regional Council for guidance on standard methodologies for collecting water quality data. Monitoring requirements imposed as consent conditions require sample collection, preservation and analysis to be carried out in accordance with the most recent edition of American Public Health Association (APHA) "Standard Methods for the Examination of Water and Wastewater" or National Environmental Monitoring Standard (NEMS) and analyses to be carried out by a laboratory with International Accreditation New Zealand (IANZ) registration or equivalent.

Surface water bodies classified as "Natural State Waters"

The natural quality of the water shall not be altered.

Surface water bodies classified as "Lowland soft bed"

The temperature of the water:

- shall not exceed 23°C
- the daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water shall be within the range 6.5 to 9, and there shall be no pH change in water due to a discharge that results in a loss of biological diversity or a change in community abundance and composition.

The change in fine sediment (<2mm diameter) bed cover must not exceed 10%.

The concentration of dissolved oxygen in water shall exceed 80% of saturation concentration.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

When the flow is at or below the median flow, the visual clarity of the water shall not be less than 1.3 metres.[1]

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[1] Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland.

There shall be no more than a 33% change in clarity or colour at the edge of the reasonable mixing zone, relative to the clarity or colour upstream of the discharge point.

The concentration of total ammonia shall not exceed the values specified in Table 1 "Ammonia standards for Lowland and Hill surface water bodies".

The concentration of faecal coliforms shall not exceed 1,000 coliforms per 100 millilitres, except for popular bathing sites, defined in Appendix G "Popular Bathing Sites" and within 1 km immediately upstream of these sites, where the concentration of Escherichia coli shall not exceed 130 E. coli per 100 millilitres.

The Macroinvertebrate Community Index shall exceed ~~80~~90 and the ~~Semi-~~Quantitative Macroinvertebrate Community Index shall exceed ~~3.5~~4.5.[2]

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

Surface water bodies classified as "Lowland hard bed"

The temperature of the water:

- shall not exceed 23°C
- shall not exceed 11°C in trout spawning areas during May to September inclusive
- the daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water shall be within the range 6.5 to 9, and there shall be no pH change in water due to a discharge that results in a loss of biological diversity or a change in community composition.

The change in fine sediment (<2mm diameter) bed cover must not exceed 10%.

The concentration of dissolved oxygen in water shall exceed 80% of saturation concentration.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

- When the flow is at or below the median flow, the visual clarity of the water shall not be less than 1.6 metres, except where the water is naturally low in clarity as a result of high concentrations of tannins, in which case the natural colour and clarity shall not be altered.[3]
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There shall be no more than a 20% change in clarity or colour at the edge of the reasonable mixing zone, relative to the clarity or colour upstream of the discharge point.

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2 MCI and SQMCI indices to be determined using Environment Southland's SOE sampling protocol and MfE's Protocol P2 for sample processing (Stark et al. 2001)

3 Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland.

The concentration of total ammonia shall not exceed the values specified in Table 1 “Ammonia standards for Lowland and Hill surface water bodies”.

The concentration of faecal coliforms shall not exceed 1,000 coliforms per 100 millilitres, except for popular bathing sites, defined in Appendix G “Popular Bathing Sites” and within 1 km immediately upstream of these sites, where the concentration of Escherichia coli shall not exceed 130 E. coli per 100 millilitres.

For the period 1 November through to 30 April, filamentous algae of greater than 2 cm long shall not cover more than 30% of the visible stream bed. Growths of diatoms and cyanobacteria greater than 0.3 cm thick shall not cover more than 60% of the visible stream bed.[4]

Biomass shall not exceed 35 grams per square metre for either filamentous algae or diatoms and cyanobacteria.[5]

Chlorophyll a shall not exceed 120 milligrams per square metre for filamentous algae and 200 milligrams per square metre for diatoms and cyanobacteria.[6]

The Macroinvertebrate Community Index shall exceed a score of 90 and the ~~Semi-~~ Quantitative Macroinvertebrate Community Index shall exceed a score of 4.5.

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

Surface water bodies classified as “Hill”

The temperature of the water:

- shall not exceed 23°C
- shall not exceed 11°C in trout spawning areas during May to September inclusive
- the daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water shall be within the range 6.5 to 9, and there shall be no pH change in water due to a discharge that results in a loss of biological diversity or a change in community composition.

The change in fine sediment (<2mm diameter) bed cover must not exceed 10%.

The concentration of dissolved oxygen in water shall exceed 80% of saturation concentration.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

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4 Applies to the part of the bed that can be seen from the bank during summer low flows or walked on.

5 Expressed in terms of reach biomass per unit of exposed strata (i.e., tops and sides of stones) averaged across the full width of the stream or river

6 Expressed in terms of reach biomass per unit of exposed strata (i.e., tops and sides of stones) averaged across the full width of the stream or river

When the flow is at or below the median flow, the visual clarity of the water shall not be less than 1.6 metres.[7]

There shall be no more than a 20% change in clarity or colour at the edge of the reasonable mixing zone, relative to the clarity or colour upstream of the discharge point.

The concentration of total ammonia shall not exceed the values specified in Table 1 "Ammonia standards for Lowland and Hill surface water bodies".

The concentration of faecal coliforms shall not exceed 1,000 coliforms per 100 millilitres, except for popular bathing sites, defined in Appendix G "Popular Bathing Sites" and within 1 km immediately upstream of these sites, where the concentration of Escherichia coli shall not exceed 130 E. coli per 100 millilitres.

Filamentous algae of greater than 2 cm long shall not cover more than 30% of the visible stream bed. Growths of diatoms and cyanobacteria greater than 0.3cm thick shall not cover more than 60% of the visible stream bed.

Biomass shall not exceed 35 grams per square metre for filamentous algae.

Chlorophyll a shall not exceed 120 milligrams per square metre for filamentous algae.

The Macroinvertebrate Community Index shall exceed a score of 100 and the ~~Semi-~~ Quantitative Macroinvertebrate Community Index shall exceed a score of 5.5.

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

Surface water bodies classified as "Mountain"

The temperature of the water:

- shall not exceed 21°C
- shall not exceed 11°C in trout spawning areas during May to September inclusive
- the daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water shall be within the range 7.2 to 8, and there shall be no pH change in water due to a discharge that results in a loss of biological diversity or a change in community composition.

The change in fine sediment (<2mm diameter) bed cover must not exceed 10%.

The concentration of dissolved oxygen in water shall exceed 99% of saturation concentration.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

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[7] Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland.

When the flow is at or below the median flow, the visual clarity of the water shall not be less than 3 metres.

There shall be no more than a 20% change in clarity or colour at the edge of the reasonable mixing zone, relative to the clarity or colour upstream of the discharge point.

The concentration of total ammonia shall not exceed 0.32 milligrams per litre.

The concentration of Escherichia coli shall not exceed 130 *E. coli* per 100 millilitres in any sample.

Filamentous algae of greater than 2 cm long shall not cover more than 30% of the visible stream bed.

Biomass shall not exceed 35 milligrams per square metre for filamentous algae.

Chlorophyll a shall not exceed 50 milligrams per square metre for filamentous algae.

Growths of diatoms and cyanobacteria greater than 0.3 cm thick shall not cover more than 60% of the visible stream bed.

The Macroinvertebrate Community Index shall exceed a score of 120 and the ~~Semi-~~ Quantitative Macroinvertebrate Community Index shall exceed a score of 7.

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

Surface water bodies classified as "Lake Fed"

The temperature of the water:

- shall not exceed 21°C
- shall not exceed 11°C in trout spawning areas during May to September inclusive
- the daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water shall be within the range 7.2 to 8, and there shall be no pH change in water due to a discharge that results in a loss of biological diversity or a change in community composition.

The change in fine sediment (<2mm diameter) bed cover cover must not exceed 10%.

The concentration of dissolved oxygen in water shall exceed 99% of saturation concentration.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

When the flow is at or below the median flow, the visual clarity of the water shall not be less than 3 metres.[8]

There shall be no more than a 20% change in clarity or colour at the edge of the reasonable mixing zone, relative to the clarity or colour upstream of the discharge point.

The concentration of total ammonia shall not exceed 0.32 milligrams per litre.

The concentration of Escherichia coli shall not exceed 130 *E. coli* per 100 millilitres in any sample.

Chlorophyll a shall not exceed 50 milligrams per square metre at any time or exceed a monthly mean of 15 milligrams per square metre for filamentous algae or diatoms and cyanobacteria.[9]

The Macroinvertebrate Community Index shall exceed a score of 90 and the ~~Semi-~~ Quantitative Macroinvertebrate Community Index shall exceed a score of 4.5.

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

Surface water bodies classified as "Spring Fed"

The temperature of the water:

- shall not exceed 21°C
- shall not exceed 11°C in trout spawning areas during May to September inclusive
- the daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water shall be within the range 6.5 to 9, and there shall be no pH change in water due to a discharge that results in a loss of biological diversity or a change in community composition.

The change in fine sediment (<2mm diameter) bed cover must not exceed 10%.

The concentration of dissolved oxygen in water shall exceed 99% of saturation concentration.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

When the flow is at or below the median flow, the visual clarity of the water shall not be less than 3 metres.[10]

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8 Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland.

9 Expressed in terms of reach biomass per unit of exposed strata (i.e., tops and sides of stones) averaged across the full width of the river.

10 Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland

There shall be no more than a 20% change in clarity or colour at the edge of the reasonable mixing zone, relative to the clarity or colour upstream of the discharge point.

The concentration of total ammonia shall not exceed 0.32 milligrams per litre.

The concentration of faecal coliforms shall not exceed 1,000 coliforms per 100 millilitres, except for popular bathing sites, defined in Appendix G "Popular Bathing Sites" and within 1 km immediately upstream of these sites, where the concentration of Escherichia coli shall not exceed 130 E. coli per 100 millilitres.

Chlorophyll a shall not exceed 50 milligrams per square metre at any time, or exceed a monthly mean of 15 milligrams per square metre for filamentous algae or diatoms and cyanobacteria.[11]

The Macroinvertebrate Community Index shall exceed a score of 90 and the ~~Semi-~~ Quantitative Macroinvertebrate Community Index shall exceed a score of 4.5.

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

Surface water bodies classified as "Lowland/Coastal Lakes and Wetlands"

The temperature of the water:

- shall not exceed 23°C
- the daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water shall be within the range 6.5 to 9, and there shall be no pH change in water due to a discharge that results in a loss of biological diversity or a change in community composition.

The change in sediment cover must not exceed 10%.

The concentration of dissolved oxygen in water shall exceed 80% of saturation concentration.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

When lake inflows are below their median values, the Secchi depth clarity of the water shall not be less than 1.5 metres, except where the water is naturally low in clarity as a result of high concentrations of tannins, in which case the natural colour and clarity shall not be altered.[12]

The concentration of total ammonia shall not exceed the values specified in Table 1 "Ammonia standards for Lowland and Hill surface water bodies".

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11 Expressed in terms of reach biomass per unit of exposed strata (i.e., tops and sides of stones) averaged across the full width of the river.

12 Visual clarity in lakes to be measured as Secchi depth.

The concentration of faecal coliforms shall not exceed 1,000 coliforms per 100 millilitres, except for popular bathing sites, defined in Appendix G "Popular Bathing Sites", where the concentration of Escherichia coli shall not exceed 130 E. coli per 100 millilitres.

The concentration of chlorophyll a shall not exceed 5 milligrams per cubic metre.[13]

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

Surface water bodies classified as "Hill Lakes and Wetlands"

The temperature of the water shall not exceed 23°C the daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water shall be within the range 6.5 to 9, and there shall be no pH change in water due to a discharge that results in a loss of biological diversity or a change in community composition.

The change in sediment cover must not exceed 10%.

The concentration of dissolved oxygen in water shall exceed 80% of saturation concentration.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

When lake inflows are below their median values, the Secchi depth clarity of the water shall not be less than 5 metres.

The concentration of total ammonia shall not exceed the values specified in Table 1 "Ammonia standards for Lowland and Hill surface water bodies".

The concentration of faecal coliforms shall not exceed 130 E. coli per 100 millilitres.

Biomass shall not exceed 35 grams per square metre for filamentous algae.

The concentration of chlorophyll a shall not exceed 5 milligrams per cubic metre.

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

Surface water bodies classified as "Mountain Lakes and Wetlands"

The temperature of the water

- shall not exceed 21°C
- the daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any

[13] Determination of lake chlorophyll concentration to be follow the protocols in Burns et al. (2000).

discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water shall be within the range 6.5 to 9, and there shall be no pH change in water due to a discharge that results in a loss of biological diversity or a change in community composition.

The change in sediment cover must not exceed 10%.

The concentration of dissolved oxygen in water shall exceed 99% of saturation concentration.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

The natural colour and clarity of the waters must not be changed to a conspicuous extent.

When lake inflows are below their median values, the Secchi depth clarity of the water shall not be less than 10 metres.
The concentration of total ammonia shall not exceed 0.32 milligrams per litre.

The concentration of Escherichia coli shall not exceed 130 E. coli per 100 millilitres in any sample.

The concentration of chlorophyll a shall not exceed 2 milligrams per cubic metre.

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

Surface water bodies classified as "Mataura 1"

The Protected Waters[14] between map references NZMS 260 F45:967-503 to F45:963-508 (Mataura River).

Any discharge is to be substantially free from suspended solids, grease and oil.

The daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water must be within the range 6 to 8.5, except when due to natural causes.

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[14] Protected Waters means:
- (a) the Mataura River from its source (approximate map reference NZMS 260 E42:502-333) to its confluence with the sea (approximate map reference NZMS 260 F47:877-946); and
- (b) the Waikaia River and its tributaries, the Ōtamita Stream, and all other tributaries of the Mataura River upstream of its confluence with the Ōtamita Stream (approximate map reference NZMS 260 F45:881-582); and
- (c) the Mimihau Stream and the Mokoreta River and each of their tributaries.

The waters must not be tainted so as to make them unpalatable, nor must they contain toxic substances to the extent that they are unsafe for consumption by humans or farm animals, nor must they emit objectionable odours.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

There must not be any destruction of natural aquatic life by reason of a concentration of toxic substances.

~~The natural colour and clarity of the waters must not be changed to a conspicuous extent.~~ There shall be no more than a 20% change in clarity or colour at the edge of the reasonable mixing zone, relative to the clarity or colour upstream of the discharge point.

The change in fine sediment (<2mm diameter) bed cover must not exceed 10%.

The oxygen concentration in solution in the waters must not be reduced below 6 milligrams per litre.

Based on no fewer than five samples taken over not more than a 30-day period, the median value of the faecal coliform bacteria content of the water must not exceed 2000 per 100 millilitres and the median value of the total coliform bacteria content of the water must not exceed 10,000 per 100 millilitres.

The Macroinvertebrate Community Index shall exceed a score of 120, 100 and 90 as the river progresses from mountain, hill to lowland hard bed. The Quantitative Macroinvertebrate Community Index shall exceed a score of 7.5, 5.5 and 4.5 as the river progresses from mountain, hill to lowland hard bed.

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

Surface water bodies classified as "Mataura 2"

The Protected Waters between map references NZMS 260 F45:894-581 to F45:885-584 (Mataura River) and NZMS 260 F46:917-391 to F46:924-396 (Mataura River).

Any discharge is to be substantially free from suspended solids, grease and oil.

The natural water temperature must not be changed by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of a discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water must be within the range 6.5 to 8.3, except when due to natural causes.

The waters must not be tainted so as to make them unpalatable, nor must they contain toxic substances to the extent that they are unsafe for consumption by humans or farm animals, nor must they emit objectionable odours.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

There must not be any destruction of natural aquatic life by reason of a concentration of toxic substances.

~~The natural colour and clarity of the waters must not be changed to a conspicuous extent.~~ There shall be no more than a 20% change in clarity or colour at the edge of the reasonable mixing zone, relative to the clarity or colour upstream of the discharge point.

The change in fine sediment (<2mm diameter) bed cover must not exceed 10%.

The oxygen concentration in solution in the waters must not be reduced below 6 milligrams per litre.

Based on no fewer than five samples taken over not more than a 30-day period, the median value of the faecal coliform bacteria content of the water must not exceed 200 per 100 millilitres.

The Macroinvertebrate Community Index shall exceed a score of 120, 100 and 90 as the river progresses from mountain, hill to lowland hard bed. The Quantitative Macroinvertebrate Community Index shall exceed a score of 7.5, 5.5 and 4.5 as the river progresses from mountain, hill to lowland hard bed.

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

Surface water bodies Classified as "Mataura 3"

The Protected Waters other than those parts classified as Mataura 1 and Mataura 2.

Any discharge is to be substantially free from suspended solids, grease and oil.

The daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge. If the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge.

The pH of the water must be within the range 6 to 9, except when due to natural causes.

The waters must not be tainted so as to make them unpalatable, nor must they contain toxic substances to the extent that they are unsafe for consumption by humans or farm animals, nor must they emit objectionable odours.

There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats. Note that this standard also applies to within the zone of reasonable mixing for a discharge.

There must not be any destruction of natural aquatic life by reason of a concentration of toxic substances.

~~The natural colour and clarity of the waters must not be changed to a conspicuous extent.~~ There shall be no more than a 20% change in clarity or colour at the edge of the reasonable mixing zone, relative to the clarity or colour upstream of the discharge point.

The change in fine sediment (<2mm diameter) bed cover must not exceed 10%.

The oxygen concentration in solution in the waters must not be reduced below 5 milligrams per litre.

The concentration of faecal coliforms shall not exceed 1,000 coliforms per 100 millilitres, except for popular bathing sites, defined in Appendix G “Popular Bathing Sites” and within 1 km immediately upstream of these sites, where the concentration of Escherichia coli shall not exceed 130 E. coli per 100 millilitres.

The Macroinvertebrate Community Index shall exceed a score of 120, 100 and 90 as the river progresses from mountain, hill to lowland hard bed. The Quantitative Macroinvertebrate Community Index shall exceed a score of 7.5, 5.5 and 4.5 as the river progresses from mountain, hill to lowland hard bed.

Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

B3 – Wetlands

Tracked changes key:
Blue = previously agreed by parties
Red = changes that show Council's preferred relief

Rule 51

(a) Despite any other rule in this Plan, the diversion of water within a river or lake bed is a permitted activity provided the following conditions are met:
- (i) the diversion is for the purposes of undertaking a permitted activity under Rules 55 to 79, or for the purposes of habitat creation, restoration or enhancement, or hydrologic research; and is carried out in accordance with the following conditions:
  - (a1) the general conditions set out in Rule 55A other than conditions (i), (j) and (k) of that Rule;
- (ii) the diversion is carried out completely within a river or lake bed (i.e. no water is diverted outside of the river or lake bed);
- (iii) the water is returned to its original course after completion of the activity, no later than one month after the diversion occurs;
- (iva) the diversion does not occur within 12 metres of a network utility structure, unless the activity is for the purpose of maintaining, upgrading or developing that network utility;
- (iv) the diversion does not compromise the ability of any other person to exercise a resource consent or undertake an activity permitted by this Plan; and
- (v) the diversion does not result in a net loss of water from the catchment.

(b) Despite any other rule in this Plan, the diversion of water for the purpose of land drainage is a permitted activity provided the following conditions are met:
- (i) the diversion and associated discharge does not cause erosion or deposition;
- (ii) the diversion does not cause flooding of downstream or adjacent properties; and
- (iii) the diversion of water is not from a Regionally Significant Wetland or Sensitive Water Body identified in Appendix A or any natural wetland.

(c) Notwithstanding any other rule in this Plan, the diversion of water at the mouth of:
- (i) a drain known as the North Drain on the Tiwai Peninsula, at about Map Reference NZTopo50 CG10 463 308;[1] or
- (ii) a drain known as the West Drain on the Tiwai Peninsula, at about Map Reference NZTopo50 CG10 457 302;[2] or
- (iii) a drain known as the South Drain on the Tiwai Peninsula, at about Map Reference NZTopo50 CH10 456 298[3]

is a permitted activity provided the following conditions are met:
  - (1) the work is carried out under the direct control of the body or person responsible for the maintenance of the drain;
  - (2) machinery only crosses through a drain to obtain reasonable access to the side of the drain from which the work is to be undertaken;
  - (3) the diversion is constructed at right angles to the line of the beach;

[1] The equivalent NZTM2000 coordinates are 1246300 mE 4830800 mN
[2] The equivalent NZTM2000 coordinates are 1245700 mE 4830200 mN
[3] The equivalent NZTM2000 coordinates are 1245600 mE 4829800 mN

(4) any excavated spoil is removed from the site and legally disposed of or spread over non-vegetated areas adjacent to the diversion;
(5) the body or person responsible advises the Southland Regional Council of the details of the time and extent of the work to be undertaken, prior to the work commencing; and
(6) in the event of a discovery, or suspected discovery, of a site of cultural, heritage or archaeological value, the operation ceases immediately in that location and the Southland Regional Council is informed. Operations may recommence with the permission of the Southland Regional Council.

(d) Unless controlled by any other rule in this Plan, the diversion of water for the purpose of land drainage that does not meet Rules 51(a) to (c) is a discretionary activity.

(e) The diversion of water from a natural wetland for the purpose of land drainage is a non-complying activity.

Note: *In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S. Due to the high concentration of recorded archaeological sites in the vicinity of the above sites, it is possible that works will require an archaeological authority under the Heritage New Zealand Pouhere Taonga Act 2014. No work (even if permitted under the rule or authorised by resource consent) should commence without first contacting Heritage New Zealand.*

Rule 74

(a) The use of land within a wetland for the purposes of:
(i) maintaining or enhancing the wetland, or
(ii) maintaining existing authorised structures within the wetland; or
(iii) removing plant matter for the purpose of mahinga kai undertaken in accordance with Tikanga Maori;
is a permitted activity provided the following conditions are met:
(1) there is no destruction or removal of any indigenous vegetation from any natural wetland, unless the activity is for the purpose of mahinga kai undertaken in accordance with Tikanga Maori;
(2) there is no reduction in the size of the wetland;
(3) there is no flooding or ponding caused on any land owned or occupied by another person; and
(4) there is no establishment of pest plant species that:
(A) are listed in the Regional Pest Management Strategy for Southland 2013 or any replacement plan prepared under the Biosecurity Act, or Biosecurity NZ Register of Unwanted Organisms, in circumstances where the planting of those pest plant species is restricted under the Biosecurity Act; or
(B) may damage existing biodiversity values of the wetland; or
(C) will form the dominant vegetation type in the wetland.

~~(ab) The use of land within a wetland for commercial peat harvesting is a discretionary activity provided the following conditions are met:~~
~~(i) the applicant can show, by way of aerial photographs or other documentary evidence, that a commercial peat harvesting operation occurred within the~~

~~wetland at some time during the period between 30 June 2006 and 30 June 2016; and~~

~~(ii) there is no establishment of pest plant species that:~~

~~(1) are listed in the regional Pest Management Strategy for Southland 2013 or any replacement plan prepared under the Biosecurity Act, or Biosecurity NZ Register of Unwanted Organisms, in circumstances where the planting of those pest plant species is restricted under the Biosecurity Act; or~~

~~(2) may damage the existing biodiversity values of the wetland; or~~

~~(3) will form the dominant vegetation type in the wetland.~~

(b) The use of land within a wetland (excluding a natural wetland) that is for one or more of the purposes listed in Rule 74(a) but which does not comply with the conditions of Rule 74(a), or the use of land within a wetland that is not a natural wetland that is not for one or more of the purposes listed in Rule 74(a), is a discretionary activity.

(c) The use of land within a natural wetland that is not for one or more of the purposes listed in Rule 74(a) or 74(ab) is a non-complying activity.

B5 – Farming

Tracked changes key:
Red = changes that show Council's preferred relief
Green = changes post first tranche of conferencing

Policy 16

1. ~~Minimising~~ Avoid where ~~reasonably~~ practicable, or otherwise minimise ~~remedy or mitigate~~, any ~~the~~ adverse environmental effects (including on the quality of water in lakes, rivers, artificial watercourses, modified watercourses, wetlands, tidal estuaries and salt marshes, and groundwater) from farming activities by:
   ~~(a) discouraging avoiding the establishment of new dairy farming of cows or new intensive winter grazing activities any new, or further intensification of any existing, dairy farming of cows or intensive winter grazing activities in close proximity to Regionally Significant Wetlands and Sensitive Water bodies identified in Appendix A; and~~
   (b) ensuring that, for existing farming activities:
      (i) ~~existing farming activities minimise~~ nitrogen, phosphorus, sediment and ~~or~~ microbial contaminant discharges are minimised;
      (ii) reduce adverse effects on water quality where the farming activity occurs within the catchment of a waterbody that requires improvement identified in Schedule X; and
      (iii) demonstrate how (i) and (ii) is being or will be achieved through the implementation of Farm Environmental Management Plans prepared in accordance with (c) below and in addition,
   (ba) ensuring that for ~~(ii)~~ the establishment of new, or further intensification of existing, dairy farming of cows or intensive winter grazing activities:
      (i) does not result in an increase in nitrogen, phosphorus, sediment and ~~or~~ microbial contaminant discharges; and
      (ii) minimises nitrogen, phosphorus, sediment or microbial contaminant discharges ~~through the implementation of farm plans prepared in accordance with (c) below~~; and
      (iii) reduces nitrogen, phosphorus, sediment or microbial contaminant discharges where ~~is~~ the farming activity occurs within the catchment of a ~~degraded~~ waterbody that requires improvement identified in ~~Appendix~~ Schedule X; and
      (iv) is avoided in close proximity to Regionally Significant Wetlands and Sensitive Water bodies identified in Appendix A; and
      ~~(v) resource consent is not granted to establish new, or further intensify existing, dairy farming of cows or intensive winter grazing activities where any adverse effects, including cumulatively, on the quality of groundwater, or water in lakes, rivers, artificial watercourses, modified watercourses, wetlands, tidal estuaries and salt marshes cannot be avoided [where [reasonably] practicable], or minimised otherwise remedied or mitigated; or and~~
   (c)~~2.~~ requiring all farming activities to:
      (a) be undertaken in accordance with ~~implement~~ a Farm Environmental Management Plan which:

(i) identifies whether the farming activity is occurring, or would occur, in a catchment of a waterbody that requires improvement ~~which contains a degraded waterbody~~ identified in Schedule X;
(ii) identifies and responds to the contaminant pathways (and variants) for the relevant Physiographic Zones;
(iii) sets out how adverse effects on water quality from the discharge of contaminants from farming activities will be minimised or, where the farming activity is occurring in a ~~degraded~~ catchment of a waterbody that requires improvement identified in Schedule X, reduced;
(iv) is certified as meeting all relevant requirements of this plan and regulation prepared under Part 9A of the RMA; and
(v) is independently audited and reported on;

(d) ~~actively manage~~ avoid where practicable, otherwise minimise ~~remedy or mitigate~~, sediment run-off risk from farming and hill country development activities by identifying critical source areas and implementing actions and maintaining practices including setbacks from water bodies, sediment traps, riparian planting, limits on areas or duration of exposed soils and the prevention of stock entering the beds of surface water bodies; and

(e) ~~manage~~ avoid where practicable, otherwise minimise ~~remedy or mitigate~~, collected and diffuse run-off and leaching of nutrients, microbial contaminants and sediment through the identification and management of critical source areas and the contaminant pathways identified for the relevant Physiographic Zones (and variants) within individual properties.

3. When considering a resource consent application for farming activities, consideration should be given to the following matters:
(a) whether multiple farming activities (such as cultivation, riparian setbacks, and winter grazing) can be addressed in a single resource consent; and
(b) granting a consent duration of at least 5 years where doing so is consistent with Policy 40.

Minimise means to reduce to the smallest amount reasonably practicable.

Rule 20

~~(aa) Unless stated otherwise by Rules 20, 25, 70 or any other rule in this Plan:~~
~~(i) intensive winter grazing; or~~
~~(ii) cultivation; or~~
~~(iii) the disturbance by livestock including cattle, deer, pigs or sheep;~~
~~in, on or over the bed of an ephemeral river is a permitted activity.~~

(a) The use of land for a farming activity, other than for intensive winter grazing, is a permitted activity provided the following conditions are met:
(i) the landholding is less than 20 hectares in area; or
(ii) where the farming activity includes a dairy platform on the landholding, the following conditions are met:
(1) the dairy platform has a maximum of 20 cows; or
(2) the dairy platform had a dairy effluent discharge permit on 3 June 2016 that specified a maximum number of cows; and
(3) cow numbers have not increased beyond the maximum number specified in the dairy effluent discharge permit that existed on 3 June 2016; and
(4) ~~from 1 May 2019,~~ a Farm Environmental Management Plan for the landholding is prepared, certified, ~~and~~ implemented and audited in accordance with Appendix N; and
~~(5) the landowner provides to the Southland Regional Council on request:~~

(A) a written record of the good management practices, including any newly instigated good management practices in the preceding 12 months, occurring on the landholding; and

(B) the Farm Environmental Management Plan prepared in accordance with Appendix N;

(6) the land area of the dairy platform is no greater than at 3 June 2016; and

(7) no part of the dairy platform is at an altitude greater than 800 metres above mean sea level; and

(iii) where the farming activity includes intensive winter grazing on the landholding, the following conditions are met:

(1) from 1 May 2019, intensive winter grazing does not occur on more than 15% of the area of the landholding or 100 hectares, whichever is the lesser area;

(2) from 1 May 2019, a Farm Environmental Management Plan for the landholding is prepared and implemented in accordance with Appendix N;

(3) from 1 May 2019, all of the following practices are implemented:

(A) if the area to be grazed is located on sloping ground, stock are progressively grazed (break-fed or block-fed) from the top of the slope to the bottom, or a 20 metre 'last-bite' strip is left at the base of the slope;

(B) when the area is being break-fed or block-fed, the stock (excluding sheep and deer) are back fenced to prevent stock entering previously grazed areas;

(C) transportable water trough(s) are provided in or near the area being grazed to prevent stock accessing a lake, river (excluding ephemeral rivers), artificial watercourse, modified watercourse or natural wetland for drinking water;

(D) if supplementary feed (including baleage, straw or hay) is used in the area being grazed it is placed in portable feeders;

(E) if cattle or deer are being grazed the mob size being grazed is no more than 120 cattle or 250 deer; and

(F) critical source areas (including swales) within the area being grazed that accumulate runoff from adjacent flats and slopes are grazed last;

(4) from 1 May 2019, a vegetated strip is maintained in, and stock excluded from, the area between the outer edge of the bed of a lake, river (excluding ephemeral rivers where intensive winter grazing is permitted under Rule 20(aa)), artificial watercourse, modified watercourse or natural wetland for a distance of at least 5 metres;

(5) from 1 May 2019, intensive winter grazing does not occur within 20 metres of the outer edge of the bed of any Regionally Significant Wetland or Sensitive Water Bodies listed in Appendix A, estuary or the coastal marine area; and

(6) no intensive winter grazing occurs at an altitude greater than 800 metres above mean sea level; and

(iii)(iv) for all other farming activities, from 1 May 2020 a Farm Environmental Management Plan is prepared, certified, and implemented and audited in accordance with Appendix N.

(iv) no part of the dairy platform occurs at an altitude greater than 800 metres above mean sea level.

(b) The use of land for a farming activity that includes intensive winter grazing on the landholding and which meets all conditions of Rule 20(a) other than condition (iii)(3) is a permitted activity, provided that:

(i) from 1 May 2019, a vegetated strip is maintained in, and stock excluded from, the area between the outer edge of the bed of a lake, river (excluding ephemeral rivers where intensive winter grazing is permitted under Rule

~~20(aa)), artificial watercourse, modified watercourse or natural wetland for a distance of at least 20 metres.~~

~~(b)~~(c) ~~Despite any other rule in this Plan, the use of land for a dairy platform or intensive winter grazing at an altitude greater than 800 metres above mean sea level is a prohibited activity.~~

~~(d)~~(c) The use of land for a farming activity, other than for intensive winter grazing, that ~~meets all conditions of Rule 20(a) other than (i), (ii), (iii)(1),(iii)(4) or (iii)(5) or~~ does not meet ~~condition (i) of Rule 20(b)~~ any one of conditions (ii)(1)-(6) or (iii) of Rule 20(a) is a restricted discretionary activity, provided the following conditions are met:

(i) a Farm Environmental Management Plan is prepared certified, ~~and~~ implemented and audited in accordance with Appendix N; and

(ii) the application includes the following material, prepared by a suitably qualified person:

(1) an assessment that shows that the ~~annual amount~~ risk of nitrogen, phosphorus, sediment and microbiological contaminants being discharged from the landholding will be no greater than that the risk of contaminant discharge which was lawfully discharged ~~annually~~ on average for the five years prior to the application being made; and

(2) for any mitigation proposed, a detailed mitigation plan (taking into account contaminant loss pathways) that identifies the mitigation or actions to be undertaken including any physical works to be completed, their timing, operation and their potential effectiveness.

The Southland Regional Council will restrict its discretion to the following matters:

1. the quality of and compliance with the Farm Environmental Management Plan for the landholding;
2. whether the assessment undertaken under Rule20~~(d)~~(c)(ii) above takes into account reasonable and appropriate mitigation actions ~~good management practices~~ to minimise the losses of contaminants from the existing farming activity;

2(a). whether the farming activity is being undertaken in a ~~degraded~~ catchment of a waterbody that requires improvement identified in Schedule X, and if so, the mitigations actions to be implemented to reduce adverse effects on water quality;

~~what reductions below existing losses will be required to improve water quality;~~

3. mitigation actions ~~good management practices~~ to be undertaken, including those to minimise the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land, taking into account contaminant loss pathways;
4. the potential benefits of the activity to the applicant, the community and the environment;
5. the potential effects of the farming activity on surface and groundwater quality and sources of drinking water; and
6. monitoring and reporting undertaken to assess the effectiveness of any mitigation implemented.

~~(e)~~(d) The use of land for a farming activity ~~that is not specified as a permitted, restricted discretionary or prohibited activity under~~ which is not a restricted discretionary activity under Rule 20(c) is a ~~discretionary~~ non-complying activity.

(e) The use of land for a farming activity that does not comply with Rule 20(a)(iv) is a prohibited activity

Rule 20A – Intensive winter grazing

(a) Intensive winter grazing is a permitted activity provided the following conditions are met:

(i) intensive winter grazing does not occur on more than 50ha or 10% of the area of the land holding, whichever is the greater; and

(ii) the ~~maximum allowable~~ slope of land ~~in a paddock~~ that is used for intensive winter grazing must be 10 degrees or less; and

(iii) livestock must be kept at least:

(1) 20 metres from the bed of any Regionally Significant Wetland or Sensitive Water Bodies listed in Appendix A, nohoanga listed in Appendix B, mātaitai reserve, taiāpure, estuary or the coastal marine area; and

(2) 10 metres from the bed of any other river, lake, artificial watercourse (regardless of whether there is any water in it at the time), modified water course or natural wetland; and

(iv) critical source areas within the area being intensively winter grazed must:

(1) be identified in the Farm Environmental Management Plan; and

(2) have stock excluded from them; and

(3) not be cultivated into forage crops for intensive winter grazing ~~or~~

~~(4) not be grazed during the period intensive winter grazing occurs; and~~

(v) the land that is used for intensive winter grazing must be replanted as soon as practicable after livestock have grazed the land's annual forage crop; and

(vi) a Farm Environmental Management Plan for the landholding is prepared and implemented in accordance with Appendix N, that also includes a grazing plan that includes:

(1) downslope grazing or a 20 metre 'last-bite' strip at the base of the slope; and

(2) back fencing to prevent stock entering previously grazed areas; and

(3) transportable water troughs; and

~~(4) supplementary feed (including baleage, straw or hay) being fed in such a way as to prevent the supplementary feed being trampled into the ground, such as by placing the supplementary feed in portable feeders or behind an electrified wire; and~~

~~(5) limiting the mob size to no more than 120 cattle or 250 deer; and~~

(vii) no intensive winter grazing occurs at an altitude greater than 800 metres above mean sea level; and

(b) The use of land for intensive winter grazing that does not meet conditions (a)(i)-(vi) of Rule 20A is a restricted discretionary activity provided the following conditions are met:

(i) a Farm Environmental Management Plan is prepared and implemented in accordance with Appendix N; and

(ii) the area used for intensive winter grazing on the property is no greater than the average area used on the property for the five years prior to the application being made;

The Southland Regional Council will restrict its discretion to the following matters:

1. the quality of and compliance with Appendix N and the Farm Environmental Management Plan for the landholding;
2. whether the intensive winter grazing activity is being undertaken in a ~~degraded~~ catchment of a waterbody that requires improvement identified in Schedule X, and if so, the mitigation actions to be implemented to improve water quality; ~~what reductions below existing losses will be required to improve water quality~~;
3. mitigation actions and good management practices to be undertaken, including those to minimise the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land, taking into account contaminant loss pathways;

4. the potential benefits of the activity to the applicant, the community and the environment;
5. the potential effects of the farming activity on surface and groundwater quality and sources of drinking water;
6. monitoring and reporting undertaken to assess the effectiveness of any mitigation implemented.

(c) The use of land for intensive winter grazing that does not meet conditions of Rule 20A(b) is a non-complying activity.

(d) The use of land for intensive winter grazing that does not meet condition (vii) of Rule 20A(a) is a prohibited activity.

Slope in Rule 20A is the average slope over any 20-metre distance.

The planners agree that the Plan does not control high risk winter grazing of all stock on grass beyond the controls of Rule 20 and associated FEMP (which applies all year round).

They are conscious that they have very limited farm systems technical evidence on the scale of the problem, or the nature of the activity (and it's effects) that may require specific control. Accordingly, planners have identified the following questions for technical experts/evidence:

- How would you define what is high risk winter grazing on grass based on characteristics of the activity?
- Are the other risk factors (such as biophysical factors) that would need to be taken into account to appropriately target the high risk activity?
- How prevalent is this activity?
- What are the adverse effects of the activity?
- How different are these from adverse effects of intensive winter grazing as defined in the Plan?
- What controls would be necessary to manage these adverse effects?
- Are there any potential perverse outcomes (including from imposing a size area limit)?

We note that the scope for addressing this matter derives from the Fish and Game appeals seeking that the definition of intensive winter grazing is expanded as follows:

"Grazing of stock at any time between 1 May and 30 September of the same year inclusive on fodder crops or pasture to the extent that the grazing results in the exposure of soil and / or pugging of the soil."

There are a range of alternative approaches to address this matter. This may require defining high risk winter grazing on grass. The alternative approaches include a further condition in Rule 20, or add an additional Rule 20B, to target the specific activity of concern.

We note that many of the conditions of Rule 20A are likely to be potentially appropriate to apply to any new condition or rule that targets higher risk winter grazing on pasture although some planners have identified such limits on area, slope and the need for transportable troughs, may not be appropriate when regulating this activity.

One way to achieve this would be through a provision similar to that below.

Rule 20B –High risk winter grazing on pasture

(a) High risk winter grazing on pasture is a permitted activity provided the following conditions are met:

(i) livestock must be kept at least:

(1) 20 metres from the bed of any Regionally Significant Wetland or Sensitive Water Bodies listed in Appendix A, estuary or the coastal marine area; and

(2) 10/5 metres from the bed of any other river, lake, artificial watercourse (regardless of whether there is any water in it at the time), modified water course or natural wetland; and

(ii) critical source areas within the area being winter grazed on pasture must:

(1) be identified in the Farm Environmental Management Plan; and

(2) have stock excluded from them; and

(iii) On areas where significant de-vegetation occurs, vegetation is re-established as soon as practicable; and

(iv) a Farm Environmental Management Plan for the landholding is prepared and implemented in accordance with Appendix N, that also includes a grazing plan that includes:

(1) downslope grazing or a 20 metre 'last-bite' strip at the base of the slope; and

(2) back fencing to prevent stock entering previously grazed areas; and

(v) no high risk winter grazing on pasture occurs at an altitude greater than 800 metres above mean sea level; and

(b) The use of land for high risk winter grazing on pasture that does not meet conditions (a)(i)-(vi) of Rule 20B is a restricted discretionary activity provided the following conditions are met:

(i) a Farm Environmental Management Plan is prepared and implemented in accordance with Appendix N

The Southland Regional Council will restrict its discretion to the following matters:

1. the quality of and compliance with Appendix N and the Farm Environmental Management Plan for the landholding;
2. mitigation actions and good management practices to be undertaken, including those to minimise the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land, taking into account contaminant loss pathways;
3. the potential benefits of the activity to the applicant, the community and the environment;
4. the potential effects of the farming activity on surface and groundwater quality and sources of drinking water;
5. monitoring and reporting undertaken to assess the effectiveness of any mitigation implemented.

(c) The use of land for high risk winter grazing on pasture that does not meet conditions of Rule 20B(b) is a non-complying activity.

(d) The use of land for high risk winter grazing on pasture that does not meet condition (vii) of Rule 20A(a) is a prohibited activity.

Critical source area

(a) a landscape feature like ~~an ephemeral flow path,~~ a gully, swale or a depression (including ephemeral flow paths) that accumulates runoff (sediment and nutrients) from adjacent flats and slopes, and delivers it to surface water bodies (including lakes, rivers, artificial watercourses and modified watercourses) or subsurface drainage systems.~~; and~~

(b) a non-landscape feature that has high levels of contaminant losses, such as, silage pits, fertiliser storage areas, stock camps and laneways.

~~(b) areas which arise through land use activities and management approaches (including cultivation and winter grazing) which result in contaminants being discharged from the activity and being delivered to surface water bodies.~~

~~**Ephemeral flow paths rivers**~~

~~Rivers Swales or depressions which only contain flowing or standing water following rainfall events or extended periods of above average rainfall.~~

Rule 25 - Cultivation

(a) The use of land for cultivation is a permitted activity provided the following conditions are met:

(i) cultivation does not take place within the bed of a lake, river ~~(excluding ephemeral rivers where cultivation is permitted under Rule 20(aa))~~, artificial watercourse, modified watercourse or natural wetland;

(ii) cultivation does not take place within a distance of; ~~5 metres from the outer edge of the bed of a lake, river (excluding ephemeral rivers where cultivation is permitted under Rule 20(aa)) artificial watercourse, modified watercourse or natural wetland;~~

(1) 5 metres from the outer edge of the bed of a lake, ~~or~~ river, or modified watercourse or the edge of ~~the~~ a natural wetland on land with a slope of less than 10 degrees; and

(2) 10 metres from the outer edge of the bed of a lake, ~~or~~ river, or modified watercourse or the edge of ~~the~~ a natural wetland on land with a slope between 10 and 20 degrees;

(iii)~~(iv)~~ cultivation does not occur on land with a slope greater than 20 degrees; and

(iv)~~(iii)~~ cultivation does not occur at an altitude greater than 800 metres above mean sea level; ~~and~~

(v) critical source areas are not cultivated when forage crops used for intensive winter grazing are established and sediment detention is established when cultivating critical source areas for any other purpose; and

(b) The use of land for cultivation that does not meet the setback distance of Rule 25(a)(ii)(2) is a permitted activity provided the following conditions are met:

(i) cultivation does not take place within ~~the bed of a lake, river (excluding ephemeral rivers where cultivation is permitted under Rule 20(aa)), artificial watercourse, modified watercourse or natural wetland and~~ a distance of 5 ~~3~~ metres from the outer edge of the bed of a lake, river, or modified watercourse or the edge of ~~the~~ a natural wetland;

(ii) cultivation does not take place more than once in any 5-year period;

(iii) cultivation is for the purpose of renewing or establishing pasture and is not undertaken to establish a crop used for intensive winter grazing, even as part of a pasture renewal cycle; and

(iv) all other conditions of Rule 25(a) are complied with ~~cultivation does not occur at an altitude greater than 800 metres above mean sea level~~.

(c) The use of land for cultivation, which does not meet one or more of the conditions of Rule 25(a) or Rule 25(b) is a restricted discretionary activity.

The Southland Regional Council will restrict its discretion to the following matters:

1. potential adverse effects of discharges of sediment and other contaminants from the area being cultivated on water quality and biodiversity;

1a. potential adverse effects on the preservation of the natural character of wetlands, lakes, rivers and their margins.

21a. mitigation measures for addressing adverse effects identified in 1 and 1a.; and
2a. the management of critical source areas in the area being cultivated.
3. monitoring and reporting undertaken to assess the effectiveness of any mitigation implemented.

(d) Despite any other rule in this Plan, the use of land for cultivation at an altitude greater than 800 metres above mean sea level is a non-complying activity.

Slope in Rule 25(a)(ii) and (iii) (iv) is the average slope over any 20 metre distance.

Definition - Cultivation

Preparing land for growing pasture or a crop by mechanical tillage, direct drilling, herbicide spraying, or herbicide spraying followed by over-sowing for pasture or forage crops (colloquially referred to as 'spray and pray'), but excludes: excluding any

a. herbicide spraying undertaken solely for the control of pest plant species;
b. herbicide spraying for the establishment or maintenance of plantation forestry; and
c. stick raking or slash raking associated with a plantation forest, provided that the resulting windrows follow the contour of the land where the slope of the land is greater than 10 degrees.

Definition (new) – Stick raking

Stick raking or slash raking means the use of machinery to clear slash from harvested plantation forest to enable the replanting of trees. It does not include breaking up of the soil profile or the disturbance of the stumps of the harvested plantation forest trees.

Rule 35A – Feed pads/lots

(a) The use of land for a feed pad/lot is a permitted activity provided the following conditions are met:

(i) if accommodating cattle or deer, each feed pad/lot services no more than 120 adult cattle, or 250 adult deer, or equivalent numbers of young stock at any one time;

(ii) animals do not remain on the feed pad/lot for longer than three continuous months;

(iii) the feed pad/lot is not located:

(1) within 50 metres from the nearest sub-surface drain, lake, river (excluding ephemeral flow paths rivers),artificial watercourse, modified watercourse, natural wetland, or the coastal marine area or another feed pad/lot on the same landholding; or

(2) within a microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; or

(3) within 200 metres of a place of general assembly or dwelling not located on the same landholding, or

(4) within 20 metres of the boundary of any other landholding; or

(5) within a critical source area;

(iv) the feed pad/lot is constructed with:

(1) a sealed and impermeable base and any liquid animal effluent or stormwater containing animal effluent discharging from the feed pad/lot is collected in a sealed animal effluent storage system authorised under Rule 32B or Rule 32D; or

(2) a minimum depth of 500 millimetres of wood-based material (bark, sawdust or chip) across the base of the feed pad/lot; and

(v) any material scraped from the feed pad/lot, including solid animal effluent, is collected and if applied to land is applied in accordance with Rule 38; and

(vi) the overland flow of stormwater or surface runoff from surrounding land is prevented from entering the feed pad/lot.

(b) The use of land for a feed pad/lot that does not meet one or more of the conditions of Rule 35A(a) is a discretionary activity.

Policy 18 – Stock exclusion from water bodies

~~Reduce~~ Avoid where practicable, or otherwise remedy or mitigate, any adverse effects from the discharge of sediment~~ation and~~ or microbial ~~contamination of~~ contaminants to water bodies and improve river ~~(excluding ephemeral rivers)~~ and riparian ecosystems and habitats by:

1. requiring progressive exclusion of all stock, except sheep, from lakes, rivers ~~(excluding ephemeral rivers)~~, natural wetlands, artificial watercourses, and modified watercourses on land with a slope of less than 15 degrees by 2030;

2a. requiring the management of sheep in critical source areas and in those catchments where *E.coli* levels could preclude contact recreation;

3. encouraging the establishment, maintenance and enhancement of healthy vegetative cover in riparian areas, particularly through use of indigenous vegetation; and

4. ensuring that stock access to lakes, rivers ~~(excluding ephemeral rivers)~~, natural wetlands, artificial watercourses and modified watercourses is managed in a manner that avoids ~~significant~~ adverse effects on water quality, bed and bank integrity and stability, mahinga kai, and ~~river~~ aquatic and riparian ecosystems and habitats.; and

5. showing, in a Farm Environmental Management Plan prepared and implemented in accordance with Appendix N, how 1-4 will be achieved and by when.

Rule 70

(a) ~~From 1 July 2020,~~ The disturbance of roosting and nesting areas of the black fronted tern, black billed gull, banded dotterel or black fronted dotterel located in the bed of a lake, river, ~~(including an ephemeral flow path river),~~ modified watercourse, or ~~natural wetland~~ by stock including cattle, deer, pigs or sheep is a prohibited activity.

(b) ~~From 1 July 2020,~~ The disturbance of the bed of a Regionally Significant Wetland or Sensitive Water Body listed in Appendix A by stock including cattle, deer, pigs or sheep is a prohibited activity.

(c) The disturbance of the bed of a river ~~(excluding ephemeral rivers where stock access is permitted under Rule 20(aa))~~ or modified watercourse for the purposes of moving stock including cattle, deer, pigs or sheep (but excluding dairy cattle on a dairy platform or on land used for dairy support) is a permitted activity provided the stock are being supervised and are actively driven across the water body in one continuous movement.

(ca) The disturbance of the bed of a lake, river or modified watercourse by sheep, other than as regulated by Rule 70(a) and 70(b), is a permitted activity, provided the following conditions are met:

(i) the waterbody is not already fenced to prevent ~~stock~~ sheep access;

(ii) the sheep are not being break fed or intensively winter grazed;

(iii) there is no significant de-vegetation leading to exposure of soil of the bed and banks, pugging or alteration to the profile of the bed and banks, other than at fords or stock crossings; and

(iv) a Farm Environmental Management Plan for the landholding is prepared, certified, ~~and~~ implemented and audited in accordance with Appendix N, and shows how access by sheep will be managed;

(cb) The use of land within a natural wetland or the disturbance of the bed of a water body within a natural wetland for access or grazing by stock is a non-complying activity.

(d) Bed disturbance activities that do not comply with Rule 70(c) are a non-complying activity.

(e) Other than as provided for by Rules 70(c), 70(ca) and 70(d), the disturbance of the bed of a lake, river ~~(excluding ephemeral rivers where stock access is permitted under Rule 20(aa)),~~ modified watercourse, open drain, or ~~natural wetland~~ by cattle, deer or pigs is a permitted activity prior to the dates set out in Table 1 for the listed land slopes after which time it is respectively a discretionary activity on that land.

Table 1: Timetable for stock exclusion from water bodies

	Land slope (as classified by the LRI slope dataset)		
Farm/stock type	**Plains (0-3°)**	**Undulating/rolling land (>3-15°)**	**Steeper land (>15° and over)**
Dairy cattle (on dairy platforms) and pigs	All water bodies (including open drains) that are: • over 1 metre wide from 1 July 2017 on all slopes • less than 1 metre wide from 1 July 2020 on the plains and undulating/rolling land		
Dairy support ~~(on either land owned/leased by the dairy farmer or third party land)~~	All water bodies, and open drains from 1 July 2022	All water bodies, and open drains over 1 metre wide from 1 July 2022	All water bodies, and open drains where break feeding occurs from 1 July 2022
Beef cattle and deer	All water bodies (including open drains) from 1 July 2025	All water bodies (including open drains) over 1 metre wide from 1 July 2030, unless the average stocking rate on the land directly adjacent to the water body is less than 6 stock units per hectare	
	All water bodies (including open drains) where break feeding or supplementary feeding occurs from 1 July 2022.		

Definition – Stock Unit (new)

Stock unit means the equivalent of one 55 kilogram breeding ewe, bearing a single lamb, consuming 550 kilograms DM average quality feed over a year.

Appendix N – Day 2 of Conferencing

Day 2 changes shown in Purple

Appendix N – Farm Environmental Management Plan Requirements

A Farm Environmental Management Plan must be:

(1) A Freshwater Farm Plan prepared, implemented and audited in accordance with regulations prepared under Part 9A of the RMA and which apply within the Southland

region, plus any additional information or components required by Parts B (3) and (6)(b) as below; or

(2) if Freshwater Farm Plans, under Part 9A of the RMA, are not yet required in the Southland region, a Farm Environmental Management Plan prepared and implemented in accordance with Parts A to C below.

Part A – Farm Environmental Management Plans

A Farm Environmental Management Plan (FEMP) can be based on either of:

1. the ~~material~~ default content set out in Part B below; or
2. industry prepared FEMP templates and guidance material, with Southland-specific supplementary material added where relevant, so that it includes the default ~~material~~ content set out in Part B below; or
3. A management plan and nutrient budget prepared in accordance with a condition of resource consent to discharge industrial wastewater onto land that is also used for farming activity, provided it includes the material set out in Part B below in relation to each farm receiving industrial wastewater'.

Part B – Farm Environmental Management Plan Default Content

~~1. A written FEMP that is:~~

~~(a) prepared and retained, identifying the matters set out in clauses 2 to 56 below; and~~

~~(b) reviewed at least once every 12 months by the landholding owner or their agent and the outcome of the review documented; and~~

~~(c) provided to the Southland Regional Council upon request.~~

2. The FEMP contains the following landholding details:
   (a) physical address; and
   (b) description of the landholding ownership and the owner's contact details; and
   (c) legal description(s) of the landholding; and
   (d) a list of all resource consents held for the landholding and their expiry dates~~.~~; and
   (e) The type of farming activities being undertaken on the property, such as "dairy" or "sheep and beef with dairy support".
3. The FEMP contains a map(s) or aerial photograph(s) of the landholding at a scale that clearly shows the locations of:
   (a) the boundaries; and
   (b) the physiographic zones (and variants where applicable) and soil types (or Topoclimate South soil maps); and
   (c) all lakes, rivers~~,~~/streams (including ~~ephemeral or~~ intermittent ~~flow paths~~ rivers/~~streams~~), springs, ponds, artificial watercourses, modified watercourses and natural wetlands; and
   (d) all existing and proposed riparian vegetation and fences (or other stock exclusion methods) adjacent to waterbodies; and
   (e) places where stock access or cross water bodies (including bridges, culverts and fords); and
   (f) the location of all known subsurface drainage system(s) and the locations and depths of the drain outlets; and
   (g) all land that may be cultivated and land to be cultivated over the next 12-month period; and
   ~~(h) all land that may be break fed and/or intensively winter grazed and the land to be planted for winter grazing for the next period 1 May to 30 September; and~~
   (h~~a~~) all critical source areas not already identified above; and
   (i) ~~for~~ land to be cultivated or intensively winter grazed, or break fed on pasture between 1 June and 31 July, ~~shows~~ and the slope[1] of the land and intended

[1] Slope is the average slope over any 20 metre distance.

setbacks from any lake, river, artificial watercourses, modified watercourse or natural wetland and any other critical source areas; and~~:~~

~~(i) critical source areas; and~~

~~(ii) intended setbacks from any lake, river (excluding ephemeral or intermittent rivers), artificial watercourses, modified watercourse or natural wetland; and~~

~~(iii) land with a slope greater than degrees~~

(j) any areas of the land within a ~~degraded~~ catchment of a waterbody that requires improvement identified in Schedule X; and

(k) any heritage site recorded in the relevant district plan, on the New Zealand Heritage List/Rārangi Kōrero or on the New Zealand Archaeological Association website; and

(l) the presence of taonga species listed in Appendix M within water bodies on the farm (if known); and

(m) other significant values and uses (if known) on nearby land and waters.

4. Nutrient Budget/Nutrient Loss Risk Assessment

For all landholdings over 20ha, the FEMP contains either:

(a) a nutrient budget (which includes nutrient losses to the environment) calculated, using a ~~the latest version of the OVERSEER~~ model ~~in accordance with the latest version of the OVERSEER Best Practice Data Input Standards (or an alternative model nutrient loss assessment tool~~ approved by the Chief Executive of Southland Regional Council); or

(b) a nutrient loss risk assessment undertaken using a nutrient loss risk assessment tool approved by the Chief Executive of Southland Regional Council~~)~~;

and the Nutrient Budget or Nutrient Loss Risk Assessment is repeated: ~~which is repeated:~~

(~~a~~1) where a material change in land use associated with the farming activity occurs (including a change in crop area, crop rotation length, type of crops grown, stocking rate or stock type) at the end of the year in which the change occurs, and also every three years after the change occurs; and

(~~b~~2) each time the nutrient budget or nutrient loss risk assessment is repeated all the input data used to prepare it shall be reviewed by or on behalf of the landholding owner, for the purposes of ensuring the nutrient budget or nutrient loss risk assessment accurately reflects the farming system. A record of the input data review shall be kept by the landholding owner; and

(~~c~~3) the nutrient budget or ~~must be prepared by a Certified Nutrient Management Advisor and the~~ nutrient loss risk assessment must be prepared by a suitably qualified person that has been approved as such by the Chief Executive of Southland Regional Council.

5. Objectives of Farm Environmental Management Plans

A description of how each of the following objectives will, where relevant, be met:

(a) Irrigation system designs and installation: To ensure that all new irrigation systems and significant upgrades meet Industry best practice standards;

(b) Irrigation management: To ensure efficient on-farm water use that meets crop demands ~~and minimises losses~~, including through upgrading existing systems to meet Industry best practice standards, and ensuring that water and contaminant losses to waterbodies are avoided where practicable or otherwise minimised;

(c) Nutrient and soil management: To avoid where practicable, or otherwise minimise, nutrient and sediment losses from farming activities to ground and surface water, to maintain or improve water quality;

(d) Waterways and wetland management: To manage activities within waterways, critical source areas, natural wetlands, and their margins, ~~to~~by avoiding stock

damage, and avoiding where practicable, or ~~and to~~ otherwise minimising inputs of nutrients, sediment and faecal contaminants to ground and surface water~~, to maintain or improve water quality~~

(e) Collected ~~animal~~ agricultural effluent management: ~~To manage the operation of animal effluent systems to avoid adverse effects on water quality avoid contaminant losses to water bodies do not have …adverse effects on water quality; contaminant losses to water bodies do not occur;~~ To manage ~~the operation of~~ collected agricultural effluent ~~management systems~~ in accordance with best industry practice, to ensure contaminants derived from collected ~~animal~~ agricultural effluent do not cause adverse effects on water quality.

(f) Drainage maintenance: To manage drainage maintenance activities to ensure contaminant losses to water bodies and damage to aquatic habitats are avoided where practicable, or otherwise minimised ~~significant adverse effects on water quality and aquatic habitat~~.

The FEMP ~~may~~ must also identify additional objectives relevant to the farming activities and/or to address environmental risks associated with the land holding and the environment within which it is located. ~~identified in accordance with Part (6) below.~~

6. The description for (5) above shall include, for each relevant objective in 5 above:
   (a) an ~~assessment~~ identification of the adverse environmental effects, and risks associated with the farming activities on the property, including, ~~where relevant,~~ consideration of the risks associated with the relevant physiographic zone/s (and variants) ~~characteristics of the property,~~ and how the identified effects and risks will be managed ~~or~~ and mitigated ~~(i.e., 'mitigations')~~; and
   ~~and risks associated with the farming activities on the property and how the identified effects and risks will be managed; and~~
   (b) where the farm is located within a catchment of a waterbody that requires improvement ~~degraded waterbody~~ identified in Schedule X, the ~~measures~~ mitigations that ~~to demonstrate how farming activities~~ will achieve a reduction in the discharge of the contaminants where relevant to the farming activity that trigger the requiring improvement ~~degraded~~ status of the catchment; and
   (c) defined mitigations that clearly set a pathway and timeframe for achievement of the objectives; and
   (d) the records to be kept for demonstrating mitigations have been actioned ~~measuring performance~~ and are achieving the objective ~~achievement of the objective; target; and~~
   (e) identification of any specific mitigations ~~measures~~ required by a resource consent held for the property.
7. If any Intensive Winter Grazing is occurring on the landholding, the Farm Environmental Management Plan must also include an intensive winter grazing plan that ~~addresses~~ takes into account and responds to the risk pathways for the relevant physiographic zones (and variants). ~~that includes:~~
   ~~(a) downslope grazing or a 20 metre 'last-bite' strip at the base of the slope; and~~
   ~~(b) back fencing to prevent stock entering previously grazed areas; and~~
   ~~(c) transportable water troughs; and~~
   ~~(d) supplementary feed (including baleage, straw or hay) being fed in such a way as to prevent the supplementary feed being trampled into the ground, such as by placing the supplementary feed in portable feeders or behind an electrified wire; and~~
   ~~(e) limiting the mob size to no more than 120 cattle or 250 deer; and~~

~~5. Good Management Practices~~

~~The FEMP contains a good management practices section which identifies:~~

~~(a) the good management practices implemented since 3 June 2016; and~~

~~(b) the good management practices which will be undertaken over the coming 12-month period. These must include practices for:~~

~~(i) the reduction of sediment and nutrient losses from critical source areas, particularly those associated with overland flow;~~

~~(ii) cultivation (including practices such as contour ploughing, strip cultivation or direct drilling);~~

~~(iii) the use of land for intensive winter grazing (including those practices specified in Rule 20(a)(iii);~~

~~(iv) riparian areas (including those from which stock are excluded under Rule 70) and the type of riparian vegetation to be planted, how it will be maintained and how weeds will be controlled;~~

~~(v) minimising of the discharge of contaminants to surface water or groundwater, with particular reference to the contaminant pathways identified for the landholding.~~

~~Examples of general good management practices are provided on the Southland Regional Council, Dairy NZ and Beef and Lamb New Zealand websites and in the document146 titled "Industry-agreed Good Management Practices relating to water quality, Version 2, 18 September 2015".~~

Part C – Farm Environmental Management Plan Certification, Auditing, Review and Amendment

1. Farm Environmental Management Plan Certification

(a) The FEMP must be certified, prior to implementation on the farm, by a Suitably Qualified Person (SQP) that has been approved as such by the Chief Executive of Southland Regional Council.

(b) The purpose of FEMP certification is to confirm that the farming activities on the farm will be carried out in a way that will achieve the Objectives in this Appendix and will comply with any resource consent for the property.

(c) The FEMP must be re-certified, prior to implementation, following any amendments to the FEMP carried out in accordance with Part C(3)(a) of this appendix.

(d) Within one month of a FEMP being certified, a copy of the certified FEMP must be provided to the Southland Regional Council.

2. Auditing of the certified Farm Environmental Management Plan

(a) Within 12 months of the landholding's first FEMP being certified, the landholding owner must arrange for an audit of the farming activities' compliance with the certified FEMP. Thereafter, the frequency of auditing will be in accordance with ~~the~~ any conditions of consents held for the landholding, or alternatively, where there are no consent or consent conditions requiring auditing, auditing timeframes associated with the audit grade assigned. *Note: Southland Regional Council will provide, on its website, a schedule of the auditing frequency required for ~~each~~ FEMP's based on the audit grade assigned to each landholding.*

(b) The auditor must be a Suitably Qualified Person (SQP) that has been approved as such by the Chief Executive of Southland Regional Council and must not be the same person or from the same organisation that prepared the FEMP.

(c) The auditor must prepare an audit report that:

(i) sets out the auditor's findings;

(ii) stating whether compliance has been achieved and the final compliance grade; and

(iii) any other recommendations from the auditor.

(d) Within one month, of the final audit report being prepared, the audit report must be provided to the Southland Regional Council by the auditor.

3. Review and Amendment of the Farm Environmental Management Plan

The FEMP must be reviewed, by the landholding owner, or their agent, as follows:

(a) when there is a material change to the nature of the farming activities occurring on the landholding, and where that material change is not provided for within the landholding's certified FEMP; and

(b) at least once every 12 months; and

(c) to respond to the outcome of an audit.

The outcome of the review is to be documented and amendments to the FEMP must be made where Part C(3)(a) applies and in circumstances where the annual review identifies that amendments are required.

Key

Red – changes showing Council relief pre-conferencing

Green – additional changes agreed at expert planner conferencing

Rule 70

(a) ~~From 1 July 2020,~~ The disturbance of roosting and nesting areas of the black fronted tern, black billed gull, banded dotterel or black fronted dotterel located in the bed of a lake, river, ~~(including an ephemeral flow path river),~~ modified watercourse, or ~~natural wetland~~ by stock including cattle, deer, pigs or sheep is a prohibited activity.

(b) ~~From 1 July 2020,~~ The disturbance of the bed of a Regionally Significant Wetland orSensitive Water Body listed in Appendix A by stock including cattle, deer, pigs or sheep is a prohibited activity.

(c) The disturbance of the bed of a river ~~(excluding ephemeral rivers where stock access is permitted under Rule 20(aa))~~ or modified watercourse for the purposes of moving stock including cattle, deer, pigs or sheep (but excluding dairy cattle on a dairy platform or on land used for dairy support) is a permitted activity provided the stock are being supervised and are actively driven across the water body in one continuous movement.

(ca) The disturbance of the bed of a lake, river or modified watercourse by sheep, other than as regulated by Rule 70(a) and 70(b), is a permitted activity, provided the following conditions are met:

(iii) the waterbody is not already fenced to prevent ~~stock~~ sheep access;

(i) the sheep are not being break fed or intensively winter grazed;

(iv) there is no significant de-vegetation leading to exposure of soil of the bed and banks, pugging or alteration to the profile of the bed and banks, other than at fords or stock crossings; and

(v) a Farm Environmental Management Plan for the landholding is prepared, certified, ~~and~~ implemented and audited in accordance with Appendix N, and shows how access by sheep will be managed;

(d) Bed disturbance activities that do not comply with Rule 70(c) are a non-complying activity.

(e) Other than as provided for by Rules 70(c), 70(ca) and 70(d), the disturbance of the bed of a lake, river ~~(excluding ephemeral rivers where stock access is permitted under Rule 20(aa)),~~ modified watercourse, open drain, or ~~natural wetland~~ by cattle, deer or pigs is a permitted activity prior to the dates set out in Table 1 for the listed

land slopes after which time it is respectively a discretionary activity on that land.

Table 1: Timetable for stock exclusion from water bodies

	Land slope (as classified by the LRI slope dataset)		
Farm/stock type	**Plains (0-3°)**	**Undulating/rolling land (>3-15°)**	**Steeper land (>15° and over)**
Dairy cattle (on dairy platforms) and pigs	All water bodies (including open drains) that are: • over 1 metre wide from 1 July 2017 on all slopes • less than 1 metre wide from 1 July 2020 on the plains and undulating/rolling land		
Dairy support ~~(on either land owned/leased by the dairy farmer or third party land)~~	All water bodies, and open drains from 1 July 2022	All water bodies, and open drains over 1 metre wide from 1 July 2022	All water bodies, and open drains where break feeding occurs from 1 July 2022
Beef cattle and deer	All water bodies (including open drains) from 1 July 2025	All water bodies (including open drains) over 1 metre wide from 1 July 2030, unless the average stocking rate on the land directly adjacent to the water body is less than 6 stock units per hectare	
	All water bodies (including open drains) where break feeding or supplementary feeding occurs from 1 July 2022.		

Definition – Stock Unit (new)

Stock unit means the equivalent of one 55 kilogram breeding ewe, bearing a single lamb,consuming 550 kilograms DM average quality feed over a year.

CF-5

Section 32AA Assessment

1 Section 32AA Requirements

1.1 Section 32AA(1) requires a further evaluation[1] where changes are proposed to a proposed plan under consideration. This evaluation must be undertaken in accordance with section 32(1) to (4) and must be undertaken at a level of detail that corresponds to the scale and significance of the proposed changes.

1.2 The relevant considerations in section 32(1) to (4) are:

32(1)(a): the evaluation report must examine the extent to which the objectives of the proposed changes are the most appropriate way to achieve the purpose of the RMA;

32(1)(b): the evaluation report must examine whether the proposed provisions are the most appropriate way to achieve the Plan objectives. The evaluation must also assess the efficiency and effectiveness of the proposed changes in achieving the objectives;

32(2)(a): the assessment must identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from implementation of the proposed changes, including opportunities for economic growth that are anticipated and employment;

32(1)(c): the evaluation report must contain a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects that are anticipated from implementation of the proposed changes;

32(2)(b): if practicable, the assessment must quantify the benefits and costs identified;

32(2)(c): the assessment must assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the proposed changes;

32(3)(b): for an 'amending proposal' (the amendments proposed by the planning witnesses constitute an 'amending proposal') the Plan objectives must be considered to the extent that they are relevant to the proposed changes (I propose no amendments to any Plan objective – only to Rule 70 and the insertion of a definition of *stock unit*).

[1] Further to the evaluation required under section 32.

32(4): applies where the proposed changes will impose a greater or lesser restriction on an activity to which a national environmental standard applies than the proposed provisions. The evaluation must examine whether the restriction is justified in the circumstances of the region.

1.3 In addition, the evaluation should consider whether the proposed changes will assist Southland Regional Council to exercise its section 30 functions.

2 Reasonably Practicable Options

2.1 The evaluation under section 32AA requires a comparative assessment of the impacts of implementing the alternative options, to test which is superior. Accordingly, I have undertaken a comparative analysis of the amendments to Rule 70(ca) I propose and the decisions version PSWLP.

3 Evaluation

3.1 I set out in the left-hand column in the table below the considerations identified in paragraphs 1.1 to 1.3 above. The second column summarises my assessment of the decisions version. The third column summarises my assessment of the amendments I propose in CF-3. The green shading in the table below indicates which of the options I consider to be more appropriate in terms of each consideration. Where all options are shaded green, it indicates my opinion that there is very little separating them, in terms of that particular consideration.

Evaluation Consideration:	Decisions version plan	JWS Proposed Amendments
Effectiveness in achieving the Plan objectives:	Partially effective: Policy 18 gives effect to the objectives and explicitly seeks to manage sheep, but Rule 70 does not currently give effect to the policy intention of Policy 18.	More effective: Amended Rule 70 gives better effect to Policy 18 and more specifically addresses risks to water quality presented by all livestock, including sheep, including by requiring Farm Environmental Management Plans, as prescribed in proposed Appendix N, that will address the actual and potential adverse effects of sheep as described by Mr Orchiston and providing a definition of *stock unit*..
Efficiency	Partially efficient: Rule 70 regulates sheep to a degree not warranted by the risk presented by sheep (refer evidence of Dr Corner-Thomas). In particular, the potential requirement for discretionary activity consent (resulting from the absence of specification of sheep in Rule 70) is not commensurate with the actual and potential risks associated with sheep.	More efficient: The regulatory intervention of amended Rule 70 is sufficient (and not excessive) to manage the actual risk presented by sheep (refer evidence of Dr Corner-Thomas). In particular, removal of the potential requirement for discretionary activity consent (resulting from the absence of specification of sheep in Rule 70) will improve the efficiency of the Plan's rule framework as will the definition of *stock unit*.
Environmental, social and cultural benefits:	Achieves environmental benefits: Rule 70 manages the potential risks of all livestock.	Achieves environmental benefits: Amended Rule 70 (including the definition of *stock unit*) better manages the potential risks of all livestock, including by explicitly controlling sheep access to water bodies and natural wetlands.
Environmental costs, social and cultural:	Minor: The risks to water quality associated with livestock access are minimised.	Minor: The risks to water quality associated with livestock, including sheep, are minimised and better managed, noting that the specific risks presented by sheep access are explicitly managed and controlled.

Evaluation Consideration:	Decisions version plan	JWS Proposed Amendments
Economic benefits:	Neutral	Improved benefits: Amended Rule 70 provides greater clarity about the requirements for stock exclusion (including by specifying a definition of 'stock unit' for the purposes of Table 1), minimises the intervention required for sheep farming (and provides (through Appendix N) for flexibility in the scope of mitigations available to respond to actual and potential risk at individual farm scale.
Economic costs (farm scale):	Moderate in respect of sheep: Rule 70 would require increased fencing to exclude sheep (including in situations where the risk of adverse effects on water quality is low) and, as explained in Mr Orchiston's evidence, the cost differential to exclude sheep compared with other livestock is significant.	Minor: The amendments to Rule 70 ensure that the requirements (and therefore cost) for fencing to exclude sheep target situations where there is actual or potential risk to water quality (thereby better matching the cost of regulatory intervention with the actual and potential risk of adverse effects). The Rule 70 amendments also explicitly clarify the activity status and standards for sheep farming, in relation to water bodies and remove the uncertainty and cost associated with discretionary activity applications that might otherwise be required under the current wording of Rule 70.
Economic costs (regional scale):	Moderate: for the reason given above, considered cumulatively throughout the region.	Minor: for the reason given above, considered cumulatively throughout the region.

4 Evaluation

4.1 On the above basis, my conclusion is that the amendments proposed and agreed upon in the planning witnesses' JWSP#2 are a more appropriate way to achieve the Proposed Plan's objectives than the decisions version of the plan.

Objective 1

Land and water and associated ecosystems are sustainably managed as integrated natural resources, recognising the connectivity between surface water and groundwater, and between freshwater, land and the coast.

Objective 2

The mauri of water provides for te hauora o te taiao (health and mauri of the environment), te hauora o te wai (health and mauri of the waterbody) and te hauora o te tangata (health and mauri of the people).

Objective 3

Water and land are recognised as enablers of the economic, social and cultural wellbeing of the region.

Objective 4

Tangata whenua values and interests are identified and reflected in the management of freshwater and associated ecosystems.

Objective 6

Water quality in each freshwater body, coastal lagoon and estuary will be:

(a) maintained where the water quality is not degraded; and

(b) improved where the water quality is degraded by human activities.

Objective 7

Following the establishment of freshwater objectives, limits, and targets (water quality and quantity) in accordance with the Freshwater Management Unit processes:

(a) where water quality objectives and limits are met, water quality shall be maintained or improved;
(b) any further over-allocation of freshwater is avoided; and

(c) any existing over-allocation is phased out in accordance with freshwater objectives, targets, limits and timeframes.

Objective 13

Provided that:

(a) the quantity, quality and structure of soil resources are not irreversibly degraded through land use activities or discharges to land; and

(b) the health of people and communities is safeguarded from the adverse effects of discharges of contaminants to land and water; and

(c) ecosystems (including indigenous biological diversity and integrity of habitats), are safeguarded,

then land and soils may be used and developed to enable the economic, social and cultural wellbeing of the region.

Objective 14

The range and diversity of indigenous ecosystems and habitats within rivers, estuaries, wetlands and lakes, including their margins, and their life-supporting capacity are maintained or enhanced.

Objective 15

Taonga species, as set out in Appendix M, and related habitats, are recognised and provided for.

Objective 17

Preserve the natural character values of wetlands, rivers and lakes and their margins, including channel and bed form, rapids, seasonably variable flows and natural habitats, and protect them from inappropriate use and development.

Objective 18

All persons implement environmental practices that optimise efficient resource use, safeguard the life supporting capacity of the region's land and soils, and maintain or improve the quality and quantity of the region's water resources