

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

UNDER the Resource Management Act 1991

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

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

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

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

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

(Continued next page)

JOINT MEMORANDUM IN SUPPORT OF CONSENT ORDER

**TOPIC B2 ISSUES 1, 7, 8, 10, 11, 12, 15, 16, 17, 19, 20, 22, 25, 26, 27, 33, 36,
37, 38, 39 AND TOPIC B1 ISSUE 3
RELATING TO
POLICIES 13, 15A, 15B, 16A, 17, 17A, & 20, RULES 5, 9, 15, 32B, 32D, 33, &
33A, AND APPENDIX E**

3 February 2022

Judicial Officer: Judge Borthwick

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

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

DAIRYNZ LIMITED
(ENV-2018-CHC-32)

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

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

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

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

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

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

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

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

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

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

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

ROBERT GRANT
(ENV-2018-CHC-45)

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

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

PETER CHARTRES
(ENV-2018-CHC-48)

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

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

Appellants

AND

SOUTHLAND REGIONAL COUNCIL

Respondent

MAY IT PLEASE THE COURT

- 1 This joint memorandum relates to appeals against Southland Regional Council's decision on the proposed Southland Water and Land Plan (**pSWLP**), in respect of provisions relating to Topic B2 Water Quality / Discharges. This memorandum also addresses Issue 3 of Topic B1 Water Takes.
- 2 The parties participated in Court-assisted mediation on these appeals on 30 and 31 March 2021 and 1 April 2021, and subsequently engaged in informal discussions on some of the issues.
- 3 During Court-assisted mediation and the discussions that followed, the parties have reached agreement on the resolution of the following provisions under appeal:
 - (a) Issue 1 – Policy 13(1);
 - (b) Issues 7, 8, and 10 – Policies 15A and 15B;
 - (c) Issues 10 and 11 – Policy 16A;
 - (d) Issues 10 and 12 – Policy 17A;
 - (e) Issues 15, 16 and 17 – Rules 5 and 15;
 - (f) Issues 19 and 20 – Rules 33 and 33A;
 - (g) Issue 22 – Appendix E;
 - (h) Issue 27 – Rule 9;
 - (i) Issues 25, 26, 33, 36 – 39 – Agricultural effluent; and
 - (j) Issue 3 of Topic B1 - Policy 20(1A).
- 4 This joint memorandum is filed in support of a draft consent order to resolve the appeals relating to provisions referred to at paragraph 3 above.
- 5 This joint memorandum has been signed by each of the Appellants, the Respondent, and each of the section 274 parties.

The changes agreed, the rationale for the same, and draft Consent Orders

- 6 The changes to the provisions referred to in paragraph 3, as agreed between the parties, are detailed in the draft Consent Order included at **Appendix 1** to this joint memorandum.

- 7 The changes, including the rationale for the same, are also explained in more detail in the affidavit of Matthew McCallum-Clark dated 2 February 2022, attached as **Appendix 2** to this joint memorandum. This affidavit provides an evaluation of the agreed changes in terms of section 32AA of the Act and (where relevant) the higher order policy documents, including in particular the National Policy Statement for Freshwater Management 2020 (**NPSFM**).
- 8 Counsel also record at the outset, that the parties, throughout mediation and informal discussions, were cognisant of the findings in the Court's Interim Decisions¹ and are satisfied that all changes agreed to are consistent with those findings and/or, within the bounds of scope, bring the pSWLP closer to the direction in those decisions.

Details of appeals

- 9 The sub-sections below detail the provisions that were appealed, who appealed each provision, what those appellants sought, and who joined those appeals as section 274 parties.
- 10 As the rationale for the changes agreed and an analysis in line with section 32AA has been provided in the affidavit of Matthew McCallum-Clark, such detail is not reproduced here. Rather, cross-referencing to that reasoning is provided to assist with readability of the suite of documents filed in support of orders being made by consent.

Issue 1 and Issue 3 of Topic B1 – Policies 13(1) and 20(1A)

- 11 Policy 13(1) relates to the management of land use activities and discharges. It provides policy direction to 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.
- 12 Policy 20(1A) relates to the management of water resources. It provides policy direction to recognise that the use and development of Southland's land and water resources, including for primary production, can have positive effects including enabling people and communities to provide for their social, economic and cultural wellbeing.

¹ [2019] NZEnvC 208, [2020] NZEnvC 93, [2020] NZEnvC 110, and [2020] NZEnvC 191.

- 13 Policy 13(1) and Policy 20(1A) of the pSWLP have been appealed by the Southland Fish and Game Council (**Fish and Game**); Royal Forest and Bird Protection Society of New Zealand Incorporated (**Forest and Bird**); and Te Rūnanga o Ngai Tahu, Hokonui Rūnaka, Waihopai Rūnaka, Te Rūnanga o Awarua and Te Rūnanga o Ōraka Aparima (**Ngā Rūnanga**).
- 14 Fish and Game, Forest and Bird, and Ngā Rūnanga sought to delete the phrase “including for primary production” from Policy 13(1) and Policy 20(1A).
- 15 Forest and Bird also sought to add “sustainable” in relation to the use and development of resources in Policy 13(1).
- 16 The following parties joined the appeals as section 274 parties in relation to Policy 13(1):
- (a) Aratiatia Livestock Limited;
 - (b) Ballance Agri-Nutrients Limited;
 - (c) DairyNZ Limited;²
 - (d) Director-General of Conservation;
 - (e) Gore District Council, Southland District Council and Invercargill City Council (**Territorial Authorities**);
 - (f) Federated Farmers of New Zealand;
 - (g) Fonterra Co-operative Group Limited;
 - (h) Meridian Energy Limited;
 - (i) Forest and Bird;
 - (j) Fish and Game; and
 - (k) Transpower New Zealand Limited.
- 17 The following parties joined the appeals as section 274 parties in relation to Policy 20(1A):

² Noting that DairyNZ Limited has subsequently withdrawn its interest in this issue.

- (a) Alliance Group Limited³;
 - (b) Aratiatia Livestock Limited;
 - (c) DairyNZ Limited;⁴
 - (d) Director-General of Conservation;
 - (e) Federated Farmers of New Zealand;
 - (f) Fonterra Co-operative Group Limited;⁵
 - (g) Forest and Bird; and
 - (h) Fish & Game.
- 18 Through mediation and subsequent discussions, the parties agreed to amend Policy 13(1) and Policy 20(1A) as set out in the draft consent order and paragraph [17] and [18] of the affidavit of Matthew McCallum-Clark in relation to Topic B2.
- 19 The rationale for the changes agreed are also included in that affidavit at paragraphs [19] – [24].

Issues 7, 8, and 10 – Policies 15A and 15B

- 20 Policy 15A provides policy direction requiring water quality be maintained, where existing water quality meets the Appendix E standards or bed sediments meet the Appendix C standards, by avoiding, remedying or mitigating adverse effects from new discharges and requiring applications for replacement discharge permits to demonstrate how the adverse effects of the discharge are avoided, remedied or mitigated.
- 21 Policy 15B provides policy direction requiring water quality be improved, where existing water quality does not meet the Appendix E standards or bed sediments do not meet the Appendix C standards, by avoiding, remedying or mitigating any adverse effects from new discharges that would exacerbate the exceedance of the quality standards in Appendices E and C, and requiring applications for replacement discharge permits to demonstrate how the adverse effects of the

³ Alliance Group Limited did not attend mediation and withdrew its interest in these appeals on 1 April 2021.

⁴ Noting that DairyNZ Limited has subsequently withdrawn its interest in this issue.

⁵ Noting that Fonterra Co-operative Group Limited has withdrawn its interest in this issue.

discharge are avoided, remedied or mitigated so that there will be an improvement in water quality.

- 22 Policies 15A and 15B of the pSWLP have been appealed by Fish and Game and Forest and Bird.
- 23 Fish and Game sought to amend Policy 15A to require avoidance where practicable or otherwise remedy or mitigate any adverse effects of any (as opposed to new) discharges to ensure guidelines continue to be met. It also sought the deletion of Policy 15A(2). In relation to Policy 15B, Fish and Game sought to amend the Policy so it applied to any (as opposed to new) discharges, and in relation to 15B(2) for applications for replacement permits to demonstrate how and when *any* adverse effects will be avoided, remedied or mitigated.
- 24 Forest and Bird sought to amend Policy 15A to ensure that it is consistent with maintenance of water quality, Policy 15B(1) to require new discharges to contribute to an enhancement in water quality, and Policy 15B(2) to provide guidance to consent authorities to distinguish between minor and major improvements and timeframes. It also sought to delete references to “remedy or mitigate” from both Policies.
- 25 The following parties joined these appeals as section 274 parties in relation to Policies 15A and 15B:
- (a) Alliance Group Limited;⁶
 - (b) Ballance Agri-Nutrients Limited;
 - (c) DairyNZ Limited;
 - (d) Director-General of Conservation;
 - (e) D & J Pullar Limited;⁷
 - (f) Federated Farmers of New Zealand Incorporated;
 - (g) Fonterra Co-operative Group Limited;
 - (h) Ravensdown Limited;
 - (i) Forest and Bird;

⁶ Noting that Alliance Group Limited has withdrawn its interest in this issue.

⁷ Noting that D & J Pullar Limited advised prior to mediation that it no longer had an interest in the issue.

- (j) Fish and Game;
- (k) Transpower New Zealand Limited; and
- (l) the Territorial Authorities.

- 26 Through mediation and subsequent discussions, the parties agreed to amend Policy 15A and 15B as set out in the draft consent order and paragraph [27] of the affidavit of Matthew McCallum-Clark in relation to Topic B2.
- 27 The rationale for the changes agreed are also included in that affidavit at paragraphs [28] – [34].

Issues 10 and 11 – Policy 16A

- 28 Policy 16A provides policy direction requiring the minimisation of adverse environmental effects through the adoption of the best practicable option to manage the treatment and discharge of contaminants derived from industrial and trade processes.
- 29 Policy 16A was appealed by Forest and Bird and Fish and Game.
- 30 Forest and Bird sought to amend the Policy to require avoidance of adverse effects on water quality.
- 31 Fish and Game sought to place greater emphasis on the duty to avoid adverse effects in the first instance, before considering whether they can be remedied or mitigated, and for that duty to apply to *any* adverse environmental effects.
- 32 The following parties joined these appeals as section 274 parties in relation to Policy 16A:
- (a) Alliance Group Limited;
 - (b) Aratiatia Livestock Limited;
 - (c) Ballance Agri-Nutrients Limited;
 - (d) Chartres, P;⁸
 - (e) D & J Pullar Limited;⁹

⁸ Noting that Mr Chartres subsequently withdrew his interest in this matter.

⁹ Noting the D & J Pullar Limited advised prior to mediation that it withdrew its interest in this matter.

- (f) Dairy Holdings Limited;
- (g) DairyNZ Limited;
- (h) Director-General of Conservation;
- (i) Federated Farmers of New Zealand Incorporated;
- (j) Fonterra Co-operative Group Limited;
- (k) Meridian Energy Limited;
- (l) Mt Linton Station Limited;¹⁰
- (m) Oil Companies;¹¹
- (n) Forest and Bird;
- (o) Southland Fish and Game Council; and
- (p) the Territorial Authorities.

33 Through mediation and subsequent discussions, the parties agreed to amend Policy 16A as set out in the draft consent order and paragraph [37] of the affidavit of Matthew McCallum-Clark in relation to Topic B2.

34 The rationale for the changes agreed are also included in that affidavit at paragraphs [38] – [43].

Issues 10 and 12 – Policy 17A

35 Policy 17A provides policy direction requiring the minimisation of adverse effects on water quality and the avoidance, remediation, or mitigation of other adverse effects arising from the operation of, or discharges from, community sewerage schemes.

36 Policy 17A of the pSWLP has been appealed by Ngā Rūnanga, Fish and Game, and Forest and Bird.

37 Ngā Rūnanga sought the deletion of the term “progressively” from sub-clause (b) of the Policy.

38 Fish and Game sought to replace “minimise adverse effects” with “avoid where practicable, or otherwise remedy or mitigate, any adverse

¹⁰ Noting that Mt Linton Station Limited has withdrawn its interest in this issue.

¹¹ Noting that the Oil Companies have subsequently withdrawn their interests in this issue.

effects”, and to require that dry weather overflows of community sewerage schemes are avoided as opposed to minimised.

39 Forest and Bird sought to amend the Policy to require that adverse effects on water quality are avoided.

40 The following parties joined these appeals as section 274 parties in relation to Policy 17A:

- (a) DairyNZ Limited;
- (b) D & J Pullar Limited;¹²
- (c) Federated Farmers of New Zealand;
- (d) Director-General of Conservation;
- (e) Fonterra Co-operative Group Limited; and
- (f) the Territorial Authorities;
- (g) Forest and Bird;
- (h) Aratiatia Livestock Limited; and
- (i) Fish and Game.

41 Through mediation and subsequent discussions, the parties agreed to amend Policy 17A as set out in the draft consent order and paragraph [46] of the affidavit of Matthew McCallum-Clark in relation to Topic B2.

42 The rationale for the changes agreed are also included in that affidavit at paragraphs [47] – [54].

Issues 15, 16 and 17 – Rules 5, 6 and 15

43 Rule 5 provides, except as otherwise provided for in the pSWLP, for discharges of any contaminant or water into a lake, river, artificial watercourse, modified watercourse or natural wetland, or onto or into land in circumstances where it may enter any of those waterbodies, as a discretionary activity subject to conditions being met.

44 Where a discharge does not meet the conditions in Rule 5, Rule 6 provides for those discharges as a non-complying activity.

¹² Noting that D & J Pullar Limited advised prior to mediation that it no longer had an interest in the matter.

- 45 Rule 15 provides for 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 as either a permitted, discretionary, or non-complying activity.
- 46 Rules 5, 6, and 15 of the pSWLP were appealed by the Territorial Authorities; Fish and Game; Alliance Group Limited; Ngā Rūnanga; and Forest and Bird.
- 47 The Territorial Authorities sought to amend references to “stormwater” to “stormwater, water and contaminants” throughout Rule 15 or to include a definition of stormwater which includes specific reference to water and contaminants.
- 48 Fish and Game sought to delete “except for discharges from a territorial authority reticulated stormwater or wastewater system” from condition (3) of Rule 5(a), and the addition of a condition (4) requiring “the discharge is not into any Regionally Significant Wetland or Sensitive Waterbodies listed in Appendix A”. In relation to Rule 15, Fish and Game sought to add two new conditions to Rule 15(a) requiring that discharges do not reduce the water quality below the Appendix E standards where the water quality upstream of the discharge meets the standards set for the relevant waterbody in Appendix E, and where the water quality downstream of the discharge does not meet the Appendix E standards, requiring that the discharge does not further reduce the water quality below those standards. Fish and Game sought those same two conditions be added to Rule 15(ab), along with an additional condition requiring the discharge to not contain any sewage, contaminants from on-site wastewater systems and mobile toilets, or agricultural effluent.
- 49 Alliance Group Limited appealed Rules 5 and 6, however it later withdrew its appeal.
- 50 Ngā Rūnanga sought to delete “except for discharges from a territorial authority reticulated stormwater or wastewater system” from condition (3) of Rule 5(a). In relation to Rule 15, Ngā Rūnanga sought that “the discharge is not into an established mātaimai or taiapure reserve” be added as an additional clause.
- 51 Forest and Bird sought to amend Rule 15(a) and (ab) to add a condition requiring that the discharge does not reduce the water quality standard

below any standards set for the relevant waterbody in Appendix E at the downstream edge of the reasonable mixing zone.

52 The following parties joined these appeals as section 274 parties in relation to Rules 5, 6, and 15:

- (a) Alliance Group Limited;¹³
- (b) Dairy Holdings Limited;
- (c) DairyNZ Limited;
- (d) Fonterra Co-operative Group Limited;
- (e) the Territorial Authorities;
- (f) Meridian Energy Limited;
- (g) Federated Farmers of New Zealand Incorporated;
- (h) Oil Companies;¹⁴
- (i) Director-General of Conservation;
- (j) Ngā Rūnanga
- (k) Fish and Game; and
- (l) Forest and Bird.

53 Through mediation and subsequent discussions, the parties agreed to amend Rules 5 and 15 as set out in the draft consent order and paragraph [57] of the affidavit of Matthew McCallum-Clark in relation to Topic B2. No changes were agreed to Rule 6 and the appeal by Alliance Group Limited in relation to Rule 6 has been withdrawn.

54 The rationale for the changes agreed are also included in that affidavit at paragraphs [59]– [68].

Issues 19 and 20 – Rules 33 and 33A

55 Rule 33 provides for the discharge of effluent or bio-solids from a community sewerage scheme into or onto land in circumstances where contaminants may enter water as a discretionary activity, provided

¹³ Noting that Alliance Group Limited has subsequently withdrawn all of its interests in the appeals.

¹⁴ Noting that the Oil Companies subsequently withdrew all of their interests in Topic B2.

conditions are met, or non-complying activity if those conditions are not met.

- 56 Rule 33A provides for the discharge of effluent or bio-solids from a community sewerage scheme into water in a river, lake, artificial watercourse, modified watercourse or natural wetland as a non-complying activity.
- 57 Rules 33 and 33A were appealed by the Territorial Authorities.
- 58 The Territorial Authorities sought to amend Rule 33 to differentiate between existing and new community sewage schemes as follows:
- (a) Insert new sub-clause (aa) to Rule 33 as follows: “(aa) The discharge of effluent or bio-solids onto or into land, from a community sewerage scheme that was constructed before 4 April 2018 in circumstances where contaminants may enter water is a discretionary activity.”
 - (b) Amend sub-clauses (a) and (b) so that they apply only to community sewerage schemes constructed after 4 April 2018.
- 59 In relation to Rule 33A, the Territorial Authorities sought to insert a new sub-clause (aa) as follows: “(aa) The discharge of treated effluent from a community sewage scheme into water in a river, lake, artificial watercourse, modified watercourse or natural wetland is a discretionary activity.” They also sought to amend sub-clause (a) to specify that it relates to untreated effluent or bio-solids.
- 60 The following parties joined this appeal as section 274 parties in relation to Rule 33:
- (a) Director-General of Conservation;
 - (b) Southland Fish and Game Council; and
 - (c) Forest and Bird.
- 61 The following parties joined this appeal as section 274 parties in relation to Rule 33A:
- (a) Director-General of Conservation;
 - (b) Southland Fish and Game Council;
 - (c) Forest and Bird; and

(d) Federated Farmers of New Zealand.

62 Through mediation and subsequent discussions, the parties agreed to amend Rules 33 and 33A as set out in the draft consent order and paragraph [72] of the affidavit of Matthew McCallum-Clark in relation to Topic B2.

63 The rationale for the changes agreed are also included in that affidavit at paragraphs [73] – [81].

Issue 22 – Appendix E

64 Appendix E sets out the receiving water quality standards which apply to the effects of discharges following reasonable mixing with the receiving waters (unless otherwise stated). The standards do not apply to water within artificial storage ponds and temporarily ponded rainfall).

65 Appendix E of the pSWLP has been appealed by Southland Fish and Game Council.

66 Fish and Game sought a large number of changes to Appendix E, including adding and amending numerical parameters to provide for life supporting capacity; ecosystem health and processes; recreational, amenity, and aesthetic values; mahinga kai; Māori values; and natural character values.

67 The following parties joined this appeal as section 274 parties:

- (a) Alliance Group Limited;
- (b) the Territorial Authorities;
- (c) Director-General of Conservation;
- (d) Forest and Bird; and
- (e) Ngā Rūnanga.

68 Through mediation and subsequent discussions, the parties agreed to amend Appendix E as set out in the draft consent order and Attachment A of the affidavit of Matthew McCallum-Clark in relation to Topic B2.

69 The rationale for the changes agreed are also included in that affidavit at paragraphs [85] – [91].

Issue 27 – Rule 9

- 70 Rule 9 provides for the discharge of agrichemicals and any associated wetting, antifoaming and anti-drifting agent and marker dyes into or onto surface water as a permitted activity, subject to conditions.
- 71 Rule 9 was appealed by the Director-General of Conservation.
- 72 The Director-General of Conservation sought to amend Rule 9(a)(i) to delete “and does not exceed the quantity, concentration or rate necessary, as recommended by the manufacturer”.
- 73 No other parties joined this appeal.
- 74 Through mediation and subsequent discussions, the parties agreed to amend Rule 9 as set out in the draft consent order and paragraph [94] of the affidavit of Matthew McCallum-Clark in relation to Topic B2.
- 75 The rationale for the changes agreed are also included in that affidavit at paragraphs [95] – [101].

Issues 25, 26, 33, 36 – 39 – Agricultural effluent

- 76 Policy 17, and Rules 32B and 32D relate to agricultural effluent.
- 77 Policy 17 provides policy direction requiring the avoidance of significant adverse effects on water quality, and the avoidance, remediation, or mitigation of other adverse effects on the operation of, and discharges from, agricultural effluent management systems. It also provides direction on the management of agricultural effluent systems and the discharges from them.
- 78 Rule 32B provides for the use of land for the construction, maintenance and use of a new agricultural effluent storage facility, and any incidental discharge of agricultural effluent directly onto or into land from that facility as a permitted activity provided conditions are met. Where those conditions are not met, it variously provides for the activity as a controlled, discretionary, or non-complying activity, depending on the non-compliance with the conditions.
- 79 Rule 32D provides for the use of land for the maintenance and use of an existing agricultural effluent storage facility that was authorised prior to Rule 32D taking legal effect, and any incidental discharge directly onto or into land from that storage facility as a permitted activity provided

conditions are met. Where those conditions are not met, it provides for the activity as a discretionary activity.

- 80 Policy 17, and Rules 32B and 32D were appealed by Fonterra Co-Operative Group Limited; Fish and Game; Forest and Bird; and Ngā Rūnanga.
- 81 In relation to Policy 17:
- (a) Fonterra Co-Operative Group sought to amend sub-clause (2)(b) to include “applicable” in relation to best practice guidelines and to amend the first advice note to note that the practice notes referred to will not be applicable to all above ground tanks.
 - (b) Fish and Game sought to delete “significant” from sub-clause (1) and to require avoidance “where practicable, or otherwise remedy or mitigate, any” adverse effects on water quality. In relation to sub-clause (2)(c), Fish and Game sought to replace “application” with “discharge”.
 - (c) Forest and Bird sought to delete “significant” from sub-clause (1).
 - (d) Ngā Rūnanga sought to delete sub-clause (1) in its entirety.
- 82 In relation to Rule 32B, Fonterra Co-Operative Group sought to delete the requirement (in (a) and (b)) for incidental discharges to be within the normal operating parameters of a leak detection system or the pond drop test criteria set out in Appendix P. It also sought to amend sub-clause (a)(i) to limit the capacity of any individual agricultural effluent storage structure to 35m² rather than requiring all effluent storage structures on a landholding to not exceed 35m². It also sought to amend sub-clause (b)(i) to add “to the extent that those Practice Notes are applicable to the effluent storage facility”.
- 83 In relation to Rule 32D, Fonterra Co-Operative Group sought to have the Rule apply to the repair of existing agricultural effluent storage facilities (in addition to the maintenance and use). As with Rule 32B, it sought to delete the requirement (in (a) and (b)) for incidental discharges to be within the normal operating parameters of a leak detection system or the pond drop test criteria set out in Appendix P. It also sought to limit the requirements of sub-clause (a)(ii) to those facilities with a storage capacity of more than 35m², and to add appropriate requirements in relation to above ground storage tanks.

- 84 For the appeal lodged by Fonterra Co-Operative Group, the following parties joined as section 274 parties:
- (a) Dairy Holdings Limited;
 - (b) Federated Farmers of New Zealand; and
 - (c) Forest and Bird.
- 85 For the appeals lodged by Southland Fish and Game Council and Royal Forest and Bird Protection Society of New Zealand the following parties joined as section 274 parties:
- (a) Alliance Group Limited;
 - (b) Aratiatia Livestock Limited;
 - (c) DairyNZ Limited;
 - (d) Director-General of Conservation;
 - (e) Federated Farmers of New Zealand;
 - (f) Fonterra Co-operative Group Limited
 - (g) Forest and Bird; and
 - (h) Southland Fish and Game Council.
- 86 For the appeal lodged by Te Rūnanga o Ngai Tahu, Hokonui Rūnaka, Waihopai Rūnaka, Te Rūnanga o Awarua & Te Rūnanga o Ōraka Aparima the following parties joined as section 274 parties:
- (a) Alliance Group Limited;
 - (b) DairyNZ Limited;
 - (c) Director-General of Conservation;
 - (d) Federated Farmers of New Zealand;
 - (e) Fonterra Co-operative Group Limited; and
 - (f) Forest and Bird.
- 87 Through mediation and subsequent discussions, the parties agreed to amend Policy 17, Rule 32B and Rule 32D as set out in the draft consent order and paragraphs [106] – [109] of the affidavit of Matthew McCallum-Clark in relation to Topic B2.

88 The rationale for the changes agreed are also included in that affidavit at paragraphs [110] – [118].

Orders sought

- 89 All parties are satisfied that all matters proposed for the Court's endorsement are within the scope of submissions and appeals, fall within the Court's jurisdiction, and conform to the relevant requirements and objectives of the Act including, in particular, Part 2.
- 90 For the avoidance of doubt, the parties are satisfied that the amendments give effect to the National Policy Statement for Freshwater Management 2020, insofar as there is scope to do so.
- 91 The parties are also satisfied that the changes appropriately respond to the direction from the Court in its Interim Decisions.¹⁵
- 92 The parties therefore respectfully request that the Court make the orders sought in **Appendix 1** to this memorandum.
- 93 No party has any issue as to costs.
- 94 For completeness, it is noted that the order, if granted, resolves all appeals in relation to:
- (a) Policy 16A (Issues 10 and 11);
 - (b) Policy 17A (Issues 10 and 12);
 - (c) Rules 5 and 15 (Issues 15, 16 and 17);
 - (d) Rules 33 and 33A (Issues 19 and 20);
 - (e) Rule 9 (Issue 27);
 - (f) Policy 17, and Rules 32B and 32D (Issues 25, 26, 33, 36, 37, 38, & 39); and
- and partially resolves the appeals in relation to:
- (g) Policy 13 (Issue 1). Policy 13 remains under appeal in relation to Issue 3 of Topic B2.
 - (h) Policies 15A and 15B (Issues 7, 8, and 10). Policies 15A, 15B, and 15C remain under appeal in relation to Issue 6 of Topic B2.

¹⁵ [2019] NZEnvC 208, [2020] NZEnvC 93, [2020] NZEnvC 110, and [2020] NZEnvC 191.

- (i) Appendix E (Issue 22). Appendix E remains under appeal in relation to Issue 21 of Topic B2, which relates to whether the exclusion for Waiau/Manapōuri should be deleted.¹⁶
- (j) Policy 20 (Issue 3 of Topic B1). Policy 20 is also under appeal in relation to Issues 1 and 4 of Topic B1. Those appeals are also proposed to be resolved by consent. See paragraphs [11] to [18] of the Joint Memorandum in relation to Topic B1 and paragraphs [18] to [26] of the affidavit of Lauren Maciaszek in relation to the same.

DATED this 3rd day of February 2022



.....
P A C Maw / A M Langford

Counsel for Southland Regional Council

.....
D Allan

Counsel for Aratiatia Livestock Limited

¹⁶ Note that the planning witnesses agreed in the Joint Witness Statement dated 10 December 2021 that Issue 21 would be better dealt with as part of Tranche 3.

- (i) Appendix E (Issue 22). Appendix E remains under appeal in relation to Issue 21 of Topic B2, which relates to whether the exclusion for Waiiau/Manapōuri should be deleted.¹⁶
- (j) Policy 20 (Issue 3 of Topic B1). Policy 20 is also under appeal in relation to Issues 1 and 4 of Topic B1. Those appeals are also proposed to be resolved by consent. See paragraphs [11] to [18] of the Joint Memorandum in relation to Topic B1 and paragraphs [18] to [26] of the affidavit of Lauren Maciaszek in relation to the same.

DATED this 3rd day of February 2022

.....

P A C Maw / A M Langford

Counsel for Southland Regional Council



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D Allan

Counsel for Aratiatia Livestock Limited

¹⁶ Note that the planning witnesses agreed in the Joint Witness Statement dated 10 December 2021 that Issue 21 would be better dealt with as part of Tranche 3.



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V Hamm

Counsel for Ballance Agri-Nutrients Limited

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B Williams

Counsel for Dairy Holdings Limited



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B Matheson / K Forward

Counsel for DairyNZ Limited

.....

P Williams

Counsel for Director-General of Conservation

.....

R Gardner

Counsel for Federated Farmers of New Zealand Incorporated

.....

V Hamm

Counsel for Ballance Agri-Nutrients Limited



.....

B Williams

Counsel for Dairy Holdings Limited

.....

B Matheson / K Forward

Counsel for DairyNZ Limited

.....

P Williams

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P Williams

Counsel for Director-General of Conservation



.....

R Gardner

~~Counsel~~ for Federated Farmers of New Zealand Incorporated



.....
B Matheson / K Forward

Counsel for Fonterra Co-operative Group Limited

.....
M Garbett

Counsel for Gore District Council, Southland District Council and Invercargill
City Council

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S Christensen

Counsel for Meridian Energy Limited

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M Christensen

Counsel for Ravensdown Limited

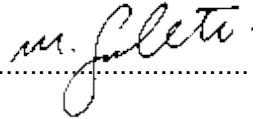
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S Gepp

Counsel for Forest and Bird

.....

B Matheson / K Forward

Counsel for Fonterra Co-operative Group Limited

.....


M Garbett

Counsel for Gore District Council, Southland District Council and Invercargill
City Council

.....

S Christensen

Counsel for Meridian Energy Limited

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M Christensen

Counsel for Ravensdown Limited

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S Gepp

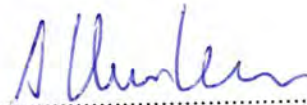
Counsel for Forest and Bird

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B Matheson / K Forward

Counsel for Fonterra Co-operative Group Limited

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City Council


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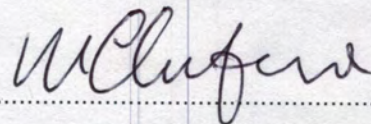
Counsel for Fonterra Co-operative Group Limited

.....
M Garbett

Counsel for Gore District Council, Southland District Council and Invercargill
City Council

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S Christensen

Counsel for Meridian Energy Limited


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Counsel for Meridian Energy Limited

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M Christensen

Counsel for Ravensdown Limited



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S Gepp

Counsel for Forest and Bird

Sally Gill

.....
S Gepp

Counsel for Fish and Game

.....
J Winchester / S Lennon

Counsel for Ngā Rūnanga

.....
N Garvan / T Crawford

Counsel for Transpower New Zealand Limited

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S Gepp

Counsel for Fish and Game

Adlene Lennon

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J Winchester / S Lennon

Counsel for Ngā Rūnanga

.....
N Garvan / T Crawford

Counsel for Transpower New Zealand Limited

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S Gepp

Counsel for Fish and Game

.....
J Winchester / S Lennon

Counsel for Ngā Rūnanga

A handwritten signature in black ink, appearing to be 'N Garvan', written over a dotted line.

.....
N Garvan / T Crawford

Counsel for Transpower New Zealand Limited

Appendix 1 – Draft consent order

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

UNDER the Resource Management Act 1991

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

BETWEEN

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

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

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

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

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

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

DAIRYNZ LIMITED
(ENV-2018-CHC-32)

(Continued next page)

CONSENT ORDER

**TOPIC B2 ISSUES 1, 7, 8, 10, 11, 12, 15, 16, 17, 19, 20, 22, 25, 26, 27, 33, 36,
37, 38, 39 AND TOPIC B1 ISSUE 3
RELATING TO
POLICIES 13, 15A, 15B, 16A, 17, 17A, & 20, RULES 5, 9, 15, 32B, 32D, 33, &
33A, AND APPENDIX E**

Judicial Officer: Judge Borthwick

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

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

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

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

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

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

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

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

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

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

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

ROBERT GRANT
(ENV-2018-CHC-45)

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

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

PETER CHARTRES
(ENV-2018-CHC-48)

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

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

Appellants

AND

SOUTHLAND REGIONAL COUNCIL

Respondent

- [A] Under section 279(1) of the Resource Management Act 1991, the Environment Court, by consent, orders that the appeal is allowed in accordance with Annexure A to this Order.
- [B] Under section 285 of the Resource Management Act 1991, there is no order as to costs.

REASONS

Introduction

- 1 The following parties have appealed provisions of the proposed Southland Water and Land Plan as they relate to Topic B2:¹
- (a) Alliance Group Limited;²
 - (b) Director-General of Conservation;
 - (c) Fonterra Co-operative Group Limited (**Fonterra**);
 - (d) Gore District Council, Southland District Council and Invercargill City Council (**Territorial Authorities**);
 - (e) Southland Fish and Game Council (**Fish and Game**);
 - (f) Royal Forest and Bird Protection Society of New Zealand Incorporated (**Forest and Bird**); and
 - (g) Te Rūnanga o Ngāi Tahu, Hokonui Rūnaka, Waihōpai Rūnaka, Te Rūnanga o Awarua, and Te Rūnanga o Oraka Aparima (**Ngā Rūnanga**).
- 2 The Court has read and considered the joint memorandum of the parties dated 3 February 2022, which proposes to resolve the appeals that relate to:
- (a) Policy 16A (Issues 10 and 11);
 - (b) Policy 17A (Issues 10 and 12);
 - (c) Rules 5 and 15 (Issues 15, 16 and 17);
 - (d) Rules 33 and 33A (Issues 19 and 20);
 - (e) Rule 9 (Issue 27);
 - (f) Policy 17, and Rules 32B and 32D (Issues 25, 26, 33, 36, 37, 38, & 39); and
- and partially resolves the appeals in relation to:

¹ The particular provisions each party has appealed is set out in the joint memorandum of the parties dated 3 February 2022.

² Alliance Group Limited did not attend mediation and withdrew all of its interest in these appeals.

- (g) Policy 13 (Issue 1). Policy 13 remains under appeal in relation to Issue 3 of Topic B2.
- (h) Policies 15A and 15B (Issues 7, 8, and 10). Policies 15A, 15B, and 15C remain under appeal in relation to Issue 6 of Topic B2.
- (i) Appendix E (Issue 22). Appendix E remains under appeal in relation to Issue 21 of Topic B2, which relates to whether the exclusion for Waiau/Manapōuri should be deleted.³
- (j) Policy 20 (Issue 3 of Topic B1). Policy 20 is also under appeal in relation to Issues 1 and 4 of Topic B1. Those appeals are also proposed to be resolved by consent. See paragraphs [11] to [18] of the Joint Memorandum in relation to Topic B1 and paragraphs [18] to [26] of the affidavit of Lauren Maciaszek in relation to the same.

3 The Court has also read and considered the affidavit of Matthew McCallum-Clark dated 2 February 2022, which provides an analysis of the changes proposed by the parties in terms of section 32AA of the Resource Management Act 1991 (**Act**).

4 The following parties gave notice of their intention to become parties under section 274 of the Act and have signed the joint memorandum of the parties dated 3 February 2022:⁴

- (a) Alliance Group Limited⁵;
- (b) Aratiatia Livestock Limited;
- (c) Ballance Agri-Nutrients Limited;
- (d) Chartres, P;⁶
- (e) Dairy Holdings Limited;
- (f) DairyNZ Limited;
- (g) Director-General of Conservation;

³ Note that the planning witnesses agreed in the Joint Witness Statement dated 10 December 2021 that Issue 21 would be better dealt with as part of Tranche 3.

⁴ The particular appeal each party has joined as a s274 party is set out in the joint memorandum of the parties dated 3 February 2022.

⁵ Noting that Alliance Group Limited withdrew all of its interest in these appeals.

⁶ Noting that Mr Chartres has withdrawn his interest in these appeals.

- (h) D & J Pullar Limited;⁷
- (i) Federated Farmers of New Zealand;
- (j) Fish and Game;
- (k) Fonterra;
- (l) Forest and Bird;
- (m) Meridian Energy Limited;
- (n) Mt Linton Station Limited;⁸
- (o) Ngā Rūnanga;
- (p) Oil Companies;⁹
- (q) Ravensdown Limited;
- (r) The Territorial Authorities; and
- (s) Transpower New Zealand Limited.

5 The Court is making this order under section 279(1)(b) of the Act; such order being by consent pursuant to section 297, rather than representing a decision or determination on the merits. The Court understands that for the present purposes that:

- (a) all parties to the proceedings have executed the memorandum requesting this order;
- (b) all parties are satisfied that all matters proposed for the Court's endorsement are within the scope of submissions and appeals, fall within the Court's jurisdiction, and conform to relevant requirements and objectives of the Act, including in particular Part 2.

Order

⁷ Noting that D & J Pullar Limited advised prior to mediation that it no longer had an interest in the appeals.

⁸ Noting that Mt Linton Station Limited has withdrawn its interest in these appeals.

⁹ Noting that the Oil Companies have subsequently withdrawn their interests in these appeals.

6 Therefore, the Court orders, by consent, that the proposed Southland Water and Land Plan be amended as set out in **Annexure A** to this Order.

7 The Order resolves the appeals as they relate to the following provisions:

- (a) Policy 16A;
- (b) Policy 17A;
- (c) Rules 5 and 15;
- (d) Rules 33 and 33A;
- (e) Rule 9;
- (f) Policy 17, and Rules 32B and 32D; and

and partially resolves the appeals in relation to:

- (g) Policy 13.
- (h) Policies 15A and 15B.
- (i) Appendix E.
- (j) Policy 20.

8 There is no order as to costs.

DATED this day of 2022

J E Borthwick
Environment Judge

ANNEXURE A

Topic B2 – Agreed changes to provision(s)

Amended text for Policy 13, Policy 20, Policy 15A, Policy 15B, Policy 16A, Policy 17A, Rule 5, Rule 15, Rule 33, Rule 33A, Appendix E, Rule 9, Policy 17, Rule 32B, Rule 32D and Rule 32E (deleted text in strikethrough, new text underlined):

Policy 13 – Management of land use activities and discharges

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 20 – Management of water resources

- 1A. recognise that the use and development (such as primary production) of Southland’s land and water resources, ~~including for primary production,~~ can have positive effects including enabling people and communities to provide for their social, economic, and cultural wellbeing;

...

Policy 15A – Maintain water quality where standards are met

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

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

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

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

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

- (a) Avoiding where practicable, or otherwise remedying or mitigating the adverse effects of discharges from any new industrial or trade process
- (b) At the time of any replacement discharge permit, minimising the adverse effects of discharges from any existing industrial or trade process.

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

~~Minimise the adverse environmental effects (including on the quality of water in lakes, rivers, artificial watercourses, modified water courses, wetlands, tidal estuaries, salt marshes and groundwater) by requiring the adoption of best~~

~~practicable option to manage the treatment and discharge of contaminants derived from industrial and trade processes.~~

Policy 17A – Community sewerage schemes and on-site wastewater systems

1. ~~Minimise~~ Avoid where reasonably practicable, or otherwise remedy or mitigate, any adverse effects on water quality, and avoid, remedy, or mitigate other adverse effects of the operation of, and discharges from, community sewerage schemes by:
 - (a) (a) designing, operating and maintaining community sewerage schemes in accordance with recognised industry standards;
 - (b) implementing measures to progressively reduce the frequency and volume of wet weather overflows from community sewerage schemes; and
 - (c) ensuring community sewerage schemes are operated and maintained to minimise ~~the likelihood of~~ dry weather overflows occurring.

...

Rule 5 – Discharges to surface water bodies

- (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.

Rule 15 – Discharge of stormwater

- (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.
- 9 (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 33 – Community sewerage schemes (discharge to land)

(aa) The discharge of effluent or biosolids onto or into land, from a community sewerage scheme that was constructed before 1 January 2017 in circumstances where contaminants may enter water is a discretionary activity.

- (a) The discharge of effluent or bio-solids onto or into land, in circumstances where contaminants may enter water, from a community sewerage scheme is a discretionary activity, provided the following conditions are met for community sewerage schemes constructed after 1 January 2017:
- (ii) the discharge is not within 20 metres of a river, lake, artificial watercourse, modified watercourse, natural wetland or the coastal marine area;
- (iii) the discharge is not within 200 metres of any place of assembly or dwelling not on the same landholding, or 20 metres of the boundary of any other landholding; and
- (iv) the discharge is not within 100 metres of any authorised water abstraction point.

- (b) The discharge of effluent or bio-solids onto or into land, in circumstances where contaminants may enter water, from a community sewerage scheme constructed after 1 January 2017 that does not meet the conditions of Rule 33(a) is a noncomplying activity.

Rule 33A – Community sewerage schemes (discharge to water)

- (a) The discharge of effluent or bio-solids from a community sewerage scheme into water in a river, lake, artificial watercourse, modified watercourse or natural wetland where the Appendix E - Receiving Water Quality Standards are met and the discharge does not reduce the water quality below those standards at the downstream edge of the reasonable mixing zone is a discretionary activity;

- ~~(a)~~(b) The discharge of effluent or bio-solids from a community sewerage scheme into water in a river, lake, artificial watercourse, modified watercourse or natural wetland where Rule 33A(a) is not met the discharge is a non-complying activity.

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) due to the effects of the operation of the Manapōuri hydro-electric generation scheme that alters natural flows, that parameter cannot meet the standard.

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.¹⁰

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 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 ~~3-54.5~~5.¹¹

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.

¹¹ 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)

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.¹²

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.

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.¹³

¹² Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland.

¹³ Applies to the part of the bed that can be seen from the bank during summer low flows or walked on.

Biomass shall not exceed 35 grams per square metre for either filamentous algae or diatoms and cyanobacteria.¹⁴

Chlorophyll a shall not exceed 120 milligrams per square metre for filamentous algae and 200 milligrams per square metre for diatoms and cyanobacteria.¹⁵

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%.

¹⁴ 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

¹⁵ 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

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.¹⁶

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.

¹⁶ Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland.

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.

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 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.¹⁷

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.¹⁸

¹⁷ Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland.

¹⁸ 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.

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.¹⁹

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.²⁰

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

¹⁹ Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland

²⁰ 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.

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.²¹

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", 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.²²

²¹ Visual clarity in lakes to be measured as Secchi depth.

²² Determination of lake chlorophyll concentration to be follow the protocols in Burns et al. (2000).

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 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 Waters²³ 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.

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.

²³ 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.

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.

Rule 9 – Discharge of agrichemicals onto or into surface water

- (a) The discharge of agrichemicals and any associated wetting, antifoaming and anti-drifting agent and marker dyes into or onto surface water is a permitted activity provided the following conditions are met:
- (i) the discharge is for the purpose of eradicating, modifying or controlling excessive growth of aquatic plants, and does not exceed the quantity, concentration or rate necessary, as recommended by the manufacturer or approved by the Environmental Protection Authority;
 - (ii) ...

Policy 17 – Agricultural effluent management

1. ~~Avoid significant~~ where reasonably practicable, or otherwise remedy or mitigate, any adverse effects on water quality, and avoid, remedy, or mitigate other adverse effects of the operation of, and discharges from, agricultural effluent management systems, by:
2. ~~Manage agricultural effluent systems and discharges from them by:-~~
 - (a) designing, constructing and locating systems appropriately and in accordance with best practice;
 - (b) maintaining and operating effluent systems in accordance with best practice guidelines;
 - (c) avoiding any surface run-off or overland flow, ponding or contamination of water, including via sub-surface drainage, resulting from the ~~application~~ discharge of agricultural effluent to pasture; and
 - (d) avoiding the discharge of untreated agricultural effluent to water.

Note: Examples of best practice referred to in Policy 17(2)(a) for agricultural effluent include IPENZ Practice Note 21: Farm Dairy Effluent Pond Design and Construction and IPENZ Practice Note 27: Dairy Farm Infrastructure (although these will not be applicable to all above ground tanks).

Note: Examples of best practice guidelines referred to in Policy 17(2)(b) for agricultural effluent include DairyNZ's guidelines A Farmer's Guide to Managing Farm Dairy Effluent – A Good Practice Guide for Land Application Systems, 2015 and A Staff Guide to Operating Your Effluent Irrigation System, 2013.

Rule 32B – Construction, maintenance and use of new agricultural effluent storage facilities

- (a) The use of land for the construction, maintenance and use of a new agricultural effluent storage facility, ~~and any incidental discharge of agricultural effluent directly onto or into land from that facility which is, where relevant, within the normal operating parameters of a leak detection system or the pond drop test criteria set out in Appendix P,~~ is a permitted activity provided the following conditions are met:
 - (i) the ~~total~~ capacity of any individual agricultural effluent storage structure on a landholding, excluding storage authorised by a resource consent, does not exceed 35 cubic metres; and
 - (ii) [unchanged]

- (iii) [unchanged]
 - (iv) [unchanged]
 - (v) [unchanged]
 - (vi) [unchanged]
- (b) The use of land for the construction, maintenance and use of a new agricultural effluent storage facility, ~~and any incidental discharge of agricultural effluent directly onto or into land from that facility which is, where relevant, within the normal operating parameters of a leak detection system or the pond drop test criteria set out in Appendix P,~~ which does not meet condition (i) or condition (ii) of Rule 32B(a) is a controlled activity provided the following conditions are met:
- (i) the design is certified by a Chartered Professional Engineer as being in accordance with IPENZ Practice Note 21: Farm Dairy Effluent Pond Design and Construction (2013) or IPENZ Practice Note 27: Dairy Farm Infrastructure (2013), except in the case of an above ground tank, those Practice Notes only apply to the extent they are relevant to above ground tanks; and
 - (ii) the application includes an operational management plan that addresses operational procedures, emergency response, monitoring and reporting requirements, the undertaking of pond drop tests, and installation of monitoring devices; and
 - (iii) conditions (iii) to (vi) of Rule 32B(a).
- (c) The use of land for the construction, maintenance and use of a new agricultural effluent storage facility, ~~and any incidental discharge of agricultural effluent directly onto or into land from that facility which is, where relevant, within the normal operating parameters of a leak detection system, or the pond drop test criteria set out in Appendix P,~~ which meets conditions (i) and (ii) of Rule 32B(a), but which does not meet one or more of conditions (iii) to (vi) of Rule 32B(a), is a discretionary activity.
- (d) The use of land for the construction, maintenance and use of a new agricultural effluent storage facility, ~~and any incidental discharge of agricultural effluent directly onto or into land from that facility which is, where relevant, within the normal operating parameters of a leak detection system, or the pond drop test criteria set out in Appendix P,~~ which meets condition (i) of Rule 32B(b), but which does not meet one or more of conditions (ii) and (iii) of Rule 32B(b), is a discretionary activity.

- (e) The use of land for the construction, maintenance and use of a new agricultural effluent storage facility, ~~and any incidental discharge of agricultural effluent directly onto or into land from that facility which is within the normal operating parameters of a leak detection system or the pond drop test criteria set out in Appendix P,~~ which does not meet condition (i) of Rule 32B(b) is a non-complying activity.

Rule 32D –Existing agricultural effluent storage facilities

- (a) The use of land for the maintenance and use of an existing agricultural effluent storage facility that was authorised prior to Rule 32D taking legal effect, ~~and any incidental discharge directly onto or into land from that storage facility which is, where relevant, within the normal operating parameters of a leak detection system or the pond drop test criteria set out in Appendix P,~~ is a permitted activity provided the following conditions are met:
- (i) the construction of the existing agricultural effluent storage facility was authorised by a resource consent; or
 - (ii) the construction of the existing agricultural effluent storage facility was lawfully carried out without a resource consent; and
 - ~~(1) was authorised by a resource consent; or~~
 - ~~(2) was lawfully carried out without a resource consent; and~~
 - ~~(iii)~~ where the construction of the existing agricultural effluent storage facility was lawfully carried out without resource consent, the landholding owner or their agent must provide information to the Southland Regional Council upon request, demonstrating that any the component of an existing agricultural effluent storage facility is either:
 - (1) has a capacity of 35m³ or less, is constructed using an impermeable concrete or synthetic liner, and has no defect that would cause leakage; or
 - (2) is fully lined with an impermeable synthetic liner, or is of concrete construction, or is above ground level and:
 - (a) has a leak detection system that underlies the entire agricultural effluent storage facility which is inspected not less than monthly and there is no evidence of any leakage; and

- (b) has been is certified by a Suitably Qualified Person in accordance with Appendix P within the last 10 years as meeting the relevant pond drop test criteria in Appendix P; or
- (3) is an above ground storage tank constructed in accordance with a building consent and has been certified by a Suitably Qualified Person within the last 5 years, following an external visual inspection, as having no visible cracks, holes or defects in the tank that would allow effluent to leak or visible leakage from the sides or base of the tank; or
- (24) is certified by a Suitably Qualified Person within the last three years as:
 - (a) having no visible cracks, holes or defects that would allow effluent to leak from the effluent storage facility; and
 - (b) meeting the relevant pond drop test criteria in Appendix P.
- (b) The use of land for the maintenance and use of an existing agricultural effluent storage facility that was authorised prior to Rule 32D taking legal effect, ~~and any incidental discharge directly onto or into land from that storage facility which is within the normal operating parameters of a leak detection system or the pond drop test criteria set out in Appendix P~~ that does not meet one or more conditions of Rule 32D(a) is a discretionary activity.
- (c) The use of land for the replacement of an existing agricultural effluent storage facility's impermeable synthetic liner with a new impermeable synthetic liner or the installation of an impermeable synthetic liner in an existing agricultural effluent storage facility that does not have an impermeable synthetic liner is a controlled activity provided the following conditions are met:
 - (i) the construction of the existing agricultural effluent storage facility:
 - (1) was lawfully carried out without a resource consent; or
 - (2) was authorised by a resource consent; and
 - (ii) The design and installation of the impermeable synthetic liner and associated gas venting and leak detection system (if applicable) shall be carried out by a suitably qualified person; and
 - (iii) The existing agricultural effluent storage facility is not being enlarged or otherwise modified beyond the extent necessary to install the impermeable synthetic liner and associated components.

The Southland Regional Council will reserve its control to the following matters:

1. The design, installation, and certification of the impermeable synthetic liner.
 2. The design and installation of a gas venting and leak detection system.
 3. Investigations into, and work to ensure, the structural integrity of the pond structure
 4. Testing requirements to ensure the impermeable synthetic liner and any associated gas venting and leak detection system has been installed and is operating correctly.
- (d) The use of land for the replacement of an existing agricultural effluent storage facility's impermeable synthetic liner with a new impermeable synthetic liner or the installation of an impermeable synthetic liner in an existing agricultural effluent storage facility that does not have an impermeable synthetic liner that does not meet one or more conditions of Rule 32D(c) is a discretionary activity

Rule 32E – Incidental Discharges from Effluent Storage Facilities

- (a) The incidental discharge of agricultural effluent directly onto or into land from an agricultural effluent storage facility that is authorised under Rules 32B or 32D is a permitted activity provided the following conditions are met:
- (i) The discharge is directly through the sides or base of the agricultural effluent storage facility; and
 - (ii) The incidental discharge amount is, where relevant, within the normal operating parameters of a leak detection system or within the pond drop test criteria set out in Appendix P.
- (b) The incidental discharge of agricultural effluent directly onto or into land from an agricultural effluent storage facility that is authorised under Rules 32B or 32D that does not meet one or more of the conditions of Rule 32E(a) is a discretionary activity.

Appendix 2 – Affidavit of Matthew McCallum-Clark dated 2 February 2022

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

UNDER the Resource Management Act 1991

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

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

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

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

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

(Continued next page)

AFFIDAVIT OF MATTHEW MCCALLUM-CLARK

**TOPIC B2 ISSUES 1, 7, 8, 10, 11, 12, 15, 16, 17, 19, 20, 22, 25, 26, 27, 33, 36,
37, 38, 39 AND TOPIC B1 ISSUE 3
RELATING TO
POLICIES 13, 15A, 15B, 16A, 17, 17A, & 20, RULES 5, 9, 15, 32B, 32D, 33, &
33A, AND APPENDIX E**

2 February 2022

Judicial Officer: Judge Borthwick

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

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

DAIRYNZ LIMITED
(ENV-2018-CHC-32)

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

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

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

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

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

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

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

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

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

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

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

ROBERT GRANT
(ENV-2018-CHC-45)

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

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

PETER CHARTRES
(ENV-2018-CHC-48)

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

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

Appellants

AND

SOUTHLAND REGIONAL COUNCIL

Respondent

I, Matthew Eaton Arthur McCallum-Clark, of Christchurch, Consultant, solemnly and sincerely affirm:

- 1 My qualifications and experience are set out in my Statement of Evidence in Chief dated 14 December 2018.
- 2 While this affidavit in part records the reasoning and conclusion of the experts present at mediation, in places I express my professional opinion. For this material, I confirm that I have read and am familiar with the Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2014. I agree to comply with that Code. Other than where I state that I am relying on the evidence of another person, my opinions are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.
- 3 This affidavit provides an evaluation in accordance with section 32AA of the Resource Management Act 1991 (**Act**) to accompany the draft consent order to which this affidavit relates.¹ Within the context of the section 32AA assessment, I have also assessed the higher order policy documents including in particular, the National Policy Statement for Freshwater Management 2020 (**NPSFM**).
- 4 As with any negotiated outcome, the position arrived at by the parties does not necessarily reflect my professional opinion of what the best wording would be. In my opinion, in part, some of the wording is acceptable rather than preferred. That said, the agreed outcome was the result of considerable discussion and investment in time and thought, which I respect. I have attempted to set out below the reasoning that the Court has required to be provided, based on my understanding and recollections of the discussion that occurred.

Introduction

- 5 This affidavit relates to those issues under Topic B2 where an outcome has been agreed between the parties, namely:
 - (a) Issue 1 – Policy 13(1);
 - (b) Issues 7, 8, and 10 – Policies 15A and 15B;

¹ Minute of the Environment Court dated 22 October 2020, at [12].



- (c) Issues 10 and 11 – Policy 16A;
- (d) Issues 10 and 12 – Policy 17A;
- (e) Issues 15, 16 and 17 – Rules 5 and 15;
- (f) Issues 19 and 20 – Rules 33 and 33A;
- (g) Issue 22 – Appendix E;
- (h) Issue 27 – Rule 9; and
- (i) Issues 25, 26, 33, 36 – 39 – Agricultural effluent.

6 It also addresses Issue 3 of Topic B1 in relation to Policy 20(1A).

7 In this affidavit I first set out the relevant legal tests under s32AA of the Act and then provide an evaluation in accordance with s32AA for each of the provisions that have been agreed.

Section 32AA of the Act

8 Section 32AA of the Act requires:

- (1) *A further evaluation required under this Act—*
 - (a) *is required only for any changes that have been made to, or are proposed for, the proposal since the evaluation report for the proposal was completed (the changes); and*
 - (b) *must be undertaken in accordance with section 32(1) to (4); and*
 - (c) *must, despite paragraph (b) and section 32(1)(c), be undertaken at a level of detail that corresponds to the scale and significance of the changes; and...*

9 The core of section 32 of the Act is in sub-section (1), which requires a decision-maker to (relevantly):

- ...
 - (b) *examine whether the provisions in the proposal are the most appropriate way to achieve the objectives by—*
 - (i) *identifying other reasonably practicable options for achieving the objectives; and*
 - (ii) *assessing the efficiency and effectiveness of the provisions in achieving the objectives; and*
 - (iii) *summarising the reasons for deciding on the provisions; and*

...

- 10 Sub-section (2) specifies how the analysis under section 32(1)(b)(ii) is to be undertaken. In summary, this requires an assessment of the benefits and costs of the environmental, economic, social and cultural effects anticipated from the implementation of the provisions, and an assessment of the risk of acting or not acting if there is uncertain or insufficient information.
- 11 Section 32(3) is not relevant given the proposed Southland Water and Land Plan (**pSWLP**) is not an amending proposal, rather it is a whole new plan.
- 12 Section 32(4) may be relevant where the provision is a rule and will impose a greater or lesser restriction on an activity to which a national environmental standard applies than the existing restrictions in that standard.

Evaluation in accordance with section 32AA for each provision where a change has been agreed

- 13 In accordance with the requirements of sections 32(1) and 32(2), in relation to each provision where a change has been agreed I:
 - (a) list the most relevant objectives;
 - (b) explain the "other reasonably practicable options" for achieving the objectives;
 - (c) summarise the reasons for the changes agreed; and
 - (d) provide an assessment of benefits, costs, and risks as required by section 32(2).

Issue 1 and Issue 3 of Topic B1 – Policies 13(1) and 20(1A)

- 14 Policy 13(1) and Policy 20(1A) of the pSWLP have been appealed by the Southland Fish and Game Council; Royal Forest and Bird Protection Society of New Zealand Incorporated; and Te Rūnanga o Ngai Tahu, Hokonui Rūnaka, Waihopai Rūnaka, Te Rūnanga o Awarua and Te Rūnanga o Ōraka Aparima.
- 15 The following parties joined the appeals as section 274 parties in relation to Policy 13(1):
 - (a) Aratiatia Livestock Limited;

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- (b) Ballance Agri-Nutrients Limited;
 - (c) DairyNZ Limited;²
 - (d) Director-General of Conservation;
 - (e) Gore District Council, Southland District Council and Invercargill City Council;
 - (f) Federated Farmers of New Zealand;
 - (g) Fonterra Co-operative Group Limited;
 - (h) Meridian Energy Limited;
 - (i) Royal Forest and Bird Protection Society of New Zealand;
 - (j) Southland Fish and Game Council;
 - (k) Transpower New Zealand Limited.
- 16 The following parties joined the appeals as section 274 parties in relation to Policy 20(1A):
- (a) Alliance Group Limited³;
 - (b) Aratiatia Livestock Limited;
 - (c) DairyNZ Limited;⁴
 - (d) Director-General of Conservation;
 - (e) Federated Farmers of New Zealand;
 - (f) Fonterra Co-operative Group Limited;⁵
 - (g) Royal Forest and Bird Protection Society of New Zealand; and
 - (h) Southland Fish & Game Council.
- 17 The mediated outcome for Policy 13(1) is (deleted text in strikeout):

Policy 13 – Management of land use activities and discharges

1. Recognise that the use and development of Southland's land and water resources, ~~including for primary production,~~

² Noting that DairyNZ Limited has subsequently withdrawn its interest in this issue.

³ Alliance Group Limited did not attend mediation and withdrew its interest in these appeals on 1 April 2021.

⁴ Noting that DairyNZ Limited has subsequently withdrawn its interest in this issue.

⁵ Noting that Fonterra Co-operative Group Limited has withdrawn its interest in this issue.

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.

- 18 The mediated outcome for Policy 20(1A) is (deleted text in strikeout):

Policy 20 – Management of water resources

- 1A. recognise that the use and development (such as primary production) of Southland's land and water resources, ~~including for primary production,~~ can have positive effects including enabling people and communities to provide for their social, economic, and cultural wellbeing;

...

Relevant objectives

- 19 While all the objectives of the pSWLP are relevant and have been considered, in terms of assessing whether Policies 13(1) and 20(1A) are the most appropriate way to achieve the objectives, the most relevant objectives are Objective 1, Objective 2, Objective 3, Objective 5, Objective 9/9A, Objective 13 and Objective 18.

Reasonably practicable options

- 20 Section 32(1)(b)(i) requires the identification of "other reasonably practicable options" for achieving the objectives. The reasonably practicable options I have identified and considered are the Decisions Version wording, and the agreed wording set out in tracked changes in paragraphs 17 and 18 above.

Explanation and reasons for the changes agreed

- 21 In my opinion, the inclusion or deletion of reference to primary production is unlikely to result in significantly different outcomes in relation to either policy. This was confirmed during the mediation discussion, where the inclusion or removal of these words were seen more in an ideological light, rather than having a practical implication for decisions made under the pSWLP. On this basis, pursuant to section 32AA(1)(c) this section 32 analysis will necessarily be brief.
- 22 Overall, the parties were cognisant that the deletion of the words would better align with the wording of Objective 1(c) of the NPSFM and with

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Objective 3 of the Plan. The parties noted the evidence and discussion on these words during the Topic A hearing on the content of (then) Objective 2 and were mindful of the Court's conclusion on that Objective. While the Policies are worded slightly differently to Objective 3, they clearly flow from Objective 3 and I see no reason to come to a different conclusion than was arrived at in the Topic A decision.⁶ For the avoidance of doubt, I have also considered Objectives 1, 2, 5, 9/9A, and 13 and consider that the deletion in Policy 13 and amendment in Policy 20 of the reference to primary production is marginally more aligned with these Objectives, noting that overall I do not consider the practical outcomes of decision-making would be noticeably different under either option.

Benefits, costs and risk assessment

- 23 With respect to the assessment of benefits, costs and risks set out in section 32(2), I am of the opinion that as the outcomes from each of the two options of the wording of Policy 13 and Policy 20 are difficult to distinguish, there is little to no difference in the benefits and costs. Removing the reference to primary production from Policy 13 is appropriate in this context. Amending Policy 20 is also appropriate in light of this, as it better shows the context of the reference. In phrasing it more clearly as an example of 'use and development', the risk is reduced for primary production to be elevated above other activities or justified in the context of adverse environmental effects.
- 24 Overall, having considered the options, the wording of the provisions agreed by the parties (and set out at paragraphs 17 and 18 above) is considered to be the most appropriate way to achieve the objectives of the pSWLP.

Issues 7, 8, and 10 – Policies 15A and 15B

- 25 Policies 15A and 15B of the pSWLP have been appealed by Southland Fish and Game Council and Royal Forest and Bird Protection Society of New Zealand Incorporated.
- 26 The following parties joined these appeals as section 274 parties in relation to Policies 15A and 15B:

⁶ See paragraphs [89] and [90] of the First Interim Decision [2019] NZEnvC 208.

- (a) Alliance Group Limited;⁷
- (b) Ballance Agri-Nutrients Limited;
- (c) DairyNZ Limited;
- (d) Director-General of Conservation;
- (e) D & J Pullar Limited;⁸
- (f) Federated Farmers of New Zealand Incorporated;
- (g) Fonterra Co-operative Group Limited;
- (h) Ravensdown Limited;
- (i) Royal Forest and Bird Protection Society of New Zealand Incorporated;
- (j) Southland Fish and Game Council;
- (k) Transpower New Zealand Limited; and
- (l) Gore District Council, Southland District Council and Invercargill City Council.

27 The mediated outcome for Policies 15A and 15B is:

Policy 15A – Maintain water quality where standards are met

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

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

⁷ Noting that Alliance Group Limited has withdrawn its interest in this issue.

⁸ Noting that D & J Pullar Limited advised prior to mediation that it no longer had an interest in the issue.

~~beyond the zone of reasonable mixing those standards or sediment guidelines will continue to be met.~~

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

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).

Relevant objectives

- 28 While all the objectives of the pSWLP are relevant and have been considered, in terms of assessing whether Policies 15A and 15B are the most appropriate way to achieve the objectives, the most relevant objectives are Objective 1, Objective 2, Objective 3, Objective 5, Objective 6, and Objective 14.

Reasonably practicable options

- 29 Section 32(1)(b)(i) requires the identification of "other reasonably practicable options" for achieving the objectives. The reasonably practicable options I have identified and considered for Policies 15A and

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15B are the Decisions Version wording, and the agreed wording shown in tracked changes in paragraph 27 above.

Explanation and reasons for the changes agreed

- 30 In my opinion the change to “avoid where reasonably practicable, or otherwise remedy or mitigate” in Policies 15A and B places greater emphasis on the duty to avoid adverse effects in the first instance, before considering whether they can be remedied or mitigated. The inclusion of these words would make the policy more consistent with the hierarchy of Te Mana O Te Wai in the NPSFM, by better prioritising the health of the water body and ecosystems. Parties at mediation were in agreement with this reasoning, and it is noted that agreed changes to a number of other policies, particularly relating to discharges, also use this wording.
- 31 The other changes to the two policies are intended to assist with their consistent application and clarify expectations for the evaluation of applications where these policies apply. This is achieved through the removal of duplication, greater specificity about the application of water quality standards and the zone of reasonable mixing, and clarity of expectations for new and existing discharges.
- 32 In assessing these two options, I have considered the principles of the Treaty of Waitangi.⁹ In particular I note the significance of discharges, particularly to surface water and to land where the contaminants enter surface water, to tangata whenua. The discharge of stormwater, especially stormwater potentially containing human and animal effluent, and treated wastewater can have obvious effects and impacts on activities such as mahinga kai. Tangata whenua have been actively engaged in the resolution of these appeal points, and in my view, the resolution reached better protects these resources of importance to tangata whenua from the adverse effects of discharges.

Benefits, costs and risk assessment

- 33 With respect to the assessment of benefits, costs and risks set out in section 32(2), I am of the opinion that the outcome from the agreed version of the Policies will be a tendency toward better environmental

⁹ For context see Statement of Evidence of Matthew McCallum-Clark for the Southland Regional Council dated 17 April 2020.

outcomes and fewer direct discharges to surface water. There will also be reduced uncertainty around expectations. Therefore, the amended wording of the Policies is considered more effective and efficient. Overall, a clear move toward expedited achievement of improvements for existing discharges, reduced discharges that lead to further reductions of water quality, and more appropriate new discharges will have obvious environmental, cultural and social benefits, but at a higher short-to-medium term cost to those undertaking, or wishing to undertake, discharges. Many of these benefits and costs will likely occur in any event, as the timeframes and outcomes for water quality improvement are refined under the NPSFM Freshwater Planning Process. The changes to these Policies were considered by the parties at the mediation to be a clear application of Objectives 2 and 6 of the pSWLP, and better give effect to the NPSFM.

- 34 Overall, having considered the options, the wording of the provision agreed by the parties (and set out at paragraph 27 above) is considered to be the most appropriate way to achieve the objectives of the pSWLP.

Issues 10 and 11 – Policy 16A

- 35 Policy 16A of the pSWLP has been appealed by Royal Forest and Bird Protection Society of New Zealand and Southland Fish and Game Council.
- 36 The following parties joined these appeals as section 274 parties in relation to Policy 16A:
- (a) Alliance Group Limited;
 - (b) Aratiatia Livestock Limited;
 - (c) Ballance Agri-Nutrients Limited;
 - (d) Chartres, P;¹⁰
 - (e) D & J Pullar Limited;¹¹
 - (f) Dairy Holdings Limited;
 - (g) DairyNZ Limited;

¹⁰ Noting that Mr Chartres subsequently withdrew his interest in this matter.

¹¹ Noting the D & J Pullar Limited advised prior to mediation that it withdrew its interest in this matter.

- (h) Director-General of Conservation;
 - (i) Federated Farmers of New Zealand Incorporated;
 - (j) Fonterra Co-operative Group Limited;
 - (k) Meridian Energy Limited;
 - (l) Mt Linton Station Limited;¹²
 - (m) Oil Companies;¹³
 - (n) Royal Forest and Bird Protection Society of New Zealand Incorporated;
 - (o) Southland Fish and Game Council; and
 - (p) Gore District Council, Southland District Council and Invercargill City Council.
- 37 The mediated outcome for Policy 16A is (deleted text in strikeout, new text underlined):

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

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

- (a) Avoiding where practicable, or otherwise remedying or mitigating the adverse effects of discharges from any new industrial or trade process
- (b) At the time of any replacement discharge permit, minimising the adverse effects of discharges from any existing industrial or trade process.

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

~~Minimise the adverse environmental effects (including on the quality of water in lakes, rivers, artificial watercourses, modified~~

¹² Noting that Mt Linton Station Limited has withdrawn its interest in this issue.

¹³ Noting that the Oil Companies have subsequently withdrawn their interests in this issue.

~~water courses, wetlands, tidal estuaries, salt marshes and groundwater) by requiring the adoption of best practicable option to manage the treatment and discharge of contaminants derived from industrial and trade processes.~~

Relevant objectives

- 38 While all the objectives of the pSWLP are relevant and have been considered, in terms of assessing whether Policies 15 and 15B are the most appropriate way to achieve the objectives, the most relevant objectives are Objective 1, Objective 2, Objective 3, Objective 5, Objective 6, Objective 8, and Objective 14.

Reasonably practicable options

- 39 Section 32(1)(b)(i) requires the identification of "other reasonably practicable options" for achieving the objectives. The reasonably practicable options I have identified and considered are the Decisions Version wording, and the agreed wording shown in tracked changes in paragraph 37 above.

Explanation and reasons for the changes agreed

- 40 As I understand it, the Decisions Version of Policy 16A essentially directed the adoption of the best practicable option (**BPO**) for trade and industrial discharges. The decisions version of Policy 16A is specifically worded and does not anticipate different approaches to BPO, or consideration of whether the discharge is appropriate following consideration of what is the BPO. The mediated version of the Policy makes three substantive changes. First, it places the Policy clearly in the context of, and subservient to, Policies 15A and B. Second, it provides greater detail about how BPO is to be achieved. Third, it sets a different and higher standard for new discharges, compared to the re-consenting of existing discharges.
- 41 The parties at the mediation recognised that the focus solely on BPO is not likely to be adequate, particularly in the Southland context where improvements in water quality are required in many places where there are industrial and trade waste discharges. The parties also recognised that the Decisions Version of the Policy may not be well aligned with the prioritisation of the environment and ecosystems in the NPSFM. I

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consider that the agreed wording will be more effective at achieving the improvements required.

Benefits, costs and risk assessment

- 42 With respect to the assessment of benefits, costs and risks set out in section 32(2), I am of the opinion that the outcomes from the agreed version of the Policy is likely to mean more substantive improvement over time for existing discharges, and new discharges needing to operate at a higher standard with a lesser level of environmental effect. However, there may be greater uncertainty around expectations, as BPO may not be the automatic response. Overall, there may be a more expedited achievement of improvements for existing discharges and higher levels of performance (or alternative discharge methods or locations) for new discharges. This is likely to have environmental, cultural and social benefits, but at a higher short-to-medium term cost to trade and commercial discharge operators. These benefits and costs will likely occur in any event, as the timeframes and outcomes for water quality improvement are refined under the NPSFM freshwater planning process.
- 43 Overall, having considered the options, the wording of the provision agreed by the parties (and set out at paragraph 37 above) is considered to be the most appropriate way to achieve the objectives of the pSWLP.

Issues 10 and 12 – Policy 17A

- 44 Policy 17A of the pSWLP has been appealed by Te Rūnanga o Ngai Tahu, Hokonui Rūnaka, Waihopai Rūnaka, Te Rūnanga o Awarua and Te Rūnanga o Ōraka Aparima; Southland Fish and Game Council; Royal Forest and Bird Protection Society of New Zealand Incorporated.
- 45 The following parties joined these appeals as section 274 parties in relation to Policy 17A:
- (a) DairyNZ Limited;
 - (b) D & J Pullar Limited;¹⁴
 - (c) Federated Farmers of New Zealand;

¹⁴ Noting that D & J Pullar Limited advised prior to mediation that it no longer had an interest in the matter.

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- (d) Director-General of Conservation;
- (e) Fonterra Co-operative Group Limited; and
- (f) Gore District Council, Southland District Council and Invercargill City Council;
- (g) Royal Forest and Bird Protection Society of New Zealand Incorporated;
- (h) Aratiatia Livestock Limited; and
- (i) Southland Fish and Game Council.

46 The mediated outcome for Policy 17A is:

Policy 17A – Community sewerage schemes and on-site wastewater systems

1. Minimise Avoid where reasonably practicable, or otherwise remedy or mitigate, any adverse effects on water quality, and avoid, remedy, or mitigate other adverse effects of the operation of, and discharges from, community sewerage schemes by:
 - (a) designing, operating and maintaining community sewerage schemes in accordance with recognised industry standards;
 - (b) implementing measures to progressively reduce the frequency and volume of wet weather overflows from community sewerage schemes; and
 - (c) ensuring community sewerage schemes are operated and maintained to minimise the likelihood of dry weather overflows occurring.

...

Relevant objectives

47 While all the objectives of the pSWLP are relevant and have been considered, in terms of assessing whether Policy 17A is the most appropriate way to achieve the objectives, the most relevant objectives are Objective 1, Objective 2, Objective 3, Objective 6, Objective 9B and Objective 13. These objectives are set out below:

Reasonably practicable options

48 Section 32(1)(b)(i) requires the identification of "other reasonably practicable options" for achieving the objectives. The reasonably practicable options I have identified and considered are the Decisions Version wording, and the agreed wording shown in tracked changes in paragraph 46 above.

Explanation and reasons for the changes agreed

49 In my opinion the change to "avoid where reasonably practicable, or otherwise remedy or mitigate" in Policy 17A places greater emphasis on the duty to avoid adverse effects in the first instance, before considering whether they can be remedied or mitigated. The inclusion of these words would make the policy more consistent with the hierarchy of Te Mana O Te Wai in the NPSFM, by better prioritising the health of the water body and ecosystems. Parties at mediation agreed with this reasoning, and it is noted that agreed changes to a number of other policies, particularly relating to discharges, also use this wording.

50 The inclusion of "progressively" in the Decisions Version of the Policy recognised that it will take time, likely decades, to upgrade community sewerage schemes to reduce the frequency and volume of wet weather overflows to acceptable levels. The parties at the mediation recognised this, but considered that the word "progressively" could lead to slow progress toward this outcome, as it may be used as a justification to make small, incremental improvements, which would not recognise the imperative to improve water quality in a reasonable timeframe set out within pSWLP and more particularly within the NPSFM.

51 Similarly, the words "likelihood of" were considered to unnecessarily soften the wording of the policy, such that positive outcomes may be less likely to be achieved.

52 In assessing these two options, I have considered the principles of the Treaty of Waitangi.¹⁵ In particular I note the significance of discharges, particularly to surface water and to land where the contaminants enter surface water, to tangata whenua. The discharge of stormwater, especially stormwater potentially containing human and animal effluent,

¹⁵ For context see Statement of Evidence of Matthew McCallum-Clark for the Southland Regional Council dated 17 April 2020.

and treated wastewater can have obvious effects and impacts on activities such as mahinga kai. Tangata whenua have been actively engaged in the resolution of these appeal points, and in my view, the resolution reached better protects these resources of importance to tangata whenua from the adverse effects of discharges.

Benefits, costs and risk assessment

- 53 With respect to the assessment of benefits, costs and risks set out in section 32(2), I am of the opinion that the outcomes from the two options for the Policy are likely to be similar, given the wider policy context of the pSWLP and the higher-order planning documents such as the NPSFM. However, there is likely to be reduced uncertainty around expectations and therefore the amended Policy wording is considered more effective and efficient. Depending on implementation, there may be a more expedited achievement of improvements, which will have obvious, environmental, cultural and social benefits, but at a higher short-to-medium term cost to communities. These benefits and costs will likely occur in any event, as the timeframes and outcomes for water quality improvement are refined under the NPSFM Freshwater Planning Process.
- 54 Overall, having considered the options, the wording of the provision agreed by the parties (and set out at paragraph 46 above) is considered to be the most appropriate way to achieve the objectives of the pSWLP.

Issues 15, 16 and 17 – Rules 5 and 15

- 55 This affidavit relates to the appeals lodged by Gore District Council, Southland District Council and Invercargill City Council; Southland Fish and Game Council; Alliance Group Limited; Te Runanga O Ngai Tahu, Hokonui Runaka, Waihopai Runaka, Te Runanga O Awarua & Te Runanga O Oraka Aparima; and Royal Forest and Bird Protection Society of New Zealand Incorporated in relation to Rules 5, 6, and 15 of the proposed Southland Water and Land Plan (pSWLP).
- 56 The following parties joined these appeals as section 274 parties in relation to Rules 5, 6, and 15:

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- (a) Alliance Group Limited;¹⁶
- (b) Dairy Holdings Limited;
- (c) DairyNZ Limited;
- (d) Fonterra Co-operative Group Limited;
- (e) Gore District Council, Southland District Council and Invercargill City Council;
- (f) Meridian Energy Limited;
- (g) Federated Farmers of New Zealand Incorporated;
- (h) Oil Companies;¹⁷
- (i) Director-General of Conservation;
- (j) Te Rūnanga o Ngai Tahu, Hokonui Rūnaka, Waihopai Rūnaka, Te Rūnanga o Awarua and Te Rūnanga o Ōraka Aparima;
- (k) Southland Fish and Game Council; and
- (l) Royal Forest and Bird Protection Society of New Zealand Incorporated.

57 The mediated outcome for Rules 5 and 15 is (new text underlined, deleted text struck-out):

Rule 5 – Discharges to surface water bodies

- (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:

¹⁶ Noting that Alliance Group Limited has subsequently withdrawn all of its interests in the appeals.

¹⁷ Noting that the Oil Companies subsequently withdrew all of their interests in Topic B2.

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.

Rule 15 – Discharge of stormwater

- (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.

58 No changes were agreed to Rule 6, and the appeal by Alliance Group Limited in relation to Rule 6 has been withdrawn. Accordingly, this affidavit contains no assessment in relation to Rule 6.

Section 32(4)

59 For the purposes of Rules 5 and 15, section 32(4) is relevant. Section 32(4) of the Act requires an examination of ... *whether the prohibition or restriction is justified in the circumstances of each region* It is expected that the changes to the rules would provide for very few, if any, circumstances where a discharge to a wetland would have a more restrictive activity status than in the National Environmental Standard for Freshwater (**NES-F**), due to the restrictive nature of the conditions in Regulations 46 and 47. The parties were satisfied, given that the agreed changes address entrained contaminants in stormwater, to which wetlands are sensitive to, that any additional restriction in the rule was justified in the Southland context.

60 For completeness, I note that the base Rules 5 and 15 may, in some circumstances, be more lenient than the NES-F. There is no scope within the appeals to remedy this. As the change assessed in accordance with section 32AA does not alter this, I have not assessed whether this lesser prohibition or restriction is justified in the circumstances of the region.

Relevant objectives

61 While all the objectives of the pSWLP are relevant and have been considered, in terms of assessing whether Rules 5 and 15 is the most appropriate way to achieve the objectives, the most relevant objectives are Objective 1, Objective 2, Objective 3, Objective 6, Objective 9B, and Objective 18.

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Reasonably practicable options

- 62 Section 32(1)(b)(i) requires the identification of "other reasonably practicable options" for achieving the objectives. The reasonably practicable options I have identified and considered are the Decisions Version wording, and the agreed wording set out in tracked changes in paragraph 57 above.

Explanation and reasons for the changes agreed

- 63 The adjustments made to Rules 5 and 15 improve the management of stormwater, particularly from reticulated systems. In summary, the changes are:
- (a) Inclusion of other contaminants in 'stormwater' from reticulated systems.
 - (b) Improving certainty as to what a conspicuous change in clarity means.
 - (c) Adding a sedimentation threshold.
 - (d) Adding Appendix E water quality standards into the rule framework.
- 64 In my opinion, the adjustments balance the need to recognise that discharges from reticulated stormwater networks inevitably contain other contaminants, with the application of water quality standards to ensure those other contaminants are appropriately managed. This was confirmed during the mediation discussion where the inclusion of water quality standards was seen as essential if the entrained contaminants were to be dealt with in the stormwater rule.
- 65 Overall, the parties considered that the changes would recognise the reality of the operation of reticulated stormwater systems, with appropriate environmental protections through the inclusion of the Appendix E water quality standards. The parties considered this would better achieve Objectives 1, 2, 3, 6 and 9B of the pSWLP. The parties were conscious of the importance of and widespread benefits from reticulated stormwater systems and the significant investment in the existing systems that ought to be recognised, provided those systems are functioning appropriately. The parties noted the ability of reticulated stormwater systems to meet the needs of people and the environment but noted that many systems in Southland are in need of improvement,

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particularly as a step toward Te Mana o Te Wai. Discretionary and non-complying activity status were seen to be appropriate, as either status enables the full range of adverse effects, and benefits, to be considered during the consenting process.

- 66 In assessing these two options, I have considered the principles of the Treaty of Waitangi.¹⁸ In particular I note the significance of discharges, particularly to surface water and to land where the contaminants enter surface water, to tangata whenua. The discharge of stormwater, especially stormwater potentially containing human and animal effluent, and treated wastewater can have obvious effects and impacts on activities such as mahinga kai. Tangata whenua have been actively engaged in the resolution of these appeal points, and in my view, the resolution reached better protects these resources of importance to tangata whenua from the adverse effects of discharges.

Benefits, costs and risk assessment

- 67 With respect to the detailed assessment of benefits, costs and risks set out in section 32(2), I am of the opinion that including a wider range of contaminants in reticulated stormwater, in combination with application of the Appendix E water quality standards, will result in a more efficient outcome. Environmental improvement will be driven by the Appendix E water quality standards and non-complying activity status where those standards are not met. Depending on implementation, there may be a more expedited achievement of improvements, which will have obvious, environmental, cultural and social benefits, but at a higher short to medium term cost to communities. These benefits and costs will likely occur in any event, as the timeframes and outcomes for water quality improvement are refined under the National Policy Statement for Freshwater Management 2020 freshwater planning process.
- 68 Overall, having considered the options, the wording of the provision agreed by the parties (and set out at paragraph 57 above) is considered to be the most appropriate way to achieve the objectives of the pSWLP.

¹⁸ For context see Statement of Evidence of Matthew McCallum-Clark for the Southland Regional Council dated 17 April 2020.

Issues 19 and 20 – Rules 33 and 33A

- 69 This affidavit relates to the appeal lodged by Gore District Council, Southland District Council and Invercargill City Council in relation to Rules 33 and 33A of the proposed Southland Water and Land Plan (pSWLP).
- 70 The following parties joined this appeal as section 274 parties in relation to Rule 33:
- (a) Director-General of Conservation;
 - (b) Southland Fish and Game Council; and
 - (c) Royal Forest and Bird Protection Society of New Zealand Incorporated.
- 71 The following parties joined this appeal as section 274 parties in relation to Rule 33A:
- (a) Director-General of Conservation;
 - (b) Southland Fish and Game Council;
 - (c) Royal Forest and Bird Protection Society of New Zealand Incorporated; and
 - (d) Federated Farmers of New Zealand.
- 72 The mediated outcome for Rules 33 and 33A is (new text underlined):
- Rule 33 – Community sewerage schemes (discharge to land)**
- (aa) The discharge of effluent or biosolids onto or into land, from a community sewerage scheme that was constructed before 1 January 2017 in circumstances where contaminants may enter water is a discretionary activity.
- (a) The discharge of effluent or bio-solids onto or into land, in circumstances where contaminants may enter water, from a community sewerage scheme is a discretionary activity, provided the following conditions are met for community sewerage schemes constructed after 1 January 2017:
- (ii) the discharge is not within 20 metres of a river, lake, artificial watercourse, modified watercourse, natural wetland or the coastal marine area;

- (iii) the discharge is not within 200 metres of any place of assembly or dwelling not on the same landholding, or 20 metres of the boundary of any other landholding; and
 - (iv) the discharge is not within 100 metres of any authorised water abstraction point.
- (b) The discharge of effluent or bio-solids onto or into land, in circumstances where contaminants may enter water, from a community sewerage scheme constructed after 1 January 2017 that does not meet the conditions of Rule 33(a) is a noncomplying activity.

Rule 33A – Community sewerage schemes (discharge to water)

- (a) The discharge of effluent or bio-solids from a community sewerage scheme into water in a river, lake, artificial watercourse, modified watercourse or natural wetland where the Appendix E - Receiving Water Quality Standards are met and the discharge does not reduce the water quality below those standards at the downstream edge of the reasonable mixing zone is a discretionary activity;

- ~~(a)~~(b) The discharge of effluent or bio-solids from a community sewerage scheme into water in a river, lake, artificial watercourse, modified watercourse or natural wetland where Rule 33A(a) is not met the discharge is a non-complying activity.

Relevant objectives

- 73 While all the objectives of the pSWLP are relevant and have been considered, in terms of assessing whether Rules 33 and 33A are the most appropriate way to achieve the objectives, the most relevant objectives are Objective 1, Objective 2, Objective 3, Objective 4, Objective 6, Objective 9B, Objective 13 and Objective 18.

Reasonably practicable options

- 74 Section 32(1)(b)(i) requires the identification of "other reasonably practicable options" for achieving the objectives. The reasonably practicable options I have identified and considered are the Decisions Version wording, and the agreed wording shown in tracked changes in paragraph 72 above.

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Explanation and reasons for the changes agreed

- 75 The agreed changes to Rules 33 and 33A improve the management of discharges of treated effluent from community sewerage schemes.
- 76 In my opinion, the inclusion of a specified construction date in Rule 33 is likely to result in a different outcome, albeit a practical and realistic outcome, for discharges to land. This was confirmed during the mediation discussion where the inclusion of a specified date was seen as having a practical implication in that it enabled existing systems that are discharging within the specified setbacks to continue to operate without major modification under a discretionary activity framework.
- 77 The change to Rule 33A, relating to discharges to water, enables discharges to water as a discretionary activity, provided water quality standards in Appendix E are met. In my opinion, and based on my understanding that existing water quality does not meet the Appendix E water quality standards in much of Southland, this may not result in a change in activity status for many sites in the short to medium term. Accordingly, this change is unlikely to result in a different outcome in the short to medium term.
- 78 Overall, the parties were cognisant that the inclusion of a specified date in Rule 33 and a more permissive activity status for discharges that met water quality standards in Rule 33A would better align with the wording of Objectives 2, 3, 6 and 9B of the pSWLP. The parties were conscious of the importance of and widespread benefits from community sewerage schemes, the encouragement in the pSWLP for discharges to be to land, and that there is a significant investment in the existing systems that ought to be recognised, provided those systems are functioning appropriately. Discretionary and non-complying activity status were seen to be appropriate, as either status enables the full range of adverse effects, and benefits, to be considered.
- 79 In assessing these two options, I have considered the principles of the Treaty of Waitangi.¹⁹ In particular I note the significance of discharges, particularly to surface water and to land where the contaminants enter surface water, to tangata whenua. The discharge of stormwater,

¹⁹ For context see Statement of Evidence of Matthew McCallum-Clark for the Southland Regional Council dated 17 April 2020.



especially stormwater potentially containing human and animal effluent, and treated wastewater can have obvious effects and impacts on activities such as mahinga kai. Tangata whenua have been actively engaged in the resolution of these appeal points, and in my view, the resolution reached better protects these resources of importance to tangata whenua from the adverse effects of discharges.

Benefits, costs and risk assessment

- 80 With respect to the assessment of benefits, costs and risks set out in section 32(2), I am of the opinion that the outcomes from including a specified construction date for community sewerage schemes in Rule 33 and the enabling of discharges as a discretionary activity where water quality standards are met will result in a more efficient outcome. The economic costs to communities are likely to be reduced, with limited or no additional costs in terms of the environment, or socially. There may be a cultural cost associated with a reduced activity status for some discharges to water. However, in the short to medium term this activity status change is not expected to make a significant difference.²⁰
- 81 Overall, having considered the options, the wording of the provision agreed by the parties (and set out at paragraph 72 above) is considered to be the most appropriate way to achieve the objectives of the pSWLP.

Issue 22 – Appendix E

- 82 Appendix E of the pSWLP has been appealed by Southland Fish and Game Council.
- 83 The following parties joined this appeal as section 274 parties:
- (a) Alliance Group Limited;
 - (b) Gore District Council, Southland District Council and Invercargill City Council;
 - (c) Director-General of Conservation;
 - (d) Royal Forest and Bird Protection Society of New Zealand Incorporated; and

²⁰ See reasoning in paragraph [77].

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(e) Te Rūnanga o Ngai Tahu, Hokonui Rūnaka, Waihopai Rūnaka, Te Rūnanga o Awarua & Te Rūnanga o Ōraka Aparima.

84 The mediated outcome for the water quality standards²¹ in Appendix E is attached, marked as **EXHIBIT A**.

Relevant objectives

85 While all the objectives of the pSWLP are relevant and have been considered, in terms of assessing whether Appendix E is the most appropriate way to achieve the objectives, the most relevant objectives are Objective 1, Objective 2, and Objective 6.

Reasonably practicable options

86 Section 32(1)(b)(i) requires the identification of "other reasonably practicable options" for achieving the objectives. The reasonably practicable options I have identified and considered are the Decisions Version wording, and the agreed wording shown in tracked changes in **Attachment A**.

Explanation and reasons for the changes agreed

87 The agreed changes to Appendix E can be summarised as:

- (a) Adding Macroinvertebrate Community Index (**MCI**) and Quantitative Macroinvertebrate Community Index (**QMCI**) criteria to the Mataura waterbody classes.
- (b) Clarifying that the 'sediment cover' criteria is in relation to fine sediment (<2mm diameter).
- (c) Adding certainty to the clarity and colour criteria for the Mataura waterbody classes and adding the criteria to other river waterbody classes.
- (d) Increasing the MCI and QMCI criteria for the Lowland soft bed waterbody class.

88 In my opinion, these changes to Appendix E are realistic and incremental improvements to the Appendix, ahead of a full review as part of Plan Change Tuatahi – the Council's Freshwater Planning

²¹ Note that the appeals relating to the application of Appendix E to the Manapouri Hydro Scheme are not a part of this agreed outcome.

Process which is separately underway. The agreed changes focus on filling gaps and providing certainty, and focus particularly on water clarity, sedimentation, and macroinvertebrate health. Appendix E does not, of itself, result in changes to environmental outcomes. However, the Appendix is used as a water quality standard in many rules, triggering changes in activity status. Therefore, higher standards in the Appendix and improvements to certainty will result in practical implications for applicants, such as a more stringent activity status, and environmental improvements. This is particularly so where a non-complying activity status is triggered.

- 89 Overall, the parties were cognisant that the changes to the Appendix E water quality standards would better align with the outcomes sought in Objectives 1, 2, and 6 of the pSWLP. The parties were conscious of the importance of the criteria in Appendix E and its use in rules that are critical to the achievement of the pSWLP objectives and for better alignment with the National Policy Statement for Freshwater Management

Benefits, costs and risk assessment

- 90 With respect to the assessment of benefits, costs and risks set out in section 32(2), I am of the opinion that the improved certainty given by the changes, and the increased thresholds in some waterbody classes, will trigger environmental improvements through the rules of the pSWLP. There is likely to be reduced uncertainty around expectations and more consistent application of the criteria across the river waterbody classes, which is considered more effective and efficient and a benefit both environmentally and economically. It is likely that the changes will drive a more expedited achievement of water quality improvements, which will have obvious, environmental, cultural and social benefits, but at a higher short to medium term cost to communities. These benefits and costs will likely occur in any event, as the water quality standards are refined under the NPSFM Freshwater Planning Process.
- 91 Overall, having considered the options, the wording of the provision agreed by the parties (and set out in Attachment A) is considered to be the most appropriate way to achieve the objectives of the pSWLP,



Issue 27 – Rule 9

- 92 Rule 9 of the pSWLP was appealed by the Director-General of Conservation.
- 93 No other parties joined this appeal.
- 94 The mediated outcome for Rule 9 is (new text underlined):

Rule 9 – Discharge of agrichemicals onto or into surface water

- (a) The discharge of agrichemicals and any associated wetting, antifoaming and anti-drifting agent and marker dyes into or onto surface water is a permitted activity provided the following conditions are met:
- (i) the discharge is for the purpose of eradicating, modifying or controlling excessive growth of aquatic plants, and does not exceed the quantity, concentration or rate necessary, as recommended by the manufacturer or approved by the Environmental Protection Authority;
- (ii) ...

Relevant objectives

- 95 While all the objectives of the pSWLP are relevant and have been considered, in terms of assessing whether Rule 9 is the most appropriate way to achieve the objectives, the most relevant objectives are Objective 1, Objective 2, Objective 3, Objective 5, Objective 6, Objective 14, and Objective 17.

Reasonably practicable options

- 96 Section 32(1)(b)(i) requires the identification of "other reasonably practicable options" for achieving the objectives. The reasonably practicable options I have identified and considered are the Decisions Version wording, and the agreed wording shown in tracked changes in paragraph 94 above.

Explanation and reasons for the changes agreed

- 97 The adjustment made to Rule 9 improves the management of discharges of agrichemical to waterbodies, as it enables the discharge

where those agrichemicals have been through an Environmental Protection Agency (**EPA**) approval process.

- 98 As I understand it, some agrichemicals have specific approval from the EPA for application to water for pest and weed control. I understand this EPA process to be comprehensive and would result in the same or similar outcomes to a resource consent process. The Director-General of Conservation has sought a number of these EPA approvals to better enable the management of pests in waterways. The Director-General and the Council agree that it is appropriate to rely on the EPA approval process.

Benefits, costs and risk assessment

- 99 With respect to the assessment of benefits, costs and risks set out in section 32(2), I am of the opinion that the outcomes from the change are unlikely to be different in terms of environmental outcomes, but will result in a reduction in transaction cost, in that a further approval from the Council will not be required. Therefore, there is likely to be a small economic benefit, with little-to-no environmental, cultural or social costs or benefits. There may be some additional benefits in that the Director-General may have access to a wider range of pest control options approved by the EPA, for which it has not sought approval from Council, thereby limiting available pest control options in the region.
- 100 In terms of section 32(2)(c), I do not consider there is uncertain or insufficient information about the subject matter of the provisions in this context and therefore a risk assessment is not required.
- 101 Overall, having considered the options, the wording of the provision agreed by the parties (and set out at paragraph 94 above) is considered to be the most appropriate way to achieve the objectives of the pSWLP.

Issues 25, 26, 33, 36 – 39 – Agricultural effluent

- 102 Several appeals were lodged in relation to agricultural effluent, specifically in relation to Policy 17, Rule 32B and Rule 32D of the pSWLP.
- 103 For the appeal lodged by Fonterra Co-Operative Group, the following parties joined as section 274 parties:
- (a) Dairy Holdings Limited;

- (b) Federated Farmers of New Zealand; and
 - (c) Royal Forest and Bird Protection Society of New Zealand Incorporated.
- 104 For the appeals lodged by Southland Fish and Game Council and Royal Forest and Bird Protection Society of New Zealand the following parties joined as section 274 parties:
- (a) Alliance Group Limited;
 - (b) Aratiatia Livestock Limited;
 - (c) DairyNZ Limited;
 - (d) Director-General of Conservation;
 - (e) Federated Farmers of New Zealand;
 - (f) Fonterra Co-operative Group Limited
 - (g) Royal Forest and Bird Protection Society of New Zealand; and
 - (h) Southland Fish and Game Council.
- 105 For the appeal lodged by Te Rūnanga o Ngai Tahu, Hokonui Rūnaka, Waihopai Rūnaka, Te Rūnanga o Awarua & Te Rūnanga o Ōraka Aparima the following parties joined as section 274 parties:
- (a) Alliance Group Limited;
 - (b) DairyNZ Limited;
 - (c) Director-General of Conservation;
 - (d) Federated Farmers of New Zealand;
 - (e) Fonterra Co-operative Group Limited; and
 - (f) Royal Forest and Bird Protection Society of New Zealand Incorporated.
- 106 The mediated outcome for Policy 17 is (deleted text in ~~strikeout~~, new text underlined):

Policy 17 – Agricultural effluent management

1. Avoid ~~significant~~ where reasonably practicable, or otherwise remedy or mitigate, any adverse effects on water quality, and avoid, remedy, or mitigate other adverse effects of the

operation of, and discharges from, agricultural effluent management systems, by:

~~2. Manage agricultural effluent systems and discharges from them by:-~~

- (a) designing, constructing and locating systems appropriately and in accordance with best practice;
- (b) maintaining and operating effluent systems in accordance with best practice guidelines;
- (c) avoiding any surface run-off or overland flow, ponding or contamination of water, including via sub-surface drainage, resulting from the ~~application~~ discharge of agricultural effluent to pasture; and
- (d) avoiding the discharge of untreated agricultural effluent to water.

Note: Examples of best practice referred to in Policy 17(2)(a) for agricultural effluent include IPENZ Practice Note 21: Farm Dairy Effluent Pond Design and Construction and IPENZ Practice Note 27: Dairy Farm Infrastructure (although these will not be applicable to all above ground tanks).

Note: Examples of best practice guidelines referred to in Policy 17(2)(b) for agricultural effluent include DairyNZ's guidelines A Farmer's Guide to Managing Farm Dairy Effluent – A Good Practice Guide for Land Application Systems, 2015 and A Staff Guide to Operating Your Effluent Irrigation System, 2013.

107 The mediated outcome for Rule 32B is (deleted text in ~~strikeout~~, new text underlined):

Rule 32B – Construction, maintenance and use of new agricultural effluent storage facilities

- (a) The use of land for the construction, maintenance and use of a new agricultural effluent storage facility, ~~and any incidental discharge of agricultural effluent directly onto or into land from that facility which is, where relevant, within the normal operating parameters of a leak detection system or the pond drop test criteria set out in Appendix P,~~ is a permitted activity provided the following conditions are met:
 - (i) the ~~total~~ capacity of any individual agricultural effluent storage structure on a landholding, excluding storage

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authorised by a resource consent, does not exceed 35 cubic metres; and

- (ii) [unchanged]
 - (iii) [unchanged]
 - (iv) [unchanged]
 - (v) [unchanged]
 - (vi) [unchanged]
- (b) The use of land for the construction, maintenance and use of a new agricultural effluent storage facility, ~~and any incidental discharge of agricultural effluent directly onto or into land from that facility which is, where relevant, within the normal operating parameters of a leak detection system or the pond drop test criteria set out in Appendix P,~~ which does not meet condition (i) or condition (ii) of Rule 32B(a) is a controlled activity provided the following conditions are met:
- (i) the design is certified by a Chartered Professional Engineer as being in accordance with IPENZ Practice Note 21: Farm Dairy Effluent Pond Design and Construction (2013) or IPENZ Practice Note 27: Dairy Farm Infrastructure (2013), except in the case of an above ground tank, those Practice Notes only apply to the extent they are relevant to above ground tanks; and
 - (ii) the application includes an operational management plan that addresses operational procedures, emergency response, monitoring and reporting requirements, the undertaking of pond drop tests, and installation of monitoring devices; and
 - (iii) conditions (iii) to (vi) of Rule 32B(a).
- (c) The use of land for the construction, maintenance and use of a new agricultural effluent storage facility, ~~and any incidental discharge of agricultural effluent directly onto or into land from that facility which is, where relevant, within the normal operating parameters of a leak detection system, or the pond drop test criteria set out in Appendix P,~~ which meets conditions (i) and (ii) of Rule 32B(a), but which does not meet one or more of conditions (iii) to (vi) of Rule 32B(a), is a discretionary activity.
- (d) The use of land for the construction, maintenance and use of a new agricultural effluent storage facility, ~~and any incidental~~

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~~discharge of agricultural effluent directly onto or into land from that facility which is, where relevant, within the normal operating parameters of a leak detection system, or the pond drop test criteria set out in Appendix P, which meets condition (i) of Rule 32B(b), but which does not meet one or more of conditions (ii) and (iii) of Rule 32B(b), is a discretionary activity.~~

- (e) The use of land for the construction, maintenance and use of a new agricultural effluent storage facility, ~~and any incidental discharge of agricultural effluent directly onto or into land from that facility which is within the normal operating parameters of a leak detection system or the pond drop test criteria set out in Appendix P, which does not meet condition (i) of Rule 32B(b) is a non-complying activity.~~

108 The mediated outcome for Rule 32D is:

Rule 32D –Existing agricultural effluent storage facilities

- (a) The use of land for the maintenance and use of an existing agricultural effluent storage facility that was authorised prior to Rule 32D taking legal effect, ~~and any incidental discharge directly onto or into land from that storage facility which is, where relevant, within the normal operating parameters of a leak detection system or the pond drop test criteria set out in Appendix P, is a permitted activity provided the following conditions are met:~~
- (i) ~~the construction of the existing agricultural effluent storage facility was authorised by a resource consent; or:~~
 - (ii) the construction of the existing agricultural effluent storage facility was lawfully carried out without a resource consent; and
 - (1) ~~was authorised by a resource consent; or~~
 - (2) ~~was lawfully carried out without a resource consent; and~~
 - (iii) where the construction of the existing agricultural effluent storage facility was lawfully carried out without resource consent, the landholding owner or their agent must provide information to the Southland Regional Council upon request, demonstrating that any the component of an existing agricultural effluent storage facility is either:
 - (1) has a capacity of 35m³ or less, is constructed using an impermeable concrete or synthetic liner, and has no defect that would cause leakage; or

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- (12) ~~is~~ fully lined with an impermeable synthetic liner, or is of concrete construction, ~~or is above ground level~~ and:
- (a) has a leak detection system that underlies the entire agricultural effluent storage facility which is inspected not less than monthly and there is no evidence of any leakage; and
 - (b) has been is certified by a Suitably Qualified Person in accordance with Appendix P within the last 10 years as meeting the relevant pond drop test criteria in Appendix P; or
- (3) is an above ground storage tank constructed in accordance with a building consent and has been certified by a Suitably Qualified Person within the last 5 years, following an external visual inspection, as having no visible cracks, holes or defects in the tank that would allow effluent to leak or visible leakage from the sides or base of the tank; or
- (24) is certified by a Suitably Qualified Person within the last three years as:
- (a) having no visible cracks, holes or defects that would allow effluent to leak from the effluent storage facility; and
 - (b) meeting the relevant pond drop test criteria in Appendix P.
- (b) The use of land for the maintenance and use of an existing agricultural effluent storage facility that was authorised prior to Rule 32D taking legal effect, ~~and any incidental discharge directly onto or into land from that storage facility which is within the normal operating parameters of a leak detection system or the pond drop test criteria set out in Appendix P that does not meet one or more conditions of Rule 32D(a)~~ is a discretionary activity.
- (c) The use of land for the replacement of an existing agricultural effluent storage facility's impermeable synthetic liner with a new impermeable synthetic liner or the installation of an impermeable synthetic liner in an existing agricultural effluent storage facility that does not have an impermeable synthetic liner is a controlled activity provided the following conditions are met:
- (i) the construction of the existing agricultural effluent storage facility:

- (1) was lawfully carried out without a resource consent; or
- (2) was authorised by a resource consent; and
- (ii) The design and installation of the impermeable synthetic liner and associated gas venting and leak detection system (if applicable) shall be carried out by a suitably qualified person; and
- (iii) The existing agricultural effluent storage facility is not being enlarged or otherwise modified beyond the extent necessary to install the impermeable synthetic liner and associated components.

The Southland Regional Council will reserve its control to the following matters:

1. The design, installation, and certification of the impermeable synthetic liner.
 2. The design and installation of a gas venting and leak detection system.
 3. Investigations into, and work to ensure, the structural integrity of the pond structure
 4. Testing requirements to ensure the impermeable synthetic liner and any associated gas venting and leak detection system has been installed and is operating correctly.
- (d) The use of land for the replacement of an existing agricultural effluent storage facility's impermeable synthetic liner with a new impermeable synthetic liner or the installation of an impermeable synthetic liner in an existing agricultural effluent storage facility that does not have an impermeable synthetic liner that does not meet one or more conditions of Rule 32D(c) is a discretionary activity

109 The mediated outcome includes a new Rule 32E:

Rule 32E – Incidental Discharges from Effluent Storage Facilities

- (a) The incidental discharge of agricultural effluent directly onto or into land from an agricultural effluent storage facility that is authorised under Rules 32B or 32D is a permitted activity provided the following conditions are met:
- (i) The discharge is directly through the sides or base of the agricultural effluent storage facility; and
 - (ii) The incidental discharge amount is, where relevant, within the normal operating parameters of a leak detection system or within the pond drop test criteria set out in Appendix P.

new

(b) The incidental discharge of agricultural effluent directly onto or into land from an agricultural effluent storage facility that is authorised under Rules 32B or 32D that does not meet one or more of the conditions of Rule 32E(a) is a discretionary activity.

Relevant objectives

110 While all the objectives of the pSWLP are relevant and have been considered, in terms of assessing whether Policy 17, Rule 32B and Rule 32D are the most appropriate way to achieve the objectives, the most relevant objectives are Objective 1, Objective 2, Objective 3, Objective 6, Objective 8, Objective 13 and Objective 18.

Reasonably practicable options

111 Section 32(1)(b)(i) requires the identification of "other reasonably practicable options" for achieving the objectives. The reasonably practicable options I have identified and considered are the Decisions Version wording, and the agreed wording shown in tracked changes in paragraphs 106 to 109 above.

Explanation and reasons for the changes agreed

112 In my opinion, the changes to the beginning of Policy 17 make this policy consistent with the adjustments to the majority of other discharge policies in the pSWLP, in that avoidance of effects on water quality is clearly the first option, with remedying and mitigating effects on water quality being secondary options. For this policy this is a notable change toward a higher degree of protection of water quality, as the Decisions Version of the Policy only required the avoidance of 'significant' effects. In my opinion, this change is likely to result in different outcomes, with a higher bar for applications and more stringent resource consent conditions likely to result. This was confirmed during the mediation discussion where the inclusion or removal of these words were seen as having a practical implication for decisions made under the pSWLP. Further, the consistency of wording with other discharge policies is helpful for consistent administration of the pSWLP and clear expectations for all parties.

113 The other changes to the Policy are more in the nature of improved structure and wording. In my opinion, they are unlikely to result in noticeably different environmental outcomes.

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- 114 The changes to the Rules, although extensive, are largely to correct a range of issues with interpretation and function of the Decisions Version of the Rules, which have become apparent during the processing of applications lodged since the decisions on the pSWLP were issued. These changes do not result in materially different outcomes, but rather enable the Rules to function as they were intended, and not cause unintended consequences and resulting inefficiencies. Therefore, pursuant to section 32AA(1)(c), these adjustments to the effluent discharge Rules are not further assessed.
- 115 The one exception to this is with respect to new Rules 32D(c) and (d). This new Rule enables (as a controlled activity) the installation, with appropriate design and supervision, of an impermeable liner in an existing effluent storage pond. The installation of these liners, with resulting reduction in leakage, is generally a significant improvement in environmental performance. However, incorrect design and installation has caused a number of failures, and a specific rule will assist management and environmental outcomes for these upgrades.
- 116 Overall, the parties were cognisant that the storage and application of agricultural effluent has a high level of risk if poorly designed or managed, but conversely, if well designed and managed, can have environmental and farm system benefits. The efforts of the dairy industry to provide specific design and operational guidance was recognised. The parties agreed that the changes to the Policy and the Rules would further require this good design and management, and therefore would better align with the wording of Objective 1 of the NPSFM and with Objectives 1 and 2 of the pSWLP. The parties noted the greater emphasis on the duty to avoid adverse effects in the first instance, before considering the ability to remedy or mitigate effects, and the improvements to the functionality of the related Rules.

Benefits, costs and risk assessment

- 117 With respect to the assessment of benefits, costs and risks set out in section 32(2), I am of the opinion that the outcomes from the two options of the wording of this Policy and the associated Rules are slightly different, with the agreed version likely to result in greater certainty and more positive environmental outcomes. The agreed version better reflects the wider policy context of the pSWLP and the higher-order planning documents. While the environmental, cultural and social

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benefits will be incremental as new effluent management systems are built and improved, these systems are likely to be at a higher standard and subject to tighter operational controls which will incur additional economic costs to operators. These costs are unlikely to be significant, and it is understood that the outcomes are well aligned with expectations of good effluent management practice in the dairy industry. As a whole, the changes, particularly to the Rules, will result in a framework that is more effective and is also more efficient, as environmental expectations are clearer and unintended consequences are less likely to occur.

118 Overall, having considered the options, the wording of the provision agreed by the parties (and set out at paragraphs 106 to 109 above) is considered to be the most appropriate way to achieve the objectives of the pSWLP.

Matthew McCallum-Clark

Affirmed at Kaiapoi)
this 2nd day of February)
2022, before me:)

A Solicitor/Deputy Registrar of the High Court of New Zealand/
Justice of the Peace

Toni Laura Dempsey
Solicitor
Christchurch

“EXHIBIT A”

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) due to the effects of the operation of the Manapōuri hydro-electric generation scheme that alters natural flows, that parameter cannot meet the standard.

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.²²

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 8090 and the Semi-Quantitative Macroinvertebrate Community Index shall exceed 3.54.5.²³

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.

²² Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland.

²³ 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)

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.²⁴

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.

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.²⁵

Biomass shall not exceed 35 grams per square metre for either filamentous algae or diatoms and cyanobacteria.²⁶

Chlorophyll a shall not exceed 120 milligrams per square metre for filamentous algae and 200 milligrams per square metre for diatoms and cyanobacteria.²⁷

²⁴ Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland.

²⁵ Applies to the part of the bed that can be seen from the bank during summer low flows or walked on.

²⁶ 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

²⁷ 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

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.

When the flow is at or below the median flow, the visual clarity of the water shall not be less than 1.6 metres.²⁸

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".

²⁸ Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland.

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.

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 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.²⁹

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.³⁰

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

²⁹ Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland.

³⁰ 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.

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.³¹

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.³²

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.

³¹ Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland

³² 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.

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.³³

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", 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.³⁴

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

³³ Visual clarity in lakes to be measured as Secchi depth.

³⁴ Determination of lake chlorophyll concentration to be follow the protocols in Burns et al. (2000).

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 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 Waters³⁵ 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

³⁵ 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.

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.

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.