# IN THE ENVIRONMENT COURT AT CHRISTCHURCH

## I TE KŌTI TAIAO O AOTEAROA KI ŌTAUTAHI

## Decision No. [2022] NZEnvC 265

IN THE MATTER of the Resource Management Act 1991

AND appeals under clause 14 of the First

Schedule of the Act

BETWEEN ARATIATIA LIVESTOCK

LIMITED

(ENV-2018-CHC-29)

(and all other appellants listed in the

Schedule attached)

**Appellants** 

AND SOUTHLAND REGIONAL

COUNCIL

Respondent

Court: Environment Judge J E Borthwick

Deputy Environment Commissioner R M Dunlop

Hearing: at Christchurch on 14-16 March 2022, 11-14 April 2022,

30 May-3 June 2022, 8-10 June 2022, 6-8 July 2022, 8-9 August 2022, 15-17 August 2022, 25 August 2022

Appearances: P A C Maw and I F Edwards for Southland Regional

Council

M R Garbett for the Territorial Authorities M Exton for Ballance Agri-Nutrients Limited

K E Forward and J M Ottowa for the Dairy Interests

P D Williams for Director-General of Conservation

Tumuaki Ahurei

B S Carruthers for Federated Farmers of New Zealand Inc

and Wilkins Farming Company Ltd

S R Gepp for Royal Forest and Bird Protection Society of New Zealand Inc and The Southland Fish and Game



## Council

J G A Winchester and S K Lennon for Ngā Rūnanga

S W Christensen for Meridian Energy Limited M R G Christensen for Ravensdown Limited D A Allan for Aratiatia Livestock Limited

C P Thomsen and C H Luisetti for Beef+Lamb New

Zealand Limited

K L Rusher for Mr English

Last case event: 8 December 2022

Date of Decision: 23 December 2022

Date of Issue: 23 December 2022

## FIFTH INTERIM DECISION OF THE ENVIRONMENT COURT

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#### Abbreviations used in the decision

CV: Court Version – provisions approved or provisionally

approved by the court with or without amendments

Dairy Interests: Fonterra Co-operative Group Ltd & DairyNZ Ltd

DIN: Dissolved Inorganic Nitrogen

DM: Dry Matter

DRP: Dissolved Reactive Phosphorus

DV: Decisions Version on plan provisions by the Regional

Council under Schedule 1, RMA.

FEMP: Farm Environmental Management Plan

FMU: Freshwater Management Unit

ICOLLS: Intermittently closed and open lakes and lagoons

IWG: Intensive Winter Grazing

JWS: Joint Witness Statement

MCI: Macroinvertebrate Community Index

Ngā Rūnanga: Waihopai Rūnaka, Hokonui Rūnaka, Te Rūnanga o

Awarua, Te Rūnanga o Oraka Aparima, and Te

Rūnanga o Ngāi Tahu

NES-F: Resource Management (National Environmental

Standards for Freshwater) Regulations 2020

NOF: National Objectives Framework

NPS-FM: National Policy Statement for Freshwater Management

2020

Plan Change Tuatahi: a future plan change giving effect to the provisions of

the NPS-FM (s 55(2B))

pSWLP or proposed proposed Southland Water and Land Plan

plan/plan:

RD: Restricted Discretionary

RMA: Resource Management Act 1991

SRC: Southland Regional Council

STAG: Science and Technical Advisory Group

#### **REASONS**

#### Introduction

[1] This fifth interim decision concerns appeals on the Southland Water and Land Plan and decides most of the disputed provisions of interest to the primary sector.

- [2] The decision on those provisions in respect of which parties sought orders by consent will be released separately. The decision on the balance of the provisions will be released in the New Year.
- [3] As parties are aware, a hearing followed mediation and the conferencing of expert witnesses after those processes did not resolve many of the matters of substance on appeal. During the hearing, the parties and their witnesses worked hard to narrow their differences and the court is grateful for their efforts.

## Summary of key findings

- [4] Many of Southland's water bodies are likely degraded with water quality falling below the national bottom line or below the minimum acceptable state.
- [5] The discharge of contaminants incidental to farming and other activities is resulting in significant adverse effect on aquatic life.
- [6] The regulation of farming activities having disproportionately greater adverse effect on water quality is confirmed; namely intensive winter grazing, pasture-based wintering and sacrifice paddocks.

- [7] It is beyond the scope of the proposed plan to establish limits on resource use to achieve target attribute states or to support other environmental outcomes. Moreover, the plan's rules do not manage the potential for farming activities to intensify, including intensive winter grazing and pasture-based wintering. Consequently, a reduction in nitrogen leachate is unlikely. That said, the rules and methods may reduce the incidence of contaminant losses to surface water run-off (including phosphorus, sediments and potentially microbial contaminants).
- [8] Given the foregoing, it is the court's preliminary view that it does not have jurisdiction under s 70 of the Resource Management Act 1991 to approve of a rule permitting the discharge of contaminants incidental to farming activities.
- [9] All parties are agreed on the use of Farm Environmental Management Plans as the key method for giving effect to the proposed plan's policies and objectives. The Management Plan adopts a risk management process which is appropriate ahead of a plan change giving effect to the National Policy Statement for Freshwater Management 2020, and given the current state of knowledge concerning some farming activities.

#### Annexures

- [10] Attached to and forming part of the decision are several annexures. These are self-explanatory and include:
  - (a) Annexure 1: Scope Rule 20A: scope to approve area and slope conditions of the permitted activity;
  - (b) Annexure 2: Table 1 Agreed position of scientists on water quality;
  - (c) Annexure 3: Table 2 The court's findings in relation to degraded estuaries and ICOLLs;
  - (d) Annexure 4: Schedule X Title Page: Catchments of degraded water bodies where improvement in water quality is required;

- (e) Annexure 5: an annotated copy of the Southland Water and Land Plan; and
- (f) Annexure 6: Appendix N Farm Environmental Management Plan Requirements (CV).

#### The law

- [11] The role of the court on plan appeals is set out in the first Interim Decision.<sup>2</sup>
- [12] In addition to the instruments noted in the first Interim Decision, in this decision we are considering regulations made under the following instruments:
  - (a) Resource Management (National Environmental Standards for Freshwater) Regulations 2020; and
  - (b) Resource Management (Stock Exclusion) Regulations 2020.
- [13] Helpful submissions on the court's jurisdiction in relation to these instruments were received from the Regional Council and Federated Farmers.
- [14] A rule that is more stringent than a national environmental standard prevails over the standard, if the standard expressly says that a rule may be more stringent than it (s 43B(1)).<sup>3, 4</sup> A rule may not, however, be more lenient than a national environmental standard (s 43B(3)).<sup>5</sup>

<sup>&</sup>lt;sup>1</sup> The October Consolidated Plan (SRC Final Relief) has been used as the base document.

<sup>&</sup>lt;sup>2</sup> Aratiatia Livestock Ltd v Southland Regional Council [2019] NZEnvC 208 at [12]-[14].

<sup>&</sup>lt;sup>3</sup> Section 43B(2) states that 'For the purposes of subsection (1), a rule is more stringent than a standard if it prohibits or restricts an activity that the standard permits or authorises:'.

<sup>&</sup>lt;sup>4</sup> Having been referred to s 43B(1) by the Regional Council we assume the relevant standards state that the rules may be more stringent.

<sup>&</sup>lt;sup>5</sup> Section 43B(4) states 'For the purposes of subsection (3), a rule or resource consent is more lenient than a standard if it permits or authorises an activity that the standard prohibits or restricts.'

[15] Pursuant to s 32(4) RMA, the court has examined the relative stringency of plan rules and methods compared with regulations in the National Environmental Standards – Freshwater (NES-F). Section 32(4) states:<sup>6</sup>

If the proposal will impose a greater prohibition or restriction on an activity to which a national environmental standard applies than the existing prohibitions or restrictions in that standard, the evaluation report must examine whether the prohibition or restriction is justified in the circumstances of each region or district in which the prohibition or restriction would have effect.

[16] The plan was notified prior to these instruments coming into force and the alignment of its provisions is challenging because in many instances the activities regulated under the plan are more widely drawn than those under the NES-F, and secondly, there may not be scope to consider the substance of the NES-F regulation – which often is to restrict the expansion of farming activities.

[17] That said, if we have not commented on a provision it is usually because the parties support the draft wording and, the court having considered the drafting is satisfied with the relief sought.

## The objectives

[18] This decision is concerned with a single policy, Policy 16. Policy 16 applies to farming activities that affect water and is to implement several objectives, which are now operative, the following being the most important:

#### Objective 6

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

- (a) maintained where the water quality is not degraded; and
- (b) improved where the water quality is degraded by human activities.

<sup>&</sup>lt;sup>6</sup> This is the version of s 32(4) RMA that applied at the date the plan was notified.

<sup>&</sup>lt;sup>7</sup> SRC Linkages document filed 4 October 2022.

#### Objective 13

Provided that:

- (a) the quantity, quality and structure of soil resources are not irreversibly degraded through land use activities or discharges to land; and
- (b) the health of people and communities is safeguarded from the adverse effects of discharges of contaminants to land and water; and
- (c) ecosystems (including indigenous biological diversity and integrity of habitats), are safeguarded;

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

#### Objective 14

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

#### Objective 15

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

#### And finally:

#### Objective 18

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

- [19] The proposed plan was notified prior to the commencement of the current NPS-FM 2020. The degraded state of many of the region's water bodies is such that the plan policies and methods are unlikely to fully implement any of the above objectives. This will remain the case until Plan Change Tuatahi is notified giving effect to the NPS-FM's National Objectives Framework.
- [20] The court relies on robust evidence to inform policy. We suggest evidence-based policy making in this context means that the content of policies and methods is informed by the sciences (including engineering) and mātauranga Māori.

Furthermore, the plan methods would usually be robustly tested and proven; setbacks and slope restrictions are noteworthy examples of where this has not occurred in this case or the methods are defended on a first principles basis by technical experts.<sup>8</sup> In its absence, the parties have adopted a risk management approach which we consider appropriate at this juncture and it may indeed be of on-going value for those activities, such as farming, that discharge contaminants diffusely into the environment. In saying that, we are not suggesting that risk management processes are the only method.

[21] Decision making on all contested provisions is subject to two objectives which we have brought to bear. Those objectives are:

#### Objective 1

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

And:

### Objective 2

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

[22] With the objectives in mind, where methods have not been robustly tested we have put the health and well-being of water bodies and freshwater ecosystems to the fore by adopting, where available, entry conditions for the permitted activity rules that reduce risk to the lowest possible level. In doing so, the court is constrained by the relief the parties can pursue under the various appeal notices; put another way risk reduction is in the context of the amended relief.

<sup>8</sup> Technical experts meaning witnesses other than planners.

[23] We are alert to Te Mana o te Wai being approached as if it is a 'tick box' exercise in the sense of something having been done or not and of Ngāi Tahu ki Murihiku's understanding that Te Mana o te Wai is a process as well as an outcome. Responding, many of the changes to Appendix N: FEMP are to support a process of striving for continual improvement, which for now will be over a period of time.

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<sup>&</sup>lt;sup>9</sup> Cain, EiC dated 20 December 2021 at [16].

## Policy 16

#### Overview

[24] The court is considering appeals against the Decisions Version ('DV') of the pSWLP.

[25] The architecture of the plan is predicated on land use activities and discharges either maintaining<sup>10</sup> or improving<sup>11</sup> water quality, with the water quality standards and sediment guidelines being set out in Appendices E and C.

[26] While all activities are to achieve these outcomes, <sup>12</sup> specific policies applying to the following activities are:

- (a) farming (Policy 16);
- (b) industrial and trade processes (Policy 16A);
- (c) agricultural effluent management (Policy 17);
- (d) community sewerage schemes and onsite wastewater systems (Policy 17A); and
- (e) stock exclusion from water bodies (Policy 18).

[27] This decision is concerned with farming activities and so we address Policy 16 next. Note: when referring to 'contaminant(s)' we mean nitrogen, phosphorus, sediment or microbial contaminant discharges. Reference to 'nutrients' means nitrogen and phosphorus.

<sup>11</sup> Policy 15B.

<sup>12</sup> Policy 13(2) (DV) states management of land use activities and discharges (both point source and non-point source) are to enable the achievement of Policies 15A, 15B and 15C.

<sup>&</sup>lt;sup>10</sup> Policy 15A.

## Policy 16 (DV)

[28] Applying to farming activities, Policy 16 (DV) provides applications to establish new, or further intensify existing, dairy farming of cows or intensive winter grazing activities will generally not be granted where:<sup>13</sup>

- (a) the adverse effects on water quality cannot be avoided or mitigated; or
- (b) existing water quality is degraded to the point of being overallocated; or
- (c) water quality does not meet the standards and guidelines in Appendices E and C.

[29] The policy discourages all farming activities from locating in proximity to certain wetlands and water bodies.<sup>14</sup>

[30] Looking forward to Plan Change Tuatahi – a plan to be developed under the NPS-FM's National Objectives Framework – under Policy 16 (DV) resource consents for new, or intensified, dairy farming of cows or intensive winter grazing activities:<sup>15</sup>

- (a) will not be granted where freshwater objectives are not being met; and
- (b) where freshwater objectives are being met, will be granted if water quality is maintained.
- [31] That aside, under Policy 16 (DV) all farming activities are to:
  - (a) implement a Farm Environmental Management Plan;
  - (b) actively manage sediment run-off risk; and

<sup>14</sup> Policy 16(1)(a) (DV).

<sup>&</sup>lt;sup>13</sup> Policy 16(1)(b) (DV).

<sup>&</sup>lt;sup>15</sup> Policy 16(1)(c) (DV).

(c) in relation to critical source areas, manage collected and diffuse runoff and leaching of nutrients, microbial contaminants and sediments.

[32] Finally, Policy 16 (DV) addresses consent duration, providing a term of at least five years.

## Amended relief

[33] Policy 16 as proposed to be amended by the parties:16

- (a) removes the focus on the circumstances when resource consent cannot be granted;
- (b) prioritises the avoiding of adverse effects where practicable, over other actions;
- (c) ensures all farming activities will not increase, but rather minimise contaminant discharges;
- (d) where the farming activity occurs in a Schedule X catchment,<sup>17</sup> all farming is to reduce the adverse effects on water quality;<sup>18</sup> and
- (e) ensures new, or further intensification of existing, dairy farming of cows or any intensive winter grazing are not located in proximity to specified water bodies, wetlands and other named features.<sup>19</sup>

[34] A definition for 'minimise' is proposed. Minimise means: 'to reduce to the smallest amount reasonably practicable'.

[35] It is further proposed there be express recognition of the requirement for intensive winter grazing and high-risk pasture winter grazing<sup>20</sup> on most land

<sup>&</sup>lt;sup>16</sup> Policy 16(1)(a); (b).

<sup>&</sup>lt;sup>17</sup> Referred to in Policy 16, Schedule X is a new Schedule proposed for inclusion in the proposed plan.

<sup>&</sup>lt;sup>18</sup> Policy 16(1)(a).

<sup>&</sup>lt;sup>19</sup> Policy 16(1)(b).

<sup>&</sup>lt;sup>20</sup> NB: Dairy Interests do not accept there should be any policy recognition of pasture-based wintering.

holdings in Southland in order to carry stock over winter. However, this is subject to, amongst other matters, farming not increasing, but rather minimising, contaminant discharges across the whole of the land holding.<sup>21</sup>

[36] Those matters aside, the parties would:<sup>22</sup>

- (a) retain and develop policies applicable to Farm Environmental Management Plans;
- (b) prioritise the avoidance, where practicable, of sediment run-off over other actions; and
- (c) prioritise the avoidance, where practicable, of collected and diffuse run-off and leaching of contaminants via identification and management of critical source areas.

[37] Finally, Forest & Bird/Fish & Game propose a policy that new and existing farming activities in a Schedule X catchment be authorised by resource consent. The policy is to:<sup>23</sup>

- (a) not grant resource consent for new farming diffuse discharges that contribute contaminants to a Schedule X water body; and
- (b) only grant resource consent for existing farming diffuse discharges if the mitigation of contaminants results in a 'meaningful improvement (reduction) in the incidental discharge of contaminants'. (We interpret 'incidental' in this context to mean 'happening as a result of'.)

#### The issues

[38] The issues for resolution are:

<sup>22</sup> Policy 16(1)(c).

<sup>&</sup>lt;sup>21</sup> Policy 16(1)(c1).

<sup>&</sup>lt;sup>23</sup> Forest & Bird/Fish & Game, Policy 16(2).

- (a) whether the catchments included in Schedule X are referred to as:
  - (i) degraded water bodies, or
  - (ii) water bodies that are in need of improvement.
- (b) the description of Schedule X catchments in Policy 16 and in the plan's methods; and
- (c) the merits of a new policy for activities requiring resource consent in a Schedule X catchment.
- [39] We turn next to Schedule X.

## Background – Schedule X

[40] Schedule X is a new method that is proposed to implement Policy 16. As with any method, Schedule X is to be considered in the context of the policies and objectives the method would implement.

#### First Interim Decision

[41] In the court's first Interim Decision we said:24

We do not understand any witness to take issue that the quality of water in many waterbodies is likely degraded and nor did any party oppose in principle the objective that where water quality is degraded then it must be improved.

The objective begs the question: what is meant by 'degraded'? The salience of this question should be self-evident: the mauri of water is neither acknowledged nor provided for where water is allowed to or has become degraded by human activities.

(Footnotes omitted)

<sup>&</sup>lt;sup>24</sup> [2019] NZEnvC 208 at [95]-[96].

[42] During 2019 the court directed expert conferencing with the participating witnesses to report on:<sup>25</sup>

- (a) a recommended classification system for rivers, lakes and estuaries on an interim basis (pending the freshwater management unit processes to follow);
- (b) attributes and thresholds to be used as the basis for defining degradation on an interim basis; and
- (c) estimated levels of confidence in any recommended attribute thresholds.

[43] These directions were refined over successive expert conferences, with the experts in the final conference to:<sup>26</sup>

- (a) finalise attributes and thresholds to be used as the basis of defining degradation on an interim basis;
- (b) identify which water bodies are degraded and by what attributes; and
- (c) consider possible linkages to cultural indicators and ki uta ki tai and Te Mana o te Wai, based on currently available information from cultural experts.

[44] The expert conference of water quality scientists in November 2021 confirms the relevance of conference outputs in earlier years. We touch on key points of evidence from those earlier conferences next.

Expert conferencing of scientists

[45] In 2019 the conference of science experts reported that the extent of effects of activities on the environment depends on many variables that are individually complex, and in combination highly complex. While the available information to

<sup>&</sup>lt;sup>25</sup> [2019] NZEnvC 208 at [97].

<sup>&</sup>lt;sup>26</sup> Water quality and ecology JWS, 20-22 November 2019 at [2].

understand effects at a regional, catchment or sub-catchment scale is rarely, if ever, complete, the experts were confident that enough data was available to make reliable decisions for planning purposes.<sup>27</sup>

[46] Following a large body of work,<sup>28</sup> the experts identified attributes relevant to the (then) operative NPS-FM<sup>29</sup> for ecosystem health and human health for recreation values,<sup>30</sup> adopting the concept of the 'national bottom line', where specified, or 'minimum acceptable state'.<sup>31</sup> They made recommendations about 'thresholds' – being numeric values indicating degradation.<sup>32</sup>

[47] The experts did not consider themselves bound by the national bottom lines in NPS-FM (as amended in 2017) when describing degradation, recommending region-specific thresholds<sup>33</sup> and proposing also a spatial framework for rivers, classifying them into lowland and upland categories.<sup>34</sup> They were careful to point out that non-compliance with a proposed threshold indicates a degraded state of a waterbody, however compliance does not necessarily mean that the water body was in a state of hauora.<sup>35</sup>

[48] As noted above, in 2021 the experts agreed that their earlier work was still relevant, containing important information to inform the proposed plan before the court.<sup>36</sup> They reported that for sites lacking monitoring data, models were useful in providing an overview of water quality and ecological state at a regional

<sup>&</sup>lt;sup>27</sup> Water quality and ecology JWS, dated 20-22 November 2019 at [18].

<sup>&</sup>lt;sup>28</sup> Three JWS were released pursuant to the 2019 directions with a further two JWS in 2021.

<sup>&</sup>lt;sup>29</sup> National Policy Statement for Freshwater Management (as amended in 2017).

<sup>&</sup>lt;sup>30</sup> Water quality and ecology JWS, dated 3 and 4 September 2019 at Tables 1 and 2.

<sup>&</sup>lt;sup>31</sup> At that time, the values in the 2017 NPS-FM applied.

<sup>&</sup>lt;sup>32</sup> Water quality and ecology JWS, dated 3 and 4 September 2019 at [16]; Water quality and ecology JWS, dated 14 -16 October 2019 at [45] and definition of 'threshold'.

<sup>&</sup>lt;sup>33</sup> Water quality and ecology JWS, dated 14-16 October 2019 at [20]-[22].

<sup>&</sup>lt;sup>34</sup> Water quality and ecology JWS, dated 14-16 October 2019 at [28]-[32]. A spatial framework for lakes was also recommended but this does not appear to be controversial.

<sup>&</sup>lt;sup>35</sup> Water quality and ecology JWS, dated 14-16 October 2019 at [24].

<sup>&</sup>lt;sup>36</sup> Science/water quality JWS, dated 24-26 November 2021 at [6].

and sub-regional scale, but that the models also have large uncertainty at a local or river reach scale.<sup>37</sup>

#### Schedule X contents

Introduction of the proposed schedule

[49] An outcome of the 2021 conference of planners, was the recommendation to map catchments where water quality is degraded by nitrogen, phosphorus, sediment or microbial contaminants and to include those maps in a new schedule to the plan, Schedule X.<sup>38</sup>

[50] Recommending also extensive revision of Policy 16, Schedule X is a method to implement the policy revisions. Notably, at that time, it was anticipated that different actions would be required of farming activities located within a Schedule X catchment.<sup>39</sup> The parties' water quality scientists confirmed they could spatially identify degraded water bodies and recommended the catchments of water bodies above any degraded segments be identified in order to manage cumulative effects, contaminant loss risk, and the amount of contaminant loss.<sup>40</sup>

[51] The parties, including the Dairy Interests, accepted the planning advice that policies, rules and methods are to implement Objective 6 by differentiating farming activities based on location. However, as it transpired, a significantly larger

<sup>&</sup>lt;sup>37</sup> Science/water quality JWS, dated 24-26 November 2021 at [7].

<sup>&</sup>lt;sup>38</sup> Planning JWS, dated 9-10 December 2021 at [25]-[26].

<sup>&</sup>lt;sup>39</sup> Planning JWS, dated 9-10 December 2021, Appendix B5. See also Planning JWS, dated 17-19 November 2021, Preamble where it is stated '... the planning experts agree that farming that contributes contaminants to **degraded water bodies should be treated differently**, there is a need to clearly identify (preferably spatially per contaminant of concern) where the **degraded water bodies** are and what farming areas contribute to that **degradation** [Our emphasis].

<sup>&</sup>lt;sup>40</sup> Science/water quality JWS, dated 24-26 November 2021, Question 8 at 11-12, noting also the linkage in both upstream and downstream directions of the cumulative effect of contaminant loss and degradation.

area of Southland was identified for inclusion in Schedule X than had been anticipated by the planners at their expert conference in 2021.

Maps

[52] Two sets of maps were produced by Dr A Snelder, a researcher in the field of water and land resources, giving evidence on behalf of the Regional Council, and by Dr C Depree, the principal water quality scientist at DairyNZ, giving evidence on behalf of Fonterra and DairyNZ (the Dairy Interests).

[53] Both experts map *E.coli*, macroinvertebrate community index scores and estuarine trophic state.<sup>41</sup> Dr Snelder has, in addition, mapped suspended fine sediments, dissolved inorganic nitrogen (DIN) and dissolved reactive phosphorus (DRP).<sup>42</sup>

[54] Notwithstanding the differences in the range of attributes selected for mapping and differences also in methodologies, spatially there was broad concordance between the sets of maps produced<sup>43</sup> and where the scientists used models, the models were able to reproduce similar outputs.<sup>44</sup>

Water quality evidence

[55] The water quality experts identify and agree on water bodies or segments of water bodies falling below the national bottom line or minimum acceptable state for the following:

<sup>41</sup> The trophic state of a water body indicates the amount of biological productivity it sustains.

<sup>&</sup>lt;sup>42</sup> Dr Snelder produced a single map for six attributes mapped together with individual maps for each attribute. Dr Depree produced two maps; namely a map for human health value (*E.Coli*) and a second map for the ecosystem health value (MCI and estuarine trophic status).

<sup>&</sup>lt;sup>43</sup> The exception to this is Dr Snelder's *E.coli* map which identifies a larger proportion of Southland as being degraded, including the mainstem of the Waiau River. See transcript (Snelder) at 705.

<sup>&</sup>lt;sup>44</sup> Transcript (Snelder) at 704. Excluding *E.Coli*, Dr Depree also considered maps could be adequately produced using either of the models. See Depree, evidence dated 22 February 2022 at [7.1].

- (a) macroinvertebrate community;<sup>45</sup>
- (b) suspended fine sediment;<sup>46</sup> and
- (c) phytoplankton (trophic state).<sup>47</sup>

[56] For minimum acceptable state in respect of which there is no national bottom line in the NPS-FM, the experts agree:

- (a) for *E.coli*, the minimum acceptable state identified is Band C, Table 9 in NPS-FM 2020. Both experts identify water bodies in Bands D and E of Table 9 (i.e. below the minimum acceptable state);
- (b) for macroalgal and phytoplankton indicators of estuarine trophic state,<sup>48</sup> both experts adopt the minimum acceptable state defined in Plew (2020) and Plew et al. (2020) for the Estuarine Trophic Index.<sup>49</sup> The Estuarine Trophic Index minimum acceptable state is the Band C/D threshold which is described as the transition from moderately impacted (Band C) to heavily impacted ecological communities. Both experts identify estuaries in Band D.<sup>50</sup>

[57] The above findings are summarised for the first four attributes in Annexure 2: Table 1 attached to and forming part of this decision.

#### Matters in contention

[58] We set out next our findings on three matters that were not agreed by the experts. The first of these concerns the estuaries and ICOLLs.

<sup>&</sup>lt;sup>45</sup> NPS-FM, Table 14.

<sup>&</sup>lt;sup>46</sup> NPS-FM, Table 8.

<sup>&</sup>lt;sup>47</sup> NPS-FM, Table 1.

<sup>&</sup>lt;sup>48</sup> These indicators are not attributes identified in NPS-FM 2020, Appendices 2A or 2B.

<sup>&</sup>lt;sup>49</sup> Plew et al. (2020) Assessing the Eutrophic Susceptibility of New Zealand Estuaries. Estuaries and Coasts 43, 2015-2033. Plew D (2020). Models for evaluating impacts of nutrient and sediment loads to Southland Estuaries – To inform the Southland Regional Forum process. NIWA report 2020216CH prepared for Environment Southland.

<sup>&</sup>lt;sup>50</sup> Water quality JWS, dated 1 August 2022 at [10].

#### Estuaries and ICOLLs

[59] Being at the bottom of catchments, estuaries and ICOLLs receive contaminants discharged from upstream. Depending on their characteristics, estuaries may be assessed in relation to a primary indicator for eutrophication.<sup>51</sup> That is, whether the trophic state of an estuary is most likely determined by macroalgal or phytoplankton blooms. While adopting the same thresholds, for macroalgae and phytoplankton indicators of estuarine trophic state, the experts differed in their methods to assess estuaries against the thresholds. Their assessment methodology is summarised in two JWSs filed after evidence exchange.<sup>52</sup>

[60] We prefer the modelling methodology used by Dr Snelder for the following reasons:

- (a) the approach has the advantage of comprehensiveness and consistency;<sup>53</sup>
- (b) the robustness of the modelling is unchallenged;
- (c) the model predicts the macroalgal and phytoplankton response to total nitrogen and total phosphorus inputs;
- (d) while Dr Snelder does not determine the primary indicator of eutrophication, this does not necessarily detract from his work. That is because under Plew et al. (2020) predictions about likely degradation support further scientific investigation, meantime the court must make a judgement as to whether and how farming activities in catchments contributing contaminants are to be managed;
- (e) while Dr Depree uses measurements (where available), this court does not have the expertise to determine whether the data/observations

<sup>&</sup>lt;sup>51</sup> The indicators are defined by Plew (2020). See Water quality JWS dated 7 July 2022 at [11].

<sup>&</sup>lt;sup>52</sup> Water quality JWS dated 7 July and 1 August 2022.

<sup>&</sup>lt;sup>53</sup> This advantage is recorded by the witnesses in the Water quality JWS dated 1 August 2022 at [11].

are complete and scientifically robust to support a conclusion that water quality in each estuary is not degraded or not in need of improvement.<sup>54</sup>, <sup>55</sup> Dr Snelder's caution not to privilege a limited number of observations in one estuary is noted;<sup>56</sup>

(f) it follows that the court is not able to find that the data used by Dr Depree is, for the purpose of cl 1.6 NPS-FM 2020, the best information available, as he appears to contend.<sup>57</sup>

[61] Annexure 3: Table 2 attached to this decision identifies those estuaries and ICOLLs, the water quality of which the court finds is below or is highly likely to fall below the minimum acceptable state.

#### DIN and DRP

[62] DIN and DRP were modelled by both experts using thresholds set out in the Water Quality JWS dated 14-16 October 2019. Regrettably, although references are cited there is no accompanying text explaining and giving reasons in the JWS for the proposed threshold values.<sup>58</sup>

[63] We note some members of the Science and Technical Advisory Group (STAG) reporting to the Ministry for the Environment on the scientific evidence for freshwater policy development on the threshold values for DIN and DRP, did not support the same.<sup>59</sup> Giving evidence on behalf of Forest & Bird/Fish & Game, and a member of the STAG, Dr A Canning advised that reasons for not

<sup>&</sup>lt;sup>54</sup> For example, for Toestoes Dr Snelder's understanding – which was not corrected by Dr Depree – was that data was collected over two or three days during a two-year period. Dr Snelder cautioned that observations are not the truth; rather they are an estimate of the estuaries' condition at a given point in time (see transcript at 1977).

<sup>&</sup>lt;sup>55</sup> We note Dr Snelder's caution that unlike attributes in the NOF, there is not clear guidance and regulating regarding the monitoring and distribution that should be performed. See transcript (Snelder) at 1977.

<sup>&</sup>lt;sup>56</sup> Water quality JWS, dated 1 August 2022 at [23].

<sup>&</sup>lt;sup>57</sup> Water quality JWS, dated 1 August 2022 at [22].

<sup>&</sup>lt;sup>58</sup> Water quality and ecology JWS, dated 14-16 October 2019 at Table 1, at 20 and Water quality and ecology JWS, dated 20-22 November 2019 at Table 1, at 12.

<sup>&</sup>lt;sup>59</sup> Depree, evidence dated 20 December 2021 at [4.11].

supporting the threshold values were to do with conservatism, and not an absence of evidence that reducing DIN or DRP will lead to improvement in ecosystem health. Indeed, the authors of the report record that all members of the STAG agree that elevated DIN and DRP adversely affect ecosystem health and that the NPS-FM controls are insufficient and should be strengthened.<sup>60</sup>

[64] While we note Dr Canning's advice that thresholds are generally consistent with the levels required to manage periphyton (rivers) at the national bottom line, it is unclear whether this is the purpose for which the threshold values are recommended in the 2019 JWSs.

[65] These proceedings are not a forum to determine the threshold values for DIN and DRP, and even if they were, the evidence before the court is not of a standard that allows the court to make a finding, and that being the case, no finding is made.

MCI - a proxy for ecosystem health?

[66] Dr Depree considers the macroinvertebrate community index (MCI) is a proxy for the aquatic life component of ecosystem heath and therefore, in his opinion, it is the single most relevant attribute for this value.<sup>61</sup> It is his thesis that the aquatic life component integrates the other four components of ecosystem health; indeed, he regards those other components as stressors on aquatic life.<sup>62</sup> While recognising ecosystem health is more complex than macroinvertebrates, he said the MCI score is a 'convenient (and the best) single indicator/measure for stream ecosystem health'.<sup>63</sup>

<sup>62</sup> Depree, evidence dated 20 December 2021 at [4.3].

<sup>&</sup>lt;sup>60</sup> Freshwater Science and Technical Advisory Group (STAG) (2020) Supplementary report to the Minister.freshwater-science-and-technical-advisory-group-supplementary-report.pdf (environment.govt.nz), Appendix 7.

<sup>&</sup>lt;sup>61</sup> Transcript (Depree) at 1079-1080.

<sup>&</sup>lt;sup>63</sup> Depree, evidence dated 20 December 2021 at [4.5].

[67] While agreeing with him that MCI scores are a useful indicator of riverine ecological health, the suitability of a single attribute as a measure of the biophysical components of ecosystem health was contested by several experts. On this topic we prefer the evidence of Drs Canning, Snelder and J Kitson and of Ms K McArthur, and find no single metric is adequate and that focus on a single attribute has the potential to give rise to a misleading perception of an ecosystem's health.<sup>64</sup>

[68] That said, the point of Dr Depree's evidence is that with MCI scores below the national bottom line, nitrogen, phosphorus and sediments must be reduced to improve the outcomes for aquatic life, and in turn ecosystem health.<sup>65</sup> He comes back to this when assessing estuarine ecosystem health commenting that in addition to nutrients, the region's estuaries are also impacted by fine sediments.<sup>66</sup> As an aside, we observe that it was not in dispute that contaminants must be reduced to improve NPS-FM 2020's ecosystem health and human contact values.

#### Discussion on Schedule X

[69] The Dairy Interests oppose the inclusion of maps produced by Dr Snelder and oppose also the court finding that any water body in Southland is degraded. The Dairy Interests submit a decision that water bodies are degraded would:<sup>67</sup>

- (a) pre-empt setting of target attribute states<sup>68</sup> and benchmark water quality in a future plan change to be developed under the national objectives framework of the NPS-FM;<sup>69</sup>
- (b) constrain consultation with community and tangata whenua over future target attribute states;<sup>70</sup>

<sup>&</sup>lt;sup>64</sup> Canning, evidence dated 22 February 2022 at [19]-[24].

<sup>&</sup>lt;sup>65</sup> Transcript (Depree) at at 1025-1030, 1043 and elsewhere.

<sup>&</sup>lt;sup>66</sup> Water quality JWS, dated 1 August 2022 at Table 2, footnote 15.

<sup>&</sup>lt;sup>67</sup> Transcript (Forward) at 920.

<sup>&</sup>lt;sup>68</sup> The Dairy Interests, closing submissions at [12].

<sup>&</sup>lt;sup>69</sup> The Dairy Interests, closing submissions at [9].

<sup>&</sup>lt;sup>70</sup> The Dairy Interests, closing submissions at [9].

- (c) prejudice the national objectives framework and thereby fail to give effect to the NPS-FM 2020;<sup>71</sup>
- (d) create confusion in circumstances where the term *degradation* is defined in the operative NPS-FM 2020, but was not defined in the version of the NPS considered by the court in its earlier decisions;<sup>72</sup> and
- (e) in respect of modelling undertaken by Dr Snelder, confer the imprimatur of a court decision ahead of the forthcoming plan change.<sup>73</sup>

[70] Fundamentally, the Dairy Interests say Objective 6 of the pSWLP does not require a decision as to what constitutes degraded water quality<sup>74</sup> and that the policies and methods should not, and need not, use the term *degradation*.<sup>75</sup> While not stated in written submissions, the Dairy Interests are particularly concerned that the court decides whether a water body is degraded relative to DIN or DRP.<sup>76</sup>

[71] The Dairy Interests' water quality expert, Dr Depree, did not attend the expert conferences held in 2019 and 2021<sup>77</sup> nor had he read the court's interim decisions which gives context for those conferences.<sup>78</sup> He said that he was asked to produce maps to identify *catchments that were in need of improvement*<sup>79</sup> and says that

<sup>&</sup>lt;sup>71</sup> The Dairy Interests, closing submissions at [10].

<sup>&</sup>lt;sup>72</sup> The Dairy Interests, opening submissions at [42]-[53]. See also planning evidence of Mr G Willis dated 4 February 2022 at [8.8].

<sup>&</sup>lt;sup>73</sup> Transcript (Forward) at 920.

<sup>&</sup>lt;sup>74</sup> The Dairy Interests, closing submissions at [12].

<sup>&</sup>lt;sup>75</sup> The Dairy Interests, opening submissions at [42]-[53].

<sup>&</sup>lt;sup>76</sup> Transcript (Forward) at 2393-2394.

<sup>&</sup>lt;sup>77</sup> Dr Kitto attended the expert conferences on behalf of the Dairy Interests but was not called to give evidence when the hearing resumed in 2022.

<sup>&</sup>lt;sup>78</sup> In 2019 Dr Kitto gave evidence on behalf of the Dairy Interests on the topic of water quality. Dr Kitto had also attended the 2019 and 2021 expert conferences. Shortly before further evidence was to be filed in December 2021, the Dairy Interests gave notice that Dr Depree, and not Dr Kitto, would now be giving evidence on the topic of water quality. Dr Depree is employed by DairyNZ.

<sup>&</sup>lt;sup>79</sup> Transcript (Depree) at 1024.

he uses that phrase as it is preferred by the Dairy Interests' planning witness over the term 'degraded'.  $^{80}$ 

[72] Giving planning evidence on behalf of the Dairy Interests, while Mr G Willis uses the phrase catchments that are in need of improvement, it is his opinion that a site is *degraded* if it has an attribute state below a national bottom line in the NPS-FM 2020.<sup>81</sup> Mr Willis also supported Dr Depree's maps for inclusion because, in his opinion, this avoids pre-empting other work underway setting target attribute states and instream concentrations and nutrient criteria for the future plan change.<sup>82</sup>

[73] The Dairy Interests' concerns, including those of its planner, overlook three matters:

- (a) it is beyond the scope of this plan to include target attribute states, instream concentrations or other nutrient criteria;
- (b) the NPS-FM has a process for setting target attribute states, including that those target attribute states must be set above the national bottom line<sup>83</sup> and a process for consulting with tangata whenua and the community; and
- (c) the purpose of mapping and whether the maps produced serve that purpose.<sup>84</sup>

[74] At the commencement of the hearing all planners agreed that farming that contributes contaminants to degraded water bodies should be treated differently under the plan and given this, there was a need to identify the contaminants, the

<sup>80</sup> Depree, evidence dated 20 December 2021 at [3.4].

<sup>&</sup>lt;sup>81</sup> Willis, evidence dated 4 February 2022 at [8.4].

<sup>82</sup> Willis, evidence dated 20 December 2021 at [5.28].

<sup>&</sup>lt;sup>83</sup> This is subject to the specific provision in the NPS-FM for five named hydro-electricity generation schemes (see cl 3.11(4) and cl 3.31).

<sup>&</sup>lt;sup>84</sup> The science/water quality experts had been advised by the planning witnesses that the proposed plan 'is based on halting the further decline in water quality and improving water quality where it is degraded'. See science/water quality JWS, dated 24-26 November 2021 at 3.

degraded water bodies and the areas that contribute to degradation.<sup>85</sup> The latter being important to manage cumulative effects.<sup>86</sup>

[75] As it transpired, the catchment areas contributing to degradation are extensive. At the conclusion of the hearing, it was recommended that, regardless of location, all farming activities not increase, but instead minimise and reduce contaminants. New or intensified dairy farming and intensive winter grazing activities are not to locate in proximity to regionally significant wetlands and sensitive water bodies. Finally, farming activities located in a Schedule X catchment are to additionally reduce adverse effects on water quality. This last policy contemplates active management of waterways, natural wetlands and their margins.

[76] We conclude, the rationale given by the planners for mapping catchments of degraded water bodies as a method to implement the plan's provisions remains. Mapping is a method to implement the requirements of Policy 16 in relation to farming activities located in these catchments and secondly, is a method to implement the physiographic zone policies on contaminant pathways (Policies 4-12).

## Findings on Schedule X

[77] Where water quality falls below the national bottom lines or minimum acceptable state, we find water quality in these water bodies is, or is highly likely to be, *degraded* by human activities and is to be improved (Objective 6).

[78] We are satisfied that for a range of attributes and minimum acceptable states, water quality in many of Southland's water bodies is, or is highly likely to be, degraded and it is our judgement that Policy 16 should respond to this finding.

<sup>&</sup>lt;sup>85</sup> Water quality JWS, dated 24-26 November 2021 at 3.

<sup>&</sup>lt;sup>86</sup> Water quality JWS, dated 24-26 November 2021 at 11.

Furthermore, Dr Snelder's evidence satisfies us that there is an adequate evidential basis for inclusion of the identified catchments in Schedule X.

[79] We do not accept the Dairy Interests' submission that use of the term 'degraded' in Policy 16 and the schedule risks confusion. The term is used in the Introduction and Issues Sections of the plan. To put the matter to rest we approve the Explanatory Note to Appendix N: FEMP (with some amendments) proposed by Ballance.<sup>87</sup>

[80] We do not approve the alternative phrasing 'waterbodies where improvement is required'. The phrase was recommended by planners participating in expert conferencing, without supporting reasons, other than it was more *positive* than 'degraded'.<sup>88</sup> Instead, we approve the title to Schedule X 'Catchments of degraded water bodies where improvement in water quality is required'. We accept Ngā Rūnanga's submission that the label 'degraded water body' provides a clearer linkage to Objective 6 and accurately represents the seriousness and extent of water quality issues in the region.<sup>89</sup>

[81] However, we are unclear whether Ngā Rūnanga is seeking an amendment in relation to cultural indicators of health and hauora in the context of Schedule X.<sup>90</sup> We would have thought it self-evident that maps depicting degraded water bodies are not in a state of hauora. They are to propose wording if they wish to pursue this matter.

[82] Having regard to the entirety of the plan, we are not satisfied that Forest & Bird/Fish & Game has made out its case to include a policy on consenting new and existing farming activities taking place in Schedule X catchments. The policy wording for new and existing farming activities in a Schedule X catchment<sup>91</sup> was

<sup>&</sup>lt;sup>87</sup> Ballance, closing submissions dated 16 August 2022 at [66]-[69].

<sup>88</sup> Planning JWS, dated 9-10 December 2021 at [26].

<sup>&</sup>lt;sup>89</sup> Ngā Rūnanga, closing submissions at [48].

<sup>&</sup>lt;sup>90</sup> Ngā Rūnanga, closing submissions at [49].

<sup>&</sup>lt;sup>91</sup> August Consolidated Plan, Policy 16(1)(c) (1)-(5) and Policy 16(2).

not introduced by Forest & Bird/Fish & Game's planner, Mr B Farrell, and no s 32AA assessment had been completed in relation to the same.<sup>92</sup> Given the extent of degraded catchments, the policy could (most likely would) prevent new farming activities in most areas of Southland. For existing activities, ahead of Plan Change Tuatahi there is no yardstick to judge whether there is 'meaningful improvement (reduction)' in contaminates in existing farming activities. This aspect of the policy is ineffective, and a stalking horse for future debate.

#### Outcome

Subject to the following changes, Policy 16's wording proposed by the [83] Regional Council and the other interested parties will be approved:

- amend Policy 16(b) to include pasture-based wintering activity. This (a) aspect of the policy will be implemented by a new rule, Rule 20B;
- (b) label the activity 'pasture-based wintering' wherever it appears in the plan.93

#### [84] We approve:

- (a) the maps prepared by Dr Snelder<sup>94</sup> for inclusion in a new schedule, Schedule X;
- the title of Schedule X shall read 'Catchments of degraded (b) waterbodies where improvement in water quality is required'. (Annexure 4).

92 Transcript (Farrell) at 1268-1273.

<sup>93</sup> Referred variously in the evidence as 'high risk pasture winter grazing', 'high risk winter grazing' and 'pasture-based wintering' and 'winter pasturing'. In this decision we refer to the activity as 'pasture-based wintering'.

<sup>&</sup>lt;sup>94</sup> Individual maps for nitrogen, phosphorus, suspended sediments, MCI (<90) and E.Coli together with a single map for all attributes. Segments of degraded water quality are to be distinguished from upstream catchments contributing contaminants as he has shown.

Note: unless directed otherwise, these maps are to be produced at a resolution of 1:50,000 at which individual properties may be viewed.<sup>95</sup> Parties may revert to the court regarding the map titles and keys.

[85] We <u>approve</u> the new definition of minimise that applies in this policy and elsewhere:

### Minimise

To reduce to the smallest amount reasonably practicable.

[86] We decline the new policy proposed by Forest & Bird/Fish & Game.

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<sup>&</sup>lt;sup>95</sup> SRC, closing submissions at [118].

#### The rules

- [87] This section addresses six key land use rules<sup>96</sup> under appeal:
  - (a) Rule 20 farming (land use activities);
  - (b) Rule 20A intensive winter grazing;
  - (c) Rule 20B –pasture-based wintering;
  - (d) Rule 25 cultivation;
  - (e) Rule 35A feed pads/lots; and
  - (f) Rule 35B sacrifice paddocks.
- [88] We commence with the rule for farming, Rule 20.

## Rule 20 - Farming

## Rule 20 (DV)

[89] The decision version of Rule 20 applied to all farming activities including intensive winter grazing. Subject to compliance with the rule conditions, the use of land for farming was permitted.

## Rule 20 (CV)

- [90] Save in three respects, the substance of the rule remains unaltered.
- [91] The use of land for a farming activity is permitted provided that a Farm Environmental Management Plan (FEMP) is implemented by the landholder completing the actions specified in that plan in accordance with the timeframes set out therein. The first of the three substantive amendments is to frame more

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<sup>&</sup>lt;sup>96</sup> Rule 24 is addressed elsewhere in the decision.

appropriately the provisions pertaining to the preparation and certification and auditing compliance with the FEMP.

- [92] The other two amendments address the architecture of the rule by carving out to be addressed in separate new rules, the following activities:
  - (a) intensive winter grazing; and
  - (b) pasture-based wintering.
- [93] All parties support the inclusion of a new rule (Rule 20A) for intensive winter grazing.
- [94] Save the Dairy Interests, all parties support the inclusion of a new rule for pasture-based wintering (Rule 20B). Opposing the rule, the Dairy Interests propose this activity is managed solely under the FEMP methodology in Appendix N. For reasons that we will come to, the court will approve a new land use rule for the pasture-based wintering activity.

#### Discussion

- [95] Together with sacrifice paddocks, intensive winter grazing and pasture-based wintering activities have occupied much of the hearing. That is because these activities, relative to their areal extent, have potential to disproportionately affect soil and water quality.<sup>97</sup>
- [96] The proposed restructuring of Rule 20 greatly simplifies the rule and puts into focus FEMPs, which become the key method giving effect to the policies and objectives.

<sup>97</sup> See Monaghan, EiC dated 11 February 2022 at [1] and elsewhere which we accept.

[97] The editorial amendment proposed by the Dairy Interests will be approved,<sup>98</sup> together with an amendment proposed by Ballance/Ravensdown to Rule 20(a)(iii) removing superfluous wording.

[98] Forest & Bird/Fish & Game proposes amendments to Rule 20, noting these changes are not intended to be substantively different to the provisions supported by the Regional Council.<sup>99</sup> The amendments are to:

- (a) Rule 20(a)(5) a new sub-clause;
- (b) Rule 20(c)(ii)(2) and (3); and
- (c) Rule 20 2(a).

[99] We will not approve a new clause stipulating certain information be provided to Regional Council on request (Rule 20(a)(5)).<sup>100</sup> The direction is unnecessary as the Regional Council is to receive copies of the certified FEMP together with the certification report.<sup>101</sup>

[100] We will not approve the amendments regarding the information required to support an application for a restricted discretionary activity (Rule 20(c)(ii)(2) and (3)).<sup>102</sup> The requirements for FEMPs are adequately described in Appendix N. All farming activities, including RD activities, are to prepare plans in accordance with Appendix N and there is no need to restate these requirements in the rule.<sup>103</sup>

[101] Finally, in respect of the matters to which the Regional Council would restrict its discretion, we do not approve wording proposed in relation to condition

<sup>98</sup> August Consolidated Plan, Rule 20(a)(5) at 84.

<sup>&</sup>lt;sup>99</sup> Forest & Bird, closing submissions at [44].

<sup>&</sup>lt;sup>100</sup> August Consolidated Plan, Rule 20(a)(5) at 84.

<sup>&</sup>lt;sup>101</sup> We accept Ravensdown, closing submission at [16], see also Appendix N, pt C.

<sup>&</sup>lt;sup>102</sup> August Consolidated Plan, Rule 20(c)(ii)(2) and (3) at 86.

<sup>&</sup>lt;sup>103</sup> We note what is proposed re: reducing and minimising may not be consistent with Policy 16 as proposed to be amended by Forest & Bird and others.

2(a) at page 87 of the August Consolidated Plan. The wording proposed by the Regional Council is fit for purpose.

## Outcome

[102] Subject to the editorial amendments made in the CV plan, the wording supported by the Regional Council is approved.

## Rule 20A - Intensive Winter Grazing

[103] Intensive Winter Grazing (IWG) is the grazing of stock between May and September (inclusive) on forage crops (including brassica, beet and root vegetable crops). Of Grazing on pasture and cereal crops is excluded from the definition of this activity, with the use of land for pasture-based wintering activities to be the subject matter of a separate rule.

## [104] The main issues for determination are as follows:

- (a) is there scope to limit the IWG activity permitted by a rule in the plan to:
  - (i) an area of 50 ha or 10% of the area of the land holding, whichever is the greater; and
  - (ii) to slopes 10 degrees or less?
- (b) the merits of other proposed areas and slope controls;
- (c) the merits of including a control on IWG expansion adopting the NES-F reference period; and
- (d) the scope for and merits of setbacks from water bodies based on slope.

[105] In addition to the above, other methods were explored during the hearing to manage the effects of intensive winter grazing. These included a grazing pressure metric which may give an indication of how much pressure soils are being subjected to by a group of animals and secondly, a metric based on simple percentage bare ground. In the end, those methods were not sufficiently developed and tested to support their inclusion in the plan.

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<sup>&</sup>lt;sup>104</sup> Glossary.

<sup>&</sup>lt;sup>105</sup> We note that details of the grazing pressure metric may be found in the Farm systems and Planning JWS dated 23 and 30 June 2022 and Farm systems JWS, dated 20 July 2022.

[106] Nevertheless, these methods may yet be proven to be useful tools for farmers when preparing a FEMP.

## Minor amendments proposed

[107] The editorial amendment proposed by the Dairy Interests will be approved.<sup>106</sup>

[108] Forest & Bird/Fish & Game proposes additional matters that a FEMP must demonstrate and secondly, would amplify the matters in respect of which the Regional Council is to restrict its discretion when considering RD activities. Any differences in wording with the provisions supported by the Regional Council were again said not to be substantive. For the following reasons, we will not approve the amendments proposed:

- (a) the amendment proposed to Rule 20A(a)(vi) is superfluous; the preamble to this clause requires the FEMPs be prepared and implemented in accordance with Appendix N; and
- (b) the amendment proposed to Rule 20A(b)(2) concerning the matters over which the Regional Council will restrict its discretion, largely repeats Rule 20A(b)(3) and there is no advantage in cross-referencing Policy 16 in the rule.

[109] With that said, we turn next to the main issues for determination.

<sup>&</sup>lt;sup>106</sup> August Consolidated Plan, Rule 20A(a)(vii) at 90.

<sup>&</sup>lt;sup>107</sup> August Consolidated Plan, Rule 20A(a)(vii) at 90 and Rule 20A(b) sub-cl (1) and (2) at 91.

<sup>&</sup>lt;sup>108</sup> Forest & Bird, closing submissions at [44].

# Issue: scope to limit IWG to 50 ha or 10% of the area of the land holding and limit IWG to slopes 10 degrees or less

[110] The parties' amended relief must be within scope of an appeal. If it is not, the court does not have jurisdiction to approve the same.

[111] Rule 20 (DV) – the general rule for farming, permits IWG subject to certain conditions, including:

Rule 20(a)(iii)

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

[112] All parties support a bespoke rule for the IWG activity (Rule 20A). Relying on the wide appeal filed by Fish & Game for scope, the Regional Council and Forest & Bird/Fish & Game propose the conditions for a permitted activity rule include:<sup>109</sup>

- (a) IWG is not to occur on more than 50 ha or 10% of the area of the landholding (whichever is the greater); and
- (b) IWG is restricted to slopes 10 degrees or less.

[113] Federated Farmers, Wilkins and the Dairy Interests oppose the conditions arguing there is no scope for the court to:

- (a) reduce the percentage area of IWG from 15% to 10%; or
- (b) introduce a slope control of 10 degrees.<sup>110</sup>

<sup>109</sup> Forest & Bird, closing submissions at [49]-[50], in particular [50]. SRC, closing submissions at [148]-[151], in particular the reference to the controls being management tools that were 'on the table'.

<sup>&</sup>lt;sup>110</sup> Slope of land on which IWG can take place is effectively controlled through Rule 25. A condition of the permitted activity rule, cultivation is not to occur on slopes exceeding 20 degrees.

[114] There does not appear to be any issue that the scope to reduce the land area from 100 ha to 50 ha is found in the appeals filed by Campbell's Block Ltd<sup>111</sup> and Robert Grant.<sup>112</sup>

#### Outcome

[115] In Annexure 1 to this decision, we set out our findings on scope. Agreeing with Federated Farmers, we find there is no scope to approve the percentage area and slope control conditions proposed by the Regional Council and Forest & Bird/Fish & Game.

Issue: the merits of including a control on IWG expansion adopting the NES-F reference period

[116] The Dairy Interests excepted, all interested parties support controlling the maximum area of landholding used for intensive winter grazing in any one year as follows:

Intensive winter grazing does not occur on more than the maximum area of the landholding used for intensive winter grazing in any one year, during the five years 2014-2019; and

[117] The purpose of the above control is to prevent an expansion in land area used for IWG.<sup>113, 114</sup> This method is necessary in order that farming activities do not increase contaminant losses (Policy 16). While the provenance of the wording is NES-F (Reg 29) the sub-clause is not proposed in order to align the proposed plan with the NES-F.

<sup>113</sup> Wilkins, closing submissions at [23].

<sup>111</sup> Notice of appeal, see relief at [9].

<sup>&</sup>lt;sup>112</sup> Notice of appeal, see relief at [9].

<sup>&</sup>lt;sup>114</sup> The decision version of the rule permits expansion in the area used for IWG from, for example, a current 1% to future 15% of the landholding.

[118] The Dairy Interests are concerned the method may be more stringent than the NES-F. If it is, then Dairy Interests submit no evidence has been led in support of greater stringency and nor has the method been assessed under s 32AA. That aside, the Dairy Interests understand sub-cl (ia) precludes the use of land for IWG if the activity did not take place during the reference period.

[119] If Rule 20A(a)(ia) is approved, the Dairy Interests submit it should cease to have effect upon the notification of Plan Change Tuatahi.

#### Context

[120] The method was proposed by planning witnesses attending the July 2022 expert conference.<sup>115</sup> The witnesses were conferencing on the farming topic and in particular, Policy 16, Rules 20, 20A and 20B.

[121] The planners were asked to consider whether a Grazing Pressure metric was suitable for inclusion in Rule 20A as a method to control for intensification of IWG activities. The planners did not support the introduction of the metric, recommending instead that there be no increase in the maximum area used for IWG between 1 July 2014 and 30 June 2019.<sup>116</sup>

[122] Policy 16(c1) is important in this context. This policy expressly recognises the fact that in Southland most farms depend on supplementary feed because growing conditions for pasture are insufficient to carry stock over the winter period. As the paddocks where supplementary feed is grown are likely to change from year to year, the management of contaminant losses are to be achieved across the whole of the landholding.<sup>117</sup> Having said that, farming activities are not to increase contaminant discharges but instead discharges must be minimised,

<sup>&</sup>lt;sup>115</sup> Planning JWS, dated 21 and 25 July 2022 at [31].

<sup>&</sup>lt;sup>116</sup> Planning JWS, dated 21 and 25 July 2022 at [31].

<sup>&</sup>lt;sup>117</sup> Transcript (McCallum-Clark) at 2042.

meaning discharges must be reduced to the smallest amount reasonably practicable (Policy 16(1)(a)).

#### Discussion

[123] While opposed by the Dairy Interests, Policy 16(1)(c1)<sup>118</sup> and Rule 20A(a)(ia) were supported by its planner, Mr P Wilson. The Dairy Interests did not test the relationship between these provisions in cross-examination<sup>119</sup> nor did it call evidence in support of the sunset clause proposed in closing submissions.

[124] The provenance of the wording of Rule 20A(a)(ia) is NES-F Regulation 29, which applies (now) to all IWG, 120 with similar (but not exact) effect. 121

[125] Dairy Interests are concerned that the effect of sub-cl (i) and (ia) (when read together) is that if a particular paddock has not been used for IWG between 2014-2019 then then it cannot be used for IWG 'moving forward'. We do not consider Dairy Interests' interpretation of the two sub-clauses correct nor do we understand that this is the intended outcome.

[126] The intended outcome of sub-cl (a)(i) and (ia) is that while the physical location of IWG on a landholding may change, the maximum area used for IWG cannot increase. For example, if the maximum area used for IWG between 2014 – 2019 was 5 ha, in 2022 the area cannot increase beyond 5 ha. If a farmer wishes to expand the maximum area used, there remains the opportunity to do so by seeking consent for a restricted discretionary activity (Rule 20B(b)). Sub-cl (a)(ia)

<sup>&</sup>lt;sup>118</sup> The Dairy Interests support Policy (c1) and its application to IWG only.

<sup>&</sup>lt;sup>119</sup> Memoranda dated 3 and 5 August 2022 SRC advice Mr McCallum-Clark would be recalled to give evidence in support of the joint witness statement. See transcript (McCallum-Clark) at 2033-2034. It was agreed between the parties that SRC planner, Mr McCallum-Clark, give evidence in support of the JWS.

 $<sup>^{120}</sup>$  No party filed a memorandum contesting the proposition that NES-F Reg 29 applies now. See transcript at 1220.

<sup>&</sup>lt;sup>121</sup> The effect is not exact because Reg 29 applies together with Reg 26, NES-F.

<sup>&</sup>lt;sup>122</sup> Dairy Interests closing submissions at [51].

<sup>&</sup>lt;sup>123</sup> Planning JWS, dated 21 and 25 July 2022 at [31].

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is a method controlling the expansion of this use of land and an important method

giving effect to Policy 16's requirement that all farming activities not increase

discharges of contaminants.

[127] Assuming the court's interpretation is correct, we have suggested a Note be

included in Appendix N: FEMP to put this beyond doubt.

[128] Dairy Interests is also concerned with the continuing effect of the sub-

clause (ia) beyond the notification of a Plan Change Tuatahi.<sup>124</sup> We will approve

sub-clause (a)(ia) without a sunset clause. While the clause will be more stringent

than the Reg 29 of the NES-F, the stringency is justified given the degraded water

quality in many of the region's catchments and the clause will have continuing

effect until the provisions of Plan Change Tuatahi are determined.

Section 32(4) — assessment

[129] Lacking scope to approve the amendments seeking to reduce the area of

IWG from 15% to 10% and introduce a slope control of 10 degrees, Rule 20A is

more lenient that NES-F Reg 26.

[130] Otherwise, the imposition of a condition controlling maximum area of

IWG is consistent with NES-F, Reg 29.

Issue: the merits of other area and slope conditions

Area

[131] We turn next to area conditions proposed by Federated Farmers and

Wilkins to the rule for permitted IWG activity.

<sup>124</sup> A plan change promulgated under s 55(2B) of the Act.

## [132] Federated Farmers and Wilkins seek the following amended relief: 125

- (a) Intensive winter grazing is a permitted activity provided the following conditions are met:
  - (i) intensive winter grazing does not occur on more than:
    - (1) 50 ha or 15% of the area of the land holding, whichever is the greater area; and
    - (2) the maximum area of the landholding used for intensive winter grazing in the five years 2014-2019; and
  - (ii) the slope of land that is used for intensive winter grazing must be 20 degrees or less.

(Our emphasis)

[133] Before addressing the amended relief, we divert briefly to acknowledge the withdrawal of alternative relief sought by Wilkins and Federated Farmers. Wilkins and Federated Farmers had proposed a new provision based on NES-F, Reg 26(3) that permits the slope and area controls to be exceeded subject to a FEMP certifier certifying that the adverse effects will be no greater than those allowed by Reg 26(4). The Regional Council experts criticised the efficacy of this rule as it presumes the certifier will be able to link adverse effects from diffuse contaminants to individual farm actions. The evidence is no single tool currently available can predict the magnitude and direction of contaminant loss, consequently certifiers will require expert knowledge extending well beyond their expected capabilities. Wilkins and Federated Farmers subsequently withdrew the alternative relief stating that it would be premature to attempt to implement, and we agree. 128

[134] Under the decision version of the rule, the use of land for IWG is permitted subject to the following conditions:<sup>129</sup>

<sup>&</sup>lt;sup>125</sup> Wilkins, closing submissions at [7]; Federated Farmers closing submissions at [5].

<sup>&</sup>lt;sup>126</sup> Burrell, EiC dated 11 February 2022 at [35].

<sup>&</sup>lt;sup>127</sup> Monaghan, EiC dated 11 February 2022 at [16], Burrell (transcript) at 767ff. Farm systems and Planning JWS, dated 23 and 30 June 2022 at [27]-[29].

<sup>&</sup>lt;sup>128</sup> Federated Farmers/Wilkins memorandum dated 27 July 2022.

<sup>&</sup>lt;sup>129</sup> Rule 20(a)(iii).

- (iii) where the farming activity includes intensive winter grazing on the landholding, the following conditions are met:
  - (1) from 1 May 2019, intensive winter grazing does not occur on more than **15% of the area** of the landholding or **100 hectares**, whichever is the lesser:

(Our emphasis)

[135] If confirmed, resource consent would be required to exceed the standard, with an estimated 500 resource consent applications needed to carry on this activity. The rule, however, is not an effective control on intensification as milk production can be maintained by intensifying IWG on the available, albeit now reduced, area of land. 131

[136] Dr D Dalley, a senior scientist at DairyNZ, gave evidence that stocking density is not driven by the number of cows in a mob but by the amount and type of crop offered to cows. Thus, the daily area allocation to graze cows is a function of crop yield (kg of dry matter per m²) and the proportion of crop in the total diet (kg of dry matter offered per cow per day). If the purpose of the area constraint and the limit on stock numbers in a mob¹³³ is to prevent intensification of this activity, the rule will likely be ineffective. We accept the evidence that taken by themselves, these methods may lead to farmers managing stock and land in suboptimal ways in order to maintain production.

[137] That said, no party opposed reducing the hectarage of permitted IWG from 100 ha to 50 ha.<sup>134</sup> Nor do they oppose amending the sub-clause so that instead

<sup>&</sup>lt;sup>130</sup> McCallum-Clark, EiC dated 11 February 2022 at [127] states that just under half of the intensive winter grazing land area is captured by the condition permitting IWG and estimates around 500 resource consents would be required to authorise the activity.

<sup>&</sup>lt;sup>131</sup> Wilkins, s 274 dated 4 February 2022 at [28]-[33]; Orchiston, rebuttal dated 22 February 2022 at [27]-[34]; Dines, rebuttal dated 22 February 2022 at [20]-[21].

<sup>&</sup>lt;sup>132</sup> Dalley, EiC dated 20 December 2021 at [21].

<sup>&</sup>lt;sup>133</sup> Dalley, EiC dated 20 December 2021 at [21]-[28].

<sup>134</sup> Robert Grant and Campbell's Block Ltd appeals provide scope to amend land area.

of the lesser of the area or percent landholding applying, the greater of the two conditions is to apply.

[138] Having found earlier that the court does not have scope to approve the reduction in percentage land area proposed by the Regional Council, we approve the Wilkins/Federated Farmers' Rule 20A(a)(i).

[139] In reaching our decision we find the evidence has not established the merits of the proposed conditions constraining IWG to either the 50 ha or 15% of landholding, and consequently we make no findings on the effectiveness of this condition as a method to implement Policy 16 and the wider policies and objectives of the plan.

[140] With regard to the foregoing, we have proposed a new clause in Appendix N: FEMP to better implement Policy 16 requirements that intensive winter grazing and pasture-based wintering of stock (including cattle):

- (a) not lead to an increase in contaminant losses when compared with what has occurred in the past;
- (b) minimise contaminant losses; and
- (c) for Schedule X catchments, lead to a reduction in adverse effects on water quality.

[141] The Winter Grazing Plan explanation of how intensity, location and operation of intensive winter grazing and pasture-based wintering will implement the foregoing will be made taking into consideration the planned total feed to be offered stock.<sup>135</sup> Secondly, we have added a new note in the Appendix linking the explanation of the Winter Grazing Plan's inputs (including crop type, expected pasture or crop yield and supplementary feed amount and type) with the

<sup>&</sup>lt;sup>135</sup> An alternative way to express 'planned total feed' may be to refer to crop yield (kg of dry matter per m²) and the proportion of crop in the total diet (kg of dry matter offered per cow per day).

attainment of the policy that contaminant losses will not increase. Our intention is that the FEMP is responsive to the relationship between contaminant losses with total feed, area and stocking density.

## Slope

[142] Wilkins and Federated Farmers propose, as a condition of the permitted land use activity, that the slope of land used for intensive winter grazing be 20 degrees or less (Rule 20A(a)(ii)). Southland Regional Council and others, support a condition of the permitted activity that the slope of land is 10 degrees or less (Rule 20A(a)(ii)). However we have found that there is no scope for the court to approve the Council's amended relief.

[143] These slope restrictions are to apply whether or not a water body is in proximity. We do not recall receiving technical evidence in support of either setback nor the effects slope restrictions are managing. We speculate, the slope restriction may be a method to implement Objective 13 that provides land and soil may be used and developed if, amongst other matters, the quantity, quality and structure of soil resources is not irreversibly degraded through land use activities and discharges to land.

[144] Mr Wilson, giving planning evidence for Federated Farmers, supported a restriction on slope to improve linkages between Rule 20A (IWG) and Rule 25 (cultivation), adopting conditions for activities which he says have similar effects. While IWG and cultivation may result in effects of the same kind e.g. loss of contaminants in overland flow, IWG has other effects such as those on water quality as a result of nitrogen leaching.

 $^{136}$  Transcript (Wilson) at 1522-1526 and 1580ff.

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[145] The expert evidence, which we accept, is that the greater the land area and steeper the angle of slope, the higher the risk of contaminant losses.<sup>137</sup> The expert evidence does not, however, examine the effectiveness of controls that are solely based on slope nor do we have evidence that the effects on the environment from IWG on slopes up to 20 degrees (as proposed by Federated Farmers) are acceptable, either by themselves or taken together with the plan's other methods, including Appendix N: FEMP.

[146] That said, we agree with Federated Farmers that there is scope under the appeal filed by Fish & Game to include a new sub-clause by requiring IWG be setback from water bodies with the angle of the slope determining the setback distance. The conditions are better defended by published research which shows increasing setback widths from 10 m to 20 m improves the efficiency in phosphorus removal (from 69 to 97%). Beyond that, the relationship between increasing slope angle, setbacks and risk of contaminant loss is broadly established on a first principles basis by the evidence.

[147] The parties already support IWG being setback from water bodies as follows:<sup>139</sup>

Rule 20A(a)(iii) – stock must be at least:

- (a) 20 m from the bed of waterbodies in Appendix A and B waterbodies; and
- (b) 10 m from the bed of all other waterbodies.

[148] Paraphrasing, Federated Farmers and Wilkins propose the setbacks in Rule 20A(a)(iii) as follows:

Stock must be kept at least:

(a) 20 m from the bed of water bodies in Appendix A and B; and

<sup>&</sup>lt;sup>137</sup> Transcript (Wilson) at 1521 accepted that expert evidence describes the progressive increase of risk as slope increases.

 $<sup>^{138}</sup>$  Monaghan, EIC dated 11 February 2022. The efficiency gains for sediment removal are small over the same increase 1-2%.

<sup>&</sup>lt;sup>139</sup> Rule 20A(a)(iii).

- (b) from the bed of all other water bodies:
  - (i) 20 m, where the slope of the land is more than 10 degrees, and
  - (ii) 10 m, where the slope of land is 10 degrees or less.

[149] We have suggested wording in the court's version attached and labelled Annexure 5. The substantive change to the otherwise agreed sub-clause is the 20 m restriction is to apply to slopes exceeding 10 degrees. This amended relief is an important method to support Policy 16's requirement that farming activities minimise the discharge of contaminants.

#### Section 32AA assessment

# Section 32(4)

[150] As with other provisions, the content and architecture of Rule 20A is not easy to align with the NES-F regulations.

[151] Regulations 26 and 29 are pertinent, with Reg 26 coming into force from 1 November 2022.<sup>140</sup> Under Reg 26 the use of land for IWG is permitted if the activity complies with certain conditions.

[152] While Reg 26 has now commenced, it is subject to a condition that IWG be undertaken in accordance with the farm's certified freshwater farm plan. 'Certified freshwater farm' is a RMA term and means a freshwater farm plan certified under pt 9A, s 217G.<sup>141</sup> Part 9A, however, has not commenced.<sup>142</sup>

<sup>141</sup> RMA, s 217B 'certified freshwater farm plan' means a freshwater farm plan certified under s 217G, as amended from time to time in accordance with s 217E(2) or (3).

<sup>&</sup>lt;sup>140</sup> NES-F, Reg 2(c).

<sup>&</sup>lt;sup>142</sup> RMA, s 217C.

[153] Regulation 26(4) provides for what is to happen *in any other case*. We interpret *in any other case* as meaning what is to happen if there is not a certified freshwater farm plan. If there is not a certified farm plan, then:

- (a) at all times, the area of the farm that is used for intensive winter grazing must be no greater than 50 ha or 10% of the area of the farm, whichever is greater; and
- (b) the slope of any land under an annual forage crop that is used for intensive winter grazing must be 10 degrees or less, determined by measuring the slope over any 20 m distance of the land; and
- (c) | Revoked|
- (d) livestock must be kept at least 5 m away from the bed of any river, lake, wetland, or drain (regardless of whether there is any water in it at the time); and
- (e) on and from 1 May to 30 September of any year, in relation to any critical source area that is within, or adjacent to, any area of land that is used for intensive winter grazing on a farm,—
  - (i) the critical source area must not be grazed; and
  - (ii) vegetation must be maintained as ground cover over all of the critical source area; and
  - (iii) maintaining that vegetation must not include any cultivation or harvesting of annual forage crops.

[154] Any land use or associated discharge activity that does not comply with the above conditions is either a restricted discretionary activity.<sup>143</sup> or discretionary activity.<sup>144</sup>

[155] Regulation 29 provides that to be allowed, the land on the farms must have been used for IWG in the reference period (in this case 1 July 2014 to 30 June 2019) and the IWG area must be no greater than the maximum area used for IWG in the reference period.

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<sup>&</sup>lt;sup>143</sup> NES-F, Reg 27.

<sup>&</sup>lt;sup>144</sup> NES-F, Reg 30.

Comparison of conditions applicable under Rule 20A & Regulations 26 & 29

[156] Rule 20A's setback provisions are greater than the 5 m in Reg 26(4)(d). This aspect of the rule is more stringent than the regulation.

[157] Save in relation to the requirement to maintain ground cover in critical source areas, 145 the rule and Appendix N: FEMP is consistent with Reg 26 conditions on critical source areas. 146

[158] While Federated Farmers had proposed a rule based on Reg 26(3)(b) – allowing a certifier of a freshwater farm plan to certify that the effects allowed for in the plan are no greater than those in sub-cl (4) – as we note earlier this amended relief was withdrawn.

[159] Subject to sense-checking, the FEMP given provisional approval in this decision, is more rigorous in its requirements than those for a freshwater farm plan (RMA, s 217F).

[160] Where aspects of Rule 20A are more stringent than the regulations, the greater stringency is substantiated by expert evidence, in particular the extensive catchment areas of degraded water bodies.

[161] Lacking scope, the court has not approved the inclusion of conditions based on Reg 26 restricting the area of IWG to 10% of the area of the farm and secondly, restricting the activity to slopes less than 10 degrees.<sup>147</sup>

#### Section 32AA

[162] The principal cost of Rule 20A is the removal of productive land by the setbacks from water bodies and by the exclusion of IWG within critical source

<sup>&</sup>lt;sup>145</sup> There does not appear to be any comparable provision to Reg 26(4)(e)(ii).

<sup>&</sup>lt;sup>146</sup> NES-F, Reg 26(4)(e).

<sup>&</sup>lt;sup>147</sup> NES-F, Reg 26(4)(a) and (b).

areas. The land and stock management requirements of Appendix N: FEMP will be demanding.

[163] Dr Dalley's evidence demonstrates, by itself the rule will be ineffective in controlling intensification of this land use. The new land and stock management controls<sup>148</sup> will, however, reduce the risk of erosion and sediment losses. Rule 20A and Appendix N: FEMP taken together will improve the overall plan effectiveness, and this will be strengthened if when considering the intensity, location and operation of IWG total feed is brought to account.

[164] While it is unlikely these provisions alone will return the region's water bodies to a state of hauora, taken together with Appendix N: FEMP the provisions we would approve are implementing Objectives 1 and 2 of the pSWLP to the extent that is reasonably able to be achieved prior to a plan change developed under the National Objectives Framework of the NPS-FM.

#### Outcome

[165] We approve the definition for Intensive Winter Grazing.

### [166] We find:

- (a) there is no scope for the court to approve amendments to Rule 20A:
  - (i) reducing the area of IWG from 15% to 10%; or
  - (ii) restraining the use of land for IWG to slopes 10 degrees or less.

[167] There being no scope, we have not considered the merits of the amended relief.

<sup>148</sup> For example, last bite grazing method and exclusion of critical source areas.

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[168] We decline to approve the following condition to the permitted IWG activity:

(ii) the slope of land that is used for intensive winter grazing must be 20 degrees or less; and

## [169] We <u>approve</u> Rule 20A(a)(i):

- (a) Intensive winter grazing is a permitted activity provided the following conditions are met:
  - (i) intensive winter grazing does not occur on more than 50 ha or 15% of the area of the land holding, whichever is the greater; and

## [170] We approve the condition of the permitted activity Rule 20A(a)(ia):

(i) intensive winter grazing does not occur on more than the maximum area of the landholding used for intensive winter grazing in any one year, during the five years 2014-2019; and

# [171] We approve Rule 20A(a)(iii):

- (iii) Stock must be separated by a vegetated setback at least:
  - (1) 20 m from the bed of any Regionally Significant Wetland or Sensitive Water Bodies listed in Appendix A, nohoanga listed in Appendix B, mātaitai reserve, taiāpure, estuary or the coastal marine area; and
  - (2) 20 m from the bed of any other river, lake, artificial watercourse (regardless of whether there is any water in it at the time), modified water course or natural wetland, where the slope of the land that is used for intensive winter grazing is more than 10 degrees, and
  - (3) 10 m from the bed of any other river, lake, artificial watercourse (regardless of whether there is any water in it at the time), modified water course or natural wetland, where the slope of the land used for intensive winter grazing is 10 degrees or less.

# Rule 20B - Pasture-based wintering

#### Introduction

[172] The parties agree that provision in the plan should be made for a new activity, pasture-based wintering, but disagree on how this is to be done.

## [173] Broadly, the options before the court are:

- (a) recognition of the activity:
  - (i) under a bespoke rule and supporting methods (Appendix N: FEMP); or
  - (ii) under the general farming rule (Rule 20) and supporting methods (only).

#### **Context**

[174] For context, pasture-based wintering is the supplementary feeding of stock that are grazing on pasture over winter. It is distinguished from intensive winter grazing, where stock graze on fodder crops as well as supplementary feed.

## Scope

[175] Under the operative Regional Water Plan, IWG includes grazing on pasture and is defined as follows:

Grazing of stock between May and September inclusive on fodder crops or pasture to the extent that the grazing results in significant de-vegetation. This is usually associated with break feeding behind temporary electric fencing.

[176] The definition of IWG (DV) omits the grazing of stock on pasture.

[177] Fish & Game's appeal seeks to amend the definition of IWG to refer to stock grazing on pasture where grazing causes significant de-vegetation<sup>149</sup> with the IWG provisions applying to the same.

[178] In a related appeal point, Aratiatia seeks to amend the rule for permitted farming activities (Rule 20) by introducing a new condition for permitted farming activities concerning the management of supplementary feed.

[179] We are satisfied that the above appeals provide scope for the court to approve amended relief being pursued by different parties in relation to this activity.

#### Issues for determination

[180] The issues for determination are:

- (a) whether (and how) to define pasture-based wintering in the plan;
- (b) whether (or not) to amend Policy 16 in response to this activity;
- (c) whether to approve a new rule permitting, subject to conditions, pasture-based wintering; and
- (d) the methods applying to pasture-based wintering in Appendix N.

### Effect on the environment of pasture-winter grazing

[181] Aratiatia succinctly sets out the case for managing pasture-based wintering under the proposed plan:<sup>150</sup>

Aratiatia acknowledges that grazing stock on pasture during winter has the potential to generate adverse environmental effects, including sediment run-off into waterways, loss of soil armouring and delays to pasture regrowth. Aratiatia

<sup>&</sup>lt;sup>149</sup> Notice of appeal, Definition of Intensive Winter Grazing and proposed new term 'Significant De-Vegetation' at 46-47.

<sup>&</sup>lt;sup>150</sup> Aratiatia, closing submissions 15 August 2022 at [3.1].

understands that such effects can arise from pugging and reductions in residual vegetation cover following grazing. The evidence establishes, however, that the risk arising from such grazing on pasture is generally less than that which arises from "intensive winter grazing" on forage crops or similar (where grazing leaves little or no residual cover and hence provides less soil armouring).

(Footnotes omitted)

[182] The problem being worked on above concerns the likelihood of this activity causing adverse effects on the environment. Increasing total feed (pasture and supplementary feed), enables higher stocking density on the same area of land. Thus, total feed is linked with the quantity of nutrients deposited on land. Total feed is also linked with stock damage to the soil, although soil vulnerability to treading damage is itself a function of soil type and weather (particularly rainfall). Generalising, the risk of sediment movement increases when vegetative cover is removed, and soil structure integrity is damaged. 152

[183] The Dairy Interests submit pasture-based wintering is an emerging practice and one that should be managed under the plan in a way that encourages its uptake in preference to intensive winter grazing, and therefore supports a different management approach than that proposed for IWG.<sup>153</sup> This submission, however, is unsupported by evidence from Otago/Southland Sustainable Dairying Manager for the Dairy Interests, Mr C Duncan, who said supplementary feeding was the most common method in Southland, with 90% of diet being made up of supplements.<sup>154</sup>

[184] In Mr Duncan's experience, there is little difference between soil cover under intensive winter grazing and pasture-based grazing practices. Land management concerns are largely around managing exposed soils. Such differences that he noted, were that unlike intensive winter grazing with pasture-

<sup>&</sup>lt;sup>151</sup> Nitrogen patches deposited by grazing cattle.

<sup>&</sup>lt;sup>152</sup> Transcript (Monaghan) at 581-583.

<sup>&</sup>lt;sup>153</sup> The Dairy Interests, closing submissions 16 August 2022 at [30]-[31].

<sup>&</sup>lt;sup>154</sup> Transcript (Duncan) at 443.

based wintering there may be 'a bit of regrowth' in spring and probably not the same level of pugging.<sup>155</sup>

[185] Pasture-based wintering is not new to Southland, what has changed is the range of grazing practices. The uptake of these pasture-based wintering practices is an increasing response to public pressure against wintering stock on forage crops, increased costs of establishing fodder crops and imperatives around IWG management.

[186] Of the five pasture-based wintering practices identified in evidence, <sup>156</sup> the proposed plan is concerned with only two.

[187] Firstly, 'sacrifice paddocks', which are to be dealt with separately under Rule 35B and Appendix N (FEMP). This activity entails the use of a paddock to temporarily hold stock in a way that is likely to severely damage the pasture and require pasture renovation.<sup>157</sup>

[188] Secondly, 'baleage wintering', meaning the grazing of stock on pasture together with break-feeding on baleage and other supplementary feed.<sup>158</sup> This practice *may* leave a grazing residual that is insufficient for pasture to regrow after stock are moved off, requiring the whole (or part) of the paddock to be regrassed.<sup>159</sup>

[189] A commonplace activity in Southland, pasture-based wintering differs from intensive winter grazing in that:

<sup>155</sup> Transcript (Duncan) at 445-447.

<sup>&</sup>lt;sup>156</sup> Dalley, s 274 evidence dated 4 February 2022 identifies and describes five pasture-based winter grazing practices which she names 'grazing in winter milking systems'; 'traditional winter grazing of non-lactating animals'; 'baleage wintering'; 'sacrifice paddocks' and 'regenerative winter grazing'.

<sup>&</sup>lt;sup>157</sup> Dalley, s 274 evidence dated 4 February 2022 at [37].

<sup>&</sup>lt;sup>158</sup> While the term 'baleage wintering' was used we understand Dr Dalley to be referring to all types of supplementary feed including sileage, straw and hay.

<sup>&</sup>lt;sup>159</sup> Dalley, s 274 evidence dated 4 February 2022 at [31]-[36].

- (a) the activity is occurring at a range of scales and for different purposes;
- (b) while the range of potential effects are similar, 160 the risk of those effects arising is not the same; because
- (c) in contrast to intensive winter grazing, paddocks will not necessarily be de-vegetated<sup>161</sup> but grazing will likely result in exposed soil.<sup>162</sup>

## Whether (and how) to define pasture-based wintering

[190] The first issue that arises is whether pasture-based wintering is defined or alternatively described in the plan.

[191] While not supporting the inclusion of a definition of pasture-based wintering in the plan, the Dairy Interests described the target practice in Appendix N: FEMP initially by reference to 50% or more of the stock's feed requirements.<sup>163</sup> This was subsequently refined to read:<sup>164</sup>

land is used to graze livestock on pasture in the period 1 May to 30 September where supplementary feed is offered on the paddock<sup>165</sup> at a rate that exceeds 10,000kg of dry matter/ha.

[192] Other parties propose a new definition to be included in the glossary which reads:

Break feeding stock, <sup>166</sup> other than lactating dairy cows, on pasture between 1 May and 30 September inclusive where:

Option 1

<sup>&</sup>lt;sup>160</sup> Transcript (Willis) at 1670.

<sup>&</sup>lt;sup>161</sup> Dalley, s 274 evidence dated 4 February 2022 at [31]-[36]; Jordan, rebuttal evidence dated 22 February 2022 at [19].

<sup>&</sup>lt;sup>162</sup> Transcript (Duncan) at 443-446.

<sup>&</sup>lt;sup>163</sup> Willis, s 274 evidence dated 4 February 2022 at [6.14(c)].

<sup>&</sup>lt;sup>164</sup> August Consolidated Plan, Appendix N, Pt B.

<sup>&</sup>lt;sup>165</sup> August Consolidated Plan, Appendix N, Pt B (Fonterra). Reference to 'on the paddock' is to exclude feed pads.

<sup>&</sup>lt;sup>166</sup> We presume the reference to 'break-feeding' distinguishes this activity from the use of feed pads.

- (a) supplementary feed offered is more than [8,000 or 10,000] kgDM/ha; or  $Option\ 2$
- (b) a post-grazing residual of less than 1,200 kgDM/ha for cattle;  $^{167}$  or Option 3
- (c) that results in significant de-vegetation. 168

[193] Although not addressed this way in evidence or submissions, the definitions are disjunctive (i.e. the activity is either [this] or [that]) and so we address each option next.

# Option one – supplementary feed offered is more than [8,000 or 10,000] kgDM/ha

[194] The activity is defined in relation to the quantity of supplementary feed required by cattle (only).<sup>169</sup>

[195] The 10,000 kgDM/ha was initially proposed by the dairy sector and equates to 50% of the animals' diet, 170 whereas 8,000 kgDM/ha is 40% of the animals' diet. The lower proportion of supplementary feed is associated with less intensive dairy grazing practices. 171

[196] Tonnage is being used here to screen out grazing intensities that are less likely to result in de-vegetating the paddock. It was Mr Duncan's evidence that if supplementary feed exceeds 50% of the animals' diet, the farmer will assume there will be little, or no pasture left. Given this, he doubted the utility of the post-

<sup>&</sup>lt;sup>167</sup> Proposed by Aratiatia and supported by SRC, closing submissions at [166] and Federated Farmers, closing submissions at [8].

<sup>&</sup>lt;sup>168</sup> De-vegetation being the removal of, or damage to, vegetation caused by stock access or grazing that results in more than minor areas of bare ground and/or soil pugging.

<sup>&</sup>lt;sup>169</sup> Planning JWS dated 25 July 2022 at [27] advised all stock types were included.

<sup>&</sup>lt;sup>170</sup> Dr Monaghan explained many forage crops yield between 10 and 20 tonnes. Assuming (optimally) 4-5 tonne of pasture is left on the paddock, 15 tonne (5 tonne pasture and 10 tonne of supplementary feed) would be a 'respectable amount of feed per hectare' for use over the winter months. See transcript at 2025.

<sup>&</sup>lt;sup>171</sup> Transcript (Monaghan & Dalley) at 2025-2027.

grazing residual, essentially because farmers would not be planning on leaving this residual.

[197] Supporting the lower 8,000 kgDM/ha threshold, Mr Wilson (Federated Farmers) sought a mechanism to avoid *sub-thresholding* behaviour to avoid the plan's regulations.<sup>172</sup> While we understand the point that he makes, our expectation is that a competent certifier of FEMPs will manage this behaviour.

[198] We are satisfied that dairy farmers budgeting for feed over winter will have information on supplementary feed (either grown on site or to be purchased) to hand.<sup>173</sup> Importantly, the tonnage is not a cap on supplementary feed that may be used.<sup>174</sup> The actual tonnage of supplementary feed may be higher and if it is, it is not proposed that a farmer obtain resource consent. Higher tonnages may be fed out when, for example, pasture is not available/insufficient or secondly, to support higher stock densities.<sup>175</sup>

[199] Increasing total feed supports higher stocking densities and, it follows, higher quantities of nutrients deposited onto the land. The actual loss of contaminants being a function also of biophysical factors including pre-grazing pasture mass, age and type of pasture, soil type, slope and rainfall.<sup>176</sup>

# Options 2 and 3

[200] The Dairy Interests excepted, the other parties proposed additional/alternative definitions, including:<sup>177</sup>

<sup>&</sup>lt;sup>172</sup> Transcript (Wilson) at 1608.

<sup>&</sup>lt;sup>173</sup> Transcript (Dalley & Orchiston) at 2030-2031.

<sup>&</sup>lt;sup>174</sup> Transcript (McCallum-Clark) at 2568.

 $<sup>^{175}</sup>$  Transcript (Dalley) at 607-608 pre-grazing pasture mass can range between 2,000 kgDM/ha to 5,000 kgDM/ha.

<sup>&</sup>lt;sup>176</sup> Transcript (Dalley) at 594; Willis, s 274 evidence dated 4 February 2022 at [6.5], [6.11] and [6.13].

<sup>&</sup>lt;sup>177</sup> Proposed by Forest & Bird. See August Consolidated Plan, Glossary definitions proposed for 'high risk pasture winter grazing' and 'high risk winter grazing'.

- (a) the post-grazing residual of less than 1,200 kgDM/ha for cattle;<sup>178</sup> or
- (b) the break feeding of stock that results in significant de-vegetation. 179

[201] The limbs are best understood in relation to decisions around paddock setup depending on whether the farmer is managing stock in the expectation that the pasture will regrow in the following spring or in the expectation of having to regrass de-vegetated paddock(s).<sup>180</sup>

#### Discussion

[202] The parties' understanding of the pasture-based wintering activity grew during the hearing.

[203] A post-grazing residual may provide a degree of protective armouring preserving soil strength and intactness. We accept, therefore, that there is a broad relationship between damage to soil structure and the risk of contaminant losses and the maintenance of a post-grazing residual. While the farm systems experts noted the relationship between the post-grazing residual and contaminant losses has not been quantified,<sup>181</sup> nevertheless, we find the post-grazing residual has value as a method to reduce the likelihood of soil damage.

[204] Not addressed in evidence is the land area required to support pasture-based wintering, instead it is assumed that stock can be moved to another break or location when the post-grazing residual is reached. The realisation of this depends on there being pasture available and secondly, on other land management decisions including the pasture–crop rotation cycle or pasture improvement program (if applicable).

<sup>&</sup>lt;sup>178</sup> Proposed by Aratiatia and supported by SRC, closing submissions at [166], Federated Farmers, closing submissions at [8].

<sup>&</sup>lt;sup>179</sup> De-vegetation being the removal of, or damage to, vegetation caused by stock access or grazing that results in more than minor areas of bare ground and/or soil pugging.

<sup>&</sup>lt;sup>180</sup> Transcript (Dalley) at 613.

<sup>&</sup>lt;sup>181</sup> Farm systems JWS, dated 20 July 2022 at [7].

[205] Given the variation in pasture-based wintering practices, it was Mr Willis' opinion that it is preferable to manage this activity in a farm environment plan than under a rule in the plan, <sup>182</sup> with the plan setting the expectation that residual pasture will be left after grazing. <sup>183</sup> Reflecting on the two approaches before the court, Mr Willis fairly said that these are simply different approaches and that he did not have an opinion as to which was more appropriate. However, from a plan users' perspective he thought it important that farmers have the important management requirements about this activity in the FEMP (we interpolate as meaning in Appendix N). <sup>184</sup> In principle, we agree with him that these requirements should be contained in Appendix N.

[206] Given the Dairy Interests'<sup>185</sup> anticipation that farmers may increasingly transition from intensive winter grazing to pasture-based wintering, <sup>186</sup> and given also the potential for adverse effects to arise if not well managed, the activity will be managed under a bespoke rule in the plan and defined in the glossary.

# Definition

[207] Unless parties can point to evidence establishing that the quantity of supplementary feed (8,000 or 10,000 kgDM/ha) is relevant to stock other than cattle, the rule and definition is to apply to cattle only. Representing more than 50% of cattle diet, the tonnage of feed that applies is 10,000 kgDM/ha. If that quantity proves too conservative (in the sense of setting the bar too low relative to effects) there is an opportunity to review the same under Plan Change Tuatahi.

<sup>182</sup> Transcript (Willis) at 1669.

<sup>&</sup>lt;sup>183</sup> Transcript (Willis) at 1670 noting that the amendments proposed by the Dairy Interests to Appendix N: FEMP do not set up an expectation that a post-grazing residual will be left.

<sup>&</sup>lt;sup>184</sup> Transcript (Willis) at 1673.

<sup>&</sup>lt;sup>185</sup> The Dairy Interests, closing submissions at [68].

<sup>&</sup>lt;sup>186</sup> We note that in Planning JWS dated 21 and 25 July 2022 at [28] the experts noted anecdotal evidence that pasture-based wintering is being undertaken because of the absence of land use controls.

[208] For stock other than cattle, Rule 20 – Farming and Appendix N shall apply.

## Other conditions on the rule for permitted activity

Slope

[209] As with intensive winter grazing, the Regional Council and Federated Farmers are not agreed on a slope condition, proposing either a 10 degree or 20 degree restriction apply respectively to the permitted activity rule. The parties led planning evidence to support their preferred condition when technical evidence underpinning the purpose and outcome of the competing slope conditions was essential.

[210] As with IWG, the technical evidence does not examine the effectiveness of the competing slope conditions.

Setbacks

[211] Pasture-based wintering is one of three activities with the potential for disproportionally large effects relative to its areal extent. With slope an important biophysical determinate of run-off and therefore of contaminant losses, and in keeping with the conditions for the permitted IWG activity, we have decided to approve a condition requiring the following setbacks:

Stock must be separated by a vegetated setback at least:

- (a) 20 m from the bed of water bodies in Appendix A and B; and
- (b) from the bed of all other water bodies:
  - (i) 20 m, where the slope of the land is more than 10 degrees, and
  - (ii) 10 m, where the slope of land is 10 degrees or less.

[212] Fish & Game's appeal on Rule 20 and the definition of intensive winter grazing provides scope for this decision.

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[213] It follows that we do not accept the Dairy Interests' amended relief that

pasture-based wintering is set back 5 m from a water body, 187 either considered by

itself or together with the other methods in the plan, is the most appropriate way

to implement Policy 16 or the objectives of the plan (s 32AA). Saliently, total

supplemental feed to cattle is uncapped and therefore the court cannot conclude

grazing pressure will be less than intensive winter grazing as the lesser setback

infers. Further, the amendments proposed by the Dairy Interests to Appendix N:

FEMP do not set up an expectation that a post-grazing residual will be left.

Post-grazing residual/de-vegetation methods

[214] The definition of pasture-based wintering will not include a post-grazing

residual or a reference to de-vegetating the paddock. Our decision is that these

important matters are better addressed in an integrated manner in a FEMP context

where farmers identify paddock setup and the management of the aggregated risks

of pasture-based wintering, intensive winter grazing and other land use activities.

Appendix N: FEMP

[215] For inclusion in Appendix N: FEMP the parties presented three versions

of a Winter Grazing Plan that is to apply to intensive grazing activities. The

options reflect in part their views whether Rule 20B should be approved or

alternatively, for this activity (including any standards that may apply) to be

addressed exclusively in Appendix N.

[216] A factor complicating our assessment of Appendix N was the absence of

evidence on stock other than cattle, which we understand may also be wintered on

pasture and fed supplemental feed.<sup>188</sup> If it is intended to re-sow a paddock

following pasture-based wintering by other stock types, there is a high risk of

<sup>187</sup> August Consolidated Plan, Appendix N: FEMP.

<sup>188</sup> Noting also that unlike other stock types, cattle do not graze down to ground level.

contaminant loss from this activity as the motivation to leave an armouring residual is reduced.

# [217] With that in mind the court could either:

- (a) in addition to cattle, include provision for other stock in the Winter Grazing Plan; or
- (b) limit the Winter Grazing Plan to intensive winter grazing and pasturebased wintering of cattle.

[218] Subject to what the parties may say, we suggest the Winter Grazing Plan be amended to:

- (a) account for different stock types;
- (b) record paddock set-up;<sup>189</sup>
- (c) include all the important information on management measures required in Appendix N, acknowledging Regional Council guidelines will also likely be required to complement the plan.<sup>190</sup>

[219] As previously noted, on most Southland landholdings a limited proportion of intensive winter grazing and pasture-based wintering is required to hold stock over winter. We redrafted the three competing Winter Grazing Plan options to include important information that will be required when drafting this plan. Our intention here is firstly, to simplify the drafting and secondly, to respond to the concern expressed by Mr Wilson that managing farming activities under different rules risks disaggregation.

<sup>&</sup>lt;sup>189</sup> Paddock setup was noted by Fonterra's farm systems expert, Dr D Dalley but not developed in evidence. Our current thinking is that this is potentially a useful tool to identify grazing practices with highest risk of contaminant loss.

<sup>&</sup>lt;sup>190</sup> Recommended by Dairy Interests' planner, Mr Willis.

<sup>&</sup>lt;sup>191</sup> Amended Policy 16(1)(c1).

[220] Finally, if the FEMP is to manage pasture-based wintering for stock **other** than cattle, consideration is to be given to whether setbacks from water bodies should be included as a standard in Appendix N: FEMP. We have included a placeholder in Appendix N: FEMP pending the parties' response.

## Section 32AA assessment – pasture-based wintering

[221] Pasture-based wintering is one of two activities that maintain stock through winter when grass growth is typically negligible, the other being IWG (Rule 20A).

# Section 32(4) assessment

[222] NES-F, Reg 22 concerns the use of land as dairy support land and discharges associated with the same.<sup>192</sup> We accept counsels' submissions that to the extent that Reg 22 and Rule 20B both apply to the grazing of non-lactating dairy cattle, the provisions overlap.<sup>193</sup>

[223] While the dairy support land activities are permitted by the regulations subject to a limitation on the maximum area of land, this is not proposed for Rule 20B.<sup>194</sup> It is our preliminary view that there is scope under the Fish & Game appeal to include as a condition of the permitted activity rule, a restriction on maximum area.

[224] In contrast with IWG, the proposed conditions of the permitted activity rule do not impose an area constraint on pasture-based wintering. Unless conditions controlling the area of this activity are included, the implementation of Policy 16's requirement that the discharge of contaminants not increase and that

<sup>193</sup> SRC closing submissions at [169]-[175] and transcript (Maw) at 2490-2492. See also transcript (Allen) at 2208; transcript (Gepp) at 2347 and Dairy Interests, closing submissions at [72]-[74]. <sup>194</sup> NES-F, Reg 22(3).

<sup>&</sup>lt;sup>192</sup> NES-F, Reg 22 and the definition of 'dairy support cattle' and 'dairy support land'.

the adverse effects on water quality within a Schedule X catchment reduce, will be through the FEMPs alone.

## Section 32(1) and (2)

[225] We generally agree with Mr McCallum-Clark's caveated 32AA assessment of this rule. Noting his understanding that all other things being equal this activity may have a somewhat lesser level of effect than IWG,<sup>195</sup> we find that the activity may have lesser effect if a post-grazing residual is left, and the activity complies with the conditions of the rule. Beyond that, there is no science-based evidence to substantiate the claim that the effects of this activity will be always less than IWG: whether this is true depends on paddock set-up<sup>196</sup> and secondly, land and stock management.<sup>197</sup>

[226] Without a limit on area, the effectiveness of this rule in managing expansion of this activity, hence increase in contaminants discharged, is uncertain.

#### Outcome

[227] We approve the following definition for the pasture-based wintering activity:

#### Pasture-based wintering<sup>198</sup>

Break feeding <u>cattle</u>, other than lactating dairy cows, on pasture between 1 May and 30 September inclusive where supplementary feed offered is more than 10,000 kgDM/ha.

[228] We approve the inclusion of 'pasture-based wintering' in Policy 16, cl c1.

<sup>&</sup>lt;sup>195</sup> McCallum-Clark, supplementary evidence dated 3 August 2022: Appendix 2 at [115].

<sup>&</sup>lt;sup>196</sup> Dr Dalley describes paddock setup in terms of whether the area is to be re-grassed or not.

<sup>&</sup>lt;sup>197</sup> NB: under the version of s 32 that applied at the time the proposed plan was notified i.e. 3 June 2016.

<sup>&</sup>lt;sup>198</sup> Adopting the SRC definition for 'high risk pasture winter grazing'. The changes are tracked.

[229] We approve the exclusion of 'pasture-based wintering' from Rule 20 – Farming.

[230] For cattle (only) we approve a new rule, Rule 20B<sup>199</sup> subject to certain changes:

## (a) Slope control

For reasons given in the IWG section, we do not approve the 10-degrees or 20-degrees slope restriction in sub-clause (a)(ia).

We approve instead sub-clause (i).

- (ii) Stock must be separated by a vegetated setback at least:
  - (1) 20 metres from the bed of any Regionally Significant Wetland or Sensitive Water Bodies listed in Appendix A, nohoanga listed in Appendix B, mātaitai reserve, taiāpure, estuary or the coastal marine area; and
  - (2) 20 m from the bed of any other river, lake, artificial watercourse (regardless of whether there is any water in it at the time), modified water course or natural wetland, where the slope of the land that is used for intensive winter grazing is more than 10 degrees, and
  - (3) 10 m from the bed of any other river, lake, artificial watercourse (regardless of whether there is any water in it at the time), modified water course or natural wetland, where the slope of the land used for intensive winter grazing is 10 degrees or less.

# [231] Parties are to respond, advising whether there is scope:

(a) to include the same or similar land or percentage area controls as in Rule 20A(a)(i) and (ia);

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<sup>&</sup>lt;sup>199</sup> SRC wording is to apply. We do not approve the amendments proposed by Forest & Bird for the reasons we gave in relation to Rule 20A. Noting also, these amendments were not intended to be substantive.

- (b) to include as a standard in Appendix N, setbacks from water bodies for stock types other than cattle.
- [232] To assist the parties, we have suggested amendments to the Winter Grazing Plan in Annexure 6: Appendix N.

# Rule 24 – Incidental discharges from farming

#### Introduction

[233] Forest & Bird/Fish & Game excepted, all parties support rules permitting the discharge of contaminants from authorised land uses associated with farming activities.<sup>200</sup>

[234] Pursuant to s 70 RMA, Forest & Bird/Fish & Game submits before a rule permitting the discharge of contaminants can be inserted into the plan, the court must be satisfied that the discharge will not have a significant adverse effect on aquatic life. Elaborating:<sup>201</sup>

Section 70 is not met in circumstances where Council knows that discharges are having effects listed in s 70, and chooses to manage the discharges through a requirement for a FEMP as part of a permitted activity rule, despite evidence that Appendix N is "unlikely to significantly narrow the gap between the current state and the threshold of degradation". This statutory barrier is not avoided by simply copying the s 70 standards into Rule 24 as the pSWLP currently does.

(footnote omitted)

[235] Even if contaminants are reduced under the provisions of the proposed plan, Forest & Bird/Fish & Game say Rule 24 will be breached immediately as significant adverse effects on aquatic life will likely continue for some time.<sup>202</sup>

[236] If the court accepts this submission, Forest & Bird/Fish & Game propose amendments to Policy 16 and Rule 24 with the effect that the discharge of contaminants in a Schedule X catchment that are incidental to farming (land use), will require resource consent for a discretionary activity.

<sup>&</sup>lt;sup>200</sup> Forest & Bird, opening submissions at [48]-[53], closing submissions at [14]-[19].

<sup>&</sup>lt;sup>201</sup> Forest & Bird, opening submissions at [50].

<sup>&</sup>lt;sup>202</sup> Forest & Bird, closing submissions at [19].

#### Issues for determination

[237] The issues presented by the parties for determination follow:

- (a) does s 70 apply to both point source and diffuse discharges?
- (b) are contaminant discharges from existing activities resulting in significant adverse effects on aquatic life?
- (c) does the court have jurisdiction to approve Rule 24?

#### Section 70 RMA

[238] There does not appear to have been judicial consideration of s 70.

[239] The meaning of legislation must be ascertained from its text and in the light of its purpose and its context.<sup>203</sup>

[240] Amplifying on the above, Chief Environment Court Judge D A Kirkpatrick observed in *Auckland Council v Teddy and Friends Ltd*:<sup>204</sup>

The purposive light in which text is to be read and understood cannot be separated from it and so text and purpose must be comprehended together in a unified way rather than treated as dual requirements for a cross-check. Further, the current legislative requirement includes the context of the text, that is, what is with the text. In law, context is everything.

(Footnote omitted)

#### [241] Section 70 of the RMA states:

#### 70 Rules about discharges

(1) **Before** a regional council includes in a regional plan a rule that allows as a permitted activity—

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<sup>&</sup>lt;sup>203</sup> Legislation Act 2019, s 10.

<sup>&</sup>lt;sup>204</sup> Auckland Council v Teddy and Friends Ltd [2022] NZEnvC 128 at [27].

- (a) a discharge of a contaminant or water into water; or
- (b) a discharge of a contaminant onto or into land in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water,—

the regional council shall be satisfied that none of the following effects are likely to arise in the receiving waters, after reasonable mixing, as a result of the discharge of the contaminant (either by itself or in combination with the same, similar, or other contaminants):

- (c) the production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials:
- (d) any conspicuous change in the colour or visual clarity:
- (e) any emission of objectionable odour:
- (f) the rendering of fresh water unsuitable for consumption by farm animals:
- (g) any significant adverse effects on aquatic life.

(Our emphasis)

[242] The court is concerned with the meaning of s 70(1). At first blush, the purpose of s 70 is straightforward: the section is dealing with the classification of certain activities as *permitted activities*.<sup>205</sup>

[243] Section 70(1) is concerned with two types of discharges proposed to be classified as permitted activities. They are:

the discharge of a contaminant or water into water; and

<sup>&</sup>lt;sup>205</sup> Amplifying, s 77A confers a power on local authorities to make rules to apply to six different classes of activities. Whether a resource consent is required for each of the six classes is addressed in s 87A. Section 87A(1) states that a resource consent is not required for an activity that is described as a *permitted activity*, if that activity complies with the requirements, conditions, and permissions, if any, specified in the Act, regulations, plan, or proposed plan.

the discharge of a contaminant onto or into land in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water.

[244] 'Before' including a rule in a plan permitting the above activities, s 70(1) requires the Regional Council<sup>206</sup> to be satisfied:

..

- ... that none of the following effects are likely to arise in the receiving waters, after reasonable mixing, as a result of the discharge of the contaminant ...
- (c) the production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials:
- (d) any conspicuous change in the colour or visual clarity:
- (e) any emission of objectionable odour:
- (f) the rendering of fresh water unsuitable for consumption by farm animals:
- (g) any significant adverse effects on aquatic life.

#### Section context

[245] The section title confirms that s 70 is dealing with rules about discharges. Section 70 is part of a suite of provisions addressing the preparation (s 65) and contents (s 67) of regional plans, including regional rules (s 68). A regional council may, for the purpose of carrying out its functions and achieving the objectives and policies of the plan, include rules in a regional plan (s 68(1)). When making a rule, the regional council shall have regard to the actual or potential effect on the environment of activities, including any adverse effect (s 68(3)).

[246] Section 70 amplifies s 68(3) by addressing the effects of certain discharge activities in receiving water after reasonable mixing.

[247] The term 'reasonable mixing' is not defined by the Act. The term 'reasonable mixing' occurs in six places in the Act:

<sup>&</sup>lt;sup>206</sup> The Regional Council or this court on appeal.

- (a) section 15B discharge of harmful substances from ships or offshore installations;
- (b) section 69 (and Schedule 3) rules relating to water quality;
- (c) section 70 rules about discharges;
- (d) section 107 restriction on grant of certain discharge permits; and
- (e) section 369 provisions deemed to be regional rules.

[248] Each section differs: in s 70 the relevant power is to include a rule permitting certain discharges provided that the listed adverse effects do not arise in the receiving waters after reasonable mixing.

## Jurisdiction

[249] The Regional Council supports the court having jurisdiction to approve Rule 24 making two submissions, each in the alternative.

[250] The Regional Council's primary submission is that the court is not being asked to approve a rule that permits significant adverse effects on aquatic life which is the relevant effect in this case. To the contrary, the rule permits discharges subject to a condition that the discharge, after reasonable mixing, does not give rise to significant adverse effects on aquatic life. On this basis the Regional Council says there is no jurisdictional bar to the rule's inclusion.<sup>207</sup> The consideration of the merits of the rule is a separate matter (i.e. is not a matter going to jurisdiction).

[251] We find this subtle argument overlooks the s 70 requirement that the Regional Council is to be satisfied 'before' a rule is inserted into the plan that the relevant effects are unlikely to arise. We hold that jurisdiction to include rules permitting discharges only arises if the Regional Council, or this court on appeal,

<sup>&</sup>lt;sup>207</sup> Regional Council, closing submission at [93]-[94].

has satisfied itself as to the relevant effects. Whether the discharge is classified as a permitted activity or something else is a separate, albeit related, matter.

[252] Alternatively, the Regional Council submits that the court has jurisdiction to approve the rule if it is satisfied that the land use rules and methods will ensure the discharged contaminants will not likely give rise to significant adverse effects on aquatic life.<sup>208</sup> If there is jurisdiction to include a permitted activity rule, the court will then need to consider the classification of the activity. We accept this interpretation.

[253] The Regional Council submits the court has jurisdiction under s 70 to approve Rule 24 because the discharges from land uses will not result in significant adverse effects on aquatic life.

Issue: does s 70 apply to both point source and diffuse discharges?

[254] Dealing with a separate issue, the Dairy Interests submit s 70 RMA applies to point source discharges only; diffuse discharges (including those from farming activities) are not caught by the section.<sup>209</sup>

[255] Addressing the meaning of the term 'receiving water', we were referred to the observation made in the Final Report and Decision of the Board of Inquiry, New Zealand King Salmon Requests for Plan Changes and Applications for Resource Consents, that the term 'receiving waters' is well understood to be the waters at the point of discharge. Among other matters King Salmon was concerned with the effects from salmon processing fish pellets and excreting ammonia/nitrogen and faeces into the receiving waters. <sup>211</sup>

<sup>&</sup>lt;sup>208</sup> Regional Council, closing submissions at [95].

<sup>&</sup>lt;sup>209</sup> The Dairy Interests, opening submissions at [66].

<sup>&</sup>lt;sup>210</sup> The Dairy Interests, opening submissions at [63].

<sup>&</sup>lt;sup>211</sup> Report and Decision of the Board of Inquiry, New Zealand King Salmon Requests for Plan Changes and Applications for Resource Consents, 22 February 2013 at [1311].

[256] Extrapolating from the observation in *King Salmon* that 'the term 'receiving waters' is well understood as being waters at the point of discharge, the Dairy Interests submit s 70 must be narrowly construed as applying to point source discharges (only).<sup>212</sup>

[257] King Salmon is not authority for this proposition nor does the case involve an interpretation of s 70. Involving applications for resource consent the Board was engaged with s 107, not s 70 of the Act. At issue in King Salmon is whether the likely effects of the proposal would extend into receiving waters after reasonable mixing. The area of 'reasonable mixing' is context-sensitive, hence the Board's finding also that the 'receiving water' was the edge of a cage.<sup>213</sup>

[258] Dairy Interests do not address s 70(1)(b), which is problematic for its interpretation. This sub-clause provides that the discharge of a contaminant may be onto or into land, including in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water.

[259] On the argument presented, we do not accept the Dairy Interests' interpretation of s 70. The purpose of the section is to restrict the circumstances where a Regional Council includes a rule a Regional Plan permitting discharge of contaminants. The plain and ordinary meaning of the text includes discharges from point source (usually a pipe) and non-point source (that is diffuse discharges, for example, leachate from infiltration, sediment transported via surface flow and the like). There is nothing to indicate a narrower interpretation is to be preferred.

[260] Finally, we note Rule 24 is worded similarly to s 70 and applies to the discharge of contaminants onto or into land in circumstances that may result in a contaminant entering water. Furthermore, the proposed plan defines 'receiving

<sup>&</sup>lt;sup>212</sup> The Dairy Interests, opening submissions at [66].

<sup>&</sup>lt;sup>213</sup> Report and Decision of the Board of Inquiry, New Zealand King Salmon Requests for Plan Changes and Applications for Resource Consents, 22 February 2013 at [1307].

waters' as including water bodies that receive run-off. The reference to run-off in the definition of 'receiving waters' encompasses diffuse discharge of contaminants. We conclude the plan's author intended the rule apply to both point source and diffuse discharges.

[261] We turn next to the key factual issue in dispute.

Issue: have contaminant discharges from existing farming activities caused significant adverse effects on aquatic life?

[262] We accept the Dairy Interests' submission that there are dischargers of contaminants other than farming.

[263] We do not accept Dairy Interests' submission that there is no evidence of diffuse discharges from farming activities, either individually or cumulatively, causing adverse effects<sup>214</sup> including significant adverse effects on aquatic life.<sup>215</sup>

[264] The narrative description for the 'attributes' for the ecosystem health value that we have found fall below a national bottom line or minimum acceptable state follow:

(a) Phytoplankton (trophic state) – Ecosystem health (aquatic life) value<sup>216</sup>

Lake ecological communities have undergone or are at high risk of a regime shift to a persistent, degraded state (without native macrophyte/seagrass cover), due to impacts of elevated nutrients leading to excessive algal and/or plant growth, as well as from losing oxygen in bottom waters of deep lakes;

.

<sup>&</sup>lt;sup>214</sup> Specifically, the adverse effects listed in RMA, s 70.

<sup>&</sup>lt;sup>215</sup> Fonterra, closing submissions at [16].

<sup>&</sup>lt;sup>216</sup> NPS-FM, Table 1.

- (b) Suspended fine sediment Ecosystem health (water quality) value<sup>217</sup>
  High impact of suspended sediment on instream biota. Ecological communities are significantly altered, and sensitive fish and macroinvertebrate species are lost or at high risk of being lost;
- (c) Macroinvertebrate Ecosystem health (aquatic life) value<sup>218</sup>

  Macroinvertebrate community indicative of severe organic pollution or nutrient enrichment. Communities are largely composed of taxa insensitive to inorganic pollution/nutrient enrichment;
- (d) Macroalgae biomass indicator Ecosystem health (estuarine) very high eutrophication<sup>219</sup>

  Ecological communities (e.g. bird, fish, seagrass, and

macroinvertebrates) are strongly impacted by macroalgae. Persistent very high % macroalgal cover (>75%) and/or biomass, with entrainment in sediment. Sediment quality degraded with sulphidic conditions near the sediment surface;

(e) Phytoplankton biomass indicator — Ecosystem health (estuarine) — very high eutrophication<sup>220</sup>

Excessive algal growth making ecological communities at high risk of undergoing a regime shift to a persistent, degraded state without macrophyte/seagrass cover.

[265] With reference to the above narratives, we find it highly likely that the result of the discharges of contaminants (either by themselves or in combination with the same, similar, or other contaminants), are firstly having significant adverse effects on aquatic life and secondly, the discharges include those that are incidental to farming (land use) activities.

<sup>218</sup> NPS-FM, Table 14.

<sup>&</sup>lt;sup>217</sup> NPS-FM, Table 8.

<sup>&</sup>lt;sup>219</sup> Water quality JWS, 1 August 2022 at [14], applying Plew et al (2020).

<sup>&</sup>lt;sup>220</sup> Water quality JWS, 1 August 2022 at [14], applying Plew et al (2020).

#### Outcome

[266] Given the above, we find attributes that are below the national bottom line or minimum acceptable state, are causing significant adverse effects on aquatic life.<sup>221</sup>

# Issue: Does the court have jurisdiction to approve Rule 24?

[267] Forest & Bird/Fish & Game submits that the court does not have jurisdiction to confirm Rule 24 because the rule permits the discharge of contaminants in contravention of s 70 of the Act.

[268] Acknowledging the difficulty in predicting the extent (degree) of improvement in water quality,<sup>222</sup> the Regional Council submits under the pSWLP that contaminant losses will be reduced to the smallest amount reasonably practicable, and any incidental discharge of contaminants from land use activities will not result in significant adverse effects on aquatic life.<sup>223</sup> We interpret this submission as meaning the quality of receiving waters will improve and the thresholds for ecosystem health value will rise above the national bottom line or minimum acceptable state.<sup>224</sup> The assumption underlying the Regional Council submission is that the resultant load and concentration of contaminants will be unlikely to *sustain* the significant adverse effects on aquatic life currently being experienced.<sup>225</sup>

[269] We have considered whether s 70 has a *temporal aspect* whereupon the existing effects on aquatic life are to be set aside. The Regional Council alludes to

<sup>&</sup>lt;sup>221</sup> The Regional Council accepts that discharges from land use activities has likely given rise to adverse effects on aquatic life. See transcript (Maw) at 2522.

<sup>&</sup>lt;sup>222</sup> Transcript (Maw) at 2527-2528.

<sup>&</sup>lt;sup>223</sup> Regional Council, closing submissions at [103].

<sup>&</sup>lt;sup>224</sup> NB: The Regional Council makes it clear that in the future plan change, tangata whenua and the community may wish the state of the environment to be 'significantly higher than national bottom lines'. See transcript at 2528.

<sup>&</sup>lt;sup>225</sup> Transcript (Maw) at 2532-2534.

this, submitting that while land use activities have likely given rise to significant adverse effects on aquatic life,<sup>226</sup> this court should not be concerned with what has happened in the past, but on whether the restrictions on land use activities will make it likely that such effects do not arise in the future.<sup>227</sup> This interpretation does not appear available from the text of the section, and as it was not developed, we are unable to consider the same.

[270] Taking into consideration the entirety of the policies, rules and methods the court would approve, while we accept there will be improvement in water quality, the prediction that the thresholds for the ecosystem health value will rise above the national bottom line or minimum acceptable state applicable, was not put to the expert witnesses.<sup>228</sup>

[271] No method requires a reduction in the load of nitrogen discharged from farming activities. And, as we have observed elsewhere, the rules do not prevent further intensification of intensive winter grazing or pasture-based wintering; leading the court to suggest a method in Appendix N: FEMP to bring into account total feed. That aside, the plan's methods support the progressive improvement in water quality over time. Being unable to satisfy ourselves that it is unlikely that significant adverse effects on aquatic life will result from the discharges, jurisdiction to include a rule permitting contaminant discharges has not yet been established.

[272] Given that the plan provisions were being continually revised up to and including closing submissions, and given also the cogent reasons for the permitted activity classification, rather than finally decide the issue now it is our view that

<sup>&</sup>lt;sup>226</sup> In closing submissions at [96], the Regional Council accepts that where discharged contaminants have rendered water quality below a national bottom line for a relevant attribute, this is likely a significant adverse effect on aquatic life.

<sup>&</sup>lt;sup>227</sup> Regional Council, closing submissions at [96].

<sup>&</sup>lt;sup>228</sup> Policy 16 and Appendix N.

procedural fairness requires that we give the parties the opportunity to call expert evidence on the likelihood of effects and their significance for aquatic life.

# Alternative controlled activity rule

[273] If the court finds that it does not have jurisdiction to include Rule 24 in the proposed plan, then our tentative thinking is that controlled activity is the appropriate classification.<sup>229</sup>

[274] Subject to what the parties and planners may say, a controlled activity status would not require Policy 16 to be amended.

### Section 32AA

Section 32(4) assessment – Rule 24: incidental discharges from farming

[275] We were referred to several NES-F regulations, however we could find no equivalent land use rule and therefore their relevance to any matter in issue is unclear.<sup>230</sup> The regulations include:

- (a) Regs 16 and 17 conversion of plantation forestry to pastoral land use; and
- (b) Regs 18 and 19 conversion of land on farm to dairy farm land; and
- (c) Regs 20 and 21 irrigation of dairy farm land.

[276] Rules 20A and 20B overlap with the regulations concerning the use of land for dairy support land (Reg 22) and the regulation over intensive winter grazing (Regs 26 and 29). Under the regulations, the use of land for these activities and

<sup>&</sup>lt;sup>229</sup> Note: although not argued by any party, the same issue may arise in relation to Rules 13 and 15

<sup>&</sup>lt;sup>230</sup> McCallum-Clark, supplementary evidence dated 13 May 2022, Table 1.

the discharge associated with the use of land, are permitted subject to compliance with the conditions of the permitted activity rule.

[277] If the court confirms its preliminary decision, that it lacks jurisdiction to approve a rule permitting the discharge of contaminants incidental to farming activities, then Rule 24 would be more stringent than the regulations (because a consent would be required for the discharges). The greater stringency arises pursuant to s 70 of the Act.

#### Outcome

[278] The court's finding is that the significant adverse effect on aquatic life is likely the result of contaminant discharges from farming activities is final.

[279] Any party arguing in support of the proposition that under the plan provisions, future discharges of contaminants are unlikely to cause a significant adverse effect on aquatic life either by themselves or in combination with the same, similar or other contaminants, is to propose timetable directions for the filing of supplementary evidence.

[280] Any application for directions will address:

- (a) the timetable for evidence exchange, with evidence addressing
  - (i) the court version of Policy 16, Rules 13, 14, 20, 20A, 20B, 25, 35B and 70, and Appendix N: FEMP;
- (b) the filing of supplementary submissions addressing the 'temporal aspect' of s 70 and the meaning of 'cumulative' in context.

[281] Leave is granted for the parties to revert to the court in relation to these directions.

# Controlled activity rule

[282] If parties do not produce expert evidence in support of the above proposition, the court will decline jurisdiction under s 70 RMA to approve Rule 24. In which case the parties will propose further directions for the resolution of activity status of the rule.

### Rule 25 - Cultivation

[283] This rule concerns the use of land for cultivation. Cultivation near water bodies is a high-risk activity for generating sediment because of the exposed soil.<sup>231</sup>

# Rule 25 (DV)

[284] The decision version of the rule permits cultivation of land subject to four conditions, three of which remain largely unchanged. The unchanged conditions provide that cultivation is not to:

- (a) take place within the bed of certain water bodies;
- (b) occur at an altitude higher than 800 masl; and
- (c) occur on slopes greater than 20 degrees.

[285] The fourth condition, a simple setback of 5 m to apply from the outer edge of the above water bodies, was appealed. Substantive amendments are proposed for setbacks and also to make provision for pasture renewal or establishment by various methods as a permitted activity.

[286] We summarise those changes next.

### Amended Relief

### Cultivation

[287] Cultivation is a permitted activity subject to compliance with certain conditions. The parties do not agree on:

(a) the inclusion of a setback from water bodies when cultivating arable land on a slope less than 5 degrees;

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<sup>&</sup>lt;sup>231</sup> Science JWS, 26 November 2021 at 14.

(b) the setback from water bodies when cultivating land with a slope less than 10 degrees;

(c) the setback from water bodies when cultivating land with a slope between 10-20 degrees.

Pasture renewal or establishment

[288] In addition, new rules are proposed for the use of land for pasture renewal or establishment on slopes exceeding 20 degrees. These activities would be permitted subject to compliance with certain conditions.<sup>232</sup>

[289] The parties do not agree on the setback from water bodies when using land for the purpose of pasture renewal or establishment.<sup>233</sup>

Issue: a new setback from waterbodies when cultivating arable land on a slope less than 5 degrees

[290] Under the version of the rule supported by the Regional Council, cultivation is permitted if it complies with a setback of 5 m (this setback applies to all land with a slope less than 10 degrees).

[291] Federated Farmers, however, seeks to amend Rule 25 by introducing a new condition for the permitted activity. It is proposed that on slopes less than 5 degrees, cultivation for arable land use is permitted provided it is setback 3 m from the edge of a water body.

[292] The rationale given by Federated Farmers for the new condition, is that save in relation to associated vegetation clearance and earthworks/land

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<sup>&</sup>lt;sup>232</sup> Rule 25(ba), (bb), (bc) and (bd).

<sup>&</sup>lt;sup>233</sup> Rule 25(ba), (bb) and (bc).

disturbance, the NES-F 2020 does not impose controls on arable land use.<sup>234</sup> Even so, Federated Farmers says a setback of 3 m should apply when cultivating land for arable land use.<sup>235</sup> At 3 m, this distance is the same as the setback for stock from water bodies under the Stock Exclusion Regulations.<sup>236</sup>

[293] Associated vegetation clearance and earthworks/land disturbance aside, we accept NES-F does not control arable land use, however the pSWLP does. Moreover, the pSWLP also restricts stock access to water bodies by imposing larger setbacks than Reg 8 of the Stock Exclusion Regulations.

[294] Planning evidence aside, Federated Farmers did not produce technical evidence in support of reducing the setback from 5 m to 3 m, and the merits of the proposed condition were not directly examined with the experts appearing for the other parties.<sup>237</sup> Being unable to assess the effectiveness of the setback – particularly reducing surface flow of sediment-laden run-off and infiltration – we will not approve the same. If it wishes to pursue the matter, Federated Farmers could do so in Plan Change Tuatahi.

<sup>&</sup>lt;sup>234</sup> 'Arable land use' is defined in the RMA, s 217B, and means: "the use of land to grow any of the following crops for harvest: (a) grain cereal, legumes, or pulse grain: (b) herbage seed: (c) oilseed: (d) maize grain, maize silage, cereal silage, or mangels: (e) crops grown for seed multiplication: (f) a crop prescribed in regulations made under s 217M(1)(a)".

<sup>&</sup>lt;sup>235</sup> Federated Farmers, closing submissions at [26(d)].

<sup>&</sup>lt;sup>236</sup> Stock Exclusion Regulations, Reg 8. See transcript (Wilson) at 1594ff and Federated Farmers, closing submissions at [26(a)].

Giving planning evidence on behalf of Federated Farmers, Mr P Wilson proposed the reduction in setback in his reply evidence dated 22 February 2022 however at 1596 of the transcript he accepts there is no technical evidence before the court supporting the reduction. Federated Farmers, closing submissions at [27] states SRC's witness, Dr Monaghan, expressed no concerns with the new condition. Dr Monaghan was cross-examined by counsel for Federated Farmers on conditions to apply to new rules permitting use of land on slopes exceeding 20 degrees (Rule 25(1)(ba), (bb) and (bc); he was not examined on the Federated Farmers' 3 m setback. Given that we do not infer from his *silence* that he had no view on the efficacy of the 3 m setback. Whilst we may have overlooked evidence, we have checked the transcript more widely and could not find technical evidence in support.

Issue: the setback from water bodies when cultivating land with a slope less than 10 degrees

Issue: the setback from water bodies when cultivating land with a slope between 10-20 degrees

Issue: the setback from water bodies when using land for the purpose of pasture renewal or establishment

[295] Federated Farmers and Forest & Bird/Fish & Game excepted, all interested parties support a 5 m setback from water bodies when cultivating land with a slope less than 10 degrees and a 10 m setback when cultivating land with a slope between 10-20 degrees.

[296] We addressed above Federated Farmers' proposed reduction of the setback from 5 m to 3 m that would apply to slopes less than 5 degrees.

[297] In this section we address Forest & Bird/Fish & Game's proposed larger setbacks of 10 m when cultivating slopes less than 10 degrees and 20 m when cultivating slopes between 10 and 20 degrees or using sloping land exceeding 20 degrees for the purpose of pasture renewal or establishment.<sup>238</sup> On these matters the Regional Council and Federated Farmers are agreed.<sup>239</sup>

[298] Giving evidence for Forest & Bird/Fish & Game, Ms McArthur says the rationale for wider setbacks is their role in slowing sediment transport from land to waterways and reducing the likelihood of those areas being overwhelmed from seasonally high influx of sediment during elevated winter rainfall or snowmelt.<sup>240</sup> The area within the setback additionally serves the important function of removing fine sediments. Expanding, these areas slow the velocity of overland flow; coarse

<sup>&</sup>lt;sup>238</sup> Rule 25(a)(ii)(1) and Rule 25(a)(ii)(2) at 101 of the August Consolidated Plan.

<sup>&</sup>lt;sup>239</sup> October Consolidated Plan (SRC final relief) and Federated Farmers closing submissions.

<sup>&</sup>lt;sup>240</sup> McArthur, reply evidence dated 22 February 2022 at [24].

particles suspended in run-off settle out (deposition) and dissolved nutrients and finely dispersed contaminants are removed as run-off infiltrates the area.<sup>241</sup>

[299] For slopes 0-10 degrees, the effectiveness of the setback as an area to filtrate fine sediments does not increase proportionately with increasing width (i.e. between 10 m and 20 m).<sup>242</sup> The effectiveness of setback widths for slopes exceeding 10 degrees has not been studied.

[300] Ms McArthur's evidence is that for slopes steeper than 10 degrees, wider buffers *may* be more effective for fine sediment removal.<sup>243</sup> Furthermore, while slope is an important driver of soil/sediment loss risk,<sup>244</sup> it is not the sole driver and the performance of a setback is influenced by factors including the location of setbacks where convergent run-off flow occurs, sediment size, slope length, soil type and infiltration properties, vegetative cover and flow distribution.<sup>245</sup>

### Discussion

[301] In principle, we have no difficulty accepting that wider setbacks may be justified where highly effective sediment removal is required, as may be the case for sensitive ecological receiving environments (for example).<sup>246</sup> Less clear is how the published reports cited by various technical witnesses have informed their opinions on the dimensions of the setbacks.

[302] Mr Farrell, giving planning evidence on behalf of Forest & Bird/Fish & Game, regarded the Regional Council's proposed setbacks as a 'significant improvement' on the operative regional plan, which has none.<sup>247</sup> However, Forest

<sup>&</sup>lt;sup>241</sup> Depree, evidence dated 4 February 2022 at [4.8].

<sup>&</sup>lt;sup>242</sup> Transcript (Monaghan) at 574; McArthur, reply dated 22 February 2022 at [25].

<sup>&</sup>lt;sup>243</sup> Science JWS, dated 26 November 2021 at 14-15.

<sup>&</sup>lt;sup>244</sup> Transcript (Monaghan) at 548; Monaghan, EiC at [30]-[31].

<sup>&</sup>lt;sup>245</sup> Depree, evidence dated 4 February 2022 at [4.9]; Farm systems JWS, dated 22 November 2021 at 8.

<sup>&</sup>lt;sup>246</sup> McArthur, reply evidence dated 22 February 2022 at [22]-[28].

<sup>&</sup>lt;sup>247</sup> The operative regional plan does not have setback controls. See transcript (Farrell) at 1291.

& Bird/Fish & Game's ecologist, Ms McArthur, recommended even wider setbacks in the absence of a method in the plan that embodies good erosion and sediment control practices.<sup>248</sup> In this context, Ms McArthur likens setbacks to *the ambulance at the bottom of the cliff*.<sup>249</sup>

[303] Dr R Monaghan resisted 10 m or 20 m setbacks as being the appropriate setback 'all round'. Like Ms McArthur, he considered site-specific assessments important and was 'okay with [the conditions in Rule 25] providing that close attention is given to the management of those critical source areas that are probably the locations where most of the flow that's exiting [the] paddock is occurring'. We note Dr Depree's opinion that the careful management of critical source areas is more important than setbacks in reducing sediment loss from higher risk activities. <sup>251</sup>

[304] In light of the experts' comments on the importance of sediment control measures relative to setback widths and also critical source areas, and given the contribution of sediment to the region's degraded water quality, it is unsatisfactory that Appendix N: FEMP does not address soil erosion and sediment controls in an objective or relate the performance of rule-based conditions<sup>252</sup> to paddock-specific assessment of erosion risk and sediment transportation pathways. For all high-risk activities, cultivation included, the pSWLP must encourage further enquiry or risk the FEMP being treated like a tick box exercise wherein the management plan is used to demonstrate compliance with setbacks/critical source area requirements but little else. In short, simple compliance with the entry conditions for permitted activities should not suffice where higher order policies

<sup>248</sup> McArthur, reply evidence dated 22 February 2022 at [22]-[28], Transcript (McArthur) at 951-955.

<sup>&</sup>lt;sup>249</sup> Transcript (McArthur) at 954.

<sup>&</sup>lt;sup>250</sup> Transcript (Monaghan) at 557, 574-575.

<sup>&</sup>lt;sup>251</sup> Depree, evidence dated 4 February 2022 at [4.15]-[4.16]. Noting that Dr Depree supported the Regional Council's amended setbacks.

<sup>&</sup>lt;sup>252</sup> Rules 25(ba), (bb) and (bc).

are to be implemented.

[305] While a FEMP is required as a condition to the rules permitting pasture renewal or establishment, i.e. Rules 25(ba), (bb) and (bc), this is not so the rule for cultivation (Rules 25(a) and (b)). The FEMP method is no less applicable to cultivation in general and indeed this appears to be the intention given the entry conditions to the restricted discretionary activity. We have suggested amendments to the rule.

[306] Finally, the Regional Council under Appendix N supports measures that are effective in *preventing* loss of sediment to waterways being considered first (see SRC's FEMP Objective 5(b)(viii) 'Waterways and Wetlands Management').<sup>253</sup> As framed, the language in the objective is appropriate. However, in the rules the condition becomes a standard<sup>254</sup> which while laudable, may not be possible to attain and moreover, we have not received evidence to support the proposition that sediment loss can always be prevented entirely.

[307] Given an outcome of *preventing* loss of sediment is unattainable, the court will approve drafting of Federated Farmers:

- (v) Critical source areas are:
  - (a) identified in a farm environment plan ahead of cultivation activities; and
  - (b) sediment detention is established when cultivating critical source areas; and
  - (c) other critical source area management measures are outlined in a farm environment plan; and

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<sup>&</sup>lt;sup>253</sup> August Consolidated Plan.

<sup>&</sup>lt;sup>254</sup> Rule 25(ba), (bb) and (bc), specifically –

<sup>•</sup> sediment detention that is effective in preventing loss of sediment to waterways is established when cultivating critical source areas; and

<sup>•</sup> Farm Environmental Management Plans prepared in accordance with Appendix N must outline paddock specific sediment control measures that are effective in preventing loss of sediment to waterways;

(vi) Farm environment plans prepared in accordance with Appendix N must outline paddock-specific erosion and sediment control measures, including the most appropriate time of the year for the activity to avoid or minimise risk.

[308] The wider setbacks sought by Forest & Bird/Fish & Game are presently unjustified, as the setbacks are not *the ambulance at the bottom of the cliff.* They are one of several methods in the plan to address the serious issue of contaminant losses resulting from overland flow. The effectiveness of the rules and methods can be reviewed under Plan Change Tuatahi.

#### Section 32AA

[309] An economic cost of setbacks to landowners is the loss of otherwise productive land.

[310] To the degree that the court has uncertainty as to the effectiveness of setbacks, it is over the FEMP objectives and whether these will prompt an enquiry into the performance of the setbacks under this rule, and indeed the other rules. As we note earlier, the performance of a setback is influenced by factors including their location where convergent run-off flow occurs, sediment size, slope length, soil type and infiltration properties, vegetative cover and flow distribution.<sup>255</sup>

Section 32(4) assessment – Rule 25 Cultivation

[311] Mr McCallum-Clark is uncertain whether 'cultivation' – as defined by the proposed plan – means 'vegetation clearance' as defined by the NES-F.<sup>256</sup> We are sympathetic to the challenges reconciling plan provisions that were developed

<sup>&</sup>lt;sup>255</sup> Depree, evidence dated 4 February 2022 at [4.9]; Farm systems JWS, dated 22 November 2021 at 8.

<sup>&</sup>lt;sup>256</sup> McCallum-Clark, supplementary evidence dated 13 May 2022, Table 1.

before the commencement of the NES-F and, on this occasion we are unable to reach a view on stringency.

### Outcome

[312] Responding to the technical evidence, it is our view that an additional clause should be inserted in the FEMP objective 'nutrient and soil management'. The objective is intentionally widened to include those activities with the greatest risk of contaminant losses through overland flow. Our suggested option follows, but parties may propose their own wording:

The overland flow of water is minimised to control sediment loss from cultivated paddocks and from paddocks used for intensive winter grazing, pasture-based wintering and for sacrifice paddocks; vegetated setbacks are maintained to slow overland flow of water, filter and support the infiltration of sediment/nutrients; and sediment trap(s) established where critical source areas are cultivated.

[313] Rule 25(a) and (b) – parties are to advise whether the condition for a permitted activity that a Farm Environmental Management Plan be prepared in accordance with Appendix N applies here? If so, consider the court's wording and respond.

### Other matters

[314] The court approves amended relief in respect of the following provisions::

- (a) Rule 25(a)(v) critical source areas. The court approves Federated Farmers' version with amendments as it is generally clearer and more concise;
- (b) Rule 25(b)(iii) Forest & Bird/Fish & Game would exclude pasture-based wintering from sub-cl (iii), which the court accepts has the potential to create adverse effects. An amendment will be approved,

- is it clearer amend the rule to say '... or on land used for pasturebased wintering, even as part of a pasture renewal cycle'?; and
- (c) Rule 25(ba), (bb) and (bc) Federated Farmers' inclusion of 'erosion' to read 'erosion and sediment controls' is a sensible amendment to the FEMP conditions and we approve the same and we approve their drafting of the critical source area conditions;<sup>257</sup>
- (d) Rule 25(bd) delete 'within a buffer'. The words are superfluous and secondly, unless 'buffer' means something other than a setback, its retention creates uncertainty;
- (e) Rule 25(c) restricted discretionary activity. The court approves of SRC's and Federated Farmers' version of the rule which has a complete list of conditions applicable to the restricted discretionary activity.

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<sup>&</sup>lt;sup>257</sup> Federated Farmers, attachment to closing submissions.

# Rule 35A – Feed pads/lots

[315] Under this rule use of land for a feed pad is permitted subject to certain conditions.

[316] The key amendment to this provision is to exclude 'sacrifice paddocks' from the definition of feed pad and to address sacrifice paddocks in a new rule.

# [317] The other relief sought is to:

- (a) delete mob size restrictions applying to different stock types;
- (b) delete length of time animals may remain on the feed pad;
- (c) delete the phrase 'excluding ephemeral rivers';
- (d) add 'coastal marine area' to the list of water bodies to which the rule is to apply; and
- (e) delete the restriction of two feed pads being located within 50 m.

[318] We turn first to the proposed amendment to the definition of feed pad/lots.

### Discussion

[319] We will approve the amendment to the definition of 'feed pads/lots' excluding sacrifice paddocks.

[320] The inclusion of sacrifice paddocks in the definition conflates two activities<sup>258</sup> in a way that is unhelpful, given the different purpose for which each area is used and given also the different risks and responses arising in relation to each land use. The amendment proposed is better aligned with the related NESF terms of 'feedlot' and 'stockholding area'.

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 $<sup>^{258}</sup>$  That is, the use of land for a sacrifice paddock with the use of land for a feed pad/lot.

[321] The proposed deletion of the phrase 'excluding ephemeral rivers' from the rule is approved for reasons given elsewhere in this decision. We also accept the parties' advice that the omission of coastal marine area from the list of water bodies referred to in the rule was an oversight which needs to be rectified.

[322] The DV rule permitting the use of land for a feed pad is subject to three conditions which may operate to constrain the activity in a way that was not intended. These conditions are:

- (a) the limitation on feed pads locating within 50 m of each other;
- (b) mob limits; and
- (c) limits on the duration of use.

[323] The limit on mob size has the potential to increase the cost of infrastructure if two or more feed pads are required to accommodate a mob, with each successive structure adding complexity around effluent capture and management. The condition stipulating that structures not co-locate within 50 m has similar effect. The condition imposing a three-month limit on the length of time that a feed pad may be in continuous use, may curtail/negate the ability to use the feed pads in response to environmental conditions, including high rainfall.<sup>259</sup> We note that the relevant NES-F regulation does not constrain the use of feed pads in this way.<sup>260</sup>

[324] We accept the expert opinion that the use of feed pads can reduce contaminant losses,<sup>261</sup> with the principal risk arising from their use being the loss of contaminants to a water body via overland flow or leaching. We further accept the expert opinion that the risks arising from the use of land for a feed pad are

<sup>261</sup> Dalley, EiC dated 20 December 2021 at [31].

<sup>&</sup>lt;sup>259</sup> Wilson, EiC dated 4 February 2022 at [2.14].

<sup>&</sup>lt;sup>260</sup> Transcript (McCallum-Clark) at 360.

better managed through construction and management standards<sup>262</sup> rather than the conditions noted above.<sup>263</sup>

## Section 32AA

[325] We are satisfied that the amended relief will improve and strengthen the effectiveness of this rule.

Section 32(4) RMA – Assessment

[326] We note the Regional Council's advice that there are parts of this rule which are less restrictive than the relevant NES-F regulation.

[327] The parties/witnesses have not identified scope in the appeals before the court to allow the court to reconcile the provisions of the pSWLP with the NES-F and we assume the court has no jurisdiction to do so.

#### Outcome

[328] With no issue as to scope being drawn to our attention, we approve amended Rule 35A together with the definition of feed pad/lot, the wording of which is agreed.

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<sup>&</sup>lt;sup>262</sup> Rule 35A(a)(iv)-(vi).

<sup>&</sup>lt;sup>263</sup> Dalley, EiC dated 20 December 2022 at [29].

# Rule 35B - Sacrifice paddocks

[329] Sacrifice paddocks are managed under the rule for feed pads, Rule 35A (DV). The plan's definition of 'feed pad' included 'sacrifice paddocks', although these are quite different activities and are not managed alike.

[330] Federated Farmers would amend the definition of 'feed pad' to exclude sacrifice paddocks. If allowed, Rule 35A would not apply to sacrifice paddocks. The notice of appeal is silent on whether sacrifice paddocks would be managed under the general rule for farming activities, Rule 20, or under its own bespoke rule.

[331] The Dairy Interests excepted, all interested parties support the inclusion of a new rule for the use of land as a sacrifice paddock (proposed Rule 35B).<sup>264</sup> The Dairy Interests' preference is for the activity to be left for a FEMP but they do not propose any amendments to Appendix N: FEMP.

[332] We accept that there is scope under Federated Farmers' appeal to consider amended relief, namely a new rule for 'sacrifice paddocks'.

### What are sacrifice paddocks?

[333] The NES-F defines a *sacrifice paddock* in relation to cattle (**only**) as meaning an area on which—

- (a) cattle are repeatedly, but temporarily, contained (typically during extended periods of wet weather); and
  - (b) the resulting damage caused to the soil by pugging is so severe as to require resowing with pasture species.

[334] The proposed plan does not define 'sacrifice paddock', but the activity described in evidence is that it is an area that may be used to repeatedly, but

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<sup>&</sup>lt;sup>264</sup> Transcript (Forward) at 456.

temporarily, contain stock. While Federated Farmers' appeal sought a definition for sacrifice paddocks be included in the plan, none was proposed.

[335] Unlike the NES-F, in Southland sacrifice paddocks may:

- (a) be used by stock other than cattle; and
- (b) may, but not necessarily will, damage soil by pugging.

[336] Within the context of the dairy industry, sacrifice paddocks are used in order to reduce soil damage on large areas of the farm and minimise other risks to the environment and animal welfare. The use of sacrifice paddocks is infrequent and for short periods of time.<sup>265</sup> In some years, sacrifice paddocks may not be used at all.<sup>266</sup>

[337] The circumstances where cattle are held in sacrifice paddocks, include:

- (a) for IWG, when soil conditions have deteriorated to the point that they are negatively impacting on animal welfare. Cattle are moved onto a sacrifice paddock overnight;<sup>267</sup> and
- (b) for pasture, cattle are moved onto a sacrifice paddock after a target grazing residual is reached; <sup>268</sup> and
- (c) on the shoulders of the season, heavy dairy cattle are moved off pasture onto areas less prone to pugging or into a paddock with more shelter prior to an adverse weather event.<sup>269</sup>

[338] Other uses described in evidence include:

<sup>&</sup>lt;sup>265</sup> Dalley, EiC dated 20 December 2021 at [33]-[34].

<sup>&</sup>lt;sup>266</sup> Dalley, s 274 evidence dated 4 February 2022 at [38]; transcript (Hunt) at 623.

<sup>&</sup>lt;sup>267</sup> Dalley, s 274 evidence dated 4 February 2022 at [37]-[38].

<sup>&</sup>lt;sup>268</sup> Dalley, s 274 evidence dated 4 February 2022 at [37]-[38].

<sup>&</sup>lt;sup>269</sup> Transcript (Wilkins) at 653-654.

- (a) all stock types, moved onto sacrifice paddocks in response to adverse weather, including high rainfall and snow;<sup>270</sup>
- (b) moving newly shorn sheep into more sheltered areas;<sup>271</sup>
- (c) quarantining cattle infected with Mycoplasma bovis or other biosecurity hazards;<sup>272</sup>
- (d) holding stock while access to space at freezing works is restricted;<sup>273</sup> and
- (e) accommodating stock when fodder crop is unavailable.<sup>274</sup>

[339] Features of a sacrifice paddock will usually include:<sup>275</sup>

- (a) shelter for stock; and
- (b) the feeding out of supplementary feed.

[340] The Dairy Interests' farm systems expert Dr Dalley, described the risk and environmental impact of the activity, concluding it was less than the risk associated with intensive winter grazing and akin to the risk associated with pasture-based wintering: that is because while vegetation is removed, plant roots remain. The actual level of risk will depend on the frequency of paddock use and its management, i.e. establishing setbacks and excluding critical source areas. <sup>276,277</sup> On the other hand, in a statement produced following expert conferencing, Federated Farmers' and the Regional Council's farm systems experts said the risk could potentially be similar to or greater than the risks associated with intensive winter grazing, <sup>278</sup> with the parties' planners advising sacrifice paddocks are usually

<sup>&</sup>lt;sup>270</sup> Transcript (Duncan) at 413.

<sup>&</sup>lt;sup>271</sup> Transcript (Wilkins) at 653.

<sup>&</sup>lt;sup>272</sup> Transcript (Hunt) at 622, 636-637.

<sup>&</sup>lt;sup>273</sup> Transcript (Hunt) at 636-638.

<sup>&</sup>lt;sup>274</sup> Transcript (Hunt) at 622 and 636 discussing toxic swedes and also at 623 when cattle return home earlier than planned because contract grazier unexpectedly runs out of feed.

<sup>&</sup>lt;sup>275</sup> Transcript (Dalley) at 600-601.

<sup>&</sup>lt;sup>276</sup> Transcript (Dalley) at 595-597, 617.

<sup>&</sup>lt;sup>277</sup> See also transcript at 414 where Fonterra's sustainability manager Mr C Duncan gives similar evidence

<sup>&</sup>lt;sup>278</sup> Farm systems JWS, held 23 and 30 June 2022 at [30].

indistinguishable from intensive winter grazing,<sup>279</sup> with pasture being destroyed and consequently a significant degree of pugging and loss of soil structure.<sup>280</sup>

[341] On the topic of effects, we heard from two farmers, Mr S Wilkins and Ms B Hunt. Mr Wilkins' evidence was that some pugging and compromise to pasture is realistic,<sup>281</sup> whilst Ms Hunt added that while the sacrifice paddock may be a 'muddy mess' on the surface, there would be some recovery in the spring.<sup>282</sup> Their evidence and the context for these remarks while very helpful, did not cover the range of uses of these paddocks.

Findings – a new rule or method (only)

[342] We understand the rule proposed by the Regional Council was not initially informed by farm systems advice,<sup>283</sup> and the knowledge base concerning this activity was developing during the hearing. This is not to draw attention to any failing by the Regional Council, as Federated Farmers would urge.<sup>284</sup> Our impression is that neither party gave adequate thought to the management of sacrifice paddocks if the appeal point was allowed.

[343] We treat with caution the evidence that the scale and intensity of effects are like intensive winter grazing. The evidence on the topic of sacrifice paddocks was not comprehensive.

[344] While all the circumstances where a sacrifice paddock may be used cannot be foreseen,<sup>285</sup> even so, we find that in common with intensive winter grazing and

<sup>&</sup>lt;sup>279</sup> Wilson, reply evidence dated 22 February 2022 at [6.1].

<sup>&</sup>lt;sup>280</sup> McCallum-Clark, EiC dated 11 February 2022 at [145].

<sup>&</sup>lt;sup>281</sup> Transcript (Wilkins) at 654.

<sup>&</sup>lt;sup>282</sup> Transcript (Hunt) at 624.

<sup>&</sup>lt;sup>283</sup> Transcript (Burrell) at 753; (Monaghan) at 558.

<sup>&</sup>lt;sup>284</sup> Federated Farmers, closing submissions at [13]-[18].

<sup>&</sup>lt;sup>285</sup> Transcript (Hunt) at 637.

pasture-based wintering, the greater risk of contaminant loss is in association with heavier animals such as cattle and deer.

[345] Given the high probability of contaminant loss if the activity is not well managed, we will approve the inclusion of a new rule.

### Amended relief

# Fodder crop and outcome<sup>286</sup>

[346] We will approve the condition for the permitted activity rule proffered by Federated Farmers; that the sacrifice paddock is not in fodder crop at the relevant time. This is a belt and braces exclusion of unsuitable land.

### Usage

[347] The Regional Council and Federated Farmers propose to restrict the use of the paddocks to 60 days in any six-month period. This duration was initially proposed by Mr McCallum-Clark, without having the opportunity to take advice from a farm systems expert.<sup>287</sup>

[348] Giving evidence on behalf of Wilkins Farming Co. Ltd, Mr Wilkins thought 30 days were required in a 'good year', but not exceeding 60 days in any year.<sup>288</sup> Ms Hunt and Dr Dalley considered 60 days too long;<sup>289</sup> Dr Dalley observing the paddocks are typically used in an emergency and are not used consistently over a long period of time. Any longer than two months would fall into the category of pasture-based wintering.<sup>290</sup>

<sup>&</sup>lt;sup>286</sup> August Consolidated Plan, Rule 35B(iii).

<sup>&</sup>lt;sup>287</sup> McCallum-Clark, EiC dated 11 February 2022 at [148]; transcript (McCallum-Clark) at 2103.

<sup>&</sup>lt;sup>288</sup> Transcript (Wilkins) at 654.

<sup>&</sup>lt;sup>289</sup> Transcript (Hunt) at 626-627; (Dalley) at 618.

<sup>&</sup>lt;sup>290</sup> Transcript (Dalley) at 618-619.

Findings – usage

[349] We are unsure of the provenance of the 60-day duration.

[350] The duration is substantially more than the actual levels of use described in evidence. We accept Dr Dalley's opinion that the danger in proscribing a duration limit above actual use is that it risks this activity being used as an adjunct to pasture-based grazing, when that is not its purpose.

[351] As a condition of a permitted activity, we will give provisional approval to a duration of 60 days per annum; but even this may be too high. Subject to what the parties may say, Rule 35B(a)(i) would be amended to read:

(i) the use is not to exceed a total of 60 days in any twelve-month period.

#### Area

[352] As a condition of the permitted activity rule, the Regional Council proposes to limit the area of sacrifice paddocks to 1% or 30 ha, whichever is the lesser. Federated Farmers proposes the land area be either 1% or 5 ha, whichever is the greater.

[353] The Dairy Interests' witnesses did not propose any standards for inclusion in a rule or in Appendix N: FEMP. When questioned about the same, Dr Dalley could not comment on the appropriate area threshold,<sup>291</sup> but Mr Duncan agreed that in the Southland context the lesser of 1% or 30 ha would accommodate the activity.<sup>292</sup>

[354] While he proposed an area limit, Mr McCallum-Clark also advised he did not have any technical evidence in support of the limit, and therefore held no

<sup>&</sup>lt;sup>291</sup> Transcript (Dalley) at 602.

<sup>&</sup>lt;sup>292</sup> Transcript (Duncan) at 415.

strong view.<sup>293</sup> Federated Farmers is concerned that the Regional Council's area restriction may be inadequate on small holdings. Federated Farmers' planner, Mr Wilson, said he had canvassed farmers who advised a 5 ha minimum area is required.<sup>294</sup>

[355] In closing, the Regional Council continued to support the areal restriction on the basis that the area limit is proportional to the overall landholding.<sup>295</sup>

Findings – area

[356] Neither the Regional Council nor Federated Farmers produced evidence concerning the extent of this activity in Southland, and consequently the potential scale of associated contaminant losses.

[357] The evidence to support Federated Farmers' 5 ha minimum is anecdotal; no farm systems or other technical support was produced in support of the Regional Council's limit being proportional to the area of the landholding. Consequently, the court cannot assess the relative merits of either condition.

[358] While this is in no way a merits assessment, a condition can be crafted so that a 5 ha area is delivered and secondly, to provide an upper limit on the area that may be used for this activity.<sup>296</sup> In this way the concerns of the Regional Council and Federated Farmers can be addressed.

[359] Subject to what the parties say, we suggest Rule 35B(a)(iv) read:

- (iv) in any year the sacrifice paddocks do not exceed:
  - (1) for a landholding 500 ha or less, 5 hectares of the landholding; or
  - (2) for a landholding greater than 500 ha, 1% or 30 hectares of the landholding (whichever is the lesser).

<sup>295</sup> SRC, closing submissions at [192].

<sup>&</sup>lt;sup>293</sup> Transcript (McCallum-Clark) at 1175.

<sup>&</sup>lt;sup>294</sup> Transcript (Wilson) at 1490.

<sup>&</sup>lt;sup>296</sup> Federated Farmers' 1% or 5 ha whichever is greater does not produce a finite limit.

# Slope

[360] Federated Farmers called planning evidence in support of setbacks on sloping land when technical evidence was required. Their planner, Mr Wilson, explained:<sup>297</sup>

... I had never made a suggestion (as stated in para 144c) to remove sacrifice paddocks from direct control of the pSWLP, instead, as sacrifice paddocks are usually indistinguishable from intensive winter grazing, I thought they would have been captured under Rule 20A, along with however other wintering on pasture is managed. There is a high environmental risk from sacrifice paddocks, similar to that from forage crop grazing, which needs to be managed, however, the area of land in question should be small. The need for a separate rule arises because sacrifice paddocks can occur at all times of the year, not just winter.

[361] At the time of the June expert conference Federated Farmers was proposing stock must be kept at least:

- (a) 20 m from the bed of water bodies in Appendix A and B; and
- (b) from the bed of all other water bodies:
  - (i) 20 m, where the slope of the land is more than 10 degrees, and
  - (ii) 10 m, where the slope of land is 10 degrees or less.

[362] On the question of slope, farm systems experts reported on the efficacy of a 20 m setback that was proposed by Federated Farmers:<sup>298</sup>

We have a concern about the effectiveness of the proposed (by Federated Farmers) 20 m buffers for mitigating contaminant loss from sacrifice paddocks greater than 10 degrees in slope; we are unaware of any evidence of their effectiveness under such a scenario of likely soil damage.

<sup>&</sup>lt;sup>297</sup> Wilson, rebuttal dated 22 February 2022 at [6.1].

<sup>&</sup>lt;sup>298</sup> Farm systems JWS, held 23 and 30 June 2022 at [30].

It is our professional opinion that sacrifice paddocks can be subjected to a lot of hoof treading damage. This will usually lead to reduced soil infiltration and soil aggregate breakdown. Such outcomes on relatively steeply sloping land will likely greatly increase the risk of surface run-off. Sacrifice paddocks have high potential for losses of soil and contaminants and need very careful site-specific consideration. They could potentially be of similar or greater risk to intensive winter grazing and similar or greater mitigations may be appropriate.

[363] Subsequently, the Regional Council proposed the use of land for sacrifice paddocks be restricted to slopes less than 10 degrees together with a 20 m and 10 m setback from certain water bodies. Accepting that a greater distance may be a necessary condition for being able to use land over 10 degrees, Federated Farmers countered with a 50 m setback from all water bodies for the use of sloping land up to 20 degrees.

[364] We have no expert evidence confirming the efficacy of setbacks proposed by Federated Farmers or by the Regional Council as a method to manage the likely large amounts of urinary nitrogen lost via leachate. We accept Dr Monaghan's opinion that risk of nitrogen loss to water is potentially very high, with risk depending on the quantity of feed and therefore the number of animals held on the paddock.<sup>299</sup> In the absence of evidence, we have had to assume nitrogen leaching to water bodies from sloping land is a matter that is neutral with respect to our decision.

[365] Loss of phosphorus, sediments and microbial contaminants via surface flow is correlated with the slope of the land. Dr Monaghan's evidence was that potentially severe damage to plant cover, soil structure and water infiltration may be caused by treading, and that exposed, heavily trodden soils will likely result in greater transport of sediment, phosphorus and microbial contaminates.<sup>300</sup> He

<sup>&</sup>lt;sup>299</sup> Monaghan, EiC dated 11 February 2022 at [38]-[41].

<sup>&</sup>lt;sup>300</sup> Monaghan, EiC dated 11 February 2022 at [38]-[41].

expressed the view that given the potential grazing intensity, he would *hope* that the slope of the sacrifice paddock would be much less than 10 degrees.<sup>301</sup>

[366] No technical evidence was led by Federated Farmers to support the effectiveness of a 50 m setback on slopes up to 20 degrees in support of its amended relief, nor did Federated Farmers produce an analysis of costs in support of setting aside what potentially may be a large area of land (ss 32 and 32AA).

[367] We do not place great weight on Mr Wilson's concern around the availability of land on slopes less than 10 degrees, nor is the evidence such that the court can make a finding of fact that "... some farms in Southland do not have land under 10 degrees available for this use". There is no evidence of the Regional Council nor Federated Farmers having undertaken any analysis in relation to the availability of land below 10 degrees. Mr Wilson asserted most, if not all, of the land in the Region would be over 10 degrees in slope, 303 but he later said land under 10 degrees would be regarded as highly versatile land and tended to have other uses in winter, if it is available on farm. 304

[368] The appeal on this particular land use has been one of the most challenging in these proceedings. In the absence of any published research quantifying risk, we accept Dr Monaghan's opinion that the court's only guide are the key factors known to be important drivers of contaminant loss.<sup>305</sup> Of those factors, only slope and proximity to waterways is proposed to be controlled.

[369] Therefore, it is our decision that the risk posed by the angle of the slope is to be minimised with the residual risk of overland flow attenuated by setbacks from the water bodies, exclusion of stock from critical source areas and sediment control processes in individual FEMPs. The conditions on setbacks from

<sup>&</sup>lt;sup>301</sup> Transcript (Monaghan) at 559.

<sup>&</sup>lt;sup>302</sup> Federated Farmers, closing submissions at [30].

<sup>&</sup>lt;sup>303</sup> Transcript (Wilson) at 1491.

<sup>304</sup> Transcript (Wilson) at 1553.

<sup>&</sup>lt;sup>305</sup> Monaghan, EiC dated 11 February 2022 at [38].

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waterways for the permitted IWG and pasture-based wintering activities is to

apply.

Section 32AA

[370] To the degree that the technical evidence permits, the court has engaged

with the efficiency and effectiveness of the provisions being pursued by the parties.

[371] We acknowledge there is an opportunity cost associated with use of land

with higher productive values for this activity. However, this is an acceptable cost

given the potential for disproportionally large environmental impacts relative to

the areal extent of potentially affected land.<sup>306</sup>

[372] When Objectives 1 and 2 of the pSWLP are brought to bear on decision-

making, we find that for this inadequately understood/described activity, a rule

that does not incur unnecessary risk is the most appropriate way to achieve the

plan's objectives and Policy 16.

Section 32(4) Assessment – Rule 35B sacrifice paddocks

[373] The NES-F does not regulate sacrifice paddocks.

Outcome

Appendix N: FEMP

[374] The FEMP is to be amended so that the land used as sacrifice paddocks is

identified. We suggest pt B, cl 7(h) of Appendix N:307 FEMP reads:

(h) land to be:

(i) cultivated; or

<sup>306</sup> We accept the evidence of Dr Monaghan, EiC dated 11 February 2022 at [1] and elsewhere.

<sup>307</sup> SRC Consolidated Plan dated October 2022.

- (ii) intensively winter grazed; or
- (iii) used for pasture-based wintering; or
- (iv) used for a sacrifice paddock; and

### Definition

[375] The activity wants for a definition in the proposed plan. Parties, having taken expert advice, are to propose a suitable definition for inclusion in the proposed plan, and confirm:

- (a) is it intended that Rule 35B applies to cattle (only)?
- (b) is the FEMP to address the use of sacrifice paddocks by all stock or cattle only?<sup>308</sup>

#### Rule 35B

[376] Provisionally, we approve the wording below:

### Rule 35B – Sacrifice paddocks

- (a) The use of land for a sacrifice paddock is a permitted activity provided the following conditions are met:
  - (i) the use is not to exceed a total of 60 days in any twelve-month period;
  - (ii) the sacrifice paddock must not be in forage crop;
  - (iii) in any year the sacrifice paddocks do not exceed:
    - (1) for a landholding 500 ha or less, 5 hectares of the landholding; or
    - (2) for a landholding greater than 500 ha, 1% or 30 hectares of the landholding (whichever is the lesser).
  - (iv) stock must be separated by a vegetated setback at least:
    - (1) 20 metres from the bed of any Regionally Significant Wetland or Sensitive Water Bodies listed in Appendix A, nohoanga listed in Appendix

<sup>&</sup>lt;sup>308</sup> The definition of 'feed pad' in the plan pertains to cattle and deer. We received no evidence on deer and are unsure whether the rule is to apply to deer or other stock.

### B, mātaitai reserve, taiāpure, estuary or the coastal marine area; and

- (2) 20 metres from the bed of any other river, lake, artificial watercourse (regardless of whether there is any water in it at the time), modified water course or natural wetland, where the slope of the land used for intensive winter grazing is 10 degrees or more; and
- (3) 10 metres from the bed of any other river, lake, artificial watercourse (regardless of whether there is any water in it at the time), modified water course or natural wetland, where the slope of the land used for intensive winter grazing is 10 degrees or less.
- [377] Having conferred with the parties, the Regional Council will:
  - (a) respond to the court's suggested amendment to Appendix N: FEMP;
  - (b) propose a definition of sacrifice paddock, taking into consideration whether the activity is limited to cattle or is to include all stock; and
  - (c) respond to the court's suggested amendments to Rule 35B.

### Rule 51 – Minor diversions of water

[378] Forest & Bird/Fish & Game appealed Rule 51 seeking to change the classification of a diversion from natural wetlands from discretionary to a non-complying activity. Forest & Bird/Fish & Game excepted, all other interested parties support a new non-complying activity rule but for the more limited purpose of land drainage (only).

[379] Rule 51 is part of a suite of provisions controlling the take, use and diversion of water under the proposed plan. Other rules affecting wetlands include Rule 49(b), dealing with the abstraction, diversion and use of surface water;<sup>309</sup> Rule 52, concerning the diversion of water from the Waiau catchment<sup>310</sup> and Rule 52A, which addresses the diversion of water that is part of the Manapōuri hydro-electric generation scheme.

[380] Save in relation to Regionally Significant Wetlands or Sensitive Water bodies, under Rule 51(b) the diversion of water for the purpose of land drainage is a permitted activity.

[381] The various activities in Rules 49, 51, 52 and 52A are subject to conditions, which are of no moment to the resolution of the appeal point. The status of diversion activity in Rule 52A is under appeal, but again this does not appear to be relevant to the determination of the appeal point.

#### **NES-F**

[382] The wider context for this rule is the NES-F which also regulates diversion of water from natural wetlands. The relevant regulations are identified and

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<sup>&</sup>lt;sup>309</sup> A restricted discretionary activity.

<sup>&</sup>lt;sup>310</sup> A discretionary activity.

accurately explained in the planning evidence of Ms L Maciaszek (Regional Council).<sup>311</sup>

[383] For various activities, the NES-F has regulations around the diversion of water in and near natural wetlands.<sup>312</sup> For other activities that are not controlled by the regulations, if the diversion of water will, or is likely to, result in the complete or partial drainage of the natural wetland, the diversion is either a prohibited or a non-complying activity. The status of the activity being determined by whether the diversion is outside the wetland, but within a 100 m setback, or within the wetland.<sup>313</sup>

[384] In summary, the diversion of water which results in land drainage is prohibited under Reg 53(2) where it is occurring within a natural wetland or is a non-complying activity where it is occurring within 100 m from the natural wetland (Reg 52(2)). Unless provided otherwise in a regulation, all other diversions either within, or within a 100 m setback from a natural wetland are non-complying activities (Reg 54(c)).

#### Amended relief

[385] The effect of the Regional Council's rule (if approved) is that it would carve out from Rule 51(b) the diversion of water from natural wetlands for the purpose of land drainage and classify this a non-complying activity.

[386] Forest & Bird/Fish & Game's rule would also do this and more. Thus, at issue is the range of activities to be captured by the new rule.

<sup>311</sup> Maciaszek, EiC dated 11 February 2022 at [27]-[29].

<sup>&</sup>lt;sup>312</sup> Whyte, s 274 evidence dated 4 February 2022 at [52]-[54] gives examples of regulations applying near wetlands. The various activities are controlled under Regs 38-51.

<sup>&</sup>lt;sup>313</sup> NES-F, Regs 52(2) and 53(2).

#### Forest & Bird/Fish & Game's case

[387] Forest & Bird/Fish & Game would widen the scope of the new rule with the effect that not only is the diversion of water for the purpose of land drainage a non-complying activity, but so are activities that are not otherwise controlled under the NES-F.<sup>314</sup> It does this by making diversion non-complying expressly for land drainage and by implication for any other purpose not within exceptions (a)-(e) from the NES-F.

[388] Forest & Bird/Fish & Game supports a wider range of activities (than land drainage) as non-complying given the extensive and ongoing loss of wetlands in Southland.<sup>315</sup> Mr Farrell, giving planning evidence in support, is concerned that Rule 51 (DV) fails to strongly discourage wetland loss and that in contravention of the rules in the Regional Plan, water is being diverted from wetlands. It is his opinion that an appropriate response is for any new drainage of wetlands, irrespective of the cause or purpose, to be classified a non-complying activity.<sup>316</sup>

[389] Both Mr Farrell and counsel for Forest & Bird/Fish & Game avert to a review underway to the NES-F the outcome of which may be to change the regulations increasing the range of activities regulated. At that time the outcome of the review was an entirely speculative exercise.

[390] Mr Farrell did not analyse the policy setting of the rule nor undertake, as directed, a s 32AA analysis. Ms Maciaszek does do this in support of the Regional Council's relief. Having seen her evidence, Mr Farrell conceded that for some purposes – other than land drainage – diversion will be appropriate.<sup>317</sup>

<sup>316</sup> Farrell, EiC edited 22 February 2022 at [57]-[61].

<sup>&</sup>lt;sup>314</sup> Forest & Bird amended relief excludes activities governed by NES-F Regs 38-51.

<sup>&</sup>lt;sup>315</sup> Forest & Bird, closing submissions at [69].

<sup>&</sup>lt;sup>317</sup> Farrell, rebuttal evidence dated 22 February 2022 at [8].

#### Decision

[391] We will approve Rule 51(e) as proposed to be amended by the Regional Council and others. Were we not to approve the amendment, Rule 51(b) would permit diversion of water for the purpose of land drainage. Such a rule would not implement wetland Policies 32 and 33, nor the higher order objectives, including Objectives 1, 2, 4, 5, 6, 9, 9A, 14, 15 and 17.

[392] Save in respect of the limited range of activities regulated under NES-F and under the proposed plan, Forest & Bird/Fish & Game would have the court decide that the diversion of water from a wetland is a non-complying activity. For the reasons given above, we decline the relief sought. Forest & Bird/Fish & Game has not made out a case for the change sought.

#### Other matters

[393] Unless told otherwise, we do not understand that a decision is required in relation to the inclusion of natural hazards in Rule 51(e) or Rule 74.

#### RMA s 32(4) analysis

[394] Rule 51(e) differs from the NES regulations in that the rule:

- (a) does not stipulate a setback;
- (b) does not distinguish between diversions of water that are within or outside of the wetland; and
- (c) may have a narrower scope.

[395] The content and architecture of the rule means that it is not easy to align with the regulations. On our reading, Council's wording applies to works wherever located if they divert water 'from' a natural wetland for the purpose of land drainage. Thus the rule is more lenient than NES-F Reg 53(2) which prohibits diversion within a natural wetland in certain circumstances. Secondly, the catch-

all rule for diversions not otherwise classified by a rule in the plan classifies them a discretionary activity, whereas the catch-all regulation in the NES-F (Reg 54) classifies them non-complying. Both the regulations and rules control the diversion of water which results in complete or partial drainage (Rule 51, Regs 52-54), albeit the architecture of these provisions differ. No party seeks to bring the rules and regulations into alignment, and there may be no scope on appeal to do so. Assuming that there is no scope, we cannot take the assessment further.

#### Outcome

[396] The court will approve the amendment sought by the Regional Council and others in relation to Rule 51(e).

[397] The parties are to consider whether Rule 51(b) and (d) conflict with the new rule. Rule 51(b) provides 'despite any other rule in this Plan' and Rule 51(d) reads 'Unless controlled by any other rule in this Plan' the diversion of water for the purpose of land drainage is permitted.

[398] With that in mind, should Rule 51(e) be amended to read?:

Notwithstanding Rule 51(b) and Rule 51(d), the diversion of water from a natural wetland for the purpose of land drainage is a non-complying activity.

[399] If there is scope, and provided no internal conflict is created, a consequential amendment to Rule 51(b) deleting the words 'Despite any other rule in this Plan' may put the interpretation/implementation of these rules beyond doubt.

#### Provisions not otherwise addressed

[400] In this section we decide other provisions either agreed or not otherwise discussed.

#### Policies 27A and 28

[401] We approve text for a new policy, Policy 27A. This is a placeholder for the direct insertion of policy as required by NPS-FM, cl 3.24 by the Regional Council when the plan becomes operative.

[402] We approve the consequential amendment to Policy 28 and secondly, for reasons that we give elsewhere, we approve the amendment, 'to avoid, where reasonably practicable, or otherwise ...'

## Policies 45, 46 and 47

[403] Having received no submissions to the contrary,<sup>318</sup> the amendments set out in the first Interim Decision are approved.

#### Rules 26, 28 and 29

[404] Further to counsels' advice that the amendments proposed to Rules 26, 28 and 29 are no longer required, the court's version of the proposed plan has been updated accordingly.<sup>319</sup>

<sup>&</sup>lt;sup>318</sup> Registry direction dated 1 December 2022.

<sup>&</sup>lt;sup>319</sup> SRC memorandum dated 11 November 2022.

## Rule 35

[405] Federated Farmers has advised that it is no longer pursuing its appeal in relation to Rule 35.<sup>320</sup> No amendments to Rule 35 (CV) were required.

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<sup>&</sup>lt;sup>320</sup> Federated Farmers email to Registry dated 17 June 2022.

## Critical source areas, ephemeral rivers and ephemeral flow paths

[406] This section addresses the terms 'ephemeral rivers' and 'ephemeral flow path' in the definition of 'critical source areas'.

#### Amended relief

[407] The Ngā Rūnanga appeal sought, and all interested parties support, the deletion of the phrase 'excluding ephemeral rivers'.<sup>321</sup> No appellant sought to delete the expression 'including ephemeral rivers' from the relevant provisions.

[408] The Dairy Interests do not support the retention of the phrase 'including an ephemeral river' in Rule 70, submitting that ephemeral rivers are embodied in the defined term 'river'. There being no appeal, the court does not have scope to amend Rule 70.

[409] For completeness, we note there are provisions that retain the term 'ephemeral river(s)', that are not subject to appeal concerning use of the phrase and about which we make no decision.<sup>323</sup>

[410] In addition, the parties propose to amend 'critical source area' by:

- (a) introducing a new term 'ephemeral flow paths' in sub-cl (a) to follow after gully, swale or depression; and
- (b) replacing sub-cl (b) with a new provision concerning non-landscape features.

<sup>&</sup>lt;sup>321</sup> Except for Rule 40(b)(i)(1) and the Financial Contributions section at 170, the parties propose the deletion of 'excluding ephemeral rivers' from the proposed plan. It is not clear whether the retention of the phrase in these provisions is an oversight.

<sup>&</sup>lt;sup>322</sup> The Dairy Interests, closing submissions at [55]-[58].

<sup>&</sup>lt;sup>323</sup> The term 'ephemeral river' is retained in the definitions of 'artificial watercourse' and 'modified watercourse', and Rules 59A and 70(a). The definition of 'ephemeral river' is proposed to be deleted.

[411] Save in relation to Ngā Rūnanga, the parties do not propose to define the term 'ephemeral flow path'. In the August Consolidated Plan, Ngā Rūnanga proposes the term be defined the same way as 'ephemeral river' but called no evidence, nor made submission in support.

#### Discussion

## [412] The pSWLP defines 'critical source area' (DV) as:

- (a) a landscape feature like a gully, swale or a depression that accumulates runoff (sediment and nutrients) from adjacent flats and slopes, and delivers it to surface water bodies (including lakes, rivers, artificial watercourses and modified watercourses) or subsurface drainage systems; and
- (b) areas which arise through land use activities and management approaches (including cultivation and winter grazing) which result in contaminants being discharged from the activity and being delivered to surface water bodies.

## [413] 'Ephemeral rivers' are:

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

[414] Various provisions throughout the proposed plan are expressed as either including or excluding ephemeral rivers. The plan does not define 'river' and we presume the Act's definition applies; the plan does define the terms 'intermittent river' 324 and 'modified water course.' 325

[415] Occurring on a hydrological continuum, the witnesses did not agree on whether ephemeral rivers are water bodies and therefore whether these features

<sup>325</sup> The pSWLP defines 'modified watercourse' as '[a] water carrying channel that was existing in some form prior to land development but has been modified or straightened for drainage or other purposes and excludes ephemeral rivers'.

<sup>&</sup>lt;sup>324</sup> The pSWLP defines 'intermittent river' as '[a] river which does not contain permanently flowing or standing water and where the bed is predominantly devoid of terrestrial vegetation and comprises sand, gravel, boulders, or similar material or aquatic vegetation'.

are managed as water bodies or as pathways for contaminants, or both. Evidence was not called from a witness with the relevant hydrological and morphological expertise to assist the court on whether these ephemeral features are water bodies<sup>326</sup> and/or pathways for contaminants in addition to swales, gullies or depressions.<sup>327</sup>

[416] The parties agree that the phrase 'excluding ephemeral rivers' is to be deleted wherever this appears in the provisions.

[417] The parties also agreed to delete the term 'ephemeral rivers' from the glossary.

[418] Except for the Dairy Interests and Ballance, the parties support the inclusion of a new term 'ephemeral flow path' in the definition of 'critical source areas' and support also the management of 'ephemeral flow paths' as pathways for contaminants.

[419] The Dairy Interests and Ballance do not support the inclusion of 'ephemeral flow path' in the definition of 'critical source areas' submitting the term is superfluous and could give rise to interpretational difficulties.<sup>328</sup> While the new term is undefined, its grouping with other landscape features that are pathways for contaminants is sufficient to indicate its meaning. We find the new term, 'ephemeral flow paths' uses language that is more accessible to plan readers. Consistent with the principle of ki uta ki tai (Objective 2) and Te Mana o te Wai

<sup>&</sup>lt;sup>326</sup> While we received evidence on this topic from ecologists McArthur, dated 20 December 2021 at [66]; and dated 22 February 2022 at [29]; Depree dated 4 February 2022 at [5]; Duncan, dated 4 February 2022 at [30]-[52] and Burrell, dated 11 February 2022 at [36]-[42], the physical (boundary) conditions for aquatic ecological characteristics of these features is required for a determination to be made about whether ephemeral features are water bodies.

<sup>&</sup>lt;sup>327</sup> Ruston, dated 4 February 2022 at [26]-[40], in particular [40].

<sup>&</sup>lt;sup>328</sup> The Dairy Interests, closing submissions at [45]-[48]; Ballance, closing submissions at [29]-[32].

(Objective 1), the proposed management of these landscape features as pathways for contaminants is sound.

#### Outcome

[420] Save in relation to 'Financial Contribution' provisions, the phrase 'excluding ephemeral rivers' is to be deleted wherever else it appears.<sup>329</sup>

[421] There being no appeal on the matter, the court does not have jurisdiction to amend Rule 70(a) by deleting 'including ephemeral rivers' as proposed by the Dairy Interests.

[422] We approve also the inclusion of the listed non-landscape features in the definition of 'critical source areas'.<sup>330</sup>

[423] In the absence of evidence from a qualified expert supporting the same, we do not approve the definition of 'ephemeral flow path' proposed by Ngā Rūnanga.

[424] Finally, we record that this decision does not foreclose on the treatment of 'ephemeral flow paths' as a *river* or *water body* under Plan Change (Tuatahi). However, expertise will be required to resolve the classification of these features.

<sup>&</sup>lt;sup>329</sup> The phrase appears in Objective 16, Policy 18, Rules 14, 20, 25, 35A, 40, 70 and Appendix N.

<sup>&</sup>lt;sup>330</sup> For example, silage pits, fertiliser storage areas, stock camps and laneways.

## Appendix N – Farm Environmental Management Plan requirements

[425] In this part we address Appendix N: FEMP requirements.

[426] Where amendments to FEMP requirements are discussed elsewhere in the decision, we give a footnote reference in the text for Appendix N (CV) in Annexure 6 to this decision.

[427] We briefly set out the context for this method which is central to achieving the plan's objectives and policies.

## **Background**

## Appendix N (DV)

[428] Rule 20 – Farming (DV) permits the use of land for farming subject to the condition that a FEMP is prepared in accordance with Appendix N. The FEMP was not required to be certified nor audited; a copy of the document is to be provided to the Regional Council only upon request.

[429] Appendix N (DV) fleshed out the detail of FEMPs. The Appendix makes clear that the plan had to be reviewed annually either by the farmer<sup>331</sup> or agent and that the outcome of the review is provided to the Regional Council again on request.

[430] Appendix N documents the information to be included in the FEMP and requires the FEMP contains a nutrient budget using the Overseer model.

[431] In addition to content matters specified, farmers are also required to implement good management practices in relation to various aspects of land

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<sup>&</sup>lt;sup>331</sup> By farmer we mean 'landholding owner'.

management (e.g. cultivation practices and use of land for intensive winter grazing etc).

## Appendix N: FEMP amended relief

[432] Appendix N is retained but substantially rewritten.

[433] Expanding on what is now called the *default* content, the environment in which farming is taking place now has a far higher resolution and the list of farming activities with the highest risk of contaminant losses is expanded.<sup>332</sup>

[434] The requirement for landholdings to prepare a nutrient budget is retained, albeit these are no longer required to be prepared using Overseer, but instead a model to be approved by the Regional Council.<sup>333</sup> In anticipation of a Nutrient Loss Risk Assessment tool becoming available, a risk assessment may be produced as an alternative to the nutrient budget. The nutrient budget and risk assessment will be important methods demonstrating that farming activities meet the Policy 16 requirements that they do not increase, rather minimise nutrient discharges and, where located in a Schedule X catchment, reduce water quality effects. However, these tools are not yet available, and the court is unable to assess the method's efficiency or effectiveness (s 32AA).

[435] New to Appendix N, is a series of objectives to be met by the FEMPs. Consistent with the higher order provisions the FEMP is to implement, these objectives guide the outcomes to be achieved in the forthcoming year.

[436] Also new, is a description of the assessment needed to demonstrate how the outcomes of each objective are to be achieved.<sup>334</sup>

<sup>&</sup>lt;sup>332</sup> Appendix N: FEMP, pt B, cl 7 (CV).

<sup>&</sup>lt;sup>333</sup> NB: the Regional Council may yet approve the use of Overseer.

<sup>&</sup>lt;sup>334</sup> Appendix N: FEMP, pt B, cl 9 (CV).

[437] Finally, there is a requirement for a sub-plan, the Winter Grazing Plan,<sup>335</sup> for activities with high risk of adverse environmental effects.

[438] That aside, there are detailed requirements for plan certification and

auditing, together with a separate requirement to review the plan if there is a

material change in farming activities (but in any event, every 12 months or as

required to respond to the outcome of an audit). The notable feature here is that

the certifier and auditor cannot be the same person.

[439] A key feature of the rule framework is that farming activities in given

circumstances are permitted in Southland only if a FEMP is prepared and certified,

and its compliance audited. These regulatory requirements are intended to be

enforceable under the Act; specifically, the conditions for permitted activities will

be breached if compliance with the FEMP is not audited in accordance with

Appendix N.336 This approach allows for year-on-year improvement in land

management systems in furtherance of the FEMP's objectives. Copies of the

certified FEMP, audit report and management plan review are to be provided to

the Regional Council.337

Other management plans

[440] The Appendix is drafted in anticipation of Freshwater Farm Plans required

under pt 9A RMA. While the format of the Freshwater Environmental

Management Plan is not yet known, Appendix N makes clear that specific

information will be required from Southland farmers.

[441] We were told that there are hundreds of farm management plans in

Southland, mostly prepared as part of good land management practices using

industry templates and guidance materials. Similarly, there are management plans

<sup>335</sup> Appendix N: FEMP, pt B, cl 12-13 (CV).

<sup>336</sup> Ballance closing submissions dated 16 August 2022 at [38].

<sup>337</sup> Appendix N: FEMP, pt C (CV).

prepared in accordance with a condition of a resource consent to discharge industrial wastewater to farmland. FEMPs prepared under Appendix N build on this work.

## FEMP objectives

[442] At the conclusion of the hearing, the Regional Council supported eight objectives which the FEMPs are to achieve.<sup>338</sup>

[443] Save in relation to the objective concerning hauora, and secondly waterways and wetland management, the subject matter was largely agreed.

Hauora objective

[444] Forest & Bird/Fish & Game proposed a new objective that reads:

Hauora and ki uta ki tai: People managing the land take action to understand ki uta ki tai and provide for hauora.<sup>339</sup>

[445] In closing, Forest & Bird/Fish & Game changed their position and supported a FEMP Purpose Statement proposed by Ms C Taylor, Ravensdown. Their support, however, was contingent on a requirement for the FEMP to demonstrate how it contributes to giving effect to the purpose statement.<sup>340</sup> While the hauora objective remains in the Regional Council's final wording,<sup>341</sup> we note that the Council no longer seeks its inclusion.<sup>342</sup>

<sup>340</sup> Forest & Bird, closing submissions at [88].

<sup>&</sup>lt;sup>338</sup> SRC October Consolidated Plan. Noting the inclusion of an objective for hauora and ki uta ki tai appears in error.

<sup>&</sup>lt;sup>339</sup> June Consolidated Plan.

<sup>&</sup>lt;sup>341</sup> SRC October Consolidated Plan, wording differs from the Forest & Bird draft.

<sup>&</sup>lt;sup>342</sup> SRC closing submissions at [220].

[446] Degradation and hauora are different concepts. Ngā Rūnanga defines<sup>343</sup> hauora in relation to a state of health and say it means:<sup>344</sup>

... 'fit, well, healthy, vigorous, robust'. ... Therefore, at a principle level, Te Mana o te Wai puts the needs of the waterbody first and provides for healthy and robust waterbodies, people and environment – not one over the other but the hauora of all three elements.

## [447] Moreover:345

Hauora, or healthy resilience, is identified as both a state and part of a continuum that includes degradation and permanent loss.

## [448] The key point is this:<sup>346</sup>

Te Mana o te Wai is encompassed in the pSWLP by Ki Uta Ki Tai that holistically integrates the application of Te Mana o te Wai from the estuaries to the headwaters and everything in-between.

[449] We find that the planning witnesses supporting the inclusion of the haurora objective, did not properly apprehend that the provisions the court approves are to embody ki uta ki tai and uphold Te Mana o te Wai to the extent scope permits on appeal. While this is unlikely to result in a state of hauora, the completion of the FEMP in accordance with Appendix N is demonstrating how the particular landholding is giving effect to Objectives 1 and 2, and indeed the higher order provisions of this plan generally.<sup>347</sup>

<sup>&</sup>lt;sup>343</sup> The English definition of hauora, see Water quality JWS, dated 24-26 November 2021 at 4.

<sup>&</sup>lt;sup>344</sup> Water quality JWS, dated 24-26 November 2021 at 4.

<sup>&</sup>lt;sup>345</sup> Water quality JWS, dated 24-26 November 2021 at 5 and 7.

<sup>&</sup>lt;sup>346</sup> Water quality JWS, dated 24-26 November 2021 at 4.

<sup>&</sup>lt;sup>347</sup> In concluding this, it follows that we also do not accept Ravensdown's relief that the FEMP set out how it contributes to giving effect to the Purpose Statement (Ravensdown, closing submissions at [19]).

Purpose Statement

[450] As indicated, Ms Taylor, giving planning evidence on behalf of Ravensdown, proposed a Purpose Statement be included in each FEMP.<sup>348</sup> Like the Interpretation Statement approved by the court in 2019, the Purpose Statement highlights the contribution each Farm Environmental Management Plan makes to the management of Southland's water and land resources.

[451] While several parties proposed amended wording, we consider Ms Taylor's drafting fit for purpose and will approve the same.

Objectives: intensive winter grazing and pasture-based grazing

[452] The planners were agreed that separate objectives for intensive winter and pasture-based wintering activities were required because both activities are high risk requiring specific recognition and management under a FEMP.<sup>349</sup>

[453] The wording proposed for the objectives is substantively the same, save in relation to the omission from the pasture-based wintering objective of the requirement that risk not increase over time and secondly, the reordering of its contents.<sup>350</sup> No explanation is offered for the different policy wording.

[454] It is the court's preliminary view that identical wording for the two objectives is required. Alternatively, a single objective applying to both activities with the winter grazing plan to tease out differences between the same.

[455] Preferring the latter approach, the court has suggested amendments. In doing so, we have not retained the concept of avoiding *damage* to critical source areas or un-grazed buffers as we were unsure what 'damage' entails. If it means stock are excluded from the same, as 'un-grazed' infers, it would be more direct to

<sup>&</sup>lt;sup>348</sup> Taylor, supplementary statement dated 20 May 2022 at [12]-[16].

<sup>&</sup>lt;sup>349</sup> Planners JWS, dated 21 and 25 July 2022 at [32] and 16.

<sup>&</sup>lt;sup>350</sup> The Dairy Interests do not refer to risk at all.

say so. Secondly, Appendix N talks about 'buffers' whereas save in relation to Rule 25, the term used in the rules is 'setbacks'. To avoid confusion, the Council in consultation with interested parties, is to confirm which term should apply. For now, we have used 'setback' and not 'buffer'.

Objective: waterways and wetlands management

[456] Extensive and detailed objectives are proposed by the Regional Council and Forest & Bird/Fish & Game in relation to waterways and wetlands management.

[457] Without taking away from the importance of the subject matter, particularly when considered in the context of Objectives 1-2, 4, 6, 9/9A, 15-16 and 17-18, we do not approve the same.

[458] The proposed objectives are likely ineffective in the absence of a Regional Plan prepared under the National Objectives Framework of the NPS-FM where environmental outcomes for values,<sup>351</sup> target attribute states for those values and timeframes to achieve the same are stated.<sup>352</sup> Moreover, it is a costly and inefficient process to require farmers to make decisions potentially impacting farm infrastructure twice; first under pSWLP and then again under Plan Change Tuatahi.

[459] As 32AA report in support of this objective was not prepared in the case of Forest & Bird/Fish & Game, or adequately assessed in the case of the Regional Council. Moreover, there is no considered analysis whether and to what extent the matters listed in the alternative objectives are already taken up by other rules and methods in the pSWLP with other aspects being, as Mr Maw fairly described it, regulatory overreach.<sup>353</sup>

353 Transcript (Maw) at 2590.

<sup>&</sup>lt;sup>351</sup> For values see NPS-FM, Appendix 1A and Appendix 1B.

<sup>&</sup>lt;sup>352</sup> NPS-FM, cl 3.12.

[460] Given the above, we decline to approve the waterways and wetlands management objective proposed by Forest & Bird/Fish & Game and the Regional Council.

[461] Ballance proposes a simpler habitat management objective:<sup>354</sup>

To manage activities within waterways, natural wetlands and their margins, so that in-stream and riparian habitat values are not diminished, and where practicable are improved.

[462] Ahead of Plan Change Tuatahi, the Ballance objective has the advantage of affording farmers flexibility around waterways management subject to the direction that in-stream and riparian values are not diminished. Implementing the foregoing objectives and related policies, the habitat alternative is adequate for the time being<sup>355</sup> and we approve of its inclusion.

#### Clause 6 (renumbered 11 in court's version)

[463] Clause 6<sup>356</sup> concerns how to go about writing a FEMP to implement each relevant objective.

[464] We found Mr McCallum-Clark's drafting provided the clearest guidance and would approve all clauses without amendment save cl (c) and (d). We think the public will be confused by the different expressions for minimising in cl (c) and (d). We suggest using 'minimising' for both, adding a note to record the definition of the term. Secondly, under Policy 16 it is the effects on water quality that are to be reduced and we have suggested an amendment to sub-cl (d) to bring it into alignment with the policy. We have also suggested (d) refer to physiographic zones to improve linkage with these important policies.

<sup>&</sup>lt;sup>354</sup> August consolidated plan at 278.

<sup>&</sup>lt;sup>355</sup> The 'time being' meaning prior to Plan Change Tuatahi.

<sup>356</sup> August Consolidated Plan numbering.

## Clause 7 Winter grazing plan (renumbered 12-13 in the court's version)

[465] We set out our detailed thinking in relation to the winter grazing plan in Rule 20B and have suggested alternative wording.

[466]

### Objectives – other matters

[467] Two final matters arise.

[468] First, there are at least two drafting styles in evidence: including those objectives beginning 'To'. While endeavouring to respect their substance, we have suggested amendments to standardise their form.

[469] Second, not all objectives will apply to every farm. For example, landholdings not engaged in dairy support may not be using land for IWG. As written, there is some ambiguity as to those objectives which apply in every instance and we have suggested splitting the objectives to make this clear.

#### Part C: Audit framework

[470] As the Regional Council has not determined the audit framework, it is not known whether terminology such as 'pass' or 'fail', 'grade' etc will apply. Where provisions proffered by parties use such terms, we do not approve the drafting. The use of terms can be revisited in the final decision (if required).

[471] An important requirement of Appendix N is to keep separate the auditor and certifier roles. We will not approve the additional provision proposed by Ballance to the effect that the plan cannot be certified by the same person who

prepared it because of potential resourcing constraints.<sup>357</sup> This decision can be revisited in Plan Change Tuatahi.

## Material change\*

[472] As written, it is assumed that a change in crop area, crop rotation length etc will change the risk profile of the farming activity. If the risk profile does not invariably change with the change in activity, the requirement to review the FEMP may be inefficient (not least onerous).

[473] We have suggested wording to focus on the change in risk profile as being the material change\*.

#### Notes

[474] The court has suggested some notes, as an aid to the reader. Two notes (b) and (c) are important and explained elsewhere in the decision.

[475] The court's other amendments are of an editorial nature; however, to assist the parties we have made some footnotes. If parties have any queries as to the purpose of the amendments, they may revert to the court.

#### Outcome

[476] The court's suggested wording is set out in Annexure 6 attached to and forming part of this decision.

[477] Parties are to consider the same and propose directions on how to respond (including timetabling of evidence if necessary).

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<sup>&</sup>lt;sup>357</sup> We accept SRC's closing submission at [222].

## Physiographic Maps

[478] The Regional Council,<sup>358</sup> together with Forest & Bird/Fish & Game,<sup>359</sup> propose the inclusion of the physiographic zone maps in the plan.

[479] Given the reasons proffered by the Regional Council's planner for the maps' inclusion, we would have given this matter serious thought. However, the above parties have not established that there is scope under any appeal for the court to do so; indeed in 2019 the Regional Council said that there did not appear to be any appeal on point.<sup>360</sup>

[480] Having briefly reviewed the notices of appeal, we could not find any relevant appeal point.

Outcome

[481] With no party having established the court's jurisdiction to amend the pSWLP by including the maps, we decline to consider the matter further unless or until scope is established.

<sup>&</sup>lt;sup>358</sup> SRC closing submissions dated 25 August 2022 at [223].

<sup>359</sup> Transcript (Gepp) at 161.

<sup>&</sup>lt;sup>360</sup> SRC opening submissions dated 4 June 2019 at [203].

## **Concluding Directions**

[482] Throughout this interim decision there are directions for the Council and parties that require their response on identified matters. Before the hearing concluded it was also recognised that the plan's Appendix N FEMP provisions should be 'sense checked' by a panel of suitably qualified persons for comment on their practical application.<sup>361</sup> We make directions on both these matters as follows.

[483] As soon as reasonably practicable after the Christmas break and not later than **Thursday 9 February 2023**, the Regional Council having consulted with the parties is directed to file a memorandum that:

- (a) seeks process and timetabling directions for all matters identified in this interim decision where responses from parties is directed prior to final determination;
- (b) in relation to those provisions in respect of which the court has made a provisional decision or suggested alternative wording, propose how these are to be resolved. The following options arise. The parties:
  - (i) support the court version;
  - (ii) request referral of the court version to expert conferencing; or
  - (iii) request the provision be set down for hearing and propose a suitable timetable for evidence exchange.
- (c) identifies which provisions should be settled prior to Appendix N 'sense checking'; and
- (d) indicates whether the preceding matters require a pre-hearing conference to be convened to determine the way forward and if so the proceedings will be set down for a conference on **Tuesday 14 February 2023**<sup>362</sup> in Christchurch (attendance by AVL will be accommodated).<sup>363</sup>

<sup>&</sup>lt;sup>361</sup> Transcript 2493-2496 and Maw closing submissions 25 August 2022 at [217].

<sup>&</sup>lt;sup>362</sup> If 7 February 2022 does not suit all parties, the court has available 8 and 9 February 2023.

<sup>&</sup>lt;sup>363</sup> Court consideration will be given to convening by AVL should this be the parties' preference.

Note, matters (a) and (c) are to be addressed in Council's memorandum whether a pre-hearing conference is sought or not.

## Hearing dates

[484] If as a result of the Appendix N 'sense check' more hearing time is indicated or more time is required to finalise any provisional decision of the court, the court can resume sitting 27 – 31 March 2023.

## Sense Checking Annexure 6 FEMP provisions

[485] Within the timetable at [483] above, the Regional Council having consulted with the parties is to file a memorandum with a proposal for 'sense testing' Appendix N: FEMP provisions that

- (a) sets a brief;
- (b) provides the names and discipline of proposed review team members. The team is to include, if possible, one or more suitably qualified and experienced Southland farm system advisers<sup>364</sup> and a senior Council consents and compliance officer;
- (c) provides for a suitable facilitator;
- (d) allows, if possible, for Mr McCallum-Clark to be available as a professional resource to explain factual plan and RMA context matters (as opposed to contributing on the merits); and
- (e) a review completion date.

[486] Participants are to understand that the purpose of the 'sense testing' exercise is not to walk back the court's interim decision determinations but to review their practical suitability for application in the field and recommend any

<sup>&</sup>lt;sup>364</sup> Consideration is to be given to appointing farm advisor(s) who have not been previously involved in this case as a fresh pair of eyes may be useful for the task at hand.

changes accordingly.

## [487] We <u>direct:</u>

- (a) by Thursday 9 February 2023, the Council having conferred with the parties, will file and serve a reporting memorandum setting out a proposed process and timetable for the matters in [483] and [485] above. In addition, the memorandum may request the proceedings be set down for a pre-hearing conference in the week commencing 7 February 2023;
- (b) leave is reserved for the parties to seek further (or amended) directions.

For the court

J E Borthwick Environment Judge

## Schedule – List of appellants

ENV-2018-CHC-26	Transpower New Zealand Limited
ENV-2018-CHC-27	Fonterra Co-operative Group Limited
ENV-2018-CHC-29	Aratiatia Livestock Limited
ENV-2018-CHC-30	Wilkins Farming Co Limited
ENV-2018-CHC-31	Gore District Council & others
ENV-2018-CHC-32	DairyNZ Limited
ENV-2018-CHC-33	H W Richardson Group Limited
ENV-2018-CHC-34	Beef + Lamb New Zealand
ENV-2018-CHC-36	Director-General of Conservation
ENV-2018-CHC-37	Southland Fish and Game Council
ENV-2018-CHC-38	Meridian Energy Limited
ENV-2018-CHC-40	Federated Farmers of New Zealand
	(Southland Province) Inc
ENV-2018-CHC-44	Wilkins Farming Co Limited
	(previously Campbell's Block Limited)
ENV-2018-CHC-45	Wilkins Farming Co Limited
	(previously Robert Grant)
ENV-2018-CHC-46	Southwood Export Limited & Others
ENV-2018-CHC-47	Te Rūnanga o Ngāi Tahu, Hokonui
	Rūnaka, Waihopai Rūnaka, Te
	Rūnanga o Awarua & Te Rūnanga o
	Oraka Aparima
ENV-2018-CHC-49	Rayonier New Zealand Limited
ENV-2018-CHC-50	Royal Forest and Bird Protection
	Society of New Zealand Incorporated

#### Annexure 1

# Scope – Rule 20A: scope to approve area and slope conditions of the permitted activity

- [1] Federated Farmers, Wilkins and the Dairy Interests oppose the conditions for the permitted activity proposed by the Regional Council and others, arguing there is no scope for the court to approve amendments to Rule 20A by:
  - (i) reducing the area of IWG from 15% to 10%; or
  - (ii) introducing a slope control of 10 degrees.

#### The law

[2] The parties agree with the Regional Council submissions on the legal principles that apply when considering whether the court has scope to approve relief.<sup>1</sup>

[3] What follows then is a brief synopsis of the legal principles to set the context for our decision. We commence with the overview of the plan making processes in *Gertrude's Saddlery Ltd v Queenstown Lakes District Council:*<sup>2</sup>

[27] ... The RMA process for preparing, changing and reviewing plans, as set out in sch 1 to the RMA, is designed to:

- (a) progressively refine the disputed issues as the proposed plan goes through the submission and appeal process; and
- (b) promote the principles of procedural fairness and natural justice by ensuring potentially affected parties know what changes to the proposed plan are sought so they can choose to participate in

<sup>&</sup>lt;sup>1</sup> SRC, 'Scope' dated 12 July 2022.

<sup>&</sup>lt;sup>2</sup> Gertrude's Saddlery Ltd v Queenstown Lakes District Council [2020] NZHC 3387 at [27]-[28].

decisions being made on that issue.

[28] It is for these reasons that an appellant in such proceedings cannot pursue an outcome on appeal that falls outside the scope of their original submission.<sup>3</sup> ...

- [4] While consequential amendments may be made to a plan, for there to be scope the amendments must be 'necessary and desirable' and 'foreseen as a direct or otherwise logical consequence of a submission'.<sup>4</sup> Observing that consequential amendments generally include uncontested matters, such as amending planning maps to reflect the substantive changes sought, the High Court in *Gertrude's Saddlery Ltd v Queenstown Lakes District Council* held changes should not be made to the plan through the appeal process that could not have been anticipated from reading the notice of appeal.<sup>5</sup>
- [5] Further, the question of whether amendments to a plan are reasonably and fairly raised in submissions, is to be approached in a realistic, workable fashion.<sup>6</sup> Because an appeal cannot raise issues which are outside the scope of a submission, and secondly, the jurisdiction of the Environment Court is then limited by the scope of the relief sought on the appeal,<sup>7</sup> the starting point when determining the scope of an appeal is to consider the appellant's original submission on the proposed plan.<sup>8</sup>
- [6] With that said, we turn first to the notified plan and the submissions made on the same.

<sup>&</sup>lt;sup>3</sup> Avon Hotel Ltd v Christchurch City Council [2007] NZRMA 373 (EnvC).

<sup>&</sup>lt;sup>4</sup> Gertrude's Saddlery Ltd v Queenstown Lakes District Council [2020] NZHC 3387 at [99].

<sup>&</sup>lt;sup>5</sup> Gertrude's Saddlery Ltd v Queenstown Lakes District Council [2020] NZHC 3387 at [99].

<sup>&</sup>lt;sup>6</sup> Royal Forest and Bird Protection Society Inc v Southland District Council [1997] NZRMA 408 (HC).

<sup>&</sup>lt;sup>7</sup> Hauraki Maori Trust Board v Waikato Regional Council HC Auckland CIV-2003-485-999, 4 March 2004 at [76].

<sup>&</sup>lt;sup>8</sup> Gertrude's Saddlery Ltd v Queenstown Lakes District Council [2020] NZHC 3387 at [30].

## Notified proposed plan

- [7] Under the notified version of the proposed plan, the IWG activity was addressed in its own rule (Rule 23). Excluding the alpine physiographic zone where IWG was not permitted, the activity is permitted subject to the following conditions:
  - (a) the land area did not exceed 20 ha or 50 ha (depending on the zone); and
  - (b) the activity complied with various setbacks from water bodies where the activity is occurring on sloping land.

## Submissions on the proposed plan

- [8] Fish & Game and Forest & Bird have standing to appeal because they made submissions on the proposed plan, including on the Physiographic Zone Policies (Policies 4-12), Policy 16 and Rule 23 (RMA, Schedule 1, cl 14).
- [9] Forest & Bird submitted in support of Policy 16 proposing minor amendments to strengthen and improve clarity of terms and phrases. Amendments proposed to the physiographic zone policies (Policies 4-12) were to prohibit IWG in certain zones. Rule 23 the rule for IWG is opposed and substantive amendments were proposed. In its relief Forest & Bird sought the inclusion of an additional physiographic zone to the zones where no IWG was to take place<sup>9</sup> and to make additional physiographic zones subject to the condition that IWG not exceed 20 ha.<sup>10</sup> Amendments were proposed to clarify the implementation of setbacks from water bodies.<sup>11</sup>
- [10] Fish & Game's submission on the plan is comprehensive and in relation to

<sup>10</sup> Rule 23(b)(iii) (notified).

<sup>&</sup>lt;sup>9</sup> Rule 23(b)(ii) (notified).

<sup>&</sup>lt;sup>11</sup> Rule 23(b)(vii) (notified).

the Physiographic Zone Policies, Policy 16 and Rule 23 they sought outcomes similar to Forest & Bird.

## SRC decision on provisions and matters raised in submissions

[11] In its decision on provisions and matters raised in submissions, the Regional Council merged several rules with the effect that IWG together with other farming activities was to be addressed under a single rule (Rule 20).<sup>12</sup>

[12] For the IWG activity, the area thresholds for the different physiographic zones were replaced by a single threshold that applied everywhere. IWG is permitted if (amongst other matters):<sup>13</sup>

(a) the activity does not occur on more than 15% of the area of the landholding or 100 ha, whichever is the lesser.

[13] The variable setbacks based on slope were replaced by management practices to reduce contaminant losses.<sup>14</sup>

## Notices of appeal

#### Forest & Bird appeal

[14] Forest & Bird appealed specific plan provisions proposing amendments or in the alternative, any wording that would adequately address the reasons for its appeal.<sup>15</sup>

[15] The appeal seeks to prohibit IWG in certain physiographic zones and to amend the wording of the relevant policies. Forest & Bird did not appeal Rule 20

<sup>14</sup> Rule 20(a)(iii) (DV).

<sup>&</sup>lt;sup>12</sup> Report and Recommendations of the Hearing Panel, dated 29 January 2018 at Chapter 10.

<sup>&</sup>lt;sup>13</sup> Rule 20 (DV).

<sup>&</sup>lt;sup>15</sup> Notice of appeal, at [8] and Table 1.

(DV) which permits IWG. The appeal in relation to Policy 16 seeks stronger policy direction by, among other measure, deleting ambiguous phrasing.

## Fish & Game appeal

- [16] The general reasons given by Fish & Game for its appeal include:16
  - (a) the suite of objectives, policies and rules provide for land use activities that cause degradation of water quality and adverse effects on water bodies;<sup>17</sup> and
  - (b) the rules permit the discharge of contaminates in contravention of s 70;<sup>18</sup> and
  - (c) the suite of methods are not sufficiently certain or robust to effectively ensure that water quality is or can be maintained, or improved where is has been degraded.<sup>19</sup>
- [17] By way of relief Fish & Game sought:<sup>20</sup>
  - (a) certain amendments to provisions set out in Appendix A to the notice of appeal;
  - (b) such other changes to the above provisions that address the reasons for the appeal; and
  - (c) consequential changes.
- [18] Relevantly, Fish & Game appealed the following provisions:<sup>21</sup>
  - (a) Policies 4-12;
  - (b) Policy 16; and

<sup>&</sup>lt;sup>16</sup> Forest & Bird and Fish & Game, closing submissions at [49].

<sup>&</sup>lt;sup>17</sup> Notice of appeal at [7(v)].

<sup>&</sup>lt;sup>18</sup> Notice of appeal at [7(xii)].

<sup>&</sup>lt;sup>19</sup> Notice of appeal at [7(iv)].

<sup>&</sup>lt;sup>20</sup> Notice of appeal at [8].

<sup>&</sup>lt;sup>21</sup> Notice of appeal, Appendix A.

(c) Rule 20.

[19] The relief sought in relation to the physiographic zone policies, amongst other matters, is to strengthen and clarify the direction given in relation to consenting IWG.

[20] The relief sought in relation Policy 16 is to strongly discourage the granting of consent for IWG where (inter alia):<sup>22</sup>

- (a) the activity's adverse effects cannot be avoided where practicable or otherwise remedied or mitigated; or
- (b) existing water quality is degraded to the point of being overallocated.

[21] For all farming activities, an amendment to Policy 16 was proposed bringing back the requirement for variable setbacks from water bodies relative to slope as part of a FEMP.

[22] Finally, Fish & Game appealed the conditions that apply to the permitted activity rule (Rule 20). While the appeal does not propose amendments to the condition limiting the area of permitted IWG activities, it does seek new setback controls based on slope.

#### Discussion

[23] Forest & Bird's submission on the notified plan is concerned with the appropriateness of IWG in some physiographic zones and proposed amending Rule 23 to prohibit IWG in two zones and restricting the area of IWG activity in the others. The rule was amended by the Regional Council in response to submissions on the plan, standardising the controls on permitted IWG activities and deleting the controls that applied to the various physiographic zones.

<sup>22</sup> Notice of appeal, Policy 16 at 21-22.

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[24] We find that the amended relief is outside the scope of Forest & Bird's submission on the plan and outside the scope of its appeal. Persons with a potential interest in the appeal could not have foreseen an area or slope constraints being approved by the court either as a direct or otherwise logical consequence of this appeal.

[25] As with its submission, Fish & Game filed a comprehensive appeal. A key reason for the appeal concerned the plan's ability to maintain water quality or to improve water quality where degraded.<sup>23</sup> Detailed reasons are given for the appeal and for the relief (both general<sup>24</sup> and specific).<sup>25</sup>

[26] Fish & Game appeals Rule 20 seeking to reinstate the variable setback controls that apply in relation to water bodies where IWG is to take place on sloping land. There is no appeal seeking to impose a general condition restricting the slope on which IWG can take place and nor does Fish & Game appeal the condition limiting the area of the permitted IWG activity.

[27] Applying Gertrude's Saddlery Ltd v Queenstown Lakes District Council, we find the amended relief does not flow from the relief sought on appeal and could not be anticipated by the public from general and specific reasons for the appeal when read and understood together. Assuming that the provenance of the slope and area restrictions is the NES-F, these conditions are highly contested and cannot be said to flow naturally or inevitably from the changes that were sought.

#### Outcome

[28] The amended relief supported by SRC and others, is outside the scope of the submissions on the plan and outside the scope of the appellants' appeals.

<sup>24</sup> Notice of appeal, [8(b) and (c)].



<sup>&</sup>lt;sup>23</sup> See notice of appeal, [7(a)(i)].

<sup>&</sup>lt;sup>25</sup> Notice of appeal, [8(a)] and Appendix A.

## Annexure 2

TABLE 1
Agreed position of scientists on water quality<sup>1</sup>

Attribute	Water body type	Threshold to indicate waterbody in need of improvement	Threshold is consistent with Table in NPS-FM 2020 and is below a national bottomline or minimum acceptable state.
Suspended sediment (water quality).  Visual clarity.	Class 1b river Class 2b river Class 3b river Class 4b river	<1.34m <0.61m <2.22m <0.98m	Is consistent with NPS-FM, Table 8.  NBL applied.  Areas mapped are below the national bottom line for this attribute.
E.coli (med) E.coli (Q95) E.coli (G260) E.coli (G540)	All rivers	>130 per 100 ml >1200 per 100 ml >34% >20%	NPS-FM, Table 9, Band C. There are exceedances in one or more thresholds of Band C.  There is no NBL.  Band C is the 'minimum acceptable state' for the human contact value.  Both experts map areas in Band D and E.
MCI (median)	All wadeable rivers	<90	Is consistent with NPS-FM, Table 14.  NBL applied.  Both experts map areas below the NBL.  The NPS-FM does not differentiate between upland and lowland rivers.  For lowland rivers, both experts

 $<sup>^{\</sup>rm 1}$  Water Quality JWS, dated 7 July 2022.

	map areas < 90.
	For upland rivers, both experts
	map areas <100 (i.e. above the NBL for MCI).



TABLE 2 The court's findings in relation to degraded estuaries and ICOLLS $^{1}$ 

Estuary/ICOLL	Microalgae biomass		Phytoplankton biomass
Estuaries	Estuarine trophic status based on TN load¹	Estuarine trophic status based on TN load <sup>1</sup>	Estuarine trophic status based on TP load <sup>1</sup>
Waikawa Harbour	Not degraded	Degraded	Degraded
Haldane Estuary	Not degraded	Not degraded	Degraded
Toetoes (Fortrose) Estuary	Degraded	Not degraded	Not degraded
New River (Oreti) Estuary <sup>2</sup>	Degraded	Degraded	Degraded
Jacobs River Estuary <sup>2</sup>	Degraded	Not degraded	Not degraded
Coastal lakes (ICOLLS) <sup>4</sup>	NPS-FM, Table 1	Phytoplankton (trophic state)	

-

<sup>&</sup>lt;sup>1</sup> Water Quality JWS, dated 1 August 2022. Table 2 reports on the results of Dr Snelder's assessment which the court has accepted.

Te Waewae	Not degraded	Degraded	Degraded
Lagoon			
Waituna Lagoon <sup>2</sup>	Not degraded	Degraded	Not degraded
Lake Brunton	Degraded	Degraded	Not degraded
(closed) <sup>3</sup>			

#### Notes

- 1 Trophic status is defined as 'not degraded' where current state nutrient load is less than threshold nutrient loads that corresponds to the minimum acceptable state for macroalgal biomass or phytoplankton biomass. Additionally, when the current state load is less than the threshold load (for TN or TP), then the estuarine state is considered 'not degraded'. Exceedance of TN and TP are indicative 'proxy' measures for biomass of an estuarine state that is moderately impacted by macroalgal or phytoplankton biomass. Table 2 does not include the 'determining primary indicator' (i.e. whether the estuary is most susceptible to eutrophication by macroalgae or phytoplankton blooms), instead both indicators are included. See transcript (Snelder and Depree) at 2002-2003, Water Quality JWSs, dated 7 July 2022 and 1 August 2022.
- 2 Note 2 indicates that both Dr Snelder and Depree assessed the waterbody as being degraded.
- 3 Lake Brunton (open) was assessed by Dr Depree, but not by Dr Snelder. Dr Depree assessed Lake Brunton (open) as degraded based on modelled macroalgal EQR susceptibility <0.4.
- 4 ICOLLS means 'intermittently closed and open lakes and lagoons'.



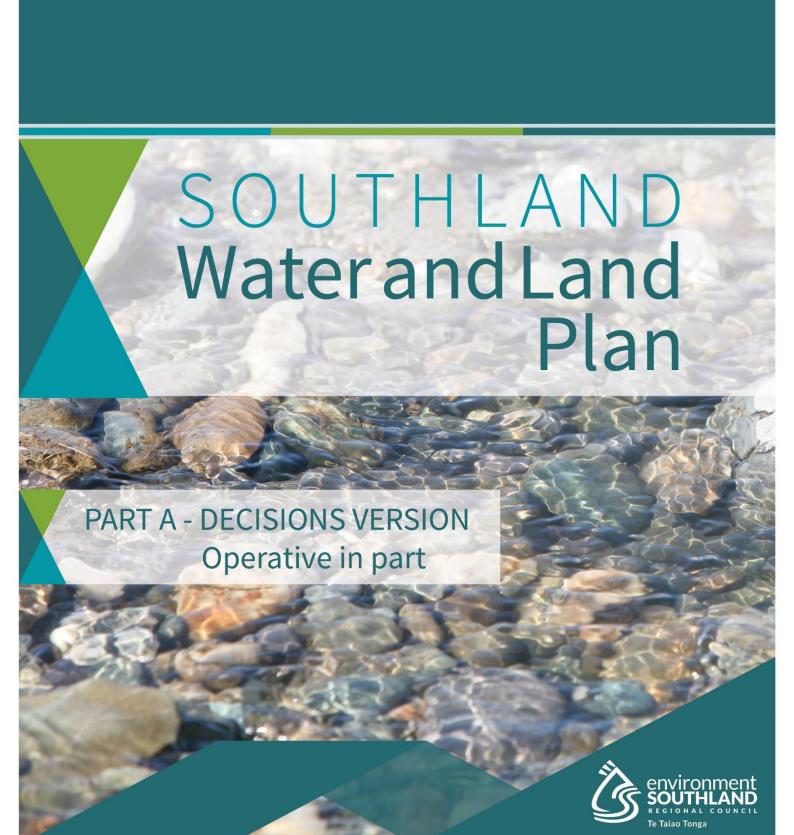
#### **Annexure 4**

# Schedule X: Title Page<sup>1</sup>

Catchments of degraded water bodies where improvement in water quality is required

<sup>1</sup> See Policy 16 decision.







# Proposed Southland Water and Land Plan Part A

Court Version

Court's decisions are indicated by blue shading, and includes provisions approved by a consent order.

ISBN 978-0-909043-25-4 Publication number 2018/3

Mai ea i te pō i te ti Mātānga. Mai ea ki ngā hekenga kia Māku.

Otirā, ka kii a ngā puna roimata a Rangi, ko tōna aroha kia Papatūānuku, kia kii ōna puna hei oranga mōna me ōna Taonga e noho ake nei.

Ko tātou, ngā kaitiaki o tēnei taonga tuku iho kia kaha i roto i te tapu, kia whai māna i roto i tōna wehi, kia tōna wairua, ka whakanoa i muri ake nei.

From the void, through the regions of the night, through the steps of the evolution, eventually arriving at the dampness, indeed filling the pools of Rangi which overflow eventually as tears of love on Papatūānuku. In turn her bosom is filled with those tears and she disperses them evenly to everything that grows on her.

We Tangata whenua and Te Taiao Tonga have the responsibility as protectors for this treasure handed down for use in its natural state with prestige, retaining its spiritual wellbeing so that we can continue to use it safely and wisely into the future.

# Schedule of amendments to the Decisions Version of the proposed Southland Water and Land Plan

The proposed Southland Water and Land Plan, after going through a Council hearing process, was approved then publically released by the Southland Regional Council on 4 April 2018. This is the Decisions Version.

The appeals to the Environment Court are indicated in the Decisions Version of the Plan by shaded provisions and footnotes showing which parties have made those appeals. These shaded provisions will be updated as the appeal points are resolved.

Decisions Version of the pSWLP	4 April 2018	Version #
Schedule 1 Clause 16(2) of RMA	11 April 2018	1
Schedule 1 Clause 16(2) of RMA	24 April 2018	2
Shaded provisions under appeal	1 June 2018	3
to Environment Court		
Schedule 1 Clause 16(2) of RMA	23 January 2020	4
Appeals shading updated	31 January 2020	5
Schedule 1 Clause 16(2) of RMA	18 February 2021	6
Amended Objectives		
Schedule 1 Clause 16(2) of RMA	26 March 2021	7
Schedule 1 Clause 16(1) of RMA to		
insert Objective 19		

**Note:** Any reference to the Appeals Version of the propsed Southland Water and Land Plan refers to the Decisions Version (with shaded Environment Court Appeals). This Decisions Version will be updated as the Environment Court appeals are resolved. The most current version can be found on the Environment Southland website www.es.govt.nz

#### Key:

Black <u>underline</u> and <u>strikethrough</u> = changes provisionally approved.

Blue <u>underline</u> and <u>strikethrough</u> = changes agreed through mediation.

Black <u>underline</u> and <u>strikethrough</u> in boxes = Council's final preferred version.

Yellow highlight = SRC changes from 03 August 2022 version.

Blue shading and 'CV' notation = provision approved or drafting suggested by the court.

Blue shading and 'Consent Orders' notation = the appeal(s) having been allowed the court has ordered, by consent, that the proposed Southland Water and Land Plan be amended as set out in Annexure 5.

#### **Resource Management Act 1991**

# Approval (in part) of the Southland Water and Land Plan

It is hereby certified that this is the Southland Water and Land Plan.

Adoption (in part) by resolution of the Council on 27 day of January 2021 for the Southland Water and Land Plan. The following provisions were approved:

Objectives 2, 3, 6, 7, 9/9A, 9B, 10, 13, 14, 17, and 18.

DATED this 22 day of February 2021

The Common Seal of the Southland Regional Council was affixed pursuant to a resolution of the Council dated 19 February 2021. Common

Chief Executive

Chairman

The above listed provisions to the Water and Land Plan for Southland shall become operative on the  $\mathbf{1}^{\text{st}}$  day of March 2021.

#### **Resource Management Act 1991**

#### Approval (in part) of the Southland Water and Land Plan

It is hereby certified that this is the Southland Water and Land Plan.

Adoption (in part) by resolution of the Council on 10 March 2021 for the Southland Water and Land Plan. The following provisions were approved:

• Objectives 1-19, excluding Objective 16 which is yet to be approved.

The Common Seal of the
Southland Regional Council
was affixed pursuant to a resolution of the Council dated 10 March 2021.

Chief Executive

The above listed provisions to the Water and Land Plan for Southland shall become operative on 22 March 2021.

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#### Part B

Maps – separate volume

# **Preamble**

This Plan forms part of a suite of planning instruments which manage Southland's water and land resources. It provides a regulatory tool for a variety of issues relating to these resources, with particular emphasis on the management of activities that may adversely affect the quality of the region's freshwater, much of which has deteriorated.

In Southland, water shapes the landscape, the economy and the region's way of life. Water is a taonga (a treasure of the people, a sacred place). Southland also has a diverse range of highly productive land uses that contribute to the region's prosperity and will likely form the foundation of further growth and expansion. The ongoing intensification of land use, both urban and rural, brings challenges to the environment (including people), particularly in terms of maintaining water quantity and quality.

The Southland Regional Council (Environment Southland is the brand name of the Southland Regional Council) seeks to manage water and land resources in a way that encompasses the Ngāi Tahu philosophy of "ki uta ki tai". This integrated approach recognises that water is important in a variety of ways, including for customary and recreation uses, mahinga kai, drinking water, agricultural production, irrigation, hydro-electricity generation, fisheries and tourism. This approach also recognises that the Southland Regional Council is committed to managing the connections between land and all water, particularly the effects of water quality and quantity changes on the health and function of estuaries and coastal lagoons.

This Plan gives effect to the National Policy Statement for Renewable Electricity Generation 2011 and the New Zealand Coastal Policy Statement 2010, to the extent that they apply to this Plan. This Plan also gives effect to the objectives and policies of the National Policy Statement for Freshwater Management 2014 (as amended in 2017), aside from the policies subject to the Southland Regional Council's Progressive Implementation Programme<sup>1</sup> which will be given effect to through a time-staged implementation programme to set freshwater objectives and limits for all Freshwater Management Units in Southland.

#### Te Mana o te Wai

This Plan recognises the national significance of Te Mana o te Wai, which puts the mauri of the water body and its ability to provide for te hauora o te tangata (the health of the people), te hauora o te taiao (the health of the environment) and te hauora o te wai (the health of the water body) to the forefront of freshwater management.

Te Mana o te Wai has three key functions:

- 1. it is a korowai (cloak) or overarching statement associating the values relating to a particular water body and freshwater management unit;
- 2. it provides a platform for tangata whenua and the community to collectively express their values for freshwater; and
- 3. it aligns management tools with values and aspirations to maintain and improve both water quality and quantity.

<sup>&</sup>lt;sup>1</sup> Being Policies A1, A2, A3, B1, B2, B5, B6, CA1, CA2, CA3 and CA4 of the NPSFM. Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

Te Mana o te Wai is influenced by five key factors:

- 1. the values that are determined for the water body and how they are weighed locally;
- 2. the current state of the water body;
- 3. the timeframes tangata whenua and the community establish to achieve defined objectives, and quality and quantity;
- 4. the mechanisms and tools used to achieve defined objectives, and quality and quantity states;
- 5. the quality and availability of technical information.

The National Policy Statement for Freshwater Management 2014 (as amended in 2017) provides a framework for recognising the national significance of freshwater and Te Mana o te Wai. Te Mana o te Wai is fundamental to the integrated framework for freshwater management in Southland. It provides a way of expressing Southland's aspirations for freshwater, now and into the future.

Pursuant to Section 86B(1)(a) and (3) of the Resource Management Act 1991 all of the rules in the Proposed Southland Water and Land Plan take immediate legal effect from the date of notification.

# Introduction

# **Purpose of this Plan**

The Southland Water and Land Plan has been developed by the Southland Regional Council under the Resource Management Act 1991 (RMA). This Plan is intended to provide direction and guidance regarding the sustainable use, development and protection of water and land resources in the Southland region. This Plan fits within, and is influenced by an RMA framework of national, regional and local policy documents.

For the avoidance of doubt, no rule in this Plan applies in the coastal marine area.

#### Framework of this Plan and Freshwater Management Units<sup>2</sup> (CV)

The Southland Regional Policy Statement outlines the significant water management issues for the region, and how these issues should be managed. This includes directions to prepare, implement and administer a regional plan for the management of water quality and quantity, and protection of certain values of lakes, rivers and wetlands.

The National Policy Statement for Freshwater Management 2014 (NPSFM, as amended in 2017) also sets out a framework for managing water quality and water quantity. It includes requirements to: protect the life-supporting capacity of water; maintain water quality and improve it where it is degraded; and avoid over-allocating water.

The NPSFM includes a requirement to define the water bodies to be managed, and set outcomes, limits, targets and other measures to achieve those outcomes. In accordance with this framework, the Southland region has been divided into five catchments, which stretch from the mountains to the estuaries and sea at the bottom of these catchments. These are the Freshwater Management Units (FMU) for the purposes of the NPSFM.

This Plan outlines objectives, policies and rules that apply to the whole of the region. Through the FMU limit setting process, freshwater objectives, policies, limits and rules will be developed for each FMU. These will be tailored to respond to the pressures faced within each particular catchment. As the FMU limit setting process proceeds, the region-wide objectives, policies and rules in the Plan may be added to or replaced by the freshwater objectives, policies, limits and rules specific to each FMU. The Southland Regional Council intends to complete its FMU limit setting programme by December 2025.

While Objectives 1 to 18 are objectives relating to the management of freshwater, they are not freshwater objectives established in accordance with Section CA2 of the NPSFM. Freshwater objectives established in accordance with Section CA2 of the NPSFM will be developed under the

While the plan uses the term degraded, the plan has not been prepared in accordance with the National Policy Statement for Freshwater Management 2020, National Objectives Framework and has not identified target attribute states or environmental flows and levels.

Southland Regional Council's Freshwater Management Unit process, in time, in accordance with the Southland Regional Council's Progressive Implementation Programme.

The New Zealand Coastal Policy Statement 2010 (NZCPS) also contains a number of policies that, while targeted to the coastal environment, have implications for water quality management throughout the region, due to the connection between freshwater and coastal water bodies.

#### Partnership between the Southland Regional Council and Ngai Tāhu ki Murihiku

As tangata whenua of Murihiku (which includes the Southland region), Ngāi Tahu share a strong connection to the natural environment (including lands, coasts, water, air and biodiversity) of the area.

Kaitiakitanga is central to Ngāi Tahu and is key to their mana whenua. By exercising kaitiakitanga, Ngāi Tahu ki Murihiku actively work to ensure that spiritual, cultural and mahinga kai values are upheld and sustained for future generations. Kaitiakitanga in this context includes ensuring the protection, restoration and enhancement of the productivity and life-supporting capacity of mahinga kai, indigenous biodiversity, air, water, land, natural habitats and ecosystems, and all other natural resources valued by Ngāi Tahu ki Murihiku.

Ngāi Tahu have a tribal council, Te Rūnanga o Ngāi Tahu, which is made up of 18 papatipu rūnanga who hold the rights and responsibilities to defined areas of land and waters within the takiwā (area) of Ngāi Tahu. The following four papatipu rūnanga in Murihiku are the principal mana whenua and kaitiaki (guardian) for the Southland region:

- Waihōpai Rūnaka;
- Te Rūnanga o Ōraka-Aparima;
- Hokonui Rūnaka;
- Te Rūnanga o Awarua.

The Southland Regional Council and these four papatipu rūnanga have an enduring and legitimate relationship, established over many years. The Southland Regional Council is an active participant and signatory to a Charter of Understanding – He Huaraki mā Ngā Uri Whakatupu in place between the southern councils and Ngāi Tahu ki Murihiku. The Charter sets out the basis and conduct of the councils and rūnanga in the context of the RMA and the agreed common goal of "the sustainable management of the region's environment and for the social, cultural, economic and environmental wellbeing of the community, for now and into the future".

The Charter provides for an ongoing relationship to assist in developing the capacity of Māori to contribute to the decision-making processes. Additionally, the RMA has specific obligations for regional councils regarding kaitiakitanga, the principles of the Treaty of Waitangi, Māori in decision making and the relationship between Māori and their culture and their traditions with their ancestral lands, water, sites, wāhi tapu and other taonga (a treasure of the people, a sacred place).

For Ngāi Tahu, the management of the natural resources in the region is dealt with in a holistic way and the approach taken to the issues that are of significance to iwi (tribe) in this Plan reinforces that approach. There is no specific or separate section in this document that deals with tangata whenua matters. Rather, tangata whenua themes and issues have been integrated through this Plan to reinforce the Ngāi Tahu philosophy of *ki uta ki tai* (from mountains to sea).

Water, and land, like all things in the natural world, are seen by Māori as having the spiritual qualities of mauri and wairua (spiritual dimension). The continued wellbeing of these qualities is dependent on

the physical health of the water and land, which in turn affects the mana (integrity, respect, prestige, authority) of the kaitiaki (guardian). These spiritual qualities can both be adversely affected by activities such as taking and using water, discharges of contaminants to land and water, the diversion of water from one catchment to another, and the clearance of vegetation, wetlands and drains.

The principal elements identified as being of importance to tangata whenua in relation to water bodies and land include:

- Mauri and wairua Protection of the mauri and wairua of rivers, lakes and wetlands;
- Mahinga kai Adverse effects on mahinga kai and harvested aquatic species, including tuna (eel), kana kana (lamprey), inanga (whitebait), waikōura (freshwater crayfish), waikākahi (freshwater mussels) and wātakirihi (watercress);
- **Wāhi tapu and other taonga** The protection of wāhi tapu and areas or resources associated with water and the beds of rivers and lakes that are of special significance;
- Special significance of particular water bodies and Ngāi Tahu landscapes Recognition of the special significance of particular rivers and lakes to iwi and the aspirations of iwi to develop, use and protect water.

Particular rivers, wetlands, springs and lakes have special significance to Ngāi Tahu as their identity is inextricably linked to those locations and surrounding lands and mountains. These areas accommodate and sustain specific uses and values that cannot be relocated to other locations.

#### **Treaty of Waitangi**

The Ngāi Tahu Claims Settlement Act was passed in 1998 and put into effect the terms and redress package agreed to by Ngāi Tahu and the Crown to mitigate and remedy breaches of the Treaty of Waitangi. The Act includes several mechanisms specifically designed to be used in implementing other legislation such as the RMA and Fisheries Act 1996. These mechanisms legally recognise the importance of natural resources to Ngāi Tahu.

This Act sets out areas required to be recognised for various purposes when dealing with issues under the RMA and consequently this Plan. These areas are known as statutory acknowledgement areas, tōpuni features (landscape features of special importance or value), nohoanga, mahinga kai, and taonga species of plants, and animals. Appendix B sets out the full details of each of these.

#### **Mahinga Kai**

Mahinga kai is central to the Ngāi Tahu ki Murihiku way of life and a principal component of environmental management. Mahinga kai is about the customary gathering of food and natural materials, the health of the resource and its associated habitat, and the places where those resources are gathered.

#### Whenua

Ngāi Tahu cultural landscapes, nohoanga, tribal properties and Māori lands maintain continuity between the past, the present and the future, binding Ngāi Tahu to the whenua. Respect for the places that are important to Ngāi Tahu includes actively managing uses and activities on those lands. Reconnection with lands through access and customary use recognises the mana of Ngāi Tahu on the landscape, and restores the ability of Ngāi Tahu to give practical effect to kaitiaki (guardian) responsibilities.

#### Mātaitai and taiāpure

Mātaitai reserves and taiāpure are part of the suite of management tools created under Part IX of the Fisheries Act 1996. Mātaitai are designed to give effect to the Treaty of Waitangi Fisheries Claims Settlement Act 1992 by developing policies to help recognise use and management practices of Māori in the exercise of non-commercial fishing rights. The tools provide practical recognition of the rights guaranteed to tangata whenua under the Treaty of Waitangi.

While mātaitai are predominantly in coastal marine areas legislatively there can be freshwater mātaitai. Within Southland, mātaitai comprise of coastal and inland areas with the Mataura River Mātaitai Reserve being the first freshwater mātaitai in New Zealand. The quality and quantity of freshwater, and the use of land, have direct and indirect effects on the regulations of all mātaitai and on the customary rights of Ngāi Tahu.

# **Statutory Context of the Plan**

This Plan fits within a framework of national, regional and local resource management policies. As such, the following documents have influenced the provisions of this Plan.

#### The Resource Management Act

The purpose of the Resource Management Act 1991 (RMA) is to promote the sustainable management of natural and physical resources. The RMA requires that all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall:

- recognise and provide for the specified matters of national importance listed in Section 6;
- have particular regard to the other matters listed in Section 7;
- take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

Under Sections 13, 14 and 15 of the Resource Management Act 1991, many activities involving the beds of lakes and rivers, water or water bodies, and the discharge of contaminants into water can only occur if they are expressly allowed by a rule in a regional plan, or by a resource consent.

Section 30 of the RMA gives regional councils specific functions relating the control of the use of any land (including the beds of lakes and rivers) for the purposes of soil conservation, water quality, water quantity and the maintenance of ecosystems in water bodies, the avoidance or mitigation of natural hazards. Regional councils also have functions relating to controlling the planting of plants in the beds of lakes and rivers, the maintenance of indigenous biological diversity and the integration of strategic infrastructure and land use.

#### **National Policy Statements and New Zealand Coastal Policy Statements**

Under the Section 67(3) of the RMA, a regional plan must give effect to any operative national policy statement. There are currently four operative National Policy Statements and one operative New Zealand Coastal Policy Statement:

#### National Policy Statement for Freshwater Management 2014 (as amended in 2017)

This National Policy Statement sets out objectives and policies that direct local government to manage water in an integrated and sustainable way, while providing for economic growth within set water quantity and quality limits. The NPSFM aims to improve freshwater management at a national level to address the over-allocation of water in catchments for abstraction or discharges. This Plan, and the processes established for Freshwater Management Units, gives effect to the NPSFM.

#### • National Policy Statement for Renewable Electricity Generation 2011

This National Policy Statement sets out objectives and policies for renewable electricity generation. It ensures a consistent approach to planning for renewable electricity generation in New Zealand. It gives clear government direction on the benefits of renewable electricity generation and requires all councils to make provision for it in their plans.

#### National Policy Statement on Urban Development Capacity 2016

This National Policy Statement sets out objectives and policies to provide direction on planning for urban environments. It recognises the national significance of well-functioning urban environments, with particular focus on ensuring local authorities enable growth and change in response to the changing needs of communities and provide sufficient space for housing and business.

#### National Policy Statement on Electricity Transmission 2008

This National Policy Statement sets out the objective and policies that confirm the national significance of, and benefits of, the National Grid. It establishes a consistent approach to operation, maintenance, upgrade and development of the National Grid, and the management of adverse effects of, and on, the National Grid. It also includes a requirement for regional councils to include objectives, policies and methods to facilitate long-term planning for investment in transmission infrastructure and its integration with land uses.

#### • New Zealand Coastal Policy Statement 2010

This National Policy Statement sets out objectives and policies which promote the sustainable management of the natural and physical resources of the coastal environment, including coastal land, foreshore and seabed, and coastal waters from the high tide mark to the 12 nautical mile limit. Given the physical geography of the Southland region, which includes an extensive range of estuaries, coastal lagoons, and coastal wetlands, the NZCPS is highly relevant to this Plan. The Plan's provisions and the processes established for Freshwater Management Units seek to manage the water quality and quantity of the upstream water bodies, to give effect to the NZCPS.

#### **Regional Policy Statement**

Under the Section 67(3) of the RMA, a regional plan must give effect to the relevant regional policy statement.

#### • Southland Regional Policy Statement 2017

The Southland Regional Policy Statement guides resource management policy and practice in Southland. It provides a framework on which to base decisions regarding the management of the region's natural and physical resources, gives an overview of the significant resource management issues facing Southland, including issues of significance to tangata whenua, and includes objectives, policies and methods to resolve any identified issues.

#### **National Environmental Standards**

National Environmental Standards are regulations issued under Section 43 of the RMA and apply nationally. National environmental standards can prescribe technical standards, methods or other requirements for environmental matters. Each regional, city or district council must enforce the same standard. In some circumstances, councils can impose stricter standards. There are currently six National Environmental Standards relevant to this Plan:

#### National Environmental Standard for Sources of Human Drinking Water

The purpose of the National Environmental Standard for Sources of Human Drinking Water is to reduce the risk of human drinking water sources becoming contaminated. It requires regional councils to ensure that effects of activities on drinking water sources are considered in decisions on resource consents and in regional plans.

#### National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health

The purpose of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health is to provide a nationally consistent set of planning controls and soil contaminant values. It ensures that land affected by contaminants in soil is appropriately identified and assessed before it is developed, and if necessary the land is remediated, or the contaminants contained to make the land safe for human use.

#### National Environmental Standards for Air Quality 2004

The purpose of the National Environmental Standards for Air Quality is to set a guaranteed minimum level of health protection for all New Zealanders. The regulations include standards for banning specified activities, ambient outdoor air quality standards, a design standard for new wood burners in urban areas and a requirement for large landfills to collect greenhouse gas emissions.

#### • National Environmental Standards for Telecommunication Facilities 2016

The purpose of the National Environmental Standards for Telecommunication Facilities is to provide consistent planning requirements for the deployment of telecommunications infrastructure across New Zealand while ensuring that the effects on the environment are minimised and managed appropriately.

#### National Environmental Standards for Electricity Transmission Activities 2009

The purpose of the National Environmental Standards for Electricity Transmission Activities is to provide a nationally consistent regulatory framework for existing National Grid transmission lines, including regulations that establish consenting requirements for their operation, maintenance and upgrading.

#### • National Environmental Standards for Plantation Forestry 2017

The purpose of the National Environmental Standards for Plantation Forestry is to maintain or improve the environmental outcomes associated with plantation forestry activities and to increase the certainty and efficiency in the management of those activities. The regulations

permit core forestry activities including afforestation, earthworks and harvesting provided there are no significant adverse environmental effects.

**Note:** This list of applicable National Policy Statements and National Environmental Standards was current at January 2018. Please see the Ministry for the Environment's website for any updates.

This Plan should be read in conjunction with these documents, as well as the Southland Regional Coastal and Air Plans, and the District Plans of Gore District, Invercargill City, and Southland District Councils.

#### **Water Conservation Orders**

Water conservation orders recognise the outstanding amenity or intrinsic values of water bodies, and are the strongest form of protection of water under the RMA. A water conservation order can prohibit or restrict a regional council issuing new water and discharge permits. Regional policy statements, regional plans and district plans must not be inconsistent with the provisions of a water conservation order.

The approach taken in this Plan is not inconsistent with the Water Conservation Order (Mataura River) 1997 and the Water Conservation Order (Ōreti River) 2008. Plan provisions, where relevant, recognise the requirements of these orders. Plan users should refer directly to these water conservation orders if they propose to carry out any activities which may impact on the rates of flow in the Mataura or Waikaia River; to dam or affect fish passage in the main stem or tributaries of the Mataura, Waikaia or Ōreti Rivers; or discharge to any of these waters.

#### Issues

# **Water Quality**

Water is a fundamental resource. The Southland economy is based on rural production and servicing, fisheries, tourism, energy production and industrial processing, all of which rely on the availability of good quality water. Water quality is a key factor in the ecological health of water bodies, influencing which species are present. The mauri of a water body is affected by water quality. Many people recreate in or near Southland's water bodies, including swimming, white baiting, duck hunting, fishing, walking or tramping and boating activities.

Southland's main catchments end with estuaries and its smaller catchments can end with estuaries, freshwater lakes, coastal lagoons or coastal lakes, which are all particularly sensitive to nutrient and sediment loads. Degraded estuary, lagoon and lake water quality and habitats are particularly difficult and expensive to reverse. This highlights the importance of maintaining good water quality in upstream rivers.

Adverse effects on water quality result from point source discharges and non-point source discharges. Over the past two decades, adverse effects from point source discharges have been reduced, largely through resource consenting processes for urban activities. However, they still contribute significant levels of contaminants to water bodies and there is therefore a need for continuous improvement. The most significant point source discharges are the major industrial and municipal discharges to the Lower Mataura and Ōreti Rivers and tributaries, with a number of smaller point source discharges scattered around the more developed parts of the region.

Non-point source discharges, such as stormwater in towns and leaching of contaminants from rural activities, are generally caused by rainwater carrying contaminants over or through the ground to surface water bodies or groundwater, or by bank and bed erosion. To date, there has been little regulatory management of non-point source discharges from rural activities, which cumulatively contribute significant amounts of contaminants to water bodies. Despite some improvements being made, non-point source discharges from agricultural land are the most significant contributors of contaminants. Other types of land use, including industrial, urban, forestry, some landfills and horticulture also contribute contaminants.

Land use intensification also tends to increase the amount of contaminants entering water therefore requiring appropriate mitigations to be put in place to ensure water quality can be maintained or improved over time when intensification occurs.

# **Water Quantity**

Water has a range of values, both instream and for abstraction and use. Historically, Southland has had an abundance of water, with modest limits on use being appropriate. However, more recently there has been increasing demand for the use of water for a variety of activities, and an improved understanding of the linkage between water quantity and quality. The primary allocation thresholds in this Plan are therefore intended to be precautionary, with fixed allocation limits to be developed and implemented within the FMU sections of this Plan over time.

#### **Surface Water**

Rivers, lakes and wetlands support a range of instream values that are largely sustained by a sufficient quantity and quality of water. Out-of-stream uses, such as the abstraction, damming and diversion of surface water, can reduce water quantity and alter flow regimes in water bodies, which can have a number of adverse effects on instream values, including reducing water quality and aquatic habitat, diminishing natural character, amenity, aesthetic and landscape values and impacting on recreational and cultural values and fisheries and harvesting. These effects can be particularly significant during summer when rainfall is less, river levels are low, and the demand for water is at a peak. This can lead to a conflict between instream values and out-of-stream values, and between users.

In terms of surface water allocation, as at March 2015 more than 50% of the primary surface water allocation thresholds had been allocated in the majority of the region. The Waiau catchment is fully allocated as a result of the Manapouri hydro-electric generation scheme, which uses water in the Fiordland and Waiau catchments for the generation of renewable energy. The resulting flow regime is highly modified, particularly below the Manapouri Lake Control Structure (Mararoa weir), whilst supporting a range of biological, recreational, landscape, amenity and other community values.

#### Groundwater

Southland has considerable groundwater resources, occurring in aquifers over wide areas and at varying depths, both in shallow river gravel deposits and in deeper sedimentary rock.

Abstracting groundwater may result in a number of adverse effects including depleting aquifer storage volumes and reducing groundwater availability, interfering with existing bore yields, diminishing surface water flows, and collapsing coastal aquifers and sink holes. The significance of these effects depends on the volume and rate of abstraction and on the characteristics of the aquifer. In addition to abstraction, aquifer levels are influenced by changing land use, land drainage development and rainfall patterns.

Due to the hydraulic connection between ground and surface water resources, consideration of the impact of groundwater abstraction on surface water is important, particularly those water bodies subject to a water conservation order.

As at March 2015, less than 50% of the groundwater primary allocation thresholds had been allocated in the majority of the region. Some aquifers are fully allocated in terms of the primary allocation thresholds or close to this point.

#### **Soil Resources**

Soil resources are fundamental to the region's primary production economy, and can assist in maintaining or enhancing water quality and supporting human health, cultural, social and economic activities.

Discharges onto or into land can carry contaminants, including heavy metals, hydrocarbons and biological contaminants, that can create adverse effects on the quality and/or structure of the soil resource. Conversely, some contaminants, when applied appropriately, can have positive effects on the soil resource and plant growth, such as fertilisers and agricultural effluent.

Inappropriate land use or land management practices may adversely affect soil quality and structure, including through erosion and soil compaction.

## River and Lake Beds<sup>3</sup>

River beds (including beds of streams and modified watercourses) and lake beds have a wide variety of values, including natural, ecological, cultural and spiritual values, with rivers and lakes used for a range of recreational and cultural activities, including walking, fishing, game bird hunting, boating, and food gathering. Southland's braided river beds are a nationally significant habitat for braided river birds, being a national stronghold for the threatened black billed gull and important for the threatened black fronted tern and banded dotterel. The use and development of river beds and lake beds also has value for economic, social and community health and safety reasons, which can be broken down into two main categories:

- activities that involve structures, such as bridges, culverts, dams, weirs, pipes, cables, boat ramps, jetties, moorings and flood and erosion control works;
- activities that disturb the bed, such as gravel extraction, channel realignment, construction activities, vegetation planting and removal, and vehicle and stock access.

Some of these activities can have positive effects on the natural environment, for example, bridges and culverts allow access across a river without disturbing the bed. Other activities, such as infrastructure, are important to enable people and communities to provide for their economic, cultural, and social wellbeing. These activities can also have adverse effects on the environment, including generating sediment, disturbing habitat and preventing fish passage.

# **Indigenous Biodiversity**

Indigenous biodiversity covers native flora and fauna in both dryland and wetland environments. Southland contains a variety of ecosystems and habitats, including indigenous vegetation, wetlands, lakes, and rivers. Indigenous plants and animals are an integral part of the natural character values of the region, and in addition to their intrinsic value, plants and animals are significant for cultural, economic, scientific and educational reasons, biological diversity and provision of ecosystem\_services. The region contains a number of significant and distinctive ecosystems, including the network of culturally and ecologically significant river mouths, estuaries and lagoons, the largely unmodified alpine environments, particularly of Fiordland, extensive high country, and many lakes and wetlands that provide nationally and internationally significant bird habitat.

There continues to be substantial impacts on ecosystems and losses of significant indigenous biodiversity for a variety of reasons. The most significant losses in indigenous habitat and biodiversity have occurred in lowland and coastal environments where most of the original indigenous vegetation has been lost.

Ngāi Tahu, as tangata whenua, have a significant interest in the protection, management and restoration of indigenous ecosystems and biodiversity. This stems from their close interaction with Southland's indigenous biodiversity over centuries of occupation and the importance of it in Māori culture, including its significance as mahinga kai and taonga species.

<sup>&</sup>lt;sup>3</sup> Memorandum of counsel dated 4 August 2020 and Minute dated 31 August 2020. Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

Wetlands are a vital link between land and water and include permanently and intermittently wet areas, shallow water, and margins that support a natural ecosystem of plants and animals adapted to wet conditions. They provide important hydrological functions and ecosystem services such as filtering contaminants from water and soils. They are also an important natural and cultural resource, rich in biodiversity and important sources of mahinga kai.

Wetlands were once more prevalent, with Southland having lost approximately 90% of its wetlands in developed areas, including from hill and high country. Many remaining wetlands are on publicly held land and afforded some level of protection. Other wetlands are on private land and little is known about their health, values and use. Land use change leads to conflict between productive use of land, including wet areas, and protecting habitats and biodiversity.

The Awarua Wetlands, comprising of Awarua Bay and Waituna Lagoon, are one of the largest remaining wetland complexes in Southland and are important for their biological diversity and cultural values. The wetlands are officially recognised on the Ramsar Convention on Wetlands: List of Wetlands of International Importance.<sup>4</sup> The Awarua site includes four major wetland types: coastal lagoons (notably Waituna Lagoon), freshwater swamps, extensive peatlands, and estuaries.

Each ecosystem is unique and maintained by different ecological processes. Awarua Wetlands is frequented by diverse trans-equatorial migrating and wading bird species, as well as threatened plants and insects including sub-alpine species.

<sup>&</sup>lt;sup>4</sup> https://rsis.ramsar.org

# **Physiographic Zones**

Southland's physiographic zones have been developed at a regional scale to better understand our region's water, how it moves across the landscape and why water quality is better in some places than others.

Scientists have divided Southland into nine physiographic zones. Each zone represents areas of the landscape with common attributes that influence water quality, such as climate, topography, geology and soil type. Zones differ in the way sediment, microbes (e.g. *E.coli*) and nutrients, such as nitrogen and phosphorus, build up and move through the soil, aquifers (areas of groundwater) and into our rivers and streams.

#### **Alpine**

The Alpine physiographic zone includes all land above 800 metres elevation, and is mainly found in northern and western parts of Southland. This zone is characterised by steep slopes with thin soils or bare bedrock. Its high elevation results in high snowfall and rainfall, which provides large volumes of pristine water to downstream physiographic zones. Overland flow (surface runoff) is the key transport pathway, however contaminant loss is limited due to low intensity of land use.

Key transport pathway for contaminants:

• **Overland flow** – nitrogen, phosphorus, sediment and microbes to rivers.

#### **Central Plains**

The Central Plains physiographic zone extends across flat to gently undulating terraces in the lower reaches of the Aparima and Ōreti catchments in Central Southland. This zone has many small streams and has an extensive underlying aquifer system. Soils are characteristically rich in clay, which means they swell when wet and crack when dry. When soils are wet, contaminants move quickly through artificial drainage networks to surface waterways. When soils are dry, cracks allow water and contaminants to rapidly drain down through the soil to groundwater.

Key transport pathways for contaminants:

- Artificial drainage nitrogen, phosphorus, sediment and microbes to rivers;
- Deep drainage nitrogen to aquifers.

## Gleyed

The Gleyed physiographic zone extends across flat to gently undulating land across the plains of both northern and southern Southland. It is generally found in areas that were once wetlands, has a dense network of streams and has a high water table during winter. Soils are prone to waterlogging and have some denitrification ability, which reduces build-up of soil nitrogen. However, an extensive network of artificial drainage rapidly transports contaminants to surface water, particularly during heavy rain. The zone also has an overland flow or (o) variant, which means that in parts of the zone overland flow is also a key transport pathway for contaminants.

Key transport pathways for contaminants:

- Artificial drainage nitrogen, phosphorus, sediment and microbes to rivers;
- Overland flow (in some parts of the zone (o) variant) nitrogen, phosphorus, sediment and microbes to rivers and streams.

#### **Bedrock/Hill Country**

The Bedrock/Hill Country physiographic zone is the largest in the Southland Region, covering half the mapped area (approximately 1.6 million hectares). It is characterised by rolling to steep land below 800 metres elevation. This zone has high rainfall due to elevation, which results in a dense network of streams that flow to lowland areas. This zone contains an overland flow or (o) variant, as well as an artificial drainage or (a) variant, which means that in some parts of the zone, overland flow is a key transport pathway, and in some parts variant which are areas within a zone where either overland flow or artificial drainage is the key contaminant transport pathway. This means that streams in developed areas of these variants are at risk of receiving contaminants from surface runoff and artificial drainage.

Key transport pathways for contaminants:

- Overland flow (in some parts of the zone (o) variant) nitrogen, phosphorus, sediment and microbes to rivers;
- Artificial drainage (in some parts of the zone (a) variant) nitrogen, phosphorus, sediment and microbes to rivers.

#### **Lignite-Marine Terraces**

The Lignite-Marine Terraces physiographic zone is distributed along Southland's south coast and in areas of Eastern and Western Southland where the underlying geology has elevated organic carbon (such as lignite or coal). There is little nitrogen build-up in soils and aquifers due to high denitrification potential. Phosphorus build-up in soils is also low where lignite and marine sediments are close to the surface. Like Bedrock/Hill Country, this zone contains an overland flow or (o) variant, as well as an artificial drainage or (a) variant.

Key transport pathways for contaminants:

- Overland flow (in some parts of the zone (o) variant) nitrogen, phosphorus, sediment and microbes to rivers;
- Artificial drainage (in some parts of the zone (a) variant) nitrogen, phosphorus, sediment and microbes to rivers.

#### **Old Mataura**

The Old Mataura physiographic zone is located on the older, high terraces in the Mataura catchment. Soils and aquifers in this zone have high risk of nitrogen build-up due to low denitrification potential. The combination of flat land and well drained soils results in high rates of nitrogen leaching (deep drainage) to underlying aquifers. Groundwater in this zone discharges into springs, streams and aquifers in lower parts of the Mataura catchment, adding to their contaminant levels.

Key transport pathway for contaminants:

• **Deep drainage** – nitrogen to aquifers.

#### Oxidising

The Oxidising physiographic zone is located on intermediate terraces along the margins of major river systems. Many surface waterways draining this unit originate from headwaters in neighbouring physiographic zones. Soils and aquifers in this zone have high risk of nitrogen build-up due to low denitrification potential. The combination of flat land and well drained soils results in high rates of nitrogen leaching (deep drainage) to underlying aquifers. Like Bedrock/Hill Country and Lignite-Marine Terraces, this zone contains an overland flow or (o) variant, as well as an artificial drainage or (a) variant.

Key transport pathways for contaminants:

- **Deep drainage** nitrogen to aquifers;
- Overland flow (in some parts of the zone (o) variant) nitrogen, phosphorus, sediment and microbes to rivers;
- Artificial drainage (in some parts of the zone (a) variant) nitrogen, phosphorus, sediment and microbes to rivers.

#### **Peat Wetlands**

The Peat Wetlands physiographic zone was once extensive across Southland. However, today it accounts for less than 2% of the total land area. This zone is characterised by highly acidic peaty soils and a naturally high water table. Developed areas have an extensive artificial drainage network, comprised of open and mole-pipe drains. There is little nitrogen build-up in soils and aquifers due to high denitrification potential. However, acidic conditions result in elevated concentrations of soluble phosphorus in both soils and aquifers.

Key transport pathways for contaminants:

- **Deep drainage** phosphorus to aquifers;
- Artificial drainage nitrogen, phosphorus, sediment and microbes to rivers;
- Lateral drainage microbes and phosphorus to rivers.

#### Riverine

The Riverine physiographic zone occurs along the margins of Southland's major river systems. Rivers and streams within this zone carry large volumes of pristine alpine water to the coast. However, river water in this zone also contains soil water drainage from adjacent land.

Soil water drains quickly through shallow, stony soils to underlying shallow aquifers, which are highly connected to rivers. This, combined with the low denitrifying potential of soils and aquifers, results in aquifers and adjacent rivers being at risk of nitrogen build-up from soil leaching (deep drainage). Therefore, nitrogen loss from aquifers can contribute significant nitrogen loads to downstream environments. Like Gleyed, this zone has an overland flow or (o) variant.

Key transport pathways for contaminants:

- **Deep drainage** nitrogen to aquifers;
- Overland flow (in some parts of the zone (o) variant)) nitrogen, phosphorus, sediment and microbes to rivers.

# **Region-wide Objectives**

**Note:** While Objectives 1 to 18 are objectives relating to the management of freshwater, they are not freshwater objectives established in accordance with Section CA2 of the National Policy Statement for Freshwater Management. Freshwater objectives established in accordance with Section CA2 of the National Policy Statement for Freshwater Management will be developed under Southland Regional Council's Freshwater Management Unit process, in time, in accordance with Southland Regional Council's Progressive Implementation Programme.

# Interpretation Statement<sup>5</sup> (Consent Orders)

All persons exercising functions and powers under this Plan and all persons who use, develop or protect resources to which this Plan applies shall recognise that:

- (i) Objectives 1 and 2 are fundamental to this plan, providing an overarching statement on the management of water and land, and all objectives are to be read together and considered in that context; and
- (ii) The plan embodies ki uta ki tai and upholds Te Mana o Te Wai and they are at the forefront of all discussions and decisions about water and land;
- (iii) The Policies in this plan must be interpreted and applied in a manner that implements the Objectives.

#### **Objective 1**

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

#### Objective 26

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

# Objective 3<sup>7</sup>

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

#### **Objective 4**

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

<sup>&</sup>lt;sup>5</sup> Second Interim Decision [2020] NZEnvC 93 and Third Interim Decision [2020] NZEnvC 110.

<sup>&</sup>lt;sup>6</sup> Second Interim Decision [2020] NZEnvC 93, Third Interim Decision [2020] NZEnvC 110 and Minute dated 5 August 2020. Note: as signalled, the court will issue corrigendum and correct the third Interim Decision pursuant to R11.10 District Court Rules.

<sup>&</sup>lt;sup>7</sup> First Interim Decision [2020] NZEnvC 93.

#### **Objective 5**

Ngāi Tahu have access to and sustainable customary use of, both commercial and non-commercial, mahinga kai resources, nohoanga, mātaitai and taiāpure.<sup>8</sup>

# Objective 69

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

- (a) maintained where the water quality is not degraded; and
- (b) improved where the water quality is degraded by human activities.

# Objective 7<sup>10</sup>

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

- (a) where water quality objectives and limits are met, water quality shall be maintained or improved;
- (b) any further over-allocation of freshwater is avoided; and
- (c) any existing over-allocation is phased out in accordance with freshwater objectives, targets, limits and timeframes.

#### **Objective 8**

- (a) The quality of groundwater that meets both the Drinking Water Standards for New Zealand 2005 (revised 2008) and any freshwater objectives, including for connected surface water bodies, established under Freshwater Management Unit processes is maintained; and
- (b) The quality of groundwater that does not meet Objective 8(a) because of the effects of land use or discharge activities is progressively improved so that:
  - (1) groundwater (excluding aquifers where the ambient water quality is naturally less than the Drinking Water Standards for New Zealand 2005 (revised 2008)) meets the Drinking Water Standards for New Zealand 2005 (revised 2008); and
  - (2) groundwater meets any freshwater objectives and freshwater quality limits established under Freshwater Management Unit processes.

# Objective 9/9A<sup>11</sup>

The quantity of water in surface water bodies is managed so that:

- (a) the life-supporting capacity and aquatic ecosystem health, the values of outstanding natural features and landscapes, the natural character and the historic heritage values of waterbodies and their margins are safeguarded.
- (b) there is integration with the freshwater quality objectives (including the safeguarding of human health for recreation); and
- (c) provided that (a) and (b) are met, surface water is sustainably managed in accordance with Appendix K to support the reasonable needs of people and communities to provide for their economic, social and cultural wellbeing.

 $<sup>^{\</sup>rm 8}$  Mātaitai and taiāpure are defined in the Introduction to the Plan on page 10.

<sup>9</sup> First Interim Decision [2020] NZEnvC 93, memorandum of counsel dated 4 August 2020 and Minute dated 31 August 2020.

 $<sup>^{10}</sup>$  First Interim Decision [2020] NZEnvC 93 and memorandum of counsel dated 4 August 2020.

<sup>&</sup>lt;sup>11</sup> First Interim Decision [2020] NZEnvC93, Minute dated 31 August 2020 and memorandum of counsel dated 9 September 2020.

# **Objective 9B<sup>12</sup>**

The importance of Southland's regionally and nationally significant infrastructure is recognised and its sustainable and effective development, operation, maintenance and upgrading enabled.

#### Objective 10<sup>13</sup>

The national importance of the existing Manapōuri hydro-electric generation scheme in the Waiau catchment is provided for and recognised in any resulting flow and level regime.

#### **Objective 11**

The amount of water abstracted is shown to be reasonable for its intended use and water is allocated and used efficiently.

#### **Objective 12**

Groundwater quantity is sustainably managed, including safeguarding the life-supporting capacity, ecosystem processes and indigenous species of surface water bodies where their flow is, at least in part, derived from groundwater.

# Objective 13<sup>14</sup>

Provided that:

- (a) the quantity, quality and structure of soil resources are not irreversibly degraded through land use activities or discharges to land; and
- (b) the health of people and communities is safeguarded from the adverse effects of discharges of contaminants to land and water; and
- (c) ecosystems (including indigenous biological diversity and integrity of habitats), are safeguarded,

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

# Objective 14<sup>15</sup>

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

#### **Objective 15**

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

<sup>&</sup>lt;sup>12</sup> First Interim Decision [2020] NZEnvC 93 and memorandum of counsel dated 4 August 2020.

<sup>&</sup>lt;sup>13</sup> First Interim Decision [2020] NZEnvC 93, Minute dated 31 August 2020, memorandum of counsel dated 9 September 2020 and memorandum of counsel dated 25 September 2020.

<sup>&</sup>lt;sup>14</sup> First Interim Decision [2020] NZEnvC 93, Minute dated 31 August 2020, memorandum of counsel dated 9 September 2020 and memorandum of counsel dated 25 September 2020.

<sup>&</sup>lt;sup>15</sup> First Interim Decision [2020] NZEnvC 93, memorandum of counsel dated 4 August 2020 and Minute dated 31 August 2020.

#### Objective 16<sup>16</sup>

Public access to, and along, river (excluding ephemeral rivers) and lake beds is maintained and enhanced, except in circumstances where public health and safety or significant indigenous biodiversity values are at risk.

# Objective 16 (CV)

Public access to, and along, river (excluding ephemeral rivers) and lake beds is maintained and enhanced, except in circumstances where public health and safety or significant indigenous biodiversity values are at risk.

#### Objective 17<sup>17</sup>

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

# Objective 18<sup>18</sup>

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

# Objective 19 – Fish passage (Clause 3.26 of NPSFM 2020)

The passage of fish is maintained, or is improved, by instream structures, except where it is desirable to prevent the passage of some fish species in order to protect desired fish species, their life stages, or their habitats.

<sup>&</sup>lt;sup>16</sup> Appeal to Environment Court by Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>&</sup>lt;sup>17</sup> First Interim Decision [2020] NZEnvC 93, memorandum of counsel dated 4 August2020, Minute dated 31 August 2020 and memorandum of counsel dated 25 September 2020.

<sup>&</sup>lt;sup>18</sup> Minute dated 11 September 2020.

# **Region-wide Policies (Consent Orders)**

The Policies of this Plan implement the Objectives and must be read in their entirety and considered together. (CV)

# **Ngāi Tahu Policies**

#### Policy 1 – Enable papatipu rūnanga to participate

Enable papatipu rūnanga<sup>19</sup> to effectively undertake their kaitiaki (guardian/steward) responsibilities in freshwater and land management through the Southland Regional Council:

- 1. providing copies of all applications that may affect a Statutory Acknowledgement area, tōpuni (landscape features of special importance or value), nohoanga, mātaitai or taiāpure to Te Rūnanga o Ngāi Tahu and the relevant papatipu rūnanga;
- 2. identifying Ngāi Tahu interests in freshwater and associated ecosystems in Murihiku (includes the Southland Region); and
- 3. reflecting Ngāi Tahu values and interests in the management of and decision-making on freshwater and freshwater ecosystems in Murihiku (includes the Southland Region), consistent with the Charter of Understanding.

# Policy 2 - Take into account iwi management plans

Any assessment of an activity covered by this Plan must:

- 1. take into account any relevant iwi management plan; and
- 2. assess water quality and quantity, taking into account Ngāi Tahu indicators of health.

# Policy 3<sup>20</sup> – Ngāi Tahu ki Murihiku taonga species

To manage activities that adversely affect taonga species, identified in Appendix M.

 $<sup>^{\</sup>rm 19}$  Papatipu rūnanga are defined in the Introduction to the Plan on page 9.

 $<sup>^{20}</sup>$  Appeal to Environment Court by Southland Fish and Game Council ENV-2018-CHC-000037

# Policy 4<sup>21</sup> – Alpine (Consent Orders)

In the Alpine physiographic zone, avoid, remedy, or mitigate erosion and adverse effects on water quality from contaminants, by:

- 1. avoid, as a first priority, risk to water quality from erosion and contaminants, and where avoidance is impractical, requiring risk to water quality from contaminants to be minimised by:
  - . identifying contaminant pathways to ground and surface water bodies;
  - 1. ii. requiring implementation of good management practices to manage erosion and adverse effects on water quality from contaminants transported via overland flow;
  - 2. <u>iii.</u> having particular regard to adverse effects of contaminants transported via overland flow when assessing resource consent applications and preparing or considering Farm Environmental Management Plans; and
- 3. 2. prohibiting dairy farming and intensive winter grazing, and decision makers generally not granting resource consents for cultivation avoiding cultivation where contaminant losses will increase as a result of the proposed activity.

# Policy 5<sup>22</sup> – Central Plains (Consent Orders)

In the Central Plains physiographic zone, avoid, remedy, or mitigate adverse effects on water quality from contaminants, by:

- 1. avoid, as a first priority, risk to water quality from contaminants, and where avoidance is impractical, requiring risk to water quality from contaminants to be minimised by:
  - i. identifying contaminant pathways to ground and surface water bodies;
  - 1. ii. requiring implementation of good management practices to manage adverse effects on water quality from contaminants transported via artificial drainage and deep drainage;
  - 2. <u>iii.</u> having particular regard to adverse effects on water quality from contaminants transported via artificial drainage and deep drainage when assessing resource consent applications and preparing or considering Farm Environmental Management Plans; and
  - 3. 2. decision makers generally not granting resource consents for additional dairy farming of cows or additional avoid dairy farming and intensive winter grazing where contaminant losses will increase as a result of the proposed activity.

<sup>&</sup>lt;sup>21</sup> Appeal to Environment Court by (i) Wilkins Farming Co ENV-2018-CHC-000030

<sup>(</sup>ii) Director-General of Conservation ENV-2018-CHC-000036

<sup>(</sup>iii) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>v ) Federated Farmers of New Zealand ENV-2018-CHC-000040

<sup>(</sup>vi ) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>(</sup>vii) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

<sup>&</sup>lt;sup>22</sup> Appeal to Environment Court by (i) Wilkins Farming Co ENV-2018-CHC-000030

<sup>(</sup>ii) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>iv) Federated Farmers of New Zealand ENV-2018-CHC-000040

<sup>(</sup>v) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>(</sup>vi) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

# Policy 6<sup>23</sup> – Gleyed, Bedrock/Hill Country and Lignite-Marine Terraces (Consent Orders)

In the Gleyed, Bedrock/Hill Country and Lignite-Marine Terraces physiographic zone, avoid, as a first priority, risk to remedy, or mitigate adverse effects on water quality from contaminants, and where avoidance is impractical, requiring risk to water quality from contaminants to be minimised by:

- 1. identifying contaminant pathways to ground and surface water bodies;
- <u>1.2.</u> requiring implementation of good management practices to manage adverse effects on water quality from contaminants transported via artificial drainage, and overland flow where relevant; and
- 2. 3. having particular regard to adverse effects on water quality from contaminants transported via artificial drainage, and overland flow where relevant when assessing resource consent applications and preparing or considering Farm Environmental Management Plans.

# Policy 7-Bedrock/Hill Country (Consent Orders)

In the Bedrock/Hill Country physiographic zone, avoid, as a first priority, risk to water quality from contaminants, and where avoidance is impractical, requiring risk to water quality from contaminants to be minimised by:

- 1. identifying contaminant pathways to ground and surface water bodies;
- requiring implementation of good management practices to manage adverse effects on water quality from contaminants transported via artificial drainage, and overland flow where relevant; and
- 3. having particular regard to adverse effects on water quality from contaminants transported via artificial drainage, and overland flow where relevant when assessing resource consent applications and preparing or considering Farm Environmental Management Plans.

# Policy 8-Lignite-Marine Terrances (Consent Orders)

In the Lignite-Marine Terraces physiographic zone, avoid, as a first priority, risk to water quality from contaminants, and where avoidance is impractical, requiring risk to water quality from contaminants to be minimised by:

- 1. identifying contaminant pathways to ground and surface water bodies;
- requiring implementation of good management practices to manage adverse effects on water quality from contaminants transported via artificial drainage, and overland flow where relevant; and
- 3. having particular regard to adverse effects on water quality from contaminants transported via artificial drainage, and overland flow where relevant when assessing resource consent applications and preparing or considering Farm Environmental Management Plans.

# Policy 9<sup>24</sup> – Old Mataura (Consent Orders)

In the Oold Mataura physiographic zone, avoid, remedy, or mitigate adverse effects on water quality from contaminants, by:

<sup>&</sup>lt;sup>23</sup> Appeal to Environment Court by (i) Wilkins Farming Co ENV-2018-CHC-000030

<sup>(</sup>ii) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>iv) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

<sup>&</sup>lt;sup>24</sup> Appeal to Environment Court by (i) Wilkins Farming Co ENV-2018-CHC-000030

- 1. avoid, as a first priority, risk to water quality from contaminants, and where avoidance is impractical, requiring risk to water quality from contaminants to be minimised by:
  - i. identifying contaminant pathways to ground and surface water bodies;
  - 2. <u>ii.</u> requiring implementation of good management practices to manage adverse effects on water quality from contaminants transported via deep drainage;
  - 3. <u>iii.</u> having particular regard to adverse effects on water quality from contaminants transported via deep drainage when assessing resource consent applications and preparing or considering Farm Environmental Management Plans; and
- 3. 2. decision makers generally not granting resource consents for additional dairy farming of cows or additional avoid dairy farming and intensive winter grazing where contaminant losses will increase as a result of the proposed activity.

## Policy 10<sup>25</sup> – Oxidising (Consent Orders)

In the Oxidising physiographic zone, avoid, remedy, or mitigate adverse effects on water quality from contaminants, by:

- 1. avoid, as a first priority, risk to water quality from contaminants, and where avoidance is impractical, requiring risk to water quality from contaminants to be minimised by:
  - i. identifying contaminant pathways to ground and surface water bodies;
  - 4. <u>ii.</u> requiring implementation of good management practices to manage adverse effects on water quality from contaminants transported via deep drainage, and overland flow and artificial drainage where relevant;
  - 2.-iii. having particular regard to adverse effects on water quality from contaminants transported via deep drainage, and overland flow and artificial drainage where relevant when assessing resource consent applications and preparing or considering Farm Environmental Management Plans; and
- 3.-2.—decision makers generally not granting resource consents for additional dairy farming of cows or additional avoid dairy farming and intensive winter grazing where contaminant losses will increase as a result of the proposed activity.

## Policy 11<sup>26</sup> – Peat Wetlands (Consent Orders)

In the Peat Wetlands physiographic zone, avoid, remedy, or mitigate adverse effects on water quality from contaminants, by:

- 1. avoid, as a first priority, risk to water quality from contaminants, and where avoidance is impractical, requiring risk to water quality from contaminants to be minimised by:
  - i. identifying contaminant pathways to ground and surface water bodies;

<sup>(</sup>ii) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>iv) Federated Farmers of New Zealand ENV-2018-CHC-000040

<sup>(</sup>v) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>(</sup>vi) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

<sup>&</sup>lt;sup>25</sup> Appeal to Environment Court by (i) Wilkins Farming Co ENV-2018-CHC-000030

<sup>(</sup>ii) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>iv) Federated Farmers of New Zealand ENV-2018-CHC-000040

<sup>(</sup>v) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>(</sup>vi) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

<sup>&</sup>lt;sup>26</sup> Appeal to Environment Court by (i) Wilkins Farming Co ENV-2018-CHC-000030

<sup>(</sup>ii) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>iv) Federated Farmers of New Zealand ENV-2018-CHC-000040

<sup>(</sup>v) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>(</sup>vi) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

- 1. <u>ii.</u> requiring implementation of good management practices to manage adverse effects on water quality from contaminants transported via artificial drainage, deep drainage, and lateral drainage;
- 2. <u>iii.</u> having particular regard to adverse effects on water quality from contaminants transported via artificial drainage, deep drainage, and lateral drainage when assessing resource consent applications and preparing or considering Farm Environmental Management Plans; and
- 3. 2. decision makers generally not granting resource consents for additional dairy farming of cows or additional avoid dairy farming and intensive winter grazing where contaminant losses will increase as a result of the proposed activity.

# Policy 12<sup>27</sup> – Riverine (Consent Orders)

In the Riverine physiographic zone, avoid, remedy, or mitigate adverse effects on water quality from contaminants, by:

- 1. avoid, as a first priority, risk to water quality from contaminants, and where avoidance is impractical, requiring risk to water quality from contaminants to be minimised by:
  - i. identifying contaminant pathways to ground and surface water bodies;
  - 1. ii. requiring implementation of good management practices to manage adverse effects on water quality from contaminants transported via deep drainage, and overland flow where relevant;
  - 2. iii. having particular regard to adverse effects on water quality from contaminants transported via deep drainage, and overland flow where relevant when assessing resource consent applications and preparing or considering Farm Environmental Management Plans; and
- 3. 2. decision makers generally not granting resource consents for additional dairy farming of cows or additional avoid dairy farming and intensive winter grazing where contaminant losses will increase as a result of the proposed activity.

### Policy 12A – Improved physiographic zone information

Where site specific information is available that better identifies or delineates the relevant physiographic zones or contaminant loss pathways for a landholding or site, that information must be taken into account when undertaking activities, preparing Farm Environmental Management Plans or when determining resource consent applications for that landholding or site.

<sup>&</sup>lt;sup>27</sup> Appeal to Environment Court by (i) Wilkins Farming Co ENV-2018-CHC-000030

<sup>(</sup>ii) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>iv) Federated Farmers of New Zealand ENV-2018-CHC-000040

<sup>(</sup>v) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>(</sup>vi) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

## **Water Quality**

# Policy A4 of the National Policy Statement for Freshwater Management 2014 (as amended in 2017)

- 1. When considering any application for a discharge the consent authority must have regard to the following matters:
  - (a) the extent to which the discharge would avoid contamination that will have an adverse effect on the life-supporting capacity of freshwater including on any ecosystem associated with freshwater; and
  - (b) the extent to which it is feasible and dependable that any more than minor adverse effect on freshwater, and on any ecosystem associated with freshwater, resulting from the discharge would be avoided.
- 2. When considering any application for a discharge the consent authority must have regard to the following matters:
  - (a) the extent to which the discharge would avoid contamination that will have an adverse effect on the health of people and communities as affected by their contact with freshwater; and
  - (b) the extent to which it is feasible and dependable that any more than minor adverse effect on the health of people and communities as affected by their contact with freshwater resulting from the discharge would be avoided.
- 3. This policy applies to the following discharges (including a diffuse discharge by any person or animal):
  - (a) a new discharge; or
  - (b) a change or increase in any discharge of any contaminant into freshwater, or onto or into land in circumstances that may result in that contaminant (or, as a result of any natural process from the discharge of that contaminant, any other contaminant) entering freshwater.
- 4. Paragraph 1 of this policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management 2011 took effect on 1 July 2011.
- 5. Paragraph 2 of this policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management 2014 takes effect.

# Policy 13 – Management of land use activities and discharges<sup>28</sup> (Consent Orders)

- 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.

<sup>&</sup>lt;sup>28</sup> Appeal to Environment Court by (i) Southland Fish and Game Council ENV-2018-CHC-000037
(ii) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

FOR INFORMATION PURPOSES ONLY – Unofficial version showing Council's final preferred provisions. (as at close of Topic B2, B3, B3 and B5 hearing)				

### Policy 14 – Preference for discharges to land

Prefer discharges of contaminants to land over discharges of contaminants to water, unless adverse effects associated with a discharge to land are greater than a discharge to water. Particular regard shall be given to any adverse effects on cultural values associated with a discharge to water.

## Policy 15A<sup>29</sup> – 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:

- 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.

#### Southland Regional Council (final):

# Policy 15A – Approach where Appendix E or Appendix C 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:

4. avoiding, where reasonably practicable or otherwise minimising any remedying or mitigating 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

## Policy 15B<sup>30</sup> – 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:

- 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, or 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

<sup>&</sup>lt;sup>29</sup> Appeal to Environment Court by (i) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>iii) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>(</sup>iv) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

<sup>&</sup>lt;sup>30</sup> Appeal to Environment Court by (i) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>iii) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>(</sup>iv) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

2. requiring any application for replacement of an expiring discharge permit to demonstrate how and by when adverse effects will be avoided where <u>reasonably</u> practicable and otherwise remedied or mitigated, so that <u>beyond the zone of reasonable mixing</u> water quality will be improved to assist with meeting those standards or sediment guidelines (<u>beyond the zone of reasonable mixing for point source discharges</u>).

**Southland Regional Council (final):** 

# Policy 15B - Approach where Appendix E or Appendix C 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 will be: including by:

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

## Policy 15C<sup>31</sup> - Maintaining and improving water quality after FMU processes

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

# Policy 16<sup>32</sup> – Farming activities that affect water quality

1. Minimising the adverse environmental effects (including on the quality of water in lakes,\_rivers, artificial watercourses, modified watercourses, wetlands, tidal estuaries and salt marshes, and groundwater) from farming activities by:

<sup>&</sup>lt;sup>31</sup> Appeal to Environment Court by (i) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>iii) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>(</sup>iv) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

<sup>&</sup>lt;sup>32</sup> Appeal to Environment Court by (i) Fonterra Co-operative Group Limited ENV-2018-CHC-000027

<sup>(</sup>ii) Director-General of Conservation ENV-2018-CHC-000036

<sup>(</sup>iii) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>iv) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>(</sup>v) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

- (a) discouraging the establishment of new dairy farming of cows or new intensive winter grazing activities in close proximity to Regionally Significant Wetlands and Sensitive Water bodies identified in Appendix A; and
- (b) ensuring that, in the interim period prior to the development of freshwater objectives under Freshwater Management Unit processes, applications to establish new, or further intensify existing, dairy farming of cows or intensive winter grazing activities will generally not be granted where:
  - (i) the adverse effects, including cumulatively, on the quality of groundwater, or water in lakes, rivers, artificial watercourses, modified watercourses, wetlands, tidal estuaries and salt marshes cannot be avoided or mitigated; or
  - (ii) existing water quality is already degraded to the point of being overallocated; or
  - (iii) water quality does not meet the Appendix E Water Quality Standards or bed sediments do not meet the Appendix C ANZECC sediment guidelines; and
- (c) ensuring that, after the development of freshwater objectives under Freshwater Management Unit processes, applications to establish new, or further intensify existing, dairy farming of cows or intensive winter grazing activities:
  - (i) will generally not be granted where freshwater objectives are not being met; and
  - (ii) where freshwater objectives are being met, will generally not be granted unless the proposed activity (allowing for any offsetting effects) will maintain the overall quality of groundwater and water in lakes, rivers, artificial watercourses, modified watercourses, wetlands, tidal estuaries and salt marshes.
- 2. Requiring all farming activities, including existing activities, to:
  - (a) implement a Farm Environmental Management Plan, as set out in Appendix N;
  - (b) actively manage sediment run-off risk from farming and hill country development by identifying critical source areas and implementing practices including setbacks from water bodies, sediment traps, riparian planting, limits on areas or duration of exposed soils and the prevention of stock entering the beds of surface water bodies; and
  - (c) manage collected and diffuse run-off and leaching of nutrients, microbial contaminants and sediment through the identification and management of critical source areas within individual properties.
- 3. When considering a resource consent application for farming activities, consideration should be given to the following matters:
  - (a) whether multiple farming activities (such as cultivation, riparian setbacks, and winter grazing) can be addressed in a single resource consent; and
  - (b) granting a consent duration of at least 5 years.

# Policy 16 – Farming activities that affect water quality (CV)

- Minimising Avoid where reasonably practicable, or otherwise minimise any the adverse environmental effects (including on the quality of water in lakes, rivers, artificial watercourses, modified watercourses, wetlands, tidal estuaries and salt marshes, and groundwater) from farming activities by:
  - (a) discouraging the establishment of new dairy farming of cows or new intensive winter grazing activities in close proximity to Regionally Significant Wetlands and Sensitive Water bodies identified in Appendix A; and
  - (b) ensuring that, in the interim period prior to the development of freshwater objectives under Freshwater Management Unit processes, applications to establish new, or

further intensify existing, dairy farming of cows or intensive winter grazing activities will generally not be granted where:

- (i) the adverse effects, including cumulatively, on the quality of groundwater, or water in lakes, rivers, artificial watercourses, modified watercourses, wetlands, tidal estuaries and salt marshes cannot be avoided or mitigated; or
- (ii) existing water quality is already degraded to the point of being overallocated; or
- (iii) water quality does not meet the Appendix E Water Quality Standards or bed sediments do not meet the Appendix C ANZECC sediment guidelines; and
- (c) ensuring that, after the development of freshwater objectives under Freshwater Management Unit processes, applications to establish new, or further intensify existing, dairy farming of cows or intensive winter grazing activities:
  - (i) will generally not be granted where freshwater objectives are not being met; and
  - (ii) where freshwater objectives are being met, will generally not be granted unless the proposed activity (allowing for any offsetting effects) will maintain the overall quality of groundwater and water in lakes, rivers, artificial watercourses, modified watercourses, wetlands, tidal estuaries and salt marshes.
- (a) ensuring that all farming activities:
  - (i) do not increase nitrogen, phosphorus, sediment or microbial contaminant discharges; and
  - (ii) minimise nitrogen, phosphorus, sediment or microbial contaminant discharges; and
  - (iii) reduce adverse effects on water quality where the farming activity occurs within the catchment of a waterbody identified in Schedule X; and
- (b) ensuring that new, or further intensification of existing, dairy farming of cows, or any intensive winter grazing or pasture-based wintering activities<sup>33</sup> are not located in close proximity to Regionally Significant Wetlands, Sensitive Water bodies identified in Appendix A, nohoanga listed in Appendix B, mātaitai reserves, taiāpure, estuaries or the coastal marine area; and
- (c1) subject to (a) and (b) being achieved across the whole of the land holding, recognising that a limited proportion of intensive winter grazing or pasture-based wintering<sup>34</sup> high risk pasture winter grazing is required on most land holdings to carry stock over winter; and
- <u>2.(c)</u> Requiring all farming activities, including existing activities, to:
  - (i) <u>be undertaken in accordance with implement</u> a Farm Environmental Management Plan<del>, as set out in Appendix N;</del> that:
    - (1) identifies whether the farming activity is occurring, or would occur, in a catchment of a waterbody identified in Schedule X;
    - (2) identifies and responds to contaminant loss risk, and the contaminant pathways (and variants) for the relevant Physiographic Zones;
    - (3) sets out how adverse effects on water quality from the discharge of contaminants from farming activities will be minimised or, where the farming activity is occurring in a catchment of a waterbody identified in Schedule X, reduced;
    - (4) is certified as meeting all relevant requirements of this Plan and any regulation under Part 9A of the RMA; and
    - (5) is independently audited and reported on;
  - (ii)(b) actively manage avoids where reasonably practicable, or otherwise minimises sediment run-off risk from farming and hill country development activities by

<sup>33</sup> See Policy 16 decision

 $<sup>^{\</sup>rm 34}$  Amendment here and elsewhere renaming activity as suggested by Fonterra.

identifying critical source areas and implementing <u>actions and maintaining</u> practices including setbacks from water bodies, sediment traps, riparian planting, limits on areas or duration of exposed soils and the prevention of stock entering the beds of surface water bodies; and

- (iii)(c) manage avoids where reasonably practicable, otherwise minimises collected and diffuse run-off and leaching of nitrogen, phosphorus nutrients, microbial contaminants and sediment through the identification and management of critical source areas and the contaminant pathways identified for the relevant Physiographic Zones (and variants) within individual properties.
- 2.3. When considering a resource consent application for farming activities, consideration should be given to the following matters:
  - (a) whether multiple farming activities (such as cultivation, riparian setbacks, and winter grazing) can be addressed in a single resource consent; and
  - (b) granting a consent duration of at least 5 years where doing so is consistent with Policy 40.

# Policy 16A<sup>35</sup> – Industrial and trade processes that may affect water quality

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

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

#### **Southland Regional Council (final):**

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

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

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

<sup>&</sup>lt;sup>35</sup> Appeal to Environment Court by (i) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>ii) Federated Farmers of New Zealand ENV-2018-CHC-000040

<sup>(</sup>iv) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

## Policy 17<sup>36</sup> – 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.

Southland Regional Council (final):

## Policy 17 - Agricultural effluent management

- 1. Avoid significant where reasonably practicable, or otherwise minimise, 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, including 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, or ponding or contamination of water, including via sub-surface drainage, resulting from the application discharge of agricultural effluent to pasture; and
  - (ca) minimising contamination of water by agricultural effluent via sub-surface drainage.
  - (d) avoiding the discharge of untreated agricultural effluent to water.

**Note:** Examples of best practice referred to in Policy 17(1)(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).

<sup>&</sup>lt;sup>36</sup> Appeal to Environment Court by (i) Fonterra Co-operative Group Limited ENV-2018-CHC-000027

<sup>(</sup>ii) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>iii) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>(</sup>iv) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

**Note:** Examples of best practice guidelines referred to in Policy 17(1)(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.

# Policy 17A<sup>37</sup> – 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.
- 2. Avoid the discharge of untreated domestic wastewater to water or onto or into land; and avoid, remedy, or mitigate the adverse effects of discharges from on-site wastewater systems; by:
  - (a) avoiding any surface run-off or overland flow, ponding, or contamination of water from the application of domestic wastewater to land; and
  - (b) designing, locating and maintaining on-site wastewater systems in accordance with Sections 5 and 6 of the New Zealand Standard AS/NZS 1547:2012 On-site Domestic Wastewater Management.

**Southland Regional Council (final):** 

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

- 1. <u>Minimise Avoid where reasonably practicable, or otherwise minimise, any</u> 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.
- 2. Avoid the discharge of untreated domestic wastewater to water or onto or into land; and avoid, remedy, or mitigate the adverse effects of discharges from on-site wastewater systems; by:
  - (a) avoiding any surface run-off or overland flow, ponding, or contamination of water from the application of domestic wastewater to land; and

<sup>&</sup>lt;sup>37</sup> Appeal to Environment Court by (i) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>ii) Federated Farmers of New Zealand ENV-2018-CHC-000040

<sup>(</sup>iii) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>(</sup>iv) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

(b) designing, locating and maintaining on-site wastewater systems in accordance with Sections 5 and 6 of the New Zealand Standard AS/NZS 1547:2012 On-site Domestic Wastewater Management.

## Policy 18<sup>38</sup> – Stock exclusion from water bodies

Reduce sedimentation and microbial contamination of water bodies and improve river (excluding ephemeral rivers) and riparian ecosystems and habitats by:

- 1. requiring progressive exclusion of all stock, except sheep, from lakes, rivers (excluding ephemeral rivers), natural wetlands, artificial watercourses, and modified watercourses on land with a slope of less than 15 degrees by 2030;
- 2a. requiring the management of sheep in critical source areas and in those catchments where *E.coli* levels could preclude contact recreation;
- 3. encouraging the establishment and enhancement of healthy vegetative cover in riparian areas, particularly through use of indigenous vegetation; and
- 4. ensuring that stock access to lakes, rivers (excluding ephemeral rivers), natural wetlands, artificial watercourses and modified watercourses is managed in a manner that avoids significant adverse effects on water quality, bed and bank integrity and stability, mahinga kai, and river and riparian ecosystems and habitats.

## Policy 18 – Stock exclusion from water bodies (CV, decided in part)

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

- requiring progressive exclusion of all stock, except sheep, from lakes, rivers (excluding ephemeral rivers), natural wetlands, artificial watercourses, and modified watercourses on land with a slope of less than 15 degrees by 2030;
- 2a. requiring the management of sheep in critical source areas and in those catchments where E.coli levels could preclude contact recreation;
- 3. encouraging the establishment, maintenance and enhancement of healthy vegetative cover in riparian areas, particularly through use of indigenous vegetation; and
- 4. ensuring that stock access to lakes, rivers (excluding ephemeral rivers), natural wetlands, artificial watercourses and modified watercourses is managed in a manner that avoids significant adverse effects on water quality, bed and bank integrity and stability, mahinga kai, and river aquatic and riparian ecosystems and habitats-; and
- 5. showing, in a Farm Environmental Management Plan prepared, certified, implemented and audited in accordance with Appendix N, how 1-4 will be achieved and by when.

# **Water Quantity**

<sup>&</sup>lt;sup>38</sup> Appeal to Environment Court by (i) Beef + Lamb New Zealand ENV-2018-CHC-000034, 000035

<sup>(</sup>ii) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>iii) Federated Farmers of New Zealand ENV-2018-CHC-000040

<sup>(</sup>iv) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

# Policy B7 of the National Policy Statement for Freshwater Management 2014 (as amended in 2017)

- 1. When considering any application the consent authority must have regard to the following matters:
  - (a) the extent to which the change would adversely affect safeguarding the life-supporting capacity of freshwater and of any associated ecosystem; and
  - (b) the extent to which it is feasible and dependable that any adverse effect on the life-supporting capacity of freshwater and of any associated ecosystem resulting from the change would be avoided.
- 2. This policy applies to:
  - (a) any new activity; and
  - (b) any change in the character, intensity or scale of any established activity; that involves any taking, using, damming or diverting of freshwater or draining of any wetland, which is likely to result in any more than minor adverse change in the natural variability of flows or level of any freshwater, compared to that which immediately preceded the commencement of the new activity or the change in the established activity (or in the case of a change in an intermittent or seasonal activity, compared to that on the last occasion on which the activity was carried out).
- 3. This policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management 2011 took effect on 1 July 2011.

## Policy 20<sup>39</sup> – Management of water resources

Manage the taking, abstraction, use, damming or diversion of surface water and groundwater so as to:

- 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;
- 1. avoid, where reasonably practicable, or otherwise remedy or mitigate, adverse effects from the use and development of surface water resources on:
  - (a) the quality and quantity of aquatic habitat, including the life supporting capacity and ecosystem health and processes of water bodies;
  - (b) natural character values, natural features, and amenity, aesthetic and landscape values;
  - (c) areas of significant indigenous vegetation and significant habitats of indigenous fauna;
  - (d) recreational values;
  - (e) the spiritual and cultural values and beliefs of tangata whenua;
  - (f) water quality, including temperature and oxygen content;
  - (g) the reliability of supply for lawful existing surface water users, including those with existing, but not yet implemented, resource consents;
  - (h) groundwater quality and quantity; and
  - (i)(j) mātaitai, taiāpure and nohoanga; and
  - (j) historic heritage values.

<sup>&</sup>lt;sup>39</sup> Appeal to Environment Court by (i) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>iii) Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041

<sup>(</sup>iv) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>(</sup>v) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

- 2. avoid, remedy or mitigate where reasonably practicable, or otherwise remedy or mitigate, significant adverse effects from the use and development of groundwater resources on:
  - (a) long-term aquifer storage volumes;
  - (b) the reliability of supply for lawful existing groundwater users, including those with existing, but not yet implemented, resource consents;
  - (c) surface water flows and levels, particularly in spring-fed streams, natural wetlands, lakes, aquatic ecosystems and habitats (including life supporting capacity and ecosystem health and processes of water bodies) and their natural character; and
  - (d) water quality, including temperature and oxygen content;
- 3. ensure water is used efficiently and reasonably by requiring that the rate and volume of abstraction specified on water permits to take and use water are no more than reasonable for the intended end use following the criteria established in Appendix O and Appendix L.4.

#### Policy 21 – Allocation of water

Manage the allocation of surface water and groundwater by:

- 1. determining the primary allocation for confined aquifers not identified in Appendix L.5, following the methodology established in Appendix L.6;
- 2. determining that a water body is fully allocated when the total volume of water allocated through current resource consents and permitted activities is equal to either:
  - (a) the maximum amount that may be allocated under the rules of this Plan, or
  - (b) the provisions of any water conservation order;
- 3. enabling secondary allocation of surface water and groundwater subject to appropriate surface water environmental flow regimes, minimum lake and wetland water levels, minimum groundwater level cutoffs or seasonal recovery triggers, to ensure:
  - (a) long-term aquifer storage volumes are maintained; and
  - (b) the reliability of supply for existing groundwater users (including those with existing resource consents for groundwater takes that have not yet been implemented) is not adversely affected;
- 4. when considering levels of abstraction, recognise the need to exclude takes for non-consumptive uses that return the same amount (or more) water to the same aquifer or a hydraulically connected lake, river, modified watercourse or natural wetland.

# Policy 22 – Management of the effects of groundwater and surface water use Manage the effects of surface and groundwater abstractions by:

- 1. avoiding allocating water to the extent that the effects on surface water flow would not safeguard the mauri of that waterway and mahinga kai, taonga species or the habitat of trout and salmon, in accordance with Appendix K;
- 2. ensuring interference effects are acceptable, in accordance with Appendix L.3; and
- 3. utilising the methodology established in Appendix L.2 to:
  - (a) manage the effects of consented groundwater abstractions on surface water bodies; and
  - (b) assess and manage the effects of consented groundwater abstractions in groundwater management zones other than those specified in Appendix L.5.

### Policy 23 - Stream depletion effects

Manage stream depletion effects resulting from groundwater takes which are classified as having a Riparian, Direct, High or Moderate hydraulic connection, as set out in Appendix L.2 Table L.2, to ensure the cumulative effect of those takes does not:

- exceed any relevant surface water allocation regime (including those established under any water conservation order) for groundwater takes classified as Riparian, Direct, High or Moderate hydraulic connection; or
- 2. result in abstraction occurring when surface water flows or levels are less than prescribed minimum flows or groundwater levels for takes classified as Riparian, Direct or High hydraulic connection.

## Policy 24<sup>40</sup> – Water abstraction for community water supply (Consent Orders)

Recognise the need for, and assign priority to, the provision of water for community water supply when allocating water:

- 1. provided that significant adverse effects on the following are avoided as a first preference, and if unable to be avoided, are mitigated or remedied:
  - (a) the quality and quantity of aquatic habitat, including the life supporting capacity and ecosystem health and processes of water bodies;
  - (b) natural character values, natural features, and amenity, aesthetic and landscape values;
  - (c) areas of significant indigenous vegetation and significant habitats of indigenous fauna;
  - (d) recreational values;
  - (e) the spiritual and cultural values and beliefs of the tangata whenua;
  - (f) water quantity and quality; and
  - (g) long-term aquifer storage volumes; and
  - (h) historic heritage values; and
- 2. provided that a water demand management strategy commensurate to both the scale of the activity and its potential effects is part of any application for:
  - (a) a new or replacement water permit for a community water supply; or
  - (b) an amendment to an existing water permit for a community water supply.

# Policy 25 – Priority takes<sup>41</sup>(Consent Orders)

When issuing a water shortage direction, the Southland Regional Council will give priority to reasonable water abstractions for the following uses (in no particular order):

- 1. domestic needs, including community water supplies;
- 2. reasonable animal drinking needs;
- 2a. industries that process perishable foods;
- fire-fighting purposes;
- 4. public health needs; and
- 5. animal welfare needs;
  - and as a second priority industries that process perishable primary produce.

 $<sup>^{40}</sup>$  Appeal to Environment Court by Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041

 $<sup>^{41}</sup>$  Appeal to Environment Court by Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

# Activities that affect water quality and quantity

# Policy 26<sup>42</sup> – Renewable energy

Recognise and provide for the national and regional significance of renewable electricity generation activities (including the existing Manapōuri hydro-electric generation scheme in the Waiau catchment), the national, regional and local benefits of renewable electricity generation activities, the need to locate the generation activity where the renewable energy resource is available, and the practical constraints associated with its development, operation, maintenance and upgrading, when:

- 1. allocating surface water for abstraction, damming, diversion and use; and
- 2. considering all resource consent applications for surface water abstractions, damming, diversion and use.

# Policy 26A<sup>43</sup> – Infrastructure (Consent Orders)

Recognise and provide for the <u>sustainable and</u> effective development, operation, maintenance and upgrading of regionally <u>significant</u>, <u>and nationally significant</u> and <u>critical</u> infrastructure in a way that avoids where practicable, or otherwise remedies or mitigates, adverse effects on the environment.

## Policy 27 - Bore construction and management

Require minimum standards for the construction, operation and maintenance of bores and wells.

## Policy 27A – Loss of river extent and values (CV)

[Advice Note - Placeholder for direct insertion of policy required by clause 3.24 of the National Policy Statement for Freshwater Management 2020 Policy 3.24]

# Policy 28<sup>44</sup> (CV) – Structures and bed disturbance activities of rivers (including modified watercourses) and lakes

- a. Except where Policy 27A 28b applies, mManage structures, bed disturbance activities and associated discharges in the beds and margins of lakes, rivers and modified watercourses, to avoid, where reasonably practicable, or otherwise remedy or mitigate adverse effects on:
  - 1. water quality and quantity;
  - 2. habitats, ecosystems and fish passage;
  - indigenous biological diversity;

<sup>&</sup>lt;sup>42</sup> Appeal to Environment Court by (i) Aratiatia Livestock Limited ENV-2018-CHC-000029

<sup>(</sup>ii) Meridian Energy Limited ENV-2018-CHC-000038

<sup>(</sup>iii) Federated Farmers of New Zealand ENV-2018-CHC-000040

<sup>(</sup>iv) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>&</sup>lt;sup>43</sup> Appeal to Environment Court by (iii) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>(</sup>iv) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

<sup>&</sup>lt;sup>44</sup> Appeal to Environment Court by (i) Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041

<sup>(</sup>ii) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

- 5. the spiritual and cultural values and beliefs of the tangata whenua;
- 6. mātaitai and taiāpure;
- 7. public access (except in circumstances where public health and safety are at risk) and amenity values;
- 8. natural character values and outstanding natural features;
- 9. river morphology and dynamics, including erosion and sedimentation;
- 10. flood risk;
- 11. infrastructural assets;
- 12. navigational safety;
- 13. landscape values; and
- 14. historic heritage values.

(b) The loss of river extent and values is avoided, unless the Southland Regional Council is satisfied:

- (i) that there is a functional need for the activity in that location; and
- (ii) that the effects of the activity are managed by applying the effects management hierarchy 45

## Policy 29<sup>46</sup> – Provide for the extraction of gravel (Consent Orders)

Recognise the value of gravel and provide for its extraction to meet the social, economic and cultural needs of the community in a way that:

- <u>a.</u> avoids, remedies or mitigates adverse effects on land, groundwater quality, rivers and their margins, and recreational values and;
- b. for river bed based extractions:
  - 1. for river based extractions, requires the restoration of aquatic, riverine and riparian habitat is restored or enhanced once the<sup>47</sup> gravel extraction activity has ceased;
  - 2. results in no long-term net loss of habitat in the river channel, bed or floodplain;
  - 2a. ensures that the rate and volume of gravel extraction is sustainable;
  - 3. ensures no degradation of flood protection and erosion control infrastructure and the integrity of physical resources;
  - 4. does not adversely affect the Ngāi Tahu cultural values and interests associated with the land or river, including taonga species habitat, mahinga kai, mātaitai and taiāpure;<sup>48</sup>
  - 5. results in no long-term adverse effects on recreational values; and
  - 6. maintains public access (except in circumstances where public health and safety are at risk).
  - 7. protects historic heritage values; and
  - 8. protects areas of significant indigenous vegetation and significant indigenous fauna.

# Policy 30<sup>49</sup> – Drainage maintenance

In recognition of the community benefits of maintaining flood conveyance capacity and land drainage, ensure that drainage maintenance activities within artificial watercourses and the beds of modified watercourses and their margins are managed in a way that either:

<sup>&</sup>lt;sup>45</sup> As defined in the NPS-FM (2020)

<sup>&</sup>lt;sup>46</sup> Appeal to Environment Court by (i) HW Richardson Group Limited ENV-2018-CHC-000033

<sup>(</sup>ii) Director-General of Conservation ENV-2018-CHC-000036

<sup>(</sup>iii) Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041

<sup>(</sup>iv) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>(</sup>v) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

<sup>&</sup>lt;sup>47</sup> Note that there was a typographical error in the mediation agreement which meant this "the" was missing from the agreed wording (but is included in the decisions version wording). Accordingly, we have shown it as deleted.

 $<sup>^{</sup>m 48}$  Mātaitai and taiāpure are defined in the Introduction to the Plan on page 10.

<sup>&</sup>lt;sup>49</sup> Appeal to Environment Court by Southland Fish and Game Council ENV-2018-CHC-000037

- 1. avoids, where reasonably practicable, or otherwise remedies or mitigates, significant adverse effects on the aquatic environment; or, and riparian habitat in modified watercourses and significant adverse effects on aquatic and riparian habitat in artificial watercourses; or
- 2. maintains or enhances habitat value-, including fish passage, gravel spawning habitat and bank stability;
- 3. in addition to 1 or 2, minimises the quantity of sediment released from drainage maintenance activities.

#### **Southland Regional Council (final):**

### Policy 30 - Drainage maintenance

In recognition of the community benefits of maintaining flood conveyance capacity and land drainage, ensure that drainage maintenance activities within artificial watercourses and the beds of modified watercourses and their margins are managed in a way that either:

- 1. avoids, where reasonably practicable, or otherwise remedies or mitigates, significant adverse effects on the aquatic environment; or, and riparian habitat in modified watercourses and significant adverse effects on aquatic and riparian habitat in artificial watercourses; or
- 2. maintains or enhances habitat value-, including fish passage, gravel spawning habitat and bank stability;
- 3. in addition to 1 or 2, minimises the quantity of sediment released from drainage maintenance activities-; and
- 4. recognises the need to reduce the extent and frequency of disturbance, including through changes to land management so that sediment does not enter these watercourses, by improving practices and providing guidance, and improvement of riparian areas and habitat.

#### Policy 31 – Whitebait stands

Restrict the allocation of space for whitebait stands in the beds of lakes, rivers and modified watercourses to:

- 1. stands lawfully existing as of 1 June 2003; or
- 2. new stands used in lieu of previously lawfully existing stands, but as close as practical to the former site where that site can no longer be used because of either natural alterations to the course of the river, bank erosion or high-water mark alterations.

# Policy 32<sup>50</sup> – Protect significant indigenous vegetation and habitat (Consent Orders

Protect significant indigenous vegetation and significant habitats of indigenous fauna <u>and maintain</u> indigenous biodiversity associated with natural wetlands, lakes and rivers and their margins.

## Policy 33 – Adverse effects on natural wetlands

Prevent the reduction in area, function and quality of natural wetlands, including through drainage, discharges and vegetation removal.

<sup>&</sup>lt;sup>50</sup> Appeal to Environment Court by Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050
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# Policy 34 – Restoration of existing wetlands, the creation of wetlands and riparian planting

Recognise the importance of wetlands and indigenous biodiversity, particularly their potential to improve water quality, offset peak river flows and assist with flood control, through encouraging:

- 1. the maintenance and restoration of existing natural wetlands and the creation of new wetlands; and
- 2. the establishment of wetland areas and associated indigenous riparian plantings, including onfarm, in subdivisions, on industrial sites and for community sewerage schemes.

### Policy 35 – Discharge waste and cleanfill appropriately

Ensure that sites used for the discharge of contaminants as waste or cleanfill are appropriate.

#### Policy 36 – Manage contaminated land

Require the best practicable option be adopted to prevent or minimise adverse effects from contaminated land or a discharge of a hazardous substance.

## Policy 37 - Climate change

Avoid or mitigate increased risks on the environment arising from climate change, taking into account the potential effects of rising sea levels and the potential for more variable and extreme weather patterns in coming decades.

### Policy 38 - Natural hazards

Reduce the susceptibility of the Southland community and environment to natural hazards by improving planning, responsibility and community awareness for the avoidance and mitigation of natural hazards.

# **Consideration of Resource Consent Applications**

## Policy 39<sup>51</sup> – Application of the permitted baseline (Consent Orders)

When considering any application for resource consent for the use of land for a farming activity, the Southland Regional Council <u>shall</u> should consider all adverse effects of the proposed activity on water quality, whether or not this Plan permits an activity with that effect.

Advice Note: Nothing in this policy affects the ability of the Council to take into account the effects of activities lawfully occurring at the date an application is made when determining the existing environment.

<sup>&</sup>lt;sup>51</sup> Appeal to Environment Court by (i) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>ii) Federated Farmers of New Zealand ENV-2018-CHC-000040

# Policy 39A<sup>52</sup> – Integrated management (Consent Orders)

When considering the cumulative effects of land use and discharge activities within whole catchments, consider:

- 1. <u>how to improve</u> the integrated management of freshwater and the use and development of land including the interactions between freshwater, land and associated ecosystems (including estuaries <u>and the wider coastal area</u>); and
- 2. through the Freshwater Management Unit process, facilitating the collective management of nutrient losses, including through initiatives such as nutrient user groups and catchment management groups.

## Policy 40 – Determining the term of resource consents

When determining the term of a resource consent consideration will be given, but not limited, to:

- 1. granting a shorter duration than that sought by the applicant when there is uncertainty regarding the nature, scale, duration and frequency of adverse effects from the activity or the capacity of the resource;
- 2. relevant tangata whenua values and Ngāi Tahu indicators of health;
- 3. the duration sought by the applicant and reasons for the duration sought;
- 4. the permanence and economic life of any capital investment;
- 5. the desirability of applying a common expiry date for water permits that allocate water from the same resource or land use and discharges that may affect the quality of the same resource;
- 6. the applicant's compliance with the conditions of any previous resource consent, and the applicant's adoption, particularly voluntarily, of good management practices; and
- 7. the timing of development of FMU sections of this Plan, and whether granting a shorter or longer duration will better enable implementation of the revised frameworks established in those sections.

#### Policy 41 – Matching monitoring to risk

Consider the risk of adverse environmental effects occurring and their likely magnitude when determining requirements for auditing and supply of monitoring information on resource consents.

# Policy 42<sup>53</sup> – Consideration of water permit applications

When considering resource consent applications for water permits to take and use water:

- except for non-consumptive uses, consent will not be granted if a water body is over allocated or fully allocated; or to grant consent would result in a water body becoming over allocated or would not allow an allocation target for a water body to be achieved within a time period defined in this Plan;
- 2. except for non-consumptive uses, consents replacing an expiring resource consent for an abstraction from an over-allocated water body will generally only be granted at a reduced rate,

<sup>&</sup>lt;sup>52</sup> Appeal to Environment Court by (ii) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>(</sup>iii) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

 $<sup>^{\</sup>rm 53}$  Appeal to Environment Court by (i) Wilkins Farming Co ENV-2018-CHC-000030

<sup>(</sup>ii) Southland Fish and Game Council ENV-2018-CHC-000037

the reduction being proportional to the amount of over-allocation and previous use, using the method set out in Appendix O;

- 3. installation of water measuring devices will be required on all new permits to take and use water and on existing permits in accordance with the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010;
- 4. where appropriate, minimum level or flow cut-offs and seasonal recovery triggers on resource consents for groundwater abstraction will be imposed; and
- 5. conditions will be specified relating to a minimum flow or level, or environmental flow or level regime (which may include flow sharing), in accordance with Appendix K, for all new or replacement resource consents (except for water permits for non-consumptive uses, community water supplies and water bodies subject to minimum flow and level regimes established under any water conservation order) for:
  - (a) surface water abstraction, damming, diversion and use; and
  - (b) groundwater abstraction in accordance with Policy 23.

## Policy 43 – Transfer of water permits

- Enable the transfer of water permits to take and use water provided the transfer occurs in the same surface water or groundwater management zone or aquifer, any other abstractor is not adversely affected, and the transfer is consistent with the provisions of this Plan, including the minimum flow and allocation regime.
- 2. Provide for the transfer of water permits for groundwater abstraction between groundwater zones or aquifers in the same surface water catchment, provided the transfer does not increase cumulative stream depletion effects in the reach where the take is proposed or result in the minimum flow being breached and effects of the new abstraction are consistent with the provisions of this Plan.

# **Freshwater Management Unit Process Policies**

#### Policy 44 – Implementing Te Mana o te Wai

Te Mana o te Wai is recognised at a regional level by tangata whenua and the local community identifying values held for, and associations with, a particular water body and freshwater management unit.

Particular regard will be given to the following values, alongside any additional regional and local values determined in the Freshwater Management Unit limit setting process:

- Te Hauora o te Wai (the health and mauri of water);
- Te Hauora o te Tangata (the health and mauri of the people);
- Te Hauora o te Taiao (the health and mauri of the environment);
- Mahinga kai;
- Mahi māra (cultivation);
- Wai Tapu (Sacred Waters);

- Wai Māori (municipal and domestic water supply);
- Āu Putea (economic or commercial value);
- He ara haere (navigation).

## Policy 45<sup>54</sup> – Priority of FMU values, objectives, policies and rules (CV)

In response to Ngãi Tahu and community aspirations and local water quality and quantity issues, FMU sections of this Plan may include additional catchment-specific values, objectives, policies, attributes, rules and limits which will be read and considered together with the Region-wide Objectives and Region-wide Policies.

Any provision on the same subject matter in the relevant FMU section of a plan (including Freshwater Objectives) must give effect to the Region-wide Objectives.

FMU provisions developed for a specific geographical area will not initiate a plan change to the Region-wide objectives or Region-wide policies.

Note: It would be unfair if changes are made to Region-wide objectives and policies, based on decisions for individual FMUs in specific parts of Southland, which apply in other parts of Southland, without the involvement of the wider Regional ese wider communities.

Any provision on the same subject matter in the relevant FMU section of this Plan prevails over the relevant provision within the Region-wide Objectives and Region-wide Policy sections, unless it is explicitly stated to the contrary.

As the FMU sections of this Plan are developed in a specific geographical area, FMU sections will not make any changes to the Region-wide Objectives or Region-wide Policies.

**Note:** It would be unfair if changes are made to Region-wide objectives and policies, which apply in other parts of Southland, without the involvement of those wider communities.

## Policy 46<sup>55</sup> – Identified FMUs (CV)

The FMU Sections of this Plan are based on the following identified Freshwater Management Units for Southland, as shown on Map Series 6: Freshwater Management Units:

- Fiordland and Islands;
- Aparima and Pourakino Jacobs River Estuary;
- Mataura Toetoes Harbour;
- Ōreti and Waihopai New River Estuary; and
- Waiau Waiau Lagoon.

 $<sup>^{\</sup>rm 54}$  Appeal to Environment Court by Southland Fish and Game Council ENV-2018-CHC-000037

<sup>55</sup> Appeal to Environment Court by Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

Waituna

# Policy 47<sup>56</sup> – FMU processes (CV)

The FMU sections <u>of this Plan</u> will give effect to the region wide Objectives – and

- identify values and establish freshwater objectives for each Freshwater Management Unit, including where appropriate at a catchment or sub-catchment level, having particular regard to the national significance of Te Mana o te Wai, and any other values developed in accordance with Policies CA1-CA4 and Policy D1 of the National Policy Statement for Freshwater Management 2014 (as amended in 2017);
- 2. set water quality and water quantity limits and targets to achieve the freshwater objectives;
- 3. set methods to phase out any over-allocation, within a specified timeframe; and
- 4. assess water quality and quantity taking into account Ngāi Tahu indicators of health.

<sup>&</sup>lt;sup>56</sup> Appeal to Environment Court by Southland Fish and Game Council ENV-2018-CHC-000037 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

# **Region-wide Rules**

Pursuant to Section 86B(1)(a) and (3) of the Resource Management Act 1991 all of the rules in the Proposed Southland Water and Land Plan take immediate legal effect from the date of notification.

After 1 May 2018 the rules of this Regional Plan do not apply to any activity specifically regulated by the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017, unless regulation 6 of those regulations applies. Further guidance on the application of regulation 6 is available on Southland Regional Council's website.

The rules of this Regional Plan do not apply to any activity specifically regulated by the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009.

#### Rule 1

(a) Any activity must comply with all applicable rules within the Region-wide Rules section of this Plan, unless it is explicitly stated to the contrary in any other applicable rule in this Plan.

#### Rule 2

(a) Any rule on the same subject matter in the relevant FMU section of this Plan prevails over the relevant rule within the Region-wide Rules section, unless it is explicitly stated to the contrary in any applicable rule in this Plan.

#### Rule 3

- (a) When considering applications for controlled activities or restricted discretionary activities, in addition to the matters over which:
  - (i) control is reserved; or
  - (ii) exercise of discretion is restricted;

the decision-maker may also consider the lapse period sought, the duration of the resource consent sought, the review of the conditions of a resource consent, the need for a bond and the collection, recording, monitoring and provision of information concerning the exercise of a resource consent.

#### Rule 4

- (a) Any activity that:
  - (i) would otherwise contravene Sections 13(1), 14(2), 14(3) or 15(1) of the RMA; and
  - (ii) is not classified by this Plan as any other class of activity listed in Section 87A of the RMA;

is a discretionary activity.

**Note:** Nothing in this Plan exempts any person from meeting the requirements of a relevant district plan or other legislation.

# **Discharge Rules**

## Rule 5<sup>57</sup> – Discharges to surface water bodies (Consent Orders)

- (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:

- 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 6 – Discharges to surface water bodies that do not meet water quality standards

- (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 that does not meet the conditions in Rule 5;

is a non-complying activity.

#### Rule 8 – Discharges of surface water

- (a) Except as provided for elsewhere in this Plan, the discharge of surface water into a lake, river, artificial watercourse, modified watercourse or natural wetland is a controlled activity provided the following conditions are met:
  - (i) the discharge was lawfully established prior to 1 January 2010;
  - (ii) the lawfully established discharge point has not changed; and
  - (iii) at the downstream edge of the reasonable mixing zone, the discharge does not reduce the water quality of the receiving waters or give rise to any of the following effects in the receiving water:
    - (1) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or

<sup>&</sup>lt;sup>57</sup> Appeal to Environment Court by (i) Director-General of Conservation ENV-2018-CHC-000036 (ii) Southland Fish and Game Council ENV-2018-CHC-000037

- (2) any conspicuous change in visual clarity; or
- (3) the rendering of freshwater unsuitable for consumption by farm animals; or
- (4) any significant adverse effects on aquatic life.

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

- 1. the potential for flooding of any person's property as a result of the discharge;
- 2. erosion of the bed or banks of the receiving lake, river, artificial watercourse, modified watercourse, or natural wetland as a result of the discharge; and
- 3. actual or potential effects on existing water users and aquatic ecosystems.

# Rule 9<sup>58</sup> – 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 approved by the Environmental Protection Authority, or if no Environmental Protection Authority approval exists, as recommended by the manufacturer or approved by the Environmental Protection Authority;
  - (ii) the agrichemical is approved for aquatic use within New Zealand under the Hazardous Substances and New Organisms Act 1996, and the use and discharge of the substance is in accordance with all the conditions of the approval;
  - (iii) the discharge is undertaken in a manner consistent with NZS8409:2004 Management of Agrichemicals and for specific activities in compliance with the following sections of NZS8409: 2004 Management of Agrichemicals:
    - 1. Use Part 5.3 and related Appendices;
    - 2. Storage Section 4 and Appendix L4;
    - 3. Disposal Section 6 and Appendix S; and
    - 4. Records Appendix C9;
  - (iv) all practicable measures are taken to minimise spray drift beyond the target area;
  - (v) at the downstream edge of the reasonable mixing zone, the discharge does not give rise to any of the following effects in the receiving water:
    - the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or
    - 2. any conspicuous change in visual clarity; or
    - 3. the rendering of freshwater unsuitable for consumption by farm animals; or
    - 4. any significant adverse effects on aquatic life, other than the target species;
  - (vi) there is no adverse effect on any water take permitted by the RMA, this Plan or under a resource consent;
  - (vii) the discharge is not into water within natural state waters, a mātaitai reserve or taiāpure, <sup>59</sup> or within the microbial health protection zone of a surface water drinking water supply site identified in Appendix J, or where no such zone is identified, within 250 metres upstream of the abstraction point of a surface water drinking water supply site identified in Appendix J; and
  - (viii) the discharge is not into waters subject to the Mataura River Water Conservation Order or identified in item 1 of Schedule 1 of the Ōreti River Water Conservation Order, unless

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<sup>&</sup>lt;sup>58</sup> Appeal to Environment Court by Director-General of Conservation ENV-2018-CHC-000036

<sup>&</sup>lt;sup>59</sup> Mātaitai and taiāpure defined in the introduction at page 10.

the discharge is undertaken pursuant to the Soil Conservation and Rivers Control Act 1941 or by a provider of regional, national or critical infrastructure as part of infrastructure maintenance or protection activities.

**Note:** Provisions in the Regional Air Plan also apply to the discharge of agrichemicals.

**Note**: Any discharge of the vertebrate toxic agents brodifacoum, rotenone or sodium fluoroacetate that complies with the Resource Management (Exemption) Regulations (2017) is exempt from any discharge controls under the Resource Management Act and this Plan.

**Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

### Rule 10 – Discharge of agrichemicals to land where they may enter water

- (a) The discharge of agrichemicals and any associated wetting, antifoaming and anti-drifting agents and marker dyes onto or into land including where they may enter water is a permitted activity provided the following conditions are met:
  - (i) the agrichemical is approved for use within New Zealand under the Hazardous Substances and New Organisms Act 1996, and the use and discharge of the substance is in accordance with all the conditions of the approval;
  - (ii) all practicable measures are taken to minimise spray drift beyond the target area; and
  - (iii) the discharge is not to a mātaitai reserve or taiāpure and there is no reduction in the quality of water beyond the zone of reasonable mixing for natural state waters and waters subject to the Mataura River Water Conservation Order or identified in Item 1 of Schedule 1 of the Ōreti River Water Conservation Order.

#### Rule 11 – Discharge of vertebrate pest control poisons

- (a) The discharge of a vertebrate toxic agent, other than those complying with the Resource Management (Exemption) Regulations 2017, into or onto land where it may enter water is a permitted activity provided the following conditions are met:
  - (i) the vertebrate toxic agent is approved for use within New Zealand under the Hazardous Substances and New Organisms Act 1996, and the use and discharge of the substance is in accordance with all the conditions of the approval; and
  - (ii) the discharge does not occur within the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J.

**Note**: Any discharge of the vertebrate toxic agents brodifacoum, rotenone or sodium fluoroacetate that complies with the Resource Management (Exemption) Regulations 2017 is exempt from any discharge controls under the Resource Management Act and this regional plan.

#### Rule 12 – Discharge of non-toxic dyes

(a) The discharge of non-toxic dyes for investigative purposes onto or into water other than within natural state waters is a controlled activity.

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

- 1. the type of dye used;
- 2. the amount of dye used and the rate of application;
- 3. any requirements for public notice of the investigation occurring; and
- 4. duration of the investigation.

An application for resource consent under Rule 12 will be processed and considered without public or limited notification unless the applicant requests notification or the Southland Regional Council considers special circumstances exist that warrant notification of the application.

## Rule 13<sup>60</sup> – Discharge from subsurface drainage systems

- (a) The discharge of land drainage water to water from an on-farm subsurface drainage system is a permitted activity, provided the following conditions are met:
  - (i) the discharge does not cause:
    - (1) a conspicuous change to the colour or clarity of the receiving waters beyond 20 metres from the point of discharge that exceeds the maximum percentage change specified for the relevant water body class in Appendix E; or
    - (2) more than a 10% change in the sediment cover of the receiving waters beyond 20 metres from the point of discharge; or
    - (3)(2) conspicuous oil or grease films, scrums or foams, or floatable or suspended materials beyond 20 metres from the point of discharge;
  - (ii) the discharge does not render freshwater unsuitable for consumption by farm animals;
  - (iii) the discharge does not cause the flooding of any other landholding;
  - (iv) the discharge does not cause any scouring or erosion of any land or bed of a water body beyond the point of discharge;
  - (vi) the discharge does not cause any significant adverse effects on aquatic life;
  - (vii) the subsurface drainage system does not drain a natural wetland; and
  - (viii) for any known existing drains and for any new drains, the locations of the drain outlets are mapped and provided to the Southland Regional Council on request.
- (b) The discharge of land drainage water to water from an on-farm subsurface drainage system that does not comply with Rule 13(a) is a discretionary activity.

<sup>&</sup>lt;sup>60</sup> Appeal to Environment Court by (i) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>ii) Federated Farmers of New Zealand ENV-2018-CHC-000040

### Rule 13 – Discharge from subsurface drainage systems

#### **Southland Regional Council (final):**

- (a) The discharge of land drainage water to water from an on-farm subsurface drainage system is a permitted activity, provided the following conditions are met:
  - (i) the discharge does not cause:
    - (1) a-conspicuous change to the colour or clarity of the receiving waters beyond 20 metres from the point of discharge that exceeds the maximum percentage change specified for the relevant water body class in Appendix E; or
    - (2) fine sediment (<2mm diameter) bed cover, when measured as a percentage at the downstream edge of the reasonable mixing zone, increasing by more than 10 percentage points from that measured immediately upstream of the discharge;
    - (3) conspicuous oil or grease films, scrums or foams, or floatable or suspended materials beyond 20 metres from the point of discharge;
  - (ii) the discharge does not render freshwater unsuitable for consumption by farm animals;
  - (iii) the discharge does not cause the flooding of any other landholding;
  - (iv) the discharge does not cause any scouring or erosion of any land or bed of a water body beyond the point of discharge;
  - (vi) the discharge does not cause any significant adverse effects on aquatic life;
  - (vii) the subsurface drainage system does not drain a natural wetland; and
  - (viii) for any known existing drains and for any new drains, the locations of the drain outlets are mapped and provided to the Southland Regional Council on request.
- (b) The discharge of land drainage water to water from an on-farm subsurface drainage system that does not comply with Rule 13(a) is a discretionary activity.

# Rule 14<sup>61</sup> – Discharge of fertiliser

- (a) The discharge of fertiliser onto or into land in circumstances where contaminants may enter water is a permitted activity provided the following conditions are met:
  - (i) other than for incidental discharges of windblown fertiliser dust, there is no direct discharge of fertiliser into a lake, river (excluding ephemeral rivers), artificial watercourse, modified watercourse, or natural wetland or into groundwater;
  - (ii) there is no fertiliser discharged when the soil moisture exceeds field capacity;
  - (iii) there is no fertiliser discharged directly into or within 3 metres of the boundary of any significant indigenous biodiversity site identified in a district plan that includes surface water; and
  - (iv) where a lake, river (excluding ephemeral rivers), artificial watercourse, modified watercourse or wetland:
    - (1) has riparian planting from which stock is excluded, fertiliser may be discharged up to the paddock-side edge of the riparian planting but not onto the riparian planting, except for fertiliser required to establish the planting; or
    - (2) does not have riparian planting from which stock is excluded, fertiliser is not discharged directly into or within 3 metres of the bed or within 3 metres of a wetland.
- (b) The discharge of fertiliser onto or into land in circumstances where the fertiliser may enter water that does not meet the conditions of Rule 14(a) is a non-complying activity.

<sup>&</sup>lt;sup>61</sup> Appeal to Environment Court by (i) Southland Fish and Game Council ENV-2018-CHC-000037 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

## Rule 14 - Discharge of fertiliser (CV)

- (a) The discharge of fertiliser onto or into land in circumstances where contaminants may enter water is a permitted activity provided the following conditions are met:
  - (i) other than for incidental discharges of windblown fertiliser dust, there is no direct discharge of fertiliser into a lake, river (excluding ephemeral rivers), artificial watercourse, modified watercourse, or natural wetland or into groundwater;
  - (ii) there is no fertiliser discharged when the soil moisture exceeds field capacity;
  - (iii) there is no fertiliser discharged directly into or within 3 metres of the boundary of any significant indigenous biodiversity site identified in a district plan that includes surface water; and
  - (iv) where a lake, river <del>(excluding ephemeral rivers),</del> artificial watercourse, modified watercourse or wetland:
    - (1) has riparian planting from which stock is excluded, fertiliser may be discharged up to the paddock-side edge of the riparian planting but not onto the riparian planting, except for fertiliser required to establish the planting; or
    - (2) does not have riparian planting from which stock is excluded, fertiliser is not discharged directly into or within 3 metres of the bed or within 3 metres of a wetland.
- (b) The discharge of fertiliser onto or into land in circumstances where the fertiliser may enter water that does not meet the conditions of Rule 14(a) is a non-complying activity.

## Rule 15<sup>62</sup> – 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;
  - (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; more than a 20% change in the

<sup>&</sup>lt;sup>62</sup> Appeal to Environment Court by (i) Gore District Council & others ENV-2018-CHC-000031

<sup>(</sup>ii) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>iii) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>(</sup>iv) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

- 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 <u>and any contaminants contained within, from a reticulated system</u> 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;
  - (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;
    - (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 is not otherwise specified in Rule 15(ab) is a non-complying activity.

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### 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;
  - (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; 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) fine sediment (<2mm diameter) bed cover, when measured as a percentage at the downstream edge of the reasonable mixing zone, increasing by more than 10 percentage points from that measured immediately upstream of the discharge;
  - (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 <u>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:</u>
  - (i) the reticulated system is owned by a territorial authority and is operated by them or their agent;
  - (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;
    - (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 is not otherwise specified in Rule 15(ab) is a non-complying activity.

## Rule 16 - Discharge of water from bores and wells for aquifer testing

- (a) The discharge of water from any bore or well into a lake, river, artificial watercourse, modified watercourse or wetland or onto or into land where it may enter a lake, river, artificial watercourse, modified watercourse or wetland, as a result of aquifer testing, is a permitted activity provided the following conditions are met:
  - (i) the discharge does not cause flooding of any other person's property, erosion of the bed or banks of the receiving water body or land instability; and
  - (ii) where the discharge is to water, there is no conspicuous change to colour and clarity of the receiving waters at a distance of 20 metres from the point of discharge.

#### Rule 17 – Dust Suppressants

- (a) The discharge of a dust suppressant onto or into land in circumstances where a contaminant may enter water is a permitted activity, provided one of the following conditions are met:
  - (i) the dust suppressant is not a hazardous substance; or
  - (ii) the dust suppressant is approved under the Hazardous Substances and New Organisms Act 1996 and the use and discharge of the dust suppressant is undertaken in accordance with all conditions of the approval.
- (b) The discharge of a dust suppressant onto or into land in circumstances where a contaminant may enter water that does not meet the conditions in Rule 17(a) is a discretionary activity.

# Rule 18 – Discharge of water from purging of instruments at a water treatment plant and portable potable water treatment units

(a) The discharge of water containing contaminants from the purging of instruments at a water treatment plant and from the use of portable potable water treatment units onto or into land in circumstances where contaminants may enter water is a permitted activity, provided the following conditions are met:

- (i) the volume of water discharged does not exceed 3 cubic metres per day;
- (ii) the concentration of chlorine does not exceed 2 milligrams per litre;
- (iii) the pH of the discharge is between 6 and 8; and
- (iv) the discharge does not result in overland flow to surface water or beyond the landholding boundary, or ponding.

## Rule 18A – Discharges from emergency fire-fighting

(a) The discharge of water or contaminants associated with emergency fire-fighting activities into a lake, river, artificial watercourse, modified watercourse or wetland, or onto or into land in circumstances where the water or contaminants may enter water is a permitted activity.

### Rule 18B – Discharges from emergency response training activities

- (a) The discharge of water or contaminants associated with emergency response training activities undertaken by Fire and Emergency New Zealand, the Department of Conservation, New Zealand Defence Force or a local authority into a lake, river, artificial watercourse, modified watercourse or wetland, or onto or into land in circumstances where the water or contaminant may enter water, is a permitted activity provided the following conditions are met:
  - (i) the discharge does not give rise to any of the following effects in a lake, river, artificial watercourse, modified watercourse or wetland:
    - (1) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or
    - (2) any conspicuous change in visual clarity; or
    - (3) the rendering of freshwater unsuitable for consumption by farm animals; or
    - (4) any significant adverse effects on aquatic life;
  - (ii) the discharge does not occur to a lake, river, artificial watercourse, modified watercourse or wetland for more than two continuous hours within a 24-hour period; and
  - (iii) the discharge of fire-fighting foam or powder (whether mixed with water or not) does not occur directly to a lake, river, artificial watercourse, modified watercourse or natural wetland.

#### Rule 19 – Discharge of water associated with water treatment processes

- (a) The discharge of water containing contaminants associated with water treatment processes from a water treatment plant onto or into land in circumstances where water containing contaminants may enter water is a controlled activity, provided the following conditions are met:
  - (i) the associated water take does not exceed 7,500 cubic metres per day;
  - (ii) the discharged volume of water containing contaminants does not exceed 8% of the daily water take;
  - (iii) at the boundary of the reasonable mixing zone the discharge does not give rise to any or all of the following effects in the receiving water:
    - (1) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or
    - (2) any conspicuous change in visual clarity; or
    - (3) the rendering of freshwater unsuitable for consumption by farm animals; or
    - (4) any significant adverse effects on aquatic life; and
  - (iv) at the boundary of the reasonable mixing zone the discharge does not reduce the water quality below any standards set for the relevant receiving water body in Appendix E "Water Quality Standards".

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

- 1. the assimilative capacity and drainage characteristics of the soil;
- 1a. adverse effects on the soil;
- 2. compliance with the ANZECC Guidelines for Fresh and Marine Water Quality (2000);
- 3. the separation distance of the discharge from surface water bodies, artificial watercourses, subsurface drains, the coastal marine area, residential dwellings, landholding boundaries and drinking water sources; and
- 4. management of the discharge, including discharge methods.

## **Land Use Rules**

## Rule 20<sup>63</sup> - Farming

- (aa) Unless stated otherwise by Rules 20, 25, 70 or any other rule in this Plan:
  - (i) intensive winter grazing; or
  - (ii) cultivation; or
  - (iii) the disturbance by livestock including cattle, deer, pigs or sheep;

in, on or over the bed of an ephemeral river is a permitted activity.

- (a) The use of land for a farming activity is a permitted activity provided the following conditions are met:
  - (i) the landholding is less than 20 hectares in area; or
  - (ii) where the farming activity includes a dairy platform on the landholding, the following conditions are met:
    - (1) the dairy platform has a maximum of 20 cows; or
    - (2) the dairy platform had a dairy effluent discharge permit on 3 June 2016 that specified a maximum number of cows;
    - (3) cow numbers have not increased beyond the maximum number specified in the dairy effluent discharge permit that existed on 3 June 2016;
    - (4) from 1 May 2019, a Farm Environmental Management Plan for the landholding is prepared and implemented in accordance with Appendix N;
    - (5) the landowner provides to the Southland Regional Council on request:
      - (A) a written record of the good management practices, including any newly instigated good management practices in the preceding 12 months, occurring on the landholding; and
      - (B) the Farm Environmental Management Plan prepared in accordance with Appendix N;
    - (6) the land area of the dairy platform is no greater than at 3 June 2016; and
    - (7) no part of the dairy platform is at an altitude greater than 800 metres above mean sea level; and
  - (iii) where the farming activity includes intensive winter grazing on the landholding, the following conditions are met:
    - (1) from 1 May 2019, intensive winter grazing does not occur on more than 15% of the area of the landholding or 100 hectares, whichever is the lesser area;
    - (2) from 1 May 2019, a Farm Environmental Management Plan for the landholding is prepared and implemented in accordance with Appendix N;
    - (3) from 1 May 2019, all of the following practices are implemented:
      - (A) if the area to be grazed is located on sloping ground, stock are progressively grazed (break-fed or block-fed) from the top of the slope to the bottom, or a 20 metre 'last-bite' strip is left at the base of the slope;
      - (B) when the area is being break-fed or block-fed, the stock (excluding sheep and deer) are back fenced to prevent stock entering previously grazed areas;

<sup>&</sup>lt;sup>63</sup> Appeal to Environment Court by (i) Fonterra Co-operative Group Limited ENV-2018-CHC-000027

<sup>(</sup>ii)Aratiatia Livestock Limited ENV-2018-CHC-000029

<sup>(</sup>iii) Wilkins Farming Co ENV-2018-CHC-000030

<sup>(</sup>iv) DairyNZ Limited ENV-2018-CHC-000032

<sup>(</sup>vi) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>vii) Federated Farmers of New Zealand ENV-2018-CHC-000040

<sup>(</sup>xii) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>(</sup>xiv) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

- (C) transportable water trough(s) are provided in or near the area being grazed to prevent stock accessing a lake, river (excluding ephemeral rivers), artificial watercourse, modified watercourse or natural wetland for drinking water;
- (D) if supplementary feed (including baleage, straw or hay) is used in the area being grazed it is placed in portable feeders;
- (E) if cattle or deer are being grazed the mob size being grazed is no more than 120 cattle or 250 deer; and
- (F) critical source areas (including swales) within the area being grazed that accumulate runoff from adjacent flats and slopes are grazed last;
- (4) from 1 May 2019, a vegetated strip is maintained in, and stock excluded from, the area between the outer edge of the bed of a lake, river (excluding ephemeral rivers where intensive winter grazing is permitted under Rule 20(aa)), artificial watercourse, modified watercourse or natural wetland for a distance of at least 5 metres;
- (5) from 1 May 2019, intensive winter grazing does not occur within 20 metres of the outer edge of the bed of any Regionally Significant Wetland or Sensitive Water Bodies listed in Appendix A, estuary or the coastal marine area; and
- (6) no intensive winter grazing occurs at an altitude greater than 800 metres above mean sea level; and
- (iv) for all other farming activities, from 1 May 2020 a Farm Environmental Management Plan is prepared and implemented in accordance with Appendix N.
- (b) The use of land for a farming activity that includes intensive winter grazing on the landholding and which meets all conditions of Rule 20(a) other than condition (iii)(3) is a permitted activity, provided that:
  - (i) from 1 May 2019, a vegetated strip is maintained in, and stock excluded from, the area between the outer edge of the bed of a lake, river (excluding ephemeral rivers where intensive winter grazing is permitted under Rule 20(aa)), artificial watercourse, modified watercourse or natural wetland for a distance of at least 20 metres.
- (c) Despite any other rule in this Plan, the use of land for a dairy platform or intensive winter grazing at an altitude greater than 800 metres above mean sea level is a prohibited activity.
- (d) The use of land for a farming activity that meets all conditions of Rule 20(a) other than (i), (ii), (iii)(1),(iii)(4) or (iii)(5) or does not meet condition (i) of Rule 20(b) is a restricted discretionary activity, provided the following conditions are met:
  - (i) a Farm Environmental Management Plan is prepared and implemented in accordance with Appendix N; and
  - (ii) the application includes the following material, prepared by a suitably qualified person:
    - (1) an assessment that shows that the annual amount of nitrogen, phosphorus, sediment and microbiological contaminants discharged from the landholding will be no greater than that which was lawfully discharged annually on average for the five years prior to the application being made; and
    - (2) for any mitigation proposed, a detailed mitigation plan (taking into account contaminant loss pathways) that identifies the mitigation or actions to be undertaken including any physical works to be completed, their timing, operation and their potential effectiveness.

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

- 1. the quality of and compliance with the Farm Environmental Management Plan for the landholding;
- 2. whether the assessment undertaken under Rule20(d)(ii) above takes into account reasonable and appropriate good management practices to minimise the losses of contaminants from the existing farming activity;
- 3. good management practices to be undertaken, including those to minimise the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land, taking into account contaminant loss pathways;
- 4. the potential benefits of the activity to the applicant, the community and the environment;
- 5. the potential effects of the farming activity on surface and groundwater quality and sources of drinking water; and
- 6. monitoring and reporting undertaken to assess the effectiveness of any mitigation implemented.
- (e) The use of land for a farming activity that is not specified as a permitted, restricted discretionary or prohibited activity under Rule 20 is a discretionary activity.

# Rule 20 - Farming (CV)

- (aa) Unless stated otherwise by Rules 20, 25, 70 or any other rule in this Plan:
  - (i) intensive winter grazing; or
  - (ii) cultivation; or
  - (iii) the disturbance by livestock including cattle, deer, pigs or sheep; in, on or over the bed of an ephemeral river is a permitted activity.
- (a) The use of land for a farming activity, other than for intensive winter grazing or pasture-based wintering high risk pasture winter grazing, is a permitted activity provided the following conditions are met:
  - (i) the landholding is less than 20 hectares in area; or
  - (ii) where the farming activity includes a dairy platform on the landholding, the following conditions are met:
    - (1) the dairy platform has a maximum of 20 cows; or
    - (2) the dairy platform had a dairy effluent discharge permit on 3 June 2016 that specified a maximum number of cows; and
    - (3) cow numbers have not increased beyond the maximum number specified in the dairy effluent discharge permit that existed on 3 June 2016; and
    - (4) A Farm Environmental Management Plan is:
      - (A) prepared, and <u>certified</u>, and <u>implemented</u> <u>compliance</u> with it is audited, in accordance with Appendix N; <u>and</u>
      - (B) implemented by the landholder completing the practices, actions, and mitigations specified in the Farm Environmental Management Plan in accordance with the timeframes set out in that Plan.
    - (5) the landowner provides to the Southland Regional Council on request:
      - (A) a written record of the good management practices, including any newly instigated good management practices in the preceding 12 months, occurring on the landholding; and
      - (B) the Farm Environmental Management Plan prepared in accordance with Appendix N:
    - (6) the land area of the dairy platform is no greater than at 3 June 2016.; and

- (7) no part of the dairy platform is at an altitude greater than 800 metres above mean sea level; and
- (iii) where the farming activity includes intensive winter grazing on the landholding, the following conditions are met:
  - (1) from 1 May 2019, intensive winter grazing does not occur on more than 15% of the area of the landholding or 100 hectares, whichever is the lesser area;
  - (2) from 1 May 2019, a Farm Environmental Management Plan for the landholding is prepared and implemented in accordance with Appendix N;
  - (3) from 1 May 2019, all of the following practices are implemented:
    - (A) if the area to be grazed is located on sloping ground, stock are progressively grazed (break fed or block fed) from the top of the slope to the bottom, or a 20 metre 'last-bite' strip is left at the base of the slope;
    - (B) when the area is being break-fed or block-fed, the stock (excluding sheep and deer) are back fenced to prevent stock entering previously grazed areas:
    - (C) transportable water trough(s) are provided in or near the area being grazed to prevent stock accessing a lake, river (excluding ephemeral rivers), artificial watercourse, modified watercourse or natural wetland for drinking water;
    - (D) if supplementary feed (including baleage, straw or hay) is used in the area being grazed it is placed in portable feeders;
    - (E) if cattle or deer are being grazed the mob size being grazed is no more than 120 cattle or 250 deer; and
    - (F) critical source areas (including swales) within the area being grazed that accumulate runoff from adjacent flats and slopes are grazed last;
  - (4) from 1 May 2019, a vegetated strip is maintained in, and stock excluded from, the area between the outer edge of the bed of a lake, river (excluding ephemeral rivers where intensive winter grazing is permitted under Rule 20(aa)), artificial watercourse, modified watercourse or natural wetland for a distance of at least 5 metres;
  - (5) from 1 May 2019, intensive winter grazing does not occur within 20 metres of the outer edge of the bed of any Regionally Significant Wetland or Sensitive Water Bodies listed in Appendix A, estuary or the coastal marine area; and
  - (6) no intensive winter grazing occurs at an altitude greater than 800 metres above mean sea level; and
- (iii)(iv) For all other farming activities a A a Farm Environmental Management Plan is:
  - (A) prepared, and <u>certified</u>, and <u>implemented</u> <u>compliance</u> with it is <u>audited</u>, in accordance with Appendix N; and
  - (B) implemented by the landholder completing the practices, actions, and mitigations specified in the Farm Environmental Management Plan in accordance with the timeframes set out in that Plan.
- (iv) no part of the dairy platform occurs at an altitude greater than 800 metres above mean sea level.
- (b) The use of land for a farming activity that includes intensive winter grazing on the landholding and which meets all conditions of Rule 20(a) other than condition (iii)(3) is a permitted activity, provided that:
  - (i) from 1 May 2019, a vegetated strip is maintained in, and stock excluded from, the area between the outer edge of the bed of a lake, river (excluding ephemeral rivers where intensive winter grazing is permitted under Rule 20(aa)), artificial watercourse, modified watercourse or natural wetland for a distance of at least 20 metres.

- (c) Despite any other rule in this Plan, the use of land for a dairy platform or intensive winter grazing at an altitude greater than 800 metres above mean sea level is a prohibited activity.
- (d)(c) The use of land for a farming activity, other than for intensive winter grazing or pasture-based wintering high risk pasture winter grazing, that meets all conditions of Rule 20(a) other than (i), (iii), (iii)(1),(iii)(4) or (iii)(5) or does not meet condition (i) of Rule 20(b) any one of conditions (ii)(1)-(6) or (iii) of Rule 20(a) is a restricted discretionary activity, provided the following conditions are met:
  - (i) A Farm Environmental Management Plan is:
    - (A) prepared, and certified, and implemented compliance with it is audited, in accordance with Appendix N; and
    - (B) implemented by the landholder completing the practices, actions, and mitigations specified in the Farm Environmental Management Plan in accordance with the timeframes set out in that Plan.
  - (ii) the application includes the following material, prepared by a suitably qualified person:
    - (1) an assessment that shows that the annual amount risk of nitrogen, phosphorus, sediment and microbiological contaminants being discharged from the landholding will be no greater than the risk of contaminant discharge that which was lawfully discharged annually on average for the five years prior to the application being made; and
    - (2) for any mitigation proposed, a detailed mitigation plan (taking into account contaminant loss pathways) that identifies the mitigation or actions to be undertaken including any physical works to be completed, their timing, operation and their potential effectiveness.

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

- 1. the quality of and compliance with Appendix N and the quality of the Farm Environmental Management Plan for the landholding;
- 2. whether the assessment undertaken under Rule20(d)(c)(ii) above takes into account reasonable and appropriate mitigation actions good management practices to minimise the losses of contaminants from the existing farming activity;
- mitigation actions good management practices to be undertaken, including those to minimise the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land, taking into account contaminant loss pathways;
- 3(a). whether the farming activity is being undertaken in the catchment of a waterbody identified in Schedule X, and if so, the mitigations actions to be implemented to reduce adverse effects on water quality in comparison to the activity currently occurring on the site;
- 4. the potential benefits of the activity to the applicant, the community and the environment;
- 5. the potential effects of the farming activity on surface and groundwater quality and sources of drinking water; and
- 6. monitoring and reporting undertaken to assess the effectiveness of any mitigation implemented.
- (e)(d) The use of land for a farming activity, other than for intensive winter grazing or pasture-based wintering high risk pasture winter grazing, that is not specified as a permitted, restricted discretionary or prohibited activity under which is not a restricted discretionary activity under Rule 20(c) is a discretionary non-complying activity.
- (e) The use of land for a farming activity, other than for intensive winter grazing or high risk pasture winter grazing, that does not comply with Rule 20(a)(iv) is a prohibited activity.

### Rule 20A – Intensive Winter Grazing

### Rule 20A – Intensive Winter Grazing (CV)

- (a) Intensive winter grazing is a permitted activity provided the following conditions are met:
  - (i) intensive winter grazing does not occur on more than 50ha or 15% 10% of the area of the land holding, whichever is the greater; and
  - (ia) intensive winter grazing does not occur on more than the maximum area of the landholding used for intensive winter grazing in any one year, during the five years 2014-2019; and
  - the slope of land that is used for intensive winter grazing must be 10 degrees or less;
     and
  - (iii) stock must be separated by a vegetated setback at least:
    - (1) 20 metres from the bed of any Regionally Significant Wetland or Sensitive Water Bodies listed in Appendix A, nohoanga listed in Appendix B, mātaitai reserve, taiāpure, estuary or the coastal marine area; and
    - (2) 20 metres from the bed of any other river, lake, artificial watercourse (regardless of whether there is any water in it at the time), modified water course or natural wetland, where the slope of the land used for intensive winter grazing is 10 degrees or more; and
    - (3) 10 metres from the bed of any other river, lake, artificial watercourse (regardless of whether there is any water in it at the time), modified water course or natural wetland, where the slope of the land used for intensive winter grazing is 10 degrees or less.
  - (iv) critical source areas within the area being intensively winter grazed must:
    - (1) be identified in the Farm Environmental Management Plan; and
    - 2) have stock excluded from them; and
    - (3) not be cultivated into forage crops for intensive winter grazing; and
  - (v) the land that is used for intensive winter grazing must be replanted as soon as practicable after livestock have grazed the land's annual forage crop; and
  - (vi) a Farm Environmental Management Plan for the landholding is prepared and implemented in accordance with Appendix N, that also includes a winter grazing plan that includes:
    - (1) downslope grazing or a 20 metre 'last-bite' strip at the base of the slope; and
    - (2) back fencing to prevent stock entering previously grazed areas; and
    - (3) transportable water troughs; and
  - (vii) no intensive winter grazing occurs at an altitude greater than 800 metres above mean sea level. ; and
- (b) The use of land for intensive winter grazing that does not meet conditions (a)(i)-(vi) of Rule 20A is a restricted discretionary activity provided the following conditions are met:
  - (i) a Farm Environmental Management Plan is prepared and implemented in accordance with Appendix N that demonstrates that nitrogen, phosphorus, sediment and microbial contaminants will be minimised, and reduced where the intensive winter grazing occurs in a catchment identified in Schedule X in comparison to the activity currently occurring on the site; and

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

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

- 1. compliance with Appendix N and the quality of the Farm Environmental Management Plan for the landholding;
- mitigation actions to be undertaken, including those to minimise the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land, taking into account contaminant loss pathways;
- whether the intensive winter grazing activity is being undertaken in the catchment of
   a waterbody identified in Schedule X, and if so, the mitigation actions to reduce
   adverse effects on water quality in comparison to the activity currently occurring on
   the site;
- 4. the potential benefits of the activity to the applicant, the community and the environment;
- 5. the potential effects of the farming activity on surface and groundwater quality and sources of drinking water;
- 6. monitoring and reporting undertaken to assess the effectiveness of any mitigation implemented.
- (c) The use of land for intensive winter grazing that does not meet conditions of Rule 20A(b) is a non-complying activity.
- (d) The use of land for intensive winter grazing that does not meet condition (vii) of Rule 20A(a) is a prohibited activity.

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

### Rule 20B - High risk pasture winter grazing

### Rule 20B – Pasture-based wintering of cattle (CV)

- (a) High risk pasture winter grazing Pasture-based wintering is a permitted activity provided the following conditions are met:
  - (ia) the slope of land that is used for high risk pasture winter grazing must be 20 degrees or less; and
  - (i) stock must be separated by a vegetated setback at least:
    - 20 metres from the bed of any Regionally Significant Wetland or Sensitive Water
      Bodies listed in Appendix A, nohoanga listed in Appendix B, mātaitai reserve,
      taiāpure, estuary or the coastal marine area; and
    - (2) 20 metres from the bed of any other river, lake, artificial watercourse (regardless of whether there is any water in it at the time), modified water course or natural wetland, where the slope of the land used for pasture-based wintering is 10 degrees or more; and
    - (3) 10 metres from the bed of any other river, lake, artificial watercourse (regardless of whether there is any water in it at the time), modified water course or natural wetland, where the slope of the land used for pasture-based wintering is 10 degrees or less.
  - (ii) critical source areas within the area being used for pasture-based wintering high risk pasture winter grazing must:
    - (1) be identified in the Farm Environmental Management Plan; and
    - (2) have stock excluded from them; and

- (iii) on areas where significant de-vegetation occurs, vegetation is re-established as soon as practicable; and
- (iv) A Farm Environmental Management Plan:
  - (1) is prepared, and certified, and implemented compliance with it is audited, in accordance with Appendix N; and
  - (2) is implemented by the landholder completing the practices, actions, and mitigations specified in the Farm Environmental Management Plan in accordance with the timeframes set out in that Plan; and
- (v) the Farm Environmental Management Plan includes a winter grazing plan that includes:
  - (1) downslope grazing or a 20 metre 'last-bite' strip at the base of the slope; and
  - (2) back fencing to prevent stock entering previously grazed areas; and
- (vi) no pasture-based wintering high risk pasture winter grazing occurs at an altitude greater than 800 metres above mean sea level; and
- (b) The use of land for pasture-based wintering high risk pasture winter grazing that does not meet conditions (a)(ia)-(iv) or condition (iva) of Rule 20B is a restricted discretionary activity provided the following condition is met:
  - (i) A Farm Environmental Management Plan:
    - (1) is prepared, and certified, and implemented compliance with it is audited, in accordance with Appendix N; and
    - (2) is implemented by the landholder completing the practices, actions, and mitigations specified in the Farm Environmental Management Plan in accordance with the timeframes set out in that Plan and
    - (3) includes a winter grazing plan.

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

- 1. compliance with Appendix N and the quality of the Farm Environmental Management Plan for the landholding;
- mitigation actions and good management practices to be undertaken, including those to minimise the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land, taking into account contaminant loss pathways;
- 3a. whether the pasture-based wintering high risk pasture winter grazing activity is being undertaken in the catchment of a waterbody identified in Schedule X, and if so, the mitigation actions to reduce adverse effects on water quality in comparison to the activity currently occurring on the site;
- 3. the potential benefits of the activity to the applicant, the community and the environment;
- 4. the potential effects of the farming activity on surface and groundwater quality and sources of drinking water;
- 5. monitoring and reporting undertaken to assess the effectiveness of any mitigation implemented.
- (c) The use of land for pasture-based wintering high risk pasture winter grazing that does not meet conditions of Rule 20B(b) is a non-complying activity.
- (d) The use of land for pasture-based wintering high risk pasture winter grazing that does not meet condition (v) of Rule 20B(a) is a prohibited activity.

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<sup>64</sup> Redundant term.

 $<sup>^{\</sup>rm 65}$  Redundant term.

### Rule 24<sup>66</sup> – Incidental discharges from farming

- (a) The discharge of nitrogen, phosphorus, sediment or microbial contaminants onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene section 15(1) of the RMA is a permitted activity, provided the following conditions are met:
  - (i) the land use activity associated with the discharge is authorised under Rules 20, 25, or 70 of this Plan; and
  - (ii) any discharge of a contaminant resulting from any activity permitted by Rules 20, 25 or 70 is managed to ensure that after reasonable mixing it does not give rise to any of the following effects on receiving waters:
    - (1) any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or
    - (2) any conspicuous change in the colour or visual clarity; or
    - (3) the rendering of fresh water unsuitable for consumption by farm animals; or
    - (4) any significant adverse effects on aquatic life.
- (b) the discharge of nitrogen, phosphorus, sedimentor microbial contaminants onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene section 15(1) of the RMA and that does not meet one or more of the conditions of Rule 24(a) is a non-complying activity.

### **Southland Regional Council (final):**

### Rule 24 - Incidental discharges from farming

- (a) The discharge of nitrogen, phosphorus, sediment or microbial contaminants onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene section 15(1) of the RMA is a permitted activity, provided the following conditions are met:
  - (i) the land use activity associated with the discharge is authorised under Rules 20, <u>20A</u>, <u>20B</u>, 25, <u>35B</u>, or 70 of this Plan; and
  - (ii) any discharge of a contaminant resulting from any activity permitted by Rules 20, <u>20A</u>, <u>20B</u>, 25, <u>35B</u>, or 70 is managed to ensure that after reasonable mixing it does not give rise to any of the following effects on receiving waters:
    - (1) any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or
    - (2) any conspicuous change in the colour or visual clarity; or
    - (3) the rendering of fresh water unsuitable for consumption by farm animals; or
    - (4) any significant adverse effects on aquatic life.
- (b) the discharge of nitrogen, phosphorus, sedimentor microbial contaminants onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene section 15(1) of the RMA and that does not meet one or more of the conditions of Rule 24(a) is a non-complying activity.

### Rule 25<sup>67</sup> – Cultivation

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

<sup>&</sup>lt;sup>66</sup> Appeal to Environment Court by (i) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>ii) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

<sup>&</sup>lt;sup>67</sup> Appeal to Environment Court by (ii) Southland Fish and Game Council ENV-2018-CHC-000037

- (i) cultivation does not take place within the bed of a lake, river (excluding ephemeral rivers where cultivation is permitted under Rule 20(aa)), artificial watercourse, modified watercourse or natural wetland:
- (ii) cultivation does not take place within a distance of 5 metres from the outer edge of the bed of a lake, river (excluding ephemeral rivers where cultivation is permitted under Rule 20(aa)) artificial watercourse, modified watercourse or natural wetland;
- (iii) cultivation does not occur at an altitude greater than 800 metres above mean sea level; and
- (iv) cultivation does not occur on land with a slope greater than 20 degrees.<sup>68</sup>
- (b) The use of land for cultivation that does not meet the setback distance of Rule 25(a)(ii) is a permitted activity provided the following conditions are met:
  - (i) cultivation does not take place within the bed of a lake, river (excluding ephemeral rivers where cultivation is permitted under Rule 20(aa)), artificial watercourse, modified watercourse or natural wetland and a distance of 3 metres from the outer edge of the bed;
  - (ii) cultivation does not take place more than once in any 5-year period;
  - (iii) cultivation is for the purpose of renewing or establishing pasture and is not undertaken to establish a crop used for intensive winter grazing, even as part of a pasture renewal cycle; and
  - (iv) cultivation does not occur at an altitude greater than 800 metres above mean sea level.
- (c) The use of land for cultivation, which does not meet one or more of the conditions of Rule 25(a) or Rule 25(b) is a restricted discretionary activity.

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

- 1. potential adverse effects of discharges of sediment and other contaminants from the area being cultivated on water quality and biodiversity;
- 1a. mitigation measures for addressing adverse effects; and
- 3. monitoring and reporting undertaken to assess the effectiveness of any mitigation implemented.
- (d) Despite any other rule in this Plan, the use of land for cultivation at an altitude greater than 800 metres above mean sea level is a non-complying activity.

### Rule 25 - Cultivation (CV)

- (a) The use of land for cultivation is a permitted activity provided the following conditions are met:
  - (i) cultivation does not take place within the bed of a lake, river (excluding ephemeral rivers where cultivation is permitted under Rule 20(aa)), artificial watercourse, modified watercourse or natural wetland;
  - (ii) cultivation does not take place within a distance of: 5 metres from the outer edge of the bed of a lake, river (excluding ephemeral rivers where cultivation is permitted under Rule 20(aa)) artificial watercourse, modified watercourse or natural wetland;

<sup>(</sup>iii) Federated Farmers of New Zealand ENV-2018-CHC-000040

<sup>(</sup>vi) Campbell's Block Limited ENV-2018-CHC-000044

<sup>(</sup>vii) Grant, Robert ENV-2018-CHC-000045

<sup>(</sup>viii) Southwood Export Limited & others ENV-2018-CHC-000046

<sup>(</sup>ix) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

<sup>&</sup>lt;sup>68</sup>Slope in Rule 25(a)(iv) is the average slope over any 20 metre distance.

- (1) 5 metres from the outer edge of the bed of a lake, river, or modified watercourse or the edge of a natural wetland on land with a slope of less than 10 degrees; and
- (2) 10 metres from the outer edge of the bed of a lake, river, or modified watercourse or the edge of a natural wetland on land with a slope between 10 and 20 degrees.
- (iii)(iv) cultivation does not occur at an altitude greater than 800 metres above mean sea level; and
- (iv)(iii) cultivation does not occur on land with a slope greater than 20 degrees; and

### (v) critical source areas are:

- (a) identified in a farm environment plan ahead of cultivation activies; and
- (b) not cultivated with forage crops for intensive winter grazing; and
- (c) when cultivating for any other purpose, sediment detention is established prior to cultivation; and
- (d) other critical source area management measures are outlined in a farm environment plan are implemented; and
- (vi) Farm Environmental Management Plans prepared in accordance with Appendix N must outline paddock specific erosion and sediment control measures, including the most appropriate time of the year for the activity to avoid or minimise loss of sediment to waterways.
- (b) The use of land for cultivation that does not meet the setback distance of Rule 25(a)(ii)(2) is a permitted activity provided the following conditions are met:
  - (i) cultivation does not take place within the bed of a lake, river (excluding ephemeral rivers where cultivation is permitted under Rule 20(aa)), artificial watercourse, modified watercourse or natural wetland and a distance of 53 metres from the outer edge of the bed of a lake, river, or modified watercourse or the edge of a natural wetland;
  - (ii) cultivation does not take place more than once in any 5-year period;
  - (iii) cultivation is for the purpose of renewing or establishing pasture and is not undertaken to establish a crop used for intensive winter grazing or on land used for pasture-based wintering, even as part of a pasture renewal cycle; and
  - (iv) <u>all other conditions of Rule 25(a) are complied with cultivation does not occur at an altitude greater than 800 metres above mean sea level</u>.
- (ba) The use of land with a slope greater than 20 degrees for the purpose of renewing or establishing pasture by direct drilling is a permitted activity provided the following conditions are met:
  - (i) cultivation does not take place within a distance of 10 metres from the outer edge of the bed of a lake, river, or modified watercourse or the edge of a natural wetland;
  - (ii) cultivation does not take place more than once in any 5-year period;
  - (iii) cultivation is for the purpose of renewing or establishing pasture and is not undertaken to establish a crop used for intensive winter grazing, even as part of a pasture renewal cycle; and
  - (iv) cultivation does not occur at an altitude greater than 800 metres above mean sea level; and
  - (v) critical source areas are:
    - (a) identified in a farm environment plan ahead of cultivation activies; and
    - (b) not cultivated with forage crops for intensive winter grazing; and
    - (c) when cultivating for any other purpose, sediment detention is established prior to cultivation; and
    - (d) other critical source area management measures are outlined in a farm

### environment plan are implemented; and

- (vi) Farm Environmental Management Plans prepared in accordance with Appendix N must outline paddock specific erosion and sediment control measures, including the most appropriate time of the year for the activity to avoid or minimise loss of sediment to waterways.
- (bb) The use of land with a slope greater than 20 degrees fr the purpose of renewing or establishing pasture by over-sowing, and/or spraying with the assistance of animals in the pasture establishment period is a permitted activity provided the following conditions are met:
  - (i) cultivation does not take place within a distance of 20 metres from the outer edge of the bed of a lake, river, or modified watercourse or the edge of a natural wetland; and
  - (ii) cultivation does not take place more than once in any 5-year period; and
  - (iii) cultivation is for the purpose of renewing or establishing pasture and is not undertaken to establish a crop used for intensive winter grazing, even as part of a pasture renewal cycle; and
  - (iv) critical source areas are:
    - (a) identified in a farm environment plan ahead of cultivation activies; and
    - (b) not cultivated with forage crops for intensive winter grazing; and
    - (c) when cultivating for any other purpose, sediment detention is established prior to cultivation; and
    - (d) other critical source area management measures are outlined in a farm environment plan are implemented; and
  - (v) cultivation does not occur at an altitude greater than 800 metres above mean sea level; and
  - (vi) during the establishment of the pasture up to 10 weeks, or when ground remains bare the land must not be grazed except as follows:
    - a. An initial 48-hour grazing period to assist in the establishment of seed; and
    - b. No grazing for six weeks; and
    - c. One further 48-hour grazing period between 6 to 10 weeks;
  - (vii) If the ground remains bare following 10 weeks, the land must not be grazed until pasture is re-established; and
  - (viii) Farm Environmental Management Plans prepared in accordance with Appendix N must outline paddock specific erosion and sediment control measures, including the most appropriate time of the year for the activity to avoid or minimise loss of sediment to waterways.
- (bc) The use of land with a slope greater than 20 degrees for the purpose of renewing or establishing pasture by over-sowing, and/or spraying without the assistance of animals in the pasture establishment period is a permitted activity provided the following conditions are met:
  - (i) cultivation does not take place within a distance of 20 metres from the outer edge of the bed of a lake, river, or modified watercourse or the edge of a natural wetland; and
  - (ii) cultivation does not take place more than once in any 5-year period; and
  - (iii) cultivation is for the purpose of renewing or establishing pasture and is not undertaken to establish a crop used for intensive winter grazing, even as part of a pasture renewal cycle; and
  - (iv) There is to be no grazing until the pasture is established; and
  - (v) cultivation does not occur at an altitude greater than 800 metres above mean sea level; and

- (vi) critical source areas are:
  - a) identified in a farm environment plan ahead of cultivation activies; and
  - (b) not cultivated with forage crops for intensive winter grazing; and
  - (c) when cultivating for any other purpose, sediment detention is established prior to cultivation; and
  - (d) other critical source area management measures are outlined in a farm environment plan are implemented; and
- (vii) Farm Environmental Management Plans prepared in accordance with Appendix N must outline paddock specific erosion and sediment control measures, including the most appropriate time of the year for the activity to avoid or minimise loss of sediment to waterways; and
- (viii) If the ground remains bare following 10 weeks, the land must not be grazed until pasture is re-established.
- (bd) Cultivation within the setback distances specified in (a), (b), (ba), (bb), or (bc) above for the purposes of renewing or establishing pasture within a buffer by direct-drilling, over-sowing, and spraying is a permitted activity provided it:
  - (i) does not take place more than once in any 5 year period; and
  - (ii) it occurs after other cultivation activity; and
  - (iii) established pasture exists on the remainder of the paddock.
- (c) The use of land for cultivation, which does not meet one or more of the conditions of Rule 25(a) or Rule 25(b), (ba), (bb), (bc) or (bd) is a restricted discretionary activity.

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

- 1. compliance with Appendix N and the quality of the Farm Environmental Management Plan for the landholding;
- <u>1aa.</u> potential adverse effects of discharges of sediment and other contaminants from the area being cultivated on water quality and biodiversity;
- 1a. potential adverse effects on the preservation of the natural character of wetlands, lakes, rivers and their margins;
- 21a. mitigation measures for addressing adverse effects identified in 1 and 1a.; and
- 2a. the management of critical source areas in the area being cultivated;
- 3. monitoring and reporting undertaken to assess the effectiveness of any mitigation implemented.
- (d) Despite any other rule in this Plan, the use of land for cultivation at an altitude greater than 800 metres above mean sea level is a non-complying activity.

Slope in Rule 25 is the average slope over any 20 metre distance.

# Wastewater, Effluent and Sludge

# Rule 26<sup>70</sup> – Discharges from on-site wastewater systems (CV)

(a) The discharge of treated domestic wastewater from an existing on-site wastewater system onto or into land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:

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<sup>&</sup>lt;sup>69</sup> See 'Rule 25' decision.

<sup>&</sup>lt;sup>70</sup> Appeal to Environment Court by Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

- (i) the on-site wastewater system had been installed and was operational prior to 3 June 2016;
- (ii) the discharge does not exceed 1,250 litres per day, averaged over a period of 31 days;
- (iii) the discharge consists only of contaminants normally associated with domestic wastewater;
- (iv) the on-site wastewater system is not used for the disposal of wastewater from chemical toilets;
- (v) there is no faecal contamination of any take of water for human consumption as a result of the discharge;
- (vi) there is no discharge above the soil surface;
- (vii) there is no direct discharge to groundwater or a lake, river, artificial watercourse, modified watercourse or natural wetland including discharge via subsurface drainage systems, stormwater drains, artificial free draining areas such as soak holes and overland flow;
- (viii) the inflow or infiltration of stormwater, other surface water and groundwater to the system is minimised; and
- (ix) the discharge does not occur within the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J.; and
- (x) the discharge is not into an established mātaitai or taiāpure reserve.
- (b) The discharge of treated domestic wastewater from a new on-site wastewater system or a replacement of an existing system onto or into land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:
  - (ia) the discharge does not exceed 2,000 litres per day, averaged over any consecutive 7-day period;
  - (i) the treatment and disposal system is designed and installed in accordance with Sections 5 and 6 of New Zealand Standard AS/NZS 1547:2012 On-site Domestic Wastewater Management;
  - (ii) the treatment and disposal system is operated and maintained in accordance with the system's design specification for maintenance or, if there is no design specification for maintenance, Section 6.3 of New Zealand Standard AS/NZS 1547:2012 On-site Domestic Wastewater Management;
  - (iii) there is no discharge above the soil surface;
  - (iv) the discharge consists only of contaminants normally associated with domestic wastewater;
  - (v) the on-site wastewater system is not used for the disposal of wastewater from chemical toilets; and
  - (vi) the discharge is not within:
    - (1) 20 metres of a lake, river, artificial watercourse, modified watercourse or natural wetland excluding interception drains constructed to enable the effective operation of the on-site wastewater system; or
    - (2) 50 metres of the coastal marine area or any natural state waters; or
    - (3) 50 metres of any bore or well; or
    - (4) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; or
    - (5) 20 metres of any subsurface drainage system, excluding subsurface drainage systems constructed to enable the effective operation of the on-site wastewater system; and

- (vii) for any land application system, the bottom of the soil infiltration surface is no less than 900 millimetres above the mean seasonal high groundwater table and any perched water.; and
- (viii) the discharge is not into an established mātaitai or taiāpure reserve.
- (c) The discharge of treated domestic wastewater from an on-site wastewater system onto or into land in circumstances where a contaminant may enter water that does not meet the conditions of Rule 26(a) or (b) is a discretionary activity.
- (d) The discharge of septage onto or into land, in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:
  - (i) the discharge occurs on the same landholding as the on-site wastewater system is located;
  - (ii) the discharge consists only of contaminants normally associated with domestic wastewater;
  - (iii) the on-site wastewater system is not used for the disposal of wastewater from chemical toilets;
  - (iv) there is no faecal contamination of any take of water for human consumption as a result of the discharge;
  - (v) the maximum depth of septage application is 7 mm;
  - (vi) no other effluent is discharged to the septage application area for 28 days before and 28 days after the septage application;
  - (vii) the discharge onto or into land does not occur at a location where overland flow will result in contaminants reaching a lake, river, artificial watercourse, modified watercourse, natural wetland or the coastal marine area;
  - (viii) the discharge is not within:
    - (1) 20 metres of a lake, river, artificial watercourse, modified watercourse or natural wetland: or
    - (2) 50 metres of the coastal marine area or any natural state waters; or
    - (3) 100 metres of any bore or well; or
    - (4) 100 metres of any landholding boundary; or
    - (5) 200 metres of any school, marae, or residential dwelling other than residential dwellings on the landholding; or
    - (6) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J;
  - (ix) there is no direct discharge to groundwater or a lake, river, artificial watercourse, modified watercourse or natural wetland including discharge via subsurface drainage systems, stormwater drains, artificial free draining areas such as soak holes, or overland flow; and
  - (x) the discharge is not into an established mataitai or taiapure reserve: and
  - (xi) the discharge does not occur on a site less than 100 hectares in area.
- (e) The discharge of septage into or onto land that does not meet the conditions of Rule 26(d) is a discretionary activity.
- (f) Despite Rule 26(a) to (e), the discharge of untreated domestic wastewater or effluent from mobile toilets, into a lake, river, artificial watercourse, modified watercourse or natural wetland or groundwater is a prohibited activity.

### Rule 27 – Discharges from pit toilets

- (a) Notwithstanding Rule 26, the discharge of contaminants from a pit toilet onto or into land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:
  - (i) the discharge does not exceed 320 litres per week;
  - (ii) the discharge comprises only contaminants normally associated with human excreta;
  - (iii) the pit toilet is not used for the disposal of wastewater from chemical toilets;
  - (iv) there is no faecal contamination of any take of water for human consumption as a result of the discharge;
  - (v) the discharge is not within:
    - (1) 20 metres of a lake, river, artificial watercourse, modified watercourse or natural wetland, excluding interception drains which benefit the pit toilet; or
    - (2) 50 metres of the coastal marine area or any natural state waters; or
    - (3) 50 metres of any bore or well; or
    - (4) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; or
    - (5) a site that is zoned for residential, commercial or industrial purposes in any district plan;
  - (vi) there is no direct discharge above the soil surface, or to groundwater or to a lake, river, artificial watercourse, modified watercourse or natural wetland, including discharge via subsurface drainage systems, stormwater drains, artificial free draining areas such as soak holes or overland flow;
  - (vii) the soil type does not comprise gravels, coarse or medium sands, fissured rock, or other such materials likely to permit the free travel of contaminants away from the pit;
  - (viii) stormwater or other surface water is prevented from entering the pit toilet;
  - (ix) the discharge does not accumulate within 500 millimetres of the land surface; and
  - (x) for any new pit toilet that has been installed and was operational on 3 June 2016 or later, the bottom of the pit is not less than 900 millimetres above the mean seasonal high groundwater table.
- (b) The discharge of contaminants from a pit toilet onto or into land, in circumstances where a contaminant may enter water that does not meet the conditions of Rule 27(a) is a discretionary activity.

# Rule 28<sup>71</sup> – Discharges of liquid from waterless composting toilet systems (CV)

- (a) Notwithstanding Rule 26, the discharge of liquid from a waterless composting toilet system onto or into land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:
  - (i) the discharge occurs on the same landholding as the waterless composting toilet is located;
  - (ii) the volume of the discharge does not exceed 105 litres per week;
  - (iii) the discharge comprises only contaminants normally associated with human excreta;
  - (iv) there is no faecal contamination of any take of water for human consumption as a result of the discharge;
  - (v) the discharge is not within:
    - (1) 20 metres of a lake, river, artificial watercourse, modified watercourse, or natural wetland; or

<sup>&</sup>lt;sup>71</sup> Apeeal to Environment Court by Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

- (2) 50 metres of the coastal marine area or any natural state waters; or
- (3) 50 metres of any bore or well; or
- (4) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J;
- (vi) there is no discharge above the soil surface or direct discharge to groundwater or to a lake, river, artificial watercourse, modified watercourse, or natural wetland including discharge via subsurface drainage systems, stormwater drains, artificial free draining areas such as soak holes, or overland flow;
- (vii) no stormwater, other surface water or groundwater infiltrates the wastewater treatment unit:
- (viii) stormwater, other surface water or groundwater is directed away from the land application system area; and
- (ix) for any land application system that has been installed and was operational on 3 June 2016 or later the bottom of the soil infiltration surface is no less than 900 millimetres above the mean seasonal high groundwater table and any perched water.: and
- (x) the discharge is not into an established mātaitai or taiāpure reserve.
- (b) The discharge of liquid from a waterless composting toilet system onto or into land in circumstances where a contaminant may enter water that does meet one or more of the conditions of Rule 28(a) is a discretionary activity.

### Rule 29 – Discharges of aerobically composted human excreta<sup>72</sup>

- (a) The discharge of aerobically composted human excreta from a waterless composting toilet system onto or into land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:
  - (i) the discharge occurs on the same landholding that the waterless composting toilet system is located on;
  - (ii) the discharge comprises only contaminants normally associated with human excreta;
  - (iii) the waterless composting toilet system is not used for the disposal of wastewater from chemical toilets;
  - (iv) there is no contamination of any take of water for human consumption as a result of the discharge;
  - (v) the material has been subject to aerobic composting decomposition for at least 12 months from the last addition of raw human excreta and is worked into the soil immediately following the discharge;
  - (vi) the material is not applied to any food crop for animal or human consumption unless the material has been subject to aerobic composting decomposition and storage for at least 24 months from the last addition of raw human excreta and is worked into the soil immediately following the discharge;
  - (vii) the discharge onto or into land does not occur at a location where overland flow will result in contaminants reaching a lake, river, artificial watercourse, modified watercourse, natural wetland or the coastal marine area;
  - (viii) the working of the compost into the soil does not encounter any groundwater or perched water; and
  - (ix) the discharge is not within:
    - (1) 20 metres of a lake, river, artificial watercourse, modified watercourse or natural wetland; or

<sup>&</sup>lt;sup>72</sup> Appeal to Environment Court by Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

- (2) 50 metres of the coastal marine area or any natural state waters; or
- (3) 50 metres of any bore or well; or
- (4) 10 metres of a landholding boundary; or
- (5) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; and
- (x) the discharge is not into an established mātaitai or taiāpure reserve.
- (b) The discharge of aerobically composted human excreta onto or into land, in circumstances where a contaminant may enter water that does not meet one or more of the conditions of Rule 29(a) is a discretionary activity.

### Rule 30 - Discharges from mobile toilets

(a) The discharge of effluent from a mobile toilet into or onto land, or into or onto the beds of lakes or rivers, or into water is a prohibited activity.

### Rule 31 – Dump stations

(a) The discharge of effluent into or onto land from an on-site wastewater system that receives effluent from a dump station is a non-complying activity.

### Rule 32A – Reconstruction of effluent storage facilities

(a) The reconstruction of an agricultural effluent storage facility is to be assessed as if it were the construction of a new agricultural effluent storage facility under Rule 32B, and the reconstruction of a non-agricultural effluent storage facility is to be assessed as if it were the construction of a new non-agricultural effluent storage facility under Rule 32C.

# Rule 32B<sup>73</sup> – Construction, maintenance and use of new agricultural effluent storage facilities (Consent Orders)

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (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—is a permitted activity provided the following conditions are met:
  - (i) the total capacity of any individual agricultural effluent storage structure facility on a landholding, excluding storage authorised by a resource consent, does not exceed 35 cubic metres;
  - (ii) the agricultural effluent storage facility is constructed using an impermeable concrete or synthetic liner;

<sup>73</sup> Appeal to Environment Court by (i) Fonterra Co-operative Group Limited ENV-2018-CHC-000027
(iii) Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041

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- (iii) the agricultural effluent storage facility is not within 50 metres of a lake, river, artificial watercourse, modified watercourse, natural wetland or the coastal marine area;
- (iv) the agricultural effluent storage facility is not within 200 metres of any dwelling not on the same landholding, or within 50 metres of the boundary of any other landholding or road;
- (v) the agricultural effluent storage facility is not within 100 metres of any authorised drinking water abstraction point; and
- (vi) the agricultural effluent storage facility is not located above any known sub-surface drainage systems.
- (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).

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

- the design and construction of the new agricultural effluent storage facility including its storage capacity, the nature of effluent it will store, and the anticipated life of the storage facility;
- 2. methods to be used to protect the agricultural effluent storage facility's embankments from damage by animals and machinery;
- 3. the potential adverse effects of the construction, maintenance and use of the agricultural effluent storage facility on: lakes, rivers, artificial watercourses, installed subsurface drains, groundwater, bores, registered drinking water supplies, the coastal marine area, stop banks, residential dwellings, places of assembly and urban areas;
- 4. distance of the agricultural effluent storage facility from landholding or road boundaries;
- 5. the height of the agricultural effluent storage facility's embankments and placement and orientation of the agricultural effluent storage facility relative to flood flows and stormwater run-off;
- 6. the quality of, and compliance with, the operational management plan; and
- 7. adoption and implementation of an Accidental Discovery Protocol.
- (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 32C – Construction, maintenance and use of new non-agricultural effluent storage facilities

- (a) The use of land for the construction, maintenance and use of a new non-agricultural effluent storage facility and ancillary structures (other than an onsite wastewater system, composting toilet system, mobile toilet or agricultural effluent storage facility but including for wastewater, sludge or effluent from industrial or trade processes), and any incidental discharge of 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, is a restricted discretionary activity provided the following conditions are met:
  - (i) the structural design of the effluent storage facility and ancillary structures is certified by a Chartered Professional Engineer;
  - (ii) the effluent storage facility is not within 50 metres of a lake, river, artificial watercourse, modified watercourse, natural wetland or the coastal marine area;
  - (iii) the effluent storage facility is not within 200 metres of any dwelling not on the same landholding, or within 50 metres of the boundary of any other landholding or road;
  - (iv) the effluent storage facility is not within 100 metres of any authorised water abstraction point; and
  - (v) 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.

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

- the design and construction of the new non-agricultural effluent storage facility and ancillary structures including its storage capacity, the nature of effluent it will store, and the anticipated life of the storage facility;
- 2. methods to be used to protect the effluent storage facility embankments from damage by animals and machinery;
- 3. the potential adverse effects of the construction, maintenance and use of the effluent storage facility on: lakes, rivers, artificial watercourses, modified watercourses, natural wetlands, installed subsurface drains, groundwater, bores, registered drinking-water supplies, the coastal marine area, stop banks, residential dwellings, places of assembly and urban areas;
- 4. distance of the effluent storage facility from landholding or road boundaries;
- 5. the height of the effluent storage facility's embankments and placement and orientation of the effluent storage facility relative to flood flows and stormwater runoff;
- 6. the quality of, and compliance with, the operational management plan; and

- 7. adoption and implementation of an Accidental Discovery Protocol.
- (b) The use of land for the construction, maintenance and use of any new non-agricultural effluent storage facility and ancillary structures (other than an onsite wastewater system, composting toilet system, mobile toilet, or agricultural effluent storage facility but including for wastewater, sludge or effluent from industrial or trade processes), and any incidental discharge of 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, that does not meet one or more of conditions (ii) to (v) of Rule 32C(a) is a discretionary activity.
- (c) The use of land for the construction, maintenance and use of any new non-agricultural effluent storage facility and ancillary structures (other than an onsite wastewater system, composting toilet system, mobile toilet or agricultural effluent storage facility but including wastewater, sludge or effluent from an industrial or trade processes), and any incidental discharge of 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, that does not meet condition (i) of Rule 32C(a) is a non-complying activity.

**Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

# Rule 32D<sup>74</sup> – Existing agricultural effluent storage facilities (Consent Orders)

- (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
  - (ii)(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
    - (1)(2) is fully lined with an impermeable synthetic liner, or is of concrete construction, or is above ground level, and:

<sup>&</sup>lt;sup>74</sup> Appeal to Environment Court by Fonterra Co-operative Group Limited ENV-2018-CHC-000027 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

- (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) <u>has been</u> 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) (c) 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
- (4)(2) 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, where relevant, 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

**Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the

archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

### Rule 32E (new)

- (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.

## Rule 33<sup>75</sup> – Community sewerage schemes (discharge to land) (consent orders)

- (aa) the discharge of effluent or bio-solids 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 <u>for community sewerage schemes constructed after 1 January</u> 2017:
  - (i) the discharge is not within 20 metres of a river, lake, artificial watercourse, modified watercourse, natural wetland or the coastal marine area;
  - (ii) 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
  - (iii) 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 non-complying activity.

# Rule 33A<sup>76</sup> – Community sewerage schemes (discharge to water) (Consent Orders)

- (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 discretionary activity;
- (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.

<sup>&</sup>lt;sup>75</sup> Appeal to Environment Court by Gore District Council & others ENV-2018-CHC-000031

<sup>&</sup>lt;sup>76</sup> Appeal to Environment Court by Gore District Council & others ENV-2018-CHC-000031

### Rule 34 – Industrial and trade processes

- (a) Other than as provided for by Rule 32C, the discharge of wastewater, sludge or effluent from industrial and trade processes, other than agricultural effluent, onto or into land in circumstances where contaminants may enter water is a discretionary activity provided the following condition is met:
  - (i) any pond, tank or structure used to store the wastewater, sludge or effluent prior to discharge is certified by a Chartered Professional Engineer as having no visible cracks or defects that would allow wastewater, sludge or effluent to leak from the storage.
- (b) The discharge of wastewater, sludge or effluent from industrial and trade processes, other than agricultural effluent, onto or into land in circumstances where contaminants may enter water that does not meet the condition of Rule 34(a) is a non-complying activity.

### Rule 35<sup>77</sup> – Discharge of agricultural effluent to land

- (a) Other than as provided for by Rules 32A, 32B and 32D, the discharge of agricultural effluent or water containing agricultural effluent onto or into land in circumstances where contaminants may enter water is a permitted activity provided the following conditions are met:
  - (i) the discharge is:
    - (1) from a dairy shed servicing a maximum of 20 cows or 100 of any other animal; or
    - (2) from piggeries with a maximum of 70 x 50 kg pig equivalents; or
    - (3) directly from feed pads/lots authorised under Rule 35A; or
    - (4) from stock underpasses; or
    - (5) from holding tanks on stock trucks;
  - (ii) there is no discharge of agricultural effluent or water containing agricultural effluent to a lake, river, artificial watercourse, modified watercourse or natural wetland either directly or by overland flow, run-off, or via a pipe;
  - (iii) there is no overland flow or ponding of effluent, or application to land when the soil moisture exceeds field capacity;
  - (iv) the discharge is not within 20 metres of a lake, river, artificial watercourse, modified watercourse, natural wetland or the coastal marine area;
  - (v) 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 or public road; (vi) the discharge is not within 100 metres of any authorised water abstraction point; (vii) the maximum discharge depth of agricultural effluent or water containing agricultural effluent is 10 millimetres for each individual application;
  - (viii) the maximum loading rate of nitrogen onto any land area does not exceed 150 kilograms of nitrogen per hectare per year from agricultural effluent or water containing agricultural effluent;
  - (x) the minimum return period for discharging collected agricultural effluent or water containing agricultural effluent onto or into the site is 28 days;
  - (xi) the discharge does not occur within the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; and
  - (xii) the location of any known sub-surface drains within the discharge area, and their outlet position and relative depth, is mapped and provided to the Southland Regional Council upon request.

<sup>&</sup>lt;sup>77</sup> Appeal to Environment Court by Federated Farmers of New Zealand ENV-2018-CHC-000040 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

- (b) Other than as provided for by Rules 32A, 32B and 32D, the discharge of agricultural effluent or water containing agricultural effluent onto or into land in circumstances where contaminants may enter water that does not meet one or more conditions of Rule 35(a) is a restricted discretionary activity, provided the following conditions are met:
  - (i) the discharge is the replacement of an existing discharge consent pursuant to sections 124-124C of the RMA, and
  - (ii) the existing discharge consent for agricultural effluent specifies a maximum number of animals from which the effluent is collected, and that number is not increasing.

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

- 1. application depth or rate, storage requirements, nutrient loading rates (in particular nitrogen), size of the disposal area, timing of the discharge, and contingency plans;
- 2. the separation distance of the discharge from a river, lake, artificial watercourse, modified watercourse, natural wetland, subsurface drain, the coastal marine area, infrastructure, residential dwellings, places of assembly, urban areas, landholding boundaries, water abstraction points and registered drinking water supplies;
- 3. measures to avoid, remedy or mitigate adverse effects (including cumulative effects directly related to the discharge of farm dairy effluent) on water quality, taking into account the nature and sensitivity of the receiving environment; and
- 4. the duration of consent, including in order to implement the outcomes of any Freshwater Management Unit Process to be undertaken in accordance with Policy 47.
- (c) Other than as provided for by Rules 32A, 32B and 32D, the discharge of agricultural effluent or water containing agricultural effluent onto or into land in circumstances where contaminants may enter water that does not meet one or more conditions of Rule 35(a) or conditions (i) or (ii) of Rule 35(b) is a discretionary activity, provided the following conditions are met:
  - (i) the discharge is not within 20 metres of a lake, river, artificial watercourse, modified watercourse, natural wetland or the coastal marine area;
  - (ii) 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
  - (iii) the discharge is not within 100 metres of any authorised water abstraction point.
- (d) Other than as provided for by Rules 32A, 32B and 32D, the discharge of agricultural effluent or water containing agricultural effluent to land in circumstances where contaminants may enter water that does not comply with Rule 35(c) is a non-complying activity.
- (e) Other than as provided for by Rules 32A, 32B and 32D, the discharge of untreated agricultural effluent directly into surface water or groundwater is a prohibited activity.

### Rule 35A<sup>78</sup> - Feed pads/lots

- (a) The use of land for a feed pad/lot is a permitted activity provided the following conditions are met:
  - (i) if accommodating cattle or deer, each feed pad/lot services no more than 120 adult cattle, or 250 adult deer, or equivalent numbers of young stock at any one time;
  - (ii) animals do not remain on the feed pad/lot for longer than three continuous months;
  - (iii) the feed pad/lot is not located:

<sup>&</sup>lt;sup>78</sup> Appeal to Environment Court by (i) DairyNZ Limited ENV-2018-CHC-000032

<sup>(</sup>ii) Federated Farmers of New Zealand ENV-2018-CHC-000040

<sup>(</sup>iii) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

- (1) within 50 metres from the nearest sub-surface drain, lake, river (excluding ephemeral rivers), artificial watercourse, modified watercourse, natural wetland, or another feed pad/lot on the same landholding; or
- (2) within a microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; or
- (3) within 200 metres of a place of general assembly or dwelling not located on the same landholding, or
- (4) within 20 metres of the boundary of any other landholding; or
- (5) within a critical source area;
- (iv) the feed pad/lot is constructed with:
  - (1) a sealed and impermeable base and any liquid animal effluent or stormwater containing animal effluent discharging from the feed pad/lot is collected in a sealed animal effluent storage system authorised under Rule 32B or Rule 32D; or
  - (2) a minimum depth of 500 millimetres of wood-based material (bark, sawdust or chip) across the base of the feed pad/lot; and
- (v) any material scraped from the feed pad/lot, including solid animal effluent, is collected and if applied to land is applied in accordance with Rule 38; and
- (vi) the overland flow of stormwater or surface runoff from surrounding land is prevented from entering the feed pad/lot.
- (b) The use of land for a feed pad/lot that does not meet one or more of the conditions of Rule 35A(a) is a discretionary activity.

### Rule 35A - Feed pads/lots (CV)

- (a) The use of land for a feed pad/lot is a permitted activity provided the following conditions are met:
  - (i) if accommodating cattle or deer, each feed pad/lot services no more than 120 adult cattle, or 250 adult deer, or equivalent numbers of young stock at any one time;
  - (ii) animals do not remain on the feed pad/lot for longer than three continuous months;
  - (iii) the feed pad/lot is not located:
    - (1) within 50 metres from the nearest sub-surface drain, lake, river (excluding ephemeral rivers), artificial watercourse, modified watercourse, natural wetland, or the coastal marine area or another feed pad/lot on the same landholding; or
    - (2) within a microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; or
    - (3) within 200 metres of a place of general assembly or dwelling not located on the same landholding, or
    - (4) within 20 metres of the boundary of any other landholding; or
    - (5) within a critical source area;
  - (iv) the feed pad/lot is constructed with:
    - (1) a sealed and impermeable base and any liquid animal effluent or stormwater containing animal effluent discharging from the feed pad/lot is collected in a sealed animal effluent storage system authorised under Rule 32B or Rule 32D; or
    - (2) a minimum depth of 500 millimetres of wood-based material (bark, sawdust or chip) across the base of the feed pad/lot; and

- (v) any material scraped from the feed pad/lot, including solid animal effluent, is collected and if applied to land is applied in accordance with Rule 38; and
- (vi) the overland flow of stormwater or surface runoff from surrounding land is prevented from entering the feed pad/lot.
- (b) The use of land for a feed pad/lot that does not meet one or more of the conditions of Rule 35A(a) is a discretionary activity.

### Rule 35B - Sacrifice Paddocks (CV)

- (a) The use of land for a sacrifice paddock is a permitted activity provided the following conditions are met:
  - (i) the use is not to exceed a total of 60 days in any twelve-month period.
  - (ii) the slope of land that is used for a sacrifice paddock must be 10 degrees or less;
  - (iii) the sacrifice paddock must not be in forage crop;
  - (iv) in any year the sacrifice paddocks do not exceed:
    - (1) for a landholding 500 ha or less, 5 hectares of the landholding; or
    - (2) for a landholding greater than 500 ha, 1% or 30 hectares of the landholding (whichever is the lesser).
  - (v) <u>stock must be separated by a vegetated setback at least:</u>
    - (1) 20 metres from the bed of any Regionally Significant Wetland or Sensitive Waterbodies listed in Appendix A, nohoanga listed in Appendix B, mātaitai reserve, taiāpure, estuary or the coastal marine area; and
    - (2) 20 metres from the bed of any other river, lake, artificial watercourse (regardless of whether there is any water in it at the time), modified water course or natural wetland, where the slope of the land used as a sacrifice paddock is 10 degrees or more; and
    - (3) 10 metres from the bed of any other river, lake, artificial watercourse (regardless of whether there is any water in it at the time), modified water course or natural wetland, where the slope of the land used as a sacrifice paddock is 10 degrees or less.
  - (v) critical source areas within the area being used as a sacrifice paddock must:
    - (1) be identified in the Farm Environmental Management Plan; and
    - (2) have stock excluded from them; and
  - (vi) if the land that is used as a sacrifice paddock requires replanting, this must occur as soon as practicable after stock have been removed from the paddock; and
  - (vii) A Farm Environment Management Plan for the landholding is:
    - (1) prepared, certified and audited in accordance with Appendix N; and
    - (2) implemented by the landholder completing the practices, actions and mitigations specified in the FEMP in accordance with the timeframes set out in the FEMP; and

- (viii) no part of the sacrifice paddock is located on land with an altitude greater than 800 metres above mean sea level
- (b) The use of land for a sacrifice paddock that does not meet one or more of the conditions of Rule 35B(a) is a discretionary activity.

### Rule 36 – Horticulture wash-water

- (a) The discharge of water containing contaminants from vegetable or bulb washing to land where contaminants may enter water is a permitted activity, provided that the following conditions are met:
  - (i) either the discharge complies with Section 2 "Good Practices" of the Horticulture NZ Washwater Discharge Code of Practice 2017; or
  - (ii) the discharge does not exceed 20 cubic metres per day;
  - (iii) there is no overland flow; or ponding for more than 24 hours of horticultural washwater, or application of the washwater to land when soil moisture exceeds field capacity;
  - (iv) the discharge only contains water, soil, or HSNO approved sanitisers that are used in accordance with their label instructions and comply with NZS 8409:2004 Management of Agrichemicals; and
  - (v) the discharge is not within:
    - (1) 20 metres of a lake, river, artificial watercourse, modified watercourse, natural wetland or the coastal marine area; or
    - (2) 20 metres of any landholding boundary; or
    - (3) 100 metres of any residential dwelling; or
    - (4) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J.

### Rule 37 – Agricultural dips

- (a) The discharge of sludge from stationary agricultural dips, mobile sheep dips and spray dips onto or into land in circumstances where contaminants may enter water is a permitted activity, provided that the following conditions are met:
  - (i) there is no discharge of agricultural dip effluent directly to water, including groundwater;
  - (ii) there is no overland flow or ponding of agricultural dip effluent, or application onto land when soil moisture exceeds field capacity;
  - (iii) the discharge is not within:
    - (1) 20 metres of a lake, river, artificial watercourse, modified watercourse, natural wetland or the coastal marine area; or
    - (2) 100 metres from any existing potable water abstraction point; or
    - (3) 20 metres of any landholding boundary; or
    - (4) 100 metres from any residential dwelling other than residential dwellings on the landholding; and
    - (5) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; and
  - (iv) the discharge of agricultural effluent from stationary agricultural dips, mobile sheep dips and spray dips occurs on the landholding where the dipping has taken place;
  - (v) the discharge is undertaken in accordance with any Hazardous Substances and New Organisms Act 1996 approval for the substances being discharged; and

(vi) a written record of the chemicals used and the volume and location of the discharge is kept and provided to the Southland Regional Council on request.

### Rule 38 – Animal and vegetative waste

- (a) The discharge of solid animal waste (excluding any discharge directly from an animal to land), sludge or vegetative material containing animal excrement or vegetative material, including from a high intensity farming process, feed pad/lot or wintering barn or industrial or trade process, into or onto land, or into or onto land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:
  - (i) the material does not contain any hazardous substance or hazardous waste;
  - (ii) the material does not include any waste from a human effluent treatment process;
  - (iii) the maximum loading rate of nitrogen onto any land area does not exceed 150 kilograms of nitrogen per hectare per year; and
  - (iv) the material is not discharged:
    - (1) onto the same area of land more frequently than once every two months; or
    - (2) onto land where solid animal waste, or vegetative material containing animal excrement or vegetative material from a previous application is still visible on the land surface; or
    - onto land when the soil moisture exceeds field capacity or when soil temperatures are below 5 degrees in winter and autumn or 7 degrees in spring; or
    - (4) within 20 metres of the landholding boundary, a bore used for water abstraction, the bed of a lake, river, artificial watercourse, modified watercourse, natural wetland or the coastal marine area; or
    - (5) with an average depth of material of greater than 10 millimetres on the land surface.

### Rule 39 – Other agricultural effluent disposal

(a) The discharge of agricultural effluent, water containing contaminants from vegetable or bulb washing sludge, stationary agricultural dips, mobile sheep dips and spray dips onto or into land in circumstances where contaminants may enter water, other than as provided for in Rules 32A to 38, is discretionary activity.

### Rule 40 – Silage storage

- (a) The use of land for a silage storage facility is a permitted activity provided the following conditions are met:
  - (i) there is no overland flow of stormwater into the silage storage facility;
  - (ii) no part of the silage storage facility is within:
    - (1) 50 metres of a lake, river (excluding ephemeral rivers), artificial watercourse, modified watercourse, natural wetland or any potable water abstraction point; or
    - (2) 100 metres of any dwelling or place of assembly, on another landholding constructed or in use prior to the silage storage facility being lawfully established; or
    - (3) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; or
    - (4) a critical source area; and

- (iii) no part of the silage storage facility is located within 50 metres of a classified HAIL site under the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011;
- (iv) no part of the silage storage facility is located on land that is made permanently or intermittently wet by the presence of springs, seepage, high groundwater, ephemeral rivers or flows of stormwater other than from any cover of the silage; and
- (v) cattle are not able to graze directly from the silage storage facility, unless the area where the cattle access the silage complies with Rule 35A.
- (b) The use of land for a silage storage facility that does not meet the conditions in Rule 40(a) is a restricted discretionary activity provided to the following conditions are met:
  - (i) no part of the silage storage facility is within:
    - (1) 20 metres of a lake, river (excluding ephemeral rivers), artificial watercourse, modified watercourse or natural wetland; or
    - (2) 50 metres of a dwelling, potable water abstraction point, or place of assembly on another landholding; or
    - (3) 50 metres of the main stems of the Waiau, Aparima, Ōreti or Mataura rivers, or inside flood banks of the main stems of these rivers (if present); or
    - (4) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J.

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

- 1. measures necessary to prevent noxious, dangerous, offensive, or objectionable effects beyond the boundary of the landholding on which silage is stored;
- 2. measures necessary to prevent inflows of stormwater, or infiltration from underlying seeps, springs, or groundwater;
- 3. the physical dimensions and location of the silage storage facility;
- 4. methods of containing any silage leachate that may be emitted prior to application to land, including the volume of any silage leachate storage.

An application for resource consent under Rule 40(b) will be processed and considered without public or limited notification unless the applicant requests notification or the Southland Regional Council considers that special circumstances exist that warrant notification of the application.

(c) The use of land for a silage storage facility that does not meet one or more of the conditions in Rule 40(b) is a non-complying activity.

**Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

# Rule 40 - Silage storage (CV)

- (a) The use of land for a silage storage facility is a permitted activity provided the following conditions are met:
  - (i) there is no overland flow of stormwater into the silage storage facility;
  - (ii) no part of the silage storage facility is within:

- (1) 50 metres of a lake, river (excluding ephemeral rivers), artificial watercourse, modified watercourse, natural wetland or any potable water abstraction point; or
- (2) 100 metres of any dwelling or place of assembly, on another landholding constructed or in use prior to the silage storage facility being lawfully established; or
- (3) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; or
- (4) a critical source area; and
- (iii) no part of the silage storage facility is located within 50 metres of a classified HAIL site under the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011;
- (iv) no part of the silage storage facility is located on land that is made permanently or intermittently wet by the presence of springs, seepage, high groundwater, ephemeral rivers or flows of stormwater other than from any cover of the silage; and
- (v) cattle are not able to graze directly from the silage storage facility, unless the area where the cattle access the silage complies with Rule 35A.
- (b) The use of land for a silage storage facility that does not meet the conditions in Rule 40(a) is a restricted discretionary activity provided to the following conditions are met:
  - (i) no part of the silage storage facility is within:
    - (1) 20 metres of a lake, river (excluding ephemeral rivers), artificial watercourse, modified watercourse or natural wetland; or
    - (2) 50 metres of a dwelling, potable water abstraction point, or place of assembly on another landholding; or
    - (3) 50 metres of the main stems of the Waiau, Aparima, Ōreti or Mataura rivers, or inside flood banks of the main stems of these rivers (if present); or
    - (4) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J.

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

- 1. measures necessary to prevent noxious, dangerous, offensive, or objectionable effects beyond the boundary of the landholding on which silage is stored;
- 2. measures necessary to prevent inflows of stormwater, or infiltration from underlying seeps, springs, or groundwater;
- 3. the physical dimensions and location of the silage storage facility;
- 4. methods of containing any silage leachate that may be emitted prior to application to land, including the volume of any silage leachate storage.

An application for resource consent under Rule 40(b) will be processed and considered without public or limited notification unless the applicant requests notification or the Southland Regional Council considers that special circumstances exist that warrant notification of the application.

(c) The use of land for a silage storage facility that does not meet one or more of the conditions in Rule 40(b) is a non-complying activity.

**Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

### Rule 41 – Silage leachate

- (a) The discharge of silage leachate onto or into land in circumstances where contaminants may enter water is a permitted activity provided the following conditions are met:
  - (i) the discharge is via an agricultural effluent discharge system authorised under Rule 35; or
  - (iia) there is no discharge of leachate directly to groundwater via a pipe, soak pit or other soil bypass mechanism and there is no overland flow or ponding of silage leachate outside of the silage storage facility;
  - (iii) any discharge is not within:
    - (1) 20 metres of a lake, river, artificial watercourse, modified watercourse, natural wetland or the coastal marine area; or
    - (2) 100 metres of a place of assembly or dwelling not on the same landholding, or 20 metres of the boundary of any other landholding; or
    - (3) 100 metres of any authorised water abstraction point; or
    - (4) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; and
  - (iv) any discharge does not result in:
    - (2) an application depth in excess of 10 millimetres for each individual application; and
    - (3) a loading rate of nitrogen from the discharge of silage leachate in excess of 150 kilograms of nitrogen per hectare per year.
- (b) The discharge of silage leachate onto or into land in circumstances where contaminants may enter water that does not meet one or more of the conditions in Rule 41(a) is a discretionary activity.

### Landfills

### Rule 42 - Cleanfill sites

- (a) The discharge of cleanfill into or onto land at a cleanfill site in circumstances where contaminants may enter water is a permitted activity provided the following conditions are met:
  - the total amount of cleanfill discharged at all cleanfill sites on a landholding does not exceed 500 cubic metres per calendar year, except for a formed road reserve or a rail corridor in which case no limit applies;
  - (ii) the discharge does not occur within:
    - (1) the bed of a lake or river; or
    - (2) 50 metres of a lake, river, artificial watercourse, modified watercourse, natural wetland, the coastal marine area or landholding boundary; or
    - (3) 50 metres of the main stems of the Waiau, Aparima, Ōreti or Mataura rivers, or inside flood banks of the main stems of these rivers (if flood banks are present); or
    - (4) 100 metres of any authorised water abstraction point; and
  - (iv) stormwater is directed away from the discharge site.
- (b) The discharge of cleanfill into or onto land at a cleanfill site in circumstances where contaminants may enter water that does not meet one or more of the conditions of Rule 42(a) is a restricted discretionary activity.

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

- 1. prevention of inundation of any other person's landholding, sedimentation in any water body, erosion and land instability, and the restriction or diversion of flood flows;
- 2. effects on sensitive receiving environments;
- 4. design, construction and management of the cleanfill site;
- 5. post-closure management practices and procedures;
- 6. information and monitoring requirements; and
- 7. the quantity of cleanfill to be discharged.

An application for resource consent under Rule 42(b) will be processed and considered without public or limited notification unless the applicant requests notification or the Southland Regional Council considers special circumstances exist that warrant notification of the application.

**Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

### Rule 43<sup>79</sup> – Farm landfills (Consent Orders)

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (a) The discharge of a contaminant into or onto land from a farm landfill in circumstances where that contaminant may enter water is a permitted activity provided the following conditions are met:
  - (i) carcasses, offal, compost bulking agents or waste is derived from the same landholding on which the farm landfill is situated, or the activity is carried out by a local authority or government agency in the exercise of their statutory powers;
  - (ii) the discharge does not include septic tank sludge, dairy farm sludge or a hazardous substance;
  - (iii) the discharge does not occur within:
    - (1) the bed of a lake, river, or natural wetland; or
    - (2) a critical source area; or
    - (3) 50 metres of a lake, river, artificial watercourse, modified watercourse, natural wetland or the coastal marine area; or
    - (4) 50 metres of the main stems of the Waiau, Aparima, Ōreti or Mataura rivers, or inside flood banks of the main stems of these rivers (if flood banks are present); or
    - (5) 100 metres of any authorised water abstraction point, or dwelling, place of assembly, or landholding boundary; or
    - (6) the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; or
    - (7) 100 metres of a dwelling, place of assembly, or landholding boundary;
  - (iv) stormwater is directed away from the discharge site;
  - (v) the farm landfill does not intercept an on-farm sub-surface drain, or a spring, and is not excavated below the seasonal mean groundwater level in that location;
  - (vi) as each section of the farm landfill becomes full or unused, the deposited carcasses, offal, compost bulking agents and waste material is covered with soil and the resulting soil surface is restored to a similar state as the surrounding land; and
  - (vii) any carcass or offal must not come into contact with naturally formed limestone rock.
- (b) The discharge of a contaminant into or onto land in circumstances where that contaminant may enter water at a farm landfill that does not meet one or more of the conditions of Rule 43(a) is a discretionary activity.
- (c) Notwithstanding the provisions of Rules 43(a) and (b), the discharge of the carcass of, or offal from, a single animal into or onto land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:
  - (i) the carcass or offal cannot be reasonably disposed of in accordance with the conditions of Rule 43(a);
  - (ii) the carcass or offal is derived from the same landholding on which the discharge is to occur; and
  - (iii) the carcass or offal buried does not occur within:
    - (1) 20 metres of surface water or an authorised water abstraction point; or

<sup>&</sup>lt;sup>79</sup> Appeal to Environment Court by Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

- (2) 20 metres of a dwelling, place of assembly, or landholding boundary.
- (d) The discharge of the carcass of, or offal from, a single animal into or onto land in circumstances where that contaminant may enter water that does not meet one or more of the conditions of Rule 43(c) is a discretionary activity.

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre 1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

### Rule 45 - Landfills

(a) Except as provided for elsewhere in this Plan, the discharge of contaminants from a landfill into or onto land in circumstances where that contaminant may enter water is a discretionary activity.

### **Land Contamination**

### Rule 46 – Land contaminated by a hazardous substance

- (a) The discharge of contaminants from land contaminated by a hazardous substance onto or into land in circumstances which may result in contaminants entering water is a permitted activity provided:
  - (i) the hazardous substance in the discharge results from an activity authorised by a rule in this Plan or a resource consent granted by the Southland Regional Council; or
  - (ii) the discharge does not result in a breach of the trigger values for toxicants presented in Table 3.4.1 in the Australia and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC) 2000 at the level of protection set in those guidelines for 80% of species, except for benzene where the level of protection is 90% of species (i.e. 1 milligram per litre), at the nearest of:
    - (1) 50 metres from the discharge; or
    - (2) the landholding boundary; or
    - (3) any point immediately adjacent to a lake, river, artificial watercourse, modified watercourse, natural wetland, the coastal marine area, or water abstraction bore (excluding monitoring bores); and
  - (iii) the discharge does not result in a breach of the Drinking Water Standards for New Zealand 2005 (Revised 2008) in any bore utilised for potable supply, except where the ambient water quality naturally breaches those Standards and the discharge does not result in any further degradation of the water quality.
- (b) The discharge of soil from land contaminated by a hazardous substance onto or into land in circumstances which may result in those contaminants entering water is a permitted activity provided:
  - (i) the hazardous substance in the soil results from the application of a fertiliser or agrichemical to the land authorised by a rule in this Plan or a resource consent granted by the Southland Regional Council; or
  - (ii) the soil is being returned to the excavation or site from which it was taken.
- (c) The discharge of contaminants or soil from land contaminated by a hazardous substance onto or into land in circumstances which may result in those contaminants entering water that does not meet one or more of the conditions of Rule 46(a) or (b) is a discretionary activity.

### Rule 46A – Site investigations

- (a) The use of land for a site investigation to assess concentrations of hazardous substances that may be present in the soil, and any incidental discharges as a result of that investigation, is a permitted activity provided the following conditions are met:
  - (i) the site investigation is to be undertaken in accordance with Contaminated Land Management Guidelines No. 5: Site Investigation and Analysis of Soils (Ministry for the Environment, 2011) and reported on in accordance with the Contaminated Land Management Guidelines No. 1: Reporting on Contaminated Sites in New Zealand, (Ministry for the Environment, 2011); and
  - (ii) the person or organisation initiating the site investigation provides a copy of the report of the site investigation to the Southland Regional Council within two months of the completion of the investigation.

(b) The use of land for a site investigation to assess concentrations of hazardous substances that may be present in the soil, and any incidential discharges as a result of that investigation, that does not meet one or more of the conditions in Rule 46A(a) is a discretionary activity.

### Rule 47 – Closed landfills

- (a) Despite Rule 46, the discharge of contaminants from a closed landfill onto or into land in circumstances which may result in those contaminants entering water is a permitted activity provided the following conditions are met:
  - (i) a risk assessment of the closed landfill is carried out in accordance with the risk screening system developed by Ministry for the Environment<sup>80</sup> which demonstrates that the environmental risk is low; and
  - (ii) a copy of the risk assessment is lodged with the Southland Regional Council.
- (b) Despite Rule 46, the discharge of contaminants from a closed landfill onto or into land in circumstances which may result in those contaminants entering water that does not meet one or more of the conditions of Rule 47(a) is a discretionary activity.

### Rule 48 – Cemeteries

- (a) The use of land for an existing cemetery and any ancillary discharge of contaminants into or onto land in circumstances where a contaminant may enter water is a permitted activity.
- (b) The use of land for a new cemetery or an extension to an existing cemetery and any ancillary discharge of contaminants into or onto land in circumstances where a contaminant or water may enter water is a permitted activity provided the following conditions are met:
  - (i) any new cemetery or an extension to an existing cemetery is not located:
    - (1) within 20 metres of a lake, river, artificial watercourse, modified watercourse, natural wetland or the coastal marine area; or
    - (2) within 50 metres of any authorised water abstraction point; or
    - (3) within the microbial health protection zone of a drinking water supply site identified in Appendix J, or where no such zone is identified, then within 250 metres of the abstraction point of a drinking water supply site identified in Appendix J; or
    - (4) where the depth to groundwater is less than 2.5 metres.
- (c) The use of land for a cemetery, and any ancillary discharge of contaminants into or onto land in circumstances where a contaminant or water may enter water, that does not meet one or more of the conditions in Rule 48(b) is a discretionary activity.

The current risk screening system for closed refuse disposal facilities <15,000 cubic metres MSW is contained in the document Small Landfill Closure Criteria – Risk Assessment for Small Closed Landfills (MfE, 2002) and for closed refuse disposal facilities >15,000 cubic metres MSW in the procedures set out in the document in A Guide to the Management of Closing and Closed Landfills in New Zealand (MfE, 2001)

## **Taking and Using Water**

**Note:** Takes for drinking water supplies will also need to comply with other requirements including The National Environmental Standard for Sources of Human Drinking Water Regulations 2007 and the Health (Drinking Water) Amendment Act 2007.

## Rule 4981 – Abstraction, diversion and use of surface water (Consent Orders)

- (a) The take and use of surface water is a permitted activity provided the following conditions are met:
  - (i) the volume of take does not exceed 2,000 litres per day, plus 250 litres per hectare per day, up to a maximum of 40 cubic metres per landholding per day or per facility per day on public conservation land managed as such under the National Parks Act 1980, Conservation Act 1987 or the Reserves Act 1977;
  - (ii) the maximum volume of take allowed under this rule and Rule 54(a) are not added together. A maximum of 86 cubic metres of groundwater and surface water combined per landholding per day inclusive of any water taken pursuant to s14(3)(b) of the RMA may be taken;
  - (iii) the rate of take from a river or modified watercourse does not exceed 30 percent of the instantaneous flow at the time of take;
  - (iv) the rate of take does not exceed 2 litres per second;
  - (v) fish are prevented from entering the reticulation system in accordance with Appendix R;
  - (vi) the following details are supplied to the Southland Regional Council upon request (if applicable):
    - (1) farming type;
    - (2) stocking rate;
    - (3) point of abstraction;
    - (4) what the water was used for;
    - (5) maximum instantaneous rate of take; and
  - (vii) where the volume of the take exceeds 20,000 litres per day, a water meter capable of recording the rate of take and the daily volume of take is used. Water take data must be recorded daily and provided to the Southland Regional Council on request. The accuracy of the water meter must be verified every 12 months.
- (ab) Despite Rule 49(a), the take and use of surface water for infrastructure construction, maintenance and repair is a permitted activity provided the following conditions are met:
  - (i) the rate of take does not exceed 15 litres per second;
  - (ii) the volume of take does not exceed 100,000 litres per day;
  - (iii) the bed of the watercourse from where the take occurs is at least 1 metre wide and the depth of flow in the watercourse at that location exceeds 0.5 metres at the time of the take;
  - (iv) the take does not occur for more than 45 consecutive minutes and multiple takes from the same site on a single day are at least 30 minutes apart;
  - (v) the point of abstraction is not located within 50 metres of any existing lawfully established surface water take;
  - (vi) the Southland Regional Council is notified at least three working days prior to the take commencing;
  - (vii) the take occurs between 1 September and 31 March inclusive; and
  - (viii) fish are prevented from entering the water intake in accordance with Appendix R.

<sup>&</sup>lt;sup>81</sup> Appeal to Environment Court by (iii) Federated Farmers of New Zealand ENV-2018-CHC-000040 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

- (b) Except as provided for in Rules 49(a), 49(ab), 50(a), 50(b), 51(a) and 51(b), the taking, diversion and use of surface water is a restricted discretionary activity provided the following conditions are met:
  - (i) for a lake, river, artificial watercourse, modified watercourse or natural wetland the total surface water allocation is within the secondary allocation specified in Policy 21(3); or
  - (ii) for non-consumptive takes, the total volume of water taken or diverted is returned within 100 metres of the take or diversion point; or
  - (iii) for a lake, river, artificial watercourse, modified watercourse or natural wetland the total volume of water taken is greater than 40 cubic metres per landholding per day but is less than 70 cubic metres per landholding per day.

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

- the volume, rate, frequency and timing of water to be taken (including any water to be returned to the lake, river, artificial watercourse, modified watercourse or natural wetland and the delay between the taking and returning of this water);
- 2. any effects on river flows (including effects on minimum flows, flow variability and duration of flows), wetland or lake water levels, aquatic ecosystems, aquifer storage volumes, the availability and reliability of supply for existing users, and water quality;
- 3. the location of the take or diversion;
- 4. the efficiency of water use, in accordance with Appendix O;
- 5. the installation and use of a water meter;
- 6. information and monitoring requirements;
- 7. methods to prevent fish from entering the intake in accordance with Appendix R;
- 8. take cessation in response to minimum flow and level requirements;
- 9. consistency with any water conservation order;
- 10. the degree of hydraulic connection to groundwater;
- 11. any effect on a natural wetland;
- 12. the proposed method of take and delivery of the water; and
- 13. any water storage available for the water taken and its volume.
- (c) Except as provided for in Rules 49(a), 49(ab), 49(b), 50(a), 50(b), 51(a), 51(b), and 51(c), the taking, diversion and use of surface water where the total rate of authorised surface water abstraction does not exceed the primary allocation specified in Appendix K is a discretionary activity.
- (d) Except as provided for in Rules 49(a), 49(ab), 49(b), 49(c), 50(a), 50(b), 51(a), 51(b), 51(c), 52(a), 52(b), 52A(a) and 52A(b), the taking, diversion and use of surface water is a non-complying activity.
- (e) Despite Rules 49(b), 49(c), and 49(d) the taking, diversion and use of water from the Cromel Stream is a prohibited activity, unless the application is for the replacement of an expiring water permit pursuant to Section 124 of the Act, the rate of take and volume is not increasing and use of the water is not changing.

#### Rule 50 – Community water supply

(a) Existing community water supply

The taking and use of water for a community water supply is a controlled activity provided:

 the application is for the replacement of an expiring water permit pursuant to section 124 of the Act and the rate of take and the volume and use of the water is not changing; and (ii) a water demand management strategy is lodged as a part of the application.

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

- 1. the quality of and implementation of the water demand management strategy;
- 2. the rate and volume of water to be taken (including any water to be returned to the lake, river, artificial watercourse, modified watercourse or natural wetland);
- 3. any effects on river flows (including effects on minimum flows, flow variability and duration), wetland or lake water levels, aquatic ecosystems, and aquifer storage volumes;
- 4. the availability and reliability of supply for existing users;
- 4a. water quality;
- 4b. methods to prevent fish from entering the intake in accordance with Appendix R;
- 5. information and monitoring requirements;
- 6. take cessation in response to minimum flow and level requirements;
- 7. consistency with any water conservation order;
- 8. the degree of hydraulic connection between groundwater and surface water bodies; and
- 9. management of the take during water shortages.

#### (b) New community water supply

Except as provided for in Rule 50(a), the taking of water for a community water supply is a discretionary activity.

## Rule 5182 – Minor diversions of water

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

<sup>&</sup>lt;sup>82</sup> Appeal to Environment Court by Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050
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- (i) a drain known as the North Drain on the Tiwai Peninsula, at about Map Reference NZTopo50 CG10 463 308;<sup>83</sup> or
- (ii) a drain known as the West Drain on the Tiwai Peninsula, at about Map Reference NZTopo50 CG10 457 302;<sup>84</sup> or
- (iii) a drain known as the South Drain on the Tiwai Peninsula, at about Map Reference NZTopo50 CH10 456 298<sup>85</sup>

is a permitted activity provided the following conditions are met:

- (1) the work is carried out under the direct control of the body or person responsible for the maintenance of the drain;
- (2) machinery only crosses through a drain to obtain reasonable access to the side of the drain from which the work is to be undertaken;
- (3) the diversion is constructed at right angles to the line of the beach;
- (4) any excavated spoil is removed from the site and legally disposed of or spread over non-vegetated areas adjacent to the diversion;
- (5) the body or person responsible advises the Southland Regional Council of the details of the time and extent of the work to be undertaken, prior to the work commencing; and
- (6) in the event of a discovery, or suspected discovery, of a site of cultural, heritage or archaeological value, the operation ceases immediately in that location and the Southland Regional Council is informed. Operations may recommence with the permission of the Southland Regional Council.
- (d) Unless controlled by any other rule in this Plan, the diversion of water for the purpose of land drainage that does not meet Rules 51(a) to (c) is a discretionary activity.

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

## Rule 51 - Minor diversions of water (CV)

- (a) Despite any other rule in this Plan, the diversion of water within a river or lake bed is a permitted activity provided the following conditions are met:
  - (i) the diversion is for the purposes of undertaking a permitted activity under Rules 55 to 79, or for the purposes of habitat creation, restoration or enhancement, or hydrologic research; and is carried out in accordance with the following conditions:
    - (a1) the general conditions set out in Rule 55A other than conditions (i), (j) and (k) of that Rule;
  - (ii) the diversion is carried out completely within a river or lake bed (i.e. no water is diverted outside of the river or lake bed);

 $<sup>^{83}</sup>$  The equivalent NZTM2000 coordinates are 1246300 mE 4830800 mN  $\,$ 

 $<sup>^{84}</sup>$  The equivalent NZTM2000 coordinates are 1245700 mE 4830200 mN  $\,$ 

 $<sup>^{85}</sup>$  The equivalent NZTM2000 coordinates are 1245600 mE 4829800 mN

- (iii) the water is returned to its original course after completion of the activity, no later than one month after the diversion occurs;
- (iva) the diversion does not occur within 12 metres of a network utility structure, unless the activity is for the purpose of maintaining, upgrading or developing that network utility;
- (iv) the diversion does not compromise the ability of any other person to exercise a resource consent or undertake an activity permitted by this Plan; and
- (v) the diversion does not result in a net loss of water from the catchment.
- (b) Despite any other rule in this Plan, the diversion of water for the purpose of land drainage is a permitted activity provided the following conditions are met:
  - (i) the diversion and associated discharge does not cause erosion or deposition;
  - (ii) the diversion does not cause flooding of downstream or adjacent properties; and (iii) the diversion of water is not from a Regionally Significant Wetland or Sensitive Water Body identified in Appendix A or any natural wetland.
- (c) Notwithstanding any other rule in this Plan, the diversion of water at the mouth of:
  - (i) a drain known as the North Drain on the Tiwai Peninsula, at about Map Reference NZTopo50 CG10 463 308;86 or
  - (ii) a drain known as the West Drain on the Tiwai Peninsula, at about Map Reference NZTopo50 CG10 457 302;87 or
  - (iii) a drain known as the South Drain on the Tiwai Peninsula, at about Map Reference NZTopo50 CH10 456 298<sup>88</sup>

is a permitted activity provided the following conditions are met:

- (1) the work is carried out under the direct control of the body or person responsible for the maintenance of the drain;
- (2) machinery only crosses through a drain to obtain reasonable access to the side of the drain from which the work is to be undertaken;
- (3) the diversion is constructed at right angles to the line of the beach;
- (4) any excavated spoil is removed from the site and legally disposed of or spread over non-vegetated areas adjacent to the diversion;
- (5) the body or person responsible advises the Southland Regional Council of the details of the time and extent of the work to be undertaken, prior to the work commencing; and
- (6) in the event of a discovery, or suspected discovery, of a site of cultural, heritage or archaeological value, the operation ceases immediately in that location and the Southland Regional Council is informed. Operations may recommence with the permission of the Southland Regional Council.
- (d) Unless controlled by any other rule in this Plan, the diversion of water for the purpose of land drainage that does not meet Rules 51(a) to (c) is a discretionary activity.
- (e) Notwithstanding Rule 51(b) and Rule 51(d) the diversion of water from a natural wetland for the purpose of land drainage is a non-complying activity.

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

 $<sup>^{86}</sup>$  The equivalent NZTM2000 coordinates are 1246300 mE 4830800 mN

<sup>&</sup>lt;sup>87</sup> The equivalent NZTM2000 coordinates are 1245700 mE 4830200 mN

 $<sup>^{88}</sup>$  The equivalent NZTM2000 coordinates are 1245600 mE 4829800 mN

# Rule 52<sup>89</sup> – Water abstraction, damming, diversion and use from the Waiau catchment (Consent Orders)

- (a) Except as provided in Rules 49(a), 49(ab), 49(b), 49(c), 50(a), 50(b), 51(a), 51(b) and, 52A and 52B (including takes authorised by section 14(3) of the Act), any take, damming, diversion or use of water from the Waiau catchment is a discretionary activity provided the following conditions are met:
  - (i) the application is for the replacement of an expiring water permit pursuant to section 124 of the Act, and the rate of take and volume is not increasing, and use of the water is not changing; or
  - (ii) the application is for a groundwater take assessed as having a Low degree of hydraulic connection following the methodology specified in Appendix L.2.
- (b) Except as provided in Rules 49(a), 49(ab), 49(b), 49(c), 50(a), 50(b), 51(a), 51(b) and, 52A and 52B (including takes authorised by section 14(3) of the Act), any take, damming, diversion or use of water from the Waiau catchment that does not meet the conditions of Rule 52(a) is a non-complying activity.

## Rule 52A<sup>90</sup> – Manapōuri Hydro-electric Generation Scheme

- (a) Despite any other rules in this Plan, any activity that is part of the Manapōuri hydro-electric generation scheme, for which consent is held and which is the subject of an application for a new consent for the same activity and is:
  - (i) the taking or use of water; or
  - (ii) the discharge of water into water or onto or into land; or
  - (iii) the discharge of contaminants into water or onto or into land; or
  - (iv) the damming or diversion of water;

is a controlled activity provided the following conditions are met:

- the application is for the replacement of an expiring resource consent pursuant to section 124 of the Act;
- (2) where the replacement consent is for the taking or use of water, the rate of take and volume is not increasing, and the use of water is not changing; and
- (3) where the replacement consent is for the taking or use of water, the rate of take and volume complies with any relevant flow and level regimes set out in this Plan.

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

- 1. the volume and rate of water taken, used, diverted or discharged and the timing of any take, diversion or discharge, including how this relates to generation output;
- 2. any effects on river flows, wetland and lake water levels, aquatic ecosystems and water quality;
- 3. mitigation or remediation measures to address adverse effects on the environment; and
- 4. the benefits of renewable electricity generation.

<sup>&</sup>lt;sup>89</sup> Appeal to Environment Court by (ii) Meridian Energy Limited ENV-2018-CHC-000038

<sup>90</sup> Appeal to Environment Court by (i) Aratiatia Livestock Limited ENV-2018-CHC-000029

<sup>(</sup>ii) Meridian Energy Limited ENV-2018-CHC-000038

<sup>(</sup>iii) Federated Farmers of New Zealand ENV-2018-CHC-000040

<sup>(</sup>iv) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>(</sup>v) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

An application for resource consent under Rule 52A(a) will be publicly notified.

- (b) Despite any other rules in this Plan, any activity that is part of the Manapōuri hydro-electric generation scheme for which consent is held and which is the subject of an application for a new consent for the same activity and is:
  - (i) the taking or use of water; or
  - (ii) the discharge of water into water or onto or into land; or
  - (iii) the discharge of contaminants into water or onto or into land; or
  - (iv) the damming or diversion of water;

that does not meet one or more of the conditions of Rule 52A(a) is a non-complying activity.

## Rule 53<sup>91</sup> – Bores and wells (Consent Orders)

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (a) The use of land for the drilling or construction of any bore or well is a controlled activity provided the following conditions are met:
  - (i) the bore or well design and headworks prevent:
    - (1) the infiltration of contaminants; and
    - (2) the uncontrolled discharge or leakage of water to the ground surface or between aquifers;
  - (ii) the bore is constructed in accordance with NZS 4411:2001 Environmental Standard for Drilling of Rock and Soil (including the recording and supply of bore logs and other records): and
  - (iii) for bores to be used for the supply of water from unconfined aquifers, the bore screen fully penetrates the aquifer.

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

- the proximity of the bore or well to surface water bodies (including spring-fed streams), potential sources of groundwater contamination and existing bores and wells;
- 2. the design and depth of the bore or well;
- 3. the method of drilling or excavation;
- 4. the design and management of the bore head;
- 5. the use, maintenance and decommissioning of the bore or well;
- 6. information and monitoring requirements; and
- 7. adoption and implementation of an Accidental Discovery Protocol.

An application for resource consent under Rule 53(a) will be processed and considered without public or limited notification unless the applicant requests notification or the Southland Regional Council considers special circumstances exist that warrant notification of the application.

(b) The use of land for the drilling or construction of any bore or well that does not meet the conditions in Rule 53(a) is a discretionary activity.

<sup>&</sup>lt;sup>91</sup> Appeal to Environment Court by Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

- (c) The use, maintenance or decommissioning of any bore or well is a permitted activity provided the following conditions are met:
  - (i) the bore or well design and headworks prevent:
    - (1) the infiltration of contaminants; and
    - (2) the uncontrolled discharge or leakage of water to the ground surface or between aquifers.
- (d) The use, maintenance or decommissioning of any bore or well that does not meet the conditions in Rule 53(c) is a discretionary activity.

## Rule 5492 – Abstraction and use of groundwater (Consent Orders)

**Note**: To determine the aquifer type and allocation volume for a proposed groundwater abstraction, Plan users should firstly refer to Map Series 3: Groundwater Management Zones to establish the relevant groundwater zone. Once the relevant groundwater zone has been established, Appendix L can be used to determine the aquifer type.

- (a) The take and use of groundwater is a permitted activity provided the following conditions are met:
  - (i) the volume and rate of abstraction does not exceed:
    - (1) a maximum of 86 cubic metres per day per landholding; and
    - (2) a maximum rate of 5 litres per second; and
    - (3) the point of abstraction is not within 50 metres of an existing lawfully established groundwater take;
  - (ii) the maximum volume of take allowed under this rule and Rule 49(a) are not added together. A maximum of 86 cubic metres of groundwater and surface water combined per landholding per day, inclusive of any water taken pursuant to section 14(3)(b) of the RMA, is allowed;
  - (iii) the following details are supplied to the Southland Regional Council upon request (if applicable):
    - (1) farming type; and
    - (2) stocking rate; and
    - (3) point of abstraction; and
    - (4) what the water is used for; and
    - (5) the maximum rate of take; and
  - (iv) where the volume of the take exceeds 20,000 litres per day, a water meter capable of recording the rate of take and the daily volume of take must be used. Water take data must be recorded daily at least weekly and provided to the Southland Regional Council on request. The accuracy of the water meter must be verified every 12 months.
- (b) The non-consumptive take and use of groundwater is a permitted activity provided the following conditions are met:
  - (i) the rate and volume of take does not exceed:
    - (1) a maximum rate of 10 litres per second; and
    - (2) a maximum daily volume of 750 cubic metres;
  - (iia) any interference effects are "acceptable" in accordance with Appendix L.3;
  - (ii) the same amount of water is returned to the same aquifer within 250 metres of the point at which it was taken; and
  - (iii) there is no significant delay between the taking and returning of the water.

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<sup>92</sup> Appeal to Environment Court by (i) Fonterra Co-operative Group Limited ENV-2018-CHC-000027

- (c) The take and use of groundwater for hydraulic testing and bore development purposes and any associated discharge of groundwater into water or onto or into land is a permitted activity provided the following conditions are met:
  - (i) the Southland Regional Council is notified at least three days prior to test commencement;
  - (ii) the rate of take does not exceed 75 litres per second;
  - (iii) the duration of pumping does not exceed five consecutive days;
  - (iv) any discharge of water to water is consistent with the water quality requirements of section 70 of the RMA;
  - (v) water discharged onto land must not contribute to flooding on any other landholding; and
  - (vi) records of all pumping and recovery tests including the rate and duration of pumping, water levels in the pumped well and any water level observation wells and the time measurements are taken and are provided to the Southland Regional Council within one month of the completion of the test.
- (ca) The take and use of groundwater for the purpose of dewatering for carrying out excavation, construction or maintenance and the associated use and discharge of that water is a permitted activity provided the following conditions are met:
  - (i) the Southland Regional Council is notified at least three days prior to dewatering commencing;
  - (ii) the take continues only for the time required to carry out the work, and in any event, the take does not exceed a duration of 60 days in any 12-month period;
  - (iii) the rate of take does not exceed 40 litres per second;
  - (iv) the taking of water does not cause subsidence of any site not owned by the person undertaking the dewatering;
  - (v) the water is not taken from the Lumsden, Wendonside or North Range aquifers;
  - (vi) the take or discharge is not from, into, or onto contaminated or potentially contaminated land;
  - (vii) the take does not have a Riparian, Direct, Moderate or High stream depletion effect on a surface water body, determined in accordance with Appendix L.2, unless the abstracted groundwater is being discharged to the surface water body to which it is hydraulically connected;
  - (viii) an assessment of interference effects, undertaken in accordance with Appendix L.3, does not show that any community or private drinking water supply bore will be prevented from taking water;
  - (ix) at the point and time of any discharge to a river or artificial watercourse, the rate of flow in the water body is at least five times the rate of the discharge;
  - (x) the concentration of total suspended solids in any discharge to a lake, river, artificial watercourse, modified watercourse or natural wetland does not exceed:
    - (1) 100 g/m³ where the discharge is to any Lowland softbed, Lowland hard bed or Hill river or to an artificial watercourse; or
    - (2) 50 g/m³ where the discharge is to any other lake, river or natural wetland;
  - (xi) the point of discharge is not within a Drinking Water Protection Zone as set out in Appendix J; and
  - (xii) records of the rate and duration of pumping are taken and are provided to the Southland Regional Council within three months.

- (d) Other than as provided by Rules 54(a), 54(b), 54(c) and 54(ca) the take and use of groundwater from groundwater management zones listed in Appendix L.5 is a discretionary activity provided the following conditions are met:
  - (i) the total volume of authorised groundwater abstraction is within the primary allocation limits established in Appendix L.5;
  - (ii) if the degree of hydraulic connection, calculated in accordance with Appendix L.2 Table L.2. is Riparian, Direct, High or Moderate the relevant surface water minimum flows and allocation limits specified in Table L.2 are complied with;
  - (iii) any interference effects are 'acceptable' in accordance with Appendix L.3; and
  - (iv) minimum groundwater level cut-offs and seasonal recovery triggers are established in accordance with criteria outlined in Appendix L.6.
- (e) Other than as provided by Rules 54(a), 54(b), 54(c) and 54(ca) the take and use of groundwater from a confined aquifer is a discretionary activity provided the following conditions are met:
  - (i) the total volume of authorised groundwater abstraction is within the primary allocation limits (including minimum water level cut-offs and seasonal recovery triggers) established in Appendix L.5 or following the methodology outlined in Appendix L.6; and
  - (ii) any interference effects are 'acceptable' in accordance with Appendix L.3.
- (f) Other than as provided by Rules 54(a), 54(b) and 54(c) and 54(ca) the take and use of groundwater outside the groundwater management zones listed in Appendix L.5 is a discretionary activity provided the following conditions are met;
  - (i) the total volume of authorised groundwater abstraction is within the primary allocation limit established following the methodology outlined in Appendix L.7; and
  - (ii) any interference effects are 'acceptable' in accordance with Appendix L.3.
- (g) The take and use of groundwater that does not otherwise comply with Rules 54(b) to 54(f) is a non-complying activity.

## Structures in river and lake beds and wetlands

#### Rule 55A – General conditions for activities in river and lake beds

- (a) Fish passage is not impeded as a result of the activity;
- (b) There is no disturbance of roosting and nesting areas of the black fronted tern, black billed gull, banded dotterel or black fronted dotterel;
- (c) Any activity in the water is kept to a minimum to avoid, as much as possible, discoloration of the water in the water bodies listed in the chapeau<sup>93</sup> of the rule, including from any temporary sediment release;
- (d) Any bed disturbance is kept to the minimum necessary to undertake the activity and the bed is returned as near as practicable to its original channel shape, area, depth, and gradient on completion of the activity (with the exception of revegetation);
- (e) No fuel storage or machinery refuelling occurs on any area of the bed;
- (f) No contaminants, other than sediment released from the bed, are discharged to water as a result of use of the structure unless allowed by a relevant permitted activity rule in this Plan or a resource consent;
- (g) Before any equipment, machinery, or operating plant is moved to a new activity site it is effectively cleaned to prevent the spread of "pests" or "unwanted organisms" as defined by the Biosecurity Act 1993;
- (h) All equipment, machinery, operating plant and debris associated with the structure or bed disturbance activity is removed from the site on completion of the activity;
- (i) The structure or bed disturbance activity does not cause significant erosion of, or deposition on, the surrounding bed or banks;
- (j) Any build-up of debris against the structure which may adversely affect flood risk, drainage capacity or bed or bank stability is removed as soon as practicable;
- (k) The structure is maintained in a state of good repair; and
- (I) From the beginning of November until the end of May, there is no disturbance of whitebait spawning habitat.

## Rule 55 – Monitoring and sampling structures<sup>94</sup> (Consent Orders)

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (a) The use, placement, erection or reconstruction (and any associated bed disturbance and discharge) of any equipment, measuring apparatus or similar devices in, on, under or over the bed of a lake, river, modified watercourse or wetland for the purpose of carrying out inspections, surveys, investigations, tests, measurements, or taking samples is a permitted activity provided the following conditions are met:
  - (ai) the general conditions set out in Rule 55A other than conditions (k) and (l) of that Rule.
- (b) The use, placement, erection or reconstruction (and any associated bed disturbance and discharge) of any equipment, measuring apparatus or similar devices in, on or over the bed of a lake, river, modified watercourse or wetland that does not meet one or more of the conditions of Rule 55(a) is a discretionary activity.

<sup>93 &</sup>quot;Chapeau" means the words at the start of the rule that appear directly under the rule number and heading.

 $<sup>^{94}</sup>$  Appeal to Environment Court by Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041

## Rule 56 - Boat ramps, jetties, wharves and slipways

- (a) The placement, erection or reconstruction of any boat ramp, jetty, wharf or slipway in, on or over the bed of a lake, river, modified watercourse or wetland and any associated bed disturbance and discharge resulting from carrying out the activity is a discretionary activity.
- (b) The use of any boat ramp, jetty, wharf or slipway in, on or over the bed of a lake, river, modified watercourse or wetland is a permitted activity provided the following conditions are met:
  - (ai) general conditions (a), (f), (i), (j) and (k) set out in Rule 55A; and
  - (i) the structure is lawfully established.
- (c) The use of any boat ramp, jetty, wharf or slipway in, on or over the bed of a lake, river, modified watercourse or wetland that does not meet one or more of the conditions of Rule 56(b) is a discretionary activity.

## Rule 57<sup>95</sup> – Bridges (Consent Orders)

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (a) The placement, erection or reconstruction of any bridge in, on or over the bed of a lake, river, modified watercourse or wetland and any associated bed disturbance and discharge resulting from the carrying out of the activity is a permitted activity provided the following conditions are met:
  - (ia) the general conditions set out in Rule 55A;
  - (i) there are no support structures (for example, piles) in the bed;
  - (ii) the bridge and its abutments do not increase the risk of flooding to surrounding land;
  - (iii) the bridge and its bank abutments do not impede the flow of water within the river channel; and
  - (iv) the structure is not within any mātaitai, nohoanga, or taiāpure.

**Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre 1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

(b) The placement, erection or reconstruction of any bridge in, on or over the bed of a lake, river, modified watercourse or wetland and any associated bed disturbance and discharge resulting from the carrying out of the activity that does not meet one or more of the conditions of Rule 57(a) is a restricted discretionary activity.

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

- the design and location of the bridge;
- 2. effects on flood risk, river morphology and dynamics (including erosion and deposition), aquatic and riverine ecosystems and habitats, the spiritual and cultural values and beliefs of the tangata whenua, taonga species, natural character and amenity values, outstanding natural features, public access and navigational safety; and

<sup>95</sup> Appeal to Environment Court by Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

- 3. any conditions in Rule 57(a) that cannot be met.
- (c) The use of any bridge in, on or over the bed of a lake, river, modified watercourse or wetland is a permitted activity provided the following conditions are met:
  - (ai) general conditions (a), (f), (i), (j) and (k) set out in Rule 55A; and
  - (i) the structure is lawfully established.
- (d) The use of any bridge in, on or over the bed of a lake, river, modified watercourse or wetland and any associated bed disturbance and discharge resulting from the carrying out of the activity that does not meet one or more of the conditions of Rule 57(c) is a discretionary activity.

## Rule 5896 – Cables, wires and pipes (Consent Orders)

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (a) The placement, erection or reconstruction of any cable, wire, pipe or pipeline (including any intake or discharge pipe or temporary gauging system) and associated safety signs or markers in, on, under or over the bed of a lake, river, modified watercourse or wetland and any associated bed disturbance and discharge resulting from the carrying out of the activity is a permitted activity provided the following conditions are met:
  - (ia) the general conditions set out in Rule 55A;
  - (i) the structure does not have any support structures (for example, stays or piles) in the bed (other than if it is attached to a pre-existing structure, such as a bridge);
  - (ii) the structure does not cause a hazard to boating/navigation, or aircraft/aviation;
  - (iii) where the structure crosses over the bed, and is not a temporary structure, it does not impede the flow of water within the river channel;
  - (iv) where the structure crosses over the bed, and is designed to carry contaminants, it complies with the relevant construction standards imposed by a territorial authority under the Building Act;
  - (v) where the structure crosses under the bed it is completely buried and remains buried, with the depth of burial being indicated on markers on either bank;
  - (vi) where the structure is an intake pipe, it has a screening device to prevent fish from entering the pipe in accordance with Appendix R;
  - (vii) where the structure is a discharge pipe, any discharge from the pipe does not cause significant erosion of, or deposition on, the surrounding bed or banks; and
  - (viii) the structure is not within any mātaitai, nohoanga, or taiāpure.

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

(b) The placement, erection or reconstruction of any cable, wire, pipe or pipeline (including any intake or discharge pipe or temporary gauging system) and associated safety signs or markers in, on, under or over the bed of a lake, river, modified watercourse or wetland and any associated bed disturbance and discharge resulting from the carrying out of the activity that

<sup>&</sup>lt;sup>96</sup> Appeal to Environment Court by Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

does not meet one or more of the above conditions of Rule 58(a) is a restricted discretionary activity.

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

- 1. the design and location of the structure;
- 2. effects on river morphology and dynamics (including erosion and deposition), aquatic and riverine ecosystems and habitats, the spiritual and cultural values and beliefs of the tangata whenua, taonga species, landscape, natural character and amenity values, navigation and aviation hazards, public access and recreation values; and
- 3. any conditions in Rule 58(a) that cannot be met.
- (c) The use of any cable, wire, pipe or pipeline (including any intake or discharge pipe or temporary gauging system) and associated safety signs or markers in, on or over the bed of a lake, river, modified watercourse or wetland is a permitted activity provided the following conditions are met:
  - (ai) general conditions (f), (i), (j) and (k) set out in Rule 55A; and
  - (i) the structure is not used to store hazardous substances.
- (d) The use of any cable, wire, pipe or pipeline (including any intake or discharge pipe or temporary gauging system) and associated safety signs or markers in, on or over the bed of a lake, river, modified watercourse or wetland that does not meet one or more of the conditions of Rule 58(c) is a discretionary activity.

## Rule 59<sup>97</sup> – Culverts (Consent Orders)

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (a) The placement, erection or reconstruction of any culvert including any associated inlet or outlet protection structure in, on, under or over the bed of a river, modified watercourse or wetland (excluding natural wetlands), and any associated bed disturbance and discharge resulting from carrying out the activity, is a permitted activity provided the following conditions are met:
  - (ia) the general conditions set out in Rule 55A;
  - (i) the maximum diameter of any single culvert is 1,200 millimetres;
  - (iii) any culvert is positioned so that its alignment is the same as the river;
  - (iv) any culvert is designed to pass flood flows (either through, around or over the culvert) and does not increase the risk of flooding to neighbouring properties;
  - (v) the invert (or bottom) of any culvert is installed to a depth of either 300 millimetres below the natural bed level or one-third of the diameter of the culvert, whichever is the lesser;
  - (vi) any culvert is purpose built for the passage of water (i.e. not a drum, container or other item not designed as a culvert);
  - (viii) fill over any culvert is not greater than 4 metres (the vertical distance measured from the crest of the fill to the natural bed at the downstream invert of the structure); and
  - (ix) any structure is not within any mātaitai, nohoanga, or taiāpure.

**Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the

<sup>&</sup>lt;sup>97</sup> Appeal to Environment Court by (ii) Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

(b) The placement, erection or reconstruction of any culvert including any associated inlet or outlet protection structure in, on, under or over the bed of a river, modified watercourse or wetland, and any associated bed disturbance and discharge resulting from carrying out the activity, that does not meet one or more of the conditions of Rule 59(a) is a controlled activity.

#### The Southland Regional Council will exercise control over the following matters:

- 1. the design and location of the culvert;
- any effects on flood risk, river morphology and dynamics (including erosion and deposition), aquatic and riverine ecosystems and habitat (including fish passage), taonga species, the spiritual and cultural values and beliefs of the tangata whenua, landscape, natural character and amenity values, navigational safety and public access; and
- 3. any conditions in Rule 59(a) that cannot be met.
- (c) The use, repair and maintenance of any culvert including any associated inlet or outlet protection structure in, on, under or over the bed of a lake, river, modified watercourse or wetland is a permitted activity provided the following conditions are met:
  - (ai) general conditions (f), (i), (j) and (k) set out in Rule 55A.
- (d) The use, repair and maintenance of any culvert including any associated inlet or outlet protection structure in, on, under or over the bed of a lake, river, modified watercourse or wetland that does not meet one or more of the conditions of Rule 59(c) is a discretionary activity.

## Rule 59A<sup>98</sup> – On-farm sediment traps (Consent Orders)

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (a) The construction, excavation, modification or maintenance of an on-farm sediment trap in, on, under or over the bed of any intermittent or ephemeral river and any associated bed disturbance, removal of aquatic weeds and plants and associated discharge resulting from carrying out the activity is a permitted activity provided the following conditions are met:
  - (i) general conditions (e), (f), (g), (h) and (i) set out in Rule 55A;
  - (ii) the construction, excavation, modification or maintenance of the sediment trap is undertaken solely for sediment control purposes or maintaining the capacity and effective functioning of the sediment trap;
  - (iii) the sediment trap is not within any mātaitai, nohoanga, or taiāpure;
  - (iv) the sediment trap has:
    - (1) fencing to prevent stock access; and
    - (2) bank batter slope no less than 3 horizontal:1 vertical; and
  - (v) the construction, excavation, modification or maintenance of the sediment trap does not result in the destabilisation of any lawfully established structure;
  - (vi) any build-up of sediment within the sediment trap which may adversely affect flood risk, drainage capacity, or bed or bank stability is removed as soon as practicable.

<sup>&</sup>lt;sup>98</sup> Appeal to Environment Court by Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

(b) The construction, excavation, modification or maintenance of an on-farm sediment trap in, on, under or over the bed of any intermittent or ephemeral river and any associated bed disturbance, removal of aquatic weeds and plants, and associated discharge resulting from carrying out the activity that is not permitted by Rule 59A(a) is a discretionary activity.

## Rule 60<sup>99</sup> – Dams and weirs (Consent Orders)

- **Note 1:** The Building Act 2004 specifies obligations on the owner of a dam as defined in that Act regarding classification, certification and other matters of safety. Plan users should contact the Southland Regional Council to inquire about these requirements in each case.
- **Note 2:** This rule manages dam and weir structures. Any associated take, diversion, use or discharge of water is covered by other rules.
- **Note 3:** This rule does not apply to weirs constructed for erosion control purposes under Rule 61.
- Note 4: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.
- (a) The placement, erection or reconstruction of any dam or weir in, on or over the bed of a lake, river, modified watercourse and the associated damming of water (either inside or outside the bed), and any associated bed disturbance and discharge resulting from the carrying out of the activity, is a permitted activity provided the following conditions are met:
  - (ia) the general conditions set out in Rule 55A;
  - (i) if the maximum height of the dam or weir exceeds 4 metres or the impoundment volume exceeds 20,000 cubic metres of water or other fluid, a building consent is obtained for the dam or weir prior to its construction commencing;
  - (iii) the dam or weir is located below a catchment area of less than 500 hectares; and
  - (iv) the dam or weir is not located upstream of any railway, formed public road, or residence where these are likely to be affected by any failure of the structure;
  - (v) the dam or weir has a spillway, or an auxiliary spillway, that is capable of safely conveying flood flows;
  - (vi) the dam or weir does not impound water or adversely affect drainage beyond the landholding on which it is constructed, unless agreed to in writing by the affected landowner;
  - (vii) the discharge from the dam or weir is to the original channel, and does not cause significant erosion of, or deposition on, the downstream bed or banks;
  - (viii) the dam or weir is not in the Mataura, Ōreti or Waikaia River;
  - (ix) For the purposes of Rule 60(a) the height of a dam or weir is the vertical distance from the crest of the dam or weir and must be measured:
    - (1) in the case of a dam or weir across a river, from the natural bed of the stream at the lowest downstream outside limit of the dam or weir; or
    - (2) in the case of a dam or weir not across a river, from the lowest elevation at the outside limit of the dam or weir; or
    - (3) in the case of a canal, from the invert of the canal; and
  - (x) the structure is not within any mātaitai, nohoanga, or taiāpure. 100

<sup>99</sup> Appeal to Environment Court by Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041

 $<sup>^{\</sup>rm 100}$  Mātaitai and taiāpure defined in the introduction at page 10.

- The use of any dam or weir is a permitted activity provided the following conditions are met:
  - general conditions (f), (i), (j) and (k) set out in Rule 55A; and (i)
  - (ii) the structure is lawfully established.

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (b) The use, placement, erection or reconstruction of any dam or weir in, on or over the bed of a lake, river, modified watercourse and the associated damming of water (either inside or outside the bed), and any associated bed disturbance and discharge resulting from the carrying out of the activity, that does not meet one or more of the conditions of Rule 60(ab) or Rule 60(a) respectively and is not a non-complying activity under Rule 60(c) or a prohibited activity under Rule 60(d) is a discretionary activity.
- (c) The use, placement or erection of any dam or weir on the main stems of the Aparima River, downstream of the Aparima Forks at NZ Topo 50 CE09 051 299101, and the Ōreti River, downstream of Rocky Point at NZ Topo 50 CE09 274 327<sup>102</sup> is a non-complying activity.
- The placement or erection of dams or weirs in the Mataura or Waikaia River and in the Ōreti (d) River main stem from Rocky Point at NZ Topo 50 CE09 274 327<sup>103</sup> upstream to the forks at NZ Topo 50 CC09 245 832<sup>104</sup> is a prohibited activity.

## Rule 61<sup>105</sup> – Erosion control structures (Consent Orders)

**Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The <u>responsibilities regarding archaeological sites are set out in Appendix S.</u>

- Notwithstanding any other rule in this Plan, the placement or reconstruction of rock rip rap, (a) gabion baskets or anchored or layered trees in, on, under or over the bed of a lake, river or modified watercourse and any associated bed disturbance and discharge resulting from the carrying out of the activity, is a permitted activity provided the following conditions are met:
  - the general conditions set out in Rule 55A; (ai)
  - the work is not in a lake bed, national park, reserve or land in respect of which there is a (i) covenant under the Conservation Act 1987, Queen Elizabeth the Second Trust Act 1977
  - (ii) any anchored or layered trees are anchored to the bed or banks so that they will not wash away in a 2% Annual Exceedance Probability flood event;
  - there is no planting of pest plant species as identified in the Regional Pest Management Strategy for Southland 2013 or any replacement plan prepared under the Biosecurity Act, or Biosecurity NZ Register of Unwanted Organisms, in circumstances where the planting of those pest plant species is restricted under the Biosecurity Act; and
  - (iv) the structure is not within any mātaitai, nohoanga, or taiāpure.

<sup>101</sup> The equivalent NZ260 map reference is D44 151 919 and the equivalent NZTM2000 coordinates are 1205134 mE 4929948 mN

 $<sup>^{102}</sup>$  The equivalent NZ260 map reference is E44 373 946 and the equivalent NZTM2000 coordinates are 1227364 mE 4932686 mN

<sup>103</sup> The equivalent NZ260 map reference is E44 373 946 and the equivalent NZTM2000 coordinates are 1227364 mE 4932686 mN

<sup>104</sup> The equivalent NZ260 map reference is E42 345 450 and the equivalent NZTM coordinates are 1224494 mE 4983155 mN

<sup>&</sup>lt;sup>105</sup> Appeal to Environment Court by Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041

- **Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre 1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.
- (b) The placement or reconstruction of preformed concrete in, on, under or over the bed of a lake, river or modified watercourse and any associated bed disturbance and discharge resulting from the carrying out of the activity, is a permitted activity provided the following conditions are met:
  - (ai) the general conditions set out in Rule 55A;
  - (i) the river is less than 3 metres wide on average over the area of construction;
  - (ii) the placement of the concrete is for the sole purpose of remedying or mitigating erosion;
  - (iii) the work is not in a lake bed, national park, reserve or land in respect of which there is a covenant under the Conservation Act 1987, Queen Elizabeth the Second Trust Act 1977 or Reserves Act 1977;
  - (iv) any individual concrete piece has a minimum length of 300 millimetres;
  - (v) there is no concrete that has not set or loose cement present;
  - (vi) the concrete has not been used in direct contact with chemicals that are toxic to aquatic life:
  - (vii) the concrete does not contain asbestos pipe or asbestos cement mixtures; and
  - (viii) reinforcing steel does not protrude from the completed works.
  - **Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.
- (c) The placement, erection or reconstruction of rock rip rap, gabion baskets or anchored or layered trees or pre-formed concrete in, on, under or over the bed of a lake, river or modified watercourse and any associated bed disturbance and discharge resulting from the carrying out of the activity, that does not meet one or more of the conditions listed in Rule 61(a) or Rule 61(b) is a discretionary activity.

## Rule 62<sup>106</sup> - Fords (Consent Orders)

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (a) The excavation of the bed of a lake, river or modified watercourse and any associated bed disturbance and discharge resulting from the carrying out of the activity for the purpose of constructing a ford is a permitted activity provided the following conditions are met:
  - (ai) the general conditions set out in Rule 55A.

**Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre 1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

<sup>&</sup>lt;sup>106</sup> Appeal to Environment Court by Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

- (b) The excavation of the bed of a lake, river or modified watercourse and any associated bed disturbance and discharge resulting from the carrying out of the activity for the purpose of constructing a ford that does not meet one or more of the conditions in Rule 62(a), or the placement and erection of any ford involving a structure such as a concrete pad in, on or over the bed of a river or lake, is a discretionary activity.
- (c) The use of any ford in, on or over the bed of a lake, river or modified watercourse and any associated bed disturbance and discharge resulting from the carrying out of the activity is a permitted activity provided the following conditions are met:
  - (ai) general conditions (f), (i), (j) and (k) set out in Rule 55A;
  - (i) the ford is lawfully established; and
  - (ii) where the ford is used as a vehicle crossing, the activity meets the conditions set out in Rule 62(a).
- (d) The use of any ford in, on or over the bed of a lake, river or modified watercourse and any associated bed disturbance and discharge resulting from the carrying out of the activity that does not meet one or more of the conditions in Rule 62(c) is a discretionary activity.

## Rule 63 – Moorings and signs

**Note:** The installation of moorings within the National Parks will require a Department of Conservation Concession.

- (a) The placement, erection or reconstruction of any mooring or stand-alone sign in, on, under or over the bed of a lake, river or modified watercourse and any associated bed disturbance and discharge resulting from carrying out the activity is a permitted activity provided the following conditions are met:
  - (ai) general condition (k) set out in Rule 55A;
  - (i) the mooring or stand-alone sign is located in Fiordland National Park (including lakes Te Anau, Manapōuri, Monowai and Hauroko);
  - (ii) in the case of a mooring, the mooring block is free of contaminants including oil and grease;
  - (iii) in the case of a mooring, the use of the mooring does not interfere with the use of existing lawful moorings;
  - (iv) where the mooring or stand-alone sign has been moved to the site from any other area, it is effectively cleaned to prevent the spread of pest species; and
  - (vi) the mooring or stand-alone sign is not within any mātaitai, nohoanga, or taiāpure.
- (b) The placement, erection or reconstruction of any mooring or stand-alone sign in, on, under or over the bed of a lake, river or modified watercourse and any associated bed disturbance and discharge resulting from carrying out the activity that does not meet one or more of the conditions of Rule 63(a) is a restricted discretionary activity provided the following conditions are met:
  - (ai) the general conditions set out in Rule 55A.

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

- 1. the location of the mooring or stand-alone sign; and
- 2. any effects on natural character and amenity values, the spiritual and cultural values and beliefs of the tangata whenua, taonga species, existing users and navigational safety, suitability of the mooring for its purpose, and maintenance requirements.

**Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (c) The use of any mooring or stand-alone sign in, on, under or over the bed of a lake, river or modified watercourse is a permitted activity provided the following conditions are met:
  - (ai) general conditions (f), (i), (j) and (k) set out in Rule 55A;
  - (i) the mooring or stand-alone sign is located in Fiordland National Park (including lakes Te Anau, Manapōuri, Monowai and Hauroko); and
  - (ii) in the case of a mooring, the use of the mooring does not interfere with the use of existing lawful moorings.
- (d) The use of any mooring or stand alone sign in, on or over the bed of a lake, river or modified watercourse that does not meet one or more of the conditions of Rule 63(c) is a discretionary activity.

## Rule 63A<sup>107</sup> – Navigational aids and health and safety signs (Consent Orders)

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (a) The placement, erection or reconstruction of a navigational aid or health and safety sign in, on, under or over the bed of a lake, river or modified watercourse, and any associated bed disturbance and discharge resulting from carrying out the activity, is a permitted activity provided the following conditions are met:
  - (i) where the navigational aid or health and safety sign has been moved to the site from any other area, it is effectively cleaned to prevent the spread of pest species; and
  - (ii) the navigational aid or health and safety sign is maintained in a state of good repair.
- (b) The placement, erection or reconstruction of a navigational aid or health and safety sign in, on, under or over the bed of a lake, river or modified watercourse and any associated bed disturbance that does not meet one or more of the conditions of Rule 63A(a) is a discretionary activity.
- (c) The use of a navigational aid or health and safety sign in, on, under or over the bed of a lake, river or modified watercourse is a permitted activity provided the following conditions are met:

  (i) general conditions (f), (i), (j) and (k) as set out in Rule 55A.
- (d) The use of a navigational aid or health and safety sign in, on or over the bed of a lake, river or modified watercourse that does not meet one or more of the conditions of Rule 63A(c) is a discretionary activity.

<sup>&</sup>lt;sup>107</sup> Appeal to Environment Court by Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

## Rule 64<sup>108</sup> – Temporary canoe gate or ski lane markers (Consent Orders)

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (a) The use, placement, erection or reconstruction of any temporary canoe gate or ski lane marker in, on or over the bed of a lake, river or modified watercourse and any associated bed disturbance and discharge resulting from carrying out the activity is a permitted activity provided the following conditions are met:
  - (ai) the general conditions set out in Rule 55A other than conditions (a), (b), (c), (d) and (e) of that Rule;
  - (i) the structure remains in place no longer than two weeks; 109 and
  - (ii) the structure does not cause a hazard to boating/navigation.

**Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

(b) The use, placement, erection or reconstruction of any canoe gate or ski lane marker in, on or over the bed of a lake, river or modified watercourse and any associated bed disturbance and discharge resulting from the carrying out of the activity that cannot meet one or more of the above conditions, is a restricted discretionary activity.

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

- 1. the location of the structure;
- 2. any effects on natural character and amenity values, the spiritual and cultural values and beliefs of the tangata whenua and navigational safety; and
- 3. any conditions in Rule 64(a) that cannot be met.

#### Rule 65 – Whitebait stands

- (a) The use of any lawfully established whitebait stand in, on, under or over the bed of a river or modified watercourse is a controlled activity provided the following conditions are met:
  - (i) the stand is secure against fluvial and coastal processes;
  - (ii) the stand is located so that it does not deflect flow into the bank or increase water velocities near the bank, if the stand is either on piles or is a floating pontoon construction; and
  - (iii) no stand exceeds more than one third of the width of the river or modified watercourse at that place at that time.

#### The Southland Regional Council will exercise its control over the following matters:

- 1. any effects on amenity values, river morphology and dynamics (including erosion and deposition), public safety and public access.
- (b) The maintenance and repair of any lawfully established whitebait stand in, on, under or over the bed of a river or modified watercourse (including the placement, erection and use of a

<sup>&</sup>lt;sup>108</sup> Appeal to Environment Court by Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041

 $<sup>^{\</sup>rm 109}$  The "two weeks" can include three consecutive weekends

replacement for a lawfully established whitebait stand) is a permitted activity provided the following conditions are met:

- (i) the nature, scale and dimensions of the stand are unchanged;
- (ii) the bed is not disturbed or any disturbance is corrected within 24 hours;
- (iii) no debris from maintenance of the stand enters the river or modified watercourse or bed;
- (iv) for a replacement stand, the original stand has been destroyed or it is necessary to move the stand due to natural alterations to the course of the river or modified watercourse, or bank erosion, or high water mark alterations;
- (v) the replacement stand is located as close as practicable to the site of the original stand and at least 20 metres distant from any other existing stand;
- (vii) the replacement stand does not impede public access to or along the bed of the river or modified watercourse; and
- (viii) any debris from the original stand is removed in accordance with Rule 65(d).
- (c) The alteration or reconstruction of any lawfully established whitebait stand on the existing site in, on, under or over the bed of a river or modified watercourse is a permitted activity provided the following conditions are met:
  - (i) the nature, scale and dimensions of the stand are unchanged; and
  - (ii) the bed beneath, above or beyond the structure is not disturbed or any disturbance is corrected within 24 hours.
- (d) The removal of any whitebait stand in, on, under or over the bed of a river or modified watercourse is a permitted activity provided all debris from the stand is removed from the bed.
- (f) The placement or erection of any replacement whitebait stand in, on or over the bed of a lake, river or modified watercourse that does not comply with the conditions of Rule 65(b) is a prohibited activity.

#### Rule 65A – Maimai

- (a) The erection, placement, use, maintenance or alteration of any maimai in, on, or over the bed of a lake, river, modified watercourse or wetland is a permitted activity provided the following conditions are met:
  - (i) the general conditions in Rule 55A other than conditions (c), (d), (e), (g) and (h) of that Rule:
  - (ii) the maimai does not exceed 10 square metres in area;
  - (iii) the erection or placement does not impede any legal access to the lakes, rivers, modified watercourse or wetland;
  - (iv) the maimai is on piles; and
  - (v) the maimai is secure against fluvial processes.
- (b) The erection, placement, use, maintenance or alteration of any maimai in, on, or over the bed of a lake, river, modified watercourse or wetland that does not meet one or more of the conditions of Rule 65A(a) is a restricted discretionary activity.

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

1. any effects on flood risk, river morphology and dynamics (including erosion and deposition), aquatic and riverine ecosystems and habitats (including fish passage), the spiritual and cultural values and beliefs of the tangata whenua, taonga species,

- landscape, natural character and amenity values, navigation hazard, public access and recreation values;
- 2. the actual and potential environmental effects of not meeting the condition or conditions of Rule 65A(a).

**Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

## Rule 66<sup>110</sup> – Maintenance of structures (Consent Orders)

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (a) Unless otherwise stated in this Plan, the maintenance of any structure in, on, under or over the bed of a lake, river, modified watercourse or wetland and any associated bed disturbance, gravel extraction and discharge resulting from the carrying out of the activity, is a permitted activity provided the following conditions are met:
  - (ai) the general conditions in Rule 55A other than conditions (d), (j) and (k) of that Rule;
  - (i) the structure is lawfully established; and
  - (v) any bed disturbance is the minimum necessary to undertake the activity and returned as near as practicable to its original channel shape, area, depth, or gradient on completion of the activity (with the exception of revegetation or where gravel is required to be moved).

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre 1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

(b) Unless otherwise stated in this Plan, the maintenance of any structure in, on, under or over the bed of a lake, river, modified watercourse or wetland and any associated bed disturbance, gravel extraction and discharge from carrying out the activity that does not meet one or more of the conditions of Rule 66(a) is a restricted discretionary activity.

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

- 1. any conditions in Rule 66(a) that cannot be met; and
- 2. any effects on taonga species amenity values, natural character and outstanding natural features.

## Rule 67<sup>111</sup> – Alteration or extension of structures (Consent Orders)

**Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological

<sup>&</sup>lt;sup>110</sup> Appeal to Environment Court by Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041

Appeal to Environment Court by Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041

<u>authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The</u> <u>responsibilities regarding archaeological sites are set out in Appendix S.</u>

- (a) Unless otherwise stated in the Plan, the alteration or extension of any structure in, on, under or over the bed of a lake, river or modified watercourse, and any associated bed disturbance and discharge resulting from carrying out the activity, is a permitted activity provided the following conditions are met:
  - (ai) the general conditions set out in Rule 55A;
  - (i) the structure is lawfully established; and
  - (iii) the alteration or extension does not involve an increase in the number or area of any support structures in the bed of the lake, river or modified watercourse.

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

(b) Unless otherwise stated in this Plan, the alteration or extension of any structure in, on, under or over the bed of a lake, river or modified watercourse and any associated bed disturbance and discharge resulting from the carrying out of the activity that does not meet one or more of the conditions of Rule 67(a) is a restricted discretionary activity.

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

- 1. any effects on the morphology and dynamics (including erosion and deposition) of the lakes, rivers or modified watercourses, natural character and amenity values, the spiritual and cultural values and beliefs of the tangata whenua and taonga species; and
- 2. any conditions in Rule 67(a) that cannot be met.

## Rule 68<sup>112</sup> – Demolition or removal of structures (Consent Orders)

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (a) Unless otherwise stated in this Plan, the demolition or removal of any structure in, on, under or over the bed of a lake, river or modified watercourse and any associated bed disturbance and discharge resulting from carrying out the activity is a permitted activity provided the following conditions are met:
  - (ai) the general conditions set out in Rule 55A other than conditions (i), (j) and (k) of that Rule: and
  - (xii) demolition or removal of the structure does not cause significant erosion of, or deposition on, the surrounding bed or banks.

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre 1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

<sup>&</sup>lt;sup>112</sup> Appeal to Environment Court by Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

(b) Unless otherwise stated in this Plan, the demolition or removal of any structure in, on, under or over the bed of a lake, river or modified watercourse and any associated bed disturbance and discharge resulting from the carrying out of the activity that does not meet one or more of the conditions of Rule 68(a) is a restricted discretionary activity.

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

- any effects on the spiritual and cultural values and beliefs of the tangata whenua, taonga species, natural character values and outstanding natural features and amenity values;
- 2. any conditions in Rule 68(a) that cannot be met.

## Rule 69 – Structures not covered by, or not complying with, rules

Any use, erection, maintenance, reconstruction, placement, replacement, alteration, extension, removal or demolition of any structure in, on, under or over the bed of a lake, river, modified watercourse or wetland, and any associated bed disturbance and discharge resulting from carrying out the activity, that is not provided for by a rule in this Plan, or that does not meet one or more of the conditions set out by a rule, is a discretionary activity (unless the Plan specifically provides that an activity that fails to meet the conditions set out by a rule is a controlled activity or a restricted discretionary activity).

# Bed disturbance activities in river and lake beds and wetlands (Consent Orders)

### Rule 70<sup>113</sup> – Stock exclusion from water bodies

- (a) From 1 July 2020, the disturbance of roosting and nesting areas of the black fronted tern, black billed gull, banded dotterel or black fronted dotterel located in the bed of a lake, river (including an ephemeral river), modified watercourse, or natural wetland by stock including cattle, deer, pigs or sheep is a prohibited activity.
- (b) From 1 July 2020, the disturbance of the bed of a Regionally Significant Wetland or Sensitive Water Body listed in Appendix A by stock including cattle, deer, pigs or sheep is a prohibited activity.
- (c) The disturbance of the bed of a river (excluding ephemeral rivers where stock access is permitted under Rule 20(aa)) or modified watercourse for the purposes of moving stock including cattle, deer, pigs or sheep (but excluding dairy cattle on a dairy platform or on land used for dairy support) is a permitted activity provided the stock are being supervised and are actively driven across the water body in one continuous movement.
- (d) Bed disturbance activities that do not comply with Rule 70(c) are a non-complying activity.
- (e) Other than as provided for by Rules 70(c) and 70(d), the disturbance of the bed of a lake, river (excluding ephemeral rivers where stock access is permitted under Rule 20(aa)), modified watercourse or natural wetland by cattle, deer or pigs is a permitted activity prior to the dates set out in Table 1 for the land having listed land slopes after which time it is respectively a discretionary activity on that land.

Table 1: Timetable for stock exclusion from water bodies

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

<sup>&</sup>lt;sup>113</sup> Appeal to Environment Court by (i) Beef + Lamb New Zealand ENV-2018-CHC-000034, 000035

<sup>(</sup>ii) Southland Fish and Game Council ENV-2018-CHC-000037



#### Rule 70 – Stock exclusion from water bodies

- (a) From 1 July 2020, The disturbance of roosting and nesting areas of the black fronted tern, black billed gull, banded dotterel or black fronted dotterel located in the bed of a lake, river, (including an ephemeral river), or modified watercourse, or natural wetland by stock including cattle, deer, pigs or sheep is a prohibited activity.
- (b) From 1 July 2020, The disturbance of the bed of a Regionally Significant Wetland or Sensitive Water Body listed in Appendix A by stock including cattle, deer, pigs or sheep is a prohibited activity.
- (c) The disturbance of the bed of a river (excluding ephemeral rivers where stock access is permitted under Rule 20(aa)) or modified watercourse for the purposes of moving stock including cattle, deer, pigs or sheep (but excluding dairy cattle on a dairy platform or on land used for dairy support) is a permitted activity provided the stock are being supervised and are actively driven across the water body in one continuous movement.
- (ca) The disturbance of the bed of a lake, river or modified watercourse by sheep, other than as regulated by Rule 70(a), 70(b) and 70(cb), is a permitted activity, provided the following conditions are met:
  - (i) the waterbody is not already fenced to prevent sheep access;
  - (ii) the sheep are not being break fed or intensively winter grazed;
  - (iii) there is no significant de-vegetation leading to exposure of soil of the bed and banks, pugging or alteration to the profile of the bed and banks, other than at fords or stock crossings; and
  - (iv) A Farm Environmental Management Plan that includes identification of how access by sheep will be managed is:
    - (A) prepared, and certified, and implemented compliance with it is audited, in accordance with Appendix N; and
    - (B) implemented by the landholder completing the practices, actions, and mitigations specified in the Farm Environmental Management Plan in accordance with the timeframes set out in that Plan; and
- (ca1) The disturbance of the bed of a waterbody within a natural wetland for grazing by sheep is a discretionary activity.
- (cb) Other than as provided for in Rule 70(ca1), Fthe use of land within a natural wetland or the disturbance of the bed of a water body within a natural wetland for access or grazing stock is a non-complying activity.
- (d) Bed disturbance activities that do not comply with Rule 70(c) are a non-complying activity.
- (e) Other than as provided for by Rules 70(c), 70(ca), 70(cb) and 70(d), the disturbance of the bed of a lake, river (excluding ephemeral rivers where stock access is permitted under Rule 20(aa)), modified watercourse, open drain, or natural wetland by cattle, deer or pigs is a permitted activity prior to the dates set out in Table 1 for the listed land slopes after which time it is respectively a discretionary activity on that land.

Table 1: Timetable for stock exclusion from waterbodies (other than wetlands)

	Land slope (as classified by the LRI slope dataset)			
Farm/stock type	Plains (0-3°)	Undulating/rolling	land	Steeper land (>15°
		(>3-15°)		and over)

<sup>&</sup>lt;sup>114</sup> Redundant term

Dairy cattle (on dairy platforms) and pigs	All water bodies (including open drains) that are:  • over 1 metre wide from 1 July 2017 on all slopes			
	less than 1 metre wide from 1 July 2020 on the plains and			
	undulating/rolling land			
Dairy support <del>(on either</del>	All water	All water bodies, and open	All water bodies,	
land owned/leased by	bodies <u>, and</u>	drains over 1 metre wide	and open drains	
the dairy farmer or third	open drains	from 1 July 2022	where break	
<del>party land)</del>	from 1 July		feeding occurs	
	2022		from 1 July 2022	
Beef cattle and deer	All water bodies	All water bodies (including open drains) over 3		
	(including open metre wide from 1 July 2030, unless the av		0, unless the average	
	drains) from 1	stocking rate on the land directly adjacent to the		
	July 2025 water body is less than 6 stock units per hecta		ock units per hectare	
	All water bodies (including open drains) where break feeding or			
	supplementary feeding occurs from 1 July 2022.			

## Rule 71 - Channel realignment, widening or deepening

(a) Except as provided for elsewhere in this Plan, the excavation or disturbance of the bed of a lake, river or modified watercourse for the purpose of realigning, widening or deepening any channel within the bed is a discretionary activity.

## Rule 72<sup>115</sup> – Dry cuts (Consent Orders)

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (a) The excavation or disturbance of the bed of a lake, river or modified watercourse for the purpose of making a dry cut is a restricted discretionary activity provided the following conditions are met:
  - (ai) the general conditions set out in Rule 55A other than conditions (c), (i), (j) and (k) of that Rule.

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

- 1. the design and location of the work; and
- any effects on lakes, rivers or modified watercourses, morphology and dynamics (including erosion and deposition), aquatic and riverine ecosystems and habitat, public access, the spiritual and cultural values and beliefs of the tangata whenua, landscape, natural character and amenity values, outstanding natural features, and navigation hazards.

**Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

<sup>&</sup>lt;sup>115</sup> Appeal to Environment Court by Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

(b) The excavation or disturbance of the bed of a lake, river or modified watercourse for the purpose of making a dry cut that does not comply with the conditions of Rule 72(a) is a discretionary activity.

## Rule 73<sup>116</sup> – Gravel extraction (Consent Orders)

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (a) The excavation or disturbance of the bed of a lake, river or modified watercourse for the purpose of extracting gravel or aggregate (except where the extraction of gravel or aggregate is associated with the maintenance of structures which is otherwise authorised under Rule 66) is a restricted discretionary activity provided the following conditions are met:
  - (ai) the general conditions set out in Rule 55A other than conditions (i), (j) and (k) of that Rule;
  - (i) the quantity of gravel removed is less than 120 cubic metres per year;
  - (ii) there is no extraction from flowing water; and
  - (iii) the area is left level and tidy on completion of the activity.

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

- 1. the quantity of material extracted and location of the extraction; and
- 2. any effects on infrastructure, river morphology and dynamics (including erosion or deposition), aquatic and riverine ecosystems and habitat, taonga species, natural character and amenity values, navigation hazard, public access, recreation values and the spiritual and cultural values and beliefs of the tangata whenua.

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre 1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (b) The excavation or disturbance of the bed of a lake, river or modified watercourse for the purpose of extracting gravel or aggregate (except where the extraction of gravel is associated with the maintenance of structures which is otherwise authorised under Rule 66) for flood or erosion control or the protection of infrastructure is a restricted discretionary activity provided the following conditions are met:
  - (ai) the general conditions set out in Rule 55A other than conditions (i), (j) and (k) of that Rule.

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

- 1. the <u>quantity of material extracted and</u> location of the extraction; <u>and</u>
- 2. the design of the works and the quantity of material extracted; and
- 3. any effects on infrastructure, flood risk, river morphology and dynamics (including erosion or deposition), aquatic and riverine ecosystems and habitat, taonga species, natural character, navigation hazard, public access, recreational values and the spiritual and cultural values and beliefs of the tangata whenua.

Appeal to Environment Court by (i) Southland Fish and Game Council ENV-2018-CHC-000037 (iii) Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

- **Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre 1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.
- (c) The excavation or disturbance of the bed of a lake, river or modified watercourse for the purpose of extracting gravel or aggregate (except where the extraction of gravel is associated with the maintenance of structures which is otherwise authorised under Rule 66) that cannot meet the conditions in Rules 73(a) or 73(b) and is a discretionary activity.

## Rule 74<sup>117</sup> – Wetlands (Consent Orders)

- (a) The use of land within a wetland for the purposes of:
  - (i) maintaining or enhancing the wetland, or
  - (ii) maintaining existing authorised structures within the wetland; or
  - (iii) removing plant matter for the purposed of mahinga kai undertaken in accordance with Tikanga Māori;

is a permitted activity provided the following conditions are met:

- (1) there is no destruction or removal of any indigenous vegetation from any natural wetland, unless the activity is for the purpose of mahinga kai undertaken in accordance with Tikanga Māori;
- (2) there is no reduction in the size of the wetland;
- (3) there is no flooding or ponding caused on any land owned or occupied by another person; and
- (4) there is no establishment of pest plant species that:
  - (A) are listed in the Regional Pest Management Strategy for Southland 2013 or any replacement plan prepared under the Biosecurity Act, or Biosecurity NZ Register of Unwanted Organisms, in circumstances where the planting of those pest plant species is restricted under the Biosecurity Act; or
  - (B) may damage existing biodiversity values of the wetland; or
  - (C) will form the dominant vegetation type in the wetland.
- (ab) The use of land within a wetland for commercial peat harvesting is a discretionary activity provided the following conditions are met:
  - (i) the applicant can show, by way of aerial photographs or other documentary evidence, that a commercial peat harvesting operation occurred within the wetland at some time during the period between 30 June 2006 and 30 June 2016; and
  - (ii) there is no establishment of pest plant species that:
    - (1) are listed in the Regional Pest Management Strategy for Southland 2013 or any replacement plan prepared under the Biosecurity Act, or Biosecurity NZ Register of Unwanted Organisms, in circumstances where the planting of those pest plant species is restricted under the Biosecurity Act; or
    - (2) may damage existing biodiversity values of the wetland; or
    - (3) will form the dominant vegetation type in the wetland.
- (b) The use of land within a wetland (excluding a natural wetland) that is for one or more of the purposes listed in Rule 74(a) but which does not comply with the conditions of Rule 74(a), or the use of land within a wetland that is not a natural wetland that is not for one or more of the purposes listed in Rule 74(a), is a discretionary activity.

<sup>&</sup>lt;sup>117</sup> Appeal to Environment Court by (i) Southland Fish and Game Council ENV-2018-CHC-000037 (ii) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047
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(c) The use of land within a natural wetland that is not for one or more of the purposes listed in Rule 74(a) or 74(ab)-is a non-complying activity.

## Rule 75<sup>118</sup> – Vegetation flood debris<sup>119</sup> removal (Consent Orders)

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (a) The removal of vegetation flood debris obstructing water flow, including plants dislodged and transplanted during flood flows, from the bed of a lake, river or modified watercourse, and any associated bed disturbance and discharge resulting from carrying out the activity, is a permitted activity provided the following conditions are met:
  - (ai) the general conditions set out in Rule 55A other than conditions (d), (i), (j) and (k) of that Rule;
  - (i) the removal of the material is for the purpose of flood or erosion control or maintaining the integrity of infrastructure; and
  - (ii) following the removal of material, the bed of the lake, river or modified watercourse which has been disturbed is returned as near as practicable to its original channel shape, area, depth and gradient.

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre 1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

(b) The removal of vegetation flood debris obstructing water flow, including plants dislodged and transplanted during flood flows, from the bed of a lake, river or modified watercourse, and any associated bed disturbance and discharge resulting from the carrying out of the activity, that does not meet one or more of the conditions of Rule 75(a) is a restricted discretionary activity.

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

- any effects on flood risk, rivers, modified watercourses, or lake morphology and dynamics (including erosion or deposition), and aquatic and riverine ecosystems and habitat; and
- 2. any conditions in Rule 75(a) that cannot be met.

## Rule 76 - Vegetation planting

- (a) The introduction or planting of any plant, or part of any plant, in the bed or margins of a lake, river, modified watercourse or wetland is a permitted activity, provided the following conditions are met:
  - (i) the planting is undertaken pursuant to a Farm Environmental Management Plan prepared in accordance with Appendix N, or is for the purposes of soil conservation or river control, or for enhancing biodiversity, or for enhancing mahinga kai or taonga species identified in Appendix M;

 $<sup>^{118}</sup>$  Appeal to Environment Court by Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041

<sup>&</sup>lt;sup>119</sup> Refer to the Glossary for the definition of "Vegetation flood debris"

- (ia) the planting does not restrict access to the lake, river, modified watercourse or wetland that is necessary for giving effect to Rule 78(a) or (b);
- (ii) the planting is not production forestry (excluding forestry species planted pursuant to the Soil Conservation and Rivers Control Act 1941); and
- (iii) no plants listed in the Regional Pest Management Strategy for Southland 2013 or any replacement plan prepared under the Biosecurity Act, or Biosecurity NZ Register of Unwanted Organisms, are introduced or planted in circumstances where the planting of those pest plant species is restricted under the Biosecurity Act.
- (c) The introduction or planting of any plant, or part of any plant, in the bed or margins of a lake, river, modified watercourse or wetland not provided for under Rule 76(a) is a discretionary activity.

**Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

## Rule 77<sup>120</sup> – Vehicles and machinery (Consent Orders)

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (a) The entry into or passage across the bed of a lake, river or modified watercourse by any wheeled or tracked vehicle or machine and any associated bed disturbance and discharge resulting from carrying out the activity is a permitted activity provided the following conditions are met:
  - (ai) the general conditions set out in Rule 55A other than conditions (a), (i), (j) and (k) of that Rule;
  - (i) there is no alteration to the original profile of the bed; and
  - (ii) the activity is necessary for the purposes of crossing over the bed, or carrying out another permitted or consented activity within the bed.

**Note:** In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre 1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

(b) The entry into or passage across the bed of a lake, river or modified watercourse by any wheeled or tracked vehicle or machine, and any associated bed disturbance and discharge resulting from the carrying out of the activity, that does not meet one or more of the conditions of Rule 77(a) is a restricted discretionary activity.

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

- 1. the location, type of vehicle or machine, and frequency and duration of the activity;
- 2. any effects on water quality, river morphology and dynamics (including erosion or deposition), taonga species, and aquatic and riverine ecosystems and habitat; and
- 3. the conditions in Rule 77(a) that cannot be met.

<sup>&</sup>lt;sup>120</sup> Appeal to Environment Court by Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

# Rule 78<sup>121</sup> – Weed and sediment removal for drainage maintenance (Consent Orders)

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (a) The removal of aquatic weeds and plants and sediment from any modified watercourse for the purpose of maintaining or restoring drainage outfall, and any associated bed disturbance and discharge resulting from carrying out the activity, is a permitted activity provided the following conditions are met:
  - (ai) general conditions (e), (f), (g), (h) and (l) set out in Rule 55A;
  - (i) the activity is undertaken solely to maintain or restore the drainage capacity of a modified watercourse that has previously been modified or maintained for drainage maintenance or restoration purposes at that location;
  - (ii) the activity is restricted to the removal of aquatic weeds and plants or sediment deposits;
  - (iia) the removal of river bed material other than aquatic weeds, plants, mud or silt is avoided as far as practicable;
  - (iii) any incidental bed disturbance is only to the extent necessary to undertake the activity and must not result in lowering of the bed below previously modified levels;
  - (iv) upon completion of the activity, fish passage is not impeded as a result of the activity;
  - (v) the operator takes all reasonable steps to return any fish captured or stranded by the activity to water immediately;
  - (vi) between the beginning of June and the end of October, there is no disturbance of the spawning habitat of trout; and
  - (xiii) where the modified watercourse is spring-fed, removal of aquatic weeds and plants is only to the extent that is necessary to undertake the activity and is kept to the absolute minimum.

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

(b) The removal of aquatic weeds and plants and sediment from any modified watercourse for the purpose of maintaining or restoring drainage outfall and any associated bed disturbance and discharge resulting from the carrying out of the activity that cannot meet one or more of the conditions of Rule 78(a) is a discretionary activity.

**Southland Regional Council (final):** 

Rule 78 – Weed and sediment removal <u>from modified watercourses</u> <del>for drainage maintenance</del>

<sup>&</sup>lt;sup>121</sup> Appeal to Environment Court by (i) Director-General of Conservation ENV-2018-CHC-000036

<sup>(</sup>ii) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>iii) Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041

<sup>(</sup>iv) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>(</sup>v) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

- (a) The removal of aquatic weeds and plants and sediment from any modified watercourse for the purpose of maintaining or restoring drainage outfall, and any associated bed disturbance and discharge resulting from carrying out the activity, is a permitted activity provided the following conditions are met:
  - (ai) general conditions (e), (f), (g), (h) and (l) set out in Rule 55A;
  - the activity is undertaken solely to maintain or restore the drainage capacity of a modified watercourse that has previously been modified or maintained for drainage maintenance or restoration purposes at that location;
  - (ii) the activity is restricted to the removal of aquatic weeds and plants or sediment deposits, provided that at least 95% of the sediment removed shall have a grain size of less than 2mm;
  - (iia) the removal of river bed material other than aquatic weeds, plants, mud or silt is avoided as far as practicable;
  - (iii) any incidental bed disturbance is only to the extent necessary to undertake the activity and must not result in lowering of the bed below previously modified levels;
  - (iv) upon completion of the activity, fish passage is not impeded as a result of the activity;
  - (v) the operator takes all reasonable steps to return any fish captured or stranded by the activity to water immediately <u>preferably to a location upstream of the activity</u>;
  - (vi) between the beginning of June and the end of October, there is no disturbance of the spawning habitat of trout; and
  - (xiii) where the modified watercourse is spring-fed, removal of aquatic weeds and plants is only to the extent that is necessary to undertake the activity and is kept to the absolute minimum; and
  - (xiv) the modified watercourse is not shown in Map Series 8 as a habitat of threatened non-diadromous galaxias.
- (b) The removal of aquatic weeds and plants and sediment from any modified watercourse for the purpose of maintaining or restoring drainage outfall and any associated bed disturbance and discharge resulting from the carrying out of the activity that cannot meet one or more of the conditions of Rule 78(a) is a discretionary activity.

#### Rule 79 – High country burning

- (b) The use of land for the burning of vegetation in Zone B of the Fire Hazard Zones (Map Series 5) between 1 May and 30 September in any one year is a permitted activity.
- (c) The use of land for the burning of vegetation in Zone A, or in Zone B between 1 October and 30 April in any one year, of the Fire Hazard Zones (Map Series 5) is a restricted discretionary activity provided the following conditions are met:
  - (i) one of the following has been obtained, which covers the proposed burning of vegetation on land:
    - (2) a permit for burning in the hill and high country from the Fire and Emergency New Zealand; or
    - (3) a consent from the Commissioner of Crown Lands for burning on Crown pastoral leasehold land; or
    - (4) a resource consent or permit for burning from the relevant territorial local authority as determined by their district plans and/or bylaws.
  - (ii) the burning does not occur above 800 metres above mean sea level.

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

- (1) Soil conservation and sediment control practices to be undertaken;
- (2) Adverse effects on areas of significant indigenous vegetation and habitat that is in proximity to wetlands, and lakes and rivers and their margins.
- (d) The use of land for the burning of vegetation within Zones A or B of the Fire Hazard Zones that does not comply with Rule 79(c) is a discretionary activity.

## **Financial Contributions**

#### Introduction

Where the Southland Regional Council grants a resource consent under the rules in this Plan, it may impose a condition requiring that a financial contribution be made for the purposes specified in the Plan.

The term "financial contribution" is defined in section 108(9) of the RMA to mean a contribution of:

- (a) money; or
- (b) land, including an esplanade reserve or esplanade strip (other than in relation to a subdivision consent), but excluding Māori land within the Meaning of the Te Ture Whenua Maori Act 1993 unless that Act provides otherwise; or
- (c) a combination of money and land.

Under section 109(10) of the RMA a consent authority must not include a condition in a resource consent requiring a financial contribution unless:

- (a) the condition is imposed in accordance with the purposes specified in the plan or proposed plan (including the purpose of ensuring positive effects on the environment to offset any adverse effects); and
- (b) the level of contribution is determined in the manner described in the plan or proposed plan.

The following provisions reflect the requirements of the RMA and set out:

- (a) the purposes of financial contributions;
- (b) the manner in which the level of contribution will be determined; and
- (c) matters to be considered by Southland Regional Council when deciding whether to impose a financial contribution.

#### **Purposes of financial contributions**

A financial contribution may be imposed as a condition of consent for the following:

## Public access to and along rivers (excluding ephemeral rivers) and lakes

A financial contribution may be imposed as a condition of consent for any type of activity that will restrict or prevent public access to or along a river (excluding ephemeral rivers) or lake. The purpose of the financial contribution would be to provide for alternative public access in the vicinity of the activity or at another similar location or to otherwise compensate for the loss or reduction in access.

#### Beds of lakes, rivers and modified watercourses

A financial contribution may be imposed as a condition of consent for any type of activity that is likely to have adverse effects on the bed of a lake, river or modified watercourse in circumstances where such adverse effects will not be adequately avoided, remedied or mitigated.

The purpose of the financial contribution would be to offset the adverse effects by providing for the protection, restoration or enhancement of the beds of lakes, rivers or modified watercourses in the general area affected by the activity or, where this is not practical or desirable, in another location. This could include, but is not limited to, maintenance and planting of vegetation, sediment replenishment, erosion protection works and fencing.

#### Aquatic ecosystems and habitats

A financial contribution may be imposed as a condition of consent for any type of activity that is likely to have adverse effects on aquatic ecosystems and habitats, in circumstances where such adverse effects will not be adequately avoided, remedied or mitigated.

The purpose of the financial contribution would be to offset the adverse effects by providing for the protection, restoration or enhancement of aquatic ecosystems and habitats in the general area affected by the activity or, where this not practical or desirable, in another location.

## **Cultural and amenity values**

A financial contribution may be imposed as a condition of consent for any type of activity that is likely to have adverse effects on amenity values or cultural values.

The purpose of the financial contribution would be to offset the adverse effects by providing for the protection, restoration or enhancement of cultural and amenity values in the general area affected by the activity or, where this is not practical or desirable, in another location. This could include, but is not limited to:

- Protection, restoration or enhancement of a place, area, building or feature;
- Landscaping or replanting to offset or compensate for the adverse effects of land clearance, land disturbance or the erection of structures.

#### **General environmental compensation**

A financial contribution may be imposed as a condition of consent for any type of activity that is likely to have adverse effects that will not be adequately avoided, remedied or mitigated, and where those effects can be offset or compensated for by positive effects elsewhere.

The purpose of the financial contribution would be to fund the works required to offset or compensate for the adverse effects.

## **Determination of Amount**

The amount of contribution will be determined by reference to the matters set out below and will be an amount that is determined by the Southland Regional Council to be fair and reasonable in order to:

- Provide for alternative public access in the vicinity of the activity or at another similar location
  or to otherwise compensate for the loss or reduction in access. This may include the vesting of
  land or an interest in land, or the costs associated with the acquisition and vesting of land or an
  interest in land;
- Fund the works required to protect, restore or enhance the beds for lakes, rivers or modified watercourses, aquatic ecosystems and habitats, cultural and amenity values; or
- Otherwise fund the works required to offset or compensate for the adverse effects.

The amount will not exceed the actual and reasonable costs of measures required to offset the residual adverse effects likely to be caused by the activity that are not otherwise avoided, remedied or mitigated.

#### Matters to be Considered

Southland Regional Council will take into account the following matters when making decisions about the imposition of financial contributions:

- (a) The purpose of the financial contributions is to offset or compensate for adverse effects likely to be caused by the activity and not otherwise avoided, remedied or mitigated by the consent holder
- (b) The extent to which adverse effects will be otherwise avoided, remedied or mitigated.
- (c) The extent to which there will be positive effects of the activity which offset adverse effects.
- (d) Whether the adverse effects of the activity are such that to allow the activity would be contrary to the objectives and policies in the Plan, and the purpose of the RMA.
- (e) The circumstances and extent of any financial contributions previously imposed in relation to the activity.
- (f) Whether granting a resource consent and requiring a financial contribution would be more effective in achieving the objectives and policies of the Plan and the purpose of the RMA (including recognition of the economic, social and cultural benefits of the activity), than declining consent or granting a consent without requiring a financial contribution.
- (g) Financial contributions shall relate to the effects of the activity for which consent is granted.
- (h) Financial contributions may not be appropriate in every case, even where there are adverse effects.
- (i) The Southland Regional Council does not intend that adverse effects must be fully offset or compensated in every case by way of a financial contribution.

## **Glossary**

This glossary is included to assist in the understanding of terms used in this Plan. Other sources, where used, are indicated accordingly.

The words in this Plan have the same meaning as in the Resource Management Act 1991, unless otherwise defined in this Plan or unless the context clearly requires otherwise.

#### Abstraction

Removing groundwater or removing water from a lake, river, artificial watercourse, modified watercourse or natural wetland.

#### Agrichemical

Any substance, whether inorganic or organic, man-made or naturally occurring, modified or in its original state, that is used to eradicate, modify or control flora and fauna. For the purposes of this Plan, it includes agricultural compounds, but excludes fertilisers, vertebrate pest control products and oral nutrition compounds.

#### **Agricultural effluent**

Effluent that is derived from livestock farming, but excludes excreta from individual animals, fertiliser application and non-point source discharges from normal farming practices.

## Agricultural effluent storage

A pond, tank or structure, including ancillary structures, used for the containment, storage or treatment of agricultural effluent.

## **Allocation**

The provisions of this Plan or any Water Conservation Order relating to the quantities of water available for abstraction or diversion.

## **Aquifer**

Saturated rock or soil material capable of transmitting and yielding water in sufficient quantities for abstraction.

#### **Artificial watercourse**

Means a watercourse that is created by human action. It includes an irrigation canal, water supply race, canal for the supply of water for electricity power generation, a constructed duck pond (that is not part of an existing natural or modified watercourse or natural wetland), and a farm drainage channel. It does not include natural or modified natural watercourses, or artificial swales, kerb and channelling or other watercourses designed to convey stormwater, or subsurface drainage systems or ephemeral rivers.

## **Biodiversity**

Means biological diversity.

#### Bore or well

Any structure or hole, regardless of the method of formation, that has been constructed to provide access to groundwater, excluding test pits and stormwater soakholes.

#### Catchment

The land area that contributes to the river's flow.

#### Cleanfill

Any material that when discharged into or onto land will have no or minimal adverse environmental effects, and includes virgin natural matter (e.g. clay, soil, sand, gravel or rock) and other inert products from construction or demolition activities (e.g. concrete or brick) that are free of:

- (a) combustible, putrescible, degradable, compostable or leachable components (e.g. animal carcasses, green/garden waste, timber, bark, cork, tree roots, new asphalt);
- (b) hazardous substances (e.g. coal tar, or asbestos);
- (c) products or materials derived from the treatment, stabilisation or disposal of hazardous waste;
- (d) materials of risk to human or animal health (e.g. medical or clinical waste); and
- (e) liquid waste (including sludges).

#### **Cleanfill site**

Land used for the permanent disposal of cleanfill and no other type of material but excludes earthworks on the same landholding, earthworks associated with any road, driveway or track, and any area within a road reserve containing a formed road that is used for the deposition of roading material.

#### **Closed landfill**

A landfill containing 15,000 cubic metres or more of industrial or community waste that ceased to operate between 1970 and 2012 and remains closed but excludes farm landfills.

#### **Community sewerage scheme**

A scheme that collects and treats sewage from more than one landholding which is predominantly from residential housing, but may include a component of industrial and trade process effluent.

## **Community water supply**

A permanent reticulated supply of potable water for use by 25 or more people for at least 60 days per annum.

## **Composting Toilet**

A toilet system that uses a predominantly aerobic processing system that treats human excreta, typically with no water, via composting or managed aerobic decomposition which is often assisted by the addition of sawdust and straw or other carbon rich materials. The operation of some composting toilet systems may involve the transfer of the waste to a hot compost heap while other systems include a specially built tank in which waste is decomposed by aerobic bacteria.

## **Confined aquifer**

An aquifer which is overlain by a low permeability or impermeable layer where water in the aquifer is under pressure.

#### Conspicuous change in clarity

Means more than a 20% reduction in clarity in all lakes, rivers, modified watercourses and wetlands, except for Lowland soft bed rivers where it means more than a 33% reduction in clarity.

## Crest

In relation to a dam, means the uppermost surface of a dam, not taking into account any camber allowed for settlement, or any curbs, parapets, guard rails, or other structures that are not part of the water-retaining structure.

#### **Critical infrastructure**

Means infrastructure that provides services which, if interrupted, would have a significant effect on the wellbeing and health and safety of people and communities and would require reinstatement, and includes all strategic facilities.

## Critical source area (CV)

- (a) a landscape feature like a gully, swale or a depression (including ephemeral flow paths) that accumulates runoff (sediment and nutrients) from adjacent flats and slopes, and delivers it to surface water bodies (including lakes, rivers, artificial watercourses and modified watercourses) or subsurface drainage systems; and
- (b) a non-landscape feature that has high levels of contaminant losses, such as silage pits, fertiliser storage areas, stock camps and laneways.

## Cultivation122 (Consent Orders)

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

- a. herbicide spraying undertaken solely for the control of pest plant species.
- b. herbicide spraying for the establishment or maintenance of plantation forestry; and
- c. stick raking or slash raking associated with a plantation forest

#### **Damming**

The impounding of all or part of the natural flow of any water that may involve an associated temporary or permanent structure.

## Dairy farming of cows

The farming, including grazing, of milking cows on land during the milking season.

## **Dairy platform**

An area of a landholding where dairy cows being milked on a daily basis are kept during the milking season.

#### Deposition

The laying down of solid material which has been carried by some natural agency (for example, rivers, wind, etc).

#### **Diadromous**

<sup>122</sup> Appeal to Environment Court by (iii) Southwood Export Limited & others ENV-2018-CHC-000046 (iv) Rayonier New Zealand Limited ENV-2018-CHC-000049

Fish that make migrations between the sea and freshwater. These migrations may be in either direction and not necessarily related to spawning.

#### **Diversion**

The redirecting of water flow from its existing direction of flow.

#### **Domestic wastewater**

Domestic wastewater is limited to effluent derived from dwellings, business buildings, institutions and the like, and consisting of toilet wastes and wash waters from kitchens, bathrooms and laundries.

#### Drawdown

The reduction in hydraulic head adjacent to a pumping bore or well that occurs in response to groundwater abstraction.

#### Dry cut

An artificial channel constructed on the dry bed of a river for the purposes of temporarily or permanently diverting water during a flood event.

#### **Dump station**

A dump station is a facility designed to receive effluent from mobile toilets.

#### **Ecosystem**

A dynamic complex of plant, animal and micro-organism communities and their non-living environment, interacting as a functional unit. 123

#### **Effluent**

A liquid that may include solid components discharged as a waste that originates from:

- (a) on-site wastewater systems, composting toilet systems and mobile toilets;
- (b) community sewerage schemes;
- (c) agricultural activities;
- (d) an industrial or trade process; and
- (e) but excludes solid waste.

#### **Ephemeral rivers**

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



#### Ephemeral rivers

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

#### **Erosion control structures**

Structures that control erosion for the purpose of preventing damage to people and their property and any significant adverse effects to the environment.

## Feed pad/lot124

<sup>&</sup>lt;sup>123</sup> United Nations Convention on Biological Diversity, 1992

<sup>&</sup>lt;sup>124</sup> Appeal to Environment Court by Federated Farmers of New Zealand ENV-2018-CHC-000040

A fenced in or enclosed area located on production land used for feeding or loafing of cattle or deer to avoid damage to pasture when soils are saturated, and which can be located either indoors or outdoors. It includes 'sacrifice paddocks', wintering pads, stand-off pads, calving pads, loafing pads, and self-feed silage storage facilities.

## Feed pad/lot (CV)

A fenced in or enclosed area located on production land used for feeding or loafing of cattle or deer to avoid damage to pasture when soils are saturated, and which can be located either indoors or outdoors. It includes 'sacrifice paddocks', wintering pads, stand-off pads, calving pads, loafing pads, and self-feed silage storage facilities.

#### **Fertiliser**

Means a substance or biological compound or mix of substances or biological compounds that is described as or held out to be for, or suitable for sustaining or increasing the growth, productivity or quality of plants or animals through the application of the following essential nutrients to plants or soils: nitrogen, phosphorus, potassium, sulphur, magnesium, calcium, chloride, sodium as major nutrients; or manganese, iron, zinc, copper, boron, cobalt, molybdenum, iodine, selenium as minor nutrients or fertiliser additives, and includes non-nutrient attributes of the materials used in fertiliser; but does not include substances that are plant growth regulators that modify the physiological functions of plants.

#### Field capacity

Means the moisture content of soil when the addition of further water would result in saturation or drainage from the soil.

#### **Ford**

Any modification of the bed to establish a crossing by which any vehicle, livestock or persons may traverse through any water body.

## Galaxiid

Small freshwater fish including kōkopu and inanga. Many galaxiids spend their whole lives in freshwater but several species (diadromous species) spend part of their lives in the sea.

#### **Good management practices**

Include, but are not limited to, the practices set out in the various Good Management Practices factsheets available on the Southland Regional Council's webpage.

## Gravel<sup>125</sup>

Fluvial inorganic aggregate or river bed material of any size.

#### Groundwater

Subsurface water that occurs beneath the water table in soils and geologic formations that are fully saturated.

## Habitat

The area or environment where an organism or ecological community lives or occurs naturally for some or all of its life cycle or as part of its seasonal feeding or breeding pattern.

<sup>&</sup>lt;sup>125</sup> Appeal to Environment Court by Southland Fish and Game Council ENV-2018-CHC-000037 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

#### **Headworks**

All materials used at the ground surface to complete the bore. Includes pipework, valves, gauges and access points, concrete pads and/or cellars.

## See definition of pasture-based wintering below (CV)

#### High Risk Pasture Winter Grazing

Break feeding stock, other than lactating dairy cows, on pasture between 1 May and 30 September inclusive where supplementary feed offered is more than 10,000 kgDM/ha.

## Intensive winter grazing 126 (CV)

Grazing of stock between May and September (inclusive) on forage crops (including brassica, beet and root vegetable crops), excluding pasture and cereal crops.

#### Interference effects

The effect of pumping a bore or well on the drawdown and yield of neighbouring pumping bores and wells.

#### Intermittent river

A river which does not contain permanently flowing or standing water and where the bed is predominantly devoid of terrestrial vegetation and comprises sand, gravel, boulders, or similar material or aquatic vegetation.

## Land application system

The system used to apply effluent from an on-site wastewater system into or onto the soil for further treatment and absorption or evaporation. [From AS/NZS 1547:2012 On-site domestic wastewater management.] Also known as a "disposal field".

## Landfill

A site that is used for the permanent disposal of waste but excludes a cleanfill site, earthworks associated with any road, driveway or track, and any area within a road reserve containing a formed road that is used for the deposition of roading material.

## Landholding

- (a) Any area of land, including land separated by a road or river or modified watercourse, held in one or more than one ownership, that is utilised as a single operating unit, and may include one or more certificates of title; except
- (b) For land with a residential, commercial, industrial, infrastructural or recreational zoning or designation in the relevant district plan means any area of land comprised wholly of one Certificate of Title or any Allotment as defined by Section 218 of the RMA.

**Note:** for the purposes of this definition, a "single operating unit" may include, but is not limited by, the following features:

- (a) It has effective control by any structure of ownership of the same group of people (for example, land that is controlled by a family trust, or beneficiaries of that family trust or a related group of companies, or an estate, or partner, or individual/s or a combination of); and
- (b) It is operated as a single business entity.

<sup>&</sup>lt;sup>126</sup> Appeal to Environment Court by (i) Southland Fish and Game Council ENV-2018-CHC-000037 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

## Lawfully established

Established in accordance and compliance with any relevant legislation at the time of establishment.

#### Leaching

Movement through soil of dissolved or suspended substances in water.

#### Loading

Amount of a substance entering the environment (soil, water, or air).

#### Low flow

Periods of reduced river flow when potential ecological effects need to be assessed and managed. Generally they occur less than 5% of the time.

## Mahinga kai

The customary gathering of food and natural materials, the health of the resource and its associated habitat, and the places where those resources are gathered.

#### Main stem

The principal course of a river (i.e. does not include tributaries).

#### Maintenance

Work on a structure necessary to maintain that structure in good order and repair, including repainting, that does not materially alter its dimensions.

#### Mauri

Essential life force or principle; a metaphorical quality inherent in all things, both animate and inanimate.

#### Mean sea level

The mean sea level as determined in accordance with the New Zealand Vertical Datum 2016 (NZVD2016) and LINZS25009 (Standard for New Zealand Vertical Datum 2016).

## Mean seasonal high groundwater

The 95th percentile of the measured high groundwater table over the period of the available record.

#### **Median flow**

The flow that is exceeded fifty percent of the time (Q50).

#### Method

The practical action by which a policy is implemented. It is what can be done to put a policy into effect. Includes rules and non-regulatory methods.

## Minimise (CV)<sup>127</sup>

To reduce to the smallest amount reasonably practicable.

<sup>&</sup>lt;sup>127</sup> See Policy 16 decsion.

## Minimum flow

The flow at which the holder of any resource consent to abstract water must cease abstraction.

## Mitigate

To reduce or moderate the severity of an effect.

#### Mobile toilet

Includes portable toilets and those used on various forms of transport such as motor homes, campervans or boats.

#### **Modified watercourse**

A water carrying channel that was existing in some form prior to land development but has been modified or straightened for drainage or other purposes and excludes ephemeral rivers.

#### Mooring

Any weight, post or other structure placed in, or on, the bed of a river or lake for the prime purpose of securing a vessel, raft, aircraft or floating structure. It does not include the anchors of a vessel.

#### **National Park**

As defined by the National Parks Act 1980.

#### Nationally significant infrastructure

Means infrastructure which contributes to the development and wellbeing and health and safety of people and communities extending beyond the region.

#### **Natural character values**

The qualities of the environment that give it recognisable character. Embraces ecological, physical, spiritual, cultural, intrinsic and aesthetic values, and includes modified and managed environments.

## **Natural mean flow**

The total flow 128 divided by the duration of the record.

#### Natural state (for water quantity purposes)

Water within conservation areas, reserves and national parks administered by, or on behalf of, the Department of Conservation for conservation purposes under the Conservation Act 1987, Reserves Act 1977 and National Parks Act 1980 with the exception of water within the Upper Waiau and Monowai Rivers and Lakes Te Anau, Manapōuri and Monowai (these water bodies are excluded due to their modified flow and level regimes resulting from the Manapōuri and Monowai Power Schemes) and groundwater within the Tiwai groundwater zone (this groundwater zone is excluded due to its long term use for the supply of water for industrial purposes).

## Natural state waters (for water quality purposes)

Waters within:

<sup>&</sup>lt;sup>128</sup> Naturalised though the incorporation of the total volume of water allocated through current resource consents. It includes the stream depletion effect of each consented groundwater abstraction greater than 2 litres per second with a direct, high or moderate degree of hydraulic connection in accordance with Policy 23 "Stream Depletion Effects".

- (a) areas defined as National Park managed under the National Parks Act 1980 (including land for the time being administered as if it was a national park pursuant to any statute or written agreement with the owners); and
- (b) public conservation land managed under the Conservation Act 1987 and the Reserves Act 1977 as detailed in Table 1 "Natural State Waters outside National Parks" in Appendix I "Natural State Waters outside National Parks" of this Plan.

#### **Natural** wetland

Includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions, but excludes:

- (a) wet pasture, damp gully heads, or where water temporarily ponds after rain or pasture containing patches of rushes;
- (b) effluent ponds;
- (c) artificial storage facilities and detention dams;
- (d) artificial watercourses such as conveyance and drainage canals;
- (e) reservoirs for firefighting, domestic or community water supply; and
- (f) engineered soil conservation structures.

## **Southland Regional Council (final):**

#### **Natural wetland**

Includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions, but excludes:

- (a) wet pasture, damp gully heads, or where water temporarily ponds after rain or pasture containing patches of rushes;
- (b) effluent ponds;
- (c) artificial storage facilities and detention dams;
- (d) artificial watercourses such as conveyance and drainage canals;
- (e) reservoirs for firefighting, domestic or community water supply; and
- (f) engineered soil conservation structures.

## Ngāi Tahu indicators of health

A tool for Papatipu Rūnanga to facilitate monitoring and provide long term data that can be used to assess land, water and taonga species health over time.

## *Note (not part of the definition):*

Based on mātauranga Māori (Māori based knowledge systems) the indicators link long term aspirations for Papatipu Rūnanga to mahinga kai and the realisation of the Ngāi Tahu Treaty Settlement. Page 150 of Te Tangi a Tauira – The Cry of the People: Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008 provides indicators used by Papatipu Rūnanga to assess stream health. The overall measurement of cultural health, mahinga kai and site status would use a Cultural Health Index (Tipa G and Teirney L, 2006). 129

## Non-consumptive take

Any take of fresh water where the associated use or discharge of that water returns water to the same general location; and does not adversely affect the spatial or temporal availability; or

<sup>&</sup>lt;sup>129</sup> Tipa G and Teirney L. 2006. A Cultural Health Index for streams and waterways: A tool for nationwide use. April 2006. A report prepared for the Ministry for the Environment. Publication number ME710. <a href="http://www.mfe.govt.nz/publications/cultural-health-index-streams-and-waterways-tech-report-apr06">http://www.mfe.govt.nz/publications/cultural-health-index-streams-and-waterways-tech-report-apr06</a>

the physical, chemical or biological quality of; the water resource into which the water is discharged.

## Non-point source discharges

Water contamination derived from diffuse sources where there is no single identifiable discharge point.

## Nohoanga

Nohoanga entitlements are created and granted by the Crown for the purpose of permitting members of Ngāi Tahu Whānui to occupy temporarily land close to waterways on a noncommercial basis, so as to have access to waterways for lawful fishing and gathering of other natural resources. The Crown may create and grant to Te Rūnanga o Ngāi Tahu renewable entitlements over Crown-owned land in the Ngāi Tahu claim area which meets the criteria set out in Section 258 of the Ngai Tahu Claims Settlement Act 1998, other than land in:

- (a) a national park;
- (b) a marginal strip;
- (c) a nature reserve;
- (d) an esplanade reserve;
- (e) a scientific reserve; and
- (f) or that part of an unformed legal road (including a road reserve) within 20 metres of a waterway.

#### Nutrient

An element or compound essential for the growth and development of life forms. The major plant nutrients are nitrogen, phosphorus, potassium, sulphur, magnesium and calcium but there are also a number of minor nutrients which are required in small quantities.

#### **Nutrient budget**

A calculation of the total nutrient balance for a farming activity, taking into account as far as is practicable all nutrient inputs to and outputs from the activity.

#### On-site wastewater system

The collection, treatment and disposal/reuse of wastewater from dwellings or commercial facilities on the same landholding as it is generated.

#### Organism

Any living animal or plant including any bacterium or virus.

#### Pasture-based wintering (CV)

Break feeding cattle stock, other than lactating dairy cows, on pasture between 1 May and 30 September inclusive where supplementary feed offered is more than 10,000 kgDM/ha.

## **Perched water**

Perched water is a subsurface layer of water that is located above true groundwater. It occurs because of confining layers in the soil such as hard gravel pans. Perched water is nearly always periodic or seasonal.

## **Pest species**

Pest species as defined in a Regional Pest Management Plan.

#### рΗ

Value taken to represent the acidity or alkalinity of water.

#### Pit toilet

A toilet which discharges to a hole in the ground. Also known as a pit latrine, long-drop or privy.

## Physiographic zone

A physiographic zone represents areas of the landscape with common attributes that influence water quality, such as climate, topography, geology and soil type. Zones differ in the way sediment, microbes and nutrients such as nitrogen and phosphorus accumulate and are transferred through the soil, aquifers and into water bodies.

The zones are individually described in Part A of this Plan.

#### Place of assembly

Any building or land used for public or private assembly or meeting of people and includes libraries, churches, halls, marae, clubrooms, community centres, conference centres, recreational facilities, chartered clubs, premises with a club license, and other similar establishments.

## Point source discharges

Discharges from specific and identifiable sources (such as pipes or drains) concentrated at a given point.

#### Potable water

Water suitable, on the basis of both health and aesthetic considerations, for drinking and food preparation.

## **Potentiometric head**

The level to which water will rise in a bore or well penetrating a confined aquifer.

## Properly constructed and operated bore

A bore that is drilled and developed to an adequate depth and with a pumping system to efficiently utilise groundwater from an aquifer, including as determined by assessing information from other bores in the area.

#### **Q95**

The naturalised flow that is exceeded 95% of the time during the year.

#### Radius of influence

The calculated distance from a pumping well at which there is no lowering of the water table or potentiometric head.

## Raw sewage

Sewage that has not undergone any chemical or biological changes prior to disposal. Raw sewage may have undergone some solids separation in a storage facility such as a pond or sump.

#### Reasonable mixing zone

A zone within which relevant water quality standards may be exceeded but which shall not be larger than:

- (a) for river, artificial watercourse and modified watercourse locations with flowing water present at all times:
  - (i) no longer than 10 times the width of the wetted channel or 200 metres along the longest axis of the zone (whichever is the lesser), and
  - (ii) occupies no greater than two-thirds of the wetted channel width at the estimated Q95 for that location;
- (b) for river, artificial watercourse and modified watercourse locations with intermittent flows, no longer than 20 metres at times of flow and 0 metres at no flow;
- (c) when within a drinking water supply zone, or within 250 metres upstream of a drinking water supply site sourced from surface water, identified in Appendix J, 0 metres; or
- (d) a distance determined through a resource consent process, having regard to (a) to (c) of this definition.

## **Receiving waters**

Bodies of water that receive run-off or wastewater discharges, such as lakes, rivers, modified watercourses, wetlands and groundwater.

#### Reconstruction

The complete rebuilding or complete replacement of a structure to its original dimensions, on the same site.

#### Regionally significant infrastructure

Means infrastructure in the region which contributes to the wellbeing and health and safety of the people and communities of the region, and includes all critical infrastructure.

## **Reticulated system**

The means by which water is collected and delivered prior to discharge. In relation to stormwater discharge, a piped or channelled network for collecting stormwater from a number of landholdings with a single common discharge point.

## Rip rap

Rock protection work along the bank of a lake, river or modified watercourse.

## Riparian area/margins

Land situated along the bank of a lake, river, wetland or other water body.

#### **RMA**

The Resource Management Act 1991 (including any amendments thereto), unless expressly stated.

#### **Sediment trap**

A facility designed and constructed for the primary purpose of slowing water flow to allow sediments to drop from the water column.

## Septage

The pumpout contents of a septic tank (or primary compartment of an aerated wastewater treatment system) during desludging operations, which includes scum, sludge and septic tank liquid.

#### Sewage

The contents of sewers carrying the waterborne wastes of a community. This is sometimes called "wastewater" or "foul sewage" to distinguish it from stormwater.

## Silage

Silage is any plant material harvested while green for fodder and kept succulent by partial fermentation, but does not include baleage or hay.

## Silage leachate

Silage leachate refers to the liquids generated from the biological processes that occur when wilted grass is preserved as silage, or when soluble components are dissolved out of silage by percolating or infiltrating rainwater, surface water or groundwater. Leachate that results from the making of baleage or hay is not considered silage leachate for the purpose of this plan.

## Silage storage facility

Silage storage facility refers to land or structures on which silage is stored, processed or directly utilised. Bales of plant material completely encapsulated in plastic are not considered a "silage storage facility".

## Sludge

The solid residues from effluent.

#### Soil infiltration surface

The surface where effluent from the land application system passes into soil. In the case of land application systems comprising of trenches or beds which include distribution aggregate or filter cloth the soil infiltration surface is the bottom of that material. In the case of land application systems comprising of distribution pipes such as shallow subsurface drip emitters which are laid directly on soil the soil infiltration surface is the pipe invert.

## Spring-fed

In addition to lakes, rivers, modified watercourses or natural wetlands that are classed as springfed on Map Series 1: Water Quality, a lake, river, modified watercourse or natural wetland is spring-fed if it:

- (a) has a mean annual flow less than 2,000 litres per second; and
- (b) always has an instantaneous flow greater than or equal to 5 litres per second, at a point immediately before the first downstream confluence; and
- (c) meets one or more of the following conditions as measured by the Southland Regional Council:
  - (i) the ratio of the December to March median flow to the mean annual low flow is less than or equal to 1.5; or
  - (ii) in July, the mean monthly water temperature is at least 1.5°C higher than the mean monthly water temperature in a nearby run-off dominated stream; or
  - (iii) in July, the mean monthly water temperature is at least 2°C higher than the mean monthly ambient air temperature in the vicinity.

## Stick raking or slash raking (Consent Orders)

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

#### Stock

Farm animals kept for use or profit such as horses, dairy cows, cattle, deer, pigs, goats and sheep.

## Southland Regional Council (final):

#### Stock unit

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

#### Stormwater

Surface water run-off subsequent to precipitation.

## Subsurface drainage systems

An artificial permeable subsurface conduit constructed for the purposes of draining agricultural soil water/moisture. An installed subsurface drainage system includes tile, mole, concrete and clay drains, wooden box drains and plastic subsurface drainage pipes. Stormwater systems, drainage by use of sumps, and on-site wastewater systems are not included in this definition.

## Suitably qualified person (SQP)

A person that has been assessed and approved by the Southland Regional Council as being appropriately qualified, experienced and competent in the relevant field of expertise.

#### Tangata whenua

In relation to a particular area, means the iwi or hapu, that holds mana whenua over that area, and for the Southland region this is Ngāi Tahu.

#### **Total groundwater allocation**

The total volume of water allocated at the date a resource consent application for a new take is lodged. This includes the water that is allocated through current resource consents, the water that is proposed to be taken under consent applications that have been lodged and the additional water proposed to be taken by the consent applicant. It excludes non-consumptive takes; the stream depletion effect of each groundwater take with a Riparian or Direct degree of hydraulic connection; and the stream depletion component of groundwater takes with a High or Moderate degree of hydraulic connection where the stream depletion component exceeds 2 litres per second in accordance with Table L.2 in Appendix L.2.

## **Total surface water allocation**

The total volume of water allocated at the date a resource consent application for a new take is lodged. This includes the water that is allocated through current resource consents, the water that is proposed to be taken under consent applications that have been lodged and the additional water proposed to be taken by the consent applicant. It also includes the stream depletion components of groundwater takes that are excluded from the definition of "total groundwater allocation", but excludes non-consumptive takes.

#### **Unconfined aquifer**

An aquifer with no upper confining layer so the system is not under pressure, and its water table levels fluctuate both seasonally and from year to year.

#### **Unwanted organisms**

As defined by the Biosecurity Act 1993.

## **Values**

The worth, desirability, or utility of a thing, or the qualities on which these depend.

## **Vegetation flood debris**

Vegetation, including entire trees, that have been dislodged during flood or storm events.

#### Wāhi taonga

Treasured resources.

## Wāhi tapu

Sacred place. Typically includes burial grounds and sites of historical importance to the tribe.

## Water demand management strategy

A water demand management strategy is a document required to accompany a water permit application for a community water supply. It must contain the following information in sufficient detail to enable Council to be reasonably informed on the nature and extent of the activity and any effects of that activity on the environment:

- (a) a description of the water supply system including:
  - (i) system operation;
  - (ii) distribution extent;
  - (iii) level of service;
  - (iv) water use measurement methods; and
  - (v) maintenance and asset management procedures;
- (b) an assessment of existing and future demand for water to meet:
  - (i) reasonable domestic needs;
  - (ii) public health needs;
  - (iii) the responsibilities of municipal water supply authorities under the Local Government Act 2002 with respect to the supply of water;
  - (iv) the needs of other users, including rural, commercial and industrial needs; and
  - (v) any increase in allocation that may be sought during the term of the water permit to meet these demands;
- (c) water conservation and efficiency measures including:
  - (i) regulatory or non-regulatory methods;
  - (ii) a plan to implement methods identified;
  - (iii) performance targets to measure the effectiveness of the methods implemented; and
  - (iv) a timeframe for review of the actions and implementation plan;
- (d) any existing or proposed water pricing procedures and any linkages with wastewater pricing or management;
- (e) plans and management measures to minimise water losses from the water reticulation network as far as practicable;
- (f) plans to mitigate the potential impacts of climate change on the community water supply;
- (g) an assessment of alternative water sources available or alternative means of sourcing water, including both general water harvesting and roof water harvesting, seasonal storage or water reclamation;
- (h) a drought management plan that includes:

- (i) methods to reduce consumption during water shortage conditions particularly consumption by non-essential<sup>130</sup> agricultural, residential, industrial or trade processes;
- (ii) public education programmes; and
- (iii) enforcement procedures;
- (i) any external auditing or benchmarking procedures that have been adopted;
- (j) any consultation undertaken and the outcomes of such consultation; and
- (k) details of a strategy review process, including consultation.

## Wetland

Includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions. [See also definition of "Natural Wetland"].

## Whitebait stand

Any structure used in association with whitebaiting.

<sup>&</sup>lt;sup>130</sup> For all uses of water that are considered to be essential refer to Policy 24. In this context, "non- essential" is considered to be water uses for all other purposes.

# Appendix A<sup>131</sup> – Regionally Significant Wetlands and Sensitive Water Bodies in Southland

Locations of the wetlands and water bodies listed in this Appendix can be found in Map Series 7:
Regionally Significant Wetlands and Sensitive Water Bodies.

Awarua Plains - Southland Estuaries including:
Waituna Scientific Reserve
Seaward Moss
Wetlands adjoining Awarua Bay
Wetlands adjoining Bluff Harbour
Wetlands adjoining New River Estuary
Fortrose Harbour (including lower Mataura River)

Balloon Loop oxbow lake

Bayswater Bog
Big Bay - Waiuna

Big Lagoon

Blue Bottle Peatland

Bog Lake (and adjacent wetlands)

**Borland Mire** 

**Borland Saddle-Mt Burns** 

**Braxton Burn Bog** 

Brydone West tussockland

Campbell's Creek Wetlands

Castle Downs (Hamilton Burn)

Chocolate Swamp – Dean Forest

College Stream Swamp

**Cross Road Swamp** 

Dale Bog Pine Wetland

Dawson City/Mt Prospect Wetlands

Appeal to Environment Court by (i) Southland Fish and Game Council ENV-2018-CHC-000037 (iii) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047
 Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

Deer Flat Wetland Downs Road North tussockland Downs Road tussockland Drummond Peat Swamp (Isla Bank) **Dunearn Wetland Ewe Burn Wetlands** Feldwick Wetlands Ferry Road/Oreti Beach lagoon Fiordland National Park (World Heritage site) including: **Back Valley Grebe Valley** Lower Hollyford **Sutherland Sound** Five Mile Swamp (wetland in ancient Lake Wakatipu lake outlet) Freshwater Valley including: Freshwater Flats Ruggedy Flat The following wetlands in the Garvie Mountains: Blue Lake Wetland Gow Lake Wetland Scott Lake Wetland **Glenary Station Alpine Wetlands** Grove Bush peatlands Haldane Estuary and Reservoir Henry Creek Wetland Hindley Burn Wetland Hokonui South-East peatland **Jacobs River Estuary** Lake George Lake Hauroko Wetland

Lake Manapōuri
Lake Mistletoe
Lake Murihiku
Lake Te Anau
Lake Thomas and wetland
Lake Vincent, near Fortrose
Lake Brunton, Otara
Lakes on Stewart Island
Lookout Hill Wetland
Lower Hodgkinson Road peatland
Makarewa peatland
Martins Bay Wetlands
Mavora Lakes (and associated wetlands)
Morley Stream Wetland
Mount Tennyson string bog
New River Estuary
Old Man Swamp
Oreti Beach coastal turf/wetland
Oreti Beach gravel pits
Pebbly Hills Swamp
Pleasant Bay Wetland
Pukerau Red Tussock Scientific Reserve
Pyke Valley (including Lake Alabaster and Lake Wilmot)
Rainbow Reach oxbow lake
Rakehua Valley Wetlands

Ramparts Scenic Reserve
Redcliff Reserve
Retford Stream Wetland
Sharp Ridge Wetland
So Big Swamp
Silver Lagoon
Sinclair Road Wetlands
Southdowns Swamp
Spurhead Swamp
Table Hill
Taramoa peatland
Taylor Road Wetland
Te Anau Basin wetland complex including:  Kepler Mire  Dome Mire - Dismal Swamp  Dunton Swamp  Tekaro Wetland  Amoeboid Swamp  Kākāpō Swamp  Snowdon Forest  Dale Lake  Lake Luxmore  Lagoon Creek
Te Anau Downs Wetland
The Reservoir (lake)
Thornbury peatland
Toetoes Flats
Toitoi Flat
Transit Valley Wetlands
Waiau River - Te Waewae Lagoon
Waiau Terrace Wetland

Waiau Valley/Borland Burn Wetlands Waihopai River rushland Waikawa Estuary Waimatuku Estuary Waimatuku Wetland Waipapa Beach dune slack wetlands Wairaki Lagoon (Waiau River) Waituna Lagoon Wash Creek Wetland Waterloo Burn wetlands (Aparima River) Weydon Burn Wrights Bush peatland Waiau River from Lake Manapōuri to Mararoa Weir Note 1: For wetlands, this appendix only identifies those which are have been formally assessed and relation to all wetlands, not only those identified in this appendix.

found to be of regional significance. There are also rules in this plan that manage activities in

Note 2: A plan change process may identify additional wetlands to be included in this appendix.

## Appendix B – Ngāi Tahu Statutory Acknowledgement Areas

## Information for Plan users, and resource consent applicants

#### Introduction

Ngāi Tahu Claims Settlement Act 1998 (the Settlement Act) gives effect to the Deed of Settlement signed by the Crown and Te Rūnanga o Ngāi Tahu on 21 November 1997 to achieve a final settlement of Ngāi Tahu's historical claims against the Crown.

The Settlement Act includes a new instrument called a Statutory Acknowledgement. Statutory Acknowledgements recognise Ngāi Tahu's mana in relation to a range of sites and areas in the South Island, and provide for this to be reflected in the management of those areas. Statutory Acknowledgements impact upon Resource Management Act 1991 (RMA) processes concerning these areas.

## What are Statutory Acknowledgements?

A Statutory Acknowledgement is an acknowledgement by the Crown of Ngāi Tahu's special relationship with identifiable areas, namely Ngāi Tahu's particular cultural, spiritual, historical, and traditional association with those areas (known as statutory areas). The statutory areas are named on the map (printed on the reverse).

## What are the Purposes of Statutory Acknowledgements?

The purposes of Statutory Acknowledgements are:

- to ensure that Ngāi Tahu's particular association with certain significant areas in the South Island are identified, and that Te Rūnanga o Ngāi Tahu is informed when a proposal may affect one of these areas;
- to improve the implementation of RMA processes, in particular by requiring consent authorities to have regard to Statutory Acknowledgements when making decisions on the identification of affected parties.

## Who may be Affected by Statutory Acknowledgements?

You may be affected by a Statutory Acknowledgement if you are applying for a resource consent for an activity that is within, adjacent to, or impacting directly upon a statutory area.

#### What happens when you apply?

If you are applying for a resource consent for an activity within, adjacent to, or impacting directly upon a statutory area:

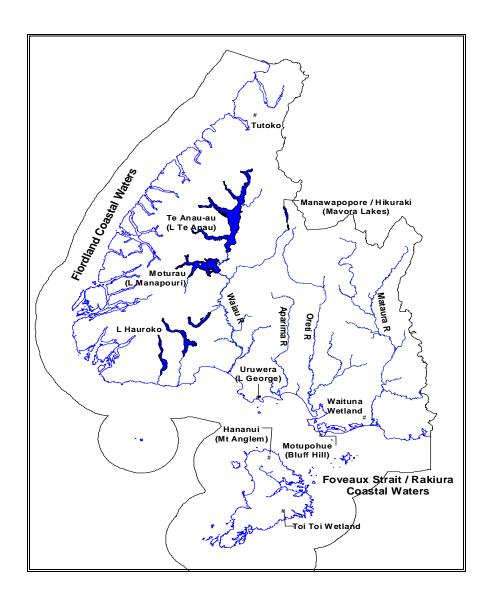
- the Council must send a summary of your resource consent application to Te Rūnanga o Ngāi Tahu;
- the Council must have regard to the Statutory Acknowledgement in going through the process
  of making a decision on whether Te Rūnanga o Ngāi Tahu is an affected party in relation to the
  resource consent application.

## **More Information**

The following pages set out the Statutory Acknowledgements as they relate to the Southland region. You can obtain further information on Statutory Acknowledgements from:

- Policy and Planning Division, Environment Southland, Cnr Price Street and North Road, Private Bag 90116, Invercargill 9840
- Kaitiaki Taiao (Natural Resources) Unit, Office of Te Rūnanga o Ngāi Tahu, PO Box 13-046, Christchurch 8141

- Te Ao Mārama Inc, PO Box 7078, South Invercargill 9844
- Ministry for the Environment, PO Box 1345, Christchurch 8140.



## **Statutory Acknowledgement for Aparima River**

(From Schedule 15 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)

#### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the river known as Aparima, the location of which is shown on Allocation Plan MD 126 (SO 12265).

#### **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to the Aparima River, as set out below.

#### Ngāi Tahu Association with the Aparima River

The mouth of the Aparima was the site of a permanent settlement, with associated urupā nearby. Urupā are the resting places of Ngāi Tahu tūpuna and, as such, are the focus for whānau traditions. These are places holding the memories, traditions, victories and defeats of Ngāi Tahu tūpuna, and are frequently protected by secret locations.

The river was an important source of mahinga kai, with shellfish, mussels, paua, tuna (eels) and inaka (whitebait) all being taken from the river and its estuary. An eel weir was constructed at the narrows where the Pourakino River enters the Aparima, and was an important source of tuna.

The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka (landing places), places for gathering kai and other taonga, ways in which to use the resources of the Aparima, the relationship of people with the river and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

The mouth of the Aparima was a tauranga waka, from which sea voyages were launched to and from a variety of locations in and around Te Ara a Kiwa (Foveaux Strait), Rakiura and the tītī islands. A carved tauihu (canoe prow) found in the estuary of the river attests to this.

The tūpuna had an intimate knowledge of navigation, river routes, safe harbours and landing places, and the locations of food and other resources on the Aparima. The river was an integral part of a network of trails which were used in order to ensure the safest journey and incorporated locations along the way that were identified for activities including camping overnight and gathering kai. Knowledge of these trails continues to be held by whānau and hapū and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the river.

The mauri of the Aparima represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the river.

## Statutory Acknowledgement for Hananui (Mount Anglem)

(From Schedule 18 – refer to Sections 205 and 206 Ngãi Tahu Claims Settlement Act 1998)

## **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the area known as Hananui (Mt Anglem), as shown on Allocation Plan MS 264 (SO 12249).

#### Preamble

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to Hananui, as set out below.

## Ngāi Tahu Association with Hananui

As with all principal maunga (mountains), Hananui is imbued with the spiritual elements of Raki and Papa, in tradition and practice regarded as an important link to the primeval parents.

The name Hananui is derived from an event involving the tūpuna (ancestor) Rakitamau, a chief of Te Taumutu, and son of Tū Te Kawa. Rakitamau became a widower through the unfortunate death of his wife. Rakitamau journeyed to Motunui (as Rakiura was called then) seeking the hand of a tribally renowned wahine (woman) to take her place, as in his view she would increase his standing due to her mana, reflected in her connections to the land and important people of Rakiura.

On his arrival at her village, Rakitamau asked for the woman by name, only to be told by a laughing group of women she was tāpui (betrothed or set apart). At this, Rakitamau blushed deeply. When he then asked for her sister the people laughed loudly, as they told him she was tāpui also. This news made him blush further so that his cheeks flamed. He left the island never to return and the women were so amused that they named the highest point on the island Hananui, referring to the great glow of Rakitamau, in memory of the event. Rakiura itself takes its name from the glowing skies of this region, the aurora lights.

For Ngāi Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

Pūtātāra was an old settlement under the lee of Hananui, a place to which an Otago rangātira (chief, Tukiauau, retired to seek refuge.

The mauri of Hananui represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with Hananui.

## **Statutory Acknowledgement for Lake Hauroko**

(From Schedule 29 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)

## **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the Lake known as Hauroko, the location of which is shown on Allocation Plan MD 41 (SO 12258).

#### **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to Lake Hauroko, as set out below.

#### Ngāi Tahu Association with Lake Hauroko

Hauroko is strongly associated with urupā in the immediate vicinity, including one on an island in the lake, known to Pākehā as Mary Island. In particular, Ngāti Rakiamoa and Ngāti Ruahikihiki have several traditions about their dead laying in this region.

Urupā are the resting places of Ngāi Tahu tūpuna and, as such, are the focus for whānau traditions. These are places holding the memories, traditions, victories and defeats of Ngāi Tahu tūpuna, and are frequently protected by secret locations. It is because of its proximity to these urupā that Hauroko is considered tapu by Ngāi Tahu.

The mauri of Hauroko represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the lake.

## Statutory Acknowledgement for Manawapōpōre/Hikuraki (Mavora Lakes)

(From Schedule 39 – refer to Sections 205 and 206)

#### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the Wetland known as Manawapōpōre/Hikuraki (Mavora Lakes), the location of which is shown on Allocation Plan MD44 (SO 12235).

## **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to Manawapōpōre/Hikuraki, as set out below. Ngāi Tahu Association with Manawapōpōre/Hikuraki Manawapōpōre and Hikuraki are part of one of the most significant catchments in Murihiku. The wetland also lies in the path of the important trail from the mouth of the Ōreti River onward, via the Greenstone Valley, to the head of Whakatipu-wai-Māori (Lake Wakatipu), or alternatively continuing along the Greenstone Valley and out via the Hollyford to the West Coast. These were important trading routes, to gather pounamu for exchange with northern iwi for materials and foods unavailable in the south.

The wetland area was, therefore, an integral part of a network of trails which were used in order to ensure the safest journey and incorporated locations along the way that were identified for activities including camping overnight and gathering kai. Knowledge of these trails continues to be held by whanau and hapū and is regarded as taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the area.

In addition, the trails were part of summer time pursuits such as kai-hau-kai, whānaungatanga (the renewal and strengthening of family links) and arranging marriages with hapū from the neighbouring region of Otago and further afield.

Such strategic marriages between hapū strengthened the kupenga (net) of whakapapa and thus rights to use the resources of the area. Manawapōpōre (Lower Mavora) is noted for eel weirs, which were constructed on the lake edges for catching eels, utilising flat stones, built in a loop out from the lake edge, with gaps at either end and one in the middle. Construction of the eel weir recreates the type of environment that eels like to congregate in, hence reliable catches are made.

The tūpuna had considerable knowledge of such techniques, places for catching and gathering kai and other taonga, ways in which to use the resources of the area, the relationship of people with the area and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

The mauri of Manawapōpōre/Hikuraki represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the area.

## **Statutory Acknowledgement for Mataura River**

(From Schedule 42 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)

#### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the River known as Mataura, the location of which is shown on Allocation Plan MD 125 (SO 12264).

#### **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to the Mataura River, as set out below.

#### Ngāi Tahu Association with the Mataura River

The area of the Mataura River above the Mataura Falls was traditionally used by the descendants of the Ngāti Mamoe chief, Parapara Te Whenua. The descendants of Parapara Te Whenua incorporate the lines of Ngāti Kuri from which the Mamaru family of Moeraki descend. Another famous tūpuna associated with the river was Kiritekateka, the daughter of Parapara Te Whenua. Kiritekateka was captured by Ngāi Tahu at Te Anau and her descendants make up the lines of many of the Ngāi Tahu families at Ōtākou

For Ngāi Tahu, histories such as these reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

The Mataura was an important mahinga kai, noted for its indigenous fishery. The Mataura Falls were particularly associated with the taking of kanakana (lamprey). The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of Mataura, the relationship of people with the river and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

The mauri of the Mataura represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the river.

## Statutory Acknowledgement (Bluff Hill) For Motupōhue

(From Schedule 44 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)

#### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the area known as Motupōhue (Bluff Hill), as shown on Allocation Plan MS 8 (SO 12233).

#### **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to Motupōhue as set out below.

## Ngāi Tahu Association with Motupōhue

The name Motupōhue is an ancient one, brought south by Ngāti Mamoe and Ngāi Tahu from the Hawkes Bay region where both tribes originated. The name recalls a history unique to the Ngai Tuhaitara and Ngāti Kuri hapū that is captured in the line, `Kei korā kei Motupōhue, he pāreka e kai ana, nā tō tūtae' (`It was there at Motupōhue that a shag stood, eating your excrement').

Oral traditions say that the Ngāti Mamoe leader, Te Rakitauneke, is buried upon this hill. Te Rakitauneke's saying was: `Kia pai ai tāku tītīro ki Te Ara a Kiwa' (`Let me gaze upon Foveaux Strait'). Some traditions also place another Ngāti Mamoe leader, Tū Te Mokohu, on this hill.

For Ngāi Tahu, histories such as this represent the links and continuity between past and present generations, reinforce tribal identity and solidarity, and document the events which shaped Ngāi Tahu as an iwi. The mauri of Motupōhue represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with Motupōhue.

## Statutory Acknowledgement for Moturau (Lake Manapōuri)

(From Schedule 45 – refer to Sections 205 and 206 Ngãi Tahu Claims Settlement Act 1998)

## **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the Lake known as Moturau (Lake Manapōuri), the location of which is shown on Allocation Plan MD 40 (SO 12257).

#### **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to Moturau, as set out below.

## Ngāi Tahu Association with Moturau

Moturau (or Motu-ua) is one of the lakes referred to in the tradition of `Ngā puna Wai Karikari o Rakaihautu' which tells how the principal lakes of Te Wai Pounamu were dug by the rangātira (chief) Rakaihautu. Rakaihautu was the captain of the canoe, Uruao, which brought the tribe, Waitaha, to New Zealand. Rakaihautu beached his canoe at Whakatū (Nelson). From Whakatū, Rakaihautu divided

the new arrivals in two, with his son taking one party to explore the coastline southwards and Rakaihautu taking another southwards by an inland route. On his inland journey southward, Rakaihautu used his famous kō (a tool similar to a spade) to dig the principal lakes of Te Wai Pounamu, including Moturau. Rakaihautu named the lake Motu-ua, a reference to the persistent rain which troubled his party here.

Tamatea and his party passed this way in their journey back to their homeland after their waka, Takitimu, broke its back at the mouth of the Waiau River. It was Tamatea who named the lake Moturau (possibly a woman's name but more likely to relate to the many islands found in the lake). Tamatea's party established a camp on the edge of the lake, which is probably under water now, and called it Whitiaka-te-rā (the shining of the sun), indicating that they enjoyed a very different experience of the lake from Rakaihautu. Other traditional names associated with the lake include Te Māui (North Arm), Te Tukeroa (Beehive), Manapōuri (north-eastern reach), Wairoa River (upper Waiau River), Te Rakatū (Garnock Burn), Te Konuotu-te-Makohu (Monument), and Huatea (South Arm).

For Ngāi Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations and document the events which shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

A number of wāhi taonga and nohoanga associated with the lake are now under its waters. Eel weirs have been found at the Monument and Hope Arm of the lake, and there was a canoe manufacturing site at Pigeon Island. Such wāhi taonga are places holding the memories, traditions, victories and defeats of Ngāi Tahu tūpuna.

As a mahinga kai, the lake was important for the fowling it offered Murihiku coastal settlements in summer. The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka (landing places), places for gathering kai and other taonga, ways in which to use the resources of Moturau, the relationship of people with the lake and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

The mauri of Moturau represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the lake.

## Statutory Acknowledgement for Ōreti River

(From Schedule 50 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)

#### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the River known as Ōreti, the location of which is shown on Allocation Plan MD 123 (SO 12262).

#### **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to the Ōreti River, as set out below.

## Ngāi Tahu Association with the Ōreti River

The Ōreti River traverses a significant area of Murihiku, stretching from its mouth at Invercargill almost to the edge of Whakatipu-wai-Māori (Lake Wakatipu). As such, it formed one of the main trails inland from the coast, with an important pounamu trade route continuing northward from the headwaters of the Ōreti and travelling, via the Mavora or Von River Valley, to the edge of Wakatipu and onto the Dart and Routeburn pounamu sources. Indeed, pounamu can be found in the upper reaches of the Ōreti itself.

The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of Ōreti, the relationship of people with the river and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

The kai resources of the Ōreti would have supported numerous parties venturing into the interior, and returning by mōkihi (vessels made of Raupō), laden with pounamu and mahinga kai. Nohoanga (temporary campsites) supported such travel by providing bases from which the travellers could go water fowling, eeling and catching inaka (whitebait), and were located along the course of Ōreti River.

There were a number of important settlement sites at the mouth of the Ōreti, in the New River estuary, including Ōmāui, which was located at the mouth of the Ōreti, where it passes the New River Heads. Ōue, at the mouth of the Ōreti River (New River estuary), opposite Ōmāui, was one of the principal settlements in Murihiku. Honekai who was a principal chief of Murihiku in his time was resident at this settlement in the early 1820s, at the time of the sealers. In 1850 there were said to still be 40 people living at the kaik at Ōmāui under the chief Mauhe. As a result of this pattern of occupation, there are a number of urupā located at the lower end of the Ōreti, in the estuarine area. Urupā are the resting places of Ngāi Tahu tūpuna and, as such, are the focus for whānau traditions. These are places holding the memories, traditions, victories and defeats of Ngāi Tahu tūpuna, and are frequently protected by secret locations.

The mauri of the Ōreti represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the river.

## Statutory Acknowledgement for Te Ana-Au (Lake Te Anau)

(From Schedule 58 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)

#### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the Lake known as Te Ana-au (Lake Te Anau), the location of which is shown on Allocation Plan MD 42 (SO 12259).

#### **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to Te Ana-au, as set out below.

#### Ngāi Tahu Association with Te Ana-au

Te Ana-au is one of the lakes referred to in the tradition of `Ngā puna Wai Karikari o Rakaihautu,' which tells how the principal lakes of Te Wai Pounamu were dug by the rangātira (chief) Rakaihautu. Rakaihautu was the captain of the canoe, Uruao, which brought the tribe, Waitaha, to New Zealand. Rakaihautu beached his canoe at Whakatū (Nelson). From Whakatū, Rakaihautu divided the new arrivals in two, with his son taking one party to explore the coastline southwards and Rakaihautu

taking another southwards by an inland route. On his inland journey southward, Rakaihautu used his famous kō (a tool similar to a spade) to dig the principal lakes of Te Wai Pounamu, including Te Anaau

For Ngāi Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

Te Ana-au figures in Ngāi Tahu histories as one of the last places where Ngāi Tahu and Ngāti Mamoe came into conflict after the peace established between Rakiihia and Te Hautapunui o Tū. After Rakiihia had died, his bones were stripped of flesh and were buried in a cave on a cliff facing the seaside near Dunedin. However, a landslip led to the bones being uncovered. The bones were found by Ngāi Tahu fishermen and made into fish hooks, an act designed to insult. Among Māori it was a practice to take the bones of enemy leaders who had recently died, fashion them into fish hooks and present fish caught with them to the enemy as a gift. Once the fish had been eaten, the enemy would be told they had feasted on fish that had in turn feasted on their dead.

While Ngāi Tahu were fishing with their Ngāti Mamoe relations, one of the Ngāi Tahu fisherman referred to the fish biting the bones of Rakiihia. The Ngāti Mamoe fisherman recognised the insult and checked the cave in which their leader had been interred. Finding that the cave had been desecrated, the Ngāti Mamoe found and killed the son of a senior Ngāi Tahu rangātira (chief). Before Ngāi Tahu could retaliate, the Ngāti Mamoe were warned that they should leave the coast for the inland lakes where they would not be found. Ngāti Mamoe headed to Te Ana-au. Among this Ngāti Mamoe party was Rakiihia's brother, Pukutahi. Pukutahi fell sick along Te Anau's shoreline and rested while his followers explored the lake to find a safer place.

Approaching the lakes, Te Hau, the leader of the Ngāi Tahu party, observed that the fugitives had divided in two, and unfortunately for Pukutahi decided to follow the trail up to Te Ana-au. The Ngāti Mamoe camp was found and in the morning the chiefs of Ngāti Mamoe, including Pukutahi, were killed. This was to be one of the last battles between the tribes.

The lake was an important mahinga kai in the interior. The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of Te Ana-au, the relationship of people with the lake and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

The mauri of Te Ana-au represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the lake.

## Statutory Acknowledgement for Toi Toi Wetland, Rakiura

(From Schedule 63 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)

## **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the Wetland known as Toi Toi, the location of which is shown on Allocation Plan MD 135 (SO 12266).

## **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to Toi Toi, as set out below.

## Ngāi Tahu Association with Toi Toi

Toi Toi wetland is particularly significant to Ngāi Tahu as a kākāpō habitat. The kākāpō, once a prized mahinga kai for Ngāi Tahu, used the wetland as a feeding ground. The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of Toi Toi, the relationship of people with the wetland and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

Much of Toi Toi's value lies in its pristine and unmodified character. The mauri of Toi Toi represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the wetland.

## **Statutory Acknowledgement for Tutoko**

(From Schedule 66 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)

## **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the mountain known as Tutoko, as shown on Allocation Plan MS 3 (SO 24747 (Otago Land District) and SO 12231 (Southland Land District)).

## **Preamble**

Under Sections 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to Tutoko as set out below.

## Ngāi Tahu Association with Tutoko

The Fiordland area, within which Tutoko stands, represents, in tradition, the raised up sides of Te Waka o Aoraki, after it foundered on a submerged reef and its occupants, Aoraki and his brothers, were turned to stone. These people are now manifested in the highest peaks in Ka Tiritiri o Te Moana (the Southern Alps). The fiords at the southern end of the Alps were carved out of the raised side of the wrecked Waka o Aoraki by Tū Te Rakiwhānoa, so as to make the waka (canoe) habitable by humans. The deep gorges and long waterways that are the fiords were provided as safe havens on this rugged coast, and stocked with fish, forest and birds to sustain humans.

For Ngāi Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events that have shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

Tutoko is not, in fact, the original name of the maunga (mountain), but was applied by Dr J Hector in 1863 after he met the old rangātira (chief) Tutoko and his two daughters, Sara and May. The hills to the north of the Kōtuku River are named the Sara Hills, and those to the south May Hills, after these daughters. The use of this name is seen as appropriate to Ngāi Tahu, as Tutoko was an important rangātira of this region at that time, and is represented by the mountain.

Tutoko is the kaitiaki of Whakatipuwaitai, the westernmost creation of Rakaihautu and the

southernmost kāinga (settlement) of Te Tai Poutini (West Coast) pounamu trails, which provides access to koko-takiwai (a type of pounamu) at Piopiotahi (Milford Sound) and Poison Bay further to the south. The kāinga was also an important staging post for travel into the Lake Wakatipu area via the Hollyford Valley. All of these trails, whether by land or by sea, lie under the shadow of Tutoko.

The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of the land, the relationship of people with the land and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

Mountains such as Tutoko are linked in whakapapa to the gods, and being the closest earthly elements to Raki the sky father, they are likened to the children of Raki and Papa, reaching skyward. The mauri of Tutoko represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the land.

## Statutory Acknowledgement for Uruwera (Lake George)

(From Schedule 68 – refer to Sections 205 and 206 Ngãi Tahu Claims Settlement Act 1998)

## **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the Wetland known as Uruwera (Lake George), the location of which is shown on Allocation Plan MD 59 (SO 12261).

#### Preamble

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to Uruwera, as set out below.

## Ngāi Tahu Association with Uruwera

Lake George is known to Ngāi Tahu as Uruwera, named after a descendant of the Waitaha rangātira (chief), Rakaihautu. Uruwera's descent lines lead to Te Ropuake, the wife of Mako, a leading chief of Ngāti Irakehu of Banks Peninsula. Te Ropuake's mother was Hine Te Awheka, wife of Te Rakiwhakaputa, another leading Ngāi Tahu chief who eventually occupied Rapaki on Banks Peninsula. Both Mako and Te Rakiwhakaputa migrated to Canterbury with the Ngāi Tahu hapū, Ngai Tuhaitara. Examples such as this demonstrate the interconnected nature of Ngāi Tahu whakapapa.

For Ngāi Tahu, histories such as this reinforce tribal identity and solidarity and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

Foods taken from this mahinga kai included tuna (eels), inaka (whitebait) and water fowl. Uruwera has been in continual use by Ngāi Tahu as a mahinga kai for many generations. The lake is a particularly important resource for Ngāi Tahu from Ōraka, Awarua and Ruapuke.

The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of Uruwera, the relationship of people with the lake and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

As a result of this history of use, there a number of urupā associated with Uruwera. Urupā are the resting places of Ngāi Tahu tūpuna and, as such, are the focus for whānau traditions. These are places holding the memories, traditions, victories and defeats of Ngāi Tahu tūpuna, and are frequency protected by secret locations.

The mauri of Uruwera represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the lake.

#### Statutory Acknowledgement for Waiau River

(From Schedule 69 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)

#### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the River known as Waiau, the location of which is shown on Allocation Plan MD 124 (SO 12263).

#### Preamble

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to the Waiau, as set out below.

#### Ngāi Tahu Association with the Waiau

The Waiau River features in the earliest of traditional accounts, and was a place and resource well known to the earliest tūpuna (ancestors) to visit the area. Rakaihautu and his followers traced the Waiau from its source in Te Ana-au (Lake Te Anau) and Motu-ua or Moturau (Lake Manapōuri), to its meeting with the sea at Te Wae Wae Bay.

The waka Takitimu, under the command of the rangātira (chief) Tamatea, was wrecked near the mouth of the Waiau River and the survivors who landed at the mouth named the river "Waiau" due to the swirling nature of its waters. Tamatea and his party made their way up the river to Lake Manapōuri where they established a camp site. The journey of Tamatea was bedevilled by the disappearance of Kaheraki who was betrothed to Kāhungunu, a son of Tamatea, Kaheraki strayed away from the party, and was captured by the Maeroero (spirits of the mountain).

For Ngāi Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

The Waiau has strong links with Waitaha who, following their arrival in the waka Uruao, populated and spread their influence over vast tracts of the South Island. They were the moa hunters, the original artisans of the land. There are remnants of Waitaha rock art associated with the river. Surviving rock art remnants are a particular taonga of the area, providing a unique record of the lives and beliefs of the people who travelled the river.

There is also a strong Ngāti Mamoe influence in this area of the country. Ngāti Mamoe absorbed and intermarried with the Waitaha and settled along the eastern coast of Te Wai Pounamu. The arrival of Ngāti Tahu in Te Wai Pounamu caused Ngāti Mamoe to become concentrated in the southern part of the island, with intermarriage between the two iwi occurring later than was the case further north. The result is that there is a greater degree of Ngāti Mamoe influence retained in this area than in other parts of the island. These are the three iwi who, through conflict and alliance, have merged in the whakapapa (genealogy) of Ngāti Tahu Whānui.

Numerous archaeological sites and wāhi taonga attest to the history of occupation and use of the river. These are places holding the memories traditions, victories and defeats of Ngāi Tahu tūpuna. The main nohoanga (occupation site) on the Waiau was at the mouth and was called Te Tua a Hatu. The rangātira (chief) Te Wae Wae had his kāinga nohoanga on the left bank of the Waiau River mouth.

The Waiau, which once had the second largest flow of any river in New Zealand, had a huge influence on the lives and seasonal patterns of the people of Murihiku, over many generations. The river was a major mahinga kai: aruhe (fernroot), tī root, fish, tuna (eels), shellfish and tutu were gathered in the

summer, a range of fish were caught in the autumn, kanakana (lamprey) were caught in the spring, while the people were largely reliant during winter on foods gathered and preserved earlier in the year. Rauri (reserves) were applied to the mahinga kai resources, so that people from one hapū or whānau never gathered kai from areas of another hapū or whānau. Some 200 species of plants and animals were utilised by Ngāi Tahu as a food resource in and near the Waiau.

The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of the Waiau, the relationship of people with the river and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

Place names provide many indicators of the values associated with different areas, including Waiharakeke (flax), Papatōtara (tōtara logs or bark), Kirirua (a type of eel found in the lagoon), Te Rua o te Kaiamio (a rock shelter that was a 'designated meeting place' for the local Māori, similar to a marae) and Ka Kerehu o Tamatea — ("charcoal from the fire of Tamatea" — black rocks near old Tuatapere ferry site).

The Waiau River was a major travelling route connecting Murihiku and Te Ara a Kiwa (Foveaux Strait) to Te Tai Poutini (the West Coast), and as such was a important link between hapū and iwi. Pounamu on the West Coast, and summer expeditions to Manapōuri (Motu-ua or Moturau) for mahinga kai were the main motivations for movement up and down the Waiau. Mōkihi (vessels made from Raupō) were utilised for travel down the river and were a very effective and common mode of travel, making transportation of substantial loads of resources possible.

The tūpuna had an intimate knowledge of navigation, river routes, safe harbours and landing places, and the locations of food and other resources on the Waiau. The river was an integral part of a network of trails which were used in order to ensure the safest journey and incorporated locations along the way that were identified for activities including camping overnight and gathering kai. Knowledge of these trails continues to be held by whānau and hapū and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the river.

The Waiau was once a large and powerful river, up to 500m across at the mouth, narrowing to 200 m further upstream. The water flow from the Waiau River was an important factor in the ecological health and bio-diversity of the coastal resources.

The mauri of the Waiau represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the river.

#### **Statutory Acknowledgement for Waituna Wetland**

(From Schedule 73 – refer to Sections 205 and 206 Ngāi Tahu Claims Settlement Act 1998)

#### **Statutory Area**

The statutory area to which this statutory acknowledgement applies is the wetland known as Waituna, the location of which is shown on Allocation Plan MD 58 (SO 12260).

#### **Preamble**

Under Section 206, the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to Waituna, as set out below.

#### Ngāi Tahu Association with Waituna

Intermittently open to the sea, Waituna wetland (with the western end, where the lagoon breaks out to sea known as Kā-puna-wai) was a major food basket utilised by nohoanga and permanent settlements located in the immediate vicinity of the wetlands, and further away, for its wide variety of reliable mahinga kai. The great diversity of wildlife associated with the complex includes several breeds of ducks, white heron, gulls, spoonbill, kōtuku, oyster- catcher, dotterels, terns and fernbirds. The wetlands are important kōhanga (spawning) grounds for a number of indigenous fish species. Kaimoana available includes giant and banded kōkopu, varieties of flatfish, tuna (eels), kanakana (lamprey), inaka (whitebait), waikākahi (freshwater mussel) and waikōura (freshwater crayfish). Harakeke, Raupō, manuka, tōtara and tōtara bark, and Pīngao were also regularly harvested cultural materials. Paru or black mud was available, particularly sought after as a product for making dyes.

The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of Waituna, the relationship of people with the lake and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

As a result of this history of use and occupation of the area, there are wāhi tapu and wāhi taonga all along its shores. It is also possible that particular sections of the wetland were used for waiwhakaheketūpāpāku (water burial).

Urupā and wāhi tapu are the resting places of Ngāi Tahu tūpuna and, as such, are the focus for whānau traditions. These are places holding the memories, traditions, victories and defeats of Ngāi Tahu tūpuna, and are frequency protected by secret locations.

The mauri of Waituna represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the area.

### **Purposes of Statutory Acknowledgements**

Pursuant to Section 215, and without limiting the rest of this schedule, the only purposes of these statutory acknowledgements are—

- (a) to require that consent authorities forward summaries of resource consent applications to Te Rūnanga o Ngāi Tahu as required by regulations made pursuant to Section 207 (clause 12.2.3 of the deed of settlement);
- (b) to require that consent authorities, the Historic Places Trust, or the Environment Court, as the case may be, have regard to these statutory acknowledgements, as provided in Sections 208 to 210 (clause 12.2.4 of the deed of settlement);
- (c) to empower the Minister responsible for management of these statutory acknowledgement areas or the Commissioner of Crown Lands, as the case may be, to enter into a Deed of Recognition as provided in Section 212 (clause 12.2.6 of the deed of settlement); and
- (d) to enable Te Rūnanga o Ngāi Tahu and any member of Ngāi Tahu Whānui to cite these statutory acknowledgements as evidence of the association of Ngāi Tahu to these statutory acknowledgement areas as provided in Section 211 (clause 12.2.5 of the deed of settlement).

#### **Limitations on Effect of Statutory Acknowledgements**

Except as expressly provided in Sections 208 to 211, 213, and 215,—

- (a) these statutory acknowledgements do not affect, and are not to be taken into account in, the exercise of any power, duty, or function by any person or entity under any statute, regulation, or bylaw; and
- (b) without limiting paragraph (a), no person or entity, in considering any matter or making any decision or recommendation under statute, regulation, or bylaw, may give any greater or lesser weight to Ngāi Tahu's association to these statutory acknowledgement areas (as described in these statutory acknowledgements) than that person or entity would give under the relevant statute, regulation, or bylaw, if these statutory acknowledgements did not exist.

Except as expressly provided in this Act, these statutory acknowledgements do not affect the lawful rights or interests of any person who is not a party to the deed of settlement.

Except as expressly provided in this Act, these statutory acknowledgements do not, of themselves, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, these statutory acknowledgement areas.

#### Other mechanisms relevant to this Plan

The Ngāi Tahu Claims Settlement Act also sets up a range of other sites and information that may be relevant to any applicant or consent holder, or to the public generally. These are Nohoanga which are camp sites at specified places on rivers within the region; Tōpuni which are landscape features of special importance or value to Ngāi Tahu; and taonga species which are a range of flora and fauna that culturally valued by Ngāi Tahu.

The following set out the basic detail on the location and types of places and species referred to in the Schedules to the Act.

#### Nohoanga (Camp Sites)

#### Sites over which Nohoanga Entitlements to be Granted in Southland

(From Schedule 95 – refer to Section 246 Ngāi Tahu Claims Settlement Act 1998)

45	Lake Manapōuri	Lake Manapōuri Lake Manapōuri - 1 hectare approximately, being Part Manapōuri Lakebed. Subject survey, as shown on Allocation Plan MN 73 (SO 12234).
46	Lake Te Anau	Lake Mistletoe - 1 hectare approximately, being Part Section 6, Block III, Eglington Survey District (SO 6989). Subject to survey, as shown on Allocation Plan MN 446 (SO 12254).
47	Lake Te Anau	Lake Te Anau – (91 hectares approximately Mile Creek) being Part Run 301B (SO 4685). Subject to survey, as shown on Allocation Plan MN 486 (SO 12256).
48	Mataura River	Ardlussa - 1 hectare, approximately, being Parts Crown Land, Mataura Riverbed and unformed legal, road, BlockIII,

Wendonside Survey District. Subject to survey, as shown on Allocation Plan MN 475 (SO 12255).

49 Mavora Lakes

Mavora Lakes - 1 hectare, approximately, being Part Run 568 (SO 6800). Subject to survey, as shown on Allocation Plan MN 77 (SO 12235).

50	Ōreti River	Junction of 1 hectare, approximately, Ōreti River and being Part Section 136, Irthing Stream Eyre Survey District (SO 1). Subject to survey, as shown on Allocation Plan MN 263 (SO 12248).
51	Waiua River and Lagoon	Waiau River - 1 hectare, approximately, (No 1) being Part Section 10 and Part Waiau Riverbed, Block I, Alton Survey District (SO 2840) Subject to survey, as shown on Allocation Plan MN 90(SO 12236).
52	Waiau River and Lagoon	Waiau River -1 hectare, a proximately, (No 2) being Part Sections 7 and 7A, Block XV, Longwood Survey District (SOs 2021 and 3726) Subject to survey, as shown on Allocation Plan MN 444 (SO 12253).
53	Waiua River and Lagoon	Queen's Reach - 1 hectare, approximately, being Part Section 25, Block II, Manapōuri Survey District (SO 10887). Subject to survey as shown on Allocation Plan MN 258 (SO 12245).
54	Waikaia River	Piano Flat - 5800 m2, approximately, being Sections 8, 9, 10, 11 and Part Section 7, Block VI, Gap Survey District (SO 6837) Subject to survey, as shown on Allocation Plan MN 259 (SO 12246).
55	Waikawa River and Harbour	Waikawa River - 3085 m2 approximately (Public access to the river along track to continue) being Part Section 42, Town of Niagara Comprised in existing Document 084684.1. Subject to survey, as shown on Allocation Plan MN 260 (SO 12247).

#### **Tōpuni**

#### Tōpuni for Motupōhue (Bluff Hill)

(From Schedule 85 – refer to Sections 238 and 239 Ngāi Tahu Claims Settlement Act 1998)

#### **Description of Area**

The area over which the Tōpuni is created is the area known as Motupōhue, as shown on Allocation Plan MS 8 (SO 12233).

#### Preamble

Under Section 239 (clause 12.5.3 of the deed of settlement), the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional values relating to Motupōhue as set out below.

#### Ngāi Tahu Values Relating to Motupōhue

The name Motupōhue is an ancient one, brought south by Ngāti Mamoe and Ngāti Tahu from the Hawkes Bay region where both tribes originated. The name recalls a history unique to the Ngati Tuhaitara and Ngāti Kuri hapū that is captured in the line, 'Kei korā kei Motupōhue, he pāreka e kai ana, nā tō tūtae' ('It was there at Motupōhue that a shag stood, eating your excrement').

Oral traditions say that the Ngāti Mamoe leader, Te Rakitauneke, is buried upon this hill. Te Rakitauneke's saying was: `Kia pai ai tāku tītīro ki Te Ara a Kiwa' (`Let me gaze upon Foveaux Strait').

Some traditions also place another Ngāti Mamoe leader, Tū Te Mokohu, on this hill.

For Ngāi Tahu, histories such as this represent the links and continuity between past and present generations, reinforce tribal identity and solidarity, and document the events which shaped Ngāi Tahu as an iwi.

The mauri of Motupōhue represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with Motupōhue.

#### Tōpuni for Takitimu Range, Southland

(From Schedule 89 – refer to Sections 238 and 239 Ngãi Tahu Claims Settlement Act 1998)

#### **Description of Area**

The area over which the Tōpuni is created is the area known as Takitimu Range located in Murihiku (Southland), as shown on Allocation Plan MS 5 (SO 12232).

#### **Preamble**

Under Section 239 (clause 12.5.3 of the deed of settlement), the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional values relating to Takitimu as set out below.

#### Ngāi Tahu Values Relating to Takitimu

The Takitimu maunga (mountains) were named by Tamatea, the captain of the Takitimu waka (canoe) in memory of the waka after it struck trouble in Te Waewae Bay, and was eventually wrecked near the mouth of the Waimeha Stream.

Tradition states that the Takitimu waka was overtaken by three large waves known as O-te-wao, Ō-roko and Ō-kākā, followed by a cross wave, which resulted in the Takitimu being hurled well inland, with its cargo being strewn about. In some accounts the ranges inland from Te Waewae Bay are likened to the huge waves that caused the demise of the waka Takitimu. In other accounts the Takitimu maunga are considered to be the upturned hull of the waka.

For Ngāi Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events that have shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

Tamatea and his crew made their way overland from the site of the wreck. Tamatea likened the majestic and upright Takitimu maunga when he viewed them from the south coast, to the crew of the Takitimu struggling to control the waka in adverse conditions. During the overland journey past the Takitimu maunga Tamatea lost one of his party, a woman named Kaheraki who strayed away from the party and was captured by the maeroero (spirits of the mountain) and never seen again. Kaheraki had been betrothed to Kāhungunu, who was a son of Tamatea.

The Takitimu maunga are, therefore, a symbolic reminder of the famous exploits of Tamatea in the south, and a reminder forever locked into the landscape, of the tūpuna (ancestral) waka Takitimu, adding lustre to the noted spiritual values of the western Southland landscape. The Takitimu maunga are visible from all points of the Murihiku landscape, and are also a noted weather indicator.

The mauri of Takitimu represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the land.

#### **Topuni for Tutoko**

(From Schedule 93 – refer to Sections 238 and 239 Ngāi Tahu Claims Settlement Act 1998)

#### **Description of Area**

The area over which the Tōpuni is created is the area known as Tutoko located in Fiordland National Park, as shown on Allocation Plan MS 3 (SO 24747 (Otago Land District) and SO 12231 (Southland Land District)).

#### **Preamble**

Under Section 239 (clause 12.5.3 of the deed of settlement), the Crown acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional values relating to Tutoko, as set out below.

#### Ngāi Tahu Values Relating to Tutoko

The Fiordland area, within which Tutoko stands, represents, in tradition, the raised up sides of Te Waka o Aoraki, after it foundered on a submerged reef and its occupants, Aoraki and his brothers, were turned to stone. These people are now manifested in the highest peaks in Ka Tiritiri o Te Moana (the Southern Alps). The fiords at the southern end of the Alps were carved out of the raised side of the wrecked Waka o Aoraki by Tū Te Rakiwhānoa, so as to make the waka (canoe) habitable by humans. The deep gorges and long waterways that are the fiords were provided as safe havens on this rugged coast, and stocked with fish, forest and birds to sustain humans.

For Ngāi Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events that have shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

Tutoko is not, in fact, the original name of the maunga (mountain), but was applied by Dr J Hector in 1863 after he met the old rangātira (chief) Tutoko and his two daughters, Sara and May. The hills to the north of the Kōtuku River are named the Sara Hills, and those to the south, May Hills, after these daughters. The use of this name is seen as appropriate to Ngāi Tahu, as Tutoko was an important rangātira of this region at that time, and is represented by the mountain.

Tutoko is the kaitiaki of Whakatipuwaitai, the westernmost creation of Rakaihautu and the southernmost kāinga (settlement) of Te Tai Poutini (West Coast) pounamu trails, which provides access to koko-takiwai (a type of pounamu) at Piopiotahi (Milford Sound) and Poison Bay further to the south. The kāinga was also an important staging post for travel into the Lake Wakatipu area via the Hollyford Valley. All of these trails, whether by land or by sea, lie under the shadow of Mt Tutoko.

The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of the land, the relationship of people with the land and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

Mountains such as Tutoko are linked in whakapapa to the gods, and being the closest earthly elements

to Raki the sky father, they are likened to the children of Raki and Papa, reaching skyward. The mauri of Tutoko represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the land.

## **Appendix C – ANZECC Sediment Guidelines**

#### **Assessment of Contaminants in Sediments**

The table is an extract from the national guidelines for sediment quality (Australia New Zealand Environment and Conservation Council - ANZECC 2000).

The levels referred to in the table represent guidelines, based on overseas biological effects data due to the lack of local data. Values are expressed as concentrations on a dry weight basis. For organics, values are normalised to 1% organic carbon, rather than expressing as mg/kg organic carbon as is sometimes done. This requires that if the sediment organic carbon content is markedly higher than 1%, the guideline value should be adjusted accordingly.

If the lower sediment quality guideline (ISQG-Low) for a particular contaminant is not exceeded, the chemical is unlikely to cause any biological impact on organisms inhabiting that sediment.

If chemical concentrations exceed the ISQG-Low levels, they may be toxic and further investigation is recommended to determine whether they pose a threat.

Recommended sediment quality guidelinesa

These guidelines apply to the sediment after reasonable mixing.

Contaminant	ISQG- Low		
Metals (mg/kg dry wt.)			
Antimony	2		
Cadmium	1.5		
Chromium	80		
Copper	65		
Lead	50		
Mercury	0.15		
Nickel	21		
Silver	1		
Zinc	200		
Metalloids (mg/kg dry wt.)			
Arsenic	20		
Organometallics (μSn/kg dry wt.)			
Tributyltin	5		
Organics (μg/kg dry wt.) <sub>b</sub>			
Acenapthene	16		
Acenaphthalene	44		
Anthracene	85		
Fluorene	19		
Naphthalene	160		
Phenanthrene	240		
Low Molecular Weight PAHs	552		

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Contaminant	ISQG- Low
Benzo(a)pyrene	430
Dibenzo(a,h)anthracene	63
Chrysene	384
Fluoranthene	600
Pyrene	665
High Molecular Weight PAHs c	1700
Total PAHs	4000
Total DDT	1.6
p.p'-DDE	2.2
o,p'- + p,p'-DDD	2
Chlordane	0.5
Dieldrin	0.02
Endrin	0.02
Lindane	0.32
Total PCBs	23

- a Primarily adapted from Long et al (1995)
- b Normalised to 1% organic carbon
- c Low molecular weight PAHs are the sum of concentrations of acenaphthene, acenaphthalene, anthracene, fluorene, 2-methylnaphthalene, naphthalene and phenanthrene; high molecular weight PAHs are the sum of concentrations of benzo(a)anthracene, benzo(a)pyrene, chrysene, dibenzo(a, h) anthracene, fluoranthene and pyrene.

## Appendix E<sup>132</sup> – 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%.

#### **Southland Regional Council (final):**

The change in-fine sediment (<2mm diameter) bed cover, when measured as a percentage at the downstream edge of the reasonable mixing zone, must not exceed increase by more than 10 percentage points from that measured immediately upstream of the discharge%.

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

<sup>132</sup> Appeal to Environment Court by (i) Aratiatia Livestock Limited ENV-2018-CHC-000029
(ii) Southland Fish and Game Council ENV-2018-CHC-000037
(iv) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

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 <u>at or</u> below the median flow, the visual clarity of the water shall not be less than 1.3 metres.<sup>133</sup>

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 <u>8090</u> and the <u>Semi-Quantitative</u> Macroinvertebrate Community Index shall exceed <u>3.5</u> 4.5.<sup>134</sup>

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

#### Surface water bodies classified as "Lowland hard bed"

The temperature of the water:

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

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

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

#### **Southland Regional Council (final):**

The change in fine sediment (<2mm diameter) bed cover, when measured as a percentage at the downstream edge of the reasonable mixing zone, must not exceed increase by more than 10 percentage points from that measured immediately upstream of the discharge%.

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

<sup>133</sup> Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland.

<sup>&</sup>lt;sup>134</sup> 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)

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 <u>at or</u> 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.<sup>135</sup>

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. <sup>136</sup>

Biomass shall not exceed 35 grams per square metre for either filamentous algae or diatoms and cyanobacteria. 137

Chlorophyll a shall not exceed 120 milligrams per square metre for filamentous algae and 200 milligrams per square metre for diatoms and cyanobacteria. 138

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.

<sup>135</sup> Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland.

<sup>&</sup>lt;sup>136</sup> Applies to the part of the bed that can be seen from the bank during summer low flows or walked on.

<sup>137</sup> 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

<sup>138</sup> 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 change in fine sediment (<2mm diameter) bed cover must not exceed 10%.

#### **Southland Regional Council (final):**

The change in fine sediment (<2mm diameter) bed cover, when measured as a percentage at the downstream edge of the reasonable mixing zone, must not exceed increase by more than 10 percentage points from that measured immediately upstream of the discharge%.

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 <u>at or</u> below the median flow, the visual clarity of the water shall not be less than 1.6 metres.<sup>139</sup>

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

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

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

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

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

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

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

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

#### Surface water bodies classified as "Mountain"

The temperature of the water:

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

<sup>&</sup>lt;sup>139</sup> Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland.

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%.

#### **Southland Regional Council (final):**

The change in fine sediment (<2mm diameter) bed cover, when measured as a percentage at the downstream edge of the reasonable mixing zone, must not exceed increase by more than 10 percentage points from that measured immediately upstream of the discharge%.

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 <u>at or</u> 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%.

#### **Southland Regional Council (final):**

The change in fine sediment (<2mm diameter) bed cover, when measured as a percentage at the downstream edge of the reasonable mixing zone, must not exceed increase by more than 10 percentage points from that measured immediately upstream of the discharge%.

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 <u>at or</u> below the median flow, the visual clarity of the water shall not be less than 3 metres.<sup>140</sup>

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. 141

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.

<sup>140</sup> Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland.

<sup>&</sup>lt;sup>141</sup> 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. Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

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

#### **Southland Regional Council (final):**

The change in fine sediment (<2mm diameter) bed cover, when measured as a percentage at the downstream edge of the reasonable mixing zone, must not exceed increase by more than 10 percentage points from that measured immediately upstream of the discharge%.

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 <u>at or</u> below the median flow, the visual clarity of the water shall not be less than 3 metres.<sup>142</sup>

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. 143

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

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

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

The temperature of the water:

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

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

The change in sediment cover must not exceed 10%.

<sup>142</sup> Visual clarity is assessed using the black disc method or other comparable method employed by Environment Southland

<sup>&</sup>lt;sup>143</sup> 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. Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

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#### Southland Regional Council (final):

The change in fine sediment (<2mm diameter) bed cover must not increase 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.<sup>144</sup>

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. 145

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%.

#### **Southland Regional Council (final):**

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

<sup>&</sup>lt;sup>144</sup> Visual clarity in lakes to be measured as Secchi depth.

<sup>&</sup>lt;sup>145</sup> Determination of lake chlorophyll concentration to be follow the protocols in Burns et al. (2000).

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%.

#### **Southland Regional Council (final):**

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

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

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

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

When lake inflows are below their median values, the Secchi depth clarity of the water shall not be less than 10 metres.

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

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

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

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

#### Surface water bodies classified as "Mataura 1"

The Protected Waters<sup>146</sup> 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.

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%.

#### **Southland Regional Council (final):**

The change in fine sediment (<2mm diameter) bed cover, when measured as a percentage at the downstream edge of the reasonable mixing zone, must not exceed increase by more than 10 percentage points from that measured immediately upstream of the discharge%.

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.

<sup>&</sup>lt;sup>146</sup> Protected Waters means:

<sup>(</sup>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

<sup>(</sup>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

<sup>(</sup>c) the Mimihau Stream and the Mokoreta River and each of their tributaries.

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 <u>fine</u> sediment (<2mm diameter) bed cover must not exceed 10%.

#### **Southland Regional Council (final):**

The <u>change in fine</u> sediment (<2mm diameter) <u>bed</u> cover, when measured as a percentage at the <u>downstream edge of the reasonable mixing zone</u>, must not <u>exceed increase by more than</u> 10 <u>percentage points from that measured immediately upstream of the discharge</u>%.

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 <u>fine</u> sediment (<2mm diameter) bed cover must not exceed 10%.

#### **Southland Regional Council (final):**

The change in fine sediment (<2mm diameter) bed cover, when measured as a percentage at the downstream edge of the reasonable mixing zone, must not exceed increase by more than 10 percentage points from that measured imediately upstream of the discharge%.

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.

Table 1 "Ammonia standards for Lowland and Hill surface water bodies"

Total Ammoniacal Nitrogen in mg/m³ at different pH		
рН	NH <sub>4</sub> +-N + NH <sub>3</sub> -N mg/m <sup>3</sup>	
6.0	2570	
6.1	2555	
6.2	2540	
6.3	2520	
6.4	2490	
6.5	2460	
6.6	2430	
6.7	2380	
6.8	2330	
6.9	2260	
7.0	2180	
7.1	2090	
7.2	1990	
7.3	1880	
7.4	1750	
7.5	1610	
7.6	1470	
7.7	1320	
7.8	1180	
7.9	1030	
8.0	900	
8.1	780	
8.2	660	
8.3	560	

Total Ammoniacal Nitrogen in mg/m³ at different pH		
рН	NH <sub>4</sub> +-N + NH <sub>3</sub> -N mg/m <sup>3</sup>	
8.4	480	
8.5	400	
8.6	340	
8.7	290	
8.8	240	
8.9	210	
9.0	180	

#### References

Australian and New Zealand Environment and Conservation Council 2000. *Australian and New Zealand guidelines for fresh and marine water quality.* 

Burns, N., Bryers, G., and Bowman, E. 2000. *Protocol for monitoring trophic levels of New Zealand lakes and reservoirs*. Prepared for the Ministry for the Environment.

Stark, J.D., Boothroyd, I.K.G., Harding, J.S., Maxted, J.R. and Scarsbrook, M.R. 2001. *Protocols for sampling macroinvertebraes in wadeable streams. New Zealand Macroinvertebrate Working Group Report No. 1.* Prepared for the Ministry for the Environment.

## **Appendix F – Water Conservation Orders**

#### Water Conservation (Mataura River) Order 1997

SR 1997/126

PURSUANT to Sections 214 and 423 of the Resource Management Act 1991, His Excellency the Governor-General, acting by and with the advice and consent of the Executive Council, and on the recommendation of the Minister for the Environment made in accordance with the report of the Environment Court following an inquiry by that Court, makes the following order.

#### **Analysis**

(List of Sections)

- 1 Title and commencement
- 2 Interpretation
- 3 Outstanding features
- 4 Rates of flow in Mataura River and Waikaia River
- 5 General provisions relating to water permits, discharge permits, and regional plans
- 6 Water permit to dam not to be granted, etc
- 7 Provisions relating to discharges
- 8 Scope of this order

#### **Orders**

#### 1. Title and commencement—

- (1) This order may be cited as the Water Conservation (Mataura River) Order 1997.
- (2) This order comes into force on the 28th day after the date of its notification in the Gazette.

#### 2. Interpretation—

In this order, unless the context otherwise requires,—

"Act" means the Resource Management Act 1991:

"Authorised inflows" means discharges of water or water containing waste into protected waters pursuant to a discharge permit:

"Protected waters" means—

- the Mataura River from its source (approximate map reference NZMS 260 E42:502333) to its confluence with the sea (approximate map reference NZMS 260 F47:877946); and
- (2) 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 F45:881582); and
- (3) the Mimihau Stream and the Mokoreta River and each of their tributaries.

#### 3. Outstanding features —

It is declared that the protected waters include outstanding fisheries and angling amenity features.

#### 4. Rates of flow in Mataura River and Waikaia River —

- (1) Because of the outstanding features specified in clause 3, the rates of flow in the Mataura River and in the Waikaia River must not be reduced, by the grant or exercise of water permits, below the minimum rate of flow specified in subclauses (2) and (3).
- (2) The minimum rate of flow at any point in the Mataura River and the Waikaia River above the Mataura Island Road Bridge (approximate map reference NZMS 260 F46:850158), where the flow is estimated by the Southland Regional Council from measurements taken at that point, must be 95% of
  - (a) the flow so estimated by the Southland Regional Council at that point; plus
  - (b) water taken in accordance with the Act from the protected waters upstream of that point and not returned to the protected waters —

less authorised inflows upstream of that point which did not have their source in the protected waters.

- (3) The minimum rate of flow at any point in the Mataura River below the Mataura Island Road Bridge (approximate map reference NZMS 260 F46:850158), where the flow is estimated by the Southland Regional Council from measurements taken at that point, must be 90% of—
  - (a) the flow so estimated by the Southland Regional Council at that point; plus
  - (b) water taken in accordance with the Act from the protected waters upstream of that point and not returned to the protected waters—

less authorised inflows upstream of that point which did not have their source in the protected waters.

#### 5. General provisions relating to water permits, discharge permits, and regional plans—

- (1) A water permit or a discharge permit must not be granted under Part 6 of the Act and a regional plan must not be made under Part 5 of the Act in respect of any part of the protected waters if such a permit or plan would contravene the provisions of this order.
- (2) The prohibitions in subclause (1) do not apply to water permits or discharge permits granted or regional plans made in respect of any part of the protected waters for all or any of the following purposes:
  - (a) research into, and enhancement of, fisheries and wildlife habitats;
  - (b) the construction, maintenance, or protection of roads, bridges, pylons, and other necessary public utilities;
  - (c) soil conservation and river protection and other activities undertaken pursuant to the Soil Conservation and Rivers Control Act 1941;
  - (d) stock water and stock-water reservoirs.

#### 6. Water permit to dam not to be granted, etc—

- (1) A permit to dam the Mataura River from its source to the sea and the Waikaia River from its source to its confluence with the Mataura River must not be granted under Part 6 of the Act.
- (2) A permit to dam any tributary of the Waikaia River or the Mataura River which forms part of the protected waters must not be granted under Part 6 of the Act if the dam would

- harm salmonid fish-spawning or prevent the passage of salmonid fish.
- (3) The prohibition in subclause (1) does not apply to water permits in respect of the weir at approximate map reference NZMS 260 F46:912385 if the water permits are granted or renewed subject to similar terms and conditions to which the former permits were subject.

#### 7. Provisions relating to discharges

- (1) A discharge permit must not be granted and a regional plan must not be made for any discharge into the protected waters if the effect of the discharge would be to breach the following provisions and standards:
  - (a) Any discharge is to be substantially free from suspended solids, grease, and oil:
  - (b) After allowing for reasonable mixing of the discharge with the receiving water in that part of the protected water between map references NZMS 260 F45:967503 to F45:963508 (Mataura River),
    - (i) the natural water temperature must not be changed by more than 3 degrees Celsius;
    - (ii) the acidity or alkalinity of the waters as measured by the pH must be within the range of 6.0 to 8.5, except when due to natural causes;
    - (iii) 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;
    - (iv) there must not be any destruction of natural aquatic life by reason of a concentration of toxic substances;
    - (v) the natural colour and clarity of the waters must not be changed to a conspicuous extent;
    - (vi) the oxygen content in solution in the waters must not be reduced below 6 milligrams per litre;
    - (vii) based on not fewer than 5 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:
  - (c) After allowing for reasonable mixing of the discharge with the receiving water in that part of the protected waters between map references
    - (i) NZMS 260 F45:894581 to F45:885584 (Mataura River); and
    - (ii) NZMS 260 F46:917391 to F46:924396 (Mataura River),—
      - (A) the natural water temperature must not be changed by more than 3 degrees Celsius;
      - (B) the acidity or alkalinity of the waters as measured by the pH must be within the range of 6.5 to 8.3, except when due to natural causes;
      - (C) 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;
      - (D) there must not be any destruction of natural aquatic life by reason of a concentration of toxic substances;
      - (E) the natural colour and clarity of the water must not be changed to a conspicuous extent;

- (F) the oxygen content in solution in the waters must not be reduced below 6 milligrams per litre;
- (G) based on not fewer than 5 samples taken over not more than a 30-day period, the median value of the faecal coliform bacteria content of the waters must not exceed 200 per 100 millilitres:
- (d) After allowing for a reasonable mixing of the discharge with the receiving waters in those parts of the protected waters other than the parts specified in paragraphs (b) and (c),—
  - (i) the natural water temperature must not be changed by more than 3 degrees Celsius;
  - (ii) the acidity or alkalinity of the waters as measured by the pH must be within the range of 6.0 or 9.0, except when due to natural causes;
  - (iii) 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;
  - (iv) 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;
  - (vi) the oxygen content in solution in the waters must not be reduced below 5 milligrams per litre.
- (2) Where it is impracticable, because of emergency overflows or the carrying out of maintenance work or any other temporary situation, to require compliance with the relevant provisions of subclause (1), water permits and discharge permits may be granted by the Southland Regional Council.

#### 8. Scope of this order—

Nothing in this order limits the effect of Section 14(3)(b) and (e) of the Act relating to the use of water for domestic needs, for the needs of animals, or for fire-fighting purposes.

#### **Marie Shroff**

Clerk of the Executive Council.

#### **Explanatory Note**

This note is not part of the order, but is intended to indicate its general effect.

This order declares that the Mataura River and the Waikaia River and various other rivers, streams, and tributaries include outstanding fisheries and angling amenity features.

The order includes various provisions to preserve and protect these features.

Issued under the authority of the Acts and Regulations Publication Act 1989.

Date of notification in Gazette: 10 July 1997.

This order is administered in the Ministry for the Environment.

#### Water Conservation (Oreti River) Order 2008

Issue 127-5744

ANAND SATYANAND, Governor-General
ORDER IN COUNCIL
At Wellington this 4th day of August 2008
Present:
HIS EXCELLENCY THE GOVERNOR-GENERAL
PRESIDING IN COUNCIL

Pursuant to Section 214 of the Resource Management Act 1991, His Excellency the Governor-General, acting on the advice and with the consent of the Executive Council, makes the following Order.

#### Order

- 1. **Title**—This order is the Water Conservation (Oreti River) Order 2008.
- 2. **Commencement**—This order comes into force 28 days after the date of its notification in the *New Zealand Gazette.*
- 3. **Interpretation**—In this order, unless the context otherwise requires:

"Act" means the Resource Management Act 1991

"damming" means the impounding of all or part of the natural flow of any water that may involve an associated temporary or permanent structure

"river" means the main stem of those waters identified in the Schedules to this order. The main stem shall be the river with that name on NZMS260 series topographical maps between specified lower and upper river limits as defined by map references in Schedules to this Order

"tributaries" means all the tributaries of rivers or sections of rivers identified in Schedules to this order.

- 4 **Outstanding characteristics**—The waters specified in Schedules 1 and 2 include or contribute to, to the extent identified in Schedule 2, the following outstanding characteristics, features, and values:
  - (a) habitat for brown trout;
  - (b) angling amenity;
  - (c) habitat for black-billed gulls;
  - (d) significance in accordance with tikanga Māori.
- 5. **Waters to be protected**—Because of the outstanding characteristics, features, and values identified in clause 4, the waters specified in Schedule 1 are to be protected in accordance with the relevant conditions in clauses 7 to 9 as specified in Schedule 1.
- 6. Waters to be protected as contributing to outstanding features—

Because of their contribution to outstanding characteristics and features identified in clause 4, the waters specified in Schedule 2 are to be protected in accordance with clause 8 to the extent specified in those clauses and in Schedule 2.

- 7. **Restriction on damming of waters**—Subject to clauses 10 and 11, no water permit may be granted or rule included in a regional plan authorising the damming of waters specified in item 1 of Schedule 1.
- 8. **Requirement to maintain fish passage**—Subject to clauses 10 and 11, no water permit may be granted or rule included in a regional plan relating to the waters specified in Schedule 1 and item 1 of Schedule 2 authorising an activity that will adversely affect the passage of fish.
- 9. **Restriction on the alteration of water quality**—Subject to clauses 10 and 11, no discharge permit may be granted or rule included in a regional plan authorising a discharge into any of the waters specified in item 1 of Schedule 1 that will result in a reduction of water quality beyond the zone of reasonable mixing.

#### 10. Scope of order—

- (1) This order does not limit sections 14(3)(b) and (e) of the Act relating to the use of water for an individual's reasonable domestic needs, or for the reasonable needs of an individual's animals for drinking water, or taken or used for fire-fighting purposes.
- (2) This order does not restrict or prevent the grant of resource consents for the purpose of:
  - (a) research into, and protection or enhancement of, fisheries and wildlife habitats; or
  - (b) the construction, removal, maintenance or protection of any road, ford or bridge, or the maintenance or protection of any network utility operation (as defined in section 166 of the Act); or
  - (c) the construction and maintenance of soil conservation and river protection works undertaken pursuant to the Soil Conservation and Rivers Control Act 1941; or
  - (d) the protection of human or animal health.
- 11. **Exemptions**—Nothing in this order prevents the grant of a discharge or water permit that would otherwise contravene conditions set out in clauses 7, 8 and 9 if:
  - (a) a consent authority is satisfied that:
    - (i) there are exceptional circumstances justifying the grant of a permit; or
    - (ii) the permit is for an activity that is of a temporary nature; or
    - (iii) the permit is for an activity that is associated with necessary construction and maintenance work; and
  - (b) the exercise of any such resource consent would not compromise the protection of the outstanding characteristics and features identified for the waters specified in the Schedules.

Schedule 1 Clauses 5, 7, 8 and 9 Protected waters with outstanding characteristics

Item	Waters	Outstanding Characteristics or Feautures	Conditions to Apply
1	Oreti River main stem at Rocky Point at NZMS 260 E44373946 upstream to the forks at E42 345 450	Habitat for brown trout Angling amenity Value in accordance with tikanga Māori	Prohibit damming (Clause 7) Maintenance of fish passage (Clause 8) Maintenance of water quality (Clause 9)
2	Weydon Burn, Windley River and all other tributaries upstream of the Oreti River at E43 305210 near Lincoln Hill	Habitat for brown trout	Maintenance of fish passage (Clause 8)

# Schedule 2 Clauses 6 and 8 Waters to be protected for their contribution to outstanding features

Item	Waters	Outstanding Characteristics or Feautures	Conditions to Apply
1	Oreti River downstream of Rocky Point at E44 373946 to the Wallacetown Bridge at E46 455208	Habitat for brown trout Habitat for black-billed gull	Maintain fish passage (Clause 8)
2	Groundwater hydraulically connected to the surface water of the Oreti River from Rocky Point at E44 373946 upstream to the forks at E42 345450	Habitat for brown trout	Maintenance of fish passage (Clause 8)

#### **Michael Webster**

for Clerk of the Executive Council.

#### **Explanatory Note**

This note is not part of the order, but is intended to indicate its general effect.

This order declares that the Oreti River and various other rivers, streams, and tributaries include outstanding fisheries and angling amenity features.

The order includes various provisions to preserve and protect these features.

Issued under the authority of the Acts and Regulations Publication Act 1989.

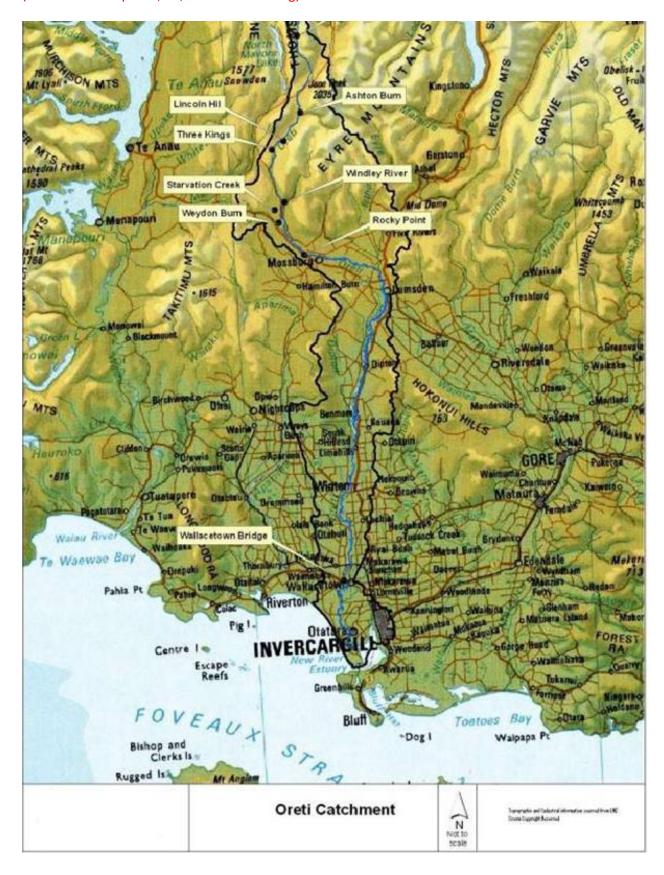
Date of notification in Gazette: 14 August 2008.

This order is administered in the Ministry for the Environment.

Proposed Southland Water and Land Plan (Decisions Version, 1 March 2021)

FOR INFORMATION PURPOSES ONLY – Unofficial version showing Council's final preferred provisions. (as at close of Topic B2, B3, B3 and B5 hearing)		

FOR INFORMATION PURPOSES ONLY – Unofficial version showing Council's final preferred provisions. (as at close of Topic B2, B3, B3 and B5 hearing)



## **Appendix G – Popular Bathing Sites**

Each of the following sites encompasses the waters immediately under the relevant bridge and 100 metres upstream and downstream of the bridge:

- Ōreti River at Winton Bridge
- Öreti River at Wallacetown Bridge
- Mataura River at Gore Bridge
- Aparima River at Thornbury Bridge
- Waiau River at Tuatapere Bridge
- Waikaia River at Waikaia Bridge
- Mataura River at Riversdale
- Mataura River at Mataura Bridge
- Öreti River at Branxholme Rail Bridge
- Mataura River at Woolwich Street Reserve

The following sites listed are considered indicative of popular bathing sites although they are not found within Southland's lowland, hill and spring-fed water bodies. These sites are monitored each month for contact recreation standards:

- Waikaia River at Piano Flat classified under the Mataura classification
- Mararoa River at Mavora Lake classified as mountain

## Appendix I – Natural State Waters Outside National Parks

Table 1 "Natural State Waters outside National Parks"

Area Name	DOC code	DOC land status	Exclusions – refers to any waters on specified DOC managed land not to be managed as NS (all other waters on specified DOC land to be managed as NS)
Borland Mire	RASI	Scientific Reserve	
Burwood (Red Tussock)	RASI	Scientific Reserve	Excludes headwaters of Weydon Burn and Wash Creek
Dean Forest	CAST	Stewardship Land	Excludes tributaries within Motu Bush.
Eweburn, Lake Te Anau	CAST	Stewardship Land	
Eyre Mountains Taka Ra	CACP	Conservation Park	Excludes Mataura
Haka Conservation Park			catchment.
Halfmoon Bay	CAST	Stewardship Land	Excludes Little River Catchment.
Hokonui Forest	CAST	Stewardship Land	Excludes tributaries of Makarewa River & Hedgehope Stream but includes Dunsdale Stream.
Lake George	RAGP	Government Purpose Reserve	Excludes tributaries flowing into Lake George
Lillburn Valley Road	CAST	Stewardship Land	_
Lindsay Ecological Area	CAEA	Ecological Area	Excludes Masson Creek East Branch but includes Masson Creek West Branch
Longwood Forest	CAST	Stewardship Land	Excludes areas within the Conservation Area near Pourakino Stream and small tributary of Aparima.
Mavpra Park	CAST	Stewardship Land	
Paddock Hill	CAST	Stewardship Land	
Pyke Forest	CAST	Stewardship Land	
Rowallan Forest	CAST	Stewardship Land	
Seaward Moss	CAST	Stewardship Land	
Snowdon Forest	CAST	Stewardship Land	

Area Name	DOC code	DOC land status	Exclusions – refers to any waters on specified DOC managed land not to be managed as NS (all other waters on specified DOC land to be managed as NS)
Stewart Island Forest	CAST	Stewardship Land	Excludes Little River Catchment.
Takitimu Conservation Area	CAST	Stewardship Land	
Te Anau Downs	CAST	Stewardship Land	
Te Anau Downs, Henry Creek	CAST	Stewardship Land	
The Cone Forest	CAST	Stewardship Land	
Tiwai Spit	CAST	Stewardship Land	Excludes surface water on land to the west of a straight line drawn on the edge of the main eastern Tiwai North South aligned Boundary and groundwater within the Tiwai groundwater zone.
Toetoes	CAST	Stewardship Land	Excludes two tributaries that flow into Mataura River.
Upper McLeod's Conservation Area	CAST	Stewardship Land	Excludes headwaters to the Ōreti River that do not adjoin Snowden Forest
Woodlaw Forest	CAST	Stewardship Land	

CAST = Stewardship Area – s.25 Conservation Act 1987

CAEA = Ecological Area – s.21 Conservation Act 1987

NPNP = National Park – s.4 National Parks Act 1980

RAGP = Government Purpose Reserve – s.22 Reserves Act 1977

RASI = Scientific Reserve – s.21 Reserves Act 1977

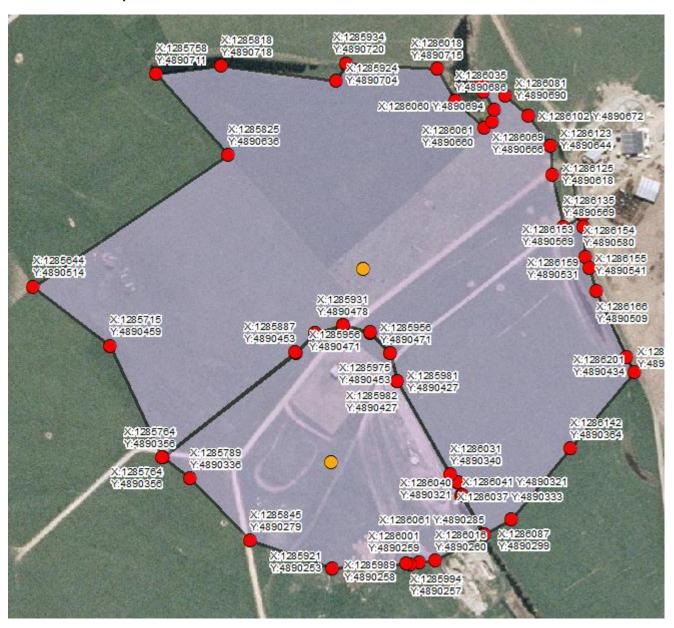
CACP = Conservation Park – s19 Conservation Act 1987

## **Appendix J – Drinking Water Protection Zones**

		Groundwater				
Operator	Catchment	Zone	Source	Northing	Easting	Popin
Alliance Group						
Ltd	Oreti River		River	1236114	4858300	>501
Alliance Group				1220510	4057204	
Ltd	Makarewa River		River	1238519	4857204	>501
Gore District				1285995	4890305	
Council	Mataura River	Knapdale	River/Bore	1203993	4690303	>501
Gore District				1285928	4890434	
Council	Mataura River	Knapdale	River/Bore	1203320	4030434	>501
Gore District				1286408	4888536	
Council	Mataura River	Knapdale	River/Bore			>501
Gore District				1286408	4888436	
Council	Mataura River	Knapdale	River/Bore			>501
Gore District	Markey Divers		Division	1286553	4888712	. 504
Council	Mataura River		River			>501
Gore District	Mataura Diver		Diver	1285399	4890083	<b>► F01</b>
Council	Mataura River		River			>501
Invercargill City Council	Oreti River		River	1237097	4862497	>501
Southland District	Oreti Kivei		Rivei			/301
Coucil		Lintley Aquifer	Bore	1244564	4925736	>501
Gore District	Waikana	Lintiey Aquilei	Bore			>301
Council	Stream		River	1282755	4875915	>501
Gore District	Stream		THIVE			7301
Council	Pluera Stream		River	1286578	4875590	>501
Gore District						
Council	Mataura River		River	1282177	4877303	>501
NZAS		Tiwai	Bore	1249296	4829996	>501
NZAS		Tiwai	Bore	1251688	4829407	>501
NZAS		Tiwai	Bore	1250182	4829324	>501
NZAS		Tiwai	Bore	1250919	4829631	>501
NZAS		Tiwai	Bore	1252451	4829364	>501
NZAS			_	1253998	4829304	
Southland District		Tiwai	Bore	1233996	4029272	>501
Council	Morley Creek		River	1210668	4902284	>501
Southland District	Moriey Creek		Rivei			>501
Council	Aparima River	Lower Aparima	River/Bore	1213438	4878962	>501
Southland District	Aparima River	Lower Aparilla	THIVELY BOTC			7301
Council	Aparima River	Lower Aparima	River/Bore	1217611	4859627	>501
Southland District						
Council		Lower Aparima	River/Bore	1215783	4859557	>501
Southland District		P-	-,			
Council	Upukerora River	Te Anau	River/Bore	1188566	4957972	>501
Southland District			·	4405070	4050420	
Council	Lake Te Anau	Te Anau	Lake/Bore	1185870	4958439	>501
Southland District				1105040	4059200	
Council	Lake Te Anau	Te Anau	Lake/Bore	1185840	4958399	>501
Southland District				1105766	1050216	
Council	Lake Te Anau	Te Anau	Lake/Bore	1185766	4958246	>501
Southland District				1189060	4878081	
Council		Lower Waiau	Bore	1103000	40/0001	>501
Southland District				1189273	4877842	
Council		Lower Waiau	Bore	1103273	7077072	>501

Southland District Council		Lower Oreti	Bore	1237485	4880559	>501
Southland District Council		Lower Oreti	Bore	1237669	4880633	>501
Southland District Council	Bowen River		River	1198112	5041740	>501

#### Gore District - Coopers Wells - Microbial Health Protection Zone



## Appendix K<sup>147</sup> – Surface Water Appendix (Consent Orders)

# Methodology for establishing the point used to determine minimum flow and the level of allocation

The point used to determine the minimum flow and the level of allocation for the purposes of Policy 22 is as follows:

- (i) the point of take; or
- (ii) in the case of a lake, river, artificial watercourse, modified watercourses or natural wetland where flow is lost to groundwater along the length of the lake, river, artificial watercourse, modified watercourse or natural wetland, the most flow sensitive point downstream.

The Southland Regional Council will determine the location of the above. Minimum flows are to be developed through gauging of river flows correlated with Southland Regional Council approved water level monitoring sites, rated flow recording sites, or hydrologic modelling.

#### **Minimum Flows**

The minimum flow will be as follows:

- (i) for takes from the primary allocation, the minimum flow will be Q95;
- (ii) for takes from the secondary allocation, the minimum flow will be the natural median flow during the period from 1 April to 30 November each year and the natural mean flow during the period from 1 December to 31 March each year; and
- (iii) for takes outside of the primary or secondary allocation, the minimum flow will be derived on a case-by-case basis using the guidance contained in Method 2 of Appendix K.

In situations where surface water and groundwater interact, a minimum groundwater level may also be set to maintain instream values.

In the absence of quality information, a precautionary approach will be adopted.

#### Primary and secondary allocation

Primary allocation regimes will be determined by:

- (i) for a lake, river, artificial watercourse, modified watercourse or natural wetland outside the Waiau catchment and not subject to a Water Conservation Order that specifies an alternative environmental flow and level regime, a primary allocation is available when the following criteria can be met:
  - (1) the total surface water allocation does not exceed a volume of 30 percent of the natural pre-allocation Q95 as determined by Southland Regional Council following the methodology established in Appendix K, at any downstream point in the catchment; and
  - (2) the flow at that location is at or above the natural Q95;
- (ii) in the Waiau catchment, the primary allocation is that authorised through resource consents in force and operative with their terms;
- (iii) for a lake, river, modified watercourse or natural wetland subject to a Water Conservation Order that specifies an environmental flow and level regime, the primary allocation will be that specified in the Order; and
- (iv) in the absence of quality information, a precautionary approach will be adopted.

<sup>&</sup>lt;sup>147</sup> Appeal to Environment Court by Southland Fish and Game Council ENV-2018-CHC-000037

Secondary allocation regimes will be determined by:

- (i) for a lake, river, artificial watercourse, modified watercourse or natural wetland, outside the Waiau catchment and not subject to a Water Conservation Order that specifies an alternative environmental flow and level regime, a supplementary allocation is available when the following criteria can be met:
  - (1) the total surface water allocation does not exceed a volume of 10 percent of the relevant seasonal flow cut-off flow in a lake, river, artificial watercourse, modified watercourse or natural wetland at the time of take; and
  - (2) the flow at that location is at or above the natural median flow during the period from 1 April to 30 November each year and the natural mean flow during the period from 1 December to 31 March each year;
- (ii) in the Waiau catchment and for a lake, river, modified watercourse or natural wetland subject to a Water Conservation Order that specifies an environmental flow and level regime, the primary allocation encompasses any supplementary allocation; and
- (iii) in the absence of quality information, a precautionary approach will be adopted.

# Assessments of environmental effects for surface water takes, diversion and use

- (i) In situations where the total volume of surface water allocation is between 10 and 30 percent of the Q95 as determined by the Southland Regional Council following the methodology established above, at any downstream point in the catchment, an assessment of environment effects using Method 1 below will be required.
- (ii) In situations where the total volume of surface water allocation will breach 30 percent of the Q95, as determined by the Southland Regional Council following the methodology established above, at any downstream point in the catchment, an assessment of environment effects using Method 2 below will be required.

#### Method 1 – Assessment using Generalised Habitat Models

The process for undertaking an assessment of environmental effects using generalised habitat models is as follows:

- **Step 1**: Determine the relevant surface water management unit and flow range using Southland Regional Council flow data.
- **Step 2**: Determine the appropriate critical value from the data obtained in Step 1 using following table which shows critical values by surface water management unit and flow range:

Median flow	Surface Water Management Unit			
	Lowland	Hill/Mountain	Hill2 (Hokonui/Catlins)	
0 – 300 L/s	Diadromous galaxiid	Non-diadromous galaxiid	Diadromous galaxiids (low elevation) and non-diadromous galaxiids at higher elevations	
300 – 750 L/s	Trout spawning/juvenile rearing or	Trout spawning/juvenile rearing or non-diadromous	Trout spawning/juvenile rearing or non-diadromous galaxiid if trout excluded	

Median flow	Surface Water Management Unit			
	Lowland	Hill/Mountain	Hill2 (Hokonui/Catlins)	
	Redfin/common	galaxiid if trout	Large adult trout	
	bully if trout	excluded		
	<u>excluded</u>	Large adult trout		
$0.75 - 2.5 \text{ m}^3/\text{s}$	Trout	Trout	Trout spawning/juvenile	
	spawning/juvenile	spawning/juvenile	rearing	
	rearing*	rearing	Large adult trout	
	Large adult trout	Large adult trout		
$2.5 - 5 \text{ m}^3/\text{s}$	Trout	Large adult trout	Large adult trout	
	spawning/juvenile			
	rearing*			
> 5 m <sup>3</sup> /s	Large adult trout	Large adult trout	Large adult trout	

• Step 3: Determine the level of habitat at the Q95 using generalised habitat models for the critical value species (refer to *Review of methods for setting water quantity conditions in the Environment Southland draft Regional Water Plan, NIWA, June 2004*) and compare with the cumulative effect of the allocated and proposed water takes.

#### Method 2 – Assessment using Instream Habitat Flow Incremental Methodology

The process for undertaking an assessment of environmental effects using instream habitat analysis is the same as the process using generalised habitat models outlined in Steps 1 and 2 above. Steps 3 and 4 of this process are as follows:

- Step 3: Determine the level of habitat across the flow range using detailed instream habitat analysis for the critical value species (refer to *Review of methods for setting water quantity conditions in the Environment Southland draft Regional Water Plan, NIWA, June 2004*). For catchments with rivers with a median flow greater than 4.5 m<sup>3</sup>/s, Net Rate of Energy Intake modelling will be used to determine/revise allocation policy for that catchment.
- **Step 4**: Determine the habitat maintenance level using the following table. The habitat maintenance level is based on retaining a percentage of the habitat across the flow range and will be used to determine the impact of the cumulative abstraction on the water body and assist in determining if consent should be granted and if so, the appropriate minimum flow.

Fishery quality will be assumed to be high unless agreed otherwise by key stakeholders such as the Department of Conservation, Fish and Game New Zealand and Te Ao Mārama. Similarly, the habitat maintenance level could be adjusted depending on the perceived values of the out-of-stream use in consultation with key stakeholders.

Critical value	Fishery	Significance	% Habitat
	quality	ranking	retention
Large adult trout – perennial	High	1	90
fishery			
Diadromous galaxiid	High	1	90
Non-diadromous galaxiid	-	2	80
Trout spawning/juvenile rearing	High	3	70
Large adult trout – perennial	Low	3	70
fishery			
Diadromous galaxiid	Low	3	70
Trout spawning/juvenile rearing	Low	5	60
Redfin/common bully	-	5	60

## Appendix L – Groundwater Appendix

## **Appendix L.1 Aquifer test requirements**

Minimum aquifer test requirements to support resource consent applications to take groundwater, other than replacement consent applications for abstraction volumes that have been occurring with no adverse effects of a more than minor scale, are outlined in Table L.1 below.

Table L.1: Minimum aquifer test requirements

Size of take (m³/day)	Minimum Aquifer Test Requirements
<250	Standard yield test comprising 2 hours abstraction at the proposed maximum rate with drawdown and recovery of water levels in the pumped bore measured at regular intervals.
250 to 750	A step-drawdown aquifer test comprising a minimum of 3, 1-hour pumping steps followed by measurement of water level recovery. The maximum pumping rate utilised should be equal to or greater than the maximum proposed abstraction rate.
	A 24-hour constant-rate aquifer test undertaken at the maximum proposed abstraction rate. Water level monitoring should include drawdown and recovery (to within 10% of the initial static water level) in the pumped bore and in at least one observation bore within the area of localised drawdown. The pump rate should be kept constant within +/- 5%.
>750	Confined Aquifers  A step-drawdown aquifer test comprising a minimum of 3, 1-hour pumping steps followed by measurement of water level recovery. The maximum pumping rate utilised should be equal to or greater than the maximum proposed abstraction rate.
	A 24-hour constant-rate aquifer test undertaken at the maximum proposed abstraction rate. Water level monitoring should include drawdown and recovery (to within 10% of the initial static water level) in the pumped bore and in at least two observation bores in the source aquifer and one observation bore in the overlying aquifer within the area of localised drawdown. The pump rate should be kept constant within +/- 5%.
	Unconfined Aquifers A step-drawdown aquifer test comprising a minimum of 3, 1-hour pumping steps followed by measurement of water level recovery. The maximum pumping rate utilised should be equal to or greater than the maximum proposed abstraction rate.
	A 24-hour constant-rate aquifer test undertaken at the maximum proposed abstraction rate. Water level monitoring should include drawdown and recovery (to within 10% of the initial static water level) in the pumped bore and at least two observation bores within the area of localised drawdown. The pump rate should be kept constant within +/- 5%.

## **Appendix L.2 Stream depletion effects**

The stream depletion effects resulting from groundwater abstraction will be classified and managed following the criteria outlined in Table L.2:

- assessment of the magnitude of stream depletion will be supported by a conceptual hydrogeological model that describes the nature of local surface water/groundwater interaction;
- calculation of the magnitude of stream depletion will be undertaken using relevant analytical
  or numerical assessment techniques which are suitable for application in the hydrogeological
  setting in which abstraction will occur;
- representative hydraulic properties for assessment of the magnitude of stream depletion will be derived from aquifer testing undertaken in accordance with requirements outlined in Appendix L.1, as well as an assessment of representative values from the wider hydrogeological environment;
- water bodies characterised as ephemeral will be excluded from consideration of stream depletion effects;
- stream depletion effects due to groundwater abstraction should not result in a more than minor effect on the frequency, extent and duration of flow loss in intermittent water bodies;
- where the pumped well borders two or more streams the magnitude of stream depletion will be assessed in the following manner:
  - if SD1 + SD2 <0.9Q, stream depletion will be managed on the basis of the calculated depletion in each stream;
  - if SD1 + SD2 >0.9Q, the take will be classified as having a Direct hydraulic connection and managed following the criteria outlined in TableL.2.

Where:  $SD_1 = calculated magnitude of stream depletion in Stream 1$ 

SD<sub>2</sub> = calculated magnitude of stream depletion in Stream 2

Q = the assessed pumping rate

• in the Mataura River catchment, the relevant minimum flow cut-off for groundwater takes classified as having a Riparian, Direct or High hydraulic connection will be determined as the figure required to maintain compliance with the flow allocation provisions of the Water Conservation (Mataura River) Order 1997. In all other catchments minimum flow cut-offs for groundwater takes classified as having a Riparian, Direct or High hydraulic connection will be determined following the methodology outlined in Appendix K.

Table L.2: Classification and management of surface water depletion effects

Hydraulic Connection	Classification	Management Approach
Riparian	Any groundwater take within 5 metres of a surface water body <sup>a</sup>	The groundwater take will be managed as an equivalent surface water take unless there is clear hydrogeological evidence that demonstrates that pumping will not impact on the surface water body <sup>a</sup>
Direct	Where the calculated effect on an adjacent surface water body after 7 days abstraction at the maximum authorised rate is equal to or greater than 80 percent of the assessed pumping rate.	The groundwater take will be managed as an equivalent surface water take for flow and allocation purposes and therefore subject to any relevant minimum flow regime.
High	Where the calculated effect on an adjacent surface water body <sup>a</sup> after 7 days abstraction at the maximum authorised rate is less than 80 percent of the assessed pumping rate; and, Where the calculated effect on an adjacent surface water body <sup>a</sup> after pumping at the maximum authorised rate for either:  (i) the maximum period allowed by the seasonal volume <sup>b</sup> , or (ii) a continuous period of 90 days is equal to or greater than 60 percent of the assessed pumping rate.	Where the magnitude exceeds 2 litres per second, the calculated stream depletion effect will be managed as an equivalent take from an adjacent surface water body with the remainder of the allocation included in the allocation volume for the relevant groundwater zone. Groundwater takes classified as having a high degree of hydraulic connection will be subject to any relevant minimum flow regime.
Moderate	Where the calculated effect on an adjacent surface water body <sup>a</sup> after pumping at the maximum authorised rate for either:  (i) the maximum period allowed by the seasonal volume; or  (ii) a continuous period of 90 days is between 30 and 60 percent of the assessed pumping rate or has a magnitude greater than 5 litres per second	Where the magnitude exceeds 2 litres per second, the calculated stream depletion effect will be included in the allocation calculated from an adjacent surface water body with the balance of the abstraction included in the allocation volume for the relevant groundwater zone. No specific minimum flow restrictions will be imposed on the groundwater take.
Low	Where the abstraction is not classified as having a riparian, high, direct or moderate hydraulic connection.	The take will be managed solely as a groundwater take and the full allocation included in the allocation volume for the relevant groundwater management zone.

#### Notes

The assessment of stream depletion effects will take into account any non-consumptive component of the groundwater take.

In circumstances where groundwater has a Moderate, High, Direct or Riparian degree of hydraulic connection then the allocation for groundwater in Table L.4 is only available where there is an available surface water allocation.

<sup>&</sup>lt;sup>a</sup> Includes rivers, lakes and wetlands.

<sup>&</sup>lt;sup>b</sup> In situations where the seasonal volume limits maximum rate abstraction to a period of less than 90 days.

## **Appendix L.3 Interference effects**

#### Determination of "Acceptable"

- (a) The cumulative interference effect of any new groundwater abstraction (in conjunction with other lawfully established groundwater takes) is considered "acceptable" if the drawdown does not exceed any of the following limits in properly constructed and operated bores:
  - (i) 20 percent of the available drawdown in any existing bore which adequately penetrates an unconfined aquifer that is not utilised for long-term monitoring of water levels; or
  - (ii) 50 percent of the potentiometric head in any existing bore screened in a confined aquifer that is not utilised for long-term monitoring of water levels; or
  - (iii) no more than 10 percent of the available drawdown in a unconfined aquifer which exists 50 percent of the time during natural conditions when no pumping is occurring from the aquifer, for bores utilised for long-term monitoring of water levels; or
  - (iv) no more than 20 percent of the available potentiometric head in a confined aquifer that exists 50 percent of the time during natural conditions when no pumping is occurring from the aquifer, for bores utilised for long-term monitoring of water levels; or
  - (v) in any situation where the drawdown interference exceeds any of the limits in subclauses (i)-(iv) the new groundwater abstraction will be considered acceptable if it can be demonstrated that the drawdown interference will not have an impact upon the yield of the bore that is any more than minor or the effect is mitigated.
- (b) An increased volume or increased pumping rate for any lawfully established groundwater abstraction will be considered a new groundwater abstraction under Policy 22.
- (c) Adequacy of bore construction and the available drawdown will be calculated following the methodology outlined in Appendix L.3.
- (d) An exception to clause (a) above may be appropriate for aquifer testing and necessary infrastructure works, and in certain circumstances for mining activities where dewatering occurs for a short duration.
- (e) The assessment of drawdown interference shall take into account the offsetting component of any non-consumptive aspects of the take and use of water.

#### **Assessment of Interference Effects**

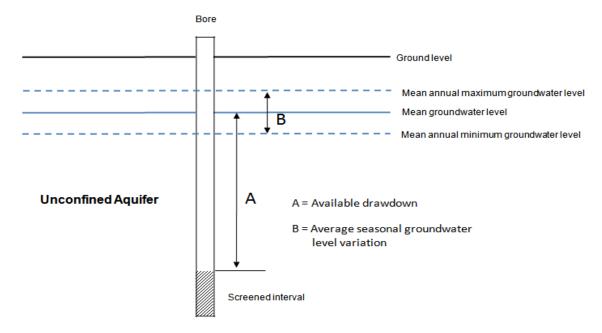
The magnitude of pumping interference effects will be assessed as the drawdown occurring in response to pumping at the maximum rate and/or duration using standard hydrogeological analysis methods appropriate for the hydrogeological setting.

#### **Unconfined Aquifers**

An existing bore or well will be classified as adequately penetrating an unconfined aquifer where the interval over which groundwater enters the bore or well is located at a depth exceeding 3 times the average seasonal groundwater level variation below the mean groundwater level (i.e.  $A > 3 \times B$ ).

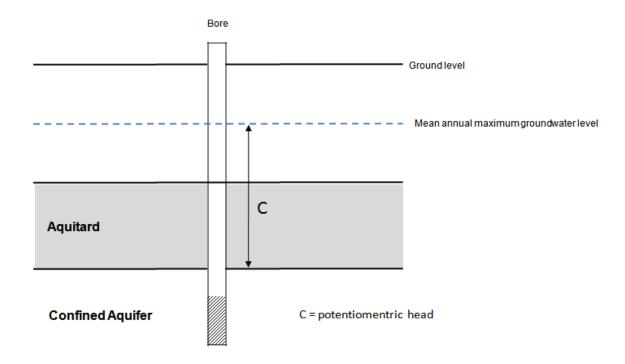
The available drawdown in an adequately penetrating bore screened in an unconfined aquifer is defined as the distance between the mean groundwater level and the top of the screened interval.

Bores or wells not meeting the criteria for adequate penetration will be excluded from assessment of pumping interference effects. Where the depth of the screened interval in a bore or well is not known, available drawdown will be assessed assuming the screened interval extends 1 metre upwards from the full bore or well depth.



#### **Confined Aquifers**

The potentiometric head in a bore screened in a confined aquifer is defined as the head between the mean annual maximum piezometric level and top of the confined aquifer.



# Appendix L.4 Calculation of seasonal surface water and groundwater allocation

Where not specified by existing resource consent conditions, maximum daily and seasonal abstraction rates used for calculating total groundwater allocation under Rule 49 and Rule 54, and for calculating 'reasonable use' of water where relevant, will be established on the following basis.

#### Stock water and dairy use

Peak daily demand and annual allocation for surface water and groundwater takes for stock and dairy use will be calculated based on the number of each stock type multiplied by the relevant figures outlined in Table L.3.

Table L.3 Peak and average daily water use for various stock types

Water Use	Peak (daily) water requirement L/head	Average (annual) water requirement L/day
Dairy - lactating cows (including dairy shed	140	95
use)		
Drystock	45	30
Beef Cattle	45	30
Deer - hinds	45	30
Stags	30	20

#### **Seasonally Variable Water Uses**

For water uses which exhibit significant seasonal variability in daily water use (e.g. municipal supply, milk processing, meat processing), seasonal abstraction rates will be calculated on the basis of the following:

Seasonal Abstraction Rate = (Peak daily water use x 0.75) x 365 days

## **Appendix L.5<sup>148</sup> Groundwater Allocation** (Consent Orders)

#### L.5.1 Unconfined Aquifers

The primary allocation for groundwater management zones defined on Map Series 3: Groundwater Management Zones are listed in Table L.4.

**Table L.4 Primary groundwater allocation limits** 

Groundwater Zone	Primary Allocation
	(m³ x 10 <sup>6</sup> /year)
Awarua	45.81
Blackmount	21.12
Castlerock	6.12
Cattle Flat	2.39
Central Plains	31.29
Centre Hill	6.07
Croydon	2.56
Dipton	9.52
Edendale	11.71
Five Rivers	17.05
Knapdale	2.74
Longridge	4.67
Lower Aparima	32.41
Lower Mataura	34.98
Lower Oreti	19.31
Makarewa	62.67
Orepuki	10.54
Oreti	2.73
Riversdale	6.53
Te Anau	<del>118.25</del> <u>88.94</u>
Te Waewae	18.94
Tiwai	2.57
Upper Aparima	56.93
Upper Mataura	10.40
Waihopai	44.50
Waimatuku	22.27
Waimea Plains	12.41
Waipounamu	1.16
Wendon	5.22
Wendonside	9.56

**Note:** In circumstances where groundwater has a Moderate, High, Direct or Riparian degree of hydraulic connection then the allocation for groundwater in Table L.4 is only available where there is an available surface water allocation.

<sup>&</sup>lt;sup>148</sup> Appeal to Environment Court by (i) Wilkins Farming Co ENV-2018-CHC-000030
(ii) Director-General of Conservation ENV-2018-CHC-000036

#### L.5.2 Confined Aquifers

#### Lumsden Aquifer

Groundwater abstraction from the Lumsden aquifer will be managed in accordance with the allocation volume and minimum water level cut-offs outlined in Table L.5.

Table L.5 Lumsden Aquifer allocation and minimum groundwater level cut-offs

Primary		Initial	Initial level trigger		m level cut-off
Allocation (m³ x 10 <sup>6</sup> /year)	Monitoring bore	m asl	% reduction in maximum daily abstraction rate (m³/day)	m asl	% reduction in maximum daily abstraction rate (m³/day)
5.76	E44/0300	202.5	50	201.5	100

#### North Range Aquifer

Groundwater abstraction from the North Range aquifer will be managed in accordance with the allocation volume and minimum water level cut-off specified in Table L.7. Groundwater takes from this aquifer will also be subject to a pro-rata reduction in seasonal allocation (1 October - 30 September) based on the seasonal recovery triggers specified in Table L.8.

Table L.7 North Range Aquifer minimum groundwater level cut-off

Primary		Minimum level cut-off		
Allocation (m <sup>3</sup> x 10 <sup>6</sup> /year)	Monitoring bore	m asl	% reduction in maximum daily abstraction rate (m³/day)	
1.83	E44/0196	245.0	100	

**Table L.8: North Range Aquifer seasonal recovery triggers** 

E44/0196 Water Level 1 October (m asl)	Percentage of seasonal allocation available (%)
>250.0	100
>249.0	75
>248.0	50
≤248.0	25

#### **All Other Confined Aquifers**

Allocation volumes, minimum water level cut-offs and seasonal recovery triggers for confined aquifers not listed in Table L.5 to Table L.8 will be established following the methodology outlined in Appendix L.6.

### **Appendix L.6 Establishing allocation volumes for confined aquifers**

- In addition to confined aquifers specifically identified in Appendix L.5, aquifer systems elsewhere in the Southland Region may be classified by the Southland Regional Council as confined where aquifer test data collected in accordance with requirements outlined in Appendix L.1 exhibit no significant departure from 'ideal' confined aquifer conditions.
- For aquifers which are characterised by the Southland Regional Council as semi-confined (i.e. exhibiting a significant departure from 'ideal' confined aquifer conditions), allocation will be managed as part of that established for adjacent, hydraulically connected groundwater resources;
- Allocation volumes for confined aquifers not identified in Appendix L.6 will be determined on the basis of groundwater throughflow following Rule 54(e). Where alternative methods (such as numerical modelling) are not available, primary allocation for confined aquifers will be based on the following relation:

Annual allocation =  $0.75(T \times i \times W)$ 

Where T = representative aquifer transmissivity

*i* = hydraulic gradient

W = aquifer width perpendicular to groundwater flow

- Minimum groundwater level cut-offs (and/or seasonal recovery triggers) for confined aquifers will be established to:
  - maintain long-term aquifer storage volumes (taking into account observed temporal groundwater level variations, recharge and seasonal recovery characteristics);
  - establish and maintain a consistent reliability of supply for all groundwater users within the primary allocation volume. Trigger levels for supplementary groundwater allocation will be established at a level which maintains reliability of supply for the primary groundwater allocation.

# Appendix L.7 Establishing allocation volumes for takes outside of groundwater management zones

The primary allocation for groundwater takes outside groundwater management zones listed in Appendix L.5 will be established as equal to 35 percent of the rainfall recharge occurring over the relevant land area where the water is to be taken.

## **Appendix M – Taonga Species List**

### **Birds**

Hoiho Yellow-eyed penguin Megadyptes antipodes Kāhu Australasian harrier Circus approximans South Island kākā Nestor meridionalis meridionalis Kākāpō Kākāpō Strīgops habroptilus Strīgops habroptilus Kākāriki New Zealand parakeet Cyanoramphus spp Kākāriki New Zealand parakeet Cyanoramphus spp Kākāriki Black stilt Himantopus novaezelandiae Petroica australis australis Kārana Crested grebe Podiceps cristatus Kārearea New Zealand falcon Falco novaeseelandiae Karoro Black-backed gull Larus dominicanus Kea Kea Kea Kea Nestor natabilis Phalacrocorax carbo Pied shag Phalacrocorax carbo Phalacrocorax carbo Pied shag Phalacrocorax carbo Phalacrocorax warius varius Little shag Phalacrocorax melanoleucos brevirostris  Koekoeā Long-tailed cuckoo Eudynamys toitensis Köparapara or Korimako Köparapara or Korimako Bellbird Anthornis melanura melanura Kororā Blue penguin Eudyptula minor Halcyon sancta Eugyptula minor Fullowinowiho Blue duck Hymenolaimus malacorhynchos Kūkaka Bar-tailed godwit Limosa lapponica Hemiphaga novaeseelandiae Kūkupa/Kererū New Zealand shoveller Anas rhynchotis Bowdleria punctata and Bowdleria punctata wilsoni and Bowdleria punctata candata Egretta acra Grey duck Anas superciliosa Antos uncarocephala dannefaerdi Mohua Yellowhead Mohoua ochrocephala dannefaerdi Mohua Yellowhead Anas superciliosa Antos superciliosa Pipūwharauroa Shining cuckoo Chrysococcyx lucidus Pipūwharauroa Shining cuckoo Chrysococcyx lucidus Pipūwharauroa Shining cuckoo Chrysococcyx lucidus Pipūwkawaka South Island fantail Himantopus himantopus Eudyptes robustus	Name in Māori	Name in English	Scientific name
Kākā         South Island kākā         Nestor meridionalis meridionalis           Kākāpō         Kākāpō         Strāgops habroptilus           Kākariki         New Zealand parakeet         Cyanoramphus spp           Kakaruai         South Island robin         Petroica australis australis           Kaki         Black stilt         Himantopus novaezelandiae           Kārearea         New Zealand falcon         Falco novaeseelandiae           Kārearea         New Zealand falcon         Falco novaeseelandiae           Karoro         Black-backed gull         Larus dominicanus           Kea         Kea         Nestor notabilis           Koau         Black shag         Phalacrocorax carbo           Pied shag         Phalacrocorax warius varius           Koakoeā         Long-tailed cuckoo         Eudynamys taitensis           Koekoeā         Long-tailed cuckoo         Eudynamys taitensis           Kotare         Kingfisher         Halcyon sancta           Kotare         Kingfisher         Halcyon sancta           Kotuku         White heron         Egretta alba           Kotuku         White heron         Egretta alba           Kukupa/Kererū         New Zealand wood pigeon         Hemiphaga novaeseelandiae           Kukupa/Kerer	Hoiho	Yellow-eyed penguin	Megadyptes antipodes
KākāpōKākāpōStrigops habroptilusKākārikiNew Zealand parakeetCyanoramphus sppKakaruaiSouth Island robinPetroica australis australisKakīBlack stiltHimantopus novaezelandiaeKāmanaCrested grebePodiceps cristatusKāreareaNew Zealand falconFalco novaeseelandiaeKaroroBlack-backed gullLarus dominicanusKeaKeaNestor notabilisKōauBlack shagPhalacrocorax carboPied shagPhalacrocorax varius variusLittle shagPhalacrocorax warius variusKōparapara or KorimakoBellbirdAnthornis melanura melanuraKororāBlue penguinEudynamys taitensisKōtareKingfisherHalcyon sanctaKōtukuWhite heronEgretta albaKūwinowhioBlue duckHymenolaimus malacorhynchosKūkaaBar-tailed godwitLimosa lapponicaKūkupa/KererūNew Zealand wood pigeonHemiphaga novaeseelandiaeKuruwhengu/KuruwhengiNew Zealand shovellerAnas rhynchotisMātāFernbirdBowdleria punctata stewartiana and Bowdleria punctata candata Bowdleria punctata candataMatuku moanaReef heronEgretta sacraMiromiroSouth Island tomtitPetroica macrocephala macrocephalaMiromiroSnares Island tomtitPetroica macrocephala macrocephalaMohuaYellowheadMohoua ochrocephalaPāreraGrey duckAnas superciliosaPatekeBrown teal	Kāhu	Australasian harrier	Circus approximans
Kākāriki         New Zealand parakeet         Cyanoramphus spp           Kakaruai         South Island robin         Petroica australis australis           Kakī         Black stilt         Himantopus novaezelandiae           Kāmana         Crested grebe         Podiceps cristatus           Kārearea         New Zealand falcon         Falco novaeseelandiae           Karoro         Black-backed gull         Larus dominicanus           Kea         Kea         Nestor notabilis           Kōau         Black shag         Phalacrocorax varius varius           Pheldscrocorax         Varius varius           Little shag         Phalacrocorax varius varius           Little shag         Phalacrocorax varius varius           Kōagarapara or Korimako         Bellbird         Anthornis melanura melanura           Kororā         Blue penguin         Eudynamys taitensis           Kōtare         Kingfisher         Halcyon sancta           Kōtuku         White heron         Egretta alba           Kūaka         Bar-tailed godwit         Limosa lapponica           Kūkupa/Kererū         New Zealand wood pigeon         Hemiphaga novaeseelandiae           Kuruwhengu/Kuruwhengi         New Zealand shoveller         Anas rhynchatis           Mātā         Fer	Kākā	South Island kākā	Nestor meridionalis meridionalis
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KāmanaCrested grebePodiceps cristatusKāreareaNew Zealand falconFalco novaeseelandiaeKaroroBlack-backed gullLarus dominicanusKeaKeaNestor notabilisKōauBlack shagPhalacrocorax carboPied shagPhalacrocorax varius variusLittle shagPhalacrocorax varius variusKoekoeāLong-tailed cuckooEudynamys taitensisKōebarapara or KorimakoBellbirdAnthornis melanura melanuraKōrorāBlue penguinEudyptula minorKōtareKingfisherHalcyon sanctaKōtukuWhite heronEgretta albaKōwhiowhioBlue duckHymenolaimus malacorhynchosKūakaBar-tailed godwitLimosa lapponicaKūruwhengu/KuruwhengiNew Zealand wood pigeonHemiphaga novaeseelandiaeKuruwhengu/KuruwhengiNew Zealand shovellerAnas rhynchotisMātāFernbirdBowdleria punctata punctata and Bowdleria punctata punctata and Bowdleria punctata stewartiana and Bowdleria punctata candataMatuku moanaReef heronEgretta sacraMiromiroSouth Island tomtitPetroica macrocephala macrocephala macrocephalaMiromiroSnares Island tomtitPetroica macrocephala dannefaerdiMohuaYellowheadMohoua ochrocephalaPākura/PūkekoSwamp hen/PūkekoPorphyrio porphyrioPāreraGrey duckAnas superciliosaPatekeBrown tealAnas aucklandicaPīhoihoiNew Zealand pipitAnthus novaeseelandiae <td>Kakaruai</td> <td>South Island robin</td> <td>Petroica australis australis</td>	Kakaruai	South Island robin	Petroica australis australis
KāreareaNew Zealand falconFalco novaeseelandiaeKaroroBlack-backed gullLarus dominicanusKeaKeaNestor notabilisKōauBlack shagPhalacrocorax carboPied shagPhalacrocorax melanoleucos brevirostrisKoekoeāLong-tailed cuckooEudynamys taitensisKōparapara or KorimakoBellbirdAnthornis melanura melanuraKōrorāBlue penguinEudyptula minorKōtareKingfisherHalcyon sanctaKōwhiowhioBlue duckHymenolaimus malacorhynchosKūakaBar-tailed godwitLimosa lapponicaKūkupa/KererūNew Zealand wood pigeonHemiphaga novaeseelandiaeKuruwhengu/KuruwhengiNew Zealand shovellerAnas rhynchotisMātāFernbirdBowdleria punctata punctata and Bowdleria punctata stewartiana and Bowdleria punctata wilsoni and Bowdleria punctata candataMatuku moanaReef heronEgretta sacraMiromiroSouth Island tomtitPetroica macrocephala macrocephala macrocephalaMiromiroSnares Island tomtitPetroica macrocephala dannefaerdiMohuaYellowheadMohoua ochrocephalaPākura/PūkekoSwamp hen/PūkekoPorphyrio porphyrioPāreraGrey duckAnas superciliosaPatekeBrown tealAnas aucklandicaPīhoihoiNew Zealand pipitAnthus novaeseelandiaePīwakawakaSouth Island fantailRhipidura fuliginosa fuliginosaPiwakawakaSouth Island fantailHimantopus himantopus </td <td>Kakī</td> <td>Black stilt</td> <td>Himantopus novaezelandiae</td>	Kakī	Black stilt	Himantopus novaezelandiae
KaroroBlack-backed gullLarus dominicanusKeaKeaNestor notabilisKōauBlack shagPhalacrocorax carboPied shagPhalacrocorax varius variusLittle shagPhalacrocorax melanoleucos brevirostrisKoekoeāLong-tailed cuckooEudynamys taitensisKōparapara or KorimakoBellbirdAnthornis melanura melanuraKōrorāBlue penguinEudyptula minorKōtareKingfisherHalcyon sanctaKōwhiowhioBlue duckHymenolaimus malacorhynchosKūakaBar-tailed godwitLimosa lapponicaKūkupa/KererūNew Zealand wood pigeonHemiphaga novaeseelandiaeKuruwhengu/KuruwhengiNew Zealand shovellerAnas rhynchotisMātāFernbirdBowdleria punctata punctata and Bowdleria punctata stewartiana and Bowdleria punctata viilsoni and Bowdleria punctata candataMatuku moanaReef heronEgretta sacraMiromiroSouth Island tomtitPetroica macrocephala macrocephala macrocephalaMiromiroSnares Island tomtitPetroica macrocephala macrocephalaMohuaYellowheadMohoua ochrocephalaPākura/PūkekoSwamp hen/PūkekoPorphyrio porphyrioPāreraGrey duckAnas superciliosaPatekeBrown tealAnas aucklandicaPhōhihoiNew Zealand pipitAnthus novaeseelandiaePīpwharauroaShining cuckooChrysococyx lucidusPīwakawakaSouth Island fantailRhipidura fuliginosa fuliginosaPo	Kāmana	Crested grebe	Podiceps cristatus
KeaKeaNestor notabilisKōauBlack shagPhalacrocorax carboPied shagPhalacrocorax varius variusLittle shagPhalacrocorax melanoleucos brevirostrisKoekoeāLong-tailed cuckooEudynamys taitensisKōparapara or KorimakoBellbirdAnthornis melanura melanuraKōrorāBlue penguinEudyptula minorKōtareKingfisherHalcyon sanctaKōtukuWhite heronEgretta albaKōwhiowhioBlue duckHymenolaimus malacorhynchosKūkupa/KererūNew Zealand wood pigeonHemiphaga novaeseelandiaeKuruwhengu/KuruwhengiNew Zealand shovellerAnas rhynchotisMātāFernbirdBowdleria punctata punctata and Bowdleria punctata stewartiana and Bowdleria punctata wilsoni and Bowdleria punctata condataMatuku moanaReef heronEgretta sacraMiromiroSouth Island tomtitPetroica macrocephalaMiromiroSnares Island tomtitPetroica macrocephalaMohuaYellowheadMohoua ochrocephalaMohuaYellowheadMohoua ochrocephalaPāteraGrey duckAnas superciliosaPatekeBrown tealAnas sucklandicaPīhoihoiNew Zealand pipitAnthus novaeseelandiaePīpīwharauroaShining cuckooChrysococcyx lucidusPīwakawakaSouth Island fantailRhipidura fuliginosa fuliginosaPoakaPied stiltHimantopus himantopus	Kārearea	New Zealand falcon	Falco novaeseelandiae
KōauBlack shag Pied shag Little shagPhalacrocorax carboKoekoeāLong-tailed cuckooEudynamys taitensisKōparapara or KorimakoBellbirdAnthornis melanura melanuraKōrorāBlue penguinEudyptula minorKōtareKingfisherHalcyon sanctaKōwhiowhioBlue duckHymenolaimus malacorhynchosKūakaBar-tailed godwitLimosa lapponicaKūkupa/KererūNew Zealand wood pigeonHemiphaga novaeseelandiaeKuruwhengu/KuruwhengiNew Zealand shovellerAnas rhynchotisMātāFernbirdBowdleria punctata punctata and Bowdleria punctata wilsoni and Bowdleria punctata candataMatuku moanaReef heronEgretta sacraMiromiroSouth Island tomtitPetroica macrocephala macrocephalaMiromiroSnares Island tomtitPetroica macrocephala dannefaerdiMohuaYellowheadMohoua ochrocephalaPākura/PūkekoSwamp hen/PūkekoPorphyrio porphyrioPāreraGrey duckAnas superciliosaPatekeBrown tealAnas aucklandicaPīhoihoiNew Zealand pipitAnthus novaeseelandiaePīpīwharauroaShining cuckooChrysococcyx lucidusPīwakawakaSouth Island fantailRhipidura fuliginosa fuliginosaPoakaPied stiltHimantopus himantopus<	Karoro	Black-backed gull	Larus dominicanus
Pied shagPhalacrocorax varius variusKoekoeāLong-tailed cuckooEudynamys taitensisKōparapara or KorimakoBellbirdAnthornis melanura melanuraKōrorāBlue penguinEudyptula minorKōtareKingfisherHalcyon sanctaKōwhiowhioBlue duckHymenolaimus malacorhynchosKūakaBar-tailed godwitLimosa lapponicaKūkupa/KererūNew Zealand wood pigeonHemiphaga novaeseelandiaeKuruwhengu/KuruwhengiNew Zealand shovellerAnas rhynchotisMātāFernbirdBowdleria punctata punctata and Bowdleria punctata wilsoni and Bowdleria punctata candataMatuku moanaReef heronEgretta sacraMiromiroSouth Island tomtitPetroica macrocephala macrocephalaMiromiroSnares Island tomtitPetroica macrocephala dannefaerdiMohuaYellowheadMohoua ochrocephalaPākura/PūkekoSwamp hen/PūkekoPorphyrio porphyrioPāreraGrey duckAnas superciliosaPatekeBrown tealAnas aucklandicaPīhoihoiNew Zealand pipitAnthus novaeseelandiaePīpūwharauroaShining cuckooChrysococcyx lucidusPīwakawakaSouth Island fantailRhipidura fuliginosa fuliginosaPoakaPied stiltHimantopus himantopus	Kea	Kea	Nestor notabilis
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KoekoeāLong-tailed cuckooEudynamys taitensisKōparapara or KorimakoBellbirdAnthornis melanura melanuraKororāBlue penguinEudyptula minorKōtareKingfisherHalcyon sanctaKōtukuWhite heronEgretta albaKōwhiowhioBlue duckHymenolaimus malacorhynchosKūkupa/KererūNew Zealand wood pigeonHemiphaga novaeseelandiaeKuruwhengu/KuruwhengiNew Zealand shovellerAnas rhynchotisMātāFernbirdBowdleria punctata punctata and Bowdleria punctata stewartiana and Bowdleria punctata wilsoni and Bowdleria punctata candataMatuku moanaReef heronEgretta sacraMiromiroSouth Island tomtitPetroica macrocephala macrocephala macrocephalaMohuaYellowheadMohoua ochrocephalaPākura/PūkekoSwamp hen/PūkekoPorphyrio porphyrioPāreraGrey duckAnas superciliosaPatekeBrown tealAnas aucklandicaPīhoihoiNew Zealand pipitAnthus novaeseelandiaePīpīwharauroaShining cuckooChrysococcyx lucidusPīwakawakaSouth Island fantailRhipidura fuliginosa fuliginosaPoakaPied stiltHimantopus himantopus		Pied shag	Phalacrocorax varius varius
KoekoeāLong-tailed cuckooEudynamys taitensisKōparapara or KorimakoBellbirdAnthornis melanura melanuraKororāBlue penguinEudyptula minorKōtareKingfisherHalcyon sanctaKōtukuWhite heronEgretta albaKōwhiowhioBlue duckHymenolaimus malacorhynchosKūakaBar-tailed godwitLimosa lapponicaKūkupa/KererūNew Zealand wood pigeonHemiphaga novaeseelandiaeKuruwhengu/KuruwhengiNew Zealand shovellerAnas rhynchotisMātāFernbirdBowdleria punctata punctata and Bowdleria punctata stewartiana and Bowdleria punctata stewartiana and Bowdleria punctata candataMatuku moanaReef heronEgretta sacraMiromiroSouth Island tomtitPetroica macrocephala macrocephalaMiromiroSnares Island tomtitPetroica macrocephala dannefaerdiMohuaYellowheadMohoua ochrocephalaPākura/PūkekoSwamp hen/PūkekoPorphyrio porphyrioPāreraGrey duckAnas superciliosaPatekeBrown tealAnas aucklandicaPīhoihoiNew Zealand pipitAnthus novaeseelandiaePīpīwharauroaShining cuckooChrysococcyx lucidusPīwakawakaSouth Island fantailRhipidura fuliginosa fuliginosaPoakaPied stiltHimantopus himantopus		Little shag	Phalacrocorax melanoleucos
Kōparapara or KorimakoBellbirdAnthornis melanura melanuraKororāBlue penguinEudyptula minorKōtareKingfisherHalcyon sanctaKōtukuWhite heronEgretta albaKōwhiowhioBlue duckHymenolaimus malacorhynchosKūakaBar-tailed godwitLimosa lapponicaKūkupa/KererūNew Zealand wood pigeonHemiphaga novaeseelandiaeKuruwhengu/KuruwhengiNew Zealand shovellerAnas rhynchotisMātāFernbirdBowdleria punctata punctata and Bowdleria punctata stewartiana and Bowdleria punctata vilsoni and Bowdleria punctata wilsoni and Bowdleria punctata candataMatuku moanaReef heronEgretta sacraMiromiroSouth Island tomtitPetroica macrocephala macrocephala macrocephalaMiromiroSnares Island tomtitPetroica macrocephala dannefaerdiMohuaYellowheadMohoua ochrocephalaPākura/PūkekoSwamp hen/PūkekoPorphyrio porphyrioPāreraGrey duckAnas superciliosaPatekeBrown tealAnas aucklandicaPīhoihoiNew Zealand pipitAnthus novaeseelandiaePīpūwharauroaShining cuckooChrysococcyx lucidusPīwakawakaSouth Island fantailRhipidura fuliginosa fuliginosaPoakaPied stiltHimantopus himantopus			brevirostris
KororāBlue penguinEudyptula minorKōtareKingfisherHalcyon sanctaKōtukuWhite heronEgretta albaKōwhiowhioBlue duckHymenolaimus malacorhynchosKūakaBar-tailed godwitLimosa lapponicaKūkupa/KererūNew Zealand wood pigeonHemiphaga novaeseelandiaeKuruwhengu/KuruwhengiNew Zealand shovellerAnas rhynchotisMātāFernbirdBowdleria punctata punctata and Bowdleria punctata stewartiana and Bowdleria punctata vilsoni and Bowdleria punctata candataMatuku moanaReef heronEgretta sacraMiromiroSouth Island tomtitPetroica macrocephala macrocephala macrocephalaMiromiroSnares Island tomtitPetroica macrocephala dannefaerdiMohuaYellowheadMohoua ochrocephalaPākura/PūkekoSwamp hen/PūkekoPorphyrio porphyrioPāreraGrey duckAnas superciliosaPatekeBrown tealAnas aucklandicaPīholhoiNew Zealand pipitAnthus novaeseelandiaePīpīwharauroaShining cuckooChrysococcyx lucidusPīwakawakaSouth Island fantailRhipidura fuliginosa fuliginosaPoakaPied stiltHimantopus himantopus	Koekoeā	Long-tailed cuckoo	Eudynamys taitensis
KōtareKingfisherHalcyon sanctaKōtukuWhite heronEgretta albaKōwhiowhioBlue duckHymenolaimus malacorhynchosKūakaBar-tailed godwitLimosa lapponicaKūkupa/KererūNew Zealand wood pigeonHemiphaga novaeseelandiaeKuruwhengu/KuruwhengiNew Zealand shovellerAnas rhynchotisMātāFernbirdBowdleria punctata punctata and Bowdleria punctata stewartiana and Bowdleria punctata wilsoni and Bowdleria punctata candataMatuku moanaReef heronEgretta sacraMiromiroSouth Island tomtitPetroica macrocephala macrocephalaMiromiroSnares Island tomtitPetroica macrocephala dannefaerdiMohuaYellowheadMohoua ochrocephalaPākura/PūkekoSwamp hen/PūkekoPorphyrio porphyrioPāreraGrey duckAnas superciliosaPatekeBrown tealAnas aucklandicaPīhoihoiNew Zealand pipitAnthus novaeseelandiaePīpūwharauroaShining cuckooChrysococcyx lucidusPīwakawakaSouth Island fantailRhipidura fuliginosa fuliginosaPoakaPied stiltHimantopus himantopus	Kōparapara <i>or</i> Korimako	Bellbird	Anthornis melanura melanura
KōtukuWhite heronEgretta albaKōwhiowhioBlue duckHymenolaimus malacorhynchosKūakaBar-tailed godwitLimosa lapponicaKūkupa/KererūNew Zealand wood pigeonHemiphaga novaeseelandiaeKuruwhengu/KuruwhengiNew Zealand shovellerAnas rhynchotisMātāFernbirdBowdleria punctata punctata and Bowdleria punctata stewartiana and Bowdleria punctata wilsoni and Bowdleria punctata wilsoni and Bowdleria punctata candataMatuku moanaReef heronEgretta sacraMiromiroSouth Island tomtitPetroica macrocephalaMiromiroSnares Island tomtitPetroica macrocephala dannefaerdiMohuaYellowheadMohoua ochrocephalaPākura/PūkekoSwamp hen/PūkekoPorphyrio porphyrioPāreraGrey duckAnas superciliosaPatekeBrown tealAnas aucklandicaPīhoihoiNew Zealand pipitAnthus novaeseelandiaePīpūwharauroaShining cuckooChrysococcyx lucidusPīwakawakaSouth Island fantailRhipidura fuliginosa fuliginosaPoakaPied stiltHimantopus himantopus	Kororā	Blue penguin	Eudyptula minor
KōwhiowhioBlue duckHymenolaimus malacorhynchosKūakaBar-tailed godwitLimosa lapponicaKūkupa/KererūNew Zealand wood pigeonHemiphaga novaeseelandiaeKuruwhengu/KuruwhengiNew Zealand shovellerAnas rhynchotisMātāFernbirdBowdleria punctata punctata and Bowdleria punctata stewartiana and Bowdleria punctata wilsoni and Bowdleria punctata wilsoni and Bowdleria punctata candataMatuku moanaReef heronEgretta sacraMiromiroSouth Island tomtitPetroica macrocephala macrocephalaMiromiroSnares Island tomtitPetroica macrocephala dannefaerdiMohuaYellowheadMohoua ochrocephalaPākura/PūkekoSwamp hen/PūkekoPorphyrio porphyrioPāreraGrey duckAnas superciliosaPatekeBrown tealAnas aucklandicaPīhoihoiNew Zealand pipitAnthus novaeseelandiaePīpīwharauroaShining cuckooChrysococcyx lucidusPīwakawakaSouth Island fantailRhipidura fuliginosa fuliginosaPoakaPied stiltHimantopus himantopus	Kōtare	Kingfisher	Halcyon sancta
KūakaBar-tailed godwitLimosa lapponicaKūkupa/KererūNew Zealand wood pigeonHemiphaga novaeseelandiaeKuruwhengu/KuruwhengiNew Zealand shovellerAnas rhynchotisMātāFernbirdBowdleria punctata punctata and Bowdleria punctata wilsoni and Bowdleria punctata wilsoni and Bowdleria punctata candataMatuku moanaReef heronEgretta sacraMiromiroSouth Island tomtitPetroica macrocephala macrocephala macrocephalaMiromiroSnares Island tomtitPetroica macrocephala dannefaerdiMohuaYellowheadMohoua ochrocephalaPākura/PūkekoSwamp hen/PūkekoPorphyrio porphyrioPāreraGrey duckAnas superciliosaPatekeBrown tealAnas aucklandicaPīhoihoiNew Zealand pipitAnthus novaeseelandiaePīpūwharauroaShining cuckooChrysococcyx lucidusPīwakawakaSouth Island fantailRhipidura fuliginosa fuliginosaPoakaPied stiltHimantopus himantopus	Kōtuku	White heron	Egretta alba
Kūkupa/KererūNew Zealand wood pigeonHemiphaga novaeseelandiaeKuruwhengu/KuruwhengiNew Zealand shovellerAnas rhynchotisMātāFernbirdBowdleria punctata punctata and Bowdleria punctata stewartiana and Bowdleria punctata wilsoni and Bowdleria punctata wilsoni and Bowdleria punctata candataMatuku moanaReef heronEgretta sacraMiromiroSouth Island tomtitPetroica macrocephala macrocephala macrocephalaMiromiroSnares Island tomtitPetroica macrocephala dannefaerdiMohuaYellowheadMohoua ochrocephalaPākura/PūkekoSwamp hen/PūkekoPorphyrio porphyrioPāreraGrey duckAnas superciliosaPatekeBrown tealAnas aucklandicaPīhoihoiNew Zealand pipitAnthus novaeseelandiaePīpīwharauroaShining cuckooChrysococcyx lucidusPīwakawakaSouth Island fantailRhipidura fuliginosa fuliginosaPoakaPied stiltHimantopus himantopus	Kōwhiowhio	Blue duck	Hymenolaimus malacorhynchos
Kuruwhengu/KuruwhengiNew Zealand shovellerAnas rhynchotisMātāFernbirdBowdleria punctata punctata and Bowdleria punctata stewartiana and Bowdleria punctata wilsoni and Bowdleria punctata candataMatuku moanaReef heronEgretta sacraMiromiroSouth Island tomtitPetroica macrocephala macrocephalaMiromiroSnares Island tomtitPetroica macrocephala dannefaerdiMohuaYellowheadMohoua ochrocephalaPākura/PūkekoSwamp hen/PūkekoPorphyrio porphyrioPāreraGrey duckAnas superciliosaPatekeBrown tealAnas aucklandicaPīhoihoiNew Zealand pipitAnthus novaeseelandiaePīpīwharauroaShining cuckooChrysococcyx lucidusPīwakawakaSouth Island fantailRhipidura fuliginosa fuliginosaPoakaPied stiltHimantopus himantopus	Kūaka	Bar-tailed godwit	Limosa lapponica
MātāFernbirdBowdleria punctata punctata and Bowdleria punctata stewartiana and Bowdleria punctata wilsoni and Bowdleria punctata candataMatuku moanaReef heronEgretta sacraMiromiroSouth Island tomtitPetroica macrocephala macrocephala macrocephalaMiromiroSnares Island tomtitPetroica macrocephala dannefaerdiMohuaYellowheadMohoua ochrocephalaPākura/PūkekoSwamp hen/PūkekoPorphyrio porphyrioPāreraGrey duckAnas superciliosaPatekeBrown tealAnas aucklandicaPīhoihoiNew Zealand pipitAnthus novaeseelandiaePīpīwharauroaShining cuckooChrysococcyx lucidusPīwakawakaSouth Island fantailRhipidura fuliginosa fuliginosaPoakaPied stiltHimantopus himantopus	Kūkupa/Kererū	New Zealand wood pigeon	Hemiphaga novaeseelandiae
Bowdleria punctata stewartiana and Bowdleria punctata wilsoni and Bowdleria punctata wilsoni and Bowdleria punctata candata  Matuku moana Reef heron Egretta sacra  Miromiro South Island tomtit Petroica macrocephala macrocephala  Miromiro Snares Island tomtit Petroica macrocephala dannefaerdi  Mohua Yellowhead Mohoua ochrocephala  Pākura/Pūkeko Swamp hen/Pūkeko Porphyrio porphyrio  Pārera Grey duck Anas superciliosa  Pateke Brown teal Anas aucklandica  Pīhoihoi New Zealand pipit Anthus novaeseelandiae  Pīpīwharauroa Shining cuckoo Chrysococcyx lucidus  Pīwakawaka South Island fantail Rhipidura fuliginosa fuliginosa  Poaka Pied stilt Himantopus himantopus	Kuruwhengu/Kuruwhengi	New Zealand shoveller	Anas rhynchotis
Miromiro South Island tomtit Petroica macrocephala Miromiro Snares Island tomtit Petroica macrocephala dannefaerdi Mohua Yellowhead Pākura/Pūkeko Swamp hen/Pūkeko Porphyrio porphyrio Pārera Grey duck Anas superciliosa Pateke Brown teal Anas aucklandica Pīhoihoi New Zealand pipit Anthus novaeseelandiae Pīpīwharauroa Shining cuckoo Chrysococcyx lucidus Pīwakawaka South Island fantail Rhipidura fuliginosa fuliginosa Poaka Pied stilt Himantopus himantopus	Mātā	Fernbird	Bowdleria punctata stewartiana and Bowdleria punctata wilsoni and
Miromiro Snares Island tomtit Petroica macrocephala dannefaerdi Mohua Yellowhead Mohoua ochrocephala Pākura/Pūkeko Swamp hen/Pūkeko Porphyrio porphyrio Pārera Grey duck Anas superciliosa Pateke Brown teal Anas aucklandica Pīhoihoi New Zealand pipit Anthus novaeseelandiae Pīpīwharauroa Shining cuckoo Chrysococcyx lucidus Pīwakawaka South Island fantail Rhipidura fuliginosa fuliginosa Poaka Pied stilt Himantopus	Matuku moana	Reef heron	Egretta sacra
MohuaYellowheadMohoua ochrocephalaPākura/PūkekoSwamp hen/PūkekoPorphyrio porphyrioPāreraGrey duckAnas superciliosaPatekeBrown tealAnas aucklandicaPīhoihoiNew Zealand pipitAnthus novaeseelandiaePīpīwharauroaShining cuckooChrysococcyx lucidusPīwakawakaSouth Island fantailRhipidura fuliginosa fuliginosaPoakaPied stiltHimantopus himantopus	Miromiro	South Island tomtit	•
Pākura/PūkekoSwamp hen/PūkekoPorphyrio porphyrioPāreraGrey duckAnas superciliosaPatekeBrown tealAnas aucklandicaPīhoihoiNew Zealand pipitAnthus novaeseelandiaePīpīwharauroaShining cuckooChrysococcyx lucidusPīwakawakaSouth Island fantailRhipidura fuliginosa fuliginosaPoakaPied stiltHimantopus himantopus	Miromiro	Snares Island tomtit	Petroica macrocephala dannefaerdi
PāreraGrey duckAnas superciliosaPatekeBrown tealAnas aucklandicaPīhoihoiNew Zealand pipitAnthus novaeseelandiaePīpīwharauroaShining cuckooChrysococcyx lucidusPīwakawakaSouth Island fantailRhipidura fuliginosa fuliginosaPoakaPied stiltHimantopus himantopus	Mohua	Yellowhead	Mohoua ochrocephala
PatekeBrown tealAnas aucklandicaPīhoihoiNew Zealand pipitAnthus novaeseelandiaePīpīwharauroaShining cuckooChrysococcyx lucidusPīwakawakaSouth Island fantailRhipidura fuliginosa fuliginosaPoakaPied stiltHimantopus himantopus	Pākura/Pūkeko	Swamp hen/Pūkeko	Porphyrio porphyrio
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PīpīwharauroaShining cuckooChrysococcyx lucidusPīwakawakaSouth Island fantailRhipidura fuliginosa fuliginosaPoakaPied stiltHimantopus himantopus	Pateke	Brown teal	Anas aucklandica
Pīwakawaka South Island fantail Rhipidura fuliginosa fuliginosa Poaka Pied stilt Himantopus himantopus	Pīhoihoi	New Zealand pipit	Anthus novaeseelandiae
Poaka Pied stilt Himantopus himantopus	Pīpīwharauroa	Shining cuckoo	Chrysococcyx lucidus
Poaka Pied stilt Himantopus himantopus	Pīwakawaka	South Island fantail	Rhipidura fuliginosa fuliginosa
	Poaka	Pied stilt	
	Pokotiwha	Snares crested penguin	Eudyptes robustus

Name in Māori	Name in English	Scientific name
Pūtakitaki	Paradise shelduck	Tadorna variegata
Riroriro	Grey warbler	Gerygone igata
Roroa	Great spotted kiwi	Apteryx haastii
Rowi	Ōkārito brown kiwi	Apteryx mantelli
Ruru koukou	Morepork	Ninox novaeseelandiae
Takahē	Takahē	Porphyrio mantelli
Tara	Terns	Sterna spp
Tawaki	Fiordland crested penguin	Eudyptes pachyrhynchus
Tete	Grey teal	Anas gracilis
Tieke	South Island saddleback	Philesturnus carunculatus carunculatus
Tītī	Sooty shearwater/Muttonbird/Hutton's shearwater Common diving petrel South Georgian diving petrel Westland petrel Fairy prion Broad-billed prion White-faced storm petrel Cook's petrel Mottled petrel	Puffinus griseus and Puffinus huttoni and Pelecanoides urinatrix and Pelecanoides georgicus and Procellaria westlandica and Pachyptila turtur and Pachyptila vittata and Pelagodroma marina and Pterodroma cookii and Pterodroma inexpectata
Tītitipounamu	South Island rifleman	Acanthisitta chloris chloris
Tokoeka	South Island brown kiwi	Apteryx australis
Toroa	Albatrosses and Mollymawks	Diomedea spp
Toutouwai	Stewart Island robin	Petroica australis rakiura
Tūī	Tūī	Prosthemadera novaeseelandiae
Tutukiwi	Snares Island snipe	Coenocorypha aucklandica huegeli
Weka	Western weka	Gallirallus australis australis
Weka	Stewart Island weka	Gallirallus australis scotti
Weka	Buff weka	Gallirallus australis hectori

## **Plants**

Name in Māori	Name in English	Scientific name
Akatorotoro	White rata	Metrosideros perforata
Aruhe	Fernroot (bracken)	Pteridium aquilinum var esculentum
Harakeke	Flax	Phormium tenax
Horoeka	Lancewood	Pseudopanax crassifolius
Houhi	Mountain ribbonwood	Hoheria lyalli and H. glabata
Kahikatea	Kahikatea/White pine	Dacrycarpus dacrydioides
Kāmahi	Kāmahi	Weinmannia racemosa
Kānuka	Kānuka	Kunzia ericoides
Kāpuka	Broadleaf	Griselinia littoralis
Karaeopirita	Supplejack	Ripogonum scandens
Karaka	New Zealand	Corynocarpus laevigata

Name in Māori	Name in English	Scientific name
Ivallie III Iviaoli	laurel/Karaka	Scientific flame
	iaui ei, kai aka	Coprosma robusta, coprosma lucida, coprosma
Karamū	Coprosma	foetidissima
Kātote	Tree fern	Cyathea smithii
Kiekie	Kiekie	Freycinetia baueriana subsp banksii
Kōhia	NZ Passionfruit	Passiflora tetranda
Korokio	Korokio Wire-netting bush	Corokia cotoneaster
Koromiko/Kōkōmuka	Koromiko	Hebe salicfolia
Kōtukutuku	Tree fuchsia	Fuchsia excorticata
Kōwahi Kōhai	Kōwhai	Sophora microphylla
Mamaku	Tree fern	Cyathea medullaris
Mānia	Sedge	Carex flagellifera
Mānuka Kahikātoa	Tea-tree	Leptospermum scoparium
Māpou	Red matipo	Myrsine australis
Mataī	Mataī/Black pine	Prumnopitys taxifolia
Miro	Miro/Brown pine	Podocarpus ferrugineus
Ngaio	Ngaio	Myoporum laetum
Nīkau	New Zealand palm	Rhopalostylis sapida
Pānako	(Species of fern)	Asplenium obtusatum
Pānako	(Species of fern)	Botrychium australe and B. biforme
Pātōtara	Dwarf mingimingi	Leucopogon fraseri
Pīngao	Pīngao	Desmoschoenus spiralis
Pōkākā	Pōkākā	Elaeocarpus hookerianus
Ponga/Poka	Tree fern	Cyathea dealbata
Rātā	Southern rātā	Metrosideros umbellata
Raupō	Bulrush	Typha angustifolia
Rautāwhiri/Kōhūhū	Black matipo/Māpou	Pittosporum tenuifolium
Rimu	Rimu/Red pine	Dacrydium cypressinum
Rimurapa	Bull kelp	Durvillaea antarctica
Taramea	Speargrass, spaniard	Aciphylla spp
Tarata	Lemonwood	Pittosporum eugenioides
Tawai	Beech	Nothofagus spp
Tētēaweka	Muttonbird scrub	Olearia angustifolia
Tī rākau/Tī Kōuka	Cabbage tree	Cordyline australis
Tīkumu	Mountain daisy	Celmisia spectabilis and C. semicordata
Tītoki	New Zealand ash	Alectryon excelsus
Toatoa	Mountain Toatoa, Celery pine	Phyllocladus alpinus
Toetoe	Toetoe	Cortaderia richardii
Tōtara	Tōtara	Podocarpus totara
Tutu	Tutu	Coriaria spp
Wharariki	Mountain flax	Phormium cookianum
Whīnau	Hīnau	Elaeocarpus dentatus
Wī	Silver tussock	Poa cita
Wīwī	Rushes	Juncus all indigenous Juncus spp and J. maritimus

### **Freshwater Fish and Shellfish**

Name in Māori	Name in English	Scientific name
Inanga	(whitebait species)	Galaxias maculatus
	Banded kokopu	Galaxias fasciatus
Koaro	(whitebait species)	Galaxias brevipinnis
	Shortjaw kokopu	Galaxias postvectis
Taiwharu	Giant kokopu	Galaxias argenteus
	Upland bully	Gobiomorphus breviceps
	Bluegill bully	Gobiomorphus hubbsi
Kokopu/hawai	Giant bully	Gobiomorphus gobioides
	Common bully	Gobiomorphus cotidianus
	Redfin bully	Gobiomorphus huttoni
Tuna	Longfin eel	Anguilla dieffenbachii
Tuna	Shortfin eel	Anguilla australis
Kanakana	lamprey	Geotria australis
	Alpine galaxias	Galaxias paucispondylus
	Gollum galaxias	Galaxias gollumoides
	Southern flathead galaxias	Galaxias depressiceps
Piripiripohatu	Torrentfish	Cheimarrichthys fosteri
Paraki/ngaiore	Common smelt	Retropinna retropinna
	Black flounder	Rhombosolea retiaria
Koura/kewai	Freshwater crayfish	Paranephrops planifrons, Paranephrops zealandicus
Kakahi	Freshwater mussels	Echyridella menziesi
Pipi/Kākahi	Pipi	Paphies australe
Tuaki	Cockle	Austrovenus stutchburgi
		Dosinia anus, Paphies donacina, Mactra
Tuaki/Hākiari,	Surfclam	discor, Mactra murchsoni, Spisula
Kuhakuha/Pūrimu	Surrelain	aequilateralis, Basina yatei, or Dosinia subrosa
Tuatua	Tuatua	Paphies subtriangulata, Paphies donacina
Waikaka/Pūpū	Mudsnail	Amphibola crenata, Turbo smaragdus, Zedilom spp

# Appendix N<sup>149</sup> – Farm Environmental Management Plan Requirements

#### Part A – Farm Environmental Management Plans

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

- 1. the material set out in Part B below; or
- 2. industry prepared FEMP templates and guidance material, with Southland-specific supplementary material added where relevant, so that it includes the material set out in Part B below.

#### Part B – Farm Environmental Management Plan Content

- 1. A written FEMP that is:
  - (a) prepared and retained, identifying the matters set out in clauses 2 to 5 below;
  - (b) reviewed at least once every 12 months by the landholding owner or their agent and the outcome of the review documented; and
  - (c) provided to the Southland Regional Council upon request.
- 2. The FEMP contains the following landholding details:
  - (a) physical address;
  - (b) description of the landholding ownership and the owner's contact details;
  - (c) legal description(s) of the landholding; and
  - (d) a list of all resource consents held for the landholding and their expiry dates.
- 3. The FEMP contains a map(s) or aerial photograph(s) of the landholding at a scale that clearly shows the locations of:
  - (a) the boundaries;
  - (b) the physiographic zones (and variants where applicable) and soil types (or Topoclimate South soil maps);
  - (c) all lakes, rivers, streams, ponds, artificial watercourses, modified watercourses and natural wetlands;
  - (d) all existing and proposed riparian vegetation and fences (or other stock exclusion methods) adjacent to water bodies;
  - (e) places where stock access or cross water bodies (including bridges, culverts and fords);
  - (f) all known subsurface drainage system(s) and the locations of the drain outlets;
  - (g) all land that may be cultivated and land to be cultivated over the next 12-month period;
  - (h) all land that may be intensively winter grazed and the land to be planted for winter grazing for the next period 1 May to 30 September; and
  - (i) for land to be cultivated or intensively winter grazed:
    - (i) critical source areas;
    - (ii) intended setbacks from any lake, river (excluding ephemeral rivers), artificial watercourses, modified watercourse or natural wetland; and
    - (iii) land with a slope greater than 20 degrees.
  - (j) any heritage site recorded in the relevant district plan, on the New Zealand Heritage
    List/Rārangi Kōrero or on the New Zealand Archaeological Association website; and

<sup>&</sup>lt;sup>149</sup> Appeal to Environment Court by (i) Southland Fish and Game Council ENV-2018-CHC-000037

<sup>(</sup>ii) Heritage New Zealand Pouhere Taonga ENV-2018-CHC-000041

<sup>(</sup>iii) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

#### 4. Nutrient Budget

For all landholdings over 20ha, the FEMP contains a nutrient budget (which includes nutrient losses to the environment) calculated using the latest version of the OVERSEER model in accordance with the latest version of the OVERSEER Best Practice Data Input Standards (or an alternative model approved by the Chief Executive of Southland Regional Council), and which is repeated:

- (a) where a material change in land use associated with the farming activity occurs (including a change in crop area, crop rotation length, type of crops grown, stocking rate or stock type) at the end of the year in which the change occurs, and also every three years after the change occurs; and
- (b) each time the nutrient budget is repeated all the input data used to prepare it shall be reviewed by or on behalf of the landholding owner, for the purposes of ensuring the nutrient budget accurately reflects the farming system. A record of the input data review shall be kept by the landholding owner.

#### 5. Good Management Practices

The FEMP contains a good management practices section which identifies:

- (a) the good management practices implemented since 3 June 2016; and
- (b) the good management practices which will be undertaken over the coming 12-month period. These must include practices for:
  - (i) the reduction of sediment and nutrient losses from critical source areas, particularly those associated with overland flow;
  - (ii) cultivation (including practices such as contour ploughing, strip cultivation or direct drilling);
  - (iii) the use of land for intensive winter grazing (including those practices specified in Rule 20(a)(iii);
  - (iv) riparian areas (including those from which stock are excluded under Rule 70) and the type of riparian vegetation to be planted, how it will be maintained and how weeds will be controlled; and
  - (v) minimising of the discharge of contaminants to surface water or groundwater, with particular reference to the contaminant pathways identified for the landholding.

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

## **Appendix N**

See Annexure 6 of Fifth Interim decision

<sup>150</sup> Released by FAR, New Zealand Pork, Dairy NZ, beef + lamb New Zealand, Horticulture New Zealand and Deer Industry New Zealand.

## Appendix O - Reasonable and Efficient Use of Water

#### Irrigation

- (a) Seasonal allocation for new resource consents to take and use water for irrigation at a rate exceeding (the equivalent of) 3,000 m³/ha/year will be established by use of a field-validated daily time-step irrigation demand model to calculate the annual irrigation volume 90 percent (9 in 10 year) reliability which takes account of:
  - physical factors including crop and soil type;
  - climatic factors including rainfall variability and evapo-transpiration;
  - an irrigation application efficiency of 80%.
- (b) Replacement resource consent applications to take and use water for irrigation will utilise records of historical water use to establish a seasonal allocation which takes into account:
  - the requirements of Policy 42;
  - whether the previous seasonal allocation as determined under Appendix O(a) remains appropriate for the farming activity being undertaken;
  - the volume of water utilised in previous irrigation seasons;
  - any proposed changes to the operation of the irrigation system or farming system.

#### **Group or Community Water Supplies**

A water management plan shall be submitted with a resource consent application to take and use water for group or community water supplies that addresses:

- the estimated average and peak demand for water taking into account the number of connections, the nature of water use and projected future demand;
- the current effectiveness and efficiency of the distribution network as well as works proposed to improve the efficiency of water distribution and use;
- how water demand will be managed during periods of water shortage.

#### **Other Uses**

• The rate and volume of abstraction for resource consent applications to take and use water for purposes other than irrigation, group or community water supply will be calculated in accordance with best management practices for efficient use of water in relation to that use; and for stock and dairy shed use will be calculated in accordance with Table L.3 in Appendix L.4. Applications for replacement resource consents may also demonstrate by way of independent verification or audit that existing (and proposed) usage is in accordance with rates and volumes sought and does not result in wastage or inefficient use of water.

## Appendix P - Effluent Pond Drop Test methodology

- Testing is undertaken over a minimum period of 48 hours.
- Testing recording equipment is to be accurate to 0.8 mm or less.
- Continuous readings are to be taken over the entire test period at not more than 10 second intervals.
- Any change in pond fluid level over the test period needs to be accounted for.
- Ponds must be at or over 75% design depth before a test can be undertaken.
- The pond has been de-sludged in the 12 months prior to the test being undertaken and there shall be no sludge or crust on the pond surface during the test.
- The pond surface is not frozen during any part of the testing.
- An anemometer shall be installed for the duration of the test and wind speed shall be at 10
  metres per second or less for at least 24 hours during the test.

#### Pass/Fail Criteria

When tested in accordance with the methodology above, the pond "meets" the pond drop test criteria if the maximum pond level drop does not exceed the following:

Maximum Depth of Pond (m) excluding freeboard	Maximum Allowable Pond Level Drop (mm per 24 hours)
<0.5	1.2
0.5 to 1.0	1.4
1.0 to 1.5	1.6
1.5 to 2.0	1.8
>2.0	2.0

## **Appendix R – Fish Screen Standards and Guidelines**

- (a) Where the diversion or take does not exceed a maximum rate of 10 litres per second and a maximum volume of 100 cubic metres per day, a fish screen shall be installed to prevent fish from entering the intake. The fish screen shall be designed to the following standard and kept functional at all times while water is being taken:
  - (i) Water shall only be taken when a fish screen with a mesh size or slope width not exceeding 2 millimetres for intakes within 2 kilometres of the coast, a coastal lake or estuary, or 3 millimetres for anywhere else is operated and maintained across the full width of the intake to ensure that fish and fish fry are prevented from bypassing the screen into the intake; and
  - (ii) The screen area shall be designed to ensure the calculated average through screen velocity does not exceed 0.12 metres per second (screens should generally be designed to exceed this to account for some routine level of clogging of the screen with detritus). The required area (square metres) of fish screen should exceed = Flow (litres per second)/120.

Example: The minimum required fish screen area for a cylindrical screen can therefore be calculated from:

```
Area = 2\pi r (r + h) \times z

Where: \pi = 3.141592659

r = radius of cylinder (metres)

h = length or height of cylinder (metres)

z = proportional open mesh area of screen material

(i.e. 0.5 for mesh that is 50% open area)
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Note: The above formula holds where the screen is fully immersed in water as is usually the case with pump takes. Where this is not the case, the area will need to be adjusted accordingly. Where 50% of the screen may be exposed, then the area calculation will need to be adjusted to half (or multiplied by 0.5), or the actual screen area would need to be doubled (multiplied by 2) in order to achieve the same area immersed. This example makes no allowance for the area taken up by the end of the intake pipe. Where high levels of detritus and other clogging materials are present, screen areas should be increased to account for reduced effective screen area.

- (b) Where the diversion or take does not exceed a maximum rate of 10 litres per second and a maximum volume of 100 cubic metres per day but does not meet the standards in (a) above; or where the diversion or take exceeds a maximum rate of 10 litres per second and a maximum volume of 100 cubic metres per day and the diversion is less than 10 cubic metres per second or the take is less than 500 litres per second pumped, a fish screen shall be installed to prevent fish from entering the intake. The fish screen shall be designed with the following features:
  - (i) The site is located as close to the river source as possible to minimise exposure of fish to the fish screen structure, and minimises the length of stream affected while providing the best possible conditions for (ii) vi) below;
  - (ii) Water velocity through the screen ("approach velocity") is slow enough (generally <0.12 metres per second) to allow fish to escape the entrainment (being sucked though or washed over the screen) or impingement (being squashed or rubbed against the screen);

- (iii) Water velocity across (or past) the screen ("sweep velocity") is greater than the approach velocity (b) and is sufficient to sweep the fish past the intake;
- (iv) An effective bypass system is provided that is easily accessible to entrained fish, and fish are taken away from the intake and back into the source channel, or into water which provides the fish with unimpeded passage back into the source channel;
- (v) Screening material (mesh, profile bars or other) on the screen needs to have a smooth surface and openings that prevent any damage to fish coming into contact with the screening material; and
- (vi) The intake structure and fish screen are operated to a consistent, appropriate standard with appropriate operation and maintenance procedures, and this operation and maintenance should be regularly checked or monitored. A record should be kept of all the maintenance and monitoring carried out.
- (c) Where the diversion is more than 10 cubic metres per second or the take is more than 500 litres per second pumped, in addition to the features listed in (b)(i) to (vi) above, it will be necessary for the intake to be purpose designed and to consider on a case by case basis whether any additional features will be necessary to ensure fish are prevented from entering the intake.

**Note:** Submerged galleries (abstracting water vertically) and galleries in the river banks (abstracting water horizontally), or behavioural barriers and devices such as those that use light and sound diversions that may not meet all of the engineering features set out in (2) above, but shall be considered to comply with them where it is demonstrated that they are able to exclude fish to the same degree of effectiveness.

## Appendix S<sup>151</sup> – Archaeological Site Responsibilities

This appendix sets out information to alert the public to their responsibilities regarding archaeological sites. This is relevant with regards to:

- (a) Demolition/destruction of any structure associated with human activity prior to 1900, whether or not it is scheduled in a district or regional plan.
- (b) Earthworks or other works that may disturb pre-1900 surface or subsurface archaeological sites or material.

An archaeological site is as defined by the Heritage New Zealand Pouhere Taonga Act 2014 as being:

- (a) any place in New Zealand, including any building or structure (or part of a building or structure), that:
  - (i) was associated with human activity that occurred before 1900 or is the site of the wreck of any vessel where the wreck occurred before 1900; and
  - (ii) provides or may provide, through investigation by archaeological methods, evidence relating to the history of New Zealand.

It is also possible for Heritage New Zealand Pouhere Taonga (Heritage New Zealand) to declare a post-1900 sites as an archaeological site.

#### **Consent required from Heritage New Zealand**

An authority (consent) from Heritage New Zealand must be obtained prior to the commencement of works noted in (a) or (b) above, and preferably before submitting a resource consent application. It is an offence to modify or destroy an archaeological site, or demolish/destroy a whole building, without an authority if the person knew or ought to reasonably suspect it to be an archaeological site. For further information, contact Heritage New Zealand. The relevant legislation is the Heritage New Zealand Pouhere Taonga Act 2014, in particular sections 42 and 44 of that Act.

#### Known or suspected archaeological sites

The following resources may assist in determining if an archaeological site is or may be present:

- Historic and cultural heritage scheduled in a district or regional plan.
- Sites listed by the New Zealand Archaeological Association's Archaeological Site Recording Scheme (latest information is on the New Zealand Archaeological Association website).
- The Southland Regional Council GIS information that highlights known sites and areas where there is a higher risk of unidentified historic heritage being encountered.
- Written and oral histories of the area including those of Tangata Whenua.

#### Archaeological discovery without an authority (Protocol)

If an archaeological site is subsequently discovered or is suspected, the following protocol must be followed:

- (a) immediately cease operations;
- (b) inform the relevant iwi authority;
- (c) inform Heritage New Zealand and apply for the appropriate authority, if required;
- (d) inform the Southland Regional Council and apply for the appropriate resource consent, if required; and
- (e) take appropriate action, after discussing with Heritage New Zealand, the Southland Regional Council and relevant iwi authority to remedy damage and/or restore the site.



#### Annexure 6

# Appendix N – Farm Environmental Management Plan Requirements (CV)

#### [1] A Farm Environment Management Plan must be:

- (1) a Freshwater Farm Plan prepared, implemented and audited in accordance with regulations prepared under Part 9A of the RMA and which apply within the Southland region, plus any additional information or components required by Part B (3) and (6)(b) as below;<sup>1</sup> or
- (2) if Freshwater Farm Plans, under Part 9A of the RMA, are not yet required in the Southland region, a Farm Environmental Management Plan will be prepared and implemented in accordance with Parts A to C below.

### Part A – Farm Environmental Management Plans

[2] All FEMPs (prepared in accordance with this Appendix) must include and give effect to the FEMP Purpose Statement.

#### **FEMP Purpose Statement**

This FEMP contributes to the management of Southland's water and land resources under the Southland Water and Land Plan (the SWLP) which embodies ki uta ki tai and upholds Te Mana o Te Wai. These concepts are to be at the forefront of water and land management in the FEMP.

<sup>&</sup>lt;sup>1</sup> Cross-references have been superseded. We suggest the reference is to Part B (only).

[3] The SWLP, and therefore this FEMP, must give effect to the objectives of the SWLP, including Objectives 1 and 2 which are fundamental to the SWLP. These objectives are:

**Objective 1** (of the SWLP) – Land and water and associated ecosystems are sustainably managed as integrated natural resources, recognising the connectivity between surface water and groundwater, and between freshwater, land and the coast.

**Objective 2** (of the SWLP) – The mauri of water provides for te hauora a te taiao (health and mauri of the environment), te hauora o te wai (health and mauri of the water body) and te hauora o te tangata (health and mauri of the people).

#### [4] A FEMP can be based on either of:

- (1) the default content set out in Part B below; or
- (2) industry-prepared FEMP templates and guidance material, with Southland-specific supplementary material added where relevant, so that it includes the default content set out in Part B below; or
- (3) a management plan and nutrient budget prepared in accordance with a condition of resource consent to discharge industrial wastewater onto land that is also used for <u>farming activity</u>, with the default content set out in Part B below included where relevant to the farm receiving the industrial wastewater. provided it includes the material set out in Part B below in relation to each farm receiving industrial wastewater. <sup>2</sup>
- [5] All FEMPs shall be certified and compliance with the FEMP audited in

<sup>&</sup>lt;sup>2</sup> An amendment is suggested so that cl 2 and 3 adopt a similar drafting style.

#### accordance with Part C.3

#### Part B – Farm Environmental Management Plan Default Content

- [6] The FEMP <u>shall</u> contain the following landholding details:
  - (a) physical address;
  - (b) description of the landholding ownership and the owner's contact details;
  - (c) legal description(s) of the landholding; and
  - (d) a list of all resource consents held for the landholding and their expiry dates; and
  - (e) the type of farming activities being undertaken on the property, such as 'dairy' or 'sheep and beef with dairy support'.
- [7] The FEMP shall contain a map(s) or aerial photograph(s) of the landholding at a scale that clearly shows the locations of:
  - (a) property and paddock boundaries; and
  - (b) the physiographic zones <u>found on the Regional Council's website</u> (and variants where applicable) and soil types (or Topoclimate South soil maps); and
  - (c) all lakes, rivers, streams (including intermittent rivers), springs, ponds, artificial watercourses, modified watercourses and natural wetlands; and
  - (d) all critical source areas; and
  - (e) all existing and proposed riparian vegetation and fences (or other stock exclusion methods) adjacent to water bodies; and
  - (f) places where stock access or cross water bodies (including bridges,

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<sup>&</sup>lt;sup>3</sup> We have assumed all FEMPs are certified and compliance audited. Parties are to say if this is not intended for management plans associated with the consented discharge of industrial wastewater.

- culverts and fords); and
- (g) the location of all known subsurface drainage system(s) and the locations and depths of the drain outlets; and
- (h) land to be:4
  - (i) cultivated; or
  - (ii) intensively winter grazed; or
  - (iii) used for pasture-based wintering; and
  - (iv) used for a sacrifice paddock;<sup>5</sup> and
- (i) any areas of the land within a catchment of a water body identified in Schedule X; and
- (j) any heritage site recorded in the relevant district plan, on the New Zealand Heritage List/Rārangi Kōrero or on the New Zealand Archaeological Association website; and
- (k) the presence of taonga species listed in Appendix M of the Southland

  Land and Water Plan<sup>6</sup> within water bodies on the farm (if known);

  and
- (l) other significant values and uses (if known) of nearby land and waters including mahinga kai and nohoanga.

#### Nutrient Budget/Nutrient Loss Risk Assessment

- [8] For all landholdings over 20 ha, the FEMP contains either:
  - (a) a nutrient budget (which includes nutrient losses to the environment) calculated using a model approved by the Chief Executive of Southland Regional Council); or
  - (b) a nutrient loss risk assessment undertaken using a nutrient loss risk assessment tool approved by the Chief Executive of Southland

<sup>5</sup> See 'Rule 35B' decision.

<sup>&</sup>lt;sup>4</sup> Roman numbers used.

<sup>&</sup>lt;sup>6</sup> Added for clarification.

#### Regional Council; and the......<sup>7</sup>

- (c) the nutrient budget or nutrient loss risk assessment will be is repeated:
  - (i) where a material change\* in land use associated with the farming activity has occurred or is intended that may affect the implementation of cl [9] Objectives<sup>8</sup> (including a change in crop area/yield, crop rotation length, type of crops grown, stocking rate or stock type); and
  - (ii) each time the nutrient budget or nutrient loss risk assessment is repeated, all the input data used to prepare it shall be reviewed by or on behalf of the landholding owner, for the purposes of ensuring the nutrient budget or nutrient loss risk assessment accurately reflects the farming system. A record of the input data review shall be kept by the landholding owner; and
  - (iii) the nutrient budget or nutrient loss risk assessment must be prepared by a suitably qualified person who has been approved as such by the Chief Executive of Southland Regional Council.

#### Objectives of Farm Environmental Management Plans

[9] The following objectives will be met:

#### (a) Nutrient and soil management:

- (i) losses of nitrogen, phosphorus, sediment and microbial contaminants from farming activities to water bodies do not increase (when compared to existing discharges) and are minimised with any change in farming activity; and
- (ii) the overland flow of water is minimised to control sediment loss from cultivated paddocks and from paddocks used for intensive

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<sup>&</sup>lt;sup>7</sup> Structural change made to improve clarity.

<sup>&</sup>lt;sup>8</sup> See Appendix N: FEMP decision.

<sup>&</sup>lt;sup>9</sup> In line with Policy 16, the requirement to not increase discharges and to minimise losses has been re-ordered.

winter grazing, pasture-based wintering and for sacrifice paddocks; vegetated setbacks are maintained to slow the overland flow of water, filter and support the infiltration of sediment/nutrients; and sediment trap(s) established where critical source areas are cultivated;

- (iii) if the farm is within a catchment identified in Schedule X, adverse effects on water quality are reduced (when compared to existing activities).
- (b) **Habitat management**: activities in waterways, natural wetlands and their margins are managed so that in-stream and riparian habitat values are not diminished, and where practicable are improved;<sup>10</sup>
- [10] If relevant to farming operations, the following objectives will also be met:
  - (a) Intensive Winter Grazing and Pasture-Based Wintering: ensure the particular risks of these activities are managed effectively, grazing of critical source areas and <u>setbacks</u><sup>11</sup> are avoided; and the extent and duration of exposed soils is minimised;<sup>12</sup>
  - (b) Collected agricultural effluent management: manage the discharge of collected agricultural effluent in accordance with industry best industry practice to ensure the adverse effects of contaminants on water quality do not increase and are minimised;<sup>13</sup>
  - (c) Irrigation system designs and installation: ensure that all new irrigation systems and significant upgrades meet industry best practice; standards<sup>14</sup>
  - (d) Irrigation management: ensure efficient on-farm water use that

<sup>11</sup> The term 'setback' and not 'buffer' is used in the rules.

<sup>&</sup>lt;sup>10</sup> See 'Appendix N: FEMP' decision.

<sup>&</sup>lt;sup>12</sup> See 'Appendix N: FEMP' decision, single new objective applying to both IWG and pasture-based wintering.

<sup>&</sup>lt;sup>13</sup> A former 'To' objective. Amendments suggested for consistency with other objectives and to implement Policy 16.

<sup>&</sup>lt;sup>14</sup> A former 'To' objective. Amendments suggested for consistency with other objectives and to implement Policy 16.

meets crop demands, including through upgrading existing systems to meet industry best practice standards, and ensuring that water and contaminant losses to water bodies do not increase and are minimised.<sup>15</sup>

The FEMP must also identify additional objectives if these are relevant to the farming activities and/or to address environmental risks associated with the farm and the environment within which it is located.

#### [11] For each (relevant) objective above:

- (a) identify how the farm fits within the wider catchment, known as a 'catchment context', including a description of where contaminants lost from the farm end up; and
- (b) identify the risks associated with the farming activities on the property, including the risk pathways of the relevant physiographic zones (and variants), and the risks caused by extreme weather events; and
- (c) <u>demonstrate how the losses of nitrogen, phosphorus, sediment and</u> microbial contaminants are being minimised; and
- (d) where the farm is located in a Schedule X catchment, assess how the effects on water quality will be reduced by taking into account the risk pathways of the relevant physiographic zone and the catchment context(s), the risks associated with farming activities and the actions to minimise losses of contaminants; and
- (e) define the actions to be taken that clearly set a pathway and timeframe for achievement of the objectives; and
- (f) identify any specific mitigations required by a resource consent held for the property; and
- (g) specify the records to be kept for demonstrating mitigations have

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<sup>&</sup>lt;sup>15</sup> A former 'To' objective. Amendments suggested for consistency with other objectives and to implement Policy 16.

been actioned and are achieving the objective.

#### Winter Grazing Plan

[12] A Winter Grazing Plan is to be prepared each year for the following activities:<sup>16</sup>

- (a) intensive winter grazing; or
- (b) pasture-based wintering of cattle; or
- (c) for stock other than cattle, where pasture is to provide less than 50% of the animal's diet and supplementary feed will be offered on the paddock; or
- (d) sacrifice paddocks.
- [13] Implementing the FEMP, the Winter Grazing Plan is to:
  - (a) record:
    - (i) the location, <u>paddock slope</u>, land area used, crop type, expected pasture or crop yield and supplementary feed amount and type; and
    - (ii) stock type, numbers and <u>estimated<sup>17</sup></u> duration of grazing on each paddock.
  - (b) identify:
    - (i) any critical source areas, explain how stock will be excluded from them between 1 May–30 September; and
    - (ii) any water bodies and features from which stock must be setback and excluded, explaining how this will be done.
  - (c) explain the procedures to be followed in an adverse weather event (including higher than or below average rainfall);

<sup>&</sup>lt;sup>16</sup> New clause, see Appendix N: FEMP decision.

<sup>&</sup>lt;sup>17</sup> We suggest 'estimated' duration as this is dependent on the quality of feed available and weather conditions.

- (d) confirm how the following practices are to be implemented:
  - (i) downslope grazing or a 20 m 'last-bite' <u>vegetated</u> strip at the base of the slope; and
  - (ii) back fencing to prevent stock entering previously grazed areas.
- (e) for intensive winter grazing:
  - (i) identify paddocks to be resown after grazing and the date by which this is to occur, weather permitting.
- (f) for pasture-based wintering of cattle:18
  - (i) explain the intended paddock set-up including:
    - (1) the predicted post grazing residual on each paddock; and
    - (2) identification of paddocks to be resown after grazing and the date this is to occur, weather permitting; and
  - (ii) if a post-grazing residual is intended, explain how the amount of exposed soil will be minimised and the armouring provided by the pasture on the paddock will be retained.
- (g) for stock other than cattle, where pasture is less than 50% of the animal's diet and supplementary feed will be offered on the paddock:
  - (i) identify paddocks to be resown after grazing and the date this is to occur, weather permitting; and
  - (ii) (placeholder parties are to respond whether setbacks from water bodies are required.)
- (h) with reference to the planned total feed to be offered stock<sup>19</sup> and the relevant physiographic zones (and variants), explain how the intensity, operation and location of intensive winter grazing and pasture-based wintering of stock (including cattle) will:
  - (1) not lead to an increase in contaminant losses when compared with what has occurred in the past;
  - (2) minimise contaminant losses; and

<sup>&</sup>lt;sup>18</sup> See the 'Rule 20B' decision.

<sup>&</sup>lt;sup>19</sup> An alternative way to express 'planned total feed' may be to refer to crop yield (kg of dry matter per m²) and the proportion of crop in the total diet (kg of dry matter offered per cow per day).

(3) for Schedule X catchments, lead to a reduction in adverse effects on water quality.

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

#### [14] Farm Environmental Management Plan Certification:

- (a) the FEMP must be certified, prior to implementation on the farm, by a Suitably Qualified Person (SQP) who has been approved as such by the Chief Executive of Southland Regional Council;
- (b) the purpose of FEMP certification is to confirm that the farming activities on the farm will be carried out in a way that will achieve the Objectives in this Appendix and will comply with any resource consent for the landholding;
- (c) the FEMP must be re-certified, prior to implementation, following any amendments to the FEMP carried out in accordance with Part C (17) of this Appendix;
- (d) within one month of a FEMP being certified, a copy of the certified FEMP must be provided to the Southland Regional Council.

#### [15] Auditing of the certified Farm Environmental Management Plan:

(a) within 12 months of the landholding's first FEMP being certified, the landholding owner must arrange for an audit of the farming activities<sup>20</sup> to ascertain and ensure compliance with the FEMP. Thereafter, the frequency of auditing will be in accordance with any conditions of consents held for the landholding, or alternatively, where there are no consent or consent conditions requiring auditing, every two years after receipt of the previous audit report, unless the Chief Executive of the Southland Regional Council, having regard to

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<sup>&</sup>lt;sup>20</sup> Forest & Bird/Fish & Game chapeau.

- the Objectives of the Southland Water and Land Plan, specifies in writing, a shorter or longer period between auditing;
- (b) the auditor must be a Suitably Qualified Person (SQP)<sup>21</sup> who has been approved as such by the Chief Executive of Southland Regional Council and must not be the same person or from the same organisation that prepared the FEMP;
- (c) the auditor must prepare an audit report that:
  - (i) sets out the auditor's findings;
  - (ii) states whether compliance has been achieved; and
  - (iii) sets out any recommendations from the auditor.
- (d) within one month of the final audit report being prepared, the audit report must be provided to the Southland Regional Council by the auditor.
- [16] The FEMP must be reviewed by the landholding owner, or their agent, as follows:
  - (a) when there is a material change\*to the nature of the in farming activities occurring on the landholding that increases the risk of not achieving the plan's objectives, and where that material change is not provided for within the landholding's certified FEMP; and<sup>22</sup>
  - (b) at least once every 12 months; and
  - (c) to respond to the outcome of an audit.
- [17] The outcome of the review is to be documented and amendments to the FEMP must be made where Part C(16)(a) applies, and in circumstances where the annual review identifies that amendments are required.

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<sup>&</sup>lt;sup>21</sup> SQP has been defined above.

<sup>&</sup>lt;sup>22</sup> See Appendix N: FEMP decision.

#### Notes:

- (a) actions and mitigations in a FEMP may be more stringent than permitted activity standards of the pSWLP rules where this is appropriate to achieve the FEMP objectives;
- (b) the no increase in contaminant loss explanation required by clause 13 (h)(1) is to be made in the context of the whole of the relevant land holding consistent with Policy 16(c1) for farming activities that affect water quality. The same approach is to be taken for the explanation of reduced adverse effects on water quality for landholdings located in a Schedule X catchment required by clause 13(h)(3);
- (c) when addressing 'intensity' in Clause 13(h) the factors in Clauses 13(a)(i) and (ii) shall be applied, as relevant, in the required explanation;
- (d) minimise means to reduce to the smallest amount reasonably practicable;
- (e) <u>intensive winter grazing means insert plan definition;</u>
- (f) pasture-base wintering means insert plan definition; and
- (g) <u>sacrifice paddock means to be decided.</u>

