

Proposed Variation 2 to the Proposed Canterbury Land and Water Regional Plan - Section 13 Ashburton

Version Showing Final Officer s42A Report
Recommendations as red “Tracked Changes”

21 August 2015

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Part 1: Scope of the Variation

This Variation proposes changes to the proposed Canterbury Land and Water Regional Plan in accordance with Policies 4.9 and 4.10 of the proposed Canterbury Land and Water Regional Plan and Appendix 2 to the Canterbury Regional Policy Statement 2013.

Additions have been made to Section 13 'Ashburton' of the proposed Canterbury Land and Water Regional Plan for the Hinds/Hekeao Plains Area. The Variation introduces changes to describe the limits, targets, time frames and additional policies and rules to address over-allocation of water quantity and water quality for the Hinds/Hekeao Plains Area as required by the objectives and strategic policies of the proposed Canterbury Land and Water Regional Plan. The changes proposed achieve the purpose of the Resource Management Act 1991.

Variation 2 also includes minor consequential changes to two region-wide rules, and an amendment to the boundary between Sub Regional Sections 12 and 13 of the Proposed Canterbury Land and Water Regional Plan so that the amended boundary of Section 13 aligns with the boundary of the Mayfield-Hinds Groundwater Allocation Zone.

All the rules in Variation 2 have immediate legal effect under section 86B of the Resource Management Act 1991 from the date of notification.

Part 2: Amendments to Region-Wide Rules

Additions to the text are shown underlined.

Deletions to the text are shown as ~~striketrough~~.

Amend Rule 5.124 as follows:

5.124 The taking and use of surface water from a river or lake that does not meet ~~condition 2 or 3 in Rule 5.123~~ one or more of the conditions of Rule 5.123 excluding condition 1 is a non-complying activity.

Amend Rule 5.129 as follows:

5.129 The taking and use of groundwater that does not meet one or more of the conditions of ~~1 and 4 in Rule 5.128~~ excluding conditions 2 and 3 is a non-complying activity.

Part 3: Amendments to Section 13 - Ashburton

Additions to the text are shown underlined.

Deletions to the text are shown as ~~strikethrough~~.

After the first paragraph on page 13-1 insert following text:

Within this section there are policies and rules for water quantity in the Hakatere/Ashburton River catchment, and policies and rules for water quality and quantity in the Hinds/Hekeao Plains Area. For all other areas within this section only the region-wide policies and rules apply.

After map on page 13-1 insert the following text:

The following sustainable water management priority outcomes for the Hakatere/Ashburton River catchment have been identified by the Ashburton Zone Committee:

Before heading 13.1 on page 13-2 insert the following text:

The Hinds/Hekeao Plains Area consists of the Hinds River/Hekeao catchment, and the plains between the Rangitata and Hakatere/Ashburton Rivers. The Upper Hinds/Hekeao Area includes the foothills and basins that drain into the north and south branches of the Hinds River/Hekeao. The Lower Hinds/Hekeao Plains Area contains the middle and lower reaches of the Hinds River/Hekeao as it flows out across the Canterbury Plains and contains more than 30 spring-fed lowland water bodies by the coast. Many of the water bodies in the Lower Hinds/Hekeao Plans Area are the remnants of what was once an expansive wetland.

~~For Ngāi Tahu water is taonga. The wetlands of the Lower Hinds/Hekeao Plains Area supported a rich and varied mahinga kai resource. The cultural significance of the Hinds River/Hekeao is recognised by its Statutory Acknowledgement status.~~

~~The Hinds/Hekeao Plains Area today is highly modified. Drainage of the wetland area east of State Highway began in the 1850s allowing the establishment of one of Canterbury's most productive agricultural areas. An artificial channel, cut in the 1860s-1870s, created a permanent outlet for the river to flow to the sea. A small hapua (lagoon) is present at the river mouth, although this is blocked to the sea most of the time. Many of the Artificial drains, stock water races and modified channels which replaced the wetlands and waterways, provide substitute habitats for a variety of fish and invertebrate species.¹~~

~~The Hinds/Hekeao Plains Area was historically, and is currently, an important area for food production. It currently provides significant employment in the area, both on-farm and in processing and servicing industries. The social and economic wellbeing of the community is reliant on the agricultural industry and it is important that it is retained so that the communities can thrive.²~~

Agricultural development, however, has had a significant impact on the cultural, ecological and recreational values and opportunities of the area. Today drainage remains a primary function of many of the lowland

¹ V2 pLWRP-416 – Director General of Conservation

² V2 pLWRP-471 – Barrhill Chertsey Irrigation, V2pLWRP-941 – Dairy Holdings, V2pLWRP-607 – Horticulture NZ, V2pLWRP-815 – Fertiliser Association of NZ, V2pLWRP-541 – Dairy NZ, V2pLWRP-739 – Fonterra

water bodies, however they continue to be a taonga and source of mahinga kai for Ngāi Tahu and support significant ecological and recreational values.

For Ngāi Tahu water is taonga. The wetlands of the Lower Hinds/Hekeao Plains Area supported a rich and varied mahinga kai resource. The cultural significance of the Hinds River/Hekeao is recognised by its Statutory Acknowledgement status.³

There are a number of irrigation schemes in the Hinds/Hekeao Plains Area. There are also individual surface and groundwater takes throughout the area. Agriculture now makes up 98 percent of land use in the Hinds/Hekeao Plains Area. The availability of plentiful clean water has been one of the critical ingredients to the economic success of the area.

Water resources are now showing signs of stress. Nitrogen concentrations in 2013/14 year average around 11 milligrams of nitrogen per litre in shallow wells, and are increasing while water availability is decreasing. These trends have not only had an adverse effect on cultural and ecological values but have also adversely affected the reliability of supply for users.

During 2013 and 2014 the Ashburton Zone Committee engaged with the local community and stakeholders to develop a package of actions (the 'Solutions Package') that was considered the most effective in protecting cultural values and opportunities to gather mahinga kai safely, maintaining water quality and quantity in the Upper Hinds/Hekeao Plains Area, and improving water quality and quantity in Lower Hinds/Hekeao Plains Area while also sustaining a healthy economy and community.

The Committee's Solutions Package consists of four main parts with both regulatory and non-regulatory recommendations: catchment scale actions (e. g. on-farm mitigation measures, managed aquifer recharge, and increased irrigation area); local scale actions (e. g. riparian fencing , planting , and well head protection); investigations, monitoring and review of the Solutions Package; and community engagement. The Committee's Solutions Package is fully outlined in the Ashburton Zone Implementation Programme Addendum 2014. This section of the Plan includes policies and rules that ~~achieve the outcomes of reflect the regulatory recommendations in~~⁴ the Ashburton Zone Implementation Programme Addendum 2014.

The Solutions Package requires a 45 percent reduction in nitrogen losses from farming activities in the Lower Hinds/Hekeao Plains Area by 2035. To achieve this, all farming activities are to operate at good management practice by 2017. ~~Dairy and dairy support farms are~~ Farming is then required to further reduce nitrogen loss rates by ~~36 45 and 25~~ percent ~~respectively~~⁵, by 2035. ~~Some~~ change in land use or land use intensification is underway, and further change is provided for ~~once water quality improves. on a maximum of 30,000ha provided the nitrogen loss is no more than 27 kilograms of nitrogen per hectare per annum.~~⁶

In conjunction with managed aquifer recharge, on-farm mitigation is anticipated to reduce the concentrations of nitrogen in shallow groundwater in Lower Hinds/Hekeao Plains Area to 6.9 milligrams of nitrogen per litre and achieve the 80 percent protection level for aquatic species in the lowland spring-fed streams and the 90 percent protection level for the Lower Hinds River/Hekeao.

In the Upper Hinds/Hekeao Plains Area water quality is to be maintained through adoption of good management practices to minimise losses of sediment, phosphorus and microbial contamination and increases

³ Consequential amendment for clarification – paragraph shifted

⁴ Consequential amendment

⁵ Consequential to the amendment to Policy 13.4.13

⁶ Consequential to the deletion of Rule 13.5.14

in nitrogen losses are restricted to achieve a 99 percent protection level for aquatic species in the hill-fed streams.

The Solutions Package also includes actions to improve flows in the lowland streams and the Hinds River/Hekeao. Provision is made for switching from surface water or hydraulically connected groundwater to deep groundwater. New abstractions of surface water or groundwater from the Valetta and Mayfield-Hinds Groundwater Allocation Zones, beyond domestic and stock needs and community supplies, is prohibited while allocation limits are not being met. Transfers of surface water consents and groundwater consents within the Valetta Groundwater Allocation Zone are also prohibited while limits are not being met. The Solutions Package also includes the establishment of a Hinds Drains Working Party to develop and recommend revised allocation limits and minimum flows for the spring-fed plains rivers in the Lower Hinds/Hekeao Plains Area by no later than 2020.

Insert new heading:

13.1A: Definitions

Insert the following table and text under new '13.1A: Definitions' heading:

For the Hinds/Hekeao Plains Area the following definitions apply in addition to the definitions contained in Section 2.9

Definitions

Word	Definition
<u>Adaptive Management Conditions</u>	<u>means a condition or conditions on a resource consent to take groundwater that specifies an annually variable volume dependent on the annually assessed volume of the groundwater resource in a zone.</u>
<u>Augmenting</u>	<u>means the addition of water to surface water or groundwater specifically for the purpose of reducing the concentration of nitrate nitrogen in groundwater or increasing flows in lowland streams.</u>
<u>Baseline Land Use</u>	<u>means the land use, or uses, on a property between 1 July 2009 and 30 June 2013 used to determine the property's 'nitrogen baseline' as defined in section 2.9 of this Plan.</u>
<u>Good Management Practice Nitrogen Loss Rates</u>	<u>means nitrogen loss rates (in kilograms per hectare per annum) from property to water for different soils, rainfall and farm type operating at good management practice.⁷</u>
<u>Hinds/Hekeao Plains Area</u>	<u>means the area identified as the 'Hinds/Hekeao Plains Area' on the planning maps.</u>
<u>Lower Hinds/Hekeao Plains Area</u>	<u>means the area identified as the 'Lower Hinds/Hekeao Plains Area' on the planning maps.</u>
<u>Lower Hinds River/Hekeao</u>	<u>means the Hinds River/Hekeao in the Lower Hinds/Hekeao Plains Area.</u>
<u>Upper Hinds/Hekeao Plains Area</u>	<u>means the area identified as the 'Upper Hinds/Hekeao Plains Area' on</u>

⁷ V2pLWRP-122 – NZPork, V2pLWRP-545 - Dairy NZ, V2pLWRP-750 – Fonterra

	<u>the planning maps.</u>
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13.3 Iwi Management Plans that apply to the Hinds Plains Area

Delete heading and text:

~~13.3 Freshwater Outcomes~~

~~See Objectives in section 3, Policies 4.1, 4.2, 4.3 and 4.4.~~

Insert a new heading and following text:

13.3 Iwi Management Plans that apply to the Hinds Plains Area

Te Rūnanga o Ngāi Tahu Freshwater Policy Statement 1999

Iwi Management Plan of Kati Huirapa for the area Rakaia to Waitaki July 1992

Amend Policies 13.4.5 and 13.4.6

Amend Policies 13.4.5 and 13.4.6 as follows:

- 13.4.5 To address over-allocation of surface water in the Hakatere/Ashburton catchment and the LowerHinds/Hekeao Plains Area, enable an applicant to take deep groundwater provided the applicant holds a lawfully established surface water take or stream depleting groundwater take for an equal or greater rate and volume than is sought from the deep groundwater, and the surface water take or stream depleting groundwater take is surrendered.
- 13.4.6 The water resulting from any surrendered surface water and stream depleting groundwater takes in the Hakatere/Ashburton River catchment and in the Hinds/Hekeao Plains Area⁸ will not be reallocated and will be left in the river until such time as the catchment is no longer over allocated and in the Hinds/Hekeao Plains Area will not be reallocated and will be left in the river.

Insert Policies 13.4.9 to 13.4.19

Insert Policies 13.4.9 to 13.4.19 as follows at the end of section '13.4 Policies':

- 13.4.9 Improve the overall water quality in the Hinds/Hekeao Plains Area by:
- (a) establishing two management areas the Upper Hinds/Hekeao Plains Area and Lower Hinds/Hekeao Plains Area;
 - (b) improving management of ~~nitrogen~~⁹, ~~microbial contaminants, microbes~~¹⁰, phosphorus and sediment in both areas;
 - (c) ~~preventing restricting~~¹¹ increases in nitrogen losses in the Upper Hinds/Hekeao Plains Area; and

⁸ V2 pLWRP – 988 Synlait Farm

⁹ V2pLWRP-597 – Dairy NZ, V2pLWRP-752 – Fonterra

¹⁰ V2pLWRP-419 – Director General of Conservation

¹¹ V2pLWRP-196 – Ngai Tahu

(d) reducing overall nitrogen losses by 45¹ 12 percent in the Lower Hinds/Hekeao Plains Area and¹³

(e) adopting the use of managed aquifer recharge and targeted stream augmentation¹⁴ to augment groundwater and/or surface water.

13.4.10 Reduce discharges of microbial contaminants microbes¹⁵, phosphorus and sediments in the Hinds/Hekeao Plains Area by:

(a) excluding intensively farmed stock cattle, pigs and deer¹⁶ from drains in addition to the region-wide stock exclusion rules; and

(b) implementing the farm practices in Schedule 24a; or

(c) preparing and implementing Farm Environment Plans, in accordance with Schedule 7¹⁷.

13.4.14A Recognise the cultural significance of the Hekeao/Hinds River to Ngāi Tahu and enable Ngāi Tahu to exercise kaitiakitanga and mahinga kai in the catchment through:

1. Continual improvement in the flows in lowland streams and springs over time;

2. Continual reductions in the concentrations of nitrogen in groundwater over time;

3. Minimising the potential discharge of contaminants into water through land use practices, riparian management, and waterway and drain maintenance; and

4. Encouraging the protection or restoration of natural wetland areas and other mahinga kai.¹⁸

13.4.11 Maintain water quality in the Upper Hinds/Hekeao Plains Area by capping discharges of nitrogen at 114 tonnes of nitrogen per year and requiring all farming activities to operate at good management practice to maintain reduce¹⁹ current phosphorus losses.

13.4.12 Improve water quality in the Lower Hinds/Hekeao Plains Area by reducing the discharge of nitrogen from farming activities to achieve a target load of 3,400 tonnes of nitrogen per year¹ by 2035.

13.4.13 Farming activities and including²⁰ farming enterprises in the Lower Hinds/Hekeao Plains Area, whether or not they are supplied with water by an irrigation scheme or a principal water supplier, achieve a target load of 3,400 tonnes of nitrogen per year by 2035 through²¹:

(a) requiring, from 1 January 2017, all existing farming activities to discharge no more nitrogen than the loss rate that could reasonably be expected from the implementation of meet good management practices, nitrogen loss rates²² from 1 January 2017, calculated on the baseline land uses;

(b) requiring, time framed further reductions beyond those set out in (a) for all farming activities that have a nitrogen loss calculation of more than 20² kg per hectare per year-dairy farming and dairy support²³ of:

(i) 9% by 1 January 2020

¹ Calculated per the methodology explained in the Hinds/Hekeao Plains Technical Overview – CRC Report R14/79

¹² V2pLWRP-655 - Valetta

¹³ V2pLWRP-597 – Dairy NZ

¹⁴ V2pLWRP-171 – Irrigation NZ

¹⁵ V2pLWRP-420 – Director General of Conservation

¹⁶ V2 pLWRP-472 – Fish and Game

¹⁷ V2 pLWRP 472 – Fish and Game

¹⁸ V2pLWRP-183 - Nga Rūnanga and Te Rūnanga O Ngāi Tahu

¹⁹ V2pLWRP-200 - Te Rūnanga o Arowhenua and Te Rūnanga o Ngāi Tahu.

²⁰ Consequential amendment from farm enterprises recommendations

²¹ Consequential to amendment to Policy 13.4.13(b).

²² V2pLWRP-123 – NZ Pork

²³ V2pLWRP-304 – Hind Plains Land and Water Partnership

- ~~(ii) 18% by 1 January 2025~~
- ~~(iii) 27% by 1 January 2030~~
- ~~(iv) 36% by 1 January 2035²⁴~~
- ~~from 1 January 2020, in accordance with Table 13(h); and²⁵~~
- ~~(ba) for any land where a resource consent has been granted, between 1 January 2014 and 1 December 2015, to increase nitrogen losses, beyond that for the nitrogen baseline, limit the nitrogen loss calculation to the lesser of that required by Policy 13.5.13(b) or 27² kg per hectare per year;~~
- ~~(c) enabling, by way of resource consent process, land use intensification or changes in land use increases in nitrogen losses, beyond that for the nitrogen baseline on a maximum of 15,000 30,000 hectares of land, provided the groundwater nitrogen concentration for the catchment as a whole has reduced below 9.1 mg/litre and the nitrogen loss calculation for the land is the lesser of that required by Policy 13.5.13(b) or limited to no more than 27² kg per hectare per year; and~~
- ~~(d) enabling farming activities that, after adopting good management practices, have a nitrogen loss calculation of no more than 15² kg per hectare per year and providing for increases to 20² kg per hectare per year.²⁶~~

~~13.4.13A (1) Enable the establishment of farming enterprises in circumstances where, for the purpose of nutrient management, the total farming activity does not exceed the aggregate of the nitrogen baselines of all the parcels of land used in the enterprise, and any time-framed reductions set out in Policy 13.4.13 are achieved (whether or not the parcels are held in single, multiple, or common ownership).~~

- ~~(2) Enable the disestablishment of farming enterprises, by which each parcel of land formerly used in the enterprise does not exceed either:~~
 - ~~(a) the individual nitrogen baseline of the land in that parcel, following any time-framed reductions set out in Policy 13.4.13; or~~
 - ~~(b) a nitrogen baseline limit to be determined so that the aggregate of the baselines of all the parcels formerly used in the enterprise, following any time-framed reductions set out in Policy 13.4.13, is not exceeded.²⁷~~

~~13.4.14 Improve flows in spring-fed waterbodies and/or decrease nitrate nitrogen concentrations in the Hinds River/Hekeao spring-fed waterbodies and groundwater in the Lower Hinds/Hekeao Plain Area by enabling managed aquifer recharge and targeted stream augmentation, where:~~

- ~~(a) adverse effects on cultural values, including those associated with unnatural mixing of water are satisfactorily²⁸ avoided as the first preference, and where avoidance is not practicable, they are remedied or mitigated²⁹;~~
- ~~(b) adverse effects on the availability and quality of community drinking water supplies are avoided;~~
- ~~(c) adverse effects on fish passage are avoided or mitigated;~~
- ~~(d) inundation of existing wetlands is avoided, remedied or mitigated through scheme design, construction and operation;~~

¹ Calculated using Overseer version 6.1

²⁴ V2pLWRP-559 – Dairy NZ

²⁵ V2pLWRP-637 – RDRML, V2pLWRP-821 – Fertiliser Association of NZ

²⁶ A combination of: V2-pLWRP – 292 – Federated Farmers, V2-PLWRP – 234 Synlait Milk, V2-PLWRP – 242 – Ngai Tahu, and

²⁷ V2-pLWRP – 992 - Dairy Holdings

²⁸ V2pLWRP-566 – Dairy NZ

²⁹ V2pLWRP-649 – RDRML

- (e) there is no net loss, including through inundation³⁰, of significant biodiversity habitat of indigenous biodiversity; and
- (f) adverse effects on people and property from raised groundwater levels and higher flows are avoided as the first preference, and where avoidance is not practicable, they are remedied or mitigated³¹.

13.4.15 Enable catchment restoration activities that protect springheads; protect, establish or enhance planted riparian margins; create, restore or enhance wetlands; and target removal of fine sediment from water ways.

13.4.16 Improve flows in spring-fed waterbodies and the Lower Hinds River/Hekeao to meet economic, cultural, social and environmental outcomes in the Hinds/Hekeao Plains Area by requiring adherence to flow and allocation limits, limiting the volume and rate of abstraction on replacement water permits to reasonable use calculated in accordance with method 1 in³² Schedule 10 and prohibiting increased use arising from the transfer of consented volumes of water within surface water catchments and the Valetta Groundwater Allocation Zone.

13.4.17 Until such time as the Valetta Groundwater Allocation Zone limits in Table 13(f) are no longer exceeded apply adaptive management conditions upon replacement of any groundwater permits that have previously been subject to adaptive management conditions on the same or similar terms as the pre-existing conditions.

13.4.18 In the Lower Hinds/Hekeao Plains Area, with the exception of the Lower Hinds River/Hekeao, and until 30 June ~~2025~~ ~~2020~~³³, any water permit granted to replace an existing water permit will be subject to the minimum flow and allocation limits in Table 13(e).

13.4.19 After 1 July ~~2025~~ ~~2020~~³⁴ a minimum flow of 50% 7DMALF and an allocation limit of 20% 7DMALF will be applied to all water permits granted to abstract surface water from the waterbodies listed in Table 13(e), or to abstract groundwater with a direct, high or moderate stream depletion effect on those waterbodies, unless there is a collaboratively developed flow and allocation regime that has been included in this Plan through a Schedule 1 RMA process.

13.5 Rules

Insert the following under ‘13.5: Rules’

The following index identifies region-wide rules that are modified by the Hinds/Hekeao Plains Area rules introduced into this section.

Topic	Region-wide	Additions to	Sub-regional	New	Sub-
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³⁰ V2pLWRP-274 – Te Rūnanga o Arowhenua and Te Rūnanga o Ngāi Tahu

³¹ V2pLWRP-649 – RDRML

³² V2 pLWRP-160 Hydrotrader, V2 pLWRP-179 Irrigation NZ, V2 pLWRP-236 Synlait Milk, V2 pLWRP-276 Nga Rūnanga and Te Rūnanga o Ngāi Tahu, V2 pLWRP-295 Federated Farmers, V2 pLWRP-305 HPLWP, V2 pLWRP- 295 Federated Farmers, V2 pLWRP-410 Mayfield Hinds Irrigation, V2 pLWRP-693 Valetta Irrigation, V2 pLWRP- 1003 Farm, V2 pLWRP-1094 Eiffelton Community Irrigation Scheme

³³ V2pLWRP-182 Irrigation NZ

³⁴ V2pLWRP-184 Irrigation NZ

		<u>Rule</u>	<u>Region-wide Rules⁽¹⁾</u>	<u>Rules that prevail over Region-wide Rules</u>	<u>regional Rules</u>
<u>Pest Control and Agrichemicals</u>		<u>5.22</u>	<u>13.5.7</u>		
<u>Nutrient Management⁽²⁾</u>	<u>Red, Lake Zone, Orange, Green or light Blue</u>	<u>5.41-5.59</u>		<u>13.5.8-13.5.20</u>	
	<u>Irrigation Scheme</u>	<u>5.60-5.62</u>		<u>13.5.21-13.5.23</u>	
	<u>Incidental Nutrient Discharges</u>	<u>5.63-5.64</u>		<u>13.5.24-13.5.25</u>	
<u>Stock Exclusion</u>		<u>5.68-5.71</u>	<u>13.5.26</u>		
<u>Sediment Removal from Rivers and Streams</u>					<u>13.5.27-28</u>
<u>Small and Community Water takes</u>		<u>5.111</u>		<u>13.5.29</u>	
<u>Take and use Surface Water</u>		<u>5.123-5.126</u>	<u>13.5.30</u>		-
<u>Take and use of Groundwater</u>		<u>5.128-5.132</u>	<u>13.5.30</u>		<u>13.5.31-13.5.32</u>
<u>Transfer of Water Permits</u>		<u>5.133-5.134</u>		<u>13.5.33-13.5.34</u>	
<u>Augmenting Groundwater or surface water</u>					<u>13.5.35-13.5.37</u>

1 *Additional conditions or matter of discretion to region-wide rules that apply to the Hinds/Hekeao Plains Area only.*

2 *Hinds/Hekeao Plains Area rules cover nutrients, sediment and microbial contaminants.*

Hinds/Hekeao Plains Area

Insert the following rules and associated headings and text after Rule 13.5.6 in '13.5 Rules':

Pest Control and Agrichemicals

Rule 13.5.7 applies as an addition to Region-wide Rule 5.22 in the Hinds/Hekeao Plains Area.

13.5.7 Within the Hinds/Hekeao Plains Area, Region-wide Rule 5.22 shall include the following condition:

1. For discharges to surface water signs are erected:
 - (i) in accordance with HSNO regulations, if such regulations require signage for the chemical being applied; or
 - (ii) if HSNO regulations do not require signage for the chemical being applied or if no HSNO regulations exist for the chemical,³⁵ at all public access points within 2km of the discharge location, or for waterways on privately held land, at the main vehicular

³⁵ V2-pLWRP-431 – Director General of Conservation

entrance to the property,³⁶ at least 48 hours prior to commencement of the discharge, and shall remain in place for at least 48 hours following the discharge. Signs shall include the following information:

- (a) The name of the agrichemical discharged, the date and time the discharge will commence and a description of the application area; and
- (b) A warning to avoid contact with surface water, and to avoid collection of shellfish or mahinga kai; and
- (c) A contact name and phone number for the person carrying out the discharge.

*Note: for all activities in or near waterways, refer also to the Canterbury Flood Protection and Drainage Bylaw 2013.*³⁷

Nutrient Management, Sediment and Microbial Contaminants

Rules 13.5.8 to 13.5.20 prevail over Region-wide Rules 5.41 to 5.59 (Nutrient Management - Red, Orange and Green Zones) in the Hinds/Hekeao Plains Area.

Upper Hinds/Hekeao Plains Area

13.5.8 Despite any of Rules 13.5.9 to 13.5.12 the use of land for a farming activity in the Upper Hinds/Hekeao Plains Area is a permitted activity provided the following conditions are met:

1. The property is less than 5 hectares; and
2. The nitrogen loss calculation for the property does not exceed 20 kg per hectare per annum or the nitrogen baseline, whichever is the greater.

13.5.9 The use of land for a farming activity in the Upper Hinds/Hekeao Plains Area is a permitted activity, provided the following conditions are met:

1. The nitrogen loss calculation for the property does not increase above the nitrogen baseline; and either
2. The practices in Schedule 24a are being implemented and the information required is recorded in accordance with Schedule 24a, and supplied to the Canterbury Regional Council on request; or
3. A Farm Environment Plan has been prepared and implemented in accordance with Schedule 7 Part A, and supplied to Canterbury Regional Council on request.

13.5.10 The use of land for a farming activity as part of a farming enterprise in the Upper Hinds/Hekeao Plains Area is a discretionary activity, provided the following conditions are met:

1. The **aggregated**³⁸ nitrogen loss calculation for **the parcels of land held in single or multiple ownership (whether or not held in common ownership) forming**³⁹ **the farming enterprise** does not increase above the **aggregated** nitrogen baseline **for those parcels of land**⁴⁰; and
2. The farming enterprise is solely in the Upper Hinds/Hekeao Plains Area; and
3. A Farm Environment Plan **for the parcels of land held in single or multiple ownership**

³⁶ V2-pLWRP-311 – Federated Farmers

³⁷ V2 pLWRP-1084 – Ashburton Hinds Drainage District Liaison Committee

³⁸ C116 – minor amendment to improve certainty (recommendation consistent with Variation 1)

³⁹ Consequential amendment to 13.5.18.

⁴⁰ Consequential amendment to 13.5.18.

(whether or not held in common ownership) forming the farming enterprise⁴¹ has been prepared in accordance with Schedule 7 Part A.

13.5.11 The use of land for a farming activity that does not comply with conditions 2 or 3 of Rule 13.5.9 or conditions 2 or⁴² 3 of Rule 13.5.10 is a non-complying activity.

13.5.12 The use of land for a farming activity that does not comply with condition 1 of Rule 13.5.9 or condition 1 or² of Rule 13.5.10 is a prohibited activity.

Lower Hinds/Hekeao Plains Area

13.5.13 Despite any of Rules 13.5.15 to 13.5.20 the use of land for a farming activity in the Lower Hinds/Hekeao Plains Area is a permitted activity provided the following conditions are met:

1. The property is less than 5 hectares; and
2. The nitrogen loss calculation for the property does not exceed 20 kg per hectare per annum or the nitrogen baseline, whichever is the greater.

~~**13.5.14 Despite any of Rules 13.5.15 to 13.5.20 the use of land for a farming activity or farming enterprise in the Lower Hinds/Hekeao Plains Area is a discretionary activity, provided the following conditions are met:**~~

- ~~1. The future nitrogen loss calculation for the area of land subject to any application for resource consent made under this rule will be less than or equal to 27 kg per hectare per annum for the activity applied for; and~~
- ~~2. The total area of the land subject to any resource consent granted under this Rule and any area of land subject to Row B of Table 13(i) does not exceed 30,000 hectares; and~~
- ~~3. The farming activity or farming enterprise is solely in the Lower Hinds/Hekeao Plains Area; and~~
- ~~4. A Farm Environment Plan has been prepared in accordance with Schedule 7 Part A; and~~
- ~~5. The Farm Environment Plan identifies the area of land subject to any application for a resource consent made under this Rule.⁴³~~

13.5.15 Until 1 January 2017, the use of land for a farming activity in the Lower Hinds/Hekeao Plains Area is a permitted activity, provided the following conditions are met:

1. The nitrogen loss calculation for the property, ~~excluding any area of land subject to a resource consent granted under Rule 13.5.14,~~⁴⁴ does not increase above the greater of 15 kg per hectare per annum or⁴⁵ the nitrogen baseline; and either:
2. The practices in Schedule 24a are being implemented and the information required is recorded in accordance with Schedule 24a, and supplied to Canterbury Regional Council on request; or
3. A Farm Environment Plan has been prepared and is being implemented in accordance with Schedule Part A, and supplied to Canterbury Regional Council on request.

13.5.16 From 1 January 2017, the use of land for a farming activity in the Lower Hinds/Hekeao Plains Area is a permitted activity, provided the following conditions are met:

⁴¹ Consequential amendment to 13.5.18.

⁴² V2-pLWRP-573 – Dairy NZ

⁴³ V2-pLWRP-513 – Fish and Game

⁴⁴ Consequential amendment to 13.5.14.

⁴⁵ V2-pLWRP-320 – Federated Farmers

1. The nitrogen loss calculation for the property does not exceed 15 20 kg per hectare per annum; and either:
- ~~2. The nitrogen loss calculation for the property, excluding any area of land subject to a resource consent granted under Rule 13.5.14, does not increase above the nitrogen baseline; and either⁴⁶~~
3. The practices in Schedule 24a are being implemented and the information required is recorded in accordance with Schedule 24a, and supplied to Canterbury Regional Council on request; or
4. A Farm Environment Plan has been prepared and is being implemented in accordance with Schedule Part A, and supplied to Canterbury Regional Council on request.

13.5.17 From 1 January 2017, the use of land for a farming activity in the Lower Hinds/Hekeao Plains Area is a restricted discretionary activity, provided the following conditions are met:

1. The nitrogen loss calculation for the property:
 - ~~(a) is greater than 15 20 kg per hectare per annum; and~~
 - ~~(b) The nitrogen loss calculation for the property, excluding any area of land subject to a resource consent granted under Rule 13.5.14,⁴⁷ does not increase above the nitrogen baseline; or~~
- ~~2. The nitrogen loss calculation for the property is more than 15 kg per hectare per annum and less than 20 kg per hectare per annum; and⁴⁸~~
3. A Farm Environment Plan has been prepared in accordance with Schedule 7 Part A.

The exercise of discretion is restricted to the following matters:

1. The quality of, compliance with and auditing of the Farm Environment Plan; and
- ~~2. The nitrogen loss rates to be applied to the property, including any staged reductions ability to meet the nitrogen load target for farming activities set out in Policy 13.4.13 in Table 13(g); and⁴⁹~~
- ~~3. From 1 January 2017 the Good Management Practice Nitrogen Loss Rates to be applied for the baseline land uses; and⁵⁰~~
- ~~4. Any nitrogen loss rates to be applied in accordance with Table 13 (h); and⁵¹~~
5. The potential benefits of the activity to the applicant, the community and the environment.

13.5.18 The use of land for a farming activity as part of a farming enterprise in the Lower Hinds/Hekeao Plains Area is a discretionary activity, provided the following conditions are met:

1. The farming enterprise is solely in the Lower Hinds/Hekeao Plains Area; and
- ~~2. The aggregated⁵² nitrogen loss calculation for the parcels of land held in single or multiple ownership (whether or not held in common ownership) forming⁵³ the farming enterprise, excluding any area of land subject to a resource consent granted under Rule 13.5.14, does not increase above the aggregated nitrogen baseline for those parcels of land⁵⁴; and~~
3. A Farm Environment Plan for the parcels of land held in single or multiple ownership

⁴⁶ Consequential amendment to Rule 13.5.14.

⁴⁷ Consequential amendment to Rule 13.5.14.

⁴⁸ V2pLWRP-745 - Ravensdown

⁴⁹ Consequential amendment to Policy 13.4.13.

⁵⁰ V2pLWRP-632 – Horticulture NZ

⁵¹ V2pLWRP-192 – Irrigation NZ, V2pLWRP-325 – Federated Farmers.

⁵² Cl16 – minor amendment to improve certainty (recommendation consistent with Variation 1)

⁵³ V2pLWRP-1316 – Eiffelton Community Irrigation Scheme

⁵⁴ V2pLWRP-1316 – Eiffelton Community Irrigation Scheme

(whether or not held in common ownership) forming the farming enterprise⁵⁵ has been prepared in accordance with Schedule 7 Part A

13.5.19 The use of land for a farming activity that does not comply with any of conditions 2 or 3 in Rule 13.5.15, conditions 3 or 4 of Rule 13.5.16, condition 3 of Rule 13.5.17, or a farming enterprise that does not comply with condition 3 of Rule 13.5.18, is a non-complying activity.

13.5.20 The use of land for a farming activity that does not comply with condition 1 of Rule 13.5.15, ~~condition 2 of Rule 13.5.16~~, condition 2 of Rule 13.5.17 or conditions 1 or 2 of Rule 13.5.18 ~~or a farming enterprise that does not comply with any of the conditions of Rule 13.5.14~~⁵⁶, is a prohibited activity.

Irrigation Schemes

Rule 13.5.21 and 13.5.23 prevail over Region-wide Rules 5.60, 5.61 and 5.62 in the Hinds/Hekeao Plains Area.

13.5.21 Despite Rules 13.5.13 to 13.5.20, the use of land for a farming activity in the Lower Hinds/Hekeao Plains Area is a permitted activity, provided the following condition is met:

1. The property is irrigated with water from an irrigation scheme or a principal water supplier, and the irrigation scheme or principal water supplier holds a discharge consent granted under Rule 5.61, Rule 5.62 or Rule 13.5.22.

13.5.22 The discharge of nutrients onto or into land in circumstances that may result in a contaminant entering water in the Lower Hinds/Hekeao Plains Area that would otherwise contravene s15(1) of the RMA is a discretionary activity, provided the following conditions are met:

1. The applicant is an irrigation scheme or a principal water supplier, or the holder of the discharge permit will be an irrigation scheme or a principal water supplier; and
2. The nitrogen loss calculation for the total area of the land will not exceed the nitrogen load calculated in accordance with Rows A and/or B in Table 13(i); and
3. The total area of the land ~~supplied with water by the irrigation scheme is not increasing subject to any resource consent granted under Rule 13.5.14 and any area of land subject to Row B of Table 13(i) does not exceed 30,000 hectares.~~⁵⁷

Notification

Pursuant to section 95A and 95B of the RMA an application for resource consent under this rule will be processed and considered without public or limited notification.

Note that limited notification to affected order holders in terms of section 95F of the RMA will be necessary, where relevant under section 95B(3) of the RMA.

13.5.23 The discharge of nutrients onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene s15(1) of the RMA that does not meet one or more of the conditions in Rule 13.5.22 is a prohibited activity.

Note:

⁵⁵ V2pLWRP-1316 – Eiffelton Community Irrigation Scheme, V2pLWRP-992 – Dairy Holdings Ltd, V2pLWRP- 793 – Fonterra, V2pLWRP-580 – Dairy NZ

⁵⁶ Consequential amendment to Policy 13.4.14.

⁵⁷ Consequential amendment to Policy 13.4.14.

If the applicant is not an irrigation scheme or a principal water supplier, or the holder of the discharge permit will not be an irrigation scheme or a principal water supplier, then the discharge is assessed under Rules 13.5.24 and 13.5.25.

Incidental Nutrient Discharges

Rule 13.5.24 and 13.5.25 prevail over Region-wide Rules 5.63 and 5.64.

13.5.24 The discharge of nutrients onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene s15(1) of the RMA is a permitted activity, provided the following condition is met:

1. The land use activity associated with the discharge is authorised under Rules 13.5.8 to 13.5.20.

13.5.25 The discharge of nutrients onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene s15(1) of the RMA and does not meet condition of Rule 13.5.24 is a non-complying activity.

Stock Exclusion

Rules 5.68, 5.69, 5.70 and 5.71 (Stock Exclusion) apply in the Hinds/Hekeao Plains Area. Rule 13.5.26 applies as an addition to Rules 5.68, 5.69, 5.70 and 5.71.

13.5.26 Within the Hinds/Hekeao Plains Area any reference to the bed of a lake, river or wetland in Rules 5.68, 5.69, 5.70 and 5.71 also includes a drain, but does not include any sub-surface drain, stormwater swale or other artificial watercourse which is ephemeral in nature or drain that does not have water in it⁵⁸.

*Note: For all activities in or near waterways, refer also to the Canterbury Flood Protection and Drainage Bylaw 2013.*⁵⁹

Sediment Removal from Rivers and Streams

Rules 13.5.27 and 13.5.28 are new rules

13.5.27 Within the Hinds/Hekeao Plains Area the taking and use of water from a river and the disturbance of the bed of a river to remove fine sediment less than 2 mm in diameter for the sole purpose of habitat restoration is a restricted discretionary activity provided the following conditions are met:

1. A management plan has been prepared that includes the location, timeframe⁶⁰ and method of sediment removal, management and disposal, erosion control methodology, an inventory of sensitive ecological habitats and species, and an assessment of the environmental risks including effects downstream; and
2. The activity does not occur when the river is at or below the minimum flow in Table 13(d) or 13(e); and
3. Following removal of fine sediment any abstracted water is returned to the river not more

⁵⁸ V2 pLWRP-1195 – Terralea Partnership

⁵⁹ V2 pLWRP-1084 – Ashburton Hinds Drainage District Liaison Committee

⁶⁰ V2 pLWRP 451 – Director General of Conservation

- than 250 m from the point of take; and
4. The maximum instantaneous rate of water abstraction shall not exceed 50% of the flow in the stream to the site being remediated; and
 5. The activity does not take place on a site listed as an archaeological site on the New Zealand Archaeological Association Site Recording Scheme website; and
 6. The activity is not undertaken within a Community Drinking Water Protection Zone as listed in Schedule 1; and
 7. The activity is undertaken at a distance greater than 50 m from any lawfully established surface water intake.

The exercise of discretion is restricted to the following matters:

1. The content and adequacy of the management plan; and
2. The location, method and timing of sediment removal with respect to the life stage and habitat of sensitive ecological communities including fish and invertebrates; and
3. The adverse effects of the activity on downstream water quality, flows and significant habitats of indigenous fauna and flora; and
4. The effect of the activity on reliability for any authorised surface water take; and
5. The volume and rate at which water is abstracted and returned to the river, [including the effects of erosion, bank stability and waterway capacity](#)⁶¹; and
6. Any adverse effects on mahinga kai, wāhi tapu or wāhi taonga; and
7. The benefits of the activity to the community and the environment.

*Note: For all activities in or near waterways, refer also to the [Canterbury Flood Protection and Drainage Bylaw 2013](#).*⁶²

13.5.28 Within the Hinds/Hekeao Plains Area the taking and use of water from a river and the disturbance of the bed of a river to remove fine sediment less than 2 mm in diameter for the sole purpose of habitat restoration that does not meet one or more of the conditions in Rule 13.5.27 is a discretionary activity.

Notes:

In addition to the provisions of this Plan and any relevant district plan, any activity which may modify damage or destroy any pre 1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. An archaeological authority is required from Heritage New Zealand Pouhere Taonga to modify, damage or destroy any archaeological site, whether recorded or not in the New Zealand Archaeological Association Site Recording Scheme website.

*For all activities in or near waterways, refer also to the [Canterbury Flood Protection and Drainage Bylaw 2013](#).*⁶³

Small and Community Water Takes

Rules 5.112, 5.113, 5.114 and 5.115 apply in the Hinds/Hekeao Plains Area. Rule 13.5.29 prevails over Rule 5.111.

⁶¹ V2 pLWRP 1084 – Ashburton Hinds Drainage Rating District Liaison Committee

⁶² V2 pLWRP-1084 – Ashburton Hinds Drainage District Liaison Committee

⁶³ V2 pLWRP-1084 – Ashburton Hinds Drainage District Liaison Committee

13.5.29 Within the Lower Hinds/Hekeao Plains Area Region-wide Rule 5.111 does not apply.

Take and Use of Ground and Surface Water

Region-wide Rules 5.123, to 5.127 'Surface Water' and Rules 5.128 to 5.132 'Groundwater' apply in the Hinds/Hekeao Plains Area. Rule 13.5.30 applies as an addition to Rules 5.123 and 5.128. Rules 13.5.31 and 13.5.32 are additional rules in the Valetta and Mayfield-Hinds Groundwater Allocation Zones.

Note: Nothing in this Plan affects an individual's right to take water in accordance with section 14(3)(b) of the RMA.⁶⁴

~~**13.5.30 Within the Hinds/Hekeao Plains Area Region-wide Rules 5.123 and 5.128 shall include the following additional condition:**~~

- ~~1. If the proposed take is the replacement of a lawfully established take, the annual volume and maximum rate of take has been calculated in accordance with method 1 in Schedule 10.~~⁶⁵

13.5.31 The taking and use of groundwater within the Valetta and Mayfield-Hinds Groundwater Allocation Zones that will substitute an existing surface water or groundwater permit with a direct, high or moderate stream depletion effect is a restricted discretionary activity provided that the following conditions are met:

- ~~1. The use of groundwater take will is be abstracted~~⁶⁶ on the same property as the existing resource consent and there is no increase in the ~~proposed~~ annual volume, ~~or is for the sole purpose of augmenting a surface waterbody~~⁶⁷; and
- ~~2. The groundwater take will not have a direct or high stream depletion effect; and~~
- ~~3. The bore interference effects are acceptable, as determined in accordance with Schedule 12; and~~
- ~~4. The volume of groundwater sought, in combination with all other resource consents granted or applied for within the Valetta or Mayfield-Hinds Groundwater Allocation Zones that will substitute an existing surface water or groundwater permit with a direct, high or moderate stream depletion effect, does not exceed the T allocation limits in Table 13(f)~~⁶⁸.

The exercise of discretion is restricted to the following matters:

- ~~1. Whether the volume and abstraction rate of water to be taken and used is reasonable for the proposed use assessed in accordance with method 1 in~~⁶⁹ Schedule 10; and
- ~~2. The timing of the surrender of the existing surface water or groundwater permit or permits; and~~
- ~~3. The effects the take has on any other authorised abstraction, including interference effects as~~

⁶⁴ V2 pLWRP-163 Hydrotrader, V2 pLWRP-953 E Winchester, V2 pLWRP-261 Synlait Milk, V2 pLWRP-349 Federated Farmers, V2 pLWRP-334 HPLWP, V2 pLWRP-1057 and 1059 Eiffelton Community Irrigation Scheme, V2 pLWRP-585 and 586 Dairy NZ, V2 pLWRP-1133 Longbeach Estate

⁶⁵ V2 pLWRP – 164 Hydrotrader, V2 pLWRP – 194 Irrigation NZ, V2 pLWRP – 267 Synlait Milk, V2 pLWRP – 350 Federated Farmers, V2 pLWRP – 411 Mayfield Hinds Irrigation, V2 pLWRP – 695 Valetta Irrigation, V2 pLWRP – 954 E Winchester, V2 pLWRP – 1023 Synlait Farm, V2 pLWRP 1101– Eiffelton Irrigation

⁶⁶ V2 pLWRP – 339 HPLWP, V2 pLWRP – 352 Federated Farmers, V2 pLWRP – 587 Dairy NZ, V2 pLWRP – 800 Fonterra, V2 pLWRP – 391 Mayfield Hinds Irrigation, V2 pLWRP – 679 Valetta Irrigation, V2 pLWRP – 1062 and V2 pLWRP – 1102 Eiffelton Irrigation, V2 pLWRP – 1126 P Everest, V2 pLWRP – 1080 Ashburton Hinds Drainage

⁶⁷ V2pLWRP-171 – Irrigation NZ

⁶⁸ V2 pLWRP-651 RDRML

⁶⁹ V2 pLWRP – 165 Hydrotrader, V2 pLWRP – 268 Synlait Milk, V2 pLWRP – 412 Mayfield Hinds Irrigation, V2 pLWRP – 696 Valetta Irrigation

indicated by a Step Aquifer⁷⁰ Test undertaken in accordance with the requirements of Schedule 11 and well interference calculated in accordance with the method in Schedule 12; and

4. Where the take is less than 2 km from the coast, whether salt-intrusion into the aquifer or inland movement of the salt water/fresh water interface is prevented; and
5. The protection of groundwater from contamination, including the prevention of backflow of water or contaminants.

13.5.32 The taking and use of groundwater that does not meet one or more of the conditions of Rule 13.5.31 is a prohibited activity.

Transfer of Water Permits

Rules 13.5.33 and 13.5.34 prevail over Region-wide Rules 5.133 and 5.134 in the Hinds/Hekeao Plains Area

11.5.33 The temporary or permanent transfer, in whole or in part, (other than to the new owner of the site to which the take and use of water relates and where the location of the take and use of water does not change) of a water permit to take or use surface water or groundwater within the Hinds/Hekeao Plains Area, is to be considered as if it is a restricted discretionary activity, provided the following conditions are met:

1. The reliability of supply for any other lawfully established water take is not reduced; and
2. In the case of surface water:
 - (a) the point of take remains within the same surface water catchment and the take complies with the minimum flow and restriction regime in Tables 13(d) and 13(e); and
 - (b) 50 percent of the volume of transferred water is to be surrendered; or
3. In the case of groundwater:
 - (a) the point of take is within the same groundwater allocation zone or combined surface and groundwater allocation zone; and
 - (b) the bore interference effects as set out in Schedule 12 are acceptable; and
 - (c) In addition for stream-depleting groundwater takes:
 - (i) the transfer is within the same surface water catchment; and
 - (ii) the take complies with the minimum flow and restriction regime in Table 13(d) and 13(e); and
 - (iii) the stream depletion effect is no greater in the transferred location than in the original location unless at least an equivalent volume of surface water allocation from the affected water body can be surrendered alongside the transfer, for at least the duration of the transferred take; and
 - (d) If the transfer is within the Valetta Groundwater Allocation Zone, 50 percent of the volume of transferred water is to be surrendered

The exercise of discretion is restricted to the following matters:

1. The nature of the transfer, whether short term, long term, partial or full, and the apportioning of the maximum rate of take and annual volume in the case of a partial transfer; and
2. The appropriateness of conditions, including conditions on minimum flow, annual volume and other restrictions to mitigate effects; and

⁷⁰ V2 pLWRP – 165 Hydrotrader, V2 pLWRP – 268 Synlait Milk, V2 pLWRP – 412 Mayfield Hinds Irrigation, V2 pLWRP – 696 Valetta Irrigation

3. The reasonable need for the quantities of water sought, the intended use of the water and the ability of the applicant to abstract and use those quantities; and
4. The efficiency of the exercise of the resource consent; and
5. The reduction in the rate of take in times of low flow; and
6. The method of preventing fish from entering any water intake.⁷¹

~~**13.5.33** The temporary or permanent transfer, in whole or in part, (other than to the new owner of the site to which the take and use of water relates and where the location of the take and use of water does not change) of a water permit to take or use surface water within the Hinds/Hekeao Plains Area a prohibited activity.~~⁷²

13.5.33A Despite Rule 11.5.33, the temporary or permanent site-to-site transfer, in whole or in part, of a water permit to take or use water for gravel extraction (and ancillary activities) is to be considered as if it is a discretionary activity, provided the following conditions are met:

1. The water continues to be used only for gravel extraction and ancillary activities.⁷³

13.5.34 The temporary or permanent transfer, in whole or in part, (other than to the new owner of the site to which the take and use of water relates and where the location of the take and use of water does not change) of a water permit that does not meet one of the conditions of Rule 13.5.33 or Rule 13.5.33A must not, under section 136 of the RMA be approved, in the same way as if it were a prohibited activity. ~~to take or use groundwater within Valetta Groundwater Allocation Zone is a prohibited activity.~~⁷⁴

Augmenting Groundwater or Surface Water

Rules 13.5.35 to 13.5.37 are new rules that apply in the Hinds/Hekeao Plains Area

13.5.35 The taking and use of surface water or groundwater in the Lower Hinds/Hekeao Plains Area for the sole purpose of augmenting surface water or groundwater to reduce concentrations of nitrate nitrogen in surface water or groundwater and/or increase flows in lowland streams is a discretionary activity.

*Note: For all activities in or near waterways, refer also to the Canterbury Flood Protection and Drainage Bylaw 2013*⁷⁵

13.5.36 The discharge of water into water or onto land in circumstances where it may enter water and the water may contain contaminants, for the purpose of augmenting groundwater or surface water within the Hinds/Hekeao Plains Area is a restricted discretionary activity, provided the following conditions are met:

1. The discharge is part of a trial for investigative purposes and the duration of the trial will not exceed years; and
2. The activity does not take place on a site listed as an archaeological site; and
3. The discharge is not within a Community Drinking Water Protection Zone as set out in

⁷¹ V2 pLWRP-341 Hinds Plains Land and Water Partnership, V2 pLWRP-639 Horticulture NZ, V2 pLWRP-355 Federated Farmers

⁷² Consequential to amendment to Rule 13.5.33.

⁷³ V2 pLWRP-145 - Fulton Hogan

⁷⁴ Consequential to amendment to Rule 13.5.33.

⁷⁵ V2 pLWRP-1084 – Ashburton Hinds Drainage District Liaison Committee

Schedule 1; and

4. The discharge is not within 100 m of any well used to supply potable water; and
5. The discharge is for the purpose of reducing the concentration of nitrate nitrogen in surface water or groundwater or increasing flows in lowland streams for ecological or cultural benefits.

The exercise of discretion is restricted to the following matters:

1. The location, method and timing of the discharge to groundwater or surface water; and
2. The adequacy of the scheme design, construction, operation, monitoring, reporting; and
3. The appropriateness of integration with existing or planned infrastructure and water conveyance systems; and
4. Any adverse effects on people and property from raised groundwater levels and reduced drainage capacity in the drainage system; and
5. Any adverse effects on water quality in the receiving aquifer or river, significant habitats of indigenous flora and fauna; and
6. Any adverse effects on sites or values of importance to Ngāi Tahu from moving water from one catchment or water body to another; and
7. Any adverse effects on sites or areas of wāhi tapu, wāhi taonga or mahinga kai; and
8. The potential benefits of the activity to the community and the environment

*Note: For all activities in or near waterways, refer also to the Canterbury Flood Protection and Drainage Bylaw 2013*⁷⁶

13.5.37 The discharge of water into water or onto land in circumstances where it may enter water and the water may contain contaminants, for the purpose of augmenting groundwater or surface water in the Hinds/Hekeao Plains Area that does not meet one or more of the conditions of Rule 13.5.36 is a discretionary activity.

*Note: For all activities in or near waterways, refer also to the Canterbury Flood Protection and Drainage Bylaw 2013*⁷⁷

Insert a new heading and text as follows:

13.6: Freshwater Outcomes

The following table sets out the fresh water outcomes, in combination with Policies 4.3 and 4.4, for the Hinds/Hekeao Plains Area that are to be **maintained where the outcomes are already met, or** achieved by 2035 **where they are not currently met.**⁷⁸ The achievement of these outcomes will be through a combination of the implementation of this Plan along with implementation of the recommendations of the Ashburton Zone Implementation Programme Addendum: Hinds Plains Area, 2014.

For all other areas in the Ashburton section see policies 4.3, 4.4 and Tables 1a or 1b.

Insert Table 13(a) as follows after new heading '13.6 Freshwater Outcomes'.

⁷⁶ V2 pLWRP-1084 – Ashburton Hinds Drainage District Liaison Committee

⁷⁷ V2 pLWRP-1084 – Ashburton Hinds Drainage District Liaison Committee

⁷⁸ V2 pLWRP 393 – Fish and Game

Table 13(a): Freshwater Outcomes for Hinds/Hekeao Plains Area Rivers

Management Unit	River	Ecological health indicators			Macrophyte indicators		Periphyton indicators			Siltation indicator	Microbial indicator	Cultural Indicator
		QMCI [min Score]	Dissolved oxygen [min saturation %]	Temperature [max] (°c)	Emergent Macrophytes [max cover of bed] (%)	Total Macrophytes [max cover of bed] (%)	Chlorophyll a [max biomass] (mg/m ³)	Filamentous algae > 20mm [max cover of bed] (%)	Cyanobacteria [max cover of bed] (%)	Fine sediment, 2 mm diameter [max cover of bed] (%)	Microbial indicator for contact recreation [SEF ⁷⁹ FG]	
Hill-fed – Upland	Upper Hinds River/Hekeao	6	90	20	No value set	No value set	50	10	15 20	20 15	Good	Freshwater mahinga kai
Hill-fed - Lower	Lower Hinds River/Hekeao	6	90	20	No value set	No value set	200	30	15 50	50 15	Good-Fair	species are sufficiently abundant
Spring-fed Plains	Including but not limited to: Blees Drain Flemington Drain Parakanoi Drain Windermere Drain Boundary Drain Stormy Drain Spicers Creek Dawson Drain Home Paddock Drain Deals Drain O'Shaughnessys Drain Taylors Drain Northern Drain Griggs Drain Dobsons Drain Twenty One Drain Crows Drain Harris Drain Yeatmans Drain Oakdale Drain McLeans Swamp Road Drain	5	70	20	30	50	200	30	20 50	50 20 ⁸⁰	No value set	for customary gathering, water quality is suitable for their safe harvesting, and they are safe to eat.

⁷⁹ Cl16 – minor correction of a typo

⁸⁰ V2pLWRP-213 – Ashburton DC, V2pLWRP-593 – Dairy NZ, V2pLWRP-708 – RDRML, V2pLWRP-805 – Fonterra, V2pLWRP-1058 – CDHB.

	Montgomerys Drain Pyes Drain												
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Key:

QMCI = Quantitative Macroinvertebrate Community Index

SFRG = Suitability for Recreation Grade – from Microbiological water quality guidelines for Marine and Freshwater Recreational Areas 2003⁸¹

Footnotes:

(1) Upstream of the Rangitata Diversion Race siphon on both North and South branches of the Hinds River⁸²

⁸¹ Cl16 – minor correction to make consistent with Table 1a

⁸² V2 pLWRP 981 – Upper Hinds Plains Land User Group

Delete headings ~~13.6 Allocation Limits~~ and ~~13.6.1 Environmental Flow and Allocation Limits~~

Replace with new headings **13.7: Environmental Flow and Allocation and Water Quality Targets/Limits** and

13.7.1 Environmental Flow and Allocation Limits

Amend the number of table 'Table 12: Hakatere/Ashburton River Catchment Environmental Flow and Allocation Limits' to 'Table 13(b): Hakatere/Ashburton River Catchment Environmental Flow and Allocation Limits'.

Amend the number of table 'Table 13: Hakatere/Ashburton River Restriction Regime' to 'Table 13(c): Hakatere/Ashburton River Restriction Regime'.

Insert Table 13(d) and Table 13(e) as follows at the end of new section heading '13.7.1 Environmental Flow and Allocation Limits'.

Table 13(d) Hinds River/Hekeao Environmental Flow and Allocation Limits

River	Minimum flow sites	Topo 50 Map reference	Minimum flow (L/s)		Allocation (L/s)	Restriction regime ⁽¹⁾	
			1 October 2014 – 30 June 2020	From 1 July 2020		1 October 2014 – 30 June 2025	From 1 July 2025 2030 ⁸³
South Branch	Not applicable	Not applicable	No minimum flow		32	No restriction regime	
North Branch	Not applicable	Not applicable	No minimum flow		0	No restriction regime	
Lower	Poplar Road	BY20:9080-1949	700	770	1522	No restriction regime	1973

¹ Flows at which pro-rata restrictions start (l/s)

Table 13(e): Lower Hinds/Hekeao Plains Area Environmental Flow and Allocation Limits

Spring-fed Plains Rivers ⁽¹⁾	Minimum flow sites	Topo 50 Map reference	1 October 2014 – 30 June 2025 2030 ⁸⁴	
			Minimum flow (L/s)	Allocation (L/s) ⁽²⁾
Blees Drain	Lower Beach Road	BY21:0132-2104	As per existing minimum flow and partial restriction conditions on existing resource consents	349
Flemington Drain	Lower Beach Road	BY21:0112-2059	As per existing minimum flow and partial restriction conditions on existing resource consents	547
Parakanoi Drain	Lower Beach Road	BZ21:9575-1779	As per existing minimum flow and partial restriction conditions on existing resource consents	588
Windermere Drain	Lower Beach Road	BZ21:9425-1670	As per existing minimum flow	690

⁸³ V2 pLWRP 185 – Irrigation NZ

⁸⁴ V2 pLWRP 185 – Irrigation NZ

	<u>Poplar Road</u>	<u>BY21:9369-1968</u>	<u>and partial restriction conditions on existing resource consents</u>	<u>668</u> ⁸⁵
<u>Boundary Drain</u>	<u>Trigpole Road</u>	<u>BZ20:8982-1672</u>	<u>As per existing minimum flow and partial restriction conditions on existing resource consents</u>	<u>987</u>
<u>Stormy Drain</u>	<u>Lower Beach Road</u>	<u>BZ20:8764-1178</u>	<u>As per existing minimum flow and partial restriction conditions on existing resource consents</u>	<u>436</u>
<u>Spicers Drain</u>	<u>Lower Beach Road</u>	<u>BY21:0012-2019</u>	<u>As per existing minimum flow and partial restriction conditions on existing resource consents</u>	<u>184</u>
<u>Dawson Drain</u>	<u>Twenty One Drains Road</u>	<u>BY21:9773-1919</u>	<u>As per existing minimum flow and partial restriction conditions on existing resource consents</u>	<u>35</u>
<u>Home Paddock Drain</u>	<u>Poplar Road</u>	<u>BZ21:9443-1679</u>	<u>As per existing minimum flow and partial restriction conditions on existing resource consents</u>	<u>333</u>
<u>Deals Drain</u>	<u>Poplar Road</u>	<u>BZ21:9273-1599</u>	<u>As per existing minimum flow and partial restriction conditions on existing resource consents</u>	<u>347</u>
<u>O 'Shaughessys Drain</u>	<u>Poplar Road</u>	<u>BY20:9123-1969</u>	<u>As per existing minimum flow and partial restriction conditions on existing resource consents</u>	<u>426</u>
<u>Taylors Drain</u>	<u>At corner Hinds River Road and Newpark Road</u>	<u>BY20:9033-2189</u>	<u>As per existing minimum flow and partial restriction conditions on existing resource consents</u>	<u>513</u>
<u>Northern Drain</u>	<u>Surveyors Road</u>	<u>BY20:8863-2164</u>	<u>As per existing minimum flow and partial restriction conditions on existing resource consents</u>	<u>634</u>
<u>Griggs Drain</u>	<u>Lower Beach Road</u>	<u>BZ20:9173-1479</u>	<u>As per existing minimum flow and partial restriction conditions on existing resource consents</u>	<u>100</u>
<u>Dobson Drain</u>	<u>Twenty One Drains Road</u>	<u>BZ20:8953-1449</u>	<u>As per existing minimum flow and partial restriction conditions on existing resource consents</u>	<u>447</u>
<u>Twenty One Drain</u>	<u>Twenty One Drains Road</u>	<u>BZ20:8933-1299</u>	<u>As per existing minimum flow and partial restriction conditions on existing resource consents</u>	<u>351</u>
<u>Crows Drain</u>	<u>Lower Beach Road</u>	<u>BZ20:8603-1059</u>	<u>As per existing minimum flow and partial restriction conditions on existing resource consents</u>	<u>314</u>
<u>Harris Drain</u>	<u>Lower Beach Road</u>	<u>BZ20:8504-0979</u>	<u>As per existing minimum flow</u>	<u>260</u>

⁸⁵ V2pLWRP-1068 - Eiffleton

			<u>and partial restriction conditions on existing resource consents</u>	
<u>Yeatmans Drain</u>		<u>BZ20:8588-1048</u>	<u>As per existing minimum flow and partial restriction conditions on existing resource consents</u>	<u>72</u>
<u>Oakdale⁸⁶ Drain</u>	<u>Rangitata Mouth Road</u>	<u>BZ20:8276-1004</u>	<u>As per existing minimum flow and partial restriction conditions on existing resource consents</u>	<u>190</u>
<u>McLeans Swamp Road Drain</u>	<u>Windermere cut off</u>	<u>B Y20:8673-2799</u>	<u>As per existing minimum flow and partial restriction conditions on existing resource consents</u>	
<u>Moffats Drain</u>	<u>Boundary Road</u>		<u>As per existing minimum flow and partial restriction conditions on existing resource consents</u>	<u>353</u>
<u>Montgomerys Drain</u>	<u>At confluence with Hinds River</u>	<u>BZ21:9223-1569</u>	<u>As per existing minimum flow and partial restriction conditions on existing resource consents</u>	<u>125</u>
<u>Pyes Drain</u>	<u>Lower Beach Road</u>	<u>BZ20:8893-1249</u>	<u>As per existing minimum flow and partial restriction conditions on existing resource consents</u>	<u>381</u>

¹ The drains referred to in this column are considered to be modified watercourses for the purposes of the Resource Management Act 1991.

² Existing rates of allocation

Delete heading **13.6.2 Groundwater Allocation Limits** and replace with new heading **13.7.2: Groundwater Allocation Limits/Targets**

Amend table number and heading of '**Table 14: Ashburton Groundwater Limits**' to '**Table 13(f): Ashburton Section Groundwater Limits/Targets**'.

Amend the A allocation limit from 148 (million m³/yr) to ~~122.25~~ **126.1**⁸⁷ (million m³/yr) for the Mayfield-Hinds Groundwater Allocation Zone.

Add a T allocation limit of 33 (million m³/yr) to the Valetta Groundwater Allocation Zone

Add a T allocation limit of 28.3 (million m³/yr) to the Mayfield-Hinds Groundwater Allocation Zone⁸⁸

Delete heading **13.6.3 Catchment Nutrient limits and Allowances**

Replace with the following new heading and text:

13.7.3: Water Quality Limits and Targets

In the Hinds/Hekeao Plains Area the water quality limits and targets in Table 13(g) are additional limits and

⁸⁶ V2 pLWRP -957 Edward Winchester

⁸⁷ Correction of error – v2PLWRP-686 Valetta and many others provide scope

⁸⁸ V2 pLWRP -651 RDRML

targets to the region-wide limits in Schedule 8. In the Hinds/Hekeao Plains Area the water quality limits in Tables 13(j) and 13(k) prevail over the region-wide limits in Schedule 8. Rules 13.5.14, 13.5.17 and 13.5.22 use Tables 13(h), and 13(i) to manage activities to achieve the limits/targets for the Hinds/Hekeao Plains Area. For all other areas covered by the Ashburton section refer to Schedule 8.

Insert Tables 13(g), 13(h), 13(i), 13(j), 13(k) as follows after new heading '13.7.3 Water Quality Limits and Targets'.

Table 13(g): Hinds/Hekeao Plains Area Targets or Limits for Nitrogen Losses from Farming Activities

Area	Nitrogen Load (tonnes/year) ³	Limit/Target
Upper Hinds/Hekeao Plains Area	114	Limit
Lower Hinds/Hekeao Plains Area	3400	Target to be met by 2035

Table 13(h): Required Nitrogen Loss Rates Beyond Good Management Practice⁸⁹

Land-use	2020	2025	2030	2035
Dairy Farm	15% Reduction from good management practice nitrogen loss rates calculated based on the baseline land uses	25% Reduction from good management practice nitrogen loss rates calculated based on the baseline land uses	35% Reduction from good management practice nitrogen loss rates calculated based on the baseline land uses	45% Reduction from good management practice nitrogen loss rates calculated based on the baseline land uses
Dairy Support	10% Reduction from good management practice nitrogen loss rates calculated based on the baseline land uses	15% Reduction from good management practice nitrogen loss rates calculated based on the baseline land uses	20% Reduction from good management practice nitrogen loss rates calculated based on the baseline land uses	25% Reduction from good management practice nitrogen loss rates calculated based on the baseline land uses
Other farming activities	0%	0%	0%	0%

Table 13(i): Irrigation Scheme or Principal Water Supplier Load Calculator

Row	Land Area (hectares)	Prior to 31 December 2016	From 1 January 2017	From 1 January 2020	From 1 January 2025	From 1 January 2030	From 1 January 2035
A	Land supplied with water from a Principal Water Supplier or that is	The tonnage of nitrogen per year shall be calculated by multiplying: A x B; where A = The	The tonnage of nitrogen per year shall be calculated by multiplying: A x B; where A = The number of hectares	The tonnage of nitrogen per year shall be calculated by multiplying: A x B x C; where A = The number of hectares	The tonnage of nitrogen per year shall be calculated by multiplying: A x B x C; where A = The	The tonnage of nitrogen per year shall be calculated by multiplying: A x B x C; where A = The number of hectares	The tonnage of nitrogen per year shall be calculated by multiplying: A x B x C; where A = The number of hectares

³ Calculated per the methodology explained in the Hinds/Hekeao Plains Technical Overview – CRC Report R14/79

⁸⁹ V2pLWRP-382 - Federated Farmers, V2pLWRP-928 - W. Kingston, V2pLWRP-861 - Bowden Environmental

	within an irrigation scheme command area which was irrigated with scheme ⁹⁰ water prior to 1 October 2014	number of hectares irrigated with scheme water. B = The Nitrogen Baseline.	irrigated with scheme water. B = The Good Management Practice-Nitrogen Loss-Rates-loss rates that could reasonably be expected from implementing good management practices⁹¹ for the baseline land use.	irrigated with scheme water. B = The Good Management Practice-Nitrogen Loss-Rates-loss rates that could reasonably be expected from implementing good management practices for the baseline land use. C =The 2020 percentage reductions in Table 13(h) Policy 13.4.13⁹²	number of hectares irrigated with scheme water. B = The Good Management Practice-Nitrogen Loss-Rates-loss rates that could reasonably be expected from implementing good management practices for the baseline land use. C = The 2025 percentage reductions in Table 13(h) Policy 13.4.13	irrigated with scheme water. B = The Good Management Practice-Nitrogen Loss-Rates-loss rates that could reasonably be expected from implementing good management practices for the baseline land use. C =The 2030 percentage reductions in Table 13(h) Policy 13.4.13	irrigated with scheme water. B = The Good Management Practice-Nitrogen Loss-Rates-loss rates that could reasonably be expected from implementing good management practices or the baseline land use. C= The 2035 percentage reductions in Table 13(h) Policy 13.4.13
B	Land supplied with water from a Principal Water Supplier or that is within an irrigation scheme command area which was not irrigated with water prior to 1 October 2014	The tonnage of nitrogen per year shall be calculated by multiplying the land area (in hectares) to be irrigated by 27 kg /N/ha/yr. (Example: 100 ha x 27 kg /N/ha/yr = 2.7 tonnes of nitrogen per year).					

Table 13(j): Limits/Targets⁹³ for the Hinds/Hekeao Plains Area surface waterbodies⁽¹⁾

Surface Waterbody type	Type	Measurement	Limit/Target to be met by 2035 Nitrate-nitrogen concentration (mg/L)
Hill-fed Upland	Nitrate toxicity	Annual median	1.0 (Limit)
		Annual 95th percentile	1.5 (Limit)

⁹⁰ V2 pLWRP 357 – Hinds Plains Land and Water Partnership

⁹¹ Consequential amendment to Policy 13.4.13 – V2pLWRP – 123 – NZ Pork.

⁹² Consequential amendment to Table 13(h) and Policy 13.4.13 recommendations.

⁹³ V2pLWRP-711 – RDRML

Hill-fed Lower	Nitrate toxicity	Annual median	3.8 (Target)
		Annual 95th percentile	5.6 (Target)
Spring-fed Plains	Nitrate toxicity	Annual median	6.9 (Target)
		Annual 95th percentile	9.8 (Target)

1. Waterbodies are to meet both (annual and median and 95th percentile) limits/targets

Table 13(k): Limits Targets⁹⁴ for Groundwater

Contaminant	Measurement	Target to be met by 2035
Nitrate-N	Annual average concentration	6.9 mg /L
<i>E. coli</i>	Annual median concentration	< 1 organism/100 millilitres
Other contaminants ⁽¹⁾	Any sample	<50% MAV ⁽²⁾

1. *Other contaminants of health significance as listed in NZ Drinking-water Standards

2. **Maximum acceptable value (as listed * above)

Amend section number ~~13.7 Flow Sensitive Catchments~~ to 13.8 Flow Sensitive Catchments

Amend section number ~~13.8 High Naturalness Water Bodies~~ to 13.9 High Naturalness Water Bodies

13.10 Schedules

Insert new heading and text as follows:

13.10 Schedules

Schedules 1 to 23 apply in the Hinds/Hekeao Plains Area. Additions apply to Schedule 7.

Schedule 7 - Farm Environment Plan

Within the Hinds/Hekeao Plains Area Part B clause 5(a) shall also include the following:

- Achieve the ~~loss rates that could reasonably be expected from implementing good management practices~~ ~~Good Management Practice Nitrogen Loss Rates~~⁹⁵ from 2017.
- In Lower Hinds/Hekeao Plains Area further reduce the nitrogen loss rate from 2020 in accordance with ~~Policy 13.4.13 Table 13(h)~~.⁹⁶

⁹⁴ V2pLWRP-711 – RDRML

⁹⁵ V2pLWRP-271 – Synlait Milk, V2pLWRP-809 – Fonterra, V2pLWRP-598 – Dairy NZ, V2pLWRP-1028 – Synlait Farms

⁹⁶ Consequential amendment to Policy 13.4.13.

Part 4: Amendments to Section 16 - Schedules

Additions to the text are shown underlined.

Deletions to the text are shown as ~~strikethrough~~

Insert a new Schedule 24a – Farm Practices as follows:

Schedule 24a- Farm Practices

(a) Nutrient Management:

- (i) A nutrient budget based on soil nutrient tests has been prepared, using OVERSEER in accordance with ~~the latest version of the~~⁹⁷ OVERSEER Best Practice Data Input Standards ~~[2013]~~⁹⁸, or an equivalent model approved by the Chief Executive of Canterbury Regional Council ~~and is reviewed annually.~~⁹⁹
 - ~~(ia) Where a material change in the land use associated with the farming activity occurs (being a change exceeding that resulting from normal crop rotations or variations in climatic or market conditions) the nutrient budget shall be prepared at the end of the year in which the change occurs, and also three years after the change occurs;~~
 - ~~(ib) Where a material change in the land use associated with the farming activity does not occur, the nutrient budget shall be prepared once every three years;~~
 - ~~(ic) An annual review of the input data used to prepare the nutrient budget shall be carried out by or on behalf of the landowner for the purposes of ensuring the nutrient budget accurately reflects the farming system. A record of the review shall be kept by the landowner¹⁰⁰~~
- (ii) Fertiliser is applied in accordance with the Code of Practice for Nutrient Management [2007].
- (iii) Records of soil nutrient tests, nutrient budgets and fertiliser applications are kept and provided to the Canterbury Regional Council upon request.

(b) Irrigation Management:

- (i) All irrigation systems installed or replaced after 1 October 2014 meet the Irrigation New Zealand Piped Irrigation Systems Design Code of Practice [2013], Irrigation New Zealand Piped Irrigation Systems Design Standards [2013] and the Irrigation New Zealand Piped Irrigation Systems Installation Code of Practice [2013].
- (ii) The irrigation system application depth and uniformity are self-checked annually in accordance with the relevant Irrigation NZ Pre-Season Checklist and IRRIG8Quick Irrigation Performance Quick tests for any irrigation system operating on the property.
- (iii) Irrigation applications are undertaken in accordance with property specific soil moisture monitoring, or a soil water budget, or an irrigation scheduling calculator. Soil monitoring means monitoring soil moisture using either volumetric or tension based methodology.
- (iv) Records of irrigation system application depth and uniformity checklists, irrigation applications,

⁹⁷ V2pLWRP-23 – Terralea Partnership

⁹⁸ V2pLWRP-911 – Fertiliser Association of NZ

⁹⁹ V2pLWRP-770 – Ravensdown, V2pLWRP-911 – Fertiliser Association of NZ

¹⁰⁰ V2pLWRP-177 – Balance Agri-Nutrients

soil moisture monitoring or soil water budget or irrigation scheduling calculator results and rainfall are kept and provided to the Canterbury Regional Council upon request.

(c) Winter grazing of intensively farmed stock:

- (i) Winter grazing means grazing of stock between 1 May and 30 September. This is usually associated with break feeding behind temporary fencing.
- (ii) For all winter grazing of intensively farmed stock adjacent to any river, lake, artificial watercourse (excluding irrigation canals or stock water races) or a wetland, a 3m vegetative strip (measured from the edge of the bed of the river, lake, artificial watercourse, or wetland) from which stock are excluded, is maintained around the water body.

(d)¹⁰¹ Cultivation:

- (i) Cultivation means the preparation of land for growing pasture or a crop and the planting, tending and harvesting of that pasture or crop, but excludes:
- direct drilling of seed;
 - no-tillage practices;
 - re-contouring of land; and
 - forestry.
- (ii) For all cultivation adjacent to any river, lake, artificial watercourse (excluding irrigation canals ~~or~~ stock water races ~~or ephemeral drains~~)¹⁰² or a wetland, a 3m uncultivated vegetative strip (measured from the edge of the bed of the river, lake, artificial watercourse, or wetland) is maintained around the water body.

(e) Collected Animal Effluent:

- (i) Collection, storage and treatment systems for dairy effluent installed or replaced after 1 October 2014 meet the Dairy NZ Farm Dairy Effluent Design Standard and Code of Practice [2013].
- ~~(ii) The application, separation distances, depth, uniformity and intensity of dairy effluent disposal is checked annually in accordance with Section 4 'Land Application' in the Dairy NZ Farm Dairy Effluent Design Standard [2013]. The animal effluent disposal system application separation distances, depth, uniformity and intensity are self-checked annually in accordance with Section 4 'Land Application' in the guideline "A Farmer's Guide to Managing Farm Dairy Effluent - A Good Practice Guide for Land Application Systems" [2013].¹⁰³~~
- (iii) Records of the application, separation distances, depth, uniformity and intensity of dairy effluent disposal, in accordance with (e)(ii) above, are kept and provided to the Canterbury Regional Council upon request.

¹⁰¹ This was included in the notified variation as "(b)" in error.

¹⁰² V2pLWRP 1083 - Ashburton Hinds Drainage Rating District Liaison Committee

¹⁰³ V2pLWRP-810 – Fonterra, V2pLWRP-599 – Dairy NZ