Revised Appendix 5 Provisions for Fish and Game/Forest and Bird as per – Scott Pearson EIC 2014

- Table 11(i) = limits for nitrogen losses
- Table 11(x) = limits for rivers at specific sites
- Table 11(k) (m) = limits for rivers/lakes/groundwater
 - 11.4.12 <u>Improve water quality by Rreduceing</u> discharges of nitrogen, phosphorus, sediment and microbial contaminants from farming activities in the catchment by requiring farming activities to:
 - (a) Not exceed the nitrogen baseline where a property's nitrogen loss calculation is more than 15 kg of nitrogen per hectare per annum, <u>unless</u> the circumstances set out in Policy 11.4.14B apply; and
 - (b) Implement the practices set out in Schedule 24; and
 - (c) Implement a Farm Environment Plan prepared in accordance with Schedule 7 Part A, from 1 July 2015, when a property is greater than 10 hectares and is within the Lake Area in the Cultural Landscape/Values Management Area; and
 - (d) Exclude stock from drains, in addition to the regional requirements to exclude stock from lakes, rivers and wetlands.
 - 11.4.13 From 1 January 2017, further reduce discharges of nitrogen, phosphorus, sediment and microbial contaminants from farming activities in the catchment by requiring farming activities to:
 - (a) Implement a Farm Environment Plan prepared in accordance with Schedule 7 Part A, where a property is greater than 50 hectares; and
 - (b) Where a property's nitrogen loss calculation is greater than 15 kg of nitrogen per hectare per annum, meet the Good Management Practice Nitrogen and Phosphorus Loss Rates for the property's baseline land use.
 - 11.4.14 From 1 January 2022, to achieve the <u>interim catchment nitrogen load</u> <u>limit for farming for 2022</u> water quality limits in Section 11.7.3 require farming activities to:
 - (a) Implement a Farm Environment Plan prepared in accordance with Schedule 7 Part A, where a property is greater than 20 hectares; and
 - (b) Where a property's nitrogen loss calculation is greater than 15 kg of nitrogen per hectare per annum, make the following further percentage reduction in nitrogen loss rates, beyond those set out in Policy 11.4.13(b), to achieve the catchment target for farming activities in Table 11(i):

- (i) 30% for dairy
- (ii) 22% for dairy support; or
- (iii) 20% for pigs; or
- (iv) 13% for irrigated sheep, beef or deer; or
- (v) 10% for dryland sheep and beef; or
- (vi) 7% for arable; or
- (vii) 5% for fruit, viticulture or vegetables; or
- (viii) 0% for any other land use.
- 11.4.14A From 1 January 2037, to achieve the interim limit for nitrogen losses for farming for 2037 in Section 11.7.3, require farming activities to make further reductions in nitrogen loss rates, to achieve a further 20% reduction in catchment nitrogen loads from farming land use in the catchment. Note: for the avoidance of doubt this does not necessarily mean a 20% reduction in nitrogen loss rates on each individual property, but instead proportionate reductions across the catchment of 20%. Note: the exact nature of reductions required by each land user is to be reviewed in accordance with policy 11.4.17A and this plan changed accordingly by 1 January 2027.
- 11.4.14B In circumstances where a farming activity seeks to increase its nitrogen loss above the amount calculated as the nitrogen baseline for the property this may only occur if:

a) records held by the council show that reductions in nitrogen loss calculations from other farming activities in the catchment have been achieved that are equal to or greater than the increase in nitrogen loss above the nitrogen baseline for the property sought; and b) the nitrogen loss from the farming activity, in combination with all other nitrogen loss from farming activities in the catchment does not cause the relevant interim limit for nitrogen losses for farming in the catchment to be exceeded; and

c) the nitrogen loss calculation for the property does not exceed the rate calculated to be the Good Management Practice Nitrogen and Phosphorus Loss Rate for the farming activity less the percentage reduction in nitrogen loss rates required for the farming activity in Policy 11.4.14(b) and any further reductions required by Policy

11.4.14A; and

<u>d) the farming activity must implement a Farm Environment Plan</u> prepared in accordance with Schedule 7 Part A.

- 11.4.15 In circumstances where the reductions required in Policy 11.4.14(b) are unable to be achieved by 2022, or the reductions required in Policy 11.4.14A are unable to be achieved by 2037, any extension of time to achieve the reductions will be considered having regard to:
 - a) The implications on achieving the catchment nitrogen load target in Table 11(i) by 2037; and
 - b) The nature of any proposed steps to achieve the reduction; and
 - c) The sequencing, measurability and enforceability of any steps proposed.
 - d) The level of measured performance improvement achieved before or during measurement of the nitrogen baseline, to avoid penalising early adopters of Best Practice and Beyond Best Practice mitigations.
 - 11.4.17 To achieve the farming activity water quality targets in Section 11.7.3 require all farming activities within the command area of any Irrigation Scheme listed in Table 11(j), where they are irrigated with water from the Scheme:
 - a) To collectively not exceed the Irrigation Scheme Nitrogen Limits in Table 11(j);
 - b) Where properties convert from dryland to irrigated land use, the nitrogen loss rates from the outset shall be managed in accordance with Policy 11.4.14(b).
- 11.4.17A To progressively review, and revise by way of plan change if necessary and appropriate the targets and limits for the Selwyn Waihora catchment to ensure that the freshwater outcomes set in Tables 11(a) and 11(b) are achieved, by:
- (a) Implementing a State of the Environment monitoring programme at key indicator sites where listed in Table 11(x), 11(k), 11(l) and 11(m) that includes, as a minimum, regular monitoring of instream Dissolved Inorganic Nitrogen (concentration and load), Dissolved Reactive Phosphorus (concentration and load), E. coli, nitrate-nitrogen, Periphyton, Total Nitrogen, Total Phosphorus and Quantitative Macro-Invertebrate Community (QMCI); and

 (b) Every 5 years, review the following:
- (ai) Time series and trends and progress towards the limits listed in Table

11(x), 11 (k), 11 (l) and 11 (m)

other environmental factors,

- (i) Correlation between measured load at each of the locations listed in Table 11(x) of Dissolved Inorganic Nitrogen and Dissolved Reactive Phosphorus, instream concentrations and QMCI;
- (ii) Corresponding effects of instream concentrations on the freshwater outcomes set in Tables 11(a) and 11(b),
- (iia) Comparison between the measured load of nitrogen and phosphorus, and QMCI at each of the locations listed in Table 11(x) and the limit set for nitrogen and phosphorus loads and QMCI at that location in Table 11(x), (iib) Comparison between the measured load at each of the locations in Table 11(x) and the limits for nitrogen losses in Table 11(i) taking into account the most up to date understanding of groundwater lag times, attenuation and
- (iii) Revised projections of instream concentrations and instream effects resulting from full allocation of the limits for nitrogen loss in Table 11(i). (iv) the achievability of the reductions in nitrogen loss from farming activities required by policy 11.4.14 and 11.4.14A and whether new technologies make these reductions or further reductions more or less achievable.
- (c) Publish the results of the state of the Environment Monitoring Programme each year, and publish the findings of the review required in (b) within 6 months of each 5 year review.
- (d) If the monitoring and review of the information required in (b) shows that:
 - (i) the measured nitrogen load does not, or is not likely to, achieve the relevant limit set for nitrogen load in Table 11(x) for a particular site, or

 (ii) the measured nitrogen load does not, or is not likely to achieve the limit for nitrate nitrogen concentration in Table 11(k)
 - then the regional council will:
 - (iii) initiate a review and propose a change or variation to this plan to revise the limits for nitrogen loss in Table 11(i) so that the limits for nitrogen loss in Table 11(i) will likely achieve the limits for nitrogen load in Table 11(x), and (iv) review all existing consents to discharge nitrogen in the catchment so that the new limits for nitrogen loss in Table 11(i) are achieved.
- 11.5.9 From 1 January 2017, the use of land for a farming activity in the Selwyn Waihora catchment is a restricted discretionary activity, provided the following conditions are met:
- The nitrogen loss calculation for the property is greater than 15 kg per hectare per annum; and
- 1A Prior to 2022, the nitrogen loss calculation for the property is equal to or less than the Good Management Practice Nitrogen and Phosphorus Loss Rates for the property
- 1B From 2022, and prior to 2037, the nitrogen loss calculation for the property is

equal to or less than the Good Management Practice Nitrogen and Phosphorus Loss Rates for the property's baseline land use less the percentage reduction required for that land use set out in Policy 11.4.14(b).

- 1B From 2037, the nitrogen loss calculation for the property is equal to or less than the Good Management Practice Nitrogen and Phosphorus Loss Rates for the property's baseline land use less the percentage reduction required for that land use set out in Policy 11.4.14(b) and less the further reduction set out in Policy 11.4.14A.
- A Farm Environment Plan has been prepared in accordance with Schedule 7 PartA; and
- <u>3.</u> The nitrogen loss calculation for the property has not increased above the nitrogen baseline.

The exercise of discretion is restricted to the following matters:

- 1. The quality of, and compliance with the Farm Environment Plan; and
- <u>2.</u> The Good Management Practice Nitrogen and Phosphorus Loss Rates to be applied to the property in accordance with Policy 11.4.13(b); and
- <u>3.</u> The nitrogen loss rates to be applied to the property in accordance with Policy 11.4.14 (b), Policy 11.4.15 and Policy 11.4.16; and
- 4. The nitrogen load target for farming activities in Table 11(i); and
- <u>5.</u> The potential benefits of the activity to the applicant, the community and the environment.
- 11.5.9A The use of land for a farming activity in the Selwyn Waihora catchment that does not comply with Rule 11.5.9 is a discretionary activity, provided the following conditions are met:
- 1 Prior to 2022, the nitrogen loss calculation for the property is equal to or less than the Good Management Practice Nitrogen and Phosphorus Loss Rates for the property's land use.
- 2 From 2022, and prior to 2037, the nitrogen loss calculation for the property is equal to or less than the Good Management Practice Nitrogen and Phosphorus Loss Rates for the property's land use less the percentage reduction required for that land use set out in Policy 11.4.14(b).

- 3 From 2037, the nitrogen loss calculation for the property is equal to or less than the Good Management Practice Nitrogen and Phosphorus Loss Rates for the property's baseline land use less the percentage reduction required for that land use set out in Policy 11.4.14(b) and less the further reduction set out in Policy 11.4.14A.
- 4 The nitrogen loss calculation for the property, in combination with all other nitrogen loss calculation for all other farm properties in the catchment does not cause the relevant limit for nitrogen loss for farming in Table 11(i) to be exceeded.
- 5 A Farm Environment Plan has been prepared in accordance with Schedule 7 Part A; and
- 11.5.10 The use of land for a farming activity as part of a farming enterprise in the Selwyn Waihora catchment is a discretionary activity, provided the following conditions are met:
- 1. A Farm Environment Plan has been prepared in accordance with Schedule 7 Part A; and
- 2. The nitrogen loss calculation for the farming enterprise has not increased above the nitrogen baseline
- 2A. The farming enterprise complies with all the conditions in rule 11.5.9A
- 11.5.11 The use of land for a farming activity or farming enterprise that does not comply with conditions 3 or 4 of Rule 11.5.7, conditions 2, 3 or 4 of Rule 11.5.8, condition 2 of Rule 11.5.9, conditions 1,2,3 or 5 of Rule 11.5.9A or condition 1 of Rule 11.5.10 is a non-complying activity.
- 11.5.12 The use of land for a farming activity or farming enterprise that does not comply with condition 2 of Rule 11.5.7, condition 3 of Rule 11.5.9, condition 4 of Rule 11.5.9A or condition 2 of Rule 11.5.10 is a prohibited activity.
- 11.5.13 From 1 January 2037, the use of land for a farming activity or farming enterprise where the nitrogen loss calculation for the property is greater than 80 kg per hectare per annum is a prohibited activity.

Irrigation Schemes

Regional Rule 5.61 applies in the Selwyn Waihora catchment. Rules 11.5.14 and 11.5.15 prevail over Regional Rules 5.60 and 5.62.

11.5.14 Despite any of Rules 11.5.2 to 11.5.13, the use of land for a farming activity in the Selwyn Waihora catchment is a permitted activity provided the following conditions are met:

- <u>1.</u> The property is irrigated with water from an irrigation scheme and the discharge is a permitted activity under Regional Rule 5.61; or
- 2. The property is irrigated with water from an Irrigation Scheme listed in Table 11(j) and the irrigation scheme holds a discharge consent under Rule 11.5.15.
- 11.5.15 The discharge of nitrogen, phosphorus, sediment and microbial contaminants onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene s15(1) of the RMA, in the Selwyn Waihora catchment, is a discretionary activity, provided the following conditions are met:
- 1. The applicant is an Irrigation Scheme listed in Table 11(j); and
- <u>2.</u> The nitrogen loss calculation for the Scheme will not exceed the Irrigation Scheme Nitrogen Limits in Table 11(i).

Notification

Pursuant to sections 95A and 95B of the RMA an application for resource consent under this rule will be processes—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.

Appendix 1 Table 11(x) Limits for Rivers at Specific Sites

River	Site	N load (kg/y) Current ¹ State 2018	N Load (kg/y) Interim ² Target 2037	N load (kg/y) Ecosystem ³ Health Limit 2050	P load (kg/y) Current ⁴ State 2018	P load (kg/y) Interim ⁵ Target 2037	P load (kg/y) Ecosystem ⁶ Health Limit 2050	QMCI Index Current ⁷ State 2018	QMCI Index Interim ⁸ Target 2037	QMCI Index Ecosystem ⁹ Health Limit 2050
Selwyn*	Coes Ford	360,000	252,000	180,000	5000	3500	2500	4.5	5.0	5.5
Selwyn	White Cliffs (control site)	х	X	Х	Х	Х	X	Х	Х	X
L II*	Pannetts Road	х	X	Х	х	X	X	Х	Х	х
Halswell*	McCartney's Bridge	X	X	X	X	X	X	X	X	X
Harts Creek*	Lower Lake Road	X	X	X	X	X	X	X	X	X
Irwell*	Lake Road	X	X	X	X	X	X	X	X	X
Hororata	Above Selwyn Confluence	Х	Х	Х	Х	Х	X	Х	Х	X
Hawkins	Above Selwyn Confluence	х	х	Х	х	Х	X	Х	Х	X
Hawkins	Upper River (control site)	X		X		X	X	X	X	X

Table X Notes:

- Current loads (3 year rolling average) monthly samples, continuous flow measurement
 Monitoring upgraded including flow measurement, at least monthly sampling, load relationship established. Aim for estimate of annual load ± 5%
- QMCI annual sampling between December 1 and March 30, as per ECan State of the Environment Monitoring
- *Lower river sites estimated to account for 83% of total inflow into Te Waihora
- Light blue shading row provides figures for demonstration purposes only all data to be populated in table by 2018

¹ Current State (not a limit)

² Current State Level Less 30%

³ Current State Level Less 50%

⁴ Current State

⁵ Current State Level Less 30%

⁶ Current State Level Less 50%

⁷ Current State

⁸ QMCI 0.5 Point Improvement

⁹ QMCI 1.0 Point Improvement

11.6 Fresh Water Outcomes

Table 11(a) Freshwater Outcomes for Selwyn Waihora Catchment Rivers¹⁰

Management Unit	River	Critical Values <u>[ci1]</u>	QMCI [minimum score]	Dissolved oxygen [minimum daily saturation] (%)	Temperature [max]	Suitability for contact recreation (SFRG)	
Natural State	Headwaters of Selwyn / Waikirikiri	High biodiversity, High amenity, Natural character	Rivers are maintained in a healthy state				
	Headwaters of Selwyn/ Waikirikiri	High biodiversity Salmonid Fishery	6	90	18 20	Good to Fair	Freshwater mahinga kai species are
·	Selwyn/Waikirikiri	High Biodiversity Salmonid Fishery	6	90	18 20	Good	sufficently abundant for custormary
	Hororata	Salmonid Fishery Amenity Contact recreation	5	90	18 20	Good Good to Fair	gathering water quality is suitable for their safe harvesting
Banks Peninsula	Kaituna Prices Stream	High Biodiversity	5	90	18 20	Good No set value	and they are safe to eat.

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¹⁰ Proposed changes marked except for

Spring-fed	–Birdlings Brook	Moderate	5	70	18 20		Freshwater
plains	Boggy Creek	Biodiversity				No Value set	mahinga kai
		Salmonid Fishery					species are
	Doyleston Drain	,					sufficently
	Halswell/ Huritini						abundant for
	Hanmer Road Drain						custormary
							gathering
	Harts Creek						water quality is suitable
	Hororata						for their safe
	Irwell River						harvesting
							and they are
	Jollies Brook						safe to eat.
	Knights Creek						
	Lee						
	LII						
	LowerSelwyn/						
	Waikirikiri						
	Silverstream						
	Snake Creek						
	Taumutu Creek						
	Tent burn Stream						
	Waikekewaia Creek and						
	other						
	Lowland Spring fed						
	streams						

Table 11(b): Freshwater Outcomes for Selwyn Waihora Catchment Lakes

Management Unit	Lake	Ecological Hea	Ilth Indicators		Eutrophication Indicator	Visual Quality Indicator	Microbiological Indicator	Cultural Indicator
Coastal Lakes	Te Waihora / Lake Ellesmere	Dissolved Oxygen ¹¹ 90	Temperature (maximum) C 19 (mid lake)	Lake SPI Moderate	Trophic Level Index (maximum annual average) 5.5 (Mid lake) 6.6 5.0 (Lake Margins) 6.0	Clarity is greater in the lake margins than mid lake areas	Suitability for contact recreation (SFRG) Good Good-Fair	Freshwater mahinga kai species are sufficently abundant for custormary gathering water quality is suitable for their safe harvesting
	Muriwai / Coopers Lagoon	90	19	Moderate	4.0	No value set	No Value Set	and they are safe to eat.

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¹¹ The Selwyn Waihora Lakes are not considered to have a Hypo-limnion so this column has been removed (EIC, Brett Stansfielf, paragraph 94). Revised Appendix 5 – Recommended Changes to Variation 1 Planning Provisions - Scott Pearson EIC 16.09.14

11.7.1 Environmental Flow Regime

Table 11(c)¹² Recommended Minimum Flows for Existing Minimum Flow Sites by 2025 to achieve Long Term Ecosystem Health¹³

SITE	7 DAY MALF (I/s)	PLAN VARIATION 1	RECOMMENDED MINIMUM FLOW (I/s)
Kaituna River @ Kaituna Valley Rd*	35	32	35
Hawkins River @ Willows- Dalethorpe Rd*	37	33	37
Selwyn River @ Whitecliffs*	792	713	713
Selwyn River @ Coes Ford*	750	675	675
Hororata River @Halden Water Race Bridge*	424	382	382
Knights Creek @ Jiesons Property*	253	228	253
Halswell River @ Leadleys Rd~	582	407	524
Halswell River @ Ryans Bridge~	760	532	684
Halswell River @ Tobecks Bridge~	934	654	841
Haslwell River @ Neills Rd~	926	648	833
Halswell River @ Hodgens Bridge~	1157	810	1041
L-II river @ Pannetts Rd~	1820	1274	1638
L-II River @ Wolfes Rd~	1771	1240	1594

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¹² The minimum flows in this table are to replace those in Table 11(c) in proposed Variation 1.

¹³ From 1 January, 2025 for both existing and new consents.

Baileys Creek @ Lincoln Leeston Rd*~	13	12	13
Silverstream @ Lincoln Leeston Rd*~	88	79	88
Snake Creek @ Lincoln Leeston Rd*~	70	63	70
Miles Drain @ Pannets Rd*~	14	13	14
Irwell River @ Lake Rd~	910	637	819
Hamner Rd Drain @ Lower Lake Rd	369	258	332
Boggy Creek @ Lake Rd*	290	261	261
Doyleston Drain @ D/S Lake Rd*	6	5	6
Birdlings Brook @ Locheads Rd	685	480	617
Birdlings Brook @ Leggs Rd	637	446	573
Harts Creek @ Lower Lake	1068	748	961
Harts Creek @ Timber Yard Rd	1370	959	1233
Waikewai Creek @ Taumutu Beach*	38	34	38
Lee River @ Temoana~	935	655	841
Jollies Brook @ outlet to sea~	424	297	381

Key: * = Flow sensitive sites

~ = Sites display poor correlation with recorder sites

BoldText = sites are important trout spawning sites

11.7.3 Water Quality Targets and Limits

The water quality limits in Tables (11k) 11(l) and 11 (m) prevail over the region wide limits in Schedule 8. The limits and targets in these Tables are revised limits as proposed by Fish and Game for the Selwyn Waihora Catchment.

Table 11(i): Catchment Target and Limits for Nitrogen Losses from Farming Activities, Community Sewerage Systems and Industrial or Trade Processes

Catchment	Activity	Nitrogen Load (tonnes/year)	Limit/Target
Selwyn Waihora	<u>Farming</u>		Interim Target to be met by 2017
	Farming	Interim load calculated to be current load less reductions achieved by implementing good practice in accordance with policy 11.4.12 and 11.4.13 and further reductions required by policy 11.4.14	Interim Target to be met by 2022
	Farming	4830 ⁽⁴⁾ Interim load calculated to be interim load for 2022 less 20%	Interim Target to be met by no later than 2037
	Farming	Final load to achieve ecosystem health) less amount allocated to community sewerage systems and industrial or trade process below	Target to be met by no later than 2050
	Community sewerage systems	62	Limit
	Industrial or trade processes	106	Limit

A target is defined in the National Policy Statement for Freshwater Management 2011 as a limit to be met within a defined timeframe

¹⁴ <u>Dr Dewes EIC, 2014 paragraph 22, current modelled farm output load in Selwyn Waihora Catchment</u>

⁴ This target includes the limit for 2022 in Table 11(j)

Table 11(j): Irrigation Scheme Nitrogen and Phosphorus Limits

Irrigation Scheme	Tonnes of nitrogen per year			
	From 1 January 2017	From 1 January 2022		
Central Plains Water	1944	1742		

See further tables below:

Table 11(K) Nutrient Limits for Rivers by 2037¹⁵

		Dissolved Reactive Phosphorus	Dissolved Reactive Phosphorus 95th Percentile
Management Unit	Site Name	Median (mg/l)	(mg/l)
Banks Peninsula	Kaituna Stream	0.013	0.03
Hill Fed Upland	Selwyn River @ Whitecliffs	0.0035	0.007
iiii i da o piana	Hawkins River Deans	0.000	0.007
Hill Fed Lower	Rd	0.007	0.014
	Selwyn River@ Coes		
Hill Fed Lower	Ford	0.007	0.028
Hill Fed Lower	Waireka River Auchenflower Rd	0.021	0.042
Spring Fed Plains	LII Stream	0.014	0.056
Spring Fed Plains	Irwell River @ Lake Rd	0.007	0.112
Spring Fed Plains	Hamner Rd Drain	0.021	0.105
Spring Fed Plains	Boggy Creek @ Lake Rd	0.014	0.091
Spring Fed Plains	Doyleston Drain Lake Rd	0.021	0.112
Spring Fed Plains	Harts Creek - Lower Lake	0.007	0.014
Spring Fed Plains	Halswell River McCartneys Bridge	0.021	0.042
Spring Fed Plains	Jolllies Brook Bullockds Rd	0.003	0.007
Spring Fed Plains	Lee River on Brooklands Farm	0.007	0.007
Spring Fed Plains	Waikewai Creek Gullivers	0.007	0.021

 $^{\rm 15}$ This table to replace the existing Table 11(k) in proposed Variation 1.

Management Unit	Site Name	Nitrate Nitrogen Median (mg/l)	Nitrate Nitrogen 95th Percentile (mg/l)
Banks Peninsula	Vaitura Ctraam	0.08	0.20
Danks Pennisula	Kaituna Stream	0.00	0.38
Hill Fed Upland	Selwyn River @ Whitecliffs	0.15	0.32
пін гей органи	Hawkins River Deans	0.15	0.32
Hill End Lower	Rd	1.6	2.7
Hill Fed Lower	-	1.6	2.7
Hill Cod Lasses	Selwyn River@ Coes	2.2	4.2
Hill Fed Lower	Ford Waireka River	3.3	4.3
Hell E. J.L.		0.22	1.0
Hill Fed Lower	Auchenflower Rd	0.23	1.3
Spring Fed Plains	LII Stream	2.3	2.9
Spring Fed Plains	Irwell River @ Lake Rd	0.6	2.5
Spring Fed Plains	Hamner Rd Drain	1.6	3.4
Spring Fed Plains	Boggy Creek @ Lake Rd	3.8	6.2
	Doyleston Drain Lake		
Spring Fed Plains	Rd	2.4	4.8
	Harts Creek - Lower		
Spring Fed Plains	Lake Rd	3.1	4.8
Spring Fed Plains	Halswell River	2.24	2.9
	Jolllies Brook Bullockds		
Spring Fed Plains	Rd	0.7	1.7
	Lee River on	0.00	2.22
Spring Fed Plains	Brooklands Farm	0.08	0.38
Coming End District	Waikewai Creek	0.45	0.22
Spring Fed Plains	Gullivers	0.15	0.32

Table 11(K) Nutrient Limits for Rivers by 2050

Management Unit	Site Name	Dissolved Reactive Phosphorus Median (mg/l)	Dissolved Reactive Phosphorus 95th Percentile (mg/l)
Banks Peninsula	Kaituna Stream	0.01	0.02
Hill Fed Upland	Selwyn River @ Whitecliffs	0.003	0.005
Hill Fed Lower	Hawkins River Deans Rd	0.005	0.01
Hill Fed Lower	Selwyn River@ Coes Ford	0.005	0.02
Hill Fed Lower	Waireka River Auchenflower Rd	0.015	0.03
Spring Fed Plains	LII Stream	0.01	0.08
Spring Fed Plains	Irwell River @ Lake Rd	0.01	0.08
Spring Fed Plains	Hamner Rd Drain	0.015	0.075
Spring Fed Plains	Boggy Creek @ Lake Rd	0.01	0.07
Spring Fed Plains	Doyleston Drain Lake Rd	0.015	0.08
Spring Fed Plains	Harts Creek - Lower Lake Rd	0.005	0.01
Spring Fed Plains	Halswell River	0.015	0.03
Spring Fed Plains	Jolllies Brook Bullockds Rd	0.003	0.005
Spring Fed Plains	Lee River on Brooklands Farm	0.005	0.005
Spring Fed Plains	Waikewai Creek Gullivers	0.005	0.015

Management Unit	Site Name	Nitrate Nitrogen Median (mg/l)	Nitrate Nitrogen 95th Percentile (mg/l)
Banks Peninsula	Kaituna Stream	0.06	0.27
Hill Fed Upland	Selwyn River @ Whitecliffs	0.10	0.23
Hill Fed Lower	Hawkins River Deans Rd	1.2	1.9
Hill Fed Lower	Selwyn River@ Coes Ford	2.4	3.0
Hill Fed Lower	Waireka River Auchenflower Rd	0.17	0.9
Spring Fed Plains	LII Stream	1.7	2.1
Spring Fed Plains	Irwell River @ Lake Rd	0.4	1.8
Spring Fed Plains	Hamner Rd Drain	1.2	2.4
Spring Fed Plains	Boggy Creek @ Lake Rd	2.7	4.5
Spring Fed Plains	Doyleston Drain Lake Rd	1.7	3.5
Spring Fed Plains	Harts Creek - Lower Lake Rd	2.3	3.5
Spring Fed Plains	Halswell River	1.6	2.0
Spring Fed Plains	Jolllies Brook Bullockds Rd	0.5	1.2
Spring Fed Plains	Lee River on Brooklands Farm	1.4	2.2
Spring Fed Plains	Waikewai Creek Gullivers	1.8	2.8

Table 11(I) Nutrient Targets for Lakes by 2037¹⁶

LAKE	LOCATION	TARGET				
		TLI	TP	TN	Chl a	
Te Waihora / Lake Ellesmere	Mid Lake	6.0 6.6	0.07 0.1	2.2 3.4	74	
	Margins	5.5 6.0				
Coopers Lagoon		4	0.020	0.34	5	
As a maximum annual average			(mg/l)	(mg/l)	(µg/ l)	

Table 11(I) Nutrient Limits for Lakes by 2050

LAKE	LOCATION	LIMIT				
		TLI	TP	TN	Chl a	
Te Waihora / Lake Ellesmere	Mid Lake	5.5 6.6	0.05 0.1	1.0 3.4	74	
	Margins	5.0 6.0				
Coopers Lagoon		4	0.020	0.34	5	
As a maximum annual average			(mg/l)	(mg/l)	(µg/ l)	

 $^{^{16}}$ These tables replaces Table 11(l)in Variation 1 and show both interim targets and limits.