Station Name	Surface water sub catchment	Secondary river/stream sub-catchment	Groundwate	Lake	Area of renewing or proposed irrigaiton	Notes	Proposed whole farm N loss from WQS	Proposed whole farm P loss based on WQS	Stream mitigation required for periphyton kg/ha irrigated land N	Stream mitigation required for periphyton kg/ha irrigated land P	Secondary stream mitigation required for periphyton kg/ha irrigated land N	Secondary stream mitigation required for periphyton kg/ha irrigated land P	Stream mitigation required for ANZECC kg/ha irrigated land N	Stream mitigation required for ANZECC kg/ha irrigated land P	Secondary stream mitigation required for ANZECC kg/ha irrigated land N	Secondary stream mitigation required for ANZECC kg/ha irrigated land P	GWR mitigation required kg/ha irrigated land N	GWR mitigation required kg/ha irrigated land P	Lake mitigation required kg/ha irrigated land N	Lake mitigation required kg/ha irrigated land P
Glenbrook	Lower Wairepo	na	Wairepo	Northern	56		24949	851					-1.90	-1.00			-16.40	-0.70		
Bog Roy	Direct to Benmore	na	na	Ahuriri	165	(130 plus 105 from joint take with Rostreiver and Otematata)	10599	410											-10.70	-1.1
Catherine Field	Pukaki/tekapo	na	Pukaki	Northern	200		5052	85	0.50	0.40							-3.10			
Clifton Downs/Dunstan Peaks/Twinburn	Omarama	Ahuriri	Omarama	Ahuriri	344		31790	895	5.00	1.90	1.10	-0.90	0.10	-0.10					-10.70	-1.1
Glenmore excluding extreme slopes	Upper catchments	na	na	Northern	183		14000	300												
Godley Peaks excluding extreme slopes (based on 2790 ha)	Upper catchments	na	na	Northern	446		15000	300												
Grampians	Greys	Tekapo	Tekapo	Northern	385		58120	1240	1.00	-0.10	0.40	0.40								
Gray Hills	Greys	Tekapo	Tekapo	Northern	190		64114	1393	1.00	-0.10	0.40	0.40								
Haldon	Direct to Benmore	na	Tekapo	Northern	560		54971	3715			0.40	0.40								
Irishman Creek	Mary Burn	Tekapo	Tekapo	Northern	48		29286	2055	1.50	-0.60	0.40	0.40								
Lilybank	Upper catchments	na	na	Northern	172		37714	2900												
Maryburn	Mary Burn	Tekapo	Tekapo	Northern	650		30077	907	1.50	-0.60	0.40	0.40								
Otamatapaio including Glenburn	Direct to Benmore	na	na	Ahuriri	200		24606	798											-10.70	-1.1
Otematata and Aviemore	Direct to Benmore	na	na	Ahuriri	120	(Otematata)	98906	2332											-10.70	-1.1
Otematata and Aviemore	na	na	na	L Waitaki	156	(37 ha Otematata and 119 ha Aviemore)	98906	2332												
Otematata and Aviemore	na	na	na	L aviemore	35		98906	2332												
Otematata and Aviemore TOTAL					311	(311 in total, but mitigation only applies to 120)														
Peak Valley	Direct to Benmore	na	na	Northern	30		10587	308												
Quailburn Downs including 300 ha recently purchased from Rivers	Hen Burn	Ahuriri	Hen Burn	Ahuriri	52		8928	362			1.10	-0.90							-10.70	-1.1
Quailburn Downs including 300 ha recently purchased from Rivers	Ahuriri	na	Ahuriri	Ahuriri	95		8928	362	1.10	-0.90									-10.70	-1.1
Quailburn Downs including 300 ha recently purchased from Rivers	Quail Burn	Ahuriri	Ahuriri	Ahuriri	95		8928	362	0.40	-0.30	1.10	-0.90	2.30	0.50					-10.70	-1.1
Quailburn Downs TOTAL					242															
Ribbonwood	Wairepo	na	Wairepo	Northern	150		24343	1068					-1.90	-1.00			-16.40	-0.70		
Ribbonwood	Quail Burn	Ahuriri	Quail Burn	Ahuriri	300		24343	1068	0.40	-0.30	1.10	-0.90	2.30	-0.50					-10.70	-1.1
Ribbonwood	Ahuriri	na	na	Ahuriri	200		24343	1068	1.10	-0.90									-10.70	-1.1
Ribbonwood TOTAL																				
Shelton Downs	Wairepo	na	Wairepo	Northern	400		12099	496	0	0	0	0	-1.9	-1	0	0	-16.4	-0.7	0	0
Riverside (300 Sold to Quailburn Downs)	Willow Burn	Ahuriri	Willow Burn	Ahuriri	100		7000	242			1.10	-0.90	-0.70	-0.10					-10.70	-1.1
Rostreiver	Direct to Benmore	na	na	Ahuriri	60		5868	232											-10.70	-1.1
Te Akatarawa	na	na	na	L aviemore	20		26302	748												
The Glens	Willow Burn	Ahuriri	Willow Burn	Ahuriri	100	100 of dairy applies to Glens, other 200 of irrigation is on riverside and willowburn	12928	187			1.10	-0.90	-0.70	-0.10					-10.70	-1.1
Totara Peak	Direct to Benmore	na	na	Northern	25		13451	310												
Twin Peaks	Omarama	Ahuriri	Omarama	Ahuriri	72		11707	276	5.00	1.90	1.10	-0.90	0.10	-0.10					-10.70	-1.1
Waitangi (whole farm including outside the boundary)	na	na	na	L aviemore	128		56286	2390												
Willowburn	Willow Burn	Ahuriri	Willow Burn	Ahuriri	185	includes 100 from Glens renewal	8563	350			1.10	-0.90	-0.70	-0.10					-10.70	-1.1

Station Name	Stream mitigation required for periphyton kg/farm N	Stream mitigation required for periphyton kg/farm P	Secondary stream mitigation required for periphyton kg/farm N	Secondary stream mitigation required for periphyton kg/farm P	Stream mitigation required for ANZECC kg/farm N	Stream mitigation required for ANZECC kg/farm P	Secondary stream mitigation required for ANZECC N	Secondary stream mitigation required for ANZECC P	GWR mitigation required kg/farm N	GWR mitigation required kg/farm P	Lake mitigation required kg/farm N	Lake mitigation required kg/farm P	Stream mitigation Periphyton required kg/farm N	Stream mitigation Periphyton required kg/farm P	Secondary stream periphyton mitigation required kg/farm N	Secondary stream periphyton mitigation required kg/farm P	Stream mitigation required kg/farm N	Stream mitigation required kg/farm P	Secondary stream mitigation required kg/farm N	Secondary stream mitigation required kg/farm P	GWR mitigation required kg/farm N	GWR mitigation required kg/farm P	Lake mitigation required kg/farm N	Lake mitigation required kg/farm P	Total N loss threshold N	Total P loss threshold P	OVERSEER farm modelling N loss current N	OVERSEER farm modelling P loss current P	OVERSEER farm modelling N loss proposed N	OVERSEER farm modelling P loss proposed P
Glenbrook	0.0	0.0	0.0	0.0	-106	-56	0	0	-918	-39	0	0	24949	851	24949	851	24843	795	24949	851	24031	812	24949	851	24031	795	6988	260	6988	260
Bog Roy	0.0	0.0	0.0	0.0	0	0	0	0	0	0	-1766	-173	10599	410	10599	410	10599	410	10599	410	10599	410	8834	237	8834	237	9335	670	8511	96
Catherine Field	100.0	80.0	0.0	0.0	0	0	0	0	-620	0	0	0	5152	165	5052	85	5052	85	5052	85	4432	85	5052	85	4432	85	1376	22	2671	102
Clifton Downs/Dunstan Peaks/Twinburn	1720.0	653.6	378.4	-309.6	34	-34	0	0	0	0	-3681	-361	33510	1549	32168	585	31824	861	31790	895	31790	895	28109	534	28109	534	18982	1074		
Glenmore excluding extreme slopes	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	14000	300	14000	300	14000	300	14000	300	14000	300	14000	300	14000	300				
Godley Peaks excluding extreme slopes (based on 2790 ha)	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	15000	300	15000	300	15000	300	15000	300	15000	300	15000	300	15000	300			12541	206
Grampians	385.0	-38.5	154.0	154.0	0	0	0	0	0	0	0	0	58505	1202	58274	1394	58120	1240	58120	1240	58120	1240	58120	1202	58120	1240			48102	177
Gray Hills	190.0	-19.0	76.0	76.0	0	0	0	0	0	0	0	0	64304	1374	64190	1469	64114	1393	64114	1393	64114	1393	64114	1393	64114	1374	21212	416		
Haldon	0.0	0.0	224.0	224.0	0	0	0	0	0	0	0	0	39216	2650	39440	2874	39216	2650	39216	2650	39216	2650	39216	2650	54971	3715	34689	2961	52429	3281
Irishman Creek	72.0	-28.8	19.2	19.2	0	0	0	0	0	0	0	0	29358	2026	29305	2074	29286	2055	29286	2055	29286	2055	29286	2055	29286	2026	24061	476	24061	476
Lilybank	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	37714	2900	37714	2900	37714	2900	37714	2900	37714	2900	37714	2900	37714	2900	12861	2884	13313	2869
Maryburn	975.0	-390.0	260.0	260.0	0	0	0	0	0	0	0	0	31052	517	30337	1167	30077	907	30077	907	30077	907	30077	907	30077	517			20820	158
Otamatapaio including Glenburn	0.0	0.0	0.0	0.0	0	0	0	0	0	0	-2140	-210	24606	798	24606	798	24606	798	24606	798	24606	798	22466	588	22466	588				
Otematata and Aviemore	0.0	0.0	0.0	0.0	0	0	0	0	0	0	-1284	-126	98906	2332	98906	2332	98906	2332	98906	2332	98906	2332	97622	2206						
Otematata and Aviemore	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	98906	2332	98906	2332	98906	2332	98906	2332	98906	2332	98906	2332						
Otematata and Aviemore	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	98906	2332	98906	2332	98906	2332	98906	2332	98906	2332	98906	2332						
Otematata and Aviemore TOTAL	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	97622	2206			80466	788
Peak Valley	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	10587	308	10587	308	10587	308	10587	308	10587	308	10587	308	10587	308				
Quailburn Downs including 300 ha recently purchased from Rivers	0.0	0.0	57.2	-46.8	0	0	0	0	0	0	-556	-55	8928	362	8985	315	8928	362	8928	362	8928	362	8372	307						
Quailburn Downs including 300 ha recently purchased from Rivers	104.5	-85.5	0.0	0.0	0	0	0	0	0	0	-1017	-100	9033	277	8928	362	8928	362	8928	362	8928	362	7912	262						
Quailburn Downs including 300 ha recently purchased from Rivers	38.0	-28.5	104.5	-85.5	219	48	0	0	0	0	-1017	-100	8966	334	9033	277	9147	410	8928	362	8928	362	7912	262						
Quailburn Downs TOTAL	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7355	207			7468	205
Ribbonwood	0.0	0.0	0.0	0.0	-285	-150	0	0	-2460	-105	0	0	24343	1068	24343	1068	24058	918	24343	1068	21883	963	24343	1068						
Ribbonwood	120.0	-90.0	330.0	-270.0	690	-150	0	0	0	0	-3210	-315	24463	978	24673	798	25033	918	24343	1068	24343	1068	21133	753						
Ribbonwood	220.0	-180.0	0.0	0.0	0	0	0	0	0	0	-2140	-210	24563	888	24343	1068	24343	1068	24343	1068	24343	1068	22203	858						
Ribbonwood TOTAL	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16533	468			17601	352
Shelton Downs	0.0	0.0	0.0	0.0	-760	-400	0	0	-6560	-280	0	0	12099	496	12099	496	11339	96	12099	496	5539	216	12099	496	5539	96			8025	120
Riverside (300 Sold to Quailburn Downs)	0.0	0.0	110.0	-90.0	-70	-10	0	0	0	0	-1070	-105	7000	242	7110	152	6930	232	7000	242	7000	242	5930	137	5930	137			5841	97
Rostreiver	0.0	0.0	0.0	0.0	0	0	0	0	0	0	-642	-63	5868	232	5868	232	5868	232	5868	232	5868	232	5226	169	5226	169	5270	42	5243	42
Te Akatarawa	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	26302	748	26302	748	26302	748	26302	748	26302	748	26302	748	26302	748	25275	306	25569	293
The Glens	0.0	0.0	110.0	-90.0	-70	-10	0	0	0	0	-1070	-105	12928	187	13038	97	12858	177	12928	187	12928	187	11858	82	11858	82			11175	47
Totara Peak	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	13451	310	13451	310	13451	310	13451	310	13451	310	13451	310	13451	310	10837	213	11165	217
Twin Peaks	360.0	136.8	79.2	-64.8	7	-7	0	0	0	0	-770	-76	12067	413	11786	211	11714	269	11707	276	11707	276	10937	200	10937	200	9341	194	9479	194
Waitangi (whole farm including outside the boundary)	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	56286	2390	56286	2390	56286	2390	56286	2390	56286	2390	56286	2390	56286	2390	46599	670	46599	675
Willowburn	0.0	0.0	203.5	-166.5	-130	-19	0	0	0	0	-1980	-194	8563	350	8767	184	8434	332	8563	350	8563	350	6584	156	6584	156	6772	63	6452	77