

Appendix 5

Water Resource Unit Values & Water Quality Classification Standards

Abbreviations

A	aesthetic	AE	aquatic ecosystem	C	cultural
CR	contact recreation	F	fisheries	FS	fish spawning
NS	natural state	SG	shellfish gathering	WS	water supply

Schedule 1 – Water Resource Unit Values

No.	Water Resource Unit	Values	Water Quality Classifications
1	Acheron (includes Fish lake in the Wairau River catchment)	<p>Fish habitat Alpine Galaxias, dwarf galaxias, koaro, northern flathead galaxias, longfin eel, shortfin eel, tarndale bully and upland bully habitat. Only known habitat for tarndale bully. Brown trout/salmon spawning.</p> <p>Bird Habitat Wetland species, black-fronted terns, southern crested grebe, and banded dotterel. Paradise shelduck moulting site. Braided river birds.</p> <p>Aquatic Macrophytes Intact indigenous aquatic macrophytes community.</p> <p>Recreation Waterfowl hunting, fishing, canoeing, rafting and passive recreation.</p> <p>Public Access Large areas of catchment administered by Department of Conservation (DOC) but subject to lease constraints.</p> <p>Natural Character High.</p> <p>Significant Wetlands Tarndale Lakes - nationally significant wetlands complex.</p>	AE, FS, F, A

No.	Water Resource Unit	Values	Water Quality Classifications
2	Cullens/Linkwater Complex	<p>Fish Habitat Banded kokopu, shortjaw kokopu, red fin bully, common bully, īnanga, longfin eel and shortfin eel habitat.</p> <p>Invertebrate Habitat Kōura habitat.</p> <p>Riparian Habitat Intact indigenous forest in upper catchment. Coastal wetlands.</p>	AE, FS
3	Anakoha	<p>Fish Habitat Banded kokopu, shortjaw kokopu, dwarf galaxias, īnanga, giant kokopu, koaro, longfin eel and redfin bully habitat.</p> <p>Riparian Habitat Intact indigenous forest in upper catchment. Coastal wetland.</p>	AE, FS
4	Are Are	<p>Fish Habitat Black flounder, common bully, īnanga, lamprey, longfin eel, redfin bully, upland bully and shortfin eel habitat. High species diversity. Juvenile trout habitat.</p> <p>Invertebrate Habitat High numbers of kōura.</p>	AE, FS
5	Avon	<p>Fish Habitat Northern flathead galaxias, koaro, longfin eel and upland bully habitat. Landlocked koaro in Lake Alexander. Trout and eels absent from Lake Alexander. Brown trout spawning in rivers and streams.</p> <p>Invertebrate Habitat Subterranean amphipods habitat in Lake Alexander outlet. Kōura Habitat in rives and streams.</p> <p>Riparian Habitat Pink and weeping broom in riparian margins. Indigenous vegetation in upper catchment and surrounding Lake Alexander.</p> <p>Recreation Walking access to Lake Alexander.</p> <p>Natural Character High.</p>	AE, FS, A (the A classification only applies to the Tummel River upstream of 1655960E 5381760N and Lake Alexander)

No.	Water Resource Unit	Values	Water Quality Classifications
6	Awatere - Lower	<p>Fish Habitat Īnanga, common bully, upland bully, giant bully, bluegill bully, torrentfish, longfin eel and shortfin eel habitat. Īnanga spawning in coastal lagoon. Brown trout habitat.</p> <p>Bird Habitat Banded dotterel, black-fronted dotterel and black-fronted terns. Braided river birds. Paradise shelduck moulting on Lake Jasper.</p> <p>Riparian Habitat Wetland vegetation surrounding Lake Jasper.</p> <p>Recreation Fishing and whitebaiting.</p>	AE, FS, F
7	Awatere - Upper	<p>Fish Habitat Northern flathead galaxias, koaro, upland bully and longfin eel habitat. Brown trout habitat.</p> <p>Bird Habitat Black-fronted tern.</p> <p>Recreation Molesworth Recreational Reserve. Upland game hunting.</p> <p>Public Access Large areas of catchment administered by DOC but subject to lease constraints. Access track to the Hodder huts and Mt Tapuaenuku via private land and Hodder River.</p> <p>Natural Character Very high.</p> <p>Riparian Habitat Largest population of northern pink broom in Marlborough – Riparian Margins Grey River.</p>	AE, FS
8	Bartletts	<p>Fish Habitat Dwarf galaxias, longfin eel, shortfin eel and upland bully habitat. Dwarf galaxias spawning. Brown trout spawning.</p> <p>Riparian Habitat Indigenous vegetation in upper catchment.</p> <p>Recreation Swimming and fishing.</p>	AE, FS, F, CR

No.	Water Resource Unit	Values	Water Quality Classifications
9	Black Birch	<p>Fish Habitat Torrentfish, northern flathead galaxias, upland bully redfin bully and longfin eel habitat. Brown trout spawning.</p> <p>Invertebrate Habitat Kōura Habitat.</p> <p>Riparian Habitat Large proportion of riparian vegetation is indigenous.</p> <p>Public Access Access to DOC administered land via stream bed only.</p> <p>Water supply catchment Seddon municipal.</p>	AE, FS, WS
10	Blenheim Springs	<p>Fish Habitat Banded kokopu, giant kokopu, lamprey, common bully, upland bully, longfin eel and shortfin eel habitat. Brown trout habitat.</p> <p>Invertebrate Habitat Kōura and freshwater mussel habitat. Subterranean aquatic macroinvertebrates habitat in spring outlets.</p> <p>Aquatic Macrophytes Largest population of the indigenous <i>Potamogeton cheesemanni</i> on the Wairau Plain.</p> <p>Recreation Pollard park, duck feeding, children playing and picnicking.</p> <p>Aesthetic Water clarity.</p>	AE, FS, A
11	Blind River	<p>Fish Habitat Banded kokopu, common bully, upland bully, longfin eel and shortfin eel are present.</p> <p>Bird Habitat Coastal lagoon habitat for banded dotterel, black shag. New Zealand scaup and other waterfowl.</p> <p>Invertebrate Habitat Shield shrimp habitat in ephemeral pools. Kōura Habitat.</p> <p>Riparian Habitat Red rock daisy and other threatened species in upper gorges.</p> <p>Recreation Waterfowl hunting.</p>	AE, FS

No.	Water Resource Unit	Values	Water Quality Classifications
12	Boundary Creek Complex	<p>Fish Habitat Dwarf galaxias, īnanga, bluegill bully, common bully, upland bully, black flounder, longfin and shortfin eel habitat. Brown trout spawning.</p> <p>Invertebrate Habitat Kōura and freshwater mussel habitat.</p> <p>Riparian Habitat <i>Teucrium parvifolium</i> and <i>Urtica linearifolia</i> habitat.</p> <p>Bird Habitat Black-fronted tern feeding habitat.</p>	AE, FS
13	Branch (including Lake Argyle)	<p>Fish Habitat Alpine galaxias, dwarf galaxias, koaro, northern flathead galaxias, upland bully, longfin and shortfin eel habitat. Brown and rainbow trout habitat. Brown trout spawning.</p> <p>Bird Habitat Black-fronted tern feeding habitat. Shag and waterfowl habitat.</p> <p>Riparian Habitat Intact indigenous forest in upper catchment.</p> <p>Recreation Highly valued trout fishery. Back country experience. Waterskiing, fishing and model boating.</p> <p>Natural Character Very high (Leatham River and Branch River upstream of weir).</p> <p>Hydro Electric Generation</p>	AE, FS, F
	Lake Argyle only	<p>Recreation Highly valued trout fishery. Waterskiing and model boating</p>	CR, F
14	Centre Valley Complex	<p>Fish Habitat Common bully, upland bully, longfin eel, and shortfin eel habitat.</p>	AE, FS

Comment [1]: Topic 13

Comment [2]: Topic 13

Comment [3]: Topic 13

No.	Water Resource Unit	Values	Water Quality Classifications
15	Waiau-toa/Clarence	<p>Fish habitat Northern flathead galaxias, dwarf galaxias, koaro and longfin eel habitat. Brown trout/salmon spawning.</p> <p>Bird Habitat Wetland species, black-fronted terns and southern crested grebe. Paradise shelduck moulting site. Braided river birds.</p> <p>Invertebrate Habitat Freshwater mussels.</p> <p>Aquatic Macrophytes Intact indigenous aquatic macrophytes community.</p> <p>Recreation Waterfowl hunting, fishing, canoeing, rafting, jet boating and passive recreation.</p> <p>Public Access Large areas of catchment administered by DOC but subject to lease constraints.</p> <p>Significant Wetlands Lake McRae - nationally important scientific feature.</p>	AE, FS, F, A
16	Coastal Wairau Complex	<p>Fish Habitat Īnanga, common bully, upland bully, longfin eel and shortfin eel habitat. Īnanga spawning habitat.</p> <p>Bird Habitat Bittern and waterfowl habitat.</p> <p>Riparian Habitat <i>Urtica linearifolia</i> habitat. Significant indigenous wetland vegetation in Rarangi dune system.</p> <p>Recreation Waterfowl hunting, whitebaiting.</p>	AE, FS
17	Doctors	<p>Fish Habitat Īnanga, common bully, upland bully, longfin eel and shortfin eel habitat. Brown trout habitat.</p> <p>Invertebrate Habitat Kōura and freshwater mussel habitat.</p>	AE, FS
18	East Coast Complex	<p>Fish Habitat Common Bully and shortfin eel habitat.</p> <p>Bird Habitat Coastal wetlands habitat for New Zealand scaup and marsh crake.</p> <p>Riparian Habitat Willow free coastal wetland communities. Remnant indigenous species along streams.</p>	AE, FS

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No.	Water Resource Unit	Values	Water Quality Classifications
19	Fairhall	<p>Fish Habitat Īnanga, upland bully and shortfin eel habitat.</p>	AE, FS
20	Flaxbourne	<p>Fish Habitat Black flounder, common bully, bluegill bully, upland bully, giant bully, Īnanga, longfin eel and shortfin eel habitat.</p> <p>Bird Habitat Lake Elterwater habitat for pied stilts, dabchick, shags, paradise shelduck, grey teal and waterfowl. Paradise duck moulting area.</p> <p>Recreation Whitebaiting, gamebird hunting.</p> <p>Water supply catchment Private community supplies.</p>	AE, FS, WS
21	Gibsons	<p>Fish Habitat Īnanga, common bully, lamprey, longfin eel and shortfin eel habitat. Brown trout present.</p> <p>Invertebrate Habitat Kōura habitat.</p> <p>Riparian Habitat Fault associated wetlands.</p> <p>Recreation Waterfowl hunting.</p>	AE, FS
22	Goulter	<p>Fish Habitat Koaro and upland bully habitat. Landlocked population of koaro in Lake Chalice scientifically important. Brown trout spawning in Goulter River.</p> <p>Riparian Habitat Intact indigenous forest in upper catchment.</p> <p>Recreation Regionally significant brown trout fishery and tramping.</p> <p>Natural Character Very high.</p>	AE, FS, F, NS, A
23	Graham	<p>Fish Habitat Shortkaw kokopu, banded kokopu, Īnanga, common bully, bluegill bully, redfin bully, dwarf galaxias, longfin eel and shortfin eel habitat.</p> <p>Riparian Habitat Intact indigenous forest in upper catchment.</p> <p>Natural Character High.</p>	AE, FS

No.	Water Resource Unit	Values	Water Quality Classifications
24	Grovetown	<p>Fish Habitat Īnanga, giant kokopu, common bully, upland bully, black flounder, longfin eel and shortfin eel habitat. Brown trout present.</p> <p>Invertebrate Habitat Kōura and freshwater mussel habitat.</p> <p>Bird Habitat Grey duck, Australasian shoveler, New Zealand scaup, paradise shelduck, black swan, shag, kotuku, pukeko, white-faced heron and spotless crane habitat. Paradise shelduck and black swan moulting area.</p> <p>Aquatic Macrophytes The uncommon native submerged macrophyte <i>Potamogeton orchreatus</i> is present.</p> <p>Riparian Habitat Indigenous vegetation restoration project around Grovetown Lagoon. <i>Urtica linearifolia</i> habitat.</p> <p>Recreation Food gathering, waterfowl hunting, canoeing.</p>	AE, FS
25	Kaituna	<p>Fish Habitat Dwarf galaxias, upland bully and longfin eel habitat. Brown trout spawning.</p> <p>Bird Habitat Wildfowl habitat.</p> <p>Recreation Wildfowl hunting, fishing.</p>	AE, FS, F
26	Kaiuma	<p>Fish Habitat Common bully, banded kokopu and longfin eel habitat.</p> <p>Riparian Habitat Intact indigenous forest in upper catchment. Swamp Maire in riparian margin.</p> <p>Recreation Waterfowl hunting.</p>	AE, FS
27	Kenepuru	<p>Fish Habitat Dwarf galaxias, Īnanga, bluegill bully, giant bully, redfin bully, common smelt and longfin eel habitat.</p> <p>Bird Habitat Weka habitat in riparian margins.</p> <p>Riparian Habitat Intact indigenous forest in upper catchment. Patches of indigenous riparian vegetation in lower reaches.</p> <p>Natural Character High.</p>	AE, FS

No.	Water Resource Unit	Values	Water Quality Classifications
28	Medway	<p>Fish Habitat Dwarf galaxias, upland bully, torrentfish, longfin eel and shortfin eel habitat. Brown trout habitat.</p> <p>Riparian Habitat Pink broom and other indigenous species present.</p> <p>Recreation Upland game hunting.</p>	AE, FS
29	Northbank Complex	<p>Fish Habitat Īnanga, koaro, dwarf galaxias, common bully, redfin bully, upland bully, torrentfish, lamprey, longfin eel and shortfin eel habitat. Brown trout habitat.</p> <p>Riparian Habitat Intact indigenous forest in upper catchment.</p>	AE, FS
30	Ōhinemahuta (previously Onamalutu)	<p>Fish Habitat Giant kokopu, common bully, redfin bully, bluegill bully, upland bully and longfin eel habitat. Brown trout spawning.</p> <p>Riparian Habitat Intact indigenous forest in upper catchment.</p> <p>Recreation Swimming, fishing and recreational reserve.</p> <p>Natural Character High.</p>	AE, FS, F, CR
31	Omaka	<p>Fish Habitat Upland bully and longfin eel habitat. Brown trout spawning.</p> <p>Riparian Habitat Indigenous species in upper catchment.</p> <p>Recreation Upland game and waterfowl hunting.</p> <p>Natural Character Very high (above Tyntesfield Road).</p>	AE, FS
32	Opouri	<p>Fish Habitat Dwarf galaxias, upland bully and longfin habitat. Brown and rainbow trout habitat. Brown trout spawning.</p> <p>Riparian Habitat Lowland podocarp riparian margins. Intact indigenous forest in upper catchment. <i>Leptinella nana</i> habitat.</p> <p>Recreation Fishing and gamebird hunting.</p>	AE, FS, F

No.	Water Resource Unit	Values	Water Quality Classifications
33	Ōpaoa - Lower (previously Opawa)	<p>Fish Habitat Īnanga, common bully, giant bully, upland bully, black flounder, yelloweye mullet, grey mullet, longfin and shortfin eel habitat. Īnanga spawning habitat. Brown trout habitat.</p> <p>Bird Habitat Royal spoonbill, fernbird, kotuku, crake and waterfowl habitat.</p> <p>Riparian Habitat Indigenous coastal riparian margins. Riparian enhancement occurring in selected locations.</p> <p>Recreation Swimming, canoe/kayaking, whitebaiting, fishing, gamebird hunting and boating.</p>	AE, FS, F, CR
34	Ōpaoa – Upper (previously Opawa)	<p>Fish Habitat Īnanga, black flounder, upland bully, common bully, longfin eel and shortfin eel habitat. Brown trout habitat.</p> <p>Bird Habitat Kotuku, bittern and waterfowl habitat.</p> <p>Recreation Canoe/kayaking, boating, whitebaiting, fishing, swimming and gamebird hunting.</p>	AE, FS, F, CR
35	Patriarch	<p>Bird Habitat Black-fronted tern feeding habitat.</p> <p>Riparian Habitat River terrace wetlands.</p> <p>Recreation Gamebird hunting.</p>	AE, FS
36	Pelorus / Te Hoiere - Lower	<p>Fish Habitat Banded kokopu, inanga, dwarf galaxias, bluegill bully, common bully, giant bully, redfin bully, upland bully, grey mullet, longfin eel and shortfin eel habitat. Brown and rainbow trout habitat. Brown trout spawning in tributaries.</p> <p>Bird Habitat Banded rail, fernbird and waterfowl habitat.</p> <p>Invertebrate Habitat Kōura and freshwater mussel habitat.</p> <p>Riparian Habitat Lowland podocarp riparian margins. Estuarine and riverside wetlands.</p> <p>Recreation Swimming, kayaking, fishing and gamebird hunting.</p>	AE, FS, F, CR

No.	Water Resource Unit	Values	Water Quality Classifications
37	Pelorus / Te Hoiere - Upper	<p>Fish Habitat Common bully, redfin bully, upland bully, smelt, longfin eel and shortfin eel habitat. Brown and rainbow trout spawning.</p> <p>Riparian Habitat Intact indigenous forest in upper catchment. <i>Scutellaria</i> habitat.</p> <p>Recreation Swimming, kayaking, tramping and fishing.</p> <p>Natural Character Very high.</p>	AE, FS, F, CR, NS, A
38	Pine Valley	<p>Fish Habitat Dwarf galaxias, upland bully, redfin bully, longfin eel and shortfin eel habitat. Brown trout spawning.</p> <p>Riparian Habitat Intact indigenous forest in upper catchment.</p> <p>Recreation Swimming and tramping.</p>	AE, FS, CR
39	Pukaka	<p>Fish Habitat Īnanga, dwarf galaxias, common bully, bluegill bully, redfin bully, upland bully, lamprey, longfin eel and shortfin eel habitat. Brown trout spawning.</p> <p>Riparian Habitat Intact indigenous forest in upper catchment. Chaytor Reserve. Swamp maire in riparian. Riparian wetlands.</p> <p>Recreation Tramping.</p>	AE, FS
40	Rai	<p>Fish Habitat Dwarf galaxias, bluegill bully, redfin bully, upland bully, torrentfish, lamprey, shortfin eel and longfin eel. Brown and rainbow trout spawning.</p> <p>Invertebrate Habitat Freshwater mussel habitat.</p> <p>Riparian Habitat Lowland podocarp riparian margins. Intact indigenous forest in upper catchment. <i>Leptinella nana</i> habitat.</p> <p>Recreation Swimming, fishing, rafting, kayaking and gamebird hunting.</p>	AE, FS, F, CR

No.	Water Resource Unit	Values	Water Quality Classifications
41	Ronga	<p>Fish Habitat Dwarf galaxias, koaro, upland bully, longfin eel and shortfin eel habitat. Brown trout habitat.</p> <p>Riparian Habitat Intact indigenous forest in upper catchment.</p> <p>Recreation Fishing.</p>	AE, FS, F
42	Seventeen Valley Complex	<p>Fish Habitat Īnanga, common bully, longfin eel and shortfin eel habitat.</p> <p>Bird Habitat Royal spoonbill, wading birds and waterfowl.</p> <p>Recreation Wither Hills Farm Park and gamebird hunting.</p>	AE, FS
43	Spring Creek	<p>Fish Habitat Īnanga, giant kokopu, banded kokopu, black flounder, common bully, upland bully, lamprey, longfin eel and shortfin eel habitat. Brown and rainbow trout habitat.</p> <p>Invertebrate Habitat Kōura, freshwater mussel and freshwater shrimp habitat.</p> <p>Bird Habitat Shag and waterfowl habitat.</p> <p>Aquatic Macrophytes <i>Potamogeton cheesemannii</i> in upper reaches of Spring Creek.</p> <p>Riparian Habitat Planting of indigenous plants in the lower reaches.</p> <p>Recreation Kayaking, fishing, gamebird hunting.</p> <p>Aesthetic Water clarity.</p>	AE, FS, F, A

Comment [5]: Topic 13

No.	Water Resource Unit	Values	Water Quality Classifications
44	Taylor River	<p>Fish Habitat Īnanga, koaro, common bully, upland bully, yelloweye mullet, longfin eel and shortfin eel habitat. Brown and rainbow trout habitat.</p> <p>Bird Habitat Taylor Dam habitat for Australian coot, Pukeko, New Zealand scaup, grey teal, kingfisher, marsh crake, Australasian shoveler, black swan, paradise shelduck and waterfowl.</p> <p>Invertebrate Habitat Kōura habitat.</p> <p>Riparian Habitat Intact indigenous forest in upper Branch River.</p> <p>Recreation Swimming, walking, cycling, fishing, Taylor Dam, gamebird hunting.</p>	AE, FS, F, CR
45	Timms	<p>Fish Habitat Dwarf galaxias, upland bully and longfin eel habitat. Brown trout spawning.</p> <p>Riparian Habitat Intact indigenous forest in upper catchment.</p> <p>Recreation Tramping.</p>	AE, FS
46	Top Valley	<p>Fish Habitat Dwarf galaxias, upland bully, redfin bully and longfin eel habitat. Brown trout spawning.</p> <p>Bird Habitat Grey duck and waterfowl.</p> <p>Riparian Habitat Intact indigenous forest in upper catchment. Top Valley Wildlife Management Reserve.</p> <p>Recreation Gamebird hunting and tramping.</p> <p>Natural Character High.</p>	AE, FS

No.	Water Resource Unit	Values	Water Quality Classifications
47	Tuamarina	<p>Fish Habitat Īnanga, banded kokopu, koaro, common bully, upland bully, redfin bully, longfin eel and shortfin eel habitat. Brown trout spawning.</p> <p>Bird Habitat Pukeko, grey teal, kingfisher, Australasian shoveler, grey duck, Australasian bittern and waterfowl.</p> <p>Invertebrate Habitat Koura and freshwater mussel habitat.</p> <p>Riparian Habitat Riparian Habitat - Wetland vegetation. <i>Urtica linearifolia</i> habitat.</p> <p>Recreation Gamebird hunting.</p>	AE, FS
48	Waihopai - Lower	<p>Fish Habitat Īnanga, common bully, upland bully, torrentfish, lamprey, longfin eel and shortfin eel habitat. Brown trout habitat.</p> <p>Bird Habitat Black-fronted tern, banded dotterel and braided river bird habitat.</p> <p>Recreation Swimming, canoeing/kayaking, gamebird hunting and fishing.</p> <p>Hydro Electric Generation</p>	AE, FS, F, CR
49	Waihopai - Upper	<p>Fish Habitat Northern flathead galaxias, koaro, dwarf galaxias, upland bully and longfin eel habitat. Brown trout spawning.</p> <p>Riparian Habitat Small areas of intact indigenous vegetation. Weeping broom in riparian margins.</p> <p>Recreation Fishing and gamebird hunting.</p> <p>Hydro Electric Generation</p>	AE, FS, F, CR
50	Waikakaho	<p>Fish Habitat Inanga, black flounder, common bully, upland bully, lamprey, shortfin eel and longfin eel habitat. Brown trout spawning.</p> <p>Riparian Habitat Intact indigenous forest in upper catchment.</p>	AE, FS

Comment [6]: Topic 13

Comment [7]: Topic 13

No.	Water Resource Unit	Values	Water Quality Classifications
51	Wairau - Upper	<p>Fish Habitat Dwarf galaxias, koaro, northern flathead galaxias, alpine galaxias, upland bully, lamprey, longfin eel and shortfin eel habitat. Brown trout, rainbow trout and salmon habitat. Brown trout and salmon spawning.</p> <p>Bird Habitat Black fronted tern, fernbird, pied stilt, oyster catcher, banded dotterel, grey duck and paradise shelduck habitat.</p> <p>Riparian Habitat Intact indigenous forest in upper catchment and tributaries. Riparian wetlands.</p> <p>Recreation Kayaking, tramping, nationally significant trout fishery, and gamebird hunting.</p> <p>Natural Character Very high (source to Bull Paddock Stream).</p>	AE, FS, F
52	Wairau Lagoon	<p>Fish Habitat Īnanga, yelloweye mullet, shortfin eel and longfin eel habitat.</p> <p>Bird Habitat Terns, shags, banded dotterel, royal spoonbill, and migrant waders. Most diverse number of bird species in Marlborough. Nationally significant area.</p> <p>Riparian Habitat Wetland ecosystems.</p> <p>Recreation Gamebird hunting. Kayaking, kite surfing, fishing, whitebaiting and walking.</p> <p>Cultural</p>	AE, FS, F, C
53	Wairau Plain Tributaries Complex	<p>Fish Habitat Īnanga, black flounder, common bully, upland bully, longfin eel and shortfin eel habitat. Brown trout habitat.</p> <p>Invertebrate Habitat Kōura and freshwater mussel habitat.</p>	AE, FS, F

No.	Water Resource Unit	Values	Water Quality Classifications
54	Wairau River Bed	<p>Fish Habitat Īnanga, dwarf galaxias, black flounder, torrentfish, yelloweye mullet, giant bully, common bully, bluegill bully, upland bully, redfin bully, shortfin and longfin eel. Brown trout, rainbow trout and salmon habitat. Brown trout spawning.</p> <p>Invertebrate Habitat Kōura and freshwater mussel habitat.</p> <p>Bird Habitat Black fronted tern, black-billed gull, pied stilt, oyster catcher, banded dotterel, paradise shelduck, royal spoonbill, kotuku and wildfowl habitat.</p> <p>Riparian Habitat Riverside wetlands.</p> <p>Recreation Kayaking, rafting, whitebaiting, rowing, swimming, jet boating, water skiing, fishing and gamebird hunting.</p>	AE, FS, F, CR
55	Wye	<p>Fish Habitat Dwarf galaxias, koaro, upland bully, shortfin eel and longfin eel habitat. Brown trout habitat.</p> <p>Riparian Habitat Intact indigenous forest in upper catchment.</p> <p>Natural Character High.</p>	AE, FS
56	Small Coastal Complex	<p>Fish Habitat Banded kokopu, giant kokopu, koaro, Īnanga, dwarf galaxias, common bully, bluegill bully, redfin bully, lamprey, longfin eel and shortfin eel habitat.</p>	AE, FS
57	Small Sounds Streams	<p>Fish Habitat Banded kokopu, giant kokopu, koaro, Īnanga, shortjaw kokopu, dwarf galaxias, common bully, bluegill bully, redfin bully, giant bully, upland bully, torrentfish, common smelt, lamprey, longfin eel and shortfin eel habitat.</p> <p>Bird Habitat Weka habitat in riparian margins.</p> <p>Riparian Habitat Indigenous riparian vegetation.</p> <p>Recreation Children playing.</p>	AE, FS

No.	Water Resource Unit	Values	Water Quality Classifications
58	Waima	<p>Fish Habitat Īnanga, black flounder and longfin eel habitat.</p> <p>Bird Habitat Blue Duck habitat. Braided river birds. Coastal lagoon.</p> <p>Recreation Walking access to Sawcut Gorge. Gamebird hunting.</p> <p>Natural Character High.</p>	AE, FS, A
59	Waitohi	<p>Fish Habitat Banded kokopu, shortjaw kokopu, bluegill bully, redfin bully and longfin eel habitat. Brown trout habitat.</p> <p>Riparian Habitat Intact indigenous forest in upper catchment.</p> <p>Recreation Walking</p> <p>Natural Character Very high.</p>	AE, FS, WS, C
60	Wakamarina	<p>Fish Habitat Īnanga, koaro, shortjaw kokopu, dwarf galaxias, common bully, redfin bully, upland bully, bluegill bully, torrentfish, lamprey, shortfin eel and longfin eel habitat. Brown trout spawning.</p> <p>Riparian Habitat Intact indigenous forest in upper catchment.</p> <p>Recreation Swimming, kayaking, fishing and gold mining.</p> <p>Natural Character Very high (upper catchment).</p>	AE, FS, CR
	Waikawa	<p>Fish Habitat Banded kokopu, koaro, bluegill bully, redfin bully, common bully, inanga, shortfin eel and longfin eel habitat.</p> <p>Riparian Habitat Intact indigenous forest in upper catchment.</p>	AE, FS, C

Comment [8]: Topic 13

Comment [9]: Topic 13

Other Water Resources	Values	Water Quality Classifications
All Coastal Water	Food gathering	SG
Benmorven Freshwater Management Unit*	<p>Water Supply Individual domestic supplies.</p>	WS

Other Water Resources	Values	Water Quality Classifications
Brancott Freshwater Management Unit*	Water Supply Individual domestic supplies.	WS
Omaka Aquifer Freshwater Management Unit*	Water Supply Individual domestic supplies.	WS
Omaka River Freshwater Management Unit*	Water Supply Woodbourne residential supply. Individual domestic supplies.	WS
Rarangi Shallow Freshwater Management Unit*	Water Supply Individual domestic supplies.	WS
Riverlands Freshwater Management Unit*	Water Supply Riverlands municipal supply. Individual domestic supplies.	WS
Southern Springs Freshwater Management Unit*	Water Supply Individual domestic supplies.	WS
Wairau Aquifer Freshwater Management Unit*	Water Supply Blenheim and Renwick municipal supplies. Individual domestic supplies.	WS

* As mapped on Freshwater Management Unit Map 1.

Schedule 2 – Water Quality Classification Standards

Standard/Parameter	Interpretation of Standard/Parameter	Classification																																								
Aquatic Life	<p>pH</p> <ul style="list-style-type: none"> The pH range must be from 6.5 to 8.5. <p>Particulate Organic Material (POM)</p> <ul style="list-style-type: none"> The daily average concentration of POM must not exceed 4mg/l. <p>Toxicants</p> <ul style="list-style-type: none"> Must not exceed the limits ($\mu\text{g/l}$ Hg^{4+}) in the following list: <table border="1"> <tr> <td>Aluminium (pH>6.5)</td> <td>55.00</td> <td>Mercury (inorganic)</td> <td>0.60</td> </tr> <tr> <td>Ammonia-N (at pH = 8.0, temperature = 20°C)</td> <td>0.05</td> <td>Nickel</td> <td>11.00</td> </tr> <tr> <td>Arsenic (As III)</td> <td>24.00</td> <td>Nitrate (NO₃N)</td> <td>2.40</td> </tr> <tr> <td>Arsenic (As V)</td> <td>13.00</td> <td>Selenium (Total)</td> <td>11.00</td> </tr> <tr> <td>Boron</td> <td>370.00</td> <td>Silver</td> <td>0.05</td> </tr> <tr> <td>Cadmium</td> <td>0.20</td> <td>Zinc</td> <td>8.00</td> </tr> <tr> <td>Chromium (CrVI)</td> <td>1.00</td> <td>Chlorine</td> <td>3.00</td> </tr> <tr> <td>Copper</td> <td>1.40</td> <td>Cyanide</td> <td>7.00</td> </tr> <tr> <td>Lead</td> <td>3.40</td> <td>Hydrogen sulfide</td> <td>1.00</td> </tr> <tr> <td>Manganese</td> <td>1900.00</td> <td></td> <td></td> </tr> </table>	Aluminium (pH>6.5)	55.00	Mercury (inorganic)	0.60	Ammonia-N (at pH = 8.0, temperature = 20°C)	0.05	Nickel	11.00	Arsenic (As III)	24.00	Nitrate (NO ₃ N)	2.40	Arsenic (As V)	13.00	Selenium (Total)	11.00	Boron	370.00	Silver	0.05	Cadmium	0.20	Zinc	8.00	Chromium (CrVI)	1.00	Chlorine	3.00	Copper	1.40	Cyanide	7.00	Lead	3.40	Hydrogen sulfide	1.00	Manganese	1900.00			AE, FS
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Biological Growths	<ul style="list-style-type: none"> Bacterial and/or fungal slime growths must not be visible to the naked eye as obvious plumose growths or mats. The daily average carbonaceous BOD₅ due to dissolved organic compounds (i.e. those passing a GF/C filter) must not exceed 2mg/l. Dissolved reactive phosphorus (DRP) must be <0.015mg/l when rivers are at < median flow. Dissolved inorganic nitrogen (DIN) must be <0.444mg/l when rivers are at < median flow. 	AE, FS																																								
Temperature	<ul style="list-style-type: none"> The daily maximum temperature must be $\leq 24.19^\circ\text{C}$, subject to natural inputs. <u>Shall not exceed 25°C.</u> The natural temperature of the water must not be changed by more than 3°C. 	AE, FS, F																																								
Turbidity	<ul style="list-style-type: none"> Turbidity must be no greater than 5.6 Nephelometric Turbidity Units. 	AE, FS, CR																																								

Comment [10]: Clause 16 Minor Amendment

Comment [11]: Topic 13

Standard/Parameter	Interpretation of Standard/Parameter	Classification
Colour or visual clarity	<ul style="list-style-type: none"> - Hue must not be changed by more than 10 points on the Munsell scale. - The natural colour or clarity must not be conspicuously changed due to sediment or sediment laden discharge originating from the site of a land disturbance operation. - The change in reflectance must be <50%. - Measurements are to be made immediately upstream of the discharge and below the discharge after reasonable mixing. 	AE, FS
Dissolved Oxygen (DO)	<ul style="list-style-type: none"> - The daily minimum must be ≥0.75mg/l <u>7.5mg/l</u>. - <u>Saturation >80%</u>. 	AE, FS, F
Deposited Fine Sediment (DFS) – Stoney Bottom Streams	<ul style="list-style-type: none"> - The DFS cover must be <20%. 	AE, FS
Conspicuous oil or grease films, scums or foams, or floatable or suspended materials	<ul style="list-style-type: none"> - Conspicuous oil or grease films, scums or foams, or floatable or suspended materials must not be produced. 	AE, FS, F
Objectionable odour	<ul style="list-style-type: none"> - Objectionable odour must not be emitted. 	AE, FS, F
Suitability for consumption by farm animals	<ul style="list-style-type: none"> - Water must not be rendered unsuitable for consumption by farm animals. 	AE, FS, F
Suitability of fish for human consumption	<ul style="list-style-type: none"> - Fish must not be rendered unsuitable for human consumption by the presence of contaminants. 	F
Periphyton cover (filamentous algae >20mm long)	<ul style="list-style-type: none"> - Cover must be <30% when river flow is < median. 	F, CR
Macroinvertebrate Community Index (MCI) – Stoney Bottom Streams	<ul style="list-style-type: none"> - Must be >400 <u>80</u> when river flow is < median <u>flow</u>. 	F
<i>Escherichia coli</i> (<i>E. coli</i>)	<ul style="list-style-type: none"> - Between 1 November and 30 April of the following year mean <i>E. coli</i> levels must be <126/100mL when rivers are at < median flow. - At all other times mean <i>E. coli</i> levels must be <260/100mL when rivers are at < median flow. - Between 1 November and 30 April of the following year maximum <i>E. coli</i> levels must be <260/100mL when rivers are at < median flow. - Between 1 November and 30 April of the following year maximum <i>E. coli</i> levels must be <260/100mL when rivers are at < median flow. 	CR

Comment [12]: Topic 13

Comment [13]: Topic 13

Comment [14]: Topic 13

Standard/Parameter	Interpretation of Standard/Parameter	Classification																																				
Cyanobacteria (mat >3mm thick)	<ul style="list-style-type: none"> - Between 1 November and 30 April of the following year the seasonal maximum mat must be <20% when river flow is < median. - At all other times the must be <50% when river flow is < median. 	CR																																				
Suitability for human consumption	<ul style="list-style-type: none"> - Water must not be tainted or contaminated so as to make it unpalatable or unsuitable for human consumption after treatment. - Water treated by coagulation/filtration/ disinfection shall be able to comply with the Drinking-Water Standards for New Zealand 2005 (revised 2008). 	WS																																				
Suitability for treatment	<ul style="list-style-type: none"> - Water must not be rendered unsuitable for treatment (equivalent to coagulation, filtration, and disinfection) by presence of contaminants. - The maximum turbidity limit, except that produced naturally under flood conditions, must not exceed 20 Nephelometric Turbidity Units (NTU) when rivers are at < median flow. 	WS																																				
pH	<ul style="list-style-type: none"> - The pH range must be from 6.0 to 9.0. 	WS																																				
Biological Growths	<ul style="list-style-type: none"> - The daily average carbonaceous BOD₅ due to dissolved organic compounds (i.e. those passing a GF/C filter) must not exceed 2mg/l. - Phytoplankton chlorophyll-a must be <0.02mg/l when rivers are at < median flow. 	WS																																				
Toxicants	<p>Toxicants</p> <ul style="list-style-type: none"> - Must not exceed the limits (µg/l µg/l) in the following list: <table border="1"> <tbody> <tr> <td>Aluminium (pH>6.5)</td> <td>27.00</td> <td>Mercury (inorganic)</td> <td>0.06</td> </tr> <tr> <td>Arsenic (As III)</td> <td>1.00</td> <td>Nickel</td> <td>8.00</td> </tr> <tr> <td>Arsenic (As V)</td> <td>0.80</td> <td>Selenium (Total)</td> <td>5.00</td> </tr> <tr> <td>Boron</td> <td>90.00</td> <td>Silver</td> <td>0.02</td> </tr> <tr> <td>Cadmium</td> <td>0.06</td> <td>Zinc</td> <td>2.40</td> </tr> <tr> <td>Chromium (CrVI)</td> <td>0.01</td> <td>Chlorine</td> <td>0.40</td> </tr> <tr> <td>Copper</td> <td>1.00</td> <td>Cyanide</td> <td>4.00</td> </tr> <tr> <td>Lead</td> <td>1.00</td> <td>Hydrogen sulfide</td> <td>0.50</td> </tr> <tr> <td>Manganese</td> <td>1200.00</td> <td></td> <td></td> </tr> </tbody> </table>	Aluminium (pH>6.5)	27.00	Mercury (inorganic)	0.06	Arsenic (As III)	1.00	Nickel	8.00	Arsenic (As V)	0.80	Selenium (Total)	5.00	Boron	90.00	Silver	0.02	Cadmium	0.06	Zinc	2.40	Chromium (CrVI)	0.01	Chlorine	0.40	Copper	1.00	Cyanide	4.00	Lead	1.00	Hydrogen sulfide	0.50	Manganese	1200.00			NS
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Colour or visual clarity	<p>Measurements are to be made immediately upstream of the discharge and below the discharge after reasonable mixing.</p> <ul style="list-style-type: none"> - Hue must not be changed by more than 5 points on the Munsell scale. - Turbidity must be no greater not change more than 1.5 Nephelometric Turbidity Units. 	A																																				
Temperature	<ul style="list-style-type: none"> - The natural temperature of the water must not be changed by more than 3°C. 	SG																																				

Comment [15]: Clause 16 Minor Amendment

Comment [16]: Topic 13

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Dissolved Oxygen	- Must exceed 80% of saturation or 6mg/l, whichever is greater.	SG
Suitability of fish for human consumption	- Must not be rendered unsuitable by the presence of contaminants. - Median faecal coliform content of samples taken over a shellfish gathering season must not exceed a Most Probable Number (MPN) of 14 per 100ml, and not more than 10% of samples must exceed an MPN of 43 per 100ml (or Colony Forming Units per 100ml).	SG