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Schedules



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1. Schedule of natural and human use values of Otago's surface water bodies

This schedule identifies some of the natural and human use values of Otago's lakes and rivers. These are the characteristics of a water body which are important to, or are an essential part of, ecological communities, or are enjoyed or utilised by people and communities. The values are identified by geographic subregion and by individual water bodies, or groups of water bodies, within each subregion (see Maps A1-A8 for subregions).

The identification of natural and human use values supported by Otago's lakes and rivers provides a mechanism for recognising the existence of values which need to be taken into account and given appropriate protection in managing water use and land use activities (see Policy 5.4.2). The opportunity to provide such protection will arise when preparing or reviewing regional and district plans under the Resource Management Act, and when considering applications for resource consents.

This schedule of natural and human use values is divided into five parts:

- (a) Schedule 1A: Natural values (page 20-6);
- (aa) Schedule 1AA: Otago Resident Native Freshwater Fish – Threat Status (page 20-47)
- (b) Schedule 1B: Water supply values (page 20-48);
- (c) Schedule 1C: Registered historic places (page 20-51);
- (d) Schedule 1D: Spiritual and cultural beliefs, values and uses of significance to Kai Tahu (page 20-53).

The natural values identified in Schedule 1A are specifically related to Part II of the Resource Management Act but are limited to the attributes of the aquatic ecosystem that support indigenous flora and fauna, trout and salmon, and the regionally significant presence of gamebirds. The outstanding features and landscapes relate to those in Part II of the Act or those identified in the Water Conservation (Kawarau) Order, which this Plan recognises.

Natural and human use values are not limited to those characteristics identified in the schedule. The natural character and amenity values of lakes and rivers are also important natural and human use values, which are given particular regard to by Policies 5.4.8 and 5.4.9. The non-listing of values in Schedule 1A is not to be taken as meaning that an area, value or habitat is not important or worthy of protection.

Some water bodies may be wholly or partly wetland, with regionally significant wetland values. These water bodies may be identified in Schedule 9.

This schedule is not intended to represent a comprehensive or exhaustive list of natural and human use values. It contains information available during the preparation process of this Plan. There is now additional information available for many water bodies, however there may still be lakes or rivers for which there is no

SCHEDULE 1: NATURAL AND HUMAN USE VALUES OF
OTAGO'S SURFACE WATER BODIES

or insufficient information. Water bodies not included in the schedule, but in close proximity to those that have values identified, may share similar values.

Conversely, identification of a particular value for a river does not necessarily mean that value occurs at every point throughout that river. Identification does, however, provide a starting point, in identifying what values are expected to occur.

1A Schedule of natural values

The following schedule identifies natural values supported by Otago’s lakes and rivers. These include ecosystem values, outstanding natural features and landscapes, areas of significant indigenous vegetation and significant habitat of indigenous fauna, and areas with a high degree of naturalness.

The areas of significant indigenous vegetation and significant habitat of indigenous fauna are included where they meet criteria under Policy 10.5.2 of the Regional Policy Statement for Otago. Other scheduled values are established to provide certainty and to meet the requirements of the Objectives and Policies in Chapter 6 of the Regional Policy Statement for Otago.

The values are identified by geographic subregion and by individual water bodies, or groups of water bodies, within each subregion (see Maps A1–A8 for subregions).

Note the codes for ecosystem values in Column 2 of Schedule 1A are given in Table 3.

Table 3: Codes for ecosystem values supported by lakes and rivers

Ecosystem Value	Code	Explanation
Physical Characteristics		
Size	Psize	Large water bodies supporting high numbers of particular species, or habitat variety, which can provide for diverse life cycle requirements of a particular species, or a range of species.
Unimpeded access	Ppass	Access within the main stem of a catchment through to the sea or a lake unimpeded by artificial means, such as weirs, and culverts.
Substrata: Macrophyte Boulder Gravel Sand Silt/mud Bedrock	Pplant Pboulder Pgravel Psand Psilt Prock	Refers to the bed composition of importance for resident biota.
Habitat Characteristics		
Spawning areas	Hspawn	Refers to presence of significant fish spawning areas: (t)=trout; (s)=salmon.
Juvenile rearing areas	Hjuve	Refers to presence of significant areas for development of juvenile fish: (t)=trout; (s)=salmon.
Riparian vegetation	Hriparian	Refers to presence of riparian vegetation of significance to aquatic habitats.

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Ecosystem Value	Code	Explanation
Freedom from biological nuisances	Exoticfree Weedfree Willowfree	Refers to absence of: exotic species of fish; aquatic pest plants (eg Lagarosiphon) identified in the Pest Management Strategy for Otago 2009; Crack willow.
Species Characteristics		
Exotic game fish: trout, salmon	Trout Rtrout Salmon	Refers to significant presence of trout. Refers to regionally significant presence of trout. Refers to significant presence of salmon.
Fishery values: eels	Eel	Refers to significant presence of eels.
Indigenous fish diversity	Fishdiv	Refers to presence of a significant range of indigenous fish species.
Indigenous fish – rare species	Rarefish	Refers to presence of indigenous fish species threatened with extinction.
Indigenous waterfowl diversity	Birddiv	Refers to presence of a significant range of indigenous waterfowl.
Indigenous waterfowl - rare species	Birdrare	Refers to presence of indigenous waterfowl threatened with extinction.
Indigenous Invertebrates diversity	Invdiv	Refers to presence of a significant range of indigenous invertebrates.
Indigenous Invertebrates - rare species	Invrare	Refers to presence of indigenous invertebrates threatened with extinction.
Indigenous- aquatic vegetation	Sigveg	Refers to presence of significant indigenous aquatic vegetation.
Gamebirds	Gbird	Refers to regionally significant presence of gamebirds.

Note that all map references given in Schedule 1A refer to the NZMS 260 series.

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North Otago subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Welcome Creek	Hspawn(t), Weedfree, Trout, Salmon. In divid in headwaters			
Unnamed former tributary of the Pacific Ocean a.k.a. Temby Swamp Stream	Ppass, Pgravel, Hspawn(t), Hjuve(t), Trout			
Waiareka Creek	Weedfree, Hspawn (inanga spawning below J42:435586)			
Kakanui River (note, the Kakanui-Kauru Alluvium Aquifer forms an integral part of the water body)	Psize, Ppass, all substrata, Weedfree, Hspawn(t), (inanga spawning below J42:443574), Hjuve, Trout, Eel, Rarefish, Fishdiv. Willowfree, Hriparian upstream of I41:275733. Invrare (North branch) upstream of I41:110675		<i>Significant habitat for longjaw galaxiid and koaro. Significant habitat for lamprey (uncommon in Otago).</i>	A high degree of naturalness above Clifton Falls.
Kauru River	Pgravel, Weedfree, Rarefish, Fishdiv		<i>Significant habitat for longjaw galaxiid.</i>	
Kurinui Creek a.k.a. Big Kuri Creek	Weedfree. Invrare upstream of J42:334392			
Waianakarua River	Ppass, Pgravel, Hjuve, Hriparian, Weedfree, Hspawn (inanga spawning downstream of J42:403485), Rarefish, Fishdiv, Eel		<i>Significant habitat for koaro.</i>	A high degree of naturalness above afforested areas of the catchment.
South Branch Waianakarua	Ppass, Pgravel, Hjuve, Hriparian, Weedfree, Fishdiv. Invrare upstream of J42:305410			
Shag River (Waihemo) (note, the Shag Alluvium Aquifer forms an integral part of the water body)	Psize, Ppass all substrata, Weedfree, Hspawn (inanga spawning below J43:351233), Trout(t), Eel, Rarefish. In divid in mid reaches		<i>Significant habitat for flathead galaxiid and koaro. Significant habitat for lamprey (uncommon in Otago).</i>	
Siberia Creek	Weedfree, Rarefish		<i>Significant habitat for flathead galaxiid.</i>	

SCHEDULE 1A: NATURAL VALUES

North Otago subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Unnamed tributary of the Shag River (Waihemo) a.k.a. Deem Burn	Weedfree, Rarefish		<i>Significant habitat for koaro upstream of I42:224388.</i>	
Pigroot Creek	Pboulder, Hriparian, Weedfree. Invrare upstream of I42:072530			
Happy Valley Creek	Weedfree, Rarefish		<i>Significant habitat for flathead galaxiid.</i>	
Tipperary Creek	Weedfree, Rarefish		<i>Significant habitat for hybrid galaxiid species.</i>	
Deepdell Creek	Weedfree, Rarefish		<i>Significant habitat for flathead galaxiid.</i>	
Trotters Creek	Weedfree, Hriparian, Hjuve, Fishdiv, Rarefish. Invrare upstream of J42:330322		<i>Significant habitat for giant kokopu and koaro. Significant habitat for lamprey (uncommon in Otago).</i>	
Pigeon Creek	Weedfree, Hriparian, Hjuve, Fishdiv, Rarefish. Invrare upstream of J42:335339		<i>Significant habitat for giant kokopu.</i>	

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Maniototo subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Taieri River upstream of Tiroiti	Psize, Pgravel, Ppass, Hspawn(t&s), Hjuve, Weedfree, Eel, Trout downstream of Paerau weir. Hriparian, Trout, Birddiv, Invdiv, Rarefish upstream of Paerau weir. Invrare upstream of H43:544013, Gbird	<p>a) Deep gorge (Taieri Falls) cut into distinct rocky scarp, schistose landscape, in main stem between H43:110567 and Canadian Flat.</p> <p>b) Deep gorge (Paerau Gorge) cut into distinct rocky scarp, schistose landscape, in main stem from Paerau Reservoir to NZMS 260 H42:369727.</p> <p>c) Scroll plain (Serpentine Flat) consisting of a meandering channel pattern and oxbow lakes and wetlands, from confluence with Bonds Creek to Paerau Reservoir.</p> <p>d) Scroll plain consisting of a meandering channel pattern and oxbow lakes and wetlands, from confluence with Linn Burn to confluence with Shepherds Hut Stream.</p>	<p>Significant habitat for flathead galaxiid, including tributaries upstream of Paerau weir.</p> <p>Significant habitat for lamprey (uncommon in Otago).</p>	
Ailsa Creek	Weedfree, Rarefish		Significant habitat for flathead galaxiid.	
Bullocky Creek	Weedfree, Rarefish		Significant habitat for flathead galaxiid.	
Elbow Creek	Weedfree, Rarefish		Significant habitat for flathead galaxiid.	
Unnamed tributary of the Taieri River at H43:600125	Weedfree, Rarefish		Significant habitat for flathead galaxiid.	

SCHEDULE 1A: NATURAL VALUES

Maniototo subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Horse Burn	Weedfree, Rarefish		<i>Significant habitat for flathead galaxiid.</i>	
Rock and Pillar Creek	Weedfree, Hspawn, Hjuve, Hriparian, Exoticfree. Invrare upstream of H43:772290			A high degree of naturalness above 900 metres asl.
Styx Creek	Weedfree, Hspawn(t), Hjuve(t), Hriparian, Exoticfree. Invrare upstream of H43:744254			A high degree of naturalness above 900 metres asl.
Logan Burn	Weedfree, Hspawn, Hjuve, Hriparian, Trout			A high degree of naturalness above 900 metres asl.
Shepherds Hut Creek, McHardies Creek and Loganburn Reservoir	Hriparian, Hspawn(t), Hjuve			
Linn Burn	Pboulder, Weedfree, Rarefish. Invrare upstream of H43:603294		<i>Significant habitat for flathead galaxiid.</i>	A high degree of naturalness above 600 metres asl.
Totara Creek	Weedfree, Trout (lower reaches), Rarefish. Invrare upstream of H42:595338		<i>Significant habitat for unidentified galaxiid species.</i>	A high degree of naturalness above 600 metres asl.
Sow Burn	Weedfree, Hspawn, Hjuve, Hriparian, Salmon, Trout			A high degree of naturalness above 900 metres asl.
Cambridge Creek (tributary of the Sow Burn)	Weedfree, Rarefish		<i>Significant habitat for flathead galaxiid.</i>	A high degree of naturalness above 900 metres asl.
Ewe Burn	Hspawn(t), Weedfree, Rarefish, Trout		<i>Significant habitat for roundhead galaxiid.</i>	
Pig Burn	Hspawn, Hjuve, Trout			
Kye Burn	Psize, Ppass, Weedfree, Hriparian, Hspawn(t), Hjuve, Rarefish, Eel, Trout	Areas of old gold sluicing landscapes.	<i>Significant habitat for flathead galaxiid and roundhead galaxiid.</i>	A high degree of naturalness above 900 metres asl.

SCHEDULE 1A: NATURAL VALUES

Maniototo subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Healy Creek	Weedfree, Rarefish, Fishdiv		<i>Significant habitat for unique community of flathead and roundhead galaxiids. Type locality for flathead galaxiid.</i>	
Little Kye Burn	Weedfree, Hspawn(t), Trout, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Swin Burn	Weedfree, Hspawn(t), Hjuve(t), Hriparian, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	

SCHEDULE 1A: NATURAL VALUES

Central Otago subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Clutha River/Mata-Au between Alexandra and Lake Wanaka	Psize, Prock, Pgravel, Hspawn(t&s), Hriparian, Hjuve(t&s), Trout, Eel, Salmon, Rarefish, Birddiv		<i>Significant habitat for flathead galaxiid (tributaries).</i>	
Chapmans Gully	Invrare upstream of G42:237420			A high degree of naturalness above 900 metres asl.
Luggate Creek	Weedfree, Rarefish. Invrare upstream of F40:040924		<i>Significant habitat for koaro.</i>	
Princess Burn	Weedfree. Invrare upstream of F40:064925			
Manuherikia River main stem	Pgravel, Hspawn(t), Hjuve, Hriparian, Weedfree, Eel, Trout. Invdiv in mid reaches. Birdrare above Falls Dam		<i>Significant habitat: Areas of importance to internationally uncommon species - black fronted tern - above Falls Dam.</i>	
Rocks Creek	Weedfree. Invrare upstream of H40:620976			
Unnamed tributary of the Manor Burn at G42:435365	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Chatto Creek	Pboulder, Hspawn, Hriparian, Weedfree, Trout, Eel, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Devonshire Creek	Pboulder, Hriparian, Hspawn, Hjuve, Trout			
Ophir Drainage Channel	Weedfree, Rarefish		<i>Significant habitat type locality for roundhead galaxiid.</i>	
Dunstan Creek	Pgravel, Weedfree, Hriparian. Hjuve (t), Hspawn (t), Trout in lower reaches	Old gold sluicing landscapes at Blue Lake.		A high degree of naturalness above 900 metres asl.
Ida Burn and Pool Burn	Hspawn, Hjuve, Trout, Eel			
Donald Stuarts Creek	Pgravel, Weedfree. Exoticfree, Invrare upstream of H41:508840			A high degree of naturalness above 900 metres asl.
Dovedale Creek	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	

SCHEDULE 1A: NATURAL VALUES

Central Otago subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Earnsclough or Fraser River	Pgravel, Hspawn(t), Hjuve(t). Hriparian (except in lower reaches). Weedfree, Trout, Eel. Exoticfree in headwaters. Invrare upstream of F42:098420			A high degree of naturalness above 900 metres asl.
Bannock Burn	Pgravel, Hjuve, Hspawn, Eel, Trout			
Low Burn	Pboulder, Weedfree, Hspawn(t), Hjuve(t)			A high degree of naturalness above 900 metres asl.
Sheepskin Creek	Weedfree, Rarefish		<i>Significant habitat for flathead galaxiid.</i>	
Schoolhouse Creek	Weedfree, Rarefish		<i>Significant habitat for flathead galaxiid.</i>	
Lindis River	Pgravel, Weedfree, Hspawn(t), Hjuve(t), Eel, Trout			A high degree of naturalness above 900 metres asl.
John Bull Creek	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Amisfield Burn	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Cardrona River	Pboulder, Psand, Pgravel, Hspawn, Hjuve, Weedfree, Trout, Eel, Rarefish. Invrare (mid to upper reaches)		<i>Significant habitat for flathead galaxiid</i>	A high degree of naturalness above 900 metres asl
Spotts Creek	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Timber Creek	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Branch Burn	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Boundary Creek	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Wrights Gully	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Maori Gully	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Kawarau River <i>between Lake Dunstan and Lake Wakatipu</i>	Psize, Pgravel, Prock, Trout, Salmon, Eel, Rarefish. Weedfree upstream of Lake Dunstan	Outstanding: (a) for its wild, scenic characteristics; (b) natural characteristics, in particular the return flow in the upper section when the Shotover River is in flood; (c) for scientific values, in particular the return flow in the upper section when the Shotover is in flood; (d) for recreational purposes, in particular rafting, jet boating and kayaking. Spectacular and rugged river gorge, schistose landscape, fast flowing white water and rapids, old gold sluicing landscape, from confluence with Arrow River to Lake Dunstan.	<i>Significant habitat</i> for koaro including many tributaries.	
Soho Creek	Weedfree. Invrare upstream of F41:866830			
Lake Hayes	Psand, Psilt, Weedfree, Hriparian, Eel, Trout			
Lakes Johnson, Luna, Kirkpatrick and Dispute	Hriparian, Eel, Trout			
Horne Creek	Weedfree. Hspawn(t), Hjuve(t), Ppass, Trout in lower reaches			
Moke Lake	Hriparian, Weedfree (also free of Elodea), Eel, Trout, Sigveg		<i>Significant vegetation:</i> Rare association of aquatic plants.	

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Lake Wakatipu	Psize, Pplant, Weedfree, Hjuve(t&s), Hriparian, Eel, Trout, Salmon, Sigveg, Rarefish, Invrare	<p>Outstanding:</p> <p>(a) as a fishery;</p> <p>(b) for its scenic characteristics;</p> <p>(c) for scientific value, in particular water clarity, and bryophyte community;</p> <p>(d) for recreational purposes, in particular boating;</p> <p>(e) for historical purposes;</p> <p>(f) for significance in accordance with tikanga Maori, in particular sites at the head of the lake, and the legend of the lake itself.</p> <p>Scenic values within the wider landscape context of the surrounding mountains, particularly:</p> <ul style="list-style-type: none"> • clear blue colour of the water, • river deltas, and • beaches, particularly uncommon beach features between Rat Point and White Point. 	<p><i>Significant habitat</i> for koaro including many tributaries.</p> <p><i>Significant vegetation:</i> Rare association of aquatic plants.</p>	
Unnamed tributary of Lake Wakatipu at F42:747392	Weedfree, Invrare			
One Mile Creek	Weedfree. Invrare upstream of E41:665659			
Gorge Creek	Weedfree. Invrare upstream of E41:408857			

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Wye, Kingston and Staircase Creeks	Pboulder, Hriparian, Weedfree, Rarefish. Ppass in Staircase Creek only. Hspawn in lower reaches		<i>Significant habitat</i> for koaro.	A high degree of naturalness above 900 metres asl.
Streams from west and south of Richardson Mountains	Pboulder, Weedfree, Hjuve, Hspawn, Hriparian			A high degree of naturalness above 900 metres asl.
Buckler Burn, Precipice Creek or Temple Burn, Twelve Mile Creek or Ox Burn	Pboulder, Weedfree, Hspawn(t), Hjuve(t), Hriparian			A high degree of naturalness above 900 metres asl.
Rees River	Psize, Ppass, Hspawn(t), Hjuve(t), Weedfree, Hriparian, Eel, Salmon, Trout, Birddiv, Birdrare	<p>Outstanding:</p> <p>(a) Natural and physical qualities and characteristics that contribute to people's appreciation of pleasantness of waters;</p> <p>(b) Natural and physical qualities and characteristics that contribute to aesthetic coherence;</p> <p>(c) as habitat for wildlife;</p> <p>(d) for its scenic characteristics;</p> <p>(e) for significance in accordance with tikanga Maori, in particular sites at the mouth of the river.</p> <p>High level of naturalness - free from significant interference by human practices, from confluence with Hunter Creek to its source.</p> <p>System of braided gravel river channels, in main stem from Lake Wakatipu</p>	<i>Significant habitat:</i> Areas of importance to internationally uncommon species - black fronted tern, wrybill, banded dotterel - in main stem from Lake Wakatipu to confluence with Hunter Creek.	

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
		to confluence with Hunter Creek.		
Earnslaw Burn	Ppass, Hspawn, Hriparian, Hjuve, Trout, Weedfree, Salmon, Birddiv, Birdrare			A high degree of naturalness within Mount Aspiring/Tititea National Park.
Diamond Lake, Diamond Creek and Lake Reid	Ppass, Psand, Hspawn(t&s), Hjuve(t&s), Weedfree, Hriparian, Eel, Trout, Salmon (Quinnat), Birddiv, Rarefish	Outstanding (a) as habitat for wildlife and quinnat salmon; (b) as a fishery.	<i>Significant habitat</i> for koaro.	
Diamond Lake tributary at E40:447978	Weedfree, Rarefish		<i>Significant habitat</i> for koaro.	
Dart River/Te Awa Whakatipu	Psize, Ppass, Weedfree, Hspawn, Hjuve, Hriparian, Eel, Trout, Salmon, Birddiv, Birdrare	Outstanding: (a) Natural and physical qualities and characteristics that contribute to people's appreciation of pleasantness of waters; (b) Natural and physical qualities and characteristics that contribute to aesthetic coherence; (c) Natural and physical qualities and characteristics that contribute to cultural attributes; (d) Biological and genetic diversity of ecosystems; (e) Essential characteristics that determine the ecosystem's integrity, form, functioning and resilience; (f) as habitat for wildlife; (g) for its scenic characteristics; (h) for its natural characteristics, in	<i>Significant habitat:</i> Presence of a breeding population of threatened endemic species - blue duck - above Beans Burn confluence to its source. Areas of importance to internationally uncommon species - black fronted tern, wrybill, banded dotterel - in main stem from Lake Wakatipu to confluence to Beans Burn.	

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
		<p>particular natural turbidity;</p> <p>(i) scientific value, in particular natural turbidity;</p> <p>(j) for significance in accordance with tikanga Maori, in particular sites at the mouth of the river.</p> <p>High level of naturalness - free from significant interference by human practices above Beans Burn confluence to its source.</p> <p>System of braided gravel river channels with delta, in main stem from Lake Wakatipu to confluence with Beans Burn.</p>		
Route Burn	Psize, Ppass, Weedfree, Hspawn, Hjuve, Hriparian, Eel, Trout, Birddiv, Birdrare	<p>Outstanding:</p> <p>(a) Natural and physical qualities and characteristics that contribute to people's appreciation of pleasantness of waters;</p> <p>(b) Natural and physical qualities and characteristics that contribute to aesthetic coherence;</p> <p>(c) Natural and physical qualities and characteristics that contribute to cultural attributes;</p> <p>(d) Natural and physical qualities and characteristics that contribute to recreational attributes;</p> <p>(e) Biological and genetic diversity of ecosystems;</p>		A high degree of naturalness within Mount Aspiring/Tititea National Park.

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
		<p>(f) Essential characteristics that determine the ecosystem's integrity, form, functioning and resilience.</p> <p>High level of naturalness - free from significant interference by human practices.</p>		
Greenstone River, Caples River	Psize, Ppass, Weedfree, Hspawn(t), Hjuve(t), Hriparian, Eel, Trout, Birdrare	<p>Outstanding:</p> <p>(a) Natural and physical qualities and characteristics that contribute to people's appreciation of pleasantness of waters;</p> <p>(b) natural and physical qualities and characteristics that contribute to recreational attributes;</p> <p>(c) Essential characteristics that determine the ecosystem's integrity, form, functioning and resilience.</p> <p>High level of naturalness - free from significant interference by human practices.</p>		A high degree of naturalness within National Park and DoC estate.
Lochy River	Ppass, Weedfree, Hspawn, Hjuve, Eel, Trout	<p>Outstanding:</p> <p>(a) as a fishery;</p> <p>(b) for recreational purposes, in particular fishing.</p> <p>Wild and scenic characteristics, in main stem from Lake Wakatipu to its source.</p>		A high degree of naturalness above 900 metres asl.
Collins Creek	Hspawn(t), Hjuve(t)			

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Streams flowing to Lake Wakatipu between Halfway Bay and Elfin Bay, including Von River	Ppass, Weedfree, Hspawn(t), Hjuve(t), Hriparian, Eel, Trout, Rarefish	Outstanding: (a) as a fishery; (b) for recreational purposes, in particular fishing. Wild and scenic characteristics, in Von main stem from Lake Wakatipu to its source.	<i>Significant habitat</i> for roundhead galaxiid (Von catchment).	A high degree of naturalness above 900 metres asl.
Bullock Creek	Hspawn(t), Hjuve(t), Trout			
Lake Wanaka	Psize, Psand, Eel, Trout, Salmon, Sigveg, Rarefish, Invrare	Scenic values within the wider landscape context of the surrounding mountains, particularly the unmodified lake level, water quality and colour of the water.	<i>Significant vegetation:</i> Rare association of aquatic plants.	
Unnamed tributary of the Motatapu River at F40:825058	Weedfree, Invrare			
Unnamed tributary of the Motatapu River at F40:827055	Weedfree, Invrare			
Matukituki River	Psize, Ppass, Weedfree, Hspawn(t&s), Hjuve(t&s), Hriparian, Eel, Trout, Birddiv, Birdrare, Rarefish	System of braided gravel river channels, in main stem from Lake Wanaka to its source.	<i>Significant habitat:</i> Areas of importance to internationally uncommon species - black fronted tern, wrybill, banded dotterel - in main stem from Lake Wanaka to its source. <i>Significant habitat</i> for koaro including many tributaries.	A high degree of naturalness within Mount Aspiring/Tititea National Park.

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Streams flowing off West Wanaka, including Albert Burn	Ppass, Hspawn, Hjuve, Hriparian, Weedfree, Trout			A high degree of naturalness within Mount Aspiring/Tititea National Park. A high degree of naturalness above 900 metres asl.
Wilkin River	Psize, Pgravel, Ppass, Weedfree, Hspawn, Hjuve, Hriparian, Trout, Eel, Birddiv, Birdrare	High level of naturalness - free from significant interference by human practices above Kerin Forks to its source. System of braided, gravel river channels, in main stem from confluence with Makarora River to Kerin Forks	<i>Significant habitat:</i> Presence of a breeding population of threatened endemic species - blue duck - above upper forks to source. Areas of importance to internationally uncommon species - black fronted tern, wrybill, banded dotterel - in main stem from confluence with Makarora River to Kerin Forks.	A high degree of naturalness within Mount Aspiring/Tititea National Park.
Young River	Psize, Ppass, Hriparian, Hspawn, Hjuve, Trout, Eel			A high degree of naturalness within Mount Aspiring/Tititea National Park.
Makarora River	Psize, Ppass, Pgravel, Weedfree, Hspawn, Hjuve, Hriparian, Eel, Trout, Birddiv, Birdrare	System of braided, gravel river channels with delta, in main stem between Lake Wanaka and confluence with Blue River.	<i>Significant habitat:</i> Areas of importance to internationally uncommon species - black fronted tern, wrybill, banded dotterel - in main stem between Lake Wanaka and confluence with Blue River.	A high degree of naturalness within Mount Aspiring/Tititea National Park.
Brady Creek	Weedfree, Rarefish		<i>Significant habitat for</i> koaro.	
Lake Hawea	Psize, Psand, Weedfree, Hjuve(t&s), Eel, Trout, Salmon	Scenic values within the wider landscape context of the surrounding mountains, particularly colour of the water.		

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Hunter River	Psize, Pgravel, Ppass, Weedfree, Hspawn(t), Hjuve(t), Hriparian, Eel, Trout, Birddiv, Birdrare	High level of naturalness - free from significant interference by human practices between Long Flat Creek confluence and its source System of braided, gravel river channels, in main stem from Lake Hawea to confluence with Long Flat Creek.	<i>Significant habitat:</i> Presence of a breeding population of threatened endemic species - blue duck - between Long Flat Creek confluence and its source. Areas of importance to internationally uncommon species - black fronted tern, wrybill, banded dotterel - from Lake Hawea to confluence with Long Flat Creek.	A high degree of naturalness within Mount Aspiring/Tititea National Park. A high degree of naturalness above 900 metres asl.
Dingle Burn	Ppass, Weedfree, Hspawn, Hjuve, Hriparian, Eel, Trout, Birdrare			A high degree of naturalness above 900 metres asl.
Timaru River	Ppass, Hspawn, Hjuve, Hriparian, Weedfree, Trout. Invrare between G39:308280 and G39:313294 (incl tributaries)			A high degree of naturalness above 900 metres asl.
Hawea River	Psize, Weedfree, Hspawn, Hjuve, Trout, Salmon, Eel			
Shotover River	Pgravel, Pboulder, Psand, Prock, Psize, Weedfree, Hriparian, Birddiv, Birdrare	Outstanding: (a) for its wild and scenic characteristics; (b) for its natural characteristics, in particular the high natural sediment load and active delta at confluence with Kawarau River; (c) scientific value, in particular the high natural sediment load and active delta at confluence with Kawarau River; (d) for recreational purposes, in particular	Lochnagar and Lake Creek, outstanding: (a) Essential characteristics that determine the ecosystem's integrity, form, functioning and resilience. <i>Significant habitat:</i> Areas of importance to internationally uncommon species - black fronted tern, banded dotterel - in main stem between	A high degree of naturalness above 900 metres asl.

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
		<p>rafting, kayaking and jet boating; (e) for historical purposes, in particular gold mining.</p> <p>Spectacular and rugged river gorge, schistose landscape, fast flowing white water and rapids, old gold sluicing landscape, in main stem between confluence with Iron Stone Stream and Arthur Point.</p> <p>Wild and scenic characteristics, from confluence with Iron Stone Stream to its source.</p>	Arthur Point and its source.	
Carmichaels Creek	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Deep Creek	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Skippers Creek	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Mill Creek	Pgravel, Psand, Hspawn, Hjuve, Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	A high degree of naturalness above 900 metres asl.
Arrow River	Psize, Psand, Pgravel, Ppass, Hspawn, Hjuve, Weedfree, Trout			A high degree of naturalness above 900 metres asl.
Roaring Meg	Pboulder, Weedfree, Hriparian. Invrare upstream of F41:026844			A high degree of naturalness above 900 metres asl.
Nevis River	Psize, Ppass, Prock, Pgravel, Psand, Hspawn,, Hjuve, Weedfree, Eel, Trout, Birddiv, Birdrare. Invdiv above Nevis Crossing.	<p>Main stem gorge from Nevis Crossing to Kawarau River confluence: Outstanding (a) for its wild, characteristics; (b) for recreational purposes, in particular fishing and kayaking.</p> <p>Main stem above Nevis Crossing to source:</p>		A high degree of naturalness above 900 metres asl.

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
		<p>Outstanding (a) for its scenic, characteristics; (b) for recreational purposes, in particular fishing.</p> <p>High level of naturalness above Nevis Crossing to its source.</p> <p>Spectacular river gorge, white water and rapids, in main stem from Nevis Crossing to confluence with Kawarau River.</p>		
Unnamed tributary of the Nevis River at F43:820261	Hriparian, Weedfree, Rarefish		<i>Significant habitat</i> for roundhead galaxiid.	
Sproules Creek	Weedfree, Rarefish		<i>Significant habitat</i> for koaro.	
Schoolhouse Creek	Weedfree. Invrare upstream of F42:870478			
Unnamed tributary of the Nevis River at F42:921450	Weedfree, Rarefish		<i>Significant habitat</i> for roundhead galaxiid	
Unnamed tributary of the Nevis River at F42:951492	Weedfree. Invrare upstream of F42:003487			
Unnamed tributary of the Nevis River at F42:954541	Weedfree, Rarefish		<i>Significant habitat</i> for roundhead galaxiid.	
Nevis Burn	Weedfree. Invrare upstream of F42:870524			

SCHEDULE 1A: NATURAL VALUES

Lakes subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Unnamed tributary of the Nevis River at F42:959529	Weedfree, Rarefish		Significant habitat for roundhead galaxiid.	
Doolans Creek Left Branch	Weedfree. Invrare upstream of F42:860561			
Rastus Burn	Pboulder, Weedfree, Hspawn, Hriparian, Invrare upstream of F41:806641			A high degree of naturalness above 900 metres asl

SCHEDULE 1A: NATURAL VALUES

Roxburgh subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Clutha River/Mata-Au <i>between Alexandra and Island Block</i>	Psize, Psand, Pgravel, Prock, Hjuve, Eel, Trout, Salmon, Birddiv. Hspawn(s) below Roxburgh dam, Sigveg below Roxburgh dam		<i>Significant habitat for lamprey (uncommon in Otago)</i>	
Obelisk Creek	Weedfree. Invrare upstream of G42:175339			
Elbow Creek	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Coal Creek	Weedfree. Invrare upstream of G42:170321			
Teviot River	Pboulder, Weedfree, Willowfree (in upper reaches), Hjuve(t&s), Hspawn(t&s), Hriparian, Trout			
Lake Onslow	Hriparian, Hjuve(t), Hspawn(t), Trout			
Unnamed tributary of Lake Onslow at G43:458137	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Black Jacks Creek	Weedfree. Invrare upstream of G43:210086			
Benger Burn	Pboulder, Weedfree, Hspawn(t&s), Hriparian, Rarefish		<i>Significant habitat for koaro.</i>	A high degree of naturalness above 900 metres asl.
Tima Burn	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Streams flowing from Old Man Range /Kopuwai	Pboulder, Hspawn(t), Weedfree, Hriparian			A high degree of naturalness above 900 metres asl.

SCHEDULE 1A: NATURAL VALUES

Strath Taieri subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Taieri River between Tiroiti and Pukerangi	Psize, Ppass, Psand, Pgravel, Weedfree, Hspawn(t), Hjuve, Hriparian, Eel, Salmon, Rarefish, Fishdiv, Trout		Significant habitat for flathead galaxiid (including many tributaries). Significant habitat for lamprey (uncommon in Otago) Significant habitat for Lower Taieri galaxiid and koaro in many tributaries below Middlemarch.	
Prices Creek	Weedfree, Rarefish		Significant habitat for roundhead galaxiid.	
Lug Creek	Pboulder, Hriparian, Eel, Weedfree. Invrare upstream of H43:862280			A high degree of naturalness above 900 metres asl.
Cap Burn, Mare Burn, Scrub Burn and Six Mile (upper)	Hriparian, Hspawn(t), Hjuve(t)			
Annetts Creek, Heeney Creek and House Creek	Hriparian, Hspawn(t), Hjuve(t)			
Six Mile Creek (lower)	Pgravel, Prock, Weedfree, Eel, Hriparian, Hspawn(t), Hjuve(t). Invrare upstream of H43:853243			
Last Creek, Nant Creek, Dewar Creek and Kirkland Creek	Pgravel, Hriparian, Hspawn(t), Hjuve(t)			
Nenthorn Stream	Weedfree, Hspawn(t), Hjuve(t), Hriparian, Eel, Trout, Rarefish		Significant habitat for flathead galaxiid.	
Black Rock Stream	Weedfree, Rarefish		Significant habitat for flathead galaxiid.	
Manuka Stream	Weedfree, Rarefish		Significant habitat for flathead galaxiid.	
Washpool Stream	Weedfree, Rarefish		Significant habitat for flathead galaxiid.	
Deighton Creek	Weedfree, Rarefish		Significant habitat for flathead galaxiid.	

SCHEDULE 1A: NATURAL VALUES

Strath Taieri subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Spratts Creek	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Sutton Stream	Pboulder, Weedfree, Hspawn(t), Hriparian, Hjuve, Trout, Eel			A high degree of naturalness above 900 metres asl.
Burgan Stream	Weedfree, Exoticfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Stony Creek	Weedfree, Rarefish. Invrare upstream of H44:603910		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Salt Lake (near Sutton)	Weedfree	A rare example of a natural salt lake.		
March Creek	Pboulder, Pgravel, Psand, Psilt, Weedfree			A high degree of naturalness above 900 metres asl.

SCHEDULE 1A: NATURAL VALUES

Waikouaiti/Lammermoor subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Waikouaiti River (excluding South Branch)	Psize, Ppass, Psand, Pgravel, Weedfree, Hspawn (t) (& inanga spawning between I43:240084 and I43:266087), Hjuve, Eel, Trout, Rarefish. Invrare between I43:183242 and I43:093297, and including tributaries between I43:148264 and I43:093297		<i>Significant habitat</i> for flathead galaxiid, hybrid galaxiid, banded kokopu and koaro.	
Unnamed tributary of the Waikouaiti River at I43:097281	Weedfree, Rarefish		<i>Significant habitat</i> for flathead galaxiid.	
Back Creek	Weedfree, Rarefish		<i>Significant habitat</i> for flathead galaxiid.	
Waikouaiti River South Branch	Weedfree, Ppass, Hspawn(t), Hjuve, Hriparian, Trout, Rarefish, Fishdiv		<i>Significant habitat</i> for koaro.	A high degree of naturalness within Scenic Reserve.
Unnamed tributary of the Waikouaiti River a.k.a. Merton Stream at I43:244065	Weedfree, Fishdiv, Rarefish		<i>Significant habitat</i> for lamprey (uncommon in Otago).	
Toll Bar Creek	Weedfree, Rarefish		<i>Significant habitat</i> for koaro.	
Flat Stream	Weedfree. Invrare in lower reaches			
Taieri River between Pukerangi and Outram	Psize, Ppass, Pgravel, Psand, Prock, Weedfree, Hspawn, Hjuve, Hriparian, Trout, Salmon, Eel, Fishdiv, Rarefish	Well defined, deep gorge (Taieri Gorge) cut into distinct rocky scarp, schistose landscape, in main stem between confluence with Ross Stream and Outram.	<i>Significant habitat</i> for Lower Taieri galaxiid (tributaries). <i>Significant habitat</i> for lamprey (uncommon in Otago).	
Traquair Burn	Weedfree, Eel, Fishdiv			
Smugglers Creek	Weedfree, Rarefish		<i>Significant habitat</i> (and type locality) for Lower Taieri galaxiid.	

SCHEDULE 1A: NATURAL VALUES

Waikouaiti/Lammermoor subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Deep Stream	Pgravel, Psize in lower reaches. Weedfree, Hspawn(t), Hjuve(t), Hriparian, Rarefish, Eel, Trout. Invrare upstream of H44:605910		<i>Significant habitat for Lower Taieri galaxiid.</i>	A high degree of naturalness above 900 metres asl.
Clarkes Stream	Weedfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid at H44:682930.</i>	
Unnamed tributary of Deep Stream at H44:660958	Weedfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Unnamed tributary of Deep Stream at H44:678947	Weedfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Barbours Stream	Weedfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Deep Creek	Pgravel, Weedfree, Hspawn(t), Hjuve, Hriparian, Trout. Invrare upstream of H44:623987			A high degree of naturalness above 900 metres asl.
Three O'clock Stream	Ppass, Weedfree, Hspawn(t), Hjuve, Hriparian, Willowfree, Trout, Rarefish, Fishdiv		<i>Significant habitat for flathead galaxiid and koaro.</i>	
Christmas Creek	Ppass, Pboulder, Weedfree, Hspawn(t), Hjuve(t), Hriparian, Willowfree			A high degree of naturalness within Scenic Reserve.
Lee Stream	Psize, Ppass, Pgravel, Psand, Weedfree, Hspawn(t), Hjuve, Hriparian, Rarefish, Eel, Trout. Invrare upstream of I44:952867, and including tributaries upstream of I44:916868		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Black Rock Stream	Weedfree, Eel, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Broad Stream	Weedfree, Eel, Rarefish		<i>Significant habitat for koaro.</i>	
Canton Creek	Weedfree, Rarefish, Fishdiv		<i>Significant habitat for Lower Taieri galaxiid.</i>	

SCHEDULE 1A: NATURAL VALUES

Waikouaiti/Lammermoor subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Big Stream	Ppass, Pboulder, Hspawn(t), Hjuve(t), Willowfree, Weedfree, Eel, Rarefish, Trout			A high degree of naturalness within Scenic Reserve.

SCHEDULE 1A: NATURAL VALUES

Coastal subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Careys Creek	Pgravel, Weedfree, Hspawn(t), Hjuve(t), Rarefish, Fishdiv, In divid (upper reaches)		<i>Significant habitat</i> for koaro and banded kokopu. <i>Significant habitat</i> for lamprey (uncommon in Otago).	
Waitati River	Ppass, but major abstractions can result in very low flows in lower stretches. Pgravel, Weedfree, Hspawn (t) (&inanga spawning below I44:205925), Hjuve(t). Hriparian in headwaters. Trout, Rarefish, In divid (upper reaches)		<i>Significant habitat</i> for koaro. <i>Significant habitat</i> for lamprey (uncommon in Otago).	A high degree of naturalness within Silverpeaks Scenic Reserve.
Fergusons Creek	Weedfree. Invrare above I44:170896			
Wetherstons Creek	Weedfree			
Orokonui Creek	Weedfree, Hspawn(t), Hjuve(t), Rarefish, Fishdiv		<i>Significant habitat</i> for giant kokopu, koaro and banded kokopu. <i>Significant habitat</i> for lamprey (uncommon in Otago).	
Foot Stream and Mihiwaka Stream	Weedfree, Rarefish		<i>Significant habitat</i> for koaro and banded kokopu.	
Water of Leith	Pgravel, Weedfree, Hspawn(t&s), Hjuve(t&s), Hriparian Rarefish, Salmon, Trout		<i>Significant habitat</i> for giant kokopu and banded kokopu.	
Streams entering Otago Harbour (except Water of Leith)	Weedfree, Hspawn, Rarefish, Fishdiv, Exoticfree		<i>Significant habitat</i> for koaro and banded kokopu.	
Unnamed tributary of Otago Harbour a.k.a. Deborah Bay Stream at I44:252876	Weedfree, Rarefish		<i>Significant habitat</i> for koaro and banded kokopu.	

SCHEDULE 1A: NATURAL VALUES

Coastal subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Unnamed tributary of Latham Bay a.k.a. Latham Bay Stream at I44:280824	Weedfree, Rarefish		<i>Significant habitat for banded kokopu.</i>	
Unnamed tributary of Otago Harbour a.k.a. Macandrew Bay Stream at I44:233793	Weedfree, Rarefish		<i>Significant habitat for banded kokopu.</i>	
Unnamed tributary of Otago Harbour a.k.a. Otakou Stream at J44:318869	Weedfree, Rarefish		<i>Significant habitat for banded kokopu.</i>	
Unnamed tributary of Papanui Inlet at J44:332820	Weedfree, Hspawn, Invrare			
Unnamed tributary of the Pacific Ocean at J44:345808 (Papanui Beach)	Weedfree, Hspawn, Invrare			
Robertsons Creek	Weedfree, Hspawn, Invrare			
Unnamed pond, Jones Creek at I44:115734	Weedfree, Rarefish		<i>Significant habitat for banded kokopu.</i>	
Unnamed tributary of the Pacific Ocean at I44:241763 (Boulder Beach)	Weedfree, Hspawn, Fishdiv			
Tomahawk Lagoon	Psilt, Weedfree, Hriparian, Trout, Eel, Invrare			
Otokia Creek	Weedfree, Ppass, Hspawn, Hjuve, Rarefish		<i>Significant habitat for banded kokopu.</i>	
Fern Stream	Ppass, Weedfree, Hspawn, Hjuve, Hriparian, Fishdiv, Rarefish, Birddiv		<i>Significant habitat for banded kokopu.</i>	

SCHEDULE 1A: NATURAL VALUES

Coastal subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Flax Stream	Ppass, Weedfree, Hspawn, Hjuve, Hriparian, Exoticfree, Fishdiv, Rarefish, Birddiv		<i>Significant habitat for banded kokopu.</i>	
Unnamed tributary of the Taieri River a.k.a. Takitakitoa Stream	Ppass, Psilt, Weedfree, Hspawn, Hjuve, Hriparian, Birddiv, Eel, Rarefish		<i>Significant habitat for giant kokopu and banded kokopu.</i>	
Taieri River between Henley and the sea	Psize, Ppass, Psilt, Psand, Weedfree, Hspawn, Hjuve, Hriparian, Rarefish, Fishdiv, Trout, Salmon, Eel, Gbird	Lower Taieri Gorge	<i>Significant habitat for giant kokopu and banded kokopu.</i>	
Akatore Creek	Hspawn(t), Hjuve(t), Hriparian, Weedfree, Eel, Trout, Fishdiv, Rarefish. Exoticfree upstream of H45:878565		<i>Significant habitat for koaro and banded kokopu.</i>	
Bull Creek	Hspawn, Hjuve, Hriparian, Weedfree, Fishdiv, Rarefish		<i>Significant habitat for koaro.</i>	
Big Creek	Hspawn, Hjuve, Hriparian, Weedfree, Fishdiv, Rarefish		<i>Significant habitat for koaro.</i>	
Lower Tokomairiro River main stem	Psand, Psilt, Pgravel Pplant, Psize, Ppass, Hspawn(t), Hriparian, Hjuve(t), Eel, Trout, Fishdiv			
Wangaloa Creek	Ppass, Weedfree, Hspawn, Hjuve, Hriparian, Exoticfree, Birddiv			
Unnamed tributary of the Pacific Ocean a.k.a. Turnbolls Creek at H46:787366	Ppass, Weedfree, Hspawn, Hjuve, Hriparian, Exoticfree, Rarefish, Birddiv		<i>Significant habitat for banded kokopu.</i>	

SCHEDULE 1A: NATURAL VALUES

Taieri/Clutha Plains subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Taieri River between Outram and Henley	Psize, Psilt, Ppass, Pgravel, Psand, Weedfree, Hjuve, Trout, Salmon, Eel, Birddiv, Fishdiv, Rarefish, Gbird			
Lakes Waipori/Waihola	Psize, Ppass, Psilt, Weedfree, Hspawn, Hjuve, Hriparian, Eel, Trout, Fishdiv, Birddiv, Birdrare, Rarefish		<i>Significant habitat:</i> Presence of variety of waterfowl and native fish, including a breeding population of fernbird and giant kokopu.	
Mary Hill Creek	Weedfree, Rarefish, Fishdiv		<i>Significant habitat</i> for giant kokopu.	
Lee Creek	Ppass, Weedfree, Hspawn(t), Hjuve(t), Eel. Hriparian and Invrare above H44:898800			
Contour Channel and other West Taieri hill streams	Ppass, Weedfree, Hspawn(t), Hjuve(t), Eel. Hriparian in upper stretches			A high degree of naturalness above 900 metres asl
Mill Creek	Weedfree, Eel, Rarefish		<i>Significant habitat</i> for koaro.	
Meggat Burn	Hspawn(t), Hjuve(t), Hriparian, Weedfree, Eel, Rarefish. Invrare upstream of H45:743693		<i>Significant habitat</i> for banded kokopu.	
Waipori River	Ppass in lower stretches. Hspawn(t), Hjuve(t), Hriparian, Weedfree, Fishdiv, Eel, Rarefish, Trout		<i>Significant habitat</i> for koaro upstream of dam.	A high degree of naturalness above 900 metres asl and within Scenic Reserve.
Shepherd Stream	Weedfree, Rarefish		<i>Significant habitat</i> for Lower Taieri galaxiid.	
Tributaries of Waipori River	Weedfree, Rarefish		<i>Significant habitat</i> for dusky galaxiid and koaro. Munro's Dam Stream type locality for dusky galaxiid.	
Lake Mahinerangi	Weedfree, Hriparian, Trout, Rarefish		<i>Significant habitat</i> for koaro.	
Unnamed tributaries of Lake Mahinerangi at H44:709803, H44:714801, and H44:724797	Weedfree, Rarefish		<i>Significant habitat</i> for koaro.	

SCHEDULE 1A: NATURAL VALUES

Taieri/Clutha Plains subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Lammerlaw Stream	Hspawn(t), Hjuve(t), Hriparian, Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
North West Stream	Hspawn(t), Hjuve(t), Hriparian, Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Nardoo Stream	Hspawn(t), Hjuve(t), Hriparian, Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Unnamed tributary of Lake Mahinerangi at H44:705754	Weedfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Unnamed tributary of Lake Mahinerangi at H44:720766	Weedfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Unnamed tributary of Pioneer Stream at H44:703752	Weedfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Boundary Creek	Hriparian, Hspawn, Hjuve			
Unnamed tributaries of Lake Mahinerangi at H44:775772, H44:778770, and H44:775770	Weedfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Verter Burn	Hspawn(t), Hjuve(t), Hriparian, Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Post Office Creek	Hspawn(t), Hjuve(t), Hriparian, Weedfree, Rarefish, Fishdiv		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Silver Stream	Pgravel, Weedfree, Trout, Eel. Hspawn(t), Hjuve(t), Invdiv (midreaches), Hriparian in upper catchment. Invrare upstream of I44:144849. Rarefish		<i>Significant habitat for koaro upstream of I44:114899 and including several tributaries. Significant habitat for lamprey (uncommon in Otago).</i>	A high degree of naturalness above 900 metres asl and within Scenic Reserve and water reserve.
Whare Creek	Weedfree, Eel, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Upper Tokomairiro River main stem (including East and West Branches)	Psize, Ppass, Pgravel, Hspawn(t), Hjuve(t), Trout, Eel, Rarefish. Hriparian in upper catchment		<i>Significant habitat for fernbird. Significant habitat for Lower Taieri galaxiid in tributaries. Significant habitat for lamprey (in East and West Branches).</i>	

SCHEDULE 1A: NATURAL VALUES

Taieri/Clutha Plains subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Unnamed tributary of Fishers Stream at H45:706645	Weedfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Unnamed tributary of the Tokomairiro River West Branch at H45:693655	Weedfree, Rarefish		<i>Significant habitat for Lower Taieri galaxiid.</i>	
Unnamed tributary of the Tokomairiro River West Branch a.k.a. Nuggety Gully	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Lovells Stream	Ppass, Hspawn(t), Hjuve(t), Trout, Eel			
Lake Tuakitoto	Ppass, Psilt, Psand, Pplant, Psize, Weedfree, Hspawn, Hjuve(t), Hriparian, Trout, Eel, Birddiv, Birdrare, Rarefish, Fishdiv		<i>Significant habitat for giant kokopu. Also a breeding population of fernbird.</i>	
Lake Kaitangata (and Lake Kaitangata/Lake Tuakitoto Drainage)	Weedfree, Eel, Rarefish, Fishdiv		<i>Significant habitat for giant kokopu.</i>	
Saddle Stream	Weedfree, Eel, Rarefish, Fishdiv		<i>Significant habitat for giant kokopu.</i>	
McCrosties Drain	Weedfree, Eel, Rarefish, Fishdiv		<i>Significant habitat for giant kokopu.</i>	
Clutha River /Mata-Au between Balclutha and the sea	Psize, Ppass, Psand, Pgravel, Hspawn(s), Hjuve(t&s), Trout, Eel, Salmon, Fishdiv, Rarefish, Gbird			
Puerua River	Ppass, Psilt, Weedfree, Rarefish, Fishdiv, Hriparian, Hspawn(t), Hjuve(t), Eel		<i>Significant habitat for giant kokopu (Puerua River deviation)</i>	
Glenomaru Stream	Weedfree, Hriparian, Hspawn(t), Hjuve(t). Invdiv in mid reaches			

SCHEDULE 1A: NATURAL VALUES

Southwest Otago subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Pomahaka River	Psize, Ppass, Pgravel, Psand, Prock, Weedfree, Hspawn(t&s), Hjuve(t&s), Hriparian, Rtrout, Eel, Fishdiv, Invdiv. Invrare between G45416466 and confluence with Clutha River/Mata-Au, Gbird			
Timber Creek	Ppass, Weedfree, Hspawn(t&s), Hjuve(t&s), Trout. Invrare upstream of G43:173032			
Unnamed tributary of Flodden Creek a.k.a. Whisky Gully	Weedfree. Invrare upstream of G45:216674			
Rankle Burn	Weedfree. Invrare upstream of G45:274640			
Back Stream West Branch	Weedfree, Invdiv			
Bullock Creek	Weedfree. Invrare upstream of G43:170093			
Waiwera River	Pgravel, Ppass, Weedfree, Hspawn(t&s), Hriparian, Hjuve(t&s), Trout, Eel, Rarefish, Invdiv		<i>Significant habitat for roundhead galaxiid.</i>	
Kaihiku Stream	Pgravel, Hspawn(t), Hjuve(t), Eel, Trout, Invdiv (mid reaches)			
Clutha River /Mata-Au between Island Block and Balclutha	Psize, Ppass, Psand, Pgravel, Hspawn(t&s), Hjuve, Eel, Trout, Salmon, Sigveg, Birddiv, Rarefish, Fishdiv, Gbird between Balclutha and Tuapeka River mouth	Beaumont and Rongahere Gorge.	<i>Significant habitat:</i> Remnant indigenous ecosystem at Birch Island. <i>Significant vegetation:</i> Rare association of aquatic plants above confluence with Tuapeka.	

SCHEDULE 1A: NATURAL VALUES

Southwest Otago subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Unnamed tributary of the Clutha River/Mata-Au a.k.a. Raes Junction Stream	Rarefish		<i>Significant habitat for koaro.</i>	
Canadian Creek	Rarefish		<i>Significant habitat for koaro. Significant habitat for lamprey (uncommon in Otago).</i>	
Unnamed tributary of the Tuapeka River a.k.a. Konini Creek	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Waitahuna River	Ppass, Weedfree, Hspawn(t&s), Hjuve(t&s), Rarefish, Eel, Trout. Invrare upstream of H44:653760		<i>Significant habitat for Waitahuna dusky galaxiid (in headwaters and upper tributaries), and flathead galaxiid.</i>	
Tuapeka River	Pgravel, Psize, Ppass, Weedfree, Hspawn(t&s), Hjuve(t&s), Eel, Trout. In divid in upper reaches			
Unnamed tributaries of the Tuapeka River upstream of G45:472668	Weedfree, Rarefish		<i>Significant habitat for flathead galaxiid and dusky galaxiid.</i>	
Wetherston Creek	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Corkscrew Road Stream	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Blackcleugh Burn	Weedfree. Invrare upstream of G45:340676			
Kuriwao Stream	Ppass, Hspawn(t), Hjuve(t), Trout, Eel			

SCHEDULE 1A: NATURAL VALUES

Southwest Otago subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Mokoreta River (upper stretches, within Otago region)	Ppass, Hspawn(t), Hjuve(t), Trout, Eel			
Waipahi River (lower stretches, within Otago region)	Pplant, Pgravel, Psize, Ppass, Weedfree, Hspawn(t&s), Hjuve(t&s), Rtrout, Eel			

SCHEDULE 1A: NATURAL VALUES

Catlins subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Catchments between Fleming River and Longbeach Creek (excl Tautuku River)	Weedfree, Ppass, Hspawn, Hjuve, Hriparian, Fishdiv, Birddiv			A high degree of naturalness within bushed catchments.
Tautuku River	Psize, Ppass, Weedfree, Hspawn, Hjuve, Hriparian, Fishdiv, Birddiv, Eel	Scenic values with silver beech margins, from its mouth to its source.		A high degree of naturalness within bushed catchments.
Tautuku Bay Stream	Weedfree, Rarefish		<i>Significant habitat for banded kokopu.</i>	
Tahakopa River	Pgravel, Psize, Weedfree, Rarefish, Ppass, Hspawn(t), Hjuve(t), Hriparian, Trout, Eel, Fishdiv, Birddiv		<i>Significant habitat for flathead galaxiid. Significant habitat for lamprey (uncommon in Otago).</i>	A high degree of naturalness within bushed catchments.
Jumbo Creek	Rarefish		<i>Significant habitat for koaro and banded kokopu.</i>	
Gorge Creek	Rarefish		<i>Significant habitat for flathead galaxiid.</i>	
Unnamed tributary of the Tahakopa River at G47:268063	Weedfree, Rarefish		<i>Significant habitat for flathead galaxiid.</i>	
Maclennan River	Psize, Weedfree, Ppass, Hspawn(t), Hjuve(t), Hriparian, Trout, Eel, Fishdiv, Birddiv, Rarefish	Scenic values with silver beech margins, from confluence with Tahakopa River to its source.	<i>Significant habitat for koaro. Significant habitat for lamprey (uncommon in Otago).</i>	A high degree of naturalness within bushed catchments.
Waitangi Stream	Weedfree, Rarefish		<i>Significant habitat for koaro.</i>	
Matai Stream	Weedfree, Rarefish, Fishdiv		<i>Significant habitat for roundhead galaxiid and banded kokopu.</i>	
Catlins River	Psize, Pgravel, Ppass, Weedfree, Hspawn(t), Hjuve(t), Hriparian, Trout, Eel, Rarefish, Fishdiv, Invdiv	Scenic values with silver beech margins, from its mouth to its source.	<i>Significant habitat for giant kokopu, banded kokopu and roundhead galaxiid. Significant habitat for lamprey (uncommon in Otago).</i>	A high degree of naturalness within bushed catchments.
Purakaunui River	Pboulder, Ppass (below Falls), Weedfree, Eel	Purakaunui Falls.		A high degree of naturalness within bush, apart from viewing structures.

SCHEDULE 1A: NATURAL VALUES

Catlins subregion				
<i>Water body</i>	<i>Ecosystem Values</i>	<i>Outstanding natural feature or landscape</i>	<i>Significant indigenous vegetation and significant habitat of indigenous fauna</i>	<i>Areas with a high degree of naturalness</i>
Frank Stream	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Wallis Stream	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Craggy Tor Stream	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Daphne Brook	Weedfree, Rarefish		<i>Significant habitat for flathead galaxiid.</i>	
Tarwood Stream	Weedfree		<i>Significant habitat for roundhead galaxiid.</i>	
Papatupu Stream	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
Unnamed tributary of the Catlins River at G46:274228	Weedfree, Rarefish		<i>Significant habitat for roundhead galaxiid.</i>	
McLaren Creek	Weedfree, Rarefish, Fishdiv		<i>Significant habitat for giant kokopu, koaro, roundhead galaxiid and banded kokopu.</i>	
Owaka River	Psize, Pgravel, Ppass, Weedfree, Hriparian, Hspawn(t), Hjuve(t), Fishdiv, Trout, Eel. Invdiv in upper reaches			A high degree of naturalness within bushed catchments.
Unnamed tributary of the Owaka River at H46:504119	Weedfree, Rarefish, Fishdiv		<i>Significant habitat for giant kokopu.</i>	
Waipati (Chaslands) River	Hspawn(t), Hjuve(t), Trout, Eel			

SCHEDULE 1A: NATURAL VALUES

Sources for information contained in Schedule 1A

The outstanding natural features and landscapes, areas of significant indigenous vegetation and significant habitats of indigenous fauna identified in this schedule are derived from the following publications:

Allibone, R.M. (1997) Freshwater Fish of the Otago Region. Department of Conservation. Otago Conservancy Miscellaneous Report Series No. 36. (includes NIWA Freshwater Fish database for Otago rivers).

Biggs, BJ and Shand, BI (1985) Biological Communities and the Potential Effects of Power Developments in the Lower Clutha River - Otago. Report no. WS987, Ministry of Works and Development.

Clayton, J. (1993) Resource Evaluation and Operational Programme For Lakeweed: The Upper Clutha and Kawarau Catchment Areas. Prepared by NIWA Ecosystems for the Otago Regional Council.

Department of Conservation: Special Sites of Wildlife Interest.

Grindell, D.S. and P.A. Guest (eds) (1986) A list of Rivers and Lakes Deserving Inclusion in a Schedule of Protected Waters. Water and Soil Miscellaneous Publication, No. 97. National Water and Soil Conservation Authority, Wellington.

Grindell, D.S. (1984) A National Inventory of Wild and Scenic Rivers. Water and Soil Miscellaneous Publication, No. 68. National Water and Soil Conservation Authority, Wellington.

Kenny, J.A. and B.W. Hayward (eds) (1993) Inventory of Important Geological Sites and Landforms in the Otago region. Geological Society of New Zealand Miscellaneous Publication No. 77. Geological Society of New Zealand, Lower Hutt.

Lake Wanaka Preservation Act 1973.

Local Water Conservation (Lake Tuakitoto) Notice 1991.

Ministry for the Environment (1997) Water Conservation (Kawarau) Order 1997.

Water and Soil Conservation Authority (1982) A Draft for a National Inventory of Wild and Scenic Rivers. Part 1 - Nationally Important Rivers. Water and

SCHEDULE 1A: NATURAL VALUES

Soil Miscellaneous Publication, No. 97. National Water and Soil Conservation Authority, Wellington.

SCHEDULE 1AA: OTAGO RESIDENT NATIVE
FRESHWATER FISH THREAT STATUS

1AA Schedule of Otago Resident Native Freshwater Fish - Threat Status

Common name	Scientific name	Threat Status
Lowland longjaw galaxias	<i>Galaxias cobitinis</i>	Nationally Critical*
Canterbury mudfish (Kōwaro)	<i>Neochanna burrowsius</i>	Nationally Critical
Teviot flathead galaxias	<i>Galaxias</i> 'Teviot'	Nationally Critical*
Dusky galaxias	<i>Galaxias pullus</i>	Nationally Endangered*
Alpine galaxias	<i>Galaxias</i> aff. <i>paucispondylus</i> 'Manuherikia'	Nationally Endangered*
Eldon's galaxias	<i>Galaxias eldoni</i>	Nationally Endangered*
Central Otago roundhead galaxias	<i>Galaxias anomalus</i>	Nationally Vulnerable*
Clutha flathead galaxias	<i>Galaxias</i> sp. D.	Nationally Vulnerable*
Smeagol galaxias	<i>Galaxias</i> aff. <i>gollumoides</i> 'Nevis'	Nationally Vulnerable*
<i>Longfin eel (tuna)</i>	<i>Anguilla dieffenbachii</i>	Declining
Giant kokopu (Taiwharu)	<i>Galaxias argenteus</i>	Declining
<i>Galaxias gollumoides</i>	<i>Galaxias gollumoides</i>	Declining
Lamprey (kanakana)	<i>Geotria australis</i>	Declining
<i>Torrentfish (Piripiripōhatu)</i>	<i>Cheimarrichthys fosteri</i>	Declining
Koaro	<i>Galaxias brevipinnis</i>	Declining
Inanga (inaka)	<i>Galaxias maculatus</i>	Declining
Bluegill bully	<i>Gobiomorphus hubbsi</i>	Declining
Redfin bully	<i>Gobiomorphus huttoni</i>	Declining

*NB: Fish marked with an * are only found in the Otago Region.

1B Schedule of water supply values

This schedule identifies existing water takes from lakes and rivers, where the water taken is used for public water supply purposes. The communities identified in the schedule have come to rely upon these water supplies to provide for their social, economic and cultural well being. Rule 12.1.3.1 provides for replacement consents for these takes as a controlled activity, to provide certainty for these communities. The water takes are identified by geographic subregion and by individual water bodies within each subregion (see Maps A1–A8 for subregions and site locations).

Water is also taken for private water supply throughout Otago, particularly for domestic supply to dwellings such as farm homesteads and associated buildings, usually without treatment. It is also consumed without treatment by musterers, anglers, trampers, cyclists, hunters and other backcountry users. Areas with a high degree of naturalness, identified in Schedule 1A, will often contain water bodies with relatively pristine water quality. Those that utilise the water without treating it take the risk that it may contain giardia or other pathogenic (disease causing) organisms.

North Otago subregion

Water body or Catchment	Site No.	Water Supply Values
Kakanui River (note, the shallow aquifer forms an integral part of the water body)	1	Windsor and Dunrobin Water Supplies at J41:325737
	2	Weston and Enfield Water Supplies at J41:381667
	3	Reidston Water Supply at J42:405595
	4	Kakanui Water Supply at J42:430581
Kauru River	5	Kauru Hill Water Supply at J41:314637
Kurinui Creek a.k.a. Big Kuri Creek	6	Hampden-Moeraki Water Supply at J42:364413
Shag River (Waihemo) (note, the shallow aquifer forms an integral part of the water body)	7	Dunback Water Supply at I43:274279
	8	Palmerston (including Blue Mountain) Water Supply at J43:317237
	9	Goodwood Water Supply at J43:343234
Waianakarua River	10	Herbert-Waianakarua Water Supply at J42:339507

Maniototo subregion

Water body or Catchment	Site No.	Water Supply Values
Sow Burn	11	Patearoa Water Supply at H42:786435
Ewe Burn	12	Ranfurly Water Supply at H41:800689, H41:836770 and H41:794684

Central Otago subregion

Water body or Catchment	Site No.	Water Supply Values
Clutha River/Mata-Au <i>between Alexandra and Lake</i>	13	Clyde Water Supply at G42:199521
	14	Cromwell Water Supply at G41:120670

SCHEDULE 1B: WATER SUPPLY VALUES

Water body or Catchment	Site No.	Water Supply Values
<i>Wanaka (including Lake Dunstan)</i>		
Manuherikia River catchment	15	St Bathans Water Supply at H40:592926 and H40:602938
	16	Omakau and Ophir Water Supplies at G41:427626

Lakes subregion

Water body or Catchment	Site No.	Water Supply Values
Lake Wakatipu	17	Queenstown Water Supply from E41:666653 and F41:719664
Lake Hayes Tributary	18	Lake Hayes Water Supply at F41:794738
Lake Wanaka	19	Wanaka Water Supply at F40:033062 and F40:013057
Lake Hawea	20	Hawea Water Supply at G40:123153

Roxburgh subregion

Water body or Catchment	Site No.	Water Supply Values
Clutha River/Mata-Au <i>between Alexandra and Island Block</i>	21	Roxburgh Hydro Village Water Supply at G43:225194
Benger Burn	22	Ettrick Water Supply at G43:198030

Waikouaiti/Lammermoor subregion

Water body or Catchment	Site No.	Water Supply Values
Deep Stream	23	Dunedin Water Supply at H44:677992
Deep Creek	24	Dunedin Water Supply at H43:665037
Fortification Creek Dam	25	Hindon Water Supply at I44:906923
Waikouaiti River	26	Waikouaiti Water Supply at I43:232079
Waikouaiti River	27	Mt Pleasant-Stoneburn Water Supply at I43:155263

Coastal subregion

Water body or Catchment	Site No.	Water Supply Values
Water of Leith	28	Dunedin Water Supply at I44:152820 (Ross Creek)
	29	I44:153833 (Nicols Creek);
	30	I44:160843 (Lower Morrisons Creek)
	31	I44:153849 (Upper Morrisons Creek); and
	32	I44:164857 (West Branch)
Sullivans Dam	33	Dunedin Water Supply at I44:172863
Rossville Reservoir	34	Port Chalmers Water Supply at I44:233865 (Rossville intake); and
	35	I44:227879 (Cedar Farm intake)

SCHEDULE 1B: WATER SUPPLY VALUES

Waitati River	36	Dunedin Water Supply at I44:158883 (Burns Creek); I44:160873 (Jeffersons Creek); and I44:159870 (Williams Creek)
	37	
	38	
Wetherstons Creek	39	Waitati Water Supply at I44:201882

Taieri/Clutha Plains subregion

Water body or Catchment	Site No.	Water Supply Values
Taieri River <i>between Outram and Henley</i>	40	Outram Water Supply at I44:955804
Mill Creek	41	West Taieri Water Supply at H44:833730
Meggat Burn	42	North Bruce Water Supply at H45:743693
Silver Stream catchment	43	Dunedin Water Supply at I44:096859; I44:105844; I44:105848; and I44:105850
	44	
	45	
	46	
Tokomairiro River East Branch	47	Milton Water Supply at H45:746529
Clutha River/Mata-Au <i>between Balclutha and the sea</i>	48	Bruce Water Supply at H46:619343 Kaitangata and Wangaloa Water Supplies at H46:667308
	49	
Puerua River	50	Richardson Water Supply at H46:510257

Southwest Otago subregion

Water body or Catchment	Site No.	Water Supply Values
Pomahaka River	51	Glenkenich Water Supply at G44:103754 <i>[Repealed – 1 June 2015]</i>
	52	
Waipahi River	63	Waipahi Rural Stock Water Supply at G45:196488
Timber Creek	53	Moa Flat Water Supply at G43:172033
Greens Creek	54	Rural Water Supply at G44:104752
Unnamed tributary of Flodden Creek a.k.a. Whisky Gully	55	Tapanui Water Supply at G45:223660
Back Stream West Branch	56	<i>[Repealed – 1 June 2015]</i>
Clutha River/Mata-Au <i>between Island Block and Balclutha</i>	57	Richardson Water Supply at G45:491435 Balclutha Water Supply at H46:580363
	58	
Waitahuna River	59	Balmoral 1 and 2 and Tuapeka East Water Supplies at H45:523564
Bungtown Creek	60	Lawrence Water Supply at H44:573773
Tuapeka River	61	Tuapeka Water Supply at G44:491742
Bluejacket Gully	62	Lawrence Water Supply at H44:543747

1C Schedule of registered historic places

This schedule identifies registered historic places which occur in, on, under or over the beds or margins of Otago's lakes and rivers. Historic places are an important cultural resource as they provide links with Otago's history and heritage.

There are other sites, buildings, places and areas of heritage value on the beds or margins of Otago rivers or lakes that are not identified in this schedule. The New Zealand Historic Places Trust retains information about important but unregistered historic values.

The registered historic places are identified by geographic subregion and by individual water bodies within each subregion (see Maps A1–A8 for subregions).

North Otago subregion

Water body	Registered Historic Places
Oamaru Creek	Japanese Red Bridge, Oamaru Public Gardens Thames Street Bridge, Thames Street, Oamaru
Kakanui River	Clarks Flourmill, including dam, gate and race, SH 1, Maheno
McCormicks Creek	McCormick's Creek Bridge, SH 85, Dunback
Waianakarua River North Branch	Graves Dam, Breakneck Road, Waianakarua Turnbull Thompson Bridge, SH 1, Waianakarua
Waianakarua River South Branch	Waianakarua Bridge, SH 1, Waianakarua

Maniototo subregion

Water body	Registered Historic Place
Hog Burn	Naseby Historic Area, Naseby – various culverts and crossings in or over the river

Central Otago subregion

Water body	Registered Historic Places
Clutha River/Mata-Au <i>between Alexandra and Lake Wanaka</i>	Bridge Piers, SH8, Alexandra Earnsclough Bridge and Piers, Clyde
Manuherikia River	Shakey Bridge, Alexandra Daniel O'Connell Bridge, Ophir Bridge Road–, Ophir
Lake Dunstan	Old Bannockburn Bridge Foundations (submerged). Cromwell Bridge, Cromwell

SCHEDULE 1C: REGISTERED HISTORIC PLACES

Lakes subregion

Water body	Registered Historic Places
Kawarau River	Kawarau Falls bridge and dam, Frankton, Queenstown Kawarau Gorge Suspension Bridge, SH 6, Gibbston
Luggate Creek	Luggate Flourmill, Luggate
Horne Creek	Horne Creek Bridge, Ballarat Street, Queenstown
Shotover River	Oxenbridge Tunnel, Arthurs Point, Queenstown Edith Cavell Bridge, Arthurs Point, Queenstown
Mill Creek	Wakatipu Flourmill Complex, Speargrass Flat Road. Butel's Flourmill, Millbrook
Murdochs Creek	Bullendale Battery and Dynamo, Skippers catchment
Stony Creek	"Murphy's Creek" suspended pipe over Stony Creek, Skippers catchment

Roxburgh subregion

Water body	Registered Historic Places
Clutha River/Mata-Au <i>between Alexandra and Island Block</i>	Four Span Steel Truss Bridge, Millers Flat Old bridge piers at Roxburgh, adjacent to current bridge

Strath Taieri subregion

Water body	Registered Historic Place
Taieri River <i>between Tiroiti and Pukerangi</i>	Hyde Bridge, SH 87, Hyde

Coastal subregion

Water body	Registered Historic Places
Water of Leith	George Street Bridge, George Street, Dunedin Cast Iron Footbridge, University of Otago, Dunedin Stone Bridge, University of Otago, Dunedin
Ross Creek	Earth Dam, Burma Road, Dunedin Valve Tower and Jetty, Burma Road, Dunedin

Taieri/Clutha Plains subregion

Water body	Registered Historic Places
Clutha River Mata-Au <i>between Balclutha and the sea</i>	Blair Railway Bridge, SH 91, Balclutha Balclutha Bridge, SH 1, Balclutha
Pioneer Stream and Reef Creek	Otago Pioneer Quartz Historic Reserve containing many relics of former mining activity

1D Schedule of spiritual and cultural beliefs, values and uses of significance to Kai Tahu

This schedule identifies the spiritual or cultural beliefs, values or uses associated with water bodies of significance to Kai Tahu. The values are identified by geographic subregion and by individual water bodies, or groups of water bodies, within each subregion (see Maps A1–A8 for subregions). Note that the codes for these values are given in Table 4. Kai Tahu provided the information that appears in this schedule.

Where an activity will require a resource consent, Policy 5.4.2 will apply. This means that where an activity is to occur with respect to any water body for which this schedule identifies a particular spiritual or cultural belief, value or use, it may be necessary for the applicant to consult with Kai Tahu in a manner which is consistent with that set out in the document “Kai Tahu Ki Otago - Natural Resource Management Plan”.

Table 4: Code for Kai Tahu beliefs, values and uses ascribed to water bodies

Code	Mana Interests:
MA1	Kaitiakitanga – the exercise of guardianship by Kai Tahu in accordance with tikanga Maori* in relation to Otago’s natural and physical resources; and includes the ethic of stewardship.
MA2	Mauri – life force; for example the mauri of a river is most recognisable when there is abundance of water flow and the associated ecosystems are healthy and plentiful; a most important element in the relationship that Kai Tahu have with the water bodies of Otago.
MA3	Waahi tapu and/or Waiwhakaheke – sacred places; sites, areas and values associated with water bodies that hold spiritual values of importance to Kai Tahu. (Note: Kai Tahu should be consulted regarding the location of these places, sites areas and values for a river identified as MA3).
MA4	Waahi taoka – treasured resource; values, sites and resources that are valued and reinforce the special relationship Kai Tahu have with Otago’s water resources.

Code	Access/Customary Use Interests:
MB1	Mahika kai – places where food is procured or produced. Examples in the case of waterborne mahika kai include eels, whitebait, kanakana (lamprey), kokopu (galaxiid species), koura (fresh water crayfish), fresh water mussels, indigenous waterfowl, watercress and raupo.
MB2	Kohanga – important nursery/spawning areas for native fisheries and/or breeding grounds for birds.
MB3	Trails – sites and water bodies which formed part of traditional routes, including tauraka waka (landing place for canoes).
MB4	Cultural materials – water bodies that are sources of traditional weaving materials (such as raupo and paru) and rongoa (medicines).
MB5	Waipuna – sources of water highly regarded for their purity, healing and health-giving powers.

* the correct way of doing things, according to custom.

SCHEDULE 1D: KAI TAHU VALUES

North Otago subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Awamoko Stream			✓	✓	✓		✓	✓	
Landon Creek				✓					
Awamoa Creek				✓				✓	
Waiareka Creek				✓	✓		✓	✓	
Kakanui River	✓	✓	✓	✓	✓	✓	✓	✓	✓
Oamaru Creek				✓	✓			✓	
Kakaho Creek				✓				✓	
Kurinui Creek a.k.a. Big Kuri Creek				✓			✓	✓	
Ngutukaka Creek				✓					
Waiwherowhero Creek				✓					
Waimataitai				✓	✓			✓	
Creeks between Waimataitai & Shag Point/Matakaea				✓					
Stony Creek				✓	✓	✓			
Bobbys Head Creek			✓	✓					
Most creeks between Bobbys Head & Pleasant River				✓					
Shag River (Waihemo)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Waianakarua River	✓	✓		✓	✓	✓	✓	✓	✓
Pleasant River			✓	✓	✓	✓	✓	✓	
Trotters Creek	✓	✓		✓	✓	✓	✓	✓	✓

Maniototo subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Taieri River, upstream of Tiroiti	✓	✓	✓	✓	✓	✓	✓	✓	
Streams on the west-facing slopes of the Rock and Pillar Range, excluding Logan Burn				✓	✓				
Kye Burn	✓	✓	✓	✓	✓	✓	✓	✓	

Central Otago subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Clutha River/Mata-Au between Alexandra and Lake Wanaka	✓	✓	✓	✓	✓	✓	✓	✓	
Manuherikia River	✓	✓	✓	✓	✓	✓	✓	✓	
Moa Creek				✓					
Other Manuherikia tributaries	✓	✓	✓	✓	✓	✓	✓	✓	
Little Bremner Creek				✓					
Earnsclough or Fraser River				✓					
Bannock Burn				✓					
Lindis River				✓			✓	✓	
Cardrona River	✓	✓	✓	✓	✓	✓	✓	✓	

SCHEDULE 1D: KAI TAHU VALUES

Lakes subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Kawarau River <i>between Lakes Dunstan and Wakatipu</i>	✓	✓		✓			✓	✓	
Lake Hayes				✓	✓				
Lake Wakatipu	✓	✓	✓	✓	✓	✓	✓	✓	
Diamond Lake, Diamond Creek and Lake Reid				✓					
Dart River/Te Awa Whakatipu	✓	✓	✓	✓	✓	✓	✓	✓	
Route Burn	✓	✓	✓	✓	✓	✓	✓	✓	
Greenstone River, Caples River	✓	✓	✓	✓	✓	✓	✓	✓	
Lochy River				✓					
Streams flowing to Lake Wakatipu between Halfway Bay and Elfin Bay, including Von River				✓					
Lake Wanaka	✓	✓	✓	✓	✓	✓	✓	✓	
Matukituki River	✓	✓	✓	✓	✓	✓	✓	✓	
Streams flowing off West Wanaka, including Albert Burn				✓	✓				
Makarora River	✓	✓		✓	✓	✓	✓	✓	
Lake Hawea	✓	✓	✓	✓	✓	✓	✓	✓	
Hunter River	✓	✓	✓	✓	✓	✓	✓	✓	
Dingle Burn				✓					
Timaru River				✓					
Hawea River	✓	✓		✓	✓	✓	✓	✓	
Shotover River	✓	✓		✓	✓	✓	✓	✓	
Arrow River	✓	✓		✓	✓	✓	✓	✓	
Roaring Meg	✓	✓	✓	✓			✓		
Nevis River	✓	✓	✓	✓			✓		

Roxburgh subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Clutha River/Mata-Au <i>between Alexandra and Island Block</i>	✓	✓	✓	✓	✓	✓	✓	✓	
Teviot River					✓				
Lake Onslow				✓	✓				
Minzion Burn				✓					

Strath Taieri subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Great Moss Swamp				✓	✓				
Red Swamp Creek				✓					
Taieri River <i>between Tiroiti and Pukerangi</i>	✓	✓	✓	✓	✓	✓	✓	✓	
Nenthorn Stream	✓	✓	✓	✓	✓	✓	✓	✓	
Deighton Creek				✓					

SCHEDULE 1D: KAI TAHU VALUES

Streams flowing on west side of Taieri Ridge				✓					
Lug Creek, Wandle Creek and other streams flowing on the east side of the Rock and Pillar Range				✓					

Waikouaiti/Lammermoor subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Taieri River <i>between Pukerangi and Outram</i>	✓	✓	✓	✓	✓	✓		✓	
Three O'clock Stream				✓					
Lee Stream	✓	✓	✓	✓	✓	✓	✓	✓	
Ross Stream				✓					
Deep Stream (and Deep Creek)	✓	✓	✓	✓	✓	✓		✓	
Waikouaiti River (excluding South Branch)	✓	✓	✓	✓	✓	✓	✓	✓	
Waikouaiti River South Branch	✓	✓		✓	✓	✓	✓	✓	
Lower Waikouaiti River (estuary and tidal zone)			✓	✓	✓	✓	✓	✓	
Hawksbury Lagoon			✓	✓	✓	✓		✓	
Streams between Karitane & Yellow Bluff (Te Pa Hawea)				✓					

Coastal subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Streams between Summer Hill and Brighton, excluding Taieri and Tokomairi River main stems			✓	✓					
Akatore River			✓	✓	✓	✓	✓	✓	
Lower Tokomairi River main stem	✓	✓	✓	✓	✓	✓	✓	✓	
Taieri River <i>between Henley and the sea</i>	✓	✓	✓	✓	✓	✓	✓	✓	
Unnamed tributary of the Taieri River a.k.a. Takitakitoa Stream	✓	✓		✓	✓	✓		✓	
Otokia Creek	✓	✓	✓	✓	✓	✓	✓	✓	
Deep Creek (Omimi)				✓			✓		
Evansdale Creek				✓					
Kaikorai Stream	✓	✓	✓	✓	✓	✓	✓	✓	
Otago Peninsula streams	✓	✓	✓	✓	✓	✓		✓	✓
Water of Leith			✓	✓					
Waitati River				✓					

SCHEDULE 1D: KAI TAHU VALUES

Taieri/Clutha Plains subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Taieri River <i>between Outram and Henley</i>	✓	✓	✓	✓	✓	✓	✓	✓	
Lakes Waipori and Waihola, Sinclair Wetlands	✓	✓	✓	✓	✓	✓	✓	✓	✓
Contour Channel and other West Taieri hill streams					✓				
Waipori River				✓	✓				
Silver Stream	✓	✓	✓	✓	✓	✓	✓		
Owhiro Stream	✓	✓		✓	✓	✓	✓	✓	
Upper Tokomairiro River main stem					✓				
Lovells Stream					✓				
Lake Tuakitoto	✓	✓		✓	✓	✓	✓	✓	
Clutha River/Mata-Au <i>between Balclutha and the sea</i>	✓	✓	✓	✓	✓	✓	✓	✓	
Waitepeka River, Puerua River including Glenomaru Stream tributary				✓	✓	✓	✓		

Southwest Otago subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Pomahaka River	✓	✓	✓	✓	✓	✓	✓	✓	
Waiwera River					✓				
Clutha River/Mata-Au <i>between Island Block and Balclutha</i>	✓	✓	✓	✓	✓	✓	✓	✓	
Waitahuna River					✓				
Waipahi River (lower stretches within Otago region)	✓	✓	✓	✓	✓	✓	✓	✓	

Catlins subregion									
Water body	MA1	MA2	MA3	MA4	MB1	MB2	MB3	MB4	MB5
Catchments between Fleming River and Longbeach Creek (excluding Tautuku River)			✓	✓	✓				
Tautuku River			✓	✓					
Tahakopa River	✓	✓	✓	✓	✓	✓	✓	✓	
Maclennan River	✓	✓		✓	✓	✓	✓	✓	
Catlins River	✓	✓		✓	✓	✓	✓	✓	
Owaka River	✓	✓		✓	✓	✓	✓	✓	
Karoro Creek			✓	✓	✓				

2. Schedule of specified restrictions on the exercise of permits to take surface water

This schedule provides specified minimum flows applying to the taking of surface water within primary and supplementary allocation from catchments identified in the B-series maps, and Welcome Creek. The schedule should be read in conjunction with the policies contained in section 6.4.

Schedule 2A specifies minimum flows that apply to the primary allocation water taken from catchments identified in the B-series maps. The last column of Schedule 2A also specifies the primary allocation limit in accordance with Policy 6.4.2(a) for the whole catchments of the rivers and lakes. The catchment areas for the primary allocation limits set by Policy 6.4.2(a) may be larger than those specified on the B-series maps.

Schedule 2B specifies minimum flows that apply to specified blocks of supplementary allocation for some catchments. Additional supplementary allocation may be granted under Policies 6.4.9 and 6.4.10.

Schedule 2 identifies minimum flows in litres per second and the site at which flows will be monitored. When the minimum flow is reached, consents to take water from the identified catchment will cease or will be suspended by the Otago Regional Council, in accordance with Policy 6.4.11 of this Plan. The flows listed in Schedule 2, which trigger suspension, use the instantaneous flow rates.

In accordance with Policy 6.4.1A, groundwater takes from aquifers listed in Schedule 2C and identified in the C-series maps, and other connected groundwater, are considered against primary or supplementary allocation provided for by Policies 6.4.2 and 6.4.9 and where listed in Schedules 2A and 2B, and may be subject to the minimum flows identified.

Schedule 2D identifies matters to be considered when making additions to these schedules through a plan change.

SCHEDULE 2: SPECIFIED RESTRICTIONS ON THE
EXERCISE OF PERMITS TO TAKE WATER

2A Schedule of specific minimum flows for primary allocation takes in accordance with Policy 6.4.3, and primary allocation limits in accordance with Policies 6.4.2(a) and 6.4.1A

The following schedule:

1. Identifies the minimum flows that apply to the taking of surface water, which includes groundwater managed as surface water in terms of Policy 6.4.1A within primary allocation from the catchments shown in the B-series maps, Welcome Creek and aquifers shown in the C-series maps. The B-series maps identify the location of catchment area boundaries and numbered monitoring sites referred to in the schedule for setting and measuring the minimum flows.
2. Specifies the primary allocation limit in accordance with Policy 6.4.2(a). That limit is exceeded in catchments where the consented takes as at 28 February 1998 (or 19 February 2005 in the Welcome Creek catchment, or 7 July 2000 in the Waianakarua catchment) set a higher limit in accordance with Policy 6.4.2(b). The catchments in which the limit set by Policy 6.4.2(a) is exceeded by Policy 6.4.2(b) (as at 20 December 2008) are the Shag, Kakanui, Taieri, Lake Hayes, Luggate and Manuherikia.

Catchment See the B-series maps	Minimum Flow Monitoring Site (with MS number) See the B-series maps	Minimum flow (litres per second – instantaneous flow)	Primary Allocation Limits in accord with Policy 6.4.2(a) (litres per second – instantaneous flow)
Kakanui catchment (a) 1 October to 30 April	Mill Dam (MS 3) and McCones (MS 3b)	250 (300 for secondary permits) If 250 breached, flow must return to 400 before taking can recommence.	750 <i>Kakanui catchment from mouth to headwaters excluding the Waiareka Creek and Island Stream catchments.</i>
(b) 1 May to 30 September	Clifton Falls (MS 3a) Mill Dam (MS 3) and McCones (MS 3b)	400 for primary and secondary permits	
Lake Hayes catchment area	Mill Creek at Fish Trap (MS 7)	180	260 <i>Lake Hayes catchment from lake outlet to headwaters</i>
Lake Tuakitoto catchment	Lovells Creek at SH1 (MS 10)	5	30 <i>Lake Tuakitoto catchment from confluence with Clutha/Mata-Au to headwaters</i>
Luggate catchment	SH6 Bridge (MS 11)	180 (1 November to 30 April) 500 (1 May to 30 October)	500 <i>Luggate catchment from confluence with Clutha/Mata-Au to headwaters</i>

SCHEDULE 2: SPECIFIED RESTRICTIONS ON THE
EXERCISE OF PERMITS TO TAKE WATER

Catchment See the B-series maps	Minimum Flow Monitoring Site (with MS number) See the B-series maps	Minimum flow (litres per second – instantaneous flow)	Primary Allocation Limits in accord with Policy 6.4.2(a) (litres per second – instantaneous flow)
Lindis catchment			
Total Allocation Lindis River	Lindis at Ardgour Road (MS 17)	550 (1 October to 31 May) 1,600 (1 June to 30 September)	1,612
Upstream of the Lindis Peak flow monitoring site.	Lindis at Ardgour Road (MS 17)	550 (1 October to 31 May) 1,600 (1 June to 30 September)	132
Tributaries downstream of the Lindis Peak flow monitoring site (grid reference E:1323545 N:5039400).	Lindis at Ardgour Road (MS 17)	550 (1 October to 31 May) 1,600 (1 June to 30 September)	265*
Mainstem between the Lindis Peak flow monitoring site, and the Ardgour Road flow monitoring site.	Lindis at Ardgour Road (MS 17)	550 (1 October to 31 May) 1,600 (1 June to 30 September)	1,104*
Mainstem downstream of the Ardgour Road flow monitoring site.	Lindis at Ardgour Road (MS 17)	550 (1 October to 31 May) 1,600 (1 June to 30 September)	138

* These figures include 28 l/s, which can be taken from either a tributary or mainstem downstream of Lindis Peak flow recorder, but not from both at the same time. This results in total allocation being 1,612 l/s for the Lindis catchment.

Catchment See the B-series maps	Minimum Flow Monitoring Site (with MS number) See the B-series maps	Minimum flow (litres per second – instantaneous flow)	Primary Allocation Limits in accord with Policy 6.4.2(a) (litres per second – instantaneous flow)
Manuherikia River catchment upstream of Ophir	Manuherikia River at Ophir (MS 8)	820	3,200 <i>Manuherikia catchment from confluence with Clutha/Mata-Au to headwaters</i>
Pomahaka catchment (within Otago Region)	Burkes Ford (MS 15)	3,600 (1 October to 30 April) 7,000 (1 May to 30 September)	1,000 <i>Pomahaka catchment from confluence with Clutha/Mata-Au to headwaters</i>
Shag catchment (both minimum flows apply)	Goodwood Pump (MS 1) Craig Road (MS 2)	28 150	280 <i>Shag catchment from mouth to headwaters</i>
Taieri River upstream of Paerau	Paerau Dam (MS 5a)	850	4,860 <i>Taieri River catchment from mouth to headwaters.</i>

SCHEDULE 2: SPECIFIED RESTRICTIONS ON THE
EXERCISE OF PERMITS TO TAKE WATER

Catchment See the B-series maps	Minimum Flow Monitoring Site (with MS number) See the B-series maps	Minimum flow (litres per second – instantaneous flow)	Primary Allocation Limits in accord with Policy 6.4.2(a) (litres per second – instantaneous flow)
Taieri River catchment between Paerau and Waipiata	Taieri River at Waipiata (MS 5)	1,000	
Taieri River catchment between Waipiata and Tiroiti	Taieri River at Tiroiti (MS 5b)	1,100	
Taieri River catchment between Tiroiti and Sutton	Taieri River at Sutton (MS 6)	1,250	
Taieri River catchment between Sutton and Outram	Taieri River at Outram (MS 6a)	2,500	
Trotters catchment	Mathesons Weir (MS 12)	10 (1 October to 30 April) 35 (1 May to 30 September)	15 <i>Trotters catchment from mouth to headwaters</i>
Waianakarua catchment	Browns Pump (MS 13)	200 (1 October to 30 April) 400 (1 May to 30 September)	190 <i>Waianakarua catchment from mouth to headwaters</i>
Waitahuna River catchment	Waitahuna River at Tweeds Bridge (MS 9)	450	650 <i>Waitahuna catchment from confluence with Clutha/Mata-Au to headwaters</i>
Waiwera catchment	Maws Farm (MS 16)	280 (1 October to 30 April) If 280 breached by taking, flow must return to 310 before taking can recommence. 400 (1 May to 30 September)	150 <i>Waiwera catchment from confluence with Clutha/Mata-Au to headwaters</i>
Water of Leith catchment	Water of Leith at University Footbridge (MS 4)	94	140 <i>Water of Leith catchment from mouth to headwaters</i>
Welcome Creek catchment	Steward Road	600	600 <i>Welcome Creek catchment from confluence with Waitaki River to headwaters. (Also subject to Table 12.1.4.2)</i>

SCHEDULE 2: SPECIFIED RESTRICTIONS ON THE EXERCISE OF PERMITS TO TAKE WATER

2B Schedule of supplementary allocation blocks and specific minimum flows in accordance with Policy 6.4.9(c)

Catchment (See the B-series maps) & Supplementary Block Number	Minimum Flow (litres per second – instantaneous flow) at the monitoring site(s) (See the B-series maps)	Supplementary Allocation Block (litres per second – instantaneous flow)
Kakanui catchment	For each minimum flow listed below: 1. At Mill Dam (MS 3) for takes downstream of Clifton Falls monitoring site; or 2. At both Mill Dam (MS 3) and Clifton Falls (MS 3a) for takes upstream of Clifton Falls monitoring site.	
Kakanui catchment (first supplementary allocation block)	1 October to 30 April: 1,050	1 October to 30 April: 300
	1 May to 30 September: 1,500	1 May to 30 September: 500
Kakanui catchment (subsequent supplementary allocation blocks)	All subsequent minimum flows corresponding to supplementary allocation blocks in the Kakanui catchment will be based on the following formula: 1 October to 30 April: $1,050 + (300 \times \text{number of supplementary allocation block}^*)$ 1 May to 30 September: $1,500 + (500 \times \text{number of supplementary allocation block}^*)$ * 2 for the 2 nd , 3 for the 3 rd allocation block, and so on.	All subsequent supplementary allocation blocks in the Kakanui catchment will be based on the following sizes: 1 October to 30 April: 300 1 May to 30 September: 500
Lindis catchment (first supplementary allocation block)	1 May to 30 November: 2200 Ardgour Road (MS 17)	500
	1 December to 30 April: 1600 Ardgour Road (MS 17)	500
Lindis catchment (second supplementary allocation block)	1 May to 30 November: 2700 Ardgour Road (MS 17)	500
	1 December to 30 April: 2100 Ardgour Road (MS 17)	500
Pomahaka catchment (within Otago Region) (first supplementary allocation block)	13,000 At Burkes Ford (MS 15)	500
Shag catchment (first supplementary allocation block)	650 At Craig Road (MS 2)	100
	401 At Goodwood Pump (MS 1)	
Shag catchment (second supplementary allocation block)	750 At Craig Road (MS 2)	100
	501 At Goodwood Pump (MS 1)	

SCHEDULE 2: SPECIFIED RESTRICTIONS ON THE
EXERCISE OF PERMITS TO TAKE WATER

Catchment (See the B-series maps) & Supplementary Block Number	Minimum Flow (litres per second – instantaneous flow) at the monitoring site(s) (See the B-series maps)	Supplementary Allocation Block (litres per second – instantaneous flow)
Trotters catchment (first supplementary allocation block)	1 October to 30 April: 30 at Mathesons Weir (MS 12)	15
	1 May to 30 September: 50 at Mathesons Weir (MS 12)	15
Trotters catchment (second supplementary allocation block)	1 October to 30 April: 60 at Mathesons Weir (MS 12)	30
	1 May to 30 September: 80 at Mathesons Weir (MS 12)	30
Trotters catchment (third supplementary allocation block)	1 October to 30 April: 90 at Mathesons Weir (MS 12)	30
	1 May to 30 September: 110 at Mathesons Weir (MS 12)	30
Waianakarua catchment (first supplementary allocation block)	311 At Browns Pump (MS 13)	100
Waiwera catchment (first supplementary allocation block)	600 At Maws Farm (MS 16)	100
Welcome Creek catchment (first supplementary allocation block)	1,000 At Steward Road (MS 14)	400 <i>(Also subject to Table 12.1.4.2)</i>

2C Schedule of aquifers where groundwater takes are to be considered as primary allocation, and subject to minimum flows of specified catchments in accordance with Policy 6.4.1A

Aquifer Name	Map Reference	Catchment to which primary or supplementary allocation limits apply, and minimum flows may apply*
Cardrona Alluvial Ribbon Aquifer	C2 & C3	Cardrona catchment upstream of the Mount Barker recorder site**
Kakanui-Kauru Alluvium Aquifer	C17 & C18	Kakanui catchment*
Lindis Alluvial Ribbon Aquifer	C5 & C6	Lindis catchment**
Lowburn Alluvial Ribbon Aquifer	C7	Lowburn Stream**
Pomahaka Alluvial Ribbon Aquifer	C22 & C23	Pomahaka catchment**
Shag Alluvium Aquifer	C19	Shag catchment*

* as given in Schedules 2A and 2B.

** as provided for by Policies 6.4.2, 6.4.3 and 6.4.9.

2D Schedule of matters to be considered when setting minimum flows and allocation limits

Primary allocation limits and minimum flows will be added to Schedule 2A, to give effect to the objectives and policies in this Plan, through the plan change process following scientific investigation and consultation with the community and affected parties. The lists in 2D.1 and 2D.2 identify matters to which consideration will be given when setting these flows and limits. The lists are not exhaustive and consideration will be given to these and any other relevant matters.

2D.1 When setting minimum flows in Schedule 2A for a catchment, consideration will be given to the following matters:

- (a) Any existing or previous minimum flow regime or residual flow;
- (b) The 7-day mean annual low flow;
- (c) Interaction among water bodies;
- (d) Ecological values, including the need for flow variability;
- (e) Demand for water, including community water supplies;
- (f) Existing water uses and associated infrastructure;
- (g) Environmental, social, cultural, recreational and economic costs and benefits of taking and using water before and after the implementation of a minimum flow regime; and
- (h) Any other relevant matter in giving effect to Part 2 of the Resource Management Act.

2D.2 When setting primary allocation limits in Schedule 2A for a catchment, consideration will be given to the following matters:

- (a) Amount of water currently allocated as primary allocation;
- (b) Amount of water currently taken as primary allocation;
- (c) Any other existing taking and using of water;
- (d) The 7-day mean annual low flow;
- (e) Proposed minimum flow regime;
- (f) Possible sources of water;
- (g) Acceptable duration and frequency of rationing among consented water users; and
- (h) Social and economic benefits of taking and using water.

Note: For catchments not included in Schedule 2A, refer to Policy 6.4.4 for determining minimum flows and Policy 6.4.2 for identification of primary allocation.

3. Schedule of human use values of Otago's aquifers

Schedule 3A identifies the uses of groundwater from particular aquifers in Otago. These aquifers are identified on the C-series maps. Schedule 3B identifies the location of groundwater takes for the purpose of community water supply. The identification of these human use values provides a mechanism for recognising the existence of values which need to be taken into account and given appropriate protection in managing the taking of water and discharge of contaminants (see Policy 9.4.1). The opportunity to provide such protection will arise when considering applications for resource consents for these activities.

Those that utilise the groundwater do take the risk that it may not be suitable for human consumption due to the presence of contaminants.

3A Schedule of human uses of particular aquifers

Aquifer	Map	Values
Lower Waitaki Plains Aquifer	C15, C16 & C17	<ul style="list-style-type: none"> - Human consumption without treatment - Stock drinking water supply and farm dairy water.
Papakaio Aquifer	C15 & C17	<ul style="list-style-type: none"> - Irrigation
North Otago Volcanic Aquifer	C15, C16, C17 & C18	<ul style="list-style-type: none"> - Irrigation
Kakanui-Kauru Alluvium Aquifer	C17 & C18	<ul style="list-style-type: none"> - Human consumption without treatment - Stock drinking water supply and farm dairy water - Irrigation
Shag Alluvium Aquifer	C19	<ul style="list-style-type: none"> - Human consumption without treatment - Human consumption with treatment - Stock drinking water supply - Irrigation
Ettrick Basin Aquifer	C21	<ul style="list-style-type: none"> - Human consumption without treatment - Stock drinking water supply and farm dairy water - Irrigation
Roxburgh Basin Aquifer	C20	<ul style="list-style-type: none"> - Human consumption without treatment - Stock drinking water supply - Irrigation - Industrial
Lower Taieri Aquifer	C24 & C25	<ul style="list-style-type: none"> - Human consumption without treatment - Stock drinking water supply and farm dairy water - Irrigation - Industrial

SCHEDULE 3: HUMAN USE VALUES OF AQUIFERS

3B Schedule of groundwater takes for the purpose of community water supply

Site No.	Community Water Supply Takes (at NZMS 260 Series Map Grid Reference)	Rate (litres per second) and volume (cubic metres per day) authorised
1*	Glenorchy Water Supply at E41:459-841.	63 l/s; 5400 m ³ /day
2*	Arthurs Point Water Supply at E41:686-713.	49 l/s; 3385 m ³ /day
3*	Dalefield Water Supply at F41:739-724.	6 l/s; 300 m ³ /day
4*	Arrowtown Water Supply at: F41:806-773; F41:808-774; and F41:809-774.	108 l/s; 7800 m ³ /day
5*	Cromwell Water Supply at G41:119-671.	210 l/s; 18,000 m ³ /day
6*	Alexandra Water Supplies at: G42:253-444; G42:263-454; and G42:271-442	420 l/s; 21,600 m ³ /day 12.5 l/s; 675 m ³ /day 4 l/s; 345 m ³ /day
7*	Roxburgh Water Supply at G43:210132.	58 l/s; 3000 m ³ /day
8*	Dunedin and Outram Water Supplies at: I44:956-803; I44:956-805; and I44:956-804.	Combined total take of 382 l/s; 33,000 m ³ /day
11	Owaka Water Supply at H46:533-124.	4.4 l/s; 380 m ³ /day
12	Mosgiel Water Supply at: I44:048-789; I44:042-779; I44:036-776; I44:048-789; I44:036-788*; I44:051-787; I44:032-782; I44:051-789; and I44:042-784.	The combined total take shall not exceed 10,104 m ³ /day.
13*	Clydevale-Pomahaka Water Supply at G45:417-507.	60 l/s; 5160 m ³ /day

* Point of take located within 100 metres of a surface water body.

SCHEDULE 4: ALLOCATION AND RESTRICTION REGIME
FOR GROUNDWATER

4. Schedule of the allocation and restriction regime for groundwater

This schedule sets out restrictions that apply to the taking of groundwater from certain aquifers in Otago.

Schedule 4A identifies maximum allocation limits for the taking of groundwater from aquifers identified in the C-series maps, in accordance with Policy 6.4.10A2(a) of this Plan. Schedule 4B identifies water levels at which the taking of groundwater will be restricted in accordance with Policy 6.4.10A1(b) of this Plan. Schedule 4C identifies matters to be considered when making additions to these schedules through a plan change.

4A Maximum allocation limits for groundwater takes from aquifers

Aquifer Name	Map Reference	Maximum Allocation Limit (million cubic metres per year)
Ardgour Valley Aquifer	C6	0.19
Bendigo Aquifer	C6	29
Cromwell Terrace Aquifer	C7	4
Lower Tarras Aquifer	C5 & C6	18.8
North Otago Volcanic Aquifer	C15, C16, C17 & C18	7

SCHEDULE 4: ALLOCATION AND RESTRICTION REGIME
FOR GROUNDWATER

4B Restrictions for groundwater takes

4B.1 Restriction levels for groundwater takes

Schedule 4B.1 identifies water levels at which the taking of groundwater will be restricted, and identifies the nature of the restriction, in terms of a reduction in the take of water authorised by water permits.

The aquifer maximum height refers to the historic record of the water level or pressure head after the recharge season. Note that the areas over which the restrictions apply are shown on Maps D1-D4.

Aquifer See Maps D1–D4	Aquifer Reference Bore See Maps D1– D4	Aquifer maximum height (metres above datum)	Restriction levels (metres above datum)		
			25% restriction or response in terms of Council recognised rationing regime*	50% restriction	100% restriction
North Otago Volcanic	Websters Well	130.8	126.0	125.5	125.0
Lower Taieri – West	Momona Bore	101.24	100	99.5	99
Lower Taieri – East	Harleys Well, Piezo. 2	112.5	110.5	110.0	109.5
Ettrick Basin	Cemetery Bore	172.29	170.29	169.79	169.29
Roxburgh Basin (Coal Creek Terrace)	White-Hall Bore	189.5	188	187.8	187.5

* When the aquifer reaches this level there shall be either a 25% restriction or a water allocation committee, appointed by the Otago Regional Council, will implement a protocol to take all practical steps to curb the decline in the aquifer level so as to avoid a 50% restriction. If there is no water allocation committee or the water allocation committee does not use a protocol approved by the Council, the 25% water restriction will apply.

4B.2 Restrictions for Cromwell Terrace Aquifer

There shall be no takes from the Cromwell Terrace Aquifer for irrigation purposes between 1 May and 31 August inclusive in each year.

Because the Cromwell Terrace Aquifer is hydraulically connected to Lake Dunstan, other restrictions may be imposed on resource consents to take water, to help maintain lake levels.

4C Schedule of matters to be considered when setting maximum allocation limits and restriction levels for aquifers

Maximum allocation limits and restriction levels for aquifers in Schedules 4A and 4B give effect to the objectives and policies in this Plan. Additional aquifers are added through the plan change process following scientific investigation and consultation with the community and affected parties. The lists in 4C.1 and 4C.2 identify matters to which consideration will be given when setting these volumes and levels. The lists are not exhaustive and consideration will be given to these and any other relevant matters. Restriction levels may not be needed for all aquifers.

4C.1 When setting maximum allocation limits in Schedule 4A for an aquifer, consideration will be given to the following matters:

- (a) Physical properties of the aquifer;
- (b) The amount and characteristics of recharge to the aquifer;
- (c) Interaction with other aquifers;
- (d) Interaction with surface water bodies and their values;
- (e) The potential for contamination (including seawater intrusion);
- (f) The effects of taking groundwater on the aquifer (including results of computer modelling, where available);
- (g) Demand for water and existing water uses, including community water supplies;
- (h) Environmental, social, cultural, recreational and economic benefits of taking and using water; and
- (i) Any other relevant matter in giving effect to Part 2 of the Resource Management Act.

4C.2 When setting restriction levels in Schedule 4B for an aquifer, consideration will be given to the following matters:

- (a) Physical properties of the aquifer;
- (b) Variance of groundwater levels in the aquifer;
- (c) The amount and characteristics of recharge to the aquifer;
- (d) The proposed or existing maximum allocation limit;
- (e) Interaction with surface water bodies and their values;
- (f) Any actual or potential effect of drawdown on groundwater quality; and
- (g) The environmental, social, cultural and economic effects of the restriction level on existing users of groundwater from the aquifer.

Note: For aquifers not included in Schedule 4A, refer to Policy 6.4.10A2(b) for determining a maximum allocation limit.

4D Matters to be considered in calculating mean annual recharge

For any aquifer not included in Schedule 4A the setting of the maximum allocation limit will involve calculating the mean annual recharge of the aquifer (see Policy 6.4.10.A2(b)). The mean annual recharge is a statistical value based on the past climate, aquifer hydrology, soil properties, irrigation practice and other factors with direct influence over groundwater recharge.

This schedule sets out the matters to which consideration will be given when calculating the mean annual recharge of an aquifer.

4D.1 Sources of aquifer recharge

Sources of aquifer recharge may include:

- (a) Land surface recharge due to rainfall excess.
- (b) Land surface recharge due to irrigation excess, which should be based on the application of irrigation at an efficient rate.
- (c) Land surface recharge due to intermittent runoff flowing over the land surface.
- (d) Surface water recharge due to river infiltration.
- (e) Surface water recharge due to wetland, pond or lake infiltration.
- (f) Through-flow from any other aquifer.

The mean annual recharge can arise from a single recharge source or a combination of recharge sources, in which case the mean annual recharge is based on the combined recharge from all relevant sources.

4D.2 Methods for calculating aquifer recharge

Methods for calculating aquifer recharge from various recharge sources may include:

- (a) Daily soil moisture balance for the calculation of land surface recharge.
- (b) Daily soil moisture balance for calculation of irrigation recharge.
- (c) Differences between surface water flows measured at different flow monitoring sites for the determination of bed infiltration passing to an aquifer.
- (d) Direct measurement of land surface recharge using subsoil measuring devices such as lysimeters.
- (e) Calibrated recharge estimation using unsaturated zone matric potential or saturated zone water table height fluctuation.
- (f) Environmental tracers such as isotopes (radioactive or stable) and conservative anions.
- (g) Groundwater computer modelling, especially where calibration and parameter estimation can be used to constrain initial estimates of surface water contributions and land surface recharge.

5. Schedule of limits to instantaneous take of groundwater

5A Schedule of equations to determine stream depletion effects of the take of groundwater

Requirement to determine stream depletion on surface water

The Bekesi and Hodges¹ equations are used to determine whether a proposed groundwater take may have an effect on nearby surface water that is greater than 5 litres per second.

The Bekesi and Hodges equations are preferred to other equations reported in the literature as they are less demanding of hydrogeological data, and allow a reasonable relationship to be calculated empirically, which can be transposed to determine the threshold distance between the point of groundwater take and the surface water body. These equations consider pumping occurs over 30 days, and assumes a 90 percentile confidence. Which equation is used depends on the proposed maximum rate of take (Q in litres per second):

$$\begin{array}{ll} \text{Where } 5 \text{ l/s} \leq Q \leq 25 \text{ l/s} & r = 65 \times Q \\ \text{Where } Q > 25 \text{ l/s} & r = 1138 \times \log Q \end{array}$$

r = distance between abstraction structure and surface water body (metres)

If r is greater than the actual distance from the point of groundwater take to the surface water body, then the stream depletion effect is considered to be greater than 5 litres per second. However, there may be exceptions to the empirical relationship (see below).

Calculation of stream depletion effect and allocation to surface water

The Jenkins² equations are used to calculate the stream depletion effects (or Q_s) which will be considered against the available allocation of the relevant surface water body.

$$Q_s = Q_w \text{erfc}(U)$$

$$U = -(r^2 S / 4 T t)$$

Where:

- Q_s is the rate of stream depletion (cubic length per time)
- Q_w is the pumping rate of the well (cubic length per time)
- r is the perpendicular distance from the point of groundwater take to the surface water body (length)
- S is the storativity (or specific yield) of the aquifer (dimensionless)
- T is the transmissivity of the aquifer (square length per time)
- t is time
- 'erfc(U)' refers to the Complementary Error Function of U

SCHEDULE 5: LIMITS TO INSTANTANEOUS GROUNDWATER TAKES

Where subsurface intake structures have a bore head in a different location from the position of the intake screen, the closest part of the intake screen or gallery should be used for the purpose of measuring the distance to the surface water body in terms of Policy 6.4.1A(c) and the equations set out above.

Situations where stream depletion effect is unlikely

There are a number of situations where the stream depletion effect of groundwater is not likely to be valid; these include hydrological factors related to the depth of the bore screen. In addition, the Bekesi and Hodges, or Jenkins equations have situations where they are less valid or have violated their basic assumptions. The situations referred to above are summarised as follows:

Where the adjacent surface water body;

- (a) Has an impermeable bed; or
- (b) Is ephemeral, or dry for extended periods, containing or conveying water only in episodes of high runoff; or
- (c) Is separated from the underlying water table by an unsaturated zone, decoupling the interaction into a one-way loss of surface water from the surface water body.

Where the groundwater system;

- (a) Has very low permeability (e.g. schist fractured rock aquifers. Although the low permeability will calculate a very low stream depletion effect in the Jenkins equation, this is not considered in the empirical Bekesi and Hodges equations); or
- (b) Has very steep gradients or perched water tables adjacent to surface water body boundaries; or
- (c) Does not influence surface water due to the depth of the bore or well screen.

These situations are often not immediately discernable and may require a higher level of assessment to distinguish the nature of connection between groundwater and surface water. Where an applicant seeks that Policy 6.4.1A should not apply, and that the take should be considered as a full groundwater take under the provisions of 12.2, then the applicant may apply to take groundwater as a discretionary activity under Rule 12.2.4.1.

Use of analytical equations other than the Jenkins Equation:

The use of analytical equations will be accepted over the equations given above, when an applicant can clearly demonstrate:

- 1) That the analytical equation is derived from, or is otherwise comparable to, the Jenkins Equation; and
- 2) That this equation is in common use for the purpose, and shares a degree of acceptance in such use amongst groundwater professionals.

SCHEDULE 5: LIMITS TO INSTANTANEOUS
GROUNDWATER TAKES

Use of numerical groundwater flow models:

The use of numerical groundwater flow models will be accepted over the equations given above, when an applicant can clearly demonstrate:

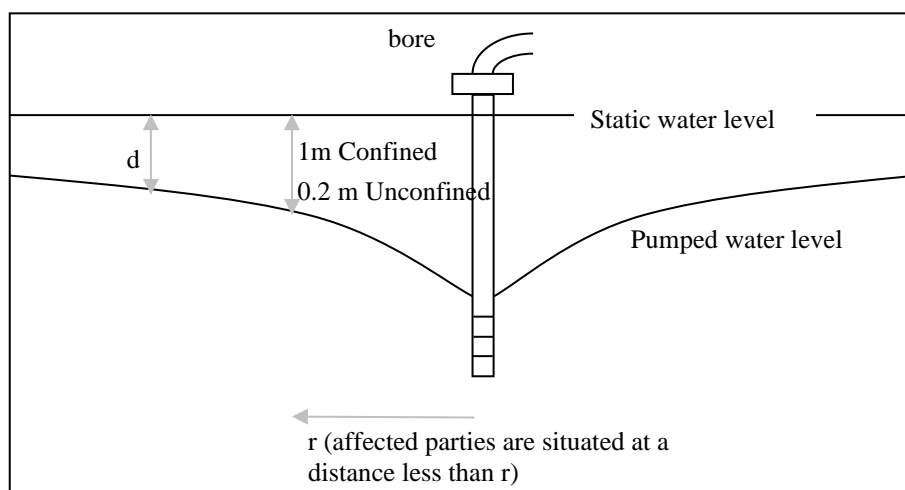
- 1) That the numerical method is validated or potentially validated at a generic level against either the Theis Equation or the Jenkins Equation; and
- 2) That the model is in common use for the purpose, and shares a degree of acceptance in such use among groundwater professionals.

¹ Bekesi, G; and Hodges, S. 2006: The protection of groundwater dependent ecosystems in Otago, New Zealand. Hydrogeology Journal. Vol. 14, No 8, December 2006, pp 1696–1701.

² Jenkins, C T, 1977: Computation of rate and volume of stream depletion by wells. In “Techniques of Water Resource Investigations of the United States Geological Survey”. Chapter D1, Book 4, 3rd Edition. USGS, Department of Interior, Washington DC.

5B Schedule of method for identifying groundwater takes potentially affected by bore interference

This schedule is the method for identifying parties likely to be affected by bore interference when a new application to take groundwater is received. The significance of any interference may result in limits being placed through conditions on permits to take groundwater, depending on distance from another bore, and may limit the instantaneous take of groundwater from any one bore in order to maintain existing access to water.



The radius will be determined using a significant interference of $d \geq 1$ m for confined aquifers or $d \geq 0.2$ m for unconfined aquifers, and the ‘Theis’ equation:

$$d = QW(u)/4\pi T \text{ where } u=r^2S/4Tt$$

Also where:

d is the interference

SCHEDULE 5: LIMITS TO INSTANTANEOUS
GROUNDWATER TAKES

- Q** is the pumping rate from the bore
W(u) is the "well equation", approximated by a Taylor series:
$$-0.5772 - \ln(u) + u - \frac{u^2}{2 \cdot 2!} + \frac{u^3}{3 \cdot 3!} - \dots$$

r is the distance from the pumping bore
S is specific yield/storativity of the unconfined/confined aquifer
t is the time or duration of pumping
T is the transmissivity of the aquifer

For clarification, the variables required for the 'Theis' equation will be quantified as follows:

- Q** from the consent application: maximum daily volume
r from maps, aerial photos, or preferably GPS coordinates
T and S from pumping tests or conservative estimates
t (in days) from consent application: maximum annual volume divided by the maximum daily volume

If a variable cannot be estimated from the consent application or the applicant did not supply the information, the Council will estimate it on an environmentally conservative basis.

SCHEDULE 6: WATER BODIES WHERE DAMMING IS
PROHIBITED

6. Schedule of water bodies where damming is prohibited

This schedule identifies water bodies in Otago, or parts of water bodies, in which the damming of water is prohibited in accordance with Policy 8.5.2, and Rules 12.3.1.1, 12.3.1.2, and 12.3.1.3 of this Plan. Note that the damming of water for stockwater supply purposes is not prohibited in some of the identified water bodies. Such management of these water bodies is required by the Water Conservation (Kawarau) Order 1997.

Water body	Grid references	Type of dam prohibited
Kawarau River main stem from Scrubby Stream to the Lake Wakatipu control gates.	F41:035680 to F41:738667	Any dam.
Shotover River main stem	At or about F41:765680 to E40:662173	Any dam.
Dart River/Te Awa Whakatipu main stem from Lake Wakatipu to its confluence with Beans Burn.	At or about E41:438853 to E40:375077	Any dam.
Rees River main stem from Lake Wakatipu to its confluence with Hunter Creek.	At or about E41:448852 to E40:499117	Any dam.
Diamond Lake, Diamond Creek and Lake Reid.	At or about E40:435975; E41:444963 to E40:450918	Any dam.
Lake Wanaka and Upper Clutha River/Mata-Au	F40:050089 to F40:088067	All dams other than for the duration of an emergency.
Pomahaka River, including its tributaries, from its sources to its confluence with the Clutha River/Mata-Au.	Confluence at G45:447453	All dams other than for stockwater supply purposes.
Waipahi River from its source to its confluence with the Pomahaka River.	Confluence at G45:194520	All dams other than for stockwater supply purposes.
Lower Clutha River/Mata-Au from its confluence with the Pomahaka River to the sea at the mouths of the Matau and Koau Branches.	G45:447453 to H46:667263 and H46:642239	All dams other than for stockwater supply purposes.

SCHEDULE 7: WATER BODIES SENSITIVE TO SUCTION DREDGE MINING

7. Schedule of water bodies sensitive to suction dredge mining

This schedule identifies water bodies in Otago, or parts of water bodies, that are sensitive to bed disturbance caused by suction dredge mining due to their unique value for fish spawning or rearing, or their importance for water supply. Suction dredge mining in the identified water bodies, and during any identified time period, will require a resource consent under Rule 13.5.3.1 of this Plan (see Policy 8.6.3). The water bodies identified support values that need to be taken into account when considering consent applications to suction dredge. See Maps E1-E9 for areas affected and their numbers.

North Otago subregion			
Water body	Values	Grid References	Area No.
Waianakarua River	Native fish diversity	Catchment upstream of J42:370472	1

Maniototo subregion			
Water body	Values	Grid References	Area No.
Ewe Burn	Native fish habitat	Catchment upstream of H42:808587	2
Kye Burn	Native fish habitat	Catchment upstream of I42:946585	3
Sow Burn	Fisheries values	Catchment upstream of H42:785532	4
Pig Burn	Fisheries values	Catchment upstream of H42:828532	5
Taieri River (Between Hore's Bridge and Long Point) <i>From 1 March to 31 October</i>	Fisheries values	Main stem between H42:713380 and H42:744352	6
Waimonga Creek	Native fish habitat	Catchment upstream of H42:542308	7
Waimonga Creek	Native fish habitat	Catchment upstream of H43:542299	8
Totara Creek	Native fish habitat	Main stem between H42:620342 and 553304	9
Linn Burn	Native fish habitat	Catchment upstream of H42:655323	10
McPhees Creek	Native fish habitat	Catchment upstream of H43:729211	11
McHardys Creek	Fisheries values	Catchment upstream of H43:710151	12
Shepherds Hut Creek	Fisheries values	Catchment upstream of H43:645123	13
Unnamed tributary of the Logan Burn	Native fish habitat	Catchment upstream of H43:614115	14
Taieri River	Native fish habitat	Catchment upstream of H43:549027	15

Central Otago subregion			
Water body	Values	Grid References	Area No.
Cardrona River	Fisheries values	Catchment upstream of F40:087067	16
Unnamed tributary of the Clutha River/Mata-Au	Native fish habitat	Catchment upstream of G40:207933	17
Cluden Stream	Fisheries values	Catchment upstream of G40:342942	18
Dunstan Creek	Fisheries values	Catchment upstream of H41:545745	19
Manuherikia River	Fisheries values	Catchment upstream of H41:661902	20
Gate Creek	Fisheries values	Catchment upstream of H41:664901	21

SCHEDULE 7: WATER BODIES SENSITIVE TO SUCTION
DREDGE MINING

Central Otago subregion			
Water body	Values	Grid References	Area No.
Earnsclough or Fraser River	Fisheries values	Catchment upstream of G42:160507	22
Earnsclough or Fraser River	Fisheries values	Main stem between G42:200490 and Clutha River/Mata-Au	23
Cranky Woman Creek	Fisheries values	Catchment upstream of H42:572378	24
Manor Burn Creek	Fisheries values	Catchment upstream of G43:447243	25

Lakes subregion			
Water body	Values	Grid References	Area No.
All rivers flowing into Lake Wakatipu	Fisheries values	-	26
All rivers flowing into Lake Wanaka	Fisheries values	-	27
All rivers flowing into Lake Hawea	Fisheries values	-	28
Skippers Creek	Native fish habitat	Catchment upstream of E41:690896	29
Moke Creek	Fisheries values	Catchment upstream of E41:609701 (both branches)	30
Lake Kirkpatrick outlet stream	Fisheries values	Main stem between Lake Kirkpatrick and Moke Lake	31
Mill Creek	Fisheries values	Catchment upstream of Lake Hayes	32
Hayes Creek	Fisheries values	Main stem between Lake Hayes and Kawarau River	33
Nevis River	Fisheries values	Catchment upstream of F41:979644	34

Roxburgh subregion			
Water body	Values	Grid References	Area No.
Benger Burn	Native fish habitat	Catchment upstream of G43:253006	35
Tima Burn	Native fish habitat	Catchment upstream of G44:293999	36
Unnamed tributary of Lake Onslow	Native fish habitat	Catchment upstream of G43:451133	37

Strath Taieri subregion			
Water body	Values	Grid References	Area No.
Cap Burn	Fisheries values	Main stem between I42:959462 and 955462	38
Mare Burn	Fisheries values	Main stem between I42:971432 and 975432	39
Lug Creek	Fisheries values	Catchment upstream of H43:880257	40
Stoney Creek	Native fish habitat	Catchment upstream of H43:712088	41
Nenthorn Stream	Native fish habitat	Catchment upstream of I43:944054	42

**SCHEDULE 7: WATER BODIES SENSITIVE TO SUCTION
DREDGE MINING**

Waikouaiti/Lammermoor subregion			
Water body	Values	Grid References	Area No.
Deep Creek	Water Supply	Catchment upstream of H43:665037	43
Deep Stream	Native fish habitat Water Supply	Catchment upstream of H44:683996	44
Lee Stream/Canton Stream	Native fish habitat	Main stem between H44:761909 and 701915	45
Black Rock Stream	Native fish habitat	Catchment upstream of H44:744883	46
Smugglers Creek	Native fish habitat	Catchment upstream of I44:936830	47
Taieri River	Water supply values (land instability threat to water pipeline)	Main stem between I44:009868 and 976830	48
Christmas Creek	Fisheries values	Main stem between I44:038953 and 039955	49
Three O'clock Stream	Fisheries values	Main stem between I44:024974 and Taieri River	50
Three O'clock Stream	Native fish habitat	Main stem between I43:111096 and 077138	51
Waikouaiti River	Native fish habitat Water Supply	Catchment upstream of I43:232079	52

Coastal subregion			
Water body	Values	Grid References	Area No.
Burns Creek	Water Supply	Catchment upstream of I44:158883	53
Jeffersons Creek	Water Supply	Catchment upstream of I44:160873	54
Williams Creek	Water Supply	Catchment upstream of I44:159870	55
Sullivans Dam intake	Water Supply	Catchment upstream of I44:172863	56
Water of Leith, West Branch	Water Supply	Catchment upstream of I44:164857	57
Morrisons Creek	Water Supply	Catchment upstream of I44:160843	58
Nicols Creek	Water Supply	Catchment upstream of I44:153833	59
Ross Creek	Water Supply	Catchment upstream of I44:152820	60
Orokonui Creek	Native fish diversity	Catchment upstream of I44:221921	61
Wetherstons Creek (Waitati River tributary)	Water Supply	Catchment upstream of I44:201882	62
Rossville reservoir intake	Water Supply	Catchment upstream of I44:233865	63
Sawyers Bay Stream	Native fish habitat	Catchment upstream of I44:235851	64
Unnamed tributary of Otago Harbour	Native fish habitat	Catchment upstream of I44:277825	65
Weipers Creek	Native fish habitat	Catchment upstream of I44:281792	66
Big Creek	Native fish habitat	Catchment upstream of H45:864482	67

SCHEDULE 7: WATER BODIES SENSITIVE TO SUCTION
DREDGE MINING

Taieri/Clutha Plains subregion			
Water body	Values	Grid References	Area No.
Unnamed tributary of Waipori River	Native fish habitat	Catchment upstream of H44:553814	68
Unnamed tributary of Waipori River	Native fish habitat	Catchment upstream of H44:563813	69
Stony Creek	Native fish habitat	Catchment upstream of H44:606839	70
Nardoo Stream	Native fish habitat	Catchment upstream of H44:649831	71
North West Stream	Native fish habitat	Catchment upstream of H44:697840	72
Unnamed tributary of Pioneer Stream	Native fish habitat	Catchment upstream of H44:703752	73
Unnamed tributary of Lake Mahinerangi	Native fish habitat	Catchment upstream of H44:722768	74
Shepherd Stream	Native fish habitat	Main stem between H44:737737 and 725736	75
Unnamed tributary of Shepherd Stream	Native fish habitat	Catchment upstream of H44:724728	76
Unnamed tributary of Shepherd Stream	Native fish habitat	Catchment upstream of H44:732732	77
Unnamed tributary of Waipori River	Native fish habitat	Catchment upstream of H44:749756	78
Unnamed tributary of Waipori River	Native fish habitat	Catchment upstream of H44:765750	79
Unnamed tributary of Waipori River	Native fish habitat	Catchment upstream of H44:780741	80
Unnamed tributary of Waipori River	Native fish habitat	Catchment upstream of H44:777756	81
Unnamed tributary of Waipori River	Native fish habitat	Catchment upstream of H44:782746	82
Mill Creek	Water Supply	Catchment upstream of H44:833730	83
Verter Burn	Native fish habitat	Catchment upstream of H44:794799	84
Silver Stream	Native fish diversity Water Supply	Catchment upstream of I44:039789	85
Meggat Burn	Water Supply	Catchment upstream of H45:744693	86
Tokomairiro River West Branch	Fisheries values	Catchment upstream of H45:747487	87
Lake Tuakitoto	Native fish habitat	Catchment upstream of H45:647407	88
Unnamed tributary of Lake Tuakitoto	Native fish habitat	Catchment upstream of H46:660392	89
Saddle Stream	Native fish habitat	Catchment upstream of H46:657389	90
McCrosties Drain	Native fish habitat	Catchment upstream of H46:654372	91
Lake Tuakitoto	Native fish habitat	Catchment upstream of H46:687369	92

Southwest Otago subregion			
Water body	Values	Grid References	Area No.
Tuapeka River	Water Supply	Catchment upstream of G44:491742	93
All streams flowing into the Phoenix Dam	Water Supply	Catchment upstream of Dam at H44:545755	94
Waitahuna River	Native fish habitat	Catchment upstream of H44:624790	95
Tuapeka Creek	Fisheries values	Main stem between H44:508721 and Tuapeka River	96

**SCHEDULE 7: WATER BODIES SENSITIVE TO SUCTION
DREDGE MINING**

Tuapeka River	Fisheries values	Catchment between G45:471669 and Clutha River/Mata-Au, including all tributaries of this reach	97
Waitahuna River	Fisheries values	Main stem between H45:619659 and Clutha River/Mata-Au	98
Pomahaka River	Native fish habitat Fisheries values Water Supply	Catchment upstream of G45:445453	99
Waiwera River	Native fish habitat	Catchment upstream of G46:283301	100

Catlins subregion			
Water body	Values	Grid References	Area No.
Unnamed tributary of Mokoreta River	Native fish habitat	Catchment upstream of G46:214247	101
Catlins River	Native fish habitat	Catchment upstream of G46:274228	102
Unnamed tributary of Catlins River	Native fish habitat	Catchment upstream of G46:380169	103
Frank Stream	Native fish habitat	Catchment upstream of G46:400141	104
Matai Stream	Native fish habitat	Catchment upstream of G47:404059	105
Unnamed Creek	Native fish habitat	Catchment upstream of G47:457046	106
MacKenzie Stream	Native fish habitat	Catchment upstream of G47:469051	107
Waitere Stream	Native fish habitat	Catchment upstream of G47:485043	108
Unnamed tributary of Catlins Lake	Native fish habitat	Catchment upstream of H47:561074	109
Unnamed tributary of Owaka River	Native fish habitat	Catchment upstream of H46:553143	110
Burnt Scrub Creek	Native fish habitat	Catchment upstream of H46:595183	111
Unnamed Creek	Native fish habitat	Catchment upstream of H46:600175	112
Nugget Stream	Native fish habitat	Catchment upstream of H46:631160	113

SCHEDULE 8: REQUIREMENTS FOR DISCHARGE OF
ANIMAL WASTE

8. Schedule of requirements for discharge of animal wastes

This schedule establishes requirements for the discharge of contaminants from any waste collection system onto production land. If these requirements are met, in addition to the conditions set out in Rules 12.C.1.1 and 12.C.1.1A, and the discharge is not prohibited under 12.C.0.2, such a discharge is a permitted activity under this Plan.

The schedule specifies a maximum application depth, a maximum application rate and a minimum return period.

- The **maximum application depth** is the amount of animal waste that can be applied at any one time.
- The **maximum application rate** is the speed at which animal waste can be applied.
- The **minimum return period** is the time which should expire before animal waste is reapplied to the same land.

These requirements vary depending on the soil type as each soil type has a different capacity to assimilate contaminants. The requirements will ensure that this assimilative capacity is not exceeded by the discharge of animal waste.

ANIMAL WASTE APPLICATION FOR VARIOUS SOIL TYPES UNDER PASTURE COVER			
Soil Type	Maximum Application Depth at any One Time	Maximum Application Rate	Minimum Return Period
Sand and loamy sand	25mm	32mm/hr	15 days
Sandy loam and fine sandy loam	25mm	20mm/hr	15days
Silt and sandy silt loam	25mm	17mm/hr	20 days
Clay and clay loam	25mm	10mm/hr	20 days
Peat	25mm	17mm/hr	15 days

Note: The values in this table are based on soil moisture under 50% saturation. Any person applying animal waste on soils exceeding 50% saturation will need to adjust their application depth and rate accordingly, to avoid breaching rule conditions.

The following conversions may be useful:

- Amounts in mm to litres per hectare: multiply by 10,000.
- Amounts in mm/hr to litres per hectare per hour: multiply by 10,000.

SCHEDULE 9: IDENTIFIED REGIONALLY SIGNIFICANT WETLANDS AND WETLAND MANAGEMENT AREAS

9. Schedule of identified Regionally Significant Wetlands and Wetland Management Areas

This schedule lists Otago's identified Regionally Significant Wetlands and Wetland Management Areas. An identified Regionally Significant Wetland or Wetland Management Area is one that has been mapped in Maps F1–F63 and contains one or more regionally significant wetland values (see Chapter 10).

The ORC holds an inventory on wetlands, including all Regionally Significant Wetlands listed in Schedule 9, as well as some wetlands that are not included in this Schedule. The inventory is available on the ORC website. The inventory is intended for information purposes only. It is not incorporated by reference in this plan and does not form part of this plan or any other regulatory document. It is a stand-alone repository for data and information and has no legal effect.

In addition, GIS (geographical information systems) data on wetland extents can be made available on request.

SCHEDULE 9: IDENTIFIED REGIONALLY SIGNIFICANT
WETLANDS AND WETLAND MANAGEMENT AREAS

Index to Otago's Identified Regionally Significant Wetlands and Wetland Management Areas

#	Wetland Name	Map
1	Akatore Creek Swamp	F42
2	All Day Bay Lagoon	F60
3	Andersons Pond Margins	F52
4	Aramoana Saltmarsh	F53
6	Belmont Inland Saline Wetland Management Area	F22
7	Bendigo Wetland	F16
8	Big Boggy Swamp	F1
9	Black Rock Marshes	F63
10	Black Swamp	F29
11	Blackcleugh Burn Swamp	F28
12	Blackmans Inland Saline Wetland Management Area	F12
13	Blair Fen	F31
14	Blair Swamp	F31
15	Boundary Creek Fen	F27
16	Braeside Swamp	F57
17	Bungtown Bog	F47
18	Butterfield Wetland	F2
172	Cairn Road Bog	F35
19	Camp Stream Swamp	F40
20	Campbells Reserve Pond Margins	F3
21	Cannibal Bay Road Swamp	F36
22	Catlins River Wetland	F33
23	Chapman Road Inland Saline Wetland	F16
24	Cheetwood Road Wetlands	F38
25	Church Hill Wetland Complex	F6
26	Clachanburn Marsh	F22
27	Clifton Hill Marshes	F29
28	Clutha Matau Wetlands	F37
29	Clutha River Mouth Lagoon	F37
30	Conroys Dam Inland Saline Wetland Management Area	F16
31	Conroys Road Inland Saline Wetland Complex	F16
87	Coutts Gully Swamp	F42
32	Cross Eden Creek Marsh Complex	F14
33	Culcairn Oxbow Marsh	F38
34	Devils Bridge Wetland	F59
35	Diamond Lake Wetland	F3
36	Dingle Lagoon	F1
37	Dunard Inland Saline Wetland Management Area	F11
38	Dunvegan Fen Complex	F34
39	East Benhar Swamp	F39
40	Ellison Saltmarsh	F56
41	False Islet Wetland Management Area	F36
42	Fernhill Marsh	F51
43	Finegand Lagoon Marsh	F38

SCHEDULE 9: IDENTIFIED REGIONALLY SIGNIFICANT
WETLANDS AND WETLAND MANAGEMENT AREAS

#	Wetland Name	Map
44	Flat Top Hill Ephemeral Wetlands	F17
45	Fortification Creek Wetland Management Area	F27
46	Fortification Stream Headwaters Swamp	F52
47	Frasers Stream Headwaters Marsh Complex	F40
48	Galloway No. 1 Inland Saline Wetland Complex	F12
49	Galloway No. 2 Inland Saline Wetland Management Area	F12
50	Gilmour Road Marsh	F13
51	Glendhu Swamp	F28
52	Glenorchy Lagoon Wetland	F8
53	Glyn Wye Wetland Management Area	F51
54	Governors Point Swamp	F43
55	Great Moss Swamp	F26
56	Harrington Mill Road Swamp	F31
57	Hawkdun Runs Road Marsh	F18
58	Hawksbury Lagoon	F56
59	Hazeldale Fens	F49
60	Henley Swamp	F44
61	Hoopers Inlet Swamp	F54
62	Hukihuki Swamp	F32
63	Hungerford Point Saltmarsh	F32
64	Hut Creek Swamps	F18
65	Island Block Pond Marshes	F15
66	Jennings Creek Marsh	F53
67	John O'Groats Hill Fen	F28
68	Kaikorai Lagoon Swamp	F57
69	Kakaho Creek Swamp	F60
70	Kemp Road Lagoon	F60
71	Kinloch Wetland	F3
72	Kirk Creek Headwaters Marsh Complex	F15
73	Kirkwoods Creek Wetland Management Area	F14
74	Kuriwao Saddle Fen Complex	F49
75	Lake Hayes Margins	F7
76	Lake Reid Wetland	F3
77	Lake Tuakitoto Wetland	F39
78	Lake Wilkie Swamp	F32
79	Lamb Hill Fen Complex	F53
80	Laws Road Swamp	F11
81	Lenz Reserve Wetlands	F32
82	Little Boggy Swamp	F51
83	Little Stoney Bog	F4
84	Loch Loudon Fen Complex	F46
85	Loch Luella Fen Complex	F46 & F47
86	Long Gully Marsh	F12
88	Lower Manorburn Dam Margins	F13
89	Lower Otokia Creek Marsh	F54
91	Macfarlane Road Oxbow Swamp	F30
92	Maclennan River Podocarp Swamp Complex	F50

SCHEDULE 9: IDENTIFIED REGIONALLY SIGNIFICANT
WETLANDS AND WETLAND MANAGEMENT AREAS

#	Wetland Name	Map
93	Makarora Flat Swamp Complex	F1
94	Malones Dam Margins	F28
95	Marana Swamp	F30
96	Matakauri Wetland	F4
97	Matukituki Bluff Ephemeral Wetland Management Area	F2
98	Matukituki Valley Wetland Management Area	F5
99	Maungatua Summit Wetland Management Area	F58
100	McGregor Swamp	F56
101	McKays Triangle Wetland	F54
102	McLachlan Road Marsh	F56
103	Measly Beach Wetland Complex	F41
104	Middle Swamp	F27
105	Minaret Bay Swamp	F1
106	Moa Creek Inland Saline Wetland	F12
107	Moke Creek Swamp	F4
108	Moke Lake Bog	F4
109	Molyneux Bay Swamp	F37
110	Mount Nicholas Lagoon	F7
111	Murrays Road Inland Saline Wetland Management Area	F51
112	Nenthorn Ridge Wetland Management Area	F59
113	Nevis Red Tussock Fen	F17
114	Office Creek Seepage	F58
115	Okia Flat Wetland Management Area	F63
116	Old Dunstan Road Swamp	F52
117	Otanomomo Tuatiki Reserve	F33
118	Otokia Swamp	F57
119	Paddys Rock Ephemeral Tarn	F59
120	Papanui Inlet Saltmarsh	F61
121	Patearoa Inland Saline Wetland	F22
122	Peat Moss Hills Fen Complex	F55
123	Pleasant River Estuary Wetland Complex	F62
124	Pomahaka River Oxbow Marsh (Dalvey School Road)	F29
125	Pomahaka River Oxbow Marsh (Koi Creek)	F29
126	Ratanui Swamp	F33
127	Red Bank Wetland Management Area	F62
128	Reefs Pond Margins	F52
129	Rigney Pond Margins	F15
130	Rockdale Inland Saline Wetland Management Area	F11
131	Rocky Hill Tidal Marshes	F43
132	Samson Hill Marshes	F31
133	Scaifes Lagoon	F2
134	Schoolhouse Flat Red Tussock Fen	F17
135	Shag Point Dam Margins	F59
136	Shag River Estuary Swamp	F59
137	Shotover River Confluence Swamp	F8
138	Signal Hill Swamp	F8
139	Stirling Marsh Complex	F39

SCHEDULE 9: IDENTIFIED REGIONALLY SIGNIFICANT
WETLANDS AND WETLAND MANAGEMENT AREAS

#	Wetland Name	Map
140	Stuarts Marsh	F50
141	Styx Ephemeral Wetland Management Area	F13
142	Sutton Salt Lake Wetland Management Area	F55
143	Swampy Summit Swamp	F53
144	Tahakopa Bay Podocarp Swamp	F50
145	Tahakopa Marsh Complex	F36
146	Tahakopa River Bogs	F50
147	Takitoa Swamp	F43
148	Tautuku River Mouth Marsh	F32
173	Tavora Wetland	F61
171	Te Hua Taki Wetland	F61
149	Te Matai Marsh Complex	F63
150	The Neck Wetlands	F2
151	Three Stones Fen Complex	F49
152	Timber Creek Seepage	F11
153	Tokomairiro River Swamp	F48
154	Tomahawk Lagoon	F54
155	Totara Creek Inland Saline Wetland	F22
157	Trig Y Bogs	F30
158	Two Stone Hill Stream Swamp	F40
159	Upper Black Stream Marshes	F13
160	Upper Tahakopa Swamps	F31
161	Upper Taieri Wetlands Complex	F19 to F25
162	Upper Waiareka Creek Swamp	F61
163	Von Valley Wetland Complex	F9 & F10
164	Waianakarua River Estuary Swamp	F60
165	Waikouaiti River Estuary Wetland Complex	F56
166	Waipori Boot Swamp	F44 & F45
167	Waipori/Waihola Wetlands Complex	F44 & F45
168	Wairepo Creek Marsh Complex	F34
169	Whareakeake Marsh	F53
170	Willowburn Bog	F30

10. *[Repealed – 1 October 2013]*

SCHEDULE 11: [REPEALED]

11. *[Repealed – 1 March 2012]*

12. Schedule of coastal marine area boundaries

This schedule, and the accompanying maps, identify the boundary of the coastal marine area at Otago’s river mouths. Water on the landward side of the identified boundary is subject to the provisions of this Plan, while water on the coastal side is subject to the provisions of the Regional Plan: Coast.

Waitaki District

Water body	Description of mouth and boundary *	Mouth grid reference	Boundary grid reference
1. Waitaki River	The “mouth” where it enters the sea, the “boundary” five times the width of the mouth upstream.	J41 (Edition 1 1984):636837, 636835	J41 (Edition 1 1984):630844, 628837
2. Awamoia Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the Beach Road bridge.	J41 (Edition 1 1984):47608, 476608	J41 (Edition 1 1984):475608, 476608
3. Kakanui River	The “mouth” where it enters the sea, the “boundary” at the downstream side of the Kakanui Point Road bridge.	J42 (Edition 1 1984):449559, 448555	J42 (Edition 1 1984):443564, 445564
4. Orore Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the Waianakarua Road bridge.	J42 (Edition 1 1984):437531, 437530	J42 (Edition 1 1984):436531, 437530
5. Bow Alley Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the Waianakarua Road bridge.	J42 (Edition 1 1984):424503, 425504	J42 (Edition 1 1984):423505, 423506
6. Waianakarua River	The “mouth” where it enters the sea, the “boundary” five times the width of the mouth upstream.	J42 (Edition 1 1984):421482, 421484	J42 (Edition 1 1984):419483, 419484
7. Kurinui Creek a.k.a. Big Kuri Creek	The “mouth” where it enters the sea, the “boundary” five times the width of the mouth upstream.	J42 (Edition 1 1984):395403, 396404	J42 (Edition 1 1984):393404, 394405
8. Kuriiti Creek a.k.a. Little Kuri Creek	The “mouth” where it enters the sea, the “boundary” five times the width of the mouth upstream.	J42 (Edition 1 1984):394401, 394399	J42 (Edition 1 1984):393399, 393400
9. Waiwhero-whero Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the footbridge.	J42 (Edition 1 1984):397375, 398375	J42 (Edition 1 1984):397374, 398374
10. “Kemp Road” Creek	The “mouth” where it enters the sea, the “boundary” at the lower limit of the lagoon.	J42 (Edition 1 1984):421330, 420330	J42 (Edition 1 1984):419322, 421323
11. Trotters Creek	The “mouth” where it enters the sea, the “boundary” five times the width of the mouth upstream.	J42 (Edition 1 1984):412325, 414327	J42 (Edition 1 1984):412325, 413326
12. Back Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the State Highway 1 Road bridge.	J42 (Edition 1 1984):404315, 405316	J42 (Edition 1 1984):404315, 405316
13. Tarapuke Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the State Highway 1 Road bridge.	J42 (Edition 1 1984):397305, 398306	J42 (Edition 1 1984):397305, 398306
14a. Shag River - northern arm	The “mouth” where it enters the estuary, the “boundary” five times the width of the mouth upstream.	J43 (Edition 1 1980):377240, 377239	J43 (Edition 1 1980):376238, 377237
14b. Shag River - southern arm	The “mouth” where it enters the estuary, the “boundary” five times the width of the mouth upstream.	J43 (Edition 1 1980):377231, 377230	J43 (Edition 1 1980):374 230, 375 229

SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES

Water body	Description of mouth and boundary *	Mouth grid reference	Boundary grid reference
15. Stony Creek	The “mouth” where it enters the estuary, the “boundary” five times the width of the mouth upstream.	J43 (Edition 1 1980):358200, 359201	J43 (Edition 1 1980):357201, 357200

* Taken from the NZMS 260 series of 1:50,000 scale maps.

SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES



7 Kurinui Creek a.k.a. Big Kuri Creek



8 Kuriiti Creek a.k.a. Little Kuri Creek



9 Waiherowhero Creek



10 "Kemp Road" Creek



11 Troppers Creek



12 Back Creek

SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES



13 Tarapuke Creek



14 Shag River



15 Stony Creek

SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES

Dunedin City

Water body	Description of mouth and boundary *	Mouth grid reference	Boundary grid reference
16. Pleasant River	The “mouth” where it enters the estuary, the “boundary” adjacent to the south end of the railway bridge.	J43 (Edition 1 1980):315156, 315157	J43 (Edition 1 1980):311155, 312155
17. Hawksbury Inlet	The “mouth” where it enters the sea, the “boundary” running along the causeway edge to include the Eastern arm in the coastal marine area.	I43 (Edition 1 1981):437531, 437530	I43 (Edition 1 1981):286091, 289086
18. Waikouaiti River	The “mouth” where it enters the estuary, the “boundary” at the downstream side of the State Highway 1 Road bridge.	I43 (Edition 1 1981):265085, 267085	I43 (Edition 1 1981):266087, 266089
19. Careys Creek	The “mouth” where it enters Blueskin Bay, the “boundary” adjacent to the northern end of the railway bridge.	I44/J44 (Edition 2 1987):208954, 209954	I44/J44 (Edition 2 1987):208956, 209956
20. Waitati River	The “mouth” where it enters Orokonui Inlet, the “boundary” five times the width of the mouth upstream.	I44/J44 (Edition 2 1987):216926, 21 925	I44/J44 (Edition 2 1987):214924, 215923
21. Drivers Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the metalled road bridge parallel to Long Beach.	I44/J44 (Edition 2 1987):269923, 270922	I44/J44 (Edition 2 1987):268921, 269920
22. Water of Leith	The “mouth” where it enters the sea, the “boundary” at the downstream side of the railway bridge.	I44/J44 (Edition 2 1987):178787, 179788	I44/J44 (Edition 2 1987):176789, 178789
23. ‘Marne Street’ Creek	The “mouth” where it enters Anderson’s Bay Inlet, the “boundary” at the downstream side of the Marne Street Road bridge.	I44/J44 (Edition 2 1987):179766, 180765	I44/J44 (Edition 2 1987):179766, 180765
24. Tomahawk Lagoon	The “mouth” where it enters the sea, the “boundary” at the downstream side of the Tomahawk Road bridge.	I44/J44 (Edition 2 1987):189750, 191750	I44/J44 (Edition 2 1987):189751, 190751
25. Kaikorai Stream	The “mouth” where it enters the estuary, the “boundary” five times the width of the mouth upstream. The boundary around the estuary is mean high water spring.	I44/J44 (Edition 2 1987):082733, 082735	I44/J44 (Edition 2 1987):084736, 083737
26. Taylors Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the Brighton Road bridge.	I44/J44 (Edition 2 1987):041708, 043709	I44/J44 (Edition 2 1987):039708, 040709
27. Otokia Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the Brighton Road bridge.	I45 (Edition 1 1980):031701, 031699	I45 (Edition 1 1980):030699, 030700
28. Tutu Stream	The “mouth” where it enters the sea, the “boundary” at the downstream side of the road bridge DCC 47.	I45 (Edition 1 1980):981652, 982654	I45 (Edition 1 1980):980652, 981654
29. Reids Stream	The “mouth” where it enters the sea, the “boundary” at the downstream side of the road bridge DCC 48.	I45 (Edition 1 1980):966633, 967634	I45 (Edition 1 1980):966633, 967634
30. Unnamed	The “mouth” where it enters the sea, the “boundary” at the downstream side of the road bridge DCC 49.	I45 (Edition 1 1980):954612, 955614	I45 (Edition 1 1980):954612, 955614

* Taken from the NZMS 260 series of 1:50,000 scale maps.

SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES



16 Pleasant River



17 Hawksbury Inlet



19 Careys Creek



18 Waikouaiti River



20 Waitati River

SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES



27 Otokia Creek



28 Tutu Stream



29 Reids Stream



30 Unnamed

SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES

Clutha District

Water body	Description of mouth and boundary *	Mouth grid reference	Boundary grid reference
31. Taieri River	The “mouth” where it enters the sea, the “boundary” at the downstream side of the road bridge at Taieri Mouth.	I45 (Edition 1 1980):930575, 936582	I45 (Edition 1 1980):923581, 925582
32. Duckbend Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the road Sawmill Road bridge.	I45 (Edition 1 1980):930570, 930568	I45 (Edition 1 1980):926567, 927569
33. Akatore Creek	The “mouth” where it enters the estuary, the “boundary” five times the width of the mouth upstream.	I45 (Edition 1 1980):905516, 906515	I45 (Edition 1 1980):904516, 905515
34. Bull Creek	The “mouth” where it enters the sea, the “boundary” at the picnic area.	H45 (Edition 1 1981):882439, 884440	H45 (Edition 1 1981):882439, 883441
35. Tokomairiro River	The “mouth” where it enters the sea, the “boundary” five times the width of the mouth upstream.	H45 (Edition 1 1981):882439, 884440	H45 (Edition 1 1981):882439, 883441
36. Wangaloa Creek	The “mouth” at the first constriction, the “boundary” at the second constriction.	H45 (Edition 1 1981):785357, 786356	H45 (Edition 1 1981):782353, 781354
37. Washpool Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the Wangaloa Mouth Road bridge.	H46 (Edition 1 1981):752324, 754325	H46 (Edition 1 1981):751326, 752326
38. Clutha River/Mata-Au - Matau Branch	The “mouth” where it enters the sea, the “boundary” five times the width of the mouth upstream.	H46 (Edition 1 1981):665262, 668263	H46 (Edition 1 1981):660264, 660267
39. Clutha River/Mata-Au - Koau Branch	The “mouth” where it enters the sea, the “boundary” along the causeway and five times the width of the mouth upstream.	H46 (Edition 1 1981):639239, 641241	H46 (Edition 1 1981):639247, 642249, 640242, 639245
40. Karoro Creek	The “mouth” where it enters the sea, the “boundary” at the downstream side of the Kaka Point road bridge.	H46 (Edition 1 1981):623184, 624183	H46 (Edition 1 1981):621185, 623184
41. Nugget Stream	The “mouth” where it enters the sea, the “boundary” at the Nuggets Road bridge.	H46 (Edition 1 1981):635162, 636164	H46 (Edition 1 1981):634162, 635164
42. Owaka River	The “mouth” where it enters the Catlins River, the “boundary” at the downstream side of the Pounaweia bridge.	H46 (Edition 1 1981):552110, 554110	H46 (Edition 1 1981):551113, 553113
43. Catlins River	The “mouth” where it enters the Catlins ‘Lake’, the “boundary” at the downstream side of the Ratanui bridge.	G46 (Edition 1 1981):500495, 501493	G46 (Edition 1 1981):491082, 490083
44. Maclennan River	The “mouth” where it enters the Maclennan River, the “boundary” at the downstream side of the State Highway 92 Road bridge between Centre Road and Puaho Road.	G47 (Edition 1 1983):392011, 391013	G47 (Edition 1 1983):393013, 392015
45. Tahakopa River	The “mouth” where the Maclennan River enters, the “boundary” five times the width of the mouth upstream.	G47 (Edition 1 1983):390014, 390011	G47 (Edition 1 1983):385014, 385015
46. Fleming River	The “mouth” where it enters the Tautuku River, the “boundary” five times the width of the mouth upstream.	G47 (Edition 1 1983):346961, 347962	G47 (Edition 1 1983):346962, 347963

SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES

Water body	Description of mouth and boundary *	Mouth grid reference	Boundary grid reference
47. Tautuku River	The “mouth” where the Fleming River enters, the “boundary” at the constriction upstream.	G47 (Edition 1 1983):346962, 347961	G47 (Edition 1 1983):345960, 346961
48. Hukihuki Creek	The “mouth” where it enters the Waipati estuary, the “boundary” five times the width of the mouth upstream.	G47 (Edition 1 1983):291927, 292926	G47 (Edition 1 1983):293928, 294927
49. Waipati River	The “mouth” where it enters Waipati estuary, the “boundary” five times the width of the mouth upstream.	G47 (Edition 1 1983):284925, 294924	G47 (Edition 1 1983):281924, 291924

* Taken from the NZMS 260 series of 1:50,000 scale maps.

SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES



31 Taieri River



32 "Sawmill Road" Creek



33 Akatore Creek



34 Bull Creek



35 Tokomairiro Stream



36 Wangaloa Creek

SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES



37 Washpool Creek



38 Clutha River/Mata-Au – Matau Branch



39 Clutha River/Mata-Au – Koau Branch



40 Karoro Creek



41 Nugget Stream



42 Owaka River

SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES



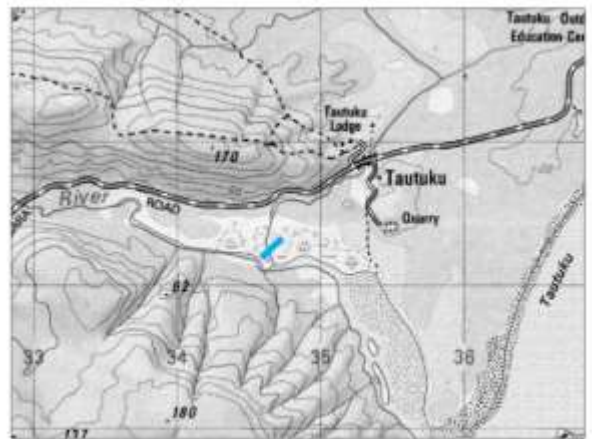
43 Catlins River



44 Macleannan River



45 Tahakopa River



46 Fleming River

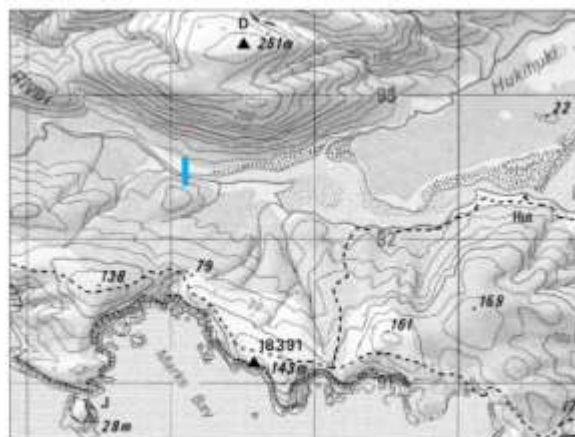


47 Tautuku River



48 Hukihuki Creek

SCHEDULE 12: COASTAL MARINE AREA BOUNDARIES



49 Waipati River

13. Schedule of transitional provisions repealed by this Regional Plan: Water

The Otago Regional Council had an existing Regional Plan for Otago (commonly referred to as the Transitional Regional Plan), constituted by Section 368 of the Resource Management Act 1991. The Transitional Regional Plan was made up of notices, authorisations, bylaws, determinations, and resolutions in operation at the time of the enactment of the Resource Management Act (1 October 1991). These instruments were deemed to form rules in the Transitional Regional Plan, some of which related to the management of Otago’s water bodies.

This Plan deletes the provisions of the Transitional Regional Plan relating to water management within Otago, as identified in this schedule.

Repealed provision of Transitional Regional Plan	Regional Plan: Water provision replacing
Local Water Conservation (Lake Tuakitoto) Notice 1991: 3 “Regionally Significant Features”	Schedule 1A; Schedule 9.
Local Water Conservation (Lake Tuakitoto) Notice 1991: 4 “Minimum Lake Level”	Policy 6.5.1; Rules 12.1.1.1 and 12.3.1.4.
Local Water Conservation (Lake Tuakitoto) Notice 1991: 5.(1) “Water Rights and General Authorisations”	Policy 5.4.2.
Local Water Conservation (Lake Tuakitoto) Notice 1991: 5.(2) “Water Rights and General Authorisations”	No equivalent provision.
Local Water Conservation (Lake Tuakitoto) Notice 1991: 5.(3) “Water Rights and General Authorisations”	No equivalent provision.
Local Water Conservation (Lake Tuakitoto) Notice 1991: 6 “Limit of Notice”	Rule 12.1.2.1; covered by Section 14(3) of the Resource Management Act 1991.
Local Water Conservation (Pomahaka River and tributaries, and Lower Clutha River) Notice 1989: 3 “Regionally Significant Features”	Schedule 1A.
Local Water Conservation (Pomahaka River and tributaries, and Lower Clutha River) Notice 1989: 4 “Right to dam not to be granted”	Rule 12.3.1.3; Schedule 6.
Local Water Conservation (Pomahaka River and tributaries, and Lower Clutha River) Notice 1989: 5 “Water Rights (General):-(1)”	Policy 5.4.2.
Local Water Conservation (Pomahaka River and tributaries, and Lower Clutha River) Notice 1989: 5 “Water Rights (General):-(2)”	No equivalent provision.
Local Water Conservation (Pomahaka River and tributaries, and Lower Clutha River) Notice 1989: 5 “Water Rights (General):-(3)”	No equivalent provision.
Local Water Conservation (Pomahaka River and tributaries, and Lower Clutha River) Notice 1989: 6 “Limit of Notice”	Rule 12.1.2.1; covered by Section 14(3) of the Resource Management Act 1991.
Record of Determination of Appeal: Kakanui River minimum flow 4 September 1991	Schedule 2; Policies 6.4.2 and 6.4.3; Rule 12.1.4.3.

SCHEDULE 13: TRANSITIONAL PROVISIONS REPEALED

Repealed provision of Transitional Regional Plan	Regional Plan: Water provision replacing
Otago Catchment Board and Regional Water Board, General Authorisations 1988:	
General Authorisation 1: “Minor Agricultural Uses”	Rules 12.1.2.2 to 12.1.2.5 and 12.2.2.2.
General Authorisation 2: “Irrigation Scheme Distribution”	Rules 12.1.4.1, 12.2.2.2, 12.11.2.1 and 12.11.2.3.
General Authorisation 3: “School Supply”	Rules 12.1.2.2 to 12.1.2.5 and 12.2.2.2.
General Authorisation 4: “Spray Mixing”	Rules 12.1.2.2 to 12.1.2.5 and 12.2.2.2.
General Authorisation 5: “Earthworks”	Rules 12.1.2.2 to 12.1.2.5 and 12.2.2.2.
General Authorisation 6: “Septic Tank Effluent”	Rules 12.6.1.3 and 12.6.1.4.
General Authorisation 7: “Tracer Dye Discharge”	Rule 12.11.3.1.
General Authorisation 8: “Swimming Pool Discharge”	Rule 12.11.2.1.
General Authorisation 9: “Prospecting and Casual Mining”	Rules 12.1.2.2 to 12.1.2.5, 12.2.2.2, and 12.11.2.3.
General Authorisation 10: “Stormwater/ Drainage Discharges”	Rules 12.1.2.6, 12.3.2.2, 12.4.1.1, 12.4.1.2 and 12.5.1.1.
General Authorisation 11: “Herbicides”	Rules 12.7.1.1 to 12.7.1.4.
General Authorisation 12: “Drilling”	Rules 12.1.2.2 to 12.1.2.5, 12.2.2.2, 12.2.2.3 and 12.9.1.1.
General Authorisation 13: “Minor Dams”	Rule 12.3.2.1.
General Authorisation 14: “Farm Wastes Disposal”	Rules 12.8.1.2 to 12.8.1.4.
General Authorisation 15: “Incidental Damming and Diversion”	Rules 12.3.2.1 and 12.3.2.3.
General Authorisation 16: “Land Stability Drainage”	Rules 12.1.2.6, 12.3.2.2, 12.5.1.1 and 12.11.2.3.
Otago Catchment Board and Regional Water Board, Bylaw 1988:	
Clause 1, “General”, except as it relates to Section 3	No equivalent provision
Clause 2.1, “Maintenance of watercourses and defences against water”	No equivalent provision
Clause 2.2, “Crossings”	Rules under 13.1 to 13.3, 13.5 (as it applies to the bed of a lake or river); Rules under 14.3 and 14.4 (as it applies to land outside of the bed of a lake or river, but within seven metres of the margin of any lake, or of the top of the bank of any river), otherwise no equivalent provision.
Clause 2.3, “Alteration to Watercourse”	Rules under 13.4 and 13.5 (as it applies to the bed of a lake or river), otherwise no equivalent provision.
Clause 2.4, “Construction of a defence against water”	Rules under 13.2 and 13.3 (as it applies to the bed of a lake or river); Rules under 14.3 (as it applies to land outside of the bed of a lake or river).
Clause 2.5, “Removal of shingle, sand, or other material”	Rules under 13.5 (as it applies to the bed of a lake or river), otherwise no equivalent provision.
Clause 2.6, “Vegetation”	Rules under 13.6 (as it applies to the bed of a lake or river), otherwise no equivalent provision.
Clause 2.7, “Obstructions and impairment of efficiency”: 2.7.1	Rules under 12.3; and 13.1 to 13.6, (as it applies to the bed of a lake or river), otherwise no equivalent provision; Rules under 14.3 and 14.4 (as it applies to land outside of the bed of a lake or river, but within seven metres of the margin of any lake, or of the top of the bank of any river), otherwise no equivalent provision.

SCHEDULE 13: TRANSITIONAL PROVISIONS REPEALED

Repealed provision of Transitional Regional Plan	Regional Plan: Water provision replacing
Clause 2.7, “Obstructions and impairment of efficiency”: 2.7.2	Rules under 13.2 (as it applies to the bed of a lake or river); Rules under 14.4 (as it applies to land outside of the bed of a lake or river, but within seven metres of the margin of any lake, or of the top of the bank of any river), otherwise no equivalent provision.
Clause 2.7, “Obstructions and impairment of efficiency”: 2.7.3	Rules under 13.5 (as it applies to the bed of a lake or river), otherwise no equivalent provision; Rules under 14.3 and 14.4 (as it applies to land outside of the bed of a lake or river, but within seven metres of the margin of any lake, or of the top of the bank of any river), otherwise no equivalent provision.
Clause 2.7, “Obstructions and impairment of efficiency”: 2.7.4	Rules under 13.5 (as it applies to the bed of a lake or river), otherwise no equivalent provision; Rules under 14.3 and 14.4 (as it applies to land outside of the bed of a lake or river, but within seven metres of the margin of any lake, or of the top of the bank of any river), otherwise no equivalent provision.
Clause 2.8, “Access, damage etc.”	No equivalent provision.
Clause 4, “Dams”: 4.1, “Construction and alteration”	Rules under 12.3, 13.2 and 13.3.
Clause 4, “Dams”: 4.2, “Maintenance and removal”	Rules under 13.3 and 13.4.
Clause 5, “Underground water”: 5.1 to 5.7	Rules under 12.2 and 14.1.
Clause 5, “Underground water”: 5.8, “Control of pile driving, dredging etc”	As it applies to the bed of a lake or river, Rules under 13.5. Rules under 14.2.
Clause 5, “Underground water”: 5.9, “Pollution of underground water”: 5.9.1	Rules under 12.4 to 12.13.
Clause 5, “Underground water”: 5.9, “Pollution of underground water”: 5.9.2	Rules under 14.1 and 14.2.
First Schedule	No equivalent provision.
Second Schedule	No equivalent provision.
Fifth Schedule	No equivalent provision.
Sixth Schedule	No equivalent provision.
Eighth Schedule	No equivalent provision.
Waitaki Catchment Board and Regional Water Board, Bylaw Confirming Resolution, Hilderthorpe Floodway Bylaw 1988	
Clauses 1 to 10	No equivalent provision
Taieri River Trust Bylaw No.1 1960	
Clauses 1 to 30	No equivalent provision

14. *[Repealed – 1 March 2012]*

15. Schedule of characteristics and numerical limits and targets for Good Quality Water in Otago lakes and rivers

Table 15.1 Characteristics indicative of Good Quality Water

Characteristic	Description	Contaminant effect
Clarity	When standing in knee-deep water, the bed is easily and clearly seen.	Sediment reduces the clarity of water, and has an adverse effect on freshwater fish and invertebrate habitat.
Colour	Water-colour is not altered by contamination. Some rivers have natural colour such as tannin-stain.	A change in colour can be indicative of contamination by sediment or organic matter, linked to potentially high concentrations of DRP, NNN, ammoniacal nitrogen or <i>E coli</i> .
Sediment	Riffles and runs are free of obvious clay and silt deposits. Walking across a riffle or run should not produce an obvious plume. Some rivers are naturally high in sediment.	Sediment affects the colour of water, and has an adverse effect on freshwater fish and invertebrate habitat, and can result in high concentrations of phosphorus, and allow <i>E coli</i> to persist.
Smell	Water is odourless.	Smell can be indicative of contamination from a source high in ammoniacal nitrogen or <i>E coli</i> or the decay of excessive amounts of algae which limits people's opportunity to appreciate water.
Algae	Filamentous algae in rivers should cover less than 30% of the river bed. Floating algae occurring in lakes and rivers should not reduce water clarity. Algal growth in rivers or lakes should not cause slime on the surface of the water.	Excessive nitrogen and phosphorus contribute to algal growth which has an adverse effect on freshwater fish and invertebrate habitat, amenity and recreation values, and angling opportunities.
Bank appearance	Functioning riparian margins: <ul style="list-style-type: none"> ▪ Vegetation is healthy. ▪ Banks are stable. ▪ No obvious livestock disturbance. 	Healthy riparian margins mitigate sediment and nutrient discharges, and provide habitat for invertebrates.

SCHEDULE 15: GOOD QUALITY WATER

Table 15.2 Receiving water numerical limits and targets for achieving Good Quality Water

The limits for Groups 1, 2 and 3 are achieved when 80% of samples collected at a site, when flows are at or below median flow, over a rolling 5-year period, meet or are better than the limits in Schedule 15.

A target date of 31 March 2025 is set when the contaminant concentration does not meet the limit as at 31 March 2012.

Table 15.2.1: Receiving Water Group 1

	Nitrate-nitrite nitrogen	Dissolved reactive phosphorus	Ammoniacal nitrogen	<i>Escherichia coli</i>	Turbidity
	0.444 mg/l	0.026 mg/l	0.1 mg/l	260 cfu/100 ml	5 NTU
Catlins	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2025
Careys Creek	31 March 2012				
Kaikorai	31 March 2012	31 March 2012	31 March 2012	31 March 2025	31 March 2012
Leith	31 March 2025	31 March 2025	31 March 2012	31 March 2025	31 March 2012
Mokoreta (within Otago)	31 March 2025	31 March 2025	31 March 2012	31 March 2025	31 March 2012
Owaka	31 March 2025	31 March 2025	31 March 2012	31 March 2025	31 March 2025
Pomahaka , downstream of Glenken	31 March 2025	31 March 2025	31 March 2012	31 March 2025	31 March 2025
Tahakopa	31 March 2012	31 March 2012	31 March 2012	31 March 2025	31 March 2025
Tokomairiro	31 March 2012	31 March 2012	31 March 2012	31 March 2025	31 March 2012
Tuapeka	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2012
Waitahuna	31 March 2012	31 March 2012	31 March 2012	31 March 2025	31 March 2012
Waitati	31 March 2012	31 March 2012	31 March 2012	31 March 2025	31 March 2012
Waiwera	31 March 2025	31 March 2025	31 March 2012	31 March 2025	31 March 2012
Any unlisted tributary on the true right bank of the Clutha/Mata-Au , south of Judge Creek	31 March 2012				
Any unlisted tributary on the true left bank of the Clutha/Mata-Au , south of the Tuapeka catchment					
Any unlisted catchment that discharges to the coast , south of Taieri Mouth					

SCHEDULE 15: GOOD QUALITY WATER

Table 15.2.2: Receiving Water Group 2

	Nitrate-nitrite nitrogen	Dissolved reactive phosphorus	Ammoniacal nitrogen	<i>Escherichia coli</i>	Turbidity
	0.075 mg/l	0.01 mg/l	0.1 mg/l	260 cfu/100 ml	5 NTU
Cardrona	31 March 2012				
Clutha/Mata-Au and any unlisted tributary (Luggate to mouth, including Lake Roxburgh, and excluding tributaries described in Group 1)	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2025
Fraser	31 March 2012				
Kakanui	31 March 2025	31 March 2025	31 March 2012	31 March 2012	31 March 2012
Kawarau downstream of the Shotover confluence	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2012
Lake Dunstan	31 March 2012				
Lindis	31 March 2025	31 March 2025	31 March 2012	31 March 2012	31 March 2012
Luggate	31 March 2012				
Manuherikia	31 March 2012	31 March 2025	31 March 2012	31 March 2012	31 March 2012
Mill Creek (tributary to Lake Hayes)	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2012
Pomahaka , upstream of Glenken	31 March 2012				
Shag	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2012
Shotover	31 March 2012	31 March 2012	31 March 2012	31 March 2012	Exempt
Taieri	31 March 2025	31 March 2025	31 March 2012	31 March 2025	31 March 2025
Trotters	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2012
Waianakarua	31 March 2025	31 March 2012	31 March 2012	31 March 2012	31 March 2012
Waikouaiti	31 March 2012				
Waipori	31 March 2012				
Waitaki tributaries within Otago	31 March 2025	31 March 2025	31 March 2012	31 March 2025	31 March 2012
Any unlisted catchment that discharges to the coast, north of Taieri Mouth	31 March 2012				

SCHEDULE 15: GOOD QUALITY WATER

Table 15.2.3: Receiving Water Group 3

	Nitrate-nitrite nitrogen	Dissolved reactive phosphorus	Ammoniacal nitrogen	<i>Escherichia coli</i>	Turbidity
	0.075 mg/l	0.005 mg/l	0.01 mg/l	50 cfu/100 ml	3 NTU
Clutha/Mata-Au, above Luggate	31 March 2012				
Dart	31 March 2012	31 March 2012	31 March 2012	31 March 2012	Exempt
Kawarau, upstream of the Shotover confluence	31 March 2012				
Matukituki	31 March 2012	31 March 2012	31 March 2012	31 March 2012	Exempt
Tributaries to Lakes Hawea, Wakatipu, & Wanaka	31 March 2012				

The limits for Groups 4 and 5 are achieved when 80% of samples collected at a site, over a rolling 5-year period, meet or are better than the limits in Schedule 15.

A target date of 31 March 2025 is set when the contaminant concentration does not meet the limit as at 31 March 2012.

Table 15.2.4: Receiving Water Group 4

	Total nitrogen	Total phosphorus	Ammoniacal nitrogen	<i>Escherichia coli</i>	Turbidity
	0.55 mg/l	0.033 mg/l	0.1 mg/l	126 cfu/100 ml	5 NTU
Lake Hayes	31 March 2012	31 March 2025	31 March 2012	31 March 2012	31 March 2012
Lake Johnson	31 March 2025	31 March 2025	31 March 2012	31 March 2012	31 March 2012
Lake Onslow	31 March 2012	31 March 2025	31 March 2012	31 March 2012	31 March 2025
Lake Tuakitoto	31 March 2025	31 March 2025	31 March 2012	31 March 2025	31 March 2025
Lake Waipori & Waihola	31 March 2025	31 March 2025	31 March 2012	31 March 2012	31 March 2025

Table 15.2.5: Receiving Water Group 5

	Total Nitrogen	Total Phosphorus	Ammoniacal nitrogen	<i>Escherichia coli</i> ³	Turbidity
	0.1 mg/l	0.005mg/l	0.01 mg/l	10 cfu/100 ml	3 NTU
Lake Hawea	31 March 2012				
Lake Wakatipu	31 March 2012	31 March 2025	31 March 2012	31 March 2012	31 March 2012
Lake Wanaka	31 March 2012				

mg/l = milligrams per litre

cfu/100 ml = colony-forming units per 100 millilitres

NTU = nephelometric turbidity units

SCHEDULE 15: GOOD QUALITY WATER

Map 15.1 Receiving Water Groups

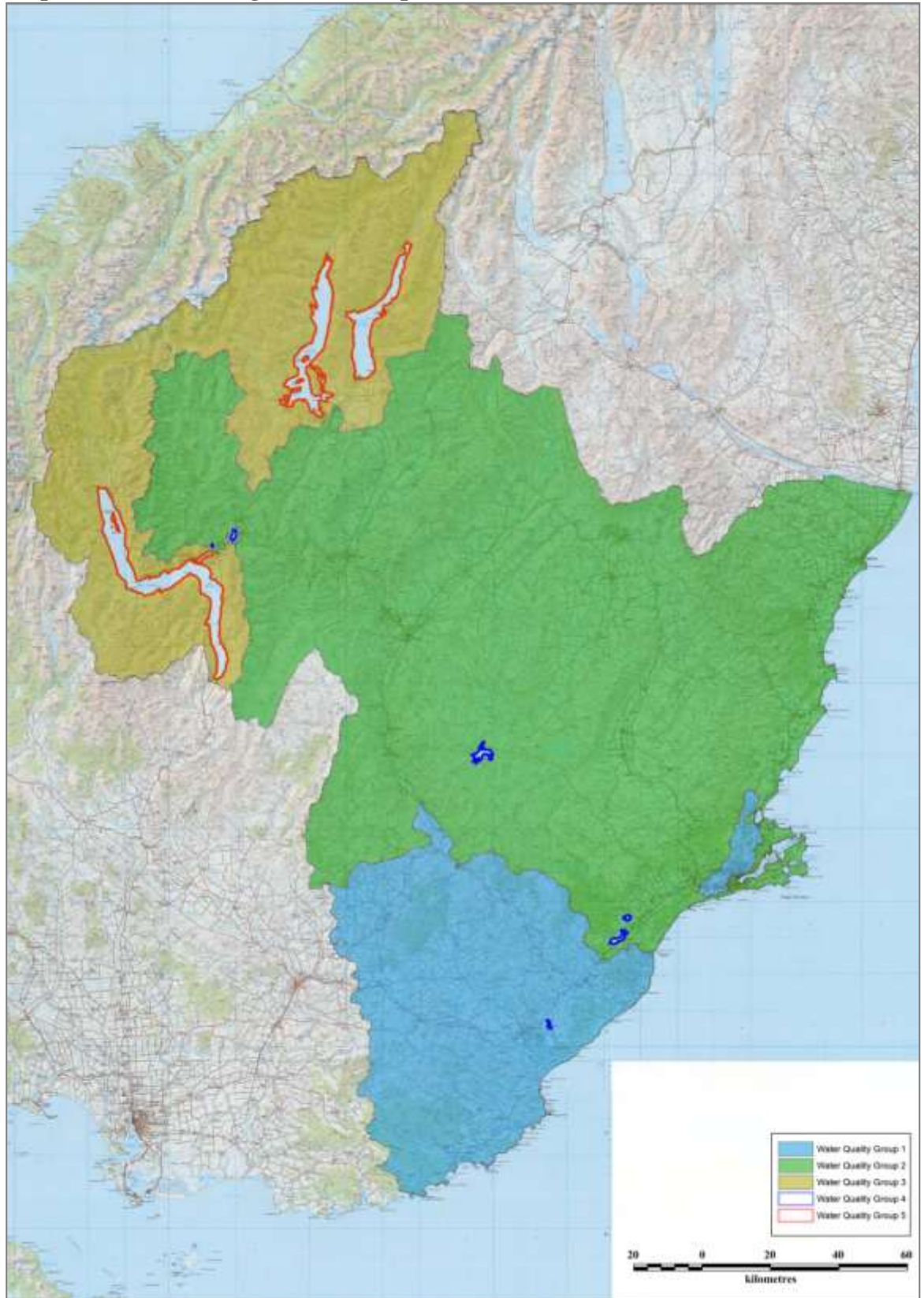


Table 15.3 Aquifer Concentration Limits

Aquifer/Zone	Aquifer N concentration limit (mg/l)	Reason for Limit
*	*	*

* To be populated following aquifer studies

SCHEDULE 16: DISCHARGE THRESHOLDS

16. Schedule of permitted activity discharge thresholds for water quality

Schedule 16 describes the thresholds that apply to discharges permitted under Rule 12.C.1.1A in the catchments of each discharge threshold area. Discharge Threshold Areas 1 and 2 catchments are shown on the J-series Maps.

16A Permitted activity discharge thresholds for water quality by discharge threshold area

Discharge Threshold Area 1 Catchments	Nitrate-nitrite nitrogen	Dissolved reactive phosphorus	Ammoniacal nitrogen	<i>Escherichia coli</i>
Timeframe	1 April 2026			
<ul style="list-style-type: none"> ▪ Catlins ▪ Careys Creek ▪ Kaikorai ▪ Leith ▪ Mokoreta (within Otago) ▪ Owaka ▪ Pomahaka, downstream of Glenken ▪ Tahakopa ▪ Tokomairiro ▪ Tuapeka ▪ Waitahuna ▪ Waitati ▪ Waiwera ▪ Any unlisted tributary on the true right bank of the Clutha/Mata-Au, south of Judge Creek ▪ Any unlisted tributary on the true left bank of the Clutha/Mata-Au, south of the Tuapeka ▪ Any unlisted catchment that discharges to the coast, south of Taieri Mouth 	3.6 mg/l	0.045 mg/l	0.2 mg/l	550 cfu/100 ml

SCHEDULE 16: DISCHARGE THRESHOLDS

Discharge Threshold Area 2 Catchments	Nitrate-nitrite nitrogen	Dissolved reactive phosphorus	Ammoniacal nitrogen	<i>Escherichia coli</i>
Timeframe	1 April 2026			
<ul style="list-style-type: none"> ▪ Cardrona ▪ Clutha/Mata-Au (above Luggate) ▪ Clutha/Mata-Au and any unlisted tributary (Luggate to mouth, including Lake Roxburgh, and excluding tributaries described in Discharge Threshold Catchment Area 1) ▪ Fraser ▪ Kakanui ▪ Kawarau ▪ Lake Dunstan ▪ Lake Hayes ▪ Lake Hawea and any tributary ▪ Lake Johnson ▪ Lake Onslow ▪ Lake Tuakitoto ▪ Lake Waipori & Waihola ▪ Lake Wakatipu and any tributary ▪ Lake Wanaka and any tributary ▪ Lindis ▪ Luggate ▪ Manuherikia ▪ Mill Creek (tributary to Lake Hayes) ▪ Pomahaka, upstream of Glenken ▪ Shag ▪ Shotover ▪ Taieri ▪ Trotters ▪ Waianakarua ▪ Waikouaiti ▪ Waipori ▪ Waitaki tributaries within Otago ▪ Any unlisted catchment that discharges to the coast, north of Taieri Mouth 	1.0 mg/l	0.035 mg/l	0.2 mg/l	550 cfu/100 ml

mg/l = milligrams per litre

cfu/100 ml = colony-forming units per 100 millilitres

16B Representative flow monitoring sites and reference flows

Map 16B Representative flow monitoring sites for every part of Otago
 Representative flow monitoring sites are shown on the Water Info website
 (<http://water.org.govt.nz/WaterInfo/Default.aspx>).

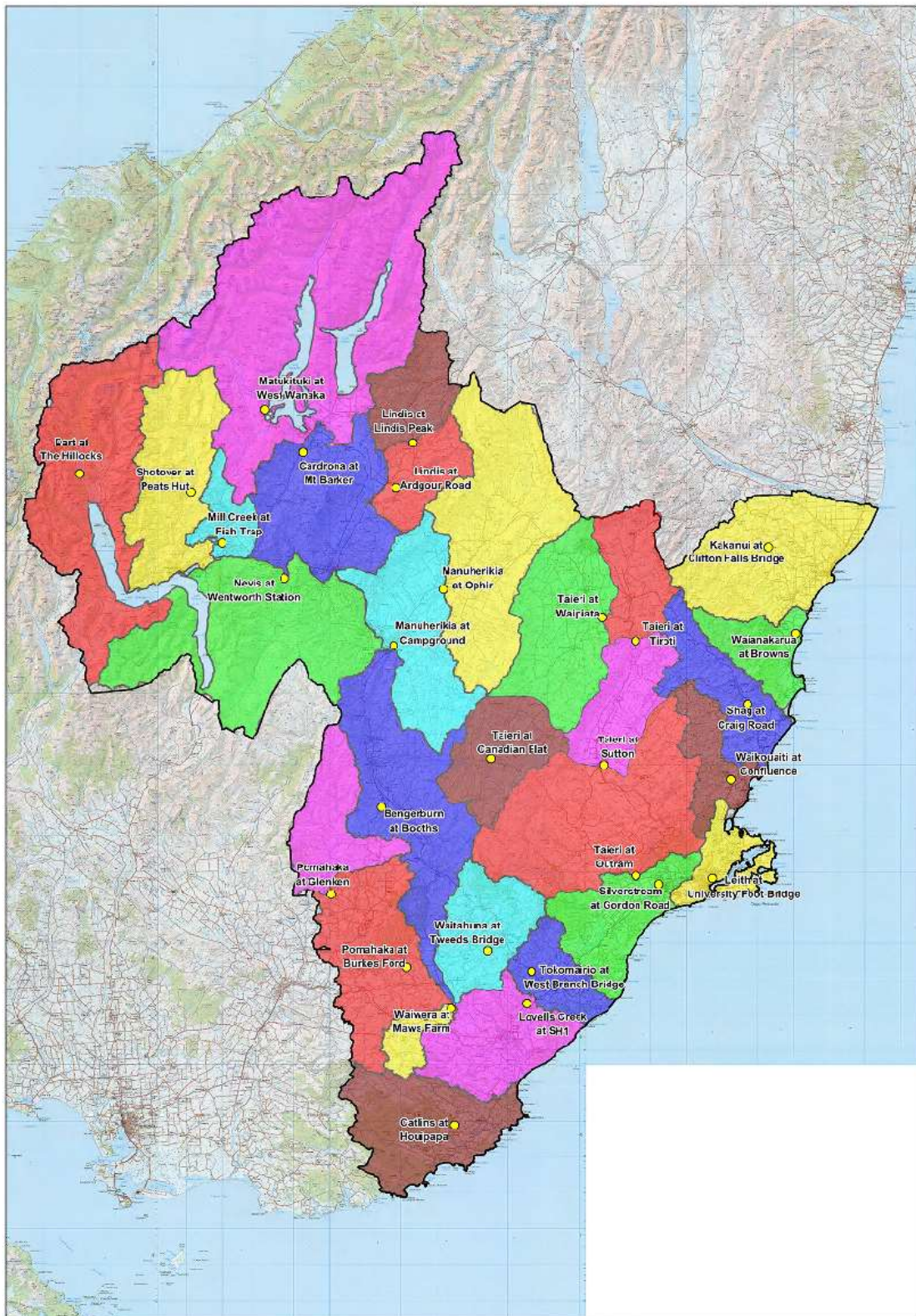


Table 16B Reference flows at each representative flow monitoring site

Reference flows are fixed and have been calculated using median flow data from 01/01/2007 to 01/01/2013. River flows for Otago are available on the Water Info website (<http://water.orc.govt.nz/WaterInfo/Default.aspx>).

Monitoring Flow Site	Reference flow (cumecs)
Bengerburn at Booths	0.37
Cardrona at Mt Barker	1.95
Catlins at Houipapa	2.34
Dart at The Hillocks	51.49
Kakanui at Clifton Falls Bridge	1.29
Leith at University Foot Bridge	0.34
Lindis at Ardgour Road	3.50
Lindis at Lindis Peak	3.51
Lovells Creek at SH1	0.14
Manuherikia at Campground	11.60
Manuherikia at Ophir	8.01
Matukituki at West Wanaka	44.99
Mill Creek at Fish Trap	0.35
Nevis at Wentworth Station	7.25
Pomahaka at Burkes Ford	15.48
Pomahaka at Glenken	7.00
Shag at Craig Road	0.65
Shotover at Peats	18.12
Silverstream at Gordon Road	0.30
Taieri at Canadian Flat	2.45
Taieri at Outram	15.86
Taieri at Sutton	10.52
Taieri at Tiroiti	7.88
Taieri at Waipiata	6.02
Tokomairiro at West Branch Bridge	0.44
Waiakarua at Browns	0.78
Waikouaiti at Confluence	1.34
Waitahuna at Tweeds Bridge	1.55
Waiwera at Maws Farm	1.58

17. Schedule of rules applying to plantation forestry in Otago

The Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017 (NES-PF) came into effect on 1 May 2018. The regulation set out rules for core plantation forestry activities and apply to any forest larger than one hectare, planted specifically for commercial activities and harvest. In general, the standards prevail over rules in regional and district plans, however, in some cases stricter rules in this Plan may apply.

The standards are online here:

<http://www.legislation.govt.nz/regulation/public/2017/0174/latest/whole.html>¹

In this Plan, stricter rules apply that give effect to Objective A1 of the National Policy Statement for Freshwater Management: *To safeguard the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems of fresh water, in sustainably managing the use and development of land, and of discharges of contaminants.*

Stricter Water Plan rules are applied:

- In accordance with Regulation 6 of the NES-PF;
- To achieve Objective 7.A.2 in the Water Plan, in accordance with Policy 7.B.2 in the Water Plan; and
- In particular, to protect indigenous non-migratory fish such as galaxiid species, which are classified as threatened and are particularly vulnerable to habitat disturbance and sedimentation.

For this reason, some rules in sections 12.C and 13.5 of this Plan prevail over the NES-PF in accordance with Section 43A(1) of the RMA.

A summary of the rules that apply to plantation forestry in Otago is in Table 17.1 below.

¹ Link to *Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017*, retrieved 29 March 2018.

SCHEDULE 17: RULES APPLYING TO PLANTATION
FORESTRY IN OTAGO

Table 17.1 Rules for Plantation Forestry in Otago

National Environmental Standards for Plantation Forestry (Part 2)	Regional Plan: Water for Otago
<p>Subpart 1 – Afforestation All regulations apply</p>	Not applicable.
<p>Subpart 8 – Replanting All regulations apply</p>	
<p>Subpart 2 – Pruning and thinning to waste All regulations apply</p>	<p>Chapter 12: Rules Water Take, Use & Management</p> <p>12.C Other discharges</p> <p>12.C.1 Permitted activities: No resource consent required</p> <p>12.C.1.1 (d) (e) (f), excluding (iii)</p> <p>12.C.2 Restricted discretionary activities: Resource consent required</p> <p>12.C.2.1</p> <p>12.C.2.2</p> <p>12.C.2.4</p> <p>12.C.3 Discretionary activities: Resource consent required</p> <p>12.C.3.2</p>
<p>Subpart 3 – Earthworks All regulations apply, except 26 replaced (see opposite and 13.5 rules below in relation to ephemeral rivers)</p>	
<p>Subpart 5 – Forest quarrying All regulations apply, except 56 (1) replaced (see opposite)</p>	
<p>Subpart 6 – Harvesting All regulations apply, except 65 replaced (see opposite).</p>	
<p>Subpart 7 – Mechanical land preparation All regulations apply, except 74 (6) replaced (see opposite)</p>	
<p>Subpart 9 – Ancillary activities All regulations apply, except 90 replaced (see opposite)</p>	

Table continues next page.

Table 17.1 Rules for Plantation Forestry in Otago *continued*

National Environmental Standards for Plantation Forestry (Part 2)	Regional Plan: Water for Otago
<p>Subpart 3 – Earthworks</p> <p>All regulations apply (except 26 replaced, see above). In addition to 28(2), 13.5.3.1 rule opposite also applies for ephemeral flow paths.</p>	<p>Chapter 13: Rules: Land Use on Lake or River Beds or Regionally Significant Wetlands</p> <p>13.5 Alteration of the bed of a lake or river, or of a Regionally Significant Wetland</p> <p>13.5.1 Permitted activities: No resource consent required.</p> <p>13.5.1.1 (g)</p> <p>13.5.3 Discretionary activities: Resource consent required</p> <p>13.5.3.1</p>
<p>Subpart 4 – River Crossings</p> <p>All regulations apply. In addition to 44, 13.5.1.1(g) rule opposite applies, if this rule cannot be met then 13.5.3.1 applies.</p>	
<p>Subpart 6 – Harvesting</p> <p>All regulations apply. In addition to 68(3), rule 13.5.3.1 opposite applies if logs are to be dragged through streams less than 3 metres wide.</p>	
<p>Subpart 9 – Ancillary activities</p> <p>All regulations apply. In addition to 89, 13.5.1.1(g) rule opposite applies, if this rule cannot be met then 13.5.3.1 applies.</p>	
<p>Subpart 10 – General provisions</p> <p>All regulations apply. In addition to 97, rule 13.5.3.1 opposite also applies to any bed disturbance outside fish spawning seasons as defined by the Fish Spawning Indicator.²</p>	

² This is an online mapping tool developed by the Ministry for Primary Industries, which can be found on its website: <https://www.mpi.govt.nz/growing-and-harvesting/forestry/national-environmental-standards-for-plantation-forestry/fish-spawning-indicator/>

SCHEDULE 18: SCHEDULE OF POND DROP TEST
REQUIREMENTS AND CRITERIA

18. Schedule of pond drop test requirements and criteria

This schedule outlines the requirements for undertaking pond drop tests on animal effluent storage facilities that are part of an animal effluent system and the pass criteria for drop test results.

Requirements

- A minimum of 24 hours of accurate data within a single test period.
- Total test error of less than ± 1 mm.
- Continuous readings are to be taken over the entire test period at not more than 10 second intervals.
- Any change in pond fluid level over the test period needs to be accounted for.
- Ponds must be at or over 75% design depth (excluding freeboard) before a test can be undertaken.
- The level of sludge or crust on the pond during the test should be minimal so that it does not impact on test results.
- The pond surface is not frozen during any part of the testing.
- An anemometer is installed for the duration of the test and only data obtained when the wind speed does not exceed 50 kilometres per hour (14 m per second) at the test site is used in the test results.

Table 18.1 Maximum allowable pond level change

When tested in accordance with the requirements above, the animal effluent storage facility is considered to meet the pond drop test criteria if the maximum pond level change does not exceed the following:

Maximum design depth of pond (m) excluding freeboard	Maximum allowable pond level change (mm per 24 hours)
<0.5	1.2
0.5 to 1.0	1.4
1.0 to 1.5	1.6
1.5 to 2.0	1.8
>2.0	2.0

19. Schedule of progressive implementation of animal effluent storage requirements

Many animal effluent storage facilities in Otago will need to be upgraded to meet the requirements of this Plan. The intent of this Schedule is to stage implementation of the Plan’s requirements according to the environmental risk posed by existing animal effluent storage facilities. To assess this risk, Schedule 19 provides two calculations that will determine the current storage volume available on a landholding (in days) as follows:

- Schedule 19A sets out the calculations required to determine days of storage available on a landholding.
- Schedule 19B sets out the date by which a complete resource consent application must be lodged with the Otago Regional Council under Rule 14.7.3.1 (and correspondingly Rule 14.7.1.2 ceases to apply). A complete application is one that is not determined as being incomplete by the Otago Regional Council pursuant to section 88 of the Resource Management Act 1991.

For clarity, this calculation under Schedule 19A does not determine the volume of the storage facility under section 14.7, it only determines the date that applications must be received.

19A Storage calculation

Two calculations are required to determine the current minimum number of days of animal waste storage available on a landholding. These are set out below.

Step One: Daily waste volume

To calculate the daily waste volume per farm, use the following formula:

$$\text{Daily waste volume (m}^3\text{)} = \text{Maximum number of cows milked per day} \times 0.05^{\wedge} \times \text{Maximum number of times per day that cows are milked during milking season}$$

[^] being 0.05 cubic metres (50 litres per cow per day)

For example:

During milking season, Farm A milks 500 cows twice per day. Using the formula above:

$$\text{Daily waste volume (m}^3\text{)} = 500 \times 0.05 \times 2$$

$$\text{Daily waste volume (m}^3\text{)} = 50$$

SCHEDULE 19: SCHEDULE OF PROGRESSIVE IMPLEMENTATION
OF ANIMAL EFFLUENT STORAGE REQUIREMENTS

Step Two:

To calculate the minimum number of days of storage available, use the following formula:

$$\text{Days of storage available} = \text{Actual storage volume (m}^3\text{)} \div \text{Daily waste volume (m}^3\text{)}$$

^ determined assuming that the storage facility is empty.

For example:

As calculated above, Farm A has a daily waste volume of 50 m³. The farm has a storage pond with a storage volume of 1000 m³. Using the formula above:

$$\text{Days of storage available} = 1000 \div 50$$

$$\text{Days of storage available} = 20$$

Using the table in Schedule 19B, Otago Regional Council must receive a complete resource consent application under Rule 14.7.3.1 from Farm A no later than two years from the date Plan Change 8 is made operative.

19B Application dates

The following table sets out the dates by which complete resource consent applications must be received under Rule 14.7.3.1 (and correspondingly Rule 14.7.1.2 ceases to apply). The “application date” is the date Plan Change 8 is made operative, plus the number of years in the “year” column below.

Days of storage available as calculated in accordance with Schedule 19B	Year
0 – 10	0.5
11 – 40	2
41+	3

20. Schedule defining Suitably Qualified Persons

A suitably qualified person for the purposes of this schedule is a person who has been certified by the Otago Regional Council as being appropriately qualified and experienced in accordance with the requirements below.

Requirements – Animal Effluent systems

For the purposes of Rules 14.7.1.1(b) and 14.7.1.1A(b) and Schedule 21(2)(j), a Suitably Qualified Person has either:

- (a) A relevant tertiary qualification in agricultural engineering, natural resources engineering or civil engineering and at least five years' professional experience in designing and constructing effluent management systems; or
- (b) A relevant equivalent qualification (for example, international qualifications) and at least five years' professional experience in designing and constructing effluent management systems; or
- (c) At least ten years' professional experience in designing and constructing effluent management systems.

Requirements – Calculations using the Dairy Effluent Storage Calculator

For the purposes of Rules 14.7.1.1(a) and Rule 14.7.2.1(a), a Suitably Qualified Person has:

- (a) For undertaking a calculation using the Dairy Effluent Storage Calculator, at least five years' relevant professional experience in designing effluent management systems, and
- (b) For determining a conversion factor for animals that are not dairy cows, a relevant scientific tertiary qualification or relevant research experience.

21. Schedule of management plan requirements

- (1) A management plan for the purpose of preventing the unauthorised discharge of liquid or solid animal effluent to water is:
 - (a) Prepared by the landholding owner or their agent and retained on the landholding, identifying the matters set out in clause 2 below;
 - (b) Reviewed at least once every 12 months by the landholding owner or their agent, and the outcome of the review documented; and
 - (c) Provided to the Otago Regional Council upon request.
- (2) The management plan must contain the following:
 - (a) Physical address of where the animal effluent system is located, and the land where liquid or solid animal effluent is to be applied;
 - (b) A description of the landholding ownership, and the contact details of the owner and the person in charge;
 - (c) Legal description(s) of the landholding;
 - (d) A list of all the relevant resource consents held for the landholding and their expiry dates;
 - (e) A map(s) or aerial or satellite photograph(s) showing the locations of:
 - (i) The boundaries of the landholding;
 - (ii) The location of any dairy shed, animal effluent storage facilities, and any other components of an animal effluent system;
 - (iii) Lakes, rivers, natural wetlands, bores, soak holes, the coastal marine area, water supply for human consumption and dwellings within the landholding;
 - (iv) The area of land where liquid or solid animal effluent is to be applied, and in relation to this area:
 - Soil types and their risk profile³;
 - Any critical source areas and the locations of known subsurface drains;
 - (f) Operational procedures for using and maintaining the animal effluent system and for managing the discharge of animal effluent;
 - (g) Inspection, monitoring and reporting requirements and timeframes;
 - (h) The records of pond drop tests of the animal effluent storage facility undertaken at least every five years (excluding above-ground tanks, bladders, solid animal effluent storage facilities and an animal effluent storage facility with a leak detection system);
 - (i) Contingency measures to prevent the discharge of liquid or solid animal effluent to a water body, an artificial watercourse, or the coastal marine area, either directly or indirectly;

³ A digital soil map for New Zealand can be found online at <https://smap.landcareresearch.co.nz/>

SCHEDULE 21: SCHEDULE OF MANAGEMENT PLAN
REQUIREMENTS

- (j) Identification of measures to be taken to respond to a leak and the timeframe for response; including, for animal effluent storage facilities with a leak detection system where a leak is detected, a requirement for an assessment by a Suitably Qualified Person to be undertaken as soon as practicable and no later than two months of the detection to determine whether the leak is within the normal operating parameters of the pond; and
- (k) Responses to any other system failures or emergencies, including timeframes for response.

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Glossary

Terms marked with an asterisk * are terms defined by the Resource Management Act 1991.

In this Plan, the spelling of Māori words using ng and k is interchangeable (for example Ngāi Tahu and Kāi Tahu).

Abandoned structure	A structure that is no longer required or utilised for the purpose for which it was erected or placed.
Access strip*	Means a strip of land created by the registration of an easement in accordance with Section 237B (of the Resource Management Act 1991) for the purpose of allowing public access to or along any river, or lake, or the coast, or to any esplanade reserve, esplanade strip, other reserve, or land owned by the local authority or by the Crown (but excluding all land held for a public work except land held, administered or managed under the Conservation Act 1987 and the Acts named in the First Schedule to that Act).
Adverse effect	A detrimental effect.
Aerial discharge	The discharge of any agrichemical from any aircraft.
<u>Agricultural and horticultural activities</u> <i>(definition only applies where term is <u>underlined</u> in this Plan)</i>	All activities involved with the primary industries of agriculture and horticulture, including common stock drinking-water schemes, but excludes processing agricultural and horticulture produce.
Allocation limit	The maximum flow or quantity of water in a water body, which is able to be allocated to resource consents for taking.
Alluvium	Sediment including rock, gravel, sand or silt material deposited by flowing water on floodplains and in lake and river beds, as a result of alluvial processes.
Alteration of the bed	Any bed disturbance, reclamation or deposition.
Amenity values*	Means those natural or physical qualities and characteristics of an area that contribute to people’s appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes.
Animal effluent storage facility	A pond, tank, or structure primarily used for the containment or storage of animal effluent, but excludes any ancillary structures for the collection, conveyance or treatment of liquid or solid animal effluent, such as sumps, stone traps and weeping walls.
Animal effluent system	Means the collection, storage, or treatment, of liquid or solid animal effluent.

Animal waste	Faeces or urine from any animal.
Annual renewable yield	<i>[Repealed – 1 March 2012]</i>
<u>Annual volume</u> <i>(definition only applies where term is <u>underlined</u> in this Plan)</i>	The volume of water that can be taken or diverted in any 12-month period.
Anticipated environmental result	The intended result or outcome on the environment as a consequence of implementing the policies and methods.
<u>Any other activities</u> <i>(definition only applies where term is <u>underlined</u> in this Plan)</i>	Activities that are not <u>agricultural and horticultural activities</u> , hydro-electricity generation, <u>industrial and commercial activities</u> , <u>tourism and recreation facilities</u> , or <u>town and community water supplies</u> .
Aquatic plant	Any plant species that grows in water and is either totally or predominantly submerged in water.
Aquifer	A geological formation capable of holding water.
Aquifer compression	A reduction in an aquifer's capacity to hold water.
Archaeological site	Any place in New Zealand that <ul style="list-style-type: none"> (a) EITHER – <ul style="list-style-type: none"> (i) Was associated with human activity that occurred before 1900; or (ii) Is the site of the wreck of any vessel where that wreck occurred before 1900; and (b) Is or may be able through investigation by archaeological methods to provide evidence relating to the history of New Zealand. <p>- defined by Section 2 of the Historic Places Act 1993.</p>
Artesian pressure	The pressure of water in a confined aquifer resulting in water level rise above the bottom of the confining layer.
Assessed maximum annual take	The sum of the takes of groundwater as calculated under Method 15.8.3.1

Assimilative capacity	The ability of a water body to assimilate contaminants without adversely affecting the natural and human use values supported by the water body.
Augmentation	Increasing the supply of available water through the active management of water resources.
Back-flow	The return of water to the source water body, through the device used to take water, including back-siphoning.
Bed*	Means, - <ul style="list-style-type: none"> (a) In relation to any river- <ul style="list-style-type: none"> (i) For the purposes of esplanade reserves, esplanade strips, and subdivision, the space of land which the waters of the river cover at its annual fullest flow without overtopping its banks: (ii) In all other cases, the space of land which the waters of the river cover at its fullest flow without overtopping its banks; and (b) In relation to any lake, except a lake controlled by artificial means, - <ul style="list-style-type: none"> (i) For the purposes of esplanade reserves, esplanade strips, and subdivision, the space of land which the waters of the lake cover at its annual highest level without exceeding its margin: (ii) In all other cases, the space of land which the waters of the lake cover at its highest level without exceeding its margin; and (c) In relation to any lake controlled by artificial means, the space of land which the waters of the lake cover at its maximum permitted operating level; and (d) In relation to the sea, the submarine areas covered by the internal waters and the territorial sea.
Bed disturbance	Any activity which affects the bed or bank of a water body and includes any excavation, dredging, drilling, tunnelling, and any widening, deepening or altering of the course of the water body.
Bedform	The topography or shape of the bed of a lake or river.
Bed material	The sand, gravel or other alluvium forming part of the bed of a lake or river.
Benthic invertebrate	An animal without a backbone (e.g. snail, crustacean, worm, insect) living on, under, or within the bed material of a water body.
BOD₅	The quantity of oxygen consumed by microbial and chemical processes over a five day period at 20 degrees.

Bore	Every device or means, including any well or pit, which is drilled or constructed for the purpose of taking groundwater, or which results in groundwater being taken, other than piezometers or other monitoring devices used for water sampling purposes only.
Bore interference	The reduced ability of users in a localised area to take water from a bore, due to the taking of water from another bore, reducing the pressure and/or the level of groundwater.
Bunding	Constructing an embankment or low wall (usually concrete) designed to contain accidental spillage of a stored liquid.
CFU	Colony-Forming Units, an indication of faecal contamination.
Cleanfill	A natural material such as sand, gravel and rock, and such other materials as concrete, brick or demolition products that are free of soluble materials and are therefore not subject to biological or chemical breakdown.
Coastal marine area*	Means the foreshore, seabed, and coastal water, and the air space above the water - <ul style="list-style-type: none"> (a) Of which the seaward boundary is the outer limits of the territorial sea: (b) Of which the landward boundary is the line of mean high water springs, except that where that line crosses a river, the landward boundary at that point shall be whichever is the lesser of - <ul style="list-style-type: none"> (i) One kilometre upstream from the mouth of the river; or (ii) The point upstream that is calculated by multiplying the width of the river mouth by 5.
Conditions*	In relation to plans and resource consents, includes terms, standards, restrictions, and prohibitions.
Consent authority*	Means a regional council, a territorial authority, or a local authority that is both a regional council and a territorial authority, whose permission is required to carry out an activity for which a resource consent is required under the Resource Management Act 1991.
Conspicuous change in visual clarity	A visual change in water clarity of more than 40%.
Consumptive use	Where a use results in a net loss of water from the water body.
Contact recreation	Recreational activities involving contact with water; either primary (full immersion) or secondary (that which may result in some form of contact with water).

Contaminant*	Includes any substance (including gases, odorous compounds, liquids, solids, and micro-organisms) or energy (excluding noise) or heat, that either by itself or in combination with the same, similar, or other substances, energy or heat - <ul style="list-style-type: none"> (a) When discharged into water, changes or is likely to change the physical, chemical, or biological condition of water; or (b) When discharged onto or into land or into air, changes or is likely to change the physical, chemical, or biological condition of the land or air onto or into which it is discharged.
Contaminated land	Land at which hazardous substances occur at concentrations above background levels and where assessment indicates that that land poses, or is likely to pose, an immediate or long-term hazard to human health or the environment.
Contravene*	Includes fail to comply with.
Controlled activity*	If an activity is described in the Resource Management Act 1991, regulations (including any national environmental standard), a plan, or a proposed plan as a controlled activity, a resource consent is required for the activity and - <ul style="list-style-type: none"> (a) The consent authority must grant a resource consent (except if Section 106 of the Act applies); and (b) The consent authority’s power to impose conditions on the resource consent is restricted to the matters over which control is reserved (whether in its plan or proposed plan, a national environmental standard, or otherwise); and (c) The activity must comply with the requirements, conditions, and permissions, if any, specified in the Act, regulations, plan, or proposed plan.
Controlled lake	A lake where structures are used to manage the quantity of water leaving the lake.
Critical source area	Means a landscape feature such as a gully, swale, or depression that accumulates runoff from adjacent flats and slopes and delivers contaminants to surface water bodies such as rivers, lakes, and artificial watercourses (excluding subsurface drains, and artificial watercourses that do not connect to natural water bodies).
Dairy Effluent Storage Calculator	Means the Dairy Effluent Storage Calculator available from http://www.dairynzdesc.co.nz
Dam	A structure used or to be used for the damming of any water, or water body.
Datum	The fixed level for basing subsequent level measurements, in this case datum means Otago Metric Datum, which is the Dunedin Vertical Datum (DVD 1958) plus 100 metres.

Deemed permit	A mining privilege in respect of water (see Appendix 2).
Defence against water	Any dam, weir, bank, carriageway, groyne, or reservoir, and any structure or appliance of any kind which has or may have the effect of stopping, diverting, controlling, restricting, or otherwise regulating the flow or spread or subsidence, in or out of a water body, of water including flood waters, which is specifically established for the purpose of flood hazard mitigation.
Deposition	The deposit of any substance, other than water or waterborne contaminants (discharge), or fill material (reclamation).
Discharge*	Includes emit, deposit, and allow to escape.
Discretionary activity*	<p>If an activity is described in the Resource Management Act 1991, regulations (including any national environmental standard), a plan, or a proposed plan as a discretionary activity, a resource consent is required for the activity and -</p> <p>(a) The consent authority may decline the consent or grant the consent with or without conditions; and</p> <p>(b) If granted, the activity must comply with the requirements, conditions, and permissions, if any, specified in the Act, regulations, plan, or proposed plan.</p>
Disposal field	That part of a constructed on-site waste water treatment system where the effluent is discharged to land.
District plan*	<p>(a) Means an operative plan approved by a territorial authority under Schedule 1 of the Resource Management Act 1991; and</p> <p>(b) Includes all operative changes to the plan (whether arising from a review or otherwise).</p>
Divert	In relation to the diversion of water, is the process of redirecting the flow of water from its existing course to another.
Down-hole pump test	A test conducted to determine aquifer or bore characteristics.
Drain	Artificial channel or subsurface conduit (e.g. mole drain, tile drain or drainage tunnel) constructed to either lower the watertable or divert water, excluding a water race.
Drainage water	Water collected by and discharged from a drain.

Drilling	The process of creating a hole in the ground with a drill to a depth greater than 1 metre. This does not include hole creation for the purpose of: <ul style="list-style-type: none"> • The construction of a bore; • The erection of fences or overhead utilities; or • The placement of building foundations.
Drill hole	The hole created by drilling.
Drinking-water supply reservoir	A reservoir which is used primarily for the purpose of storing a supply of drinking water.
Earthworks	Means the alteration or disturbance of land, including by moving, removing, placing, blading, cutting, contouring, filling or excavation of earth (or any matter constituting the land including soil, clay, sand and rock); but excludes gardening, cultivation, and disturbance of land for the installation of fence posts.
Ecosystem	A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.
Effect*	In the Resource Management Act 1991, unless the context otherwise requires, the term effect includes - <ol style="list-style-type: none"> (a) Any positive or adverse effect; and (b) Any temporary or permanent effect; and (c) Any past, present, or future effect; and (d) Any cumulative effect which arises over time or in combination with other effects - regardless of the scale, intensity, duration, or frequency of the effect, and also includes - <ol style="list-style-type: none"> (e) Any potential effect of high probability; and (f) Any potential effect of low probability which has a high potential impact.
Effluent	Liquid waste, including liquid leaching from solid waste.
Enforcement order*	Means an order made under Section 319 of the Resource Management Act 1991 for any purposes set out in Section 314 of the Act; and includes an interim enforcement order made under Section 320 of the Act.

Environment*	Includes - <ul style="list-style-type: none"> (a) Ecosystems and their constituent parts, including people and communities; and (b) All natural and physical resources; and (c) Amenity values; and (d) The social, economic, aesthetic, and cultural conditions which affect the matters stated in paragraphs (a) to (c) of this definition or which are affected by those matters.
<u>Environmental flow and level regimes</u> (<i>definition only applies where term is underlined in this Plan</i>)	The flow-sharing, allocation limits and minimum flows and levels established by the Water Plan as specified in Rule 12.1.4.4A.
Erosion	The processes of the wearing away of the land surface (including the land that forms the bed of a lake or river) by natural agents and the transport of the material that results.
Esplanade reserve*	Means a reserve within the meaning of the Reserves Act 1977 - <ul style="list-style-type: none"> (a) Which is either - <ul style="list-style-type: none"> (i) A local purpose reserve within the meaning of Section 23 of that Act, if vested in the territorial authority under Section 239 of the Resource Management Act 1991; or (ii) A reserve vested in the Crown or a regional council under Section 237D of the Resource Management Act 1991; and (b) Which is vested in the territorial authority, regional council, or the Crown for a purpose or purposes set out in Section 229 of the Resource Management Act 1991.
Esplanade strip*	Means a strip of land created by the registration of an instrument in accordance with Section 232 of the Resource Management Act 1991 for a purpose or purposes set out in Section 229 of the Act.
Excavation over a groundwater protection zone	The digging and removal of a volume of earth material from below the topsoil horizon in excess of 10 cubic metres, or to a depth of greater than 1 metre, but does not include that required for bore construction, or for the erection of fences, overhead utilities or foundations for buildings, or for land cultivation.
Exotic plant	A plant which is not native to New Zealand. These may include introduced plants which have been brought in by accident or design.
Extraction	Removal of material from the lake or river system.

Faecal coliform	A type of bacteria associated with animal excrement that indicates faecal pollution. If the faecal coliform count is high there may be disease-causing organisms present.
Fauna	All the animal life of a given place.
Fertiliser	Any proprietary substance specifically manufactured for use in increasing the nutrient status of land. Excludes compost, effluent or seaweed.
Financial contribution	A contribution as set out in Section 108(9) of the Resource Management Act.
<u>Fisheries and wildlife</u> (<i>definition only applies where term is <u>underlined</u> in this Plan</i>)	Activities relating to the management and enhancement of habitats of fish and indigenous wildlife.
Flood carrying capacity	The capacity of any channel to convey flood waters.
Flooding of any other person's property	Where a discharge of water or contaminants on one property causes inundation on another property.
Flora	All the plant life of a given place.
Flushes	Wet or damp areas of ground where the watertable intersects the land surface. Characterised by the presence of wetland species such as Sphagnum, and a greener, more lush appearance than surrounding vegetation.
Ford	Any modification of the bed to establish a crossing by which any vehicle, livestock, or persons may traverse through any water body.
Galaxias	The genus name of members of the native fish family Galaxiidae, which includes inanga (whitebait) and banded kokopu.
Galaxiid	A member of the native fish family Galaxiidae.
Grassed swale	An open artificial water body or drain with gently-sloping walls of permeable material that conducts water only when the substrate is saturated.
Groundwater	Water that occupies or moves through openings, cavities or spaces in geological formations under the ground.

Groundwater protection zone	An area of land in which land use and water use activities are to be managed to protect the underlying groundwater resource.
Hapu	Sub-tribe, extended whanau.
Hazardous substance	<p>Unless expressly provided otherwise by regulations, any substance -</p> <p>(a) With one or more of the following intrinsic properties:</p> <ul style="list-style-type: none"> (i) Explosiveness: (ii) Flammability: (iii) A capacity to oxidise: (iv) Corrosiveness: (v) Toxicity (including chronic toxicity): (vi) Ecotoxicity, with or without bioaccumulation; or <p>(b) Which on contact with air or water (other than air or water where the temperature or pressure has been artificially increased or decreased) generates a substance with any one or more of the properties specified in paragraph (a) of this definition.</p> <p>- defined by Section 2 of the Hazardous Substances and New Organisms Act 1996.</p>
Herbicide	Substance toxic to plants and used to kill or control plants.
High degree of naturalness	Retaining characteristics not significantly modified by human beings or non-indigenous plants or animals.
Historic place	Any land (including an archaeological site); or any building or structure (including part of a building or structure); or any combination of land and a building or structure that forms part of the historical and cultural heritage of New Zealand and lies within the territorial limits of New Zealand; and includes anything that is in or fixed to such land.
Hydrological values	The natural processes of an ecosystem in providing regulated water flow and enhanced water quality.
Impervious strata	A layer of soil, rock or other natural material which does not allow the percolation of water.
<u>In-catchment needs</u> (<i>definition only applies where term is underlined in this Plan</i>)	Water requirements of users where the water is taken or diverted for use within the Waitaki catchment.
Indigenous species	A New Zealand native species that is, or is thought to have been, naturally existing within the catchment.

<p><u>Industrial and commercial activities</u> <i>(definition only applies where term is <u>underlined</u> in this Plan)</i></p>	<p>Industrial and commercial activities (but excluding hydro-electricity generation) that are not served by a reticulated town and community water supply.</p>
<p>Industrial or trade premises*</p>	<p>Means -</p> <ul style="list-style-type: none"> (a) Any premises used for any industrial or trade purposes; or (b) Any premises used for the storage, transfer, treatment, or disposal of waste materials or for other waste-management purposes, or used for composting organic materials; or (c) Any other premises from which a contaminant is discharged in connection with any industrial or trade process - <p>but does not include any production land. In this plan, the phrase ‘industrial or trade premises’ includes any structure associated with electricity generation.</p>
<p>Industrial or trade process*</p>	<p>Includes every part of a process from the receipt of raw material to the dispatch or use in another process or disposal of any product or waste material, and any intervening storage of the raw material, partly processed matter, or product.</p>
<p>Industrial or trade waste</p>	<p>Waste from an industrial or trade premises, that is derived from an industrial or trade process.</p>
<p>Instantaneous take</p>	<p>All takes of water occurring at a particular time.</p>
<p>Intake structure</p>	<p>The device by which water is taken from a water body.</p>
<p>Intensive winter grazing</p>	<p>Has the same meaning as defined in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020.</p>
<p>Intrinsic values*</p>	<p>In relation to ecosystems, means those aspects of ecosystems and their constituent parts which have value in their own right, including -</p> <ul style="list-style-type: none"> (a) Their biological and genetic diversity; and (b) The essential characteristics that determine any ecosystem’s integrity, form, functioning, and resilience.
<p>Issue</p>	<p>A matter of concern to the region’s community regarding activities affecting some aspect of natural and physical resources and the environment of the region.</p>
<p>Iwi</p>	<p>Tribe.</p>

Iwi authority*	Means the authority which represents an iwi and which is recognised by that iwi as having authority to do so. (The iwi authority for the Otago region is Te Runanga O Ngai Tahu).
Iwi management plan	A relevant planning document, such as the Kai Tahu Ki Otago Natural Resource Management Plan, recognised by an iwi authority affected by this Plan, to which local authorities shall have regard.
Kai Tahu	Descendants of Tahu, the tribe. The manawhenua of the Otago region. (Also known as Ngai Tahu).
<u>Kāi Tahu or Ngāi Tahu</u> <i>(definition only applies where term is underlined in this Plan)</i>	The collection of individuals who descend from the primary hapū of Waitaha, Ngāti Mamoe, and Ngāi Tahu, namely Kāti Kurī, Kāti Irakehu, Kāti Huirapa, Ngāi Tuahuriri and Kai Te Ruahikihiki.
Kaitiaki	Guardians.
Kaitiakitanga*	Means the exercise of guardianship by the tangata whenua of an area in accordance with tikanga Maori in relation to natural and physical resources; and includes the ethic of stewardship.
Kanakana	The primitive parasitic native fresh water lamprey, <i>Geotria australis</i> .
Kokopu	Native fish species of the Galaxiid family, including banded kokopu (<i>Galaxias fasciatus</i>) and giant kokopu (<i>G. argenteus</i>), sometimes referred to as ‘native trout’.
Koura	Native fresh water crayfish of the genus <i>Paranephrops</i> .
Lake Tuakitoto	The variable and more or less continuous body of water commonly known as Lake Tuakitoto, including Robson’s Lagoon, situated at and about map reference NZMS260 H46:650370. The shoreline of the lake is defined as the variable extent of surface water, as it is observed at any particular time, whether of natural extent or whether restricted by any floodbank.
Lake*	Means a body of fresh water which is entirely or nearly surrounded by land.
Land*	<ul style="list-style-type: none"> (a) Includes land covered by water and the air space above land; and (b) In a national environmental standard dealing with a regional council function under Section 30 of the Resource Management Act 1991 or a regional rule, does not include the bed of a lake or river; and (c) In a national environmental standard dealing with a territorial authority function under Section 31 of the Act or a district rule, includes the surface of water in a lake or river.

Land-based discharge	The discharge of any agrichemical from any thing other than any aircraft.
Land drainage	The removal of water from in or on land.
Landholder	Includes land owner, lessee and occupier.
Landholding	<p>(1) For land subject to the Land Transfer Act 1952, land in:</p> <p>(i) A single certificate of title; or</p> <p>(ii) Two or more adjoining certificates of title, with a common occupier.</p> <p>(2) For land not subject to the Land Transfer Act 1952, all contiguous land last acquired under one instrument of conveyance and occupied by a common occupier.</p>
Lawful take of water	Any take under Section 14(3) of the Resource Management Act, any take exercised under Rules 12.1.2.1 to 12.1.2.6, or 12.2.2.1 to 12.2.2.3 of this Plan, any take exercised under the Transitional Regional Plan rule constituted by General Authorisations 1 to 5, 9 and 12, and any take under any resource consent or deemed permit under the Resource Management Act 1991.
Leachate	A liquid contaminant resulting from the liquid being exuded from or percolated through some more-or-less solid matter.
Legal public access	Includes legal roads, marginal strips, esplanade reserves, esplanade strips, access strips and Walkways.
Line	A wire or conductor (including a fibre optic cable) used or intended to be used for telecommunication or transmission of electricity.
Liquid animal effluent	Faeces and urine from land-based animals, including associated process water, wash-down water, contaminants and sludge but excluding solid animal effluent. For the purposes of this definition, it does not include incidental animal effluent present in livestock processing waste streams.
Local authority	A term that collectively describes regional councils, city councils, and district councils.
Long-drop toilet	An unlined hole or pit excavated for the disposal of human sewage, which is not subject to any treatment or flushing.
Macro-invertebrate Community Index (MCI)	An index of the proportion of sensitive to tolerant species (designed to assess the effects of nutrient enrichment in stoney streams, but also affected by dissolved oxygen, temperature and physical habitat features), among the community of benthic invertebrates that can be seen with the naked eye (see Appendix 1).

Mahika kai	Places where food is procured or produced, examples in the case of waterborne mahika kai include eels, whitebait, kanakana, kokopu, koura, fresh water mussels, indigenous waterfowl, watercress and raupo.
Main stem	The principal course of a river (i.e. does not include tributaries).
Mana	Authority, influence or prestige.
Manawhenua*	Means customary authority exercised by an iwi or hapu in an identified area.
Margin	Land alongside a river or lake.
Mauri	Life force; for example the mauri of a river is most recognisable when there is abundance of water flow and the associated ecosystems are healthy and plentiful; a most important element in the relationship that Kai Tahu have with the water bodies of Otago.
Maximum allocation limit	The quantity of groundwater as established under Policy 6.4.10A2.
MCI	See Macroinvertebrate Community Index.
Mean annual recharge	The quantity of groundwater recharge as calculated by Schedule 4D.
Mean high water springs	The average line of spring high tide.
Method	The practical action by which a policy is implemented.
<u>Micro hydro-electricity generation</u> <i>(definition only applies where term is <u>underlined</u> in this Plan)</i>	The generation of hydro-electricity not exceeding a capacity of 50 Kilowatts continuous output.
Minimum flow	The flow below which the holder of any resource consent to take water must cease taking water.
Mining privilege	See Appendix 2.
Mixing zone	An area of water associated with a discharge within which any standards or requirements relating to water quality are set aside to enable reasonable mixing to occur. (See Reasonable mixing).

Mouth*	<p>For the purpose of defining the landward boundary of the coastal marine area, means the mouth of a river either -</p> <p>(a) As agreed and set between the Minister of Conservation, the regional council, and the appropriate territorial authority in the period between consultation on, and notification of, the proposed regional coastal plan; or</p> <p>(b) As declared by the Environment Court under Section 310 of the Resource Management Act 1991 upon application made by the Minister of Conservation, the regional council, or the territorial authority prior to the plan becoming operative, -</p> <p>and once so agreed and set or declared shall not be changed in accordance with Schedule 1 of the Act or otherwise varied, altered, questioned, or reviewed in any way until the next review of the regional coastal plan, unless the Minister of Conservation, the regional council, and the appropriate territorial authority agree.</p>
Natural and human use values	<p>Characteristics of a water body which are important to, or are an essential part of, ecological communities, or are enjoyed or utilised by people and communities. While some of these values are identified in Schedule 1, natural character, amenity values, existing lawful uses, and archaeological sites will be identified on a case-by-case basis.</p>
Natural and physical resources*	<p>Includes land, water, air, soil, minerals, and energy, all forms of plants and animals (whether native to New Zealand or introduced), and all structures.</p>
Natural hazard*	<p>Means any atmospheric or earth or water related occurrence (including earthquake, tsunami, erosion, volcanic and geothermal activity, landslip, subsidence, sedimentation, wind, drought, fire, or flooding) the action of which adversely affects or may adversely affect human life, property, or other aspects of the environment.</p>
Noa	<p>Free from tapu or other restriction.</p>
Non-biodegradable	<p>Unable to be decomposed by living organisms present in the particular receiving environment.</p>
Non-complying activity*	<p>If an activity is described in the Resource Management Act 1991, regulations (including a national environmental standard), a plan, or a proposed plan as a non-complying activity, a resource consent is required for the activity and the consent authority may -</p> <p>(a) Decline the consent; or</p> <p>(b) Grant the consent, with or without conditions, but only if the consent authority is satisfied that the requirements of Section 104D of the Act are met and the activity must comply with the requirements, conditions, and permissions, if any, specified in the Act, regulations, plan, or proposed plan.</p>

Non-consumptive take **	<p>A take is non-consumptive when:</p> <ol style="list-style-type: none"> (1) The same amount of water is returned to the same water body at or near the location from which it was taken; and (2) There is no significant delay between the taking and the returning of the water. <p>** as defined in the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010</p>
Non-point source discharge	A discharge of water or contaminant that enters a water body from a diffuse source, such as land runoff or infiltration.
Notified use	Any right in respect of natural water which was notified under Section 21 (2) or 21 (2A) of the Water and Soil Conservation Act 1967 (an ‘existing authority’ under Section 386(1)(b) of the Resource Management Act 1991).
Objective	The desired result, end state, situation or condition that is aimed for.
Occupier*	<p>Means -</p> <ol style="list-style-type: none"> (a) The inhabitant occupier of any property; and (b) <i>[Repealed]</i> (c) For the purposes of Section 16 of the Resource Management Act 1991, in relation to any land (including any premises and any coastal marine area), includes any agent, employee, or other person acting or apparently acting in the general management or control of the land, or any plant or machinery on that land.
On-site waste water treatment system	Any system, such as a septic tank, designed to treat household liquid effluent including sewage within the boundary of the property on which the effluent was generated, and includes the treatment system and any attached disposal field.
Open pile(d)	The nature of a structure’s supporting piles whereby no significant hindrance to the passage of water or sediment is caused.
Operative*	<p>In relation to a policy statement or plan, or a provision of a policy statement or plan, means that the policy statement, plan, or provision -</p> <ol style="list-style-type: none"> (a) Has become operative - <ol style="list-style-type: none"> (i) In terms of clause 20 of Schedule 1 of the Resource Management Act 1991; or (ii) Under Section 86F of the Act; and (b) Has not ceased to be operative.
Papatipu Runanga	The Papatipu Runanga and their takiwa for the Otago Region are described in the schedule to the Te Runanga o Ngai Tahu Act 1996.

Percent probability flood	A flood event which has a particular probability of being exceeded in any 12 month period.
Permitted activity*	If an activity is described in the Resource Management Act 1991, regulations (including any national environmental standard), a plan, or a proposed plan as a permitted activity, a resource consent is not required for the activity if it complies with the requirements, conditions, and permissions, if any, specified in the Act, regulations, plan, or proposed plan.
Person*	Includes the Crown, a corporation sole, and also a body of persons, whether corporate or unincorporate.
Pest plant	Any plant specified as a pest in a pest management strategy written under the Biosecurity Act 1993.
Pesticide	A substance or mixture of substances used to kill or control unwanted species of plants, animals or other organisms.
Policy	The course of action to achieve the objective.
Point source discharge	A discharge of water or contaminant that enters a water body at a definable point, often through a pipe or drain.
Primary allocation	The quantity of water established under Policy 6.4.2.
Production land*	<p>(a) Means any land and auxiliary buildings used for the production (but not processing) of primary products (including agricultural, pastoral, horticultural, and forestry products):</p> <p>(b) Does not include land or auxiliary buildings used or associated with prospecting, exploration, or mining for minerals - and “production” has a corresponding meaning.</p>
Prohibited activity*	<p>If an activity is described in the Resource Management Act 1991, regulations (including a national environmental standard), a plan, or a proposed plan as a prohibited activity, -</p> <p>(a) No application for a resource consent may be made for the activity; and</p> <p>(b) The consent authority must not grant a consent for it.</p>
Proposed plan*	<p>In the Resource Management Act 1991, unless the context otherwise requires, proposed plan -</p> <p>(a) Means a proposed plan, a variation to a proposed plan or change, or a change to a plan proposed by a local authority that has been notified under clause 5 of Schedule 1 but has not become operative in terms of clause 20 of Schedule 1; and</p> <p>(b) Includes a proposed plan or a change to a plan proposed by a person under Part 2 of Schedule 1 that has been adopted by the local authority under clause 25(2)(a) of Schedule 1.</p>

Protective soil mantle	A layer of soil, rock or other natural material which reduces the percolation of water.
Public notice*	<ul style="list-style-type: none"> (a) Means a notice published in a newspaper circulating in the entire area likely to be affected by the proposal to which the notice relates; and (b) If a local authority also publishes a notice on an Internet site to which the public have free access, includes that notice.
Rahui	Restrictions.
Reasonable mixing	The process where undiluted effluent disperses through receiving waters. Mixing results in a mixing zone where the concentration of contaminants varies from that in the effluent to that of the fully mixed receiving water. Reasonable mixing may be said to have occurred at some point between the point of discharge and the point at which the effluent is completely mixed with the receiving water. Beyond the reasonable mixing zone, the effluent and water mix complies with any water quality standards for the water body.
Reclamation	The permanent infilling of a water body or part of a water body with sand, rock, quarry material, concrete, or other similar material, for any purpose, and includes any embankment or causeway, but does not include any structure above water where that structure is supported by piles, or any deposition of material or infilling that is not permanent.
Regional plan*	<ul style="list-style-type: none"> (a) Means an operative plan approved by a regional council under Schedule 1 (including all operative changes to the plan (whether arising from a review or otherwise)); and (b) Includes a regional coastal plan.
Regionally Significant Wetland	See Policy 10.4.1A
Regionally significant wetland value	See Policy 10.4.1.
Registered community drinking water supply	A drinking water supply, which is registered under Section 69J of the Health Act and serves a community of more than 25 people for more than 60 days a year.
Registered Historic Place	Any Historic Place registered under Part II of the Historic Places Act 1993.

Residential development	<p>Means the preparation of land for, and construction of, development infrastructure and buildings (including additions and alterations) for residential activities and includes retirement villages. It excludes camping grounds, motor parks, hotels, motels, backpackers' accommodation, bunkhouses, lodges and timeshares.</p> <p>The terms development infrastructure, residential activity, and retirement village are defined in the National Planning Standards.</p>
Residual flow	Refer to Policy 6.4.7.
Resource consent	A consent for an activity as set out in Section 87 of the Resource Management Act 1991; and includes all conditions to which the consent is subject.
Restricted discretionary activity*	<p>If an activity is described in the Resource Management Act 1991, regulations (including any national environmental standard), a plan, or a proposed plan as a restricted discretionary activity, a resource consent is required for the activity and -</p> <ul style="list-style-type: none"> (a) The consent authority's power to decline a consent, or to grant a consent and to impose conditions on the consent, is restricted to the matters over which discretion is restricted (whether in its plan or proposed plan, a national environmental standard, or otherwise); and (b) The activity must comply with the requirements, conditions, and permissions, if any, specified in the Act, regulations, plan, or proposed plan.
Reticulated system, or reticulation	The means by which water, stormwater, sewage or other waterborne contaminant is collected and delivered prior to discharge.
Riparian vegetation	The terrestrial plants growing on the bed or margin of a water body.
River*	Means a continually or intermittently flowing body of fresh water; and includes a stream and modified watercourse; but does not include any artificial watercourse (including an irrigation canal, water supply race, canal for the supply of water for electricity power generation, and farm drainage canal).
Runanga	Local representative groups or community system of organisation.
Sediment trap	An excavated or bunded area in the bed of an ephemeral or intermittently flowing river designed and constructed solely for the purpose of allowing sediment to drop from the water column.

Seven-day (“7-day”) mean annual low flow	<p>The seven-day low flow in any year is determined by calculating the average flow over seven consecutive days for every seven consecutive day period in the year, and choosing the lowest.</p> <p>When this is done for every year of record, the seven-day mean annual low flow can be determined by adding the lowest seven-day low flows for every year of record and dividing by the number of years in the record.</p>
Small dam	<p>A dam:</p> <ul style="list-style-type: none"> (a) Where the size of the catchment upstream of the dam is no more than 50 hectares; and (b) where the water stored immediately upstream of the dam is no more than 3 metres deep; and (c) where the volume of water stored by the dam is no more than 20,000 cubic metres.
Soil contamination	Occurs where the discharge of a contaminant reduces the primary productive capacity of soil.
Solid animal effluent	Solid excreta from land-based animals that cannot be pumped and sprayed, including bedding material and manure, but does not include dead animals or animal parts.
Stand-off pad	Any purpose-built uncovered area, located on production land, for the confinement of stock in order to avoid damage to their usual pasture.
Stormwater	The water running off from any impervious surface such as roads, carparks, roofs, and sealed runways.
Structure*	Means any building, equipment, device, or other facility made by people and which is fixed to land; and includes any raft.
Suction dredging; Suction dredge mining	Any activity utilising a motor, pump, and hose within a river bed.
Suitably Qualified Person	Has the meanings set out in Schedule 20.
Sullage	The waste water from sinks, basins, baths, showers and similar appliances, but not including toilet wastes (sometimes referred to as grey water).
Supplementary allocation	A volume of water established under Policies 6.4.9 or 6.4.10 which is able to be taken subject to a supplementary allocation minimum flow set under those policies.
Suspended solids	Particulate matter carried in suspension within water.

Taking	In relation to the taking of water, is the process of extracting the water for any purpose and for any period of time.
Taoka	Treasures.
Tapu	Sacred.
Tarn	Small mountain lake or pool, often formed in a cirque basin.
<u>Technical efficiency</u> <i>(definition only applies where term is <u>underlined</u> in this Plan)</i>	Using a resource in a way that any given output is produced at least cost, including avoiding waste.
Territorial local authority	A term that collectively describes city councils and district councils, but not regional councils.
The Act	The Resource Management Act 1991.
To Dam	In relation to the damming of water, is the process of impounding the water for any purpose and for any period of time, as in a reservoir.
<u>Tourism and recreation facilities</u> <i>(definition only applies where term is <u>underlined</u> in this Plan)</i>	Tourism and recreation facilities that are not served by a reticulated town and community supply, such as hotels, lodges, restaurants and ski fields.
<u>Town and community water supply</u> <i>(definition only applies where term is <u>underlined</u> in this Plan)</i>	Reticulated water supplies servicing urban areas, rural-residential and residential subdivisions including all commercial and industrial premises and schools and other educational facilities located within the reticulated area.
Trace amount of any contaminant	A contaminant is present in a quantity that is incapable of practicable measurement.
Transmissivity	The degree to which an aquifer allows water to pass through it.
Treaty of Waitangi (Te Tiriti o Waitangi)	The same meaning as the word “Treaty” as defined in Section 2 of the Treaty of Waitangi Act 1975.
Upland bogs	A wet or spongy high altitude area of ground chiefly composed of decaying vegetable matter or peat.

Use	<i>[Repealed – 1 March 2012]</i>
Vegetation	Includes any trees, shrubs, plants or grasses.
Vessel	Every description of ship, boat, ferry, or craft used in navigation, whether or not it has any means of propulsion, and regardless of that means; and includes: a barge, lighter, or other like vessel; a hovercraft or other thing deriving full or partial support in the atmosphere from the reactions of air against the surface of the water over which it operates; a submarine or other thing used in navigation whilst totally submerged.
Waahi taoka	Treasured resource; values, sites and resources that are valued and reinforce the special relationship Kai Tahu have with Otago’s water resources.
Waahi tapu	Sacred places; sites, areas and values associated with water bodies that hold spiritual values of importance to Kai Tahu.
<u>Waitaki catchment</u> <i>(definition only applies where term is <u>underlined</u> in this Plan)</i>	<p>(a) Means the area of land bounded by watersheds draining into the Waitaki River; and</p> <p>(b) Includes aquifers wholly or partially within that area of land.</p>
Walkway	A formal Walkway created under the New Zealand Walkways Act 1975.
Water*	<p>(a) Means water in all its physical forms whether flowing or not and whether over or under the ground:</p> <p>(b) Includes fresh water, coastal water, and geothermal water:</p> <p>(c) Does not include water in any form while in any pipe, tank, or cistern.</p>
Water allocation committee	Refer to Policy 6.4.12.
Water body*	Means fresh water or geothermal water in a river, lake, stream, pond, wetland, or aquifer, or any part thereof, that is not located within the coastal marine area.
Water conservation order*	Has the meaning set out in Section 200 of the Resource Management Act 1991.
“Water Info” phone	The telephone service by which the Otago Regional Council provides frequently-updated information on water body condition including river flows.

G L O S S A R Y

Water race	An artificial channel used for conveying water for various uses, but not for the drainage of land.
Water supply values	The existence of a take for human consumption, which people and communities have come to depend upon.
Water user group	Refer to Policy 5.4.12.
Wet bed	That part of the bed of a lake or river which is covered by water.
Wetland*	<p>Includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions.</p> <p>In this plan, ‘wetland’ excludes any wetland constructed for the purpose of water quality management.</p>
Whanau	Family.
Whanui	Large, extended, broad.

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Appendices

1 The Macroinvertebrate Community Index

The most widely used and effective form of biological monitoring in streams and rivers is the sampling and analysis of the invertebrate life (aquatic insects, crustaceans, snails, worms etc) living on the bed or amongst aquatic plants. These invertebrates are almost always found in abundance in such habitats, they are easy to collect, and with suitable resources they are easy to identify.

Typically there are 15 to 30 distinct “species” (or taxa) of invertebrates at most stream or river sites. The composition of these communities is dependent on physical habitat characteristics, water quality and biological factors. If physical habitat quality is kept consistent (eg sampling is undertaken in fast-flowing, shallow stony “riffles” rather than slow flowing pools or backwaters) water quality tends to become the factor determining community composition.

Some “tolerant” invertebrate species are able to inhabit degraded waters such as algae-smothered habitats or nutrient enriched or low oxygen waters. Other species are highly sensitive to such conditions and are almost always found in cool, “clean” (low-nutrient), high-oxygen waters.

The fresh water biological index referred to in this Plan (see Policy 7.6.2) is the Macroinvertebrate Community Index (MCI). The MCI was developed for New Zealand stony streams by Dr John Stark in 1985, using a British system (the BMWP Index) which assigned sensitivity scores to particular fresh water invertebrate species. These scores relate to the ability of each species to tolerate nutrient enrichment and associated water quality degradation. The scores range from one (for the most tolerant species) to ten (for the most sensitive species). For example, the “swimming mayfly” has a sensitivity score of 9, while the common sandfly has a sensitivity score of 3.

An MCI value is calculated simply by averaging the sensitivity scores for the species found at one site, and multiplying this average by a scaling factor of 20. A high MCI value (over 100) is generally indicative of good water quality, although it will vary depending upon the river type, as shown in Table 5.

Table 5: MCI ranges for different stream and river habitat types

River type	Habitat quality (MCI score)		
	High quality	Medium quality	Low quality
Stony riffle	100 - 130	80 - 100	60 - 80
Fine sandy/gravelly runs	90 - 110	70 - 90	50 - 70
Weedy/muddy runs/pools	80 - 100	60 - 80	40 - 60

The MCI value can therefore be used to indicate the state of water quality in Otago’s streams and rivers.

The expected MCI scores for the water bodies identified in Policy 7.6.2, as well as the actual observed MCI scores, are shown in Table 5. The expected MCI scores become the target for enhancing water quality in the identified water bodies.

Table 6: Water bodies with degraded water quality for aquatic habitats.

Water body	Habitat type	Average observed MCI score	Expected MCI score
Hayes Creek	Weedy/muddy runs	67	> 70
Lower Horne Creek	Stony riffle	76	> 80
Lower Kaikorai Stream	Stony riffle	70	> 80
Lower Taieri River	Weedy/muddy pools	69	> 70
Lower Waipori River	Weedy/muddy pools	68	> 70
Lower Tokomairiro River	Weedy/muddy pools	69	> 70
Lower Owaka River	Stony run	76	> 80
Lower Waiareka Creek	Weedy/muddy pools	68	> 70
Lower Kaihiku Stream	Stony riffle	74	> 80
Lower Wairuna River	Stony riffle	79	>80

2 Mining privileges in respect of water (deemed permits)

A number of Otago water bodies are subject to the taking of water through the exercising of mining privileges in respect of water (“mining privileges” for short, but now known as “deemed permits”). Mining privileges were issued under the Mining Act 1926, and earlier mining legislation, and provided for the taking, damming and discharging of water. However, as gold mining declined, this water was increasingly used for irrigation. The Crown acquired a number of the higher priority, significant mining privileges which were being used for irrigation schemes, and these were then disposed of to the community irrigation groups.

Under Section 413 of the Resource Management Act, all mining privileges were deemed to become either a water permit (for the taking or damming of water), or a discharge permit (for the discharge of contaminants) on the same terms and conditions as the original mining privilege. Under Section 415 and 416 of the Act, compensation must be paid for the acquisition of any such deemed permit, or any restriction of its ability to be exercised.

As provided by Section 413(3), deemed permits expire on 1 October 2021, the thirtieth anniversary of the date of commencement of the Act, at which time they will lose their priority and there shall no longer be any liability for compensation as a result of loss or restriction of the rights. After 1 October 2021, resource consent is required in place of a deemed permit to take water and Section 124 of the Act applies.

Deemed permits can, however, be restricted by an abatement notice, enforcement order or by a Water Shortage Direction issued under Section 329 of the Resource Management Act.

2A Water management groups

Water management groups, established in terms of Policy 6.4.12A, provide the opportunity for groups to become more responsible for managing their taking by allowing for individual or shared consents to be managed by the group. Lists 2A.1 and 2A.2 set out the Council's requirements for the approval and features of such groups. The form of the group is not otherwise limited by the Council and the group may also exercise other roles to meet member needs.

2A.1 List of criteria for approval of a water management group

For a group to be approved by the Council as a water management group with authority and responsibility for specified resource consents (including deemed permits), the Council must be satisfied that:

- (a) A schedule has been provided that specifies the resource consents which are to be managed by the water management group; and
- (b) The water management group has an appropriate form and rules; and
- (c) The water management group seeks to be granted authority and responsibility to manage the specified consents; and
- (d) The water management group is able to provide documentary evidence that their members, including scheduled consents holders, agree to be bound by the group.

2A.2 Other features of a water management group

A water management group which has been approved by the Council in terms of List 2A.1 above:

- (a) May have a terminating date or criteria;
- (b) May apply to have other resource consents included within its management;
- (ba) May have the whole or any part of the interest in a consent transferred to it;
- (c) Must have amendments of its form and rules approved by the Council;
- (d) May have its authority to manage the specified consents revoked, in part or in full, either;
 - (i) On its request; or
 - (ii) On receipt of not less than 6 months' written notice by the Council;
- (e) Must report annually to the Council on the operation of the group; and
- (f) May have a rationing regime approved by the Council.

Note: This Appendix is reproduced from the Ngai Tahu Claims Settlement Act 1998 for public information purposes only and does not represent Otago Regional Council policy, nor does it form part of this Plan.

3 Ngai Tahu Claims Settlement Act Statutory Acknowledgements

Introduction

Statutory acknowledgements are recorded in the Ngai Tahu Claims Settlement Act 1998 (the NTCS Act) for several water bodies, mountains and coastal features in the Otago Region.

The following pages contain the text from the Schedules to the NTCS Act (as extracted from Brookers New Zealand Statutes) that describe the statutory acknowledgement sites that occur in Otago. Each schedule contains:

- The statutory area involved,
- A standard preamble,
- A description of the Ngai Tahu association with the site, and
- Standard statements of purposes, and limitations on effect, of the statutory acknowledgement.

These acknowledgements comprise a statement made by Te Runanga o Ngai Tahu of the particular cultural, spiritual, historic and traditional association of Ngai Tahu (Kai Tahu) with these areas.

Part 12 of the NTCS Act provides details of statutory acknowledgements, and the responsibilities relating to them. Section 208 of that act requires that local authorities have regard to these statutory acknowledgements in resource consent processing under Sections 93 to 94(C) of the Resource Management Act 1991 (Notification of resource consents), in deciding whether Te Runanga o Ngai Tahu is a person who may be adversely affected by the granting of a resource consent for activities within, adjacent to or impacting directly on the statutory area.

Section 211 of the NTCS Act enables Ngai Tahu to cite these acknowledgements in submissions, or in proceedings before consent authorities or the Environment Court. In these proceedings, the contents of the 'Ngai Tahu association with the site' part of the acknowledgement in question is not binding on the consent authority (e.g. the Regional Council), but may be taken into account.

Section 220 of the NTCS Act requires that all regional policy statements, district plans and regional plans have information recording those statutory acknowledgements for areas covered by the policy statement or plan attached to them. The attachment of this information may be by way of reference, or be set out in full (as is the case here). This is for the purpose of public information only and does not form part of the policy statement or plan.

APPENDIX 3: NGAI TAHU CLAIMS SETTLEMENT
ACT STATUTORY ACKNOWLEDGEMENTS

Note: This Appendix is reproduced from the Ngai Tahu Claims Settlement Act 1998 for public information purposes only and does not represent Otago Regional Council policy, nor does it form part of this Plan.

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The statutory acknowledgement areas for Otago are arranged as follows –

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Lake Hawea	22-12
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Whakatipu Wai Maori (Lake Wakatipu)	22-17
Te Wairere (Lake Dunstan)	22-20
Ka Moana Haehae (Lake Roxburgh)	22-23
Mata-Au (Clutha River)	22-25
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SCHEDULE 62

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR TITITEA (MOUNT ASPIRING)

Statutory Area

The statutory area to which this statutory acknowledgement applies is the mountain known as Tititea (Mount Aspiring), located in the Mount Aspiring National Park, as shown on Allocation Plan MS 2 (SO 24665).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Tititea as set out below.

Ngai Tahu Association with Tititea

As with all principal maunga (mountains), Tititea is imbued with the spiritual elements of Raki and Papa, in tradition and practice regarded as an important link to the primeval parents. Tititea is a prominent and majestic peak, clearly visible from a number of vantage points in the south, and its role in Ngai Tahu's creation stories gives rise to its tapu status. From the heights above Te Ana-au (Lake Te Anau), it is a particularly impressive sight when the sun is setting.

The most common Ngai Tahu name for the mountain known to Pakeha as Mount Aspiring is Tititea, referring to the mountain's white peak. It is not unusual, however, for places and physical features to have more than one name, reflecting the traditions of the successive iwi who peopled the land. Other names for the mountain include 'Makahi Ta Rakiwhanoa' (referring to a wedge belonging to Tu Te Rakiwhanoa) and 'Otapahu', which may refer to a type of dogskin cloak.

The Bonar Glacier is known as Hukairoroa Ta Parekiore (which refers to the long, hard glacial ice and crevasses formed by Parekiore). Parekiore was a giant who used to stalk up and down the South and North Islands taking titi (muttonbirds) northwards and returning with kumara. The lakes represent his footprints and the frozen splashes from his footsteps in the south were transformed into glaciers.

For Ngai Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations and document the events which shaped the environment of Te Wai Pounamu and Ngai Tahu as an iwi.

The area was part of a network of trails which were used in order to ensure the safest journey and incorporated locations along the way that were identified for activities including camping overnight and gathering kai. Knowledge of these trails continues to be held by whanau and hapu and is regarded as taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the land.

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The mauri of Tititea represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the area.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai Tahu as required by regulations made pursuant to section 207 (clause 12.2.3 of the deed of settlement); and
- (b) To require that consent authorities, the Historic Places Trust, or the Environment Court, as the case may be, have regard to this statutory acknowledgement in relation to Tititea, as provided in sections 208 to 210 (clause 12.2.4 of the deed of settlement); and
- (c) To empower the Minister responsible for management of Tititea or the Commissioner of Crown Lands, as the case may be, to enter into a Deed of Recognition as provided in section 212 (clause 12.2.6 of the deed of settlement); and
- (d) To enable Te Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Tititea as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is not to be taken into account in, the exercise of any power, duty, or function by any person or entity under any statute, regulation, or bylaw; and
- (b) Without limiting paragraph (a), no person or entity, in considering any matter or making any decision or recommendation under statute, regulation, or bylaw, may give any greater or lesser weight to Ngai Tahu's association to Tititea (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Tititea.

Except as expressly provided in this Act, this statutory acknowledgement does not affect the lawful rights or interests of any person who is not a party to the deed of settlement.

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Except as expressly provided in this Act, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Tititea.

SCHEDULE 51

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR PIKIRAKATAHI (MOUNT EARNSLAW)

Statutory Area

The statutory area to which this statutory acknowledgement applies is the area known as Pikirakatahi (Mount Earnslaw), as shown on Allocation Plan MS 4 (SO 24666).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Pikirakatahi as set out below.

Ngai Tahu Association with Pikirakatahi

The creation of Pikirakatahi (Mt Earnslaw) relates in time to Te Waka o Aoraki, and the efforts of Tu Te Rakiwhanoa. It is said that during its formation a wedge of pounamu was inserted into this mountain, which is the highest and most prominent peak in this block of mountains. The mountain is also linked to the travels of Rakaihautu, who dug out the great lakes of the interior with his ko (a tool similar to a spade), known as Tu Whakaroria and later renamed Tuhiraki at the conclusion of the expedition.

The origins of the name 'Pikirakatahi' have been lost, but it is known that many places and physical features have more than one name, reflecting the traditions of the successive iwi who peopled the land. It is, however, likely that the name relates to Rakaihautu or subsequent people, as most of the prominent lakes, rivers and mountains of the interior take their name from the journey of Rakaihautu.

For Ngai Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngai Tahu as an iwi.

Pikirakatahi was of crucial significance to the many generations that journeyed to that end of Whakatipu-wai-maori (Lake Wakatipu) and beyond. Staging camps for the retrieval of pounamu were located at the base of the mountain, while semi-permanent settlements related to the pounamu trade were located closer to the lake.

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Pikirakatahi stands as kaitiaki (guardian) over the pounamu resource and marks the end of a trail, with the tohu (marker) to the pounamu resource sitting opposite on Koroka (Cosmos Peak). The tupuna (ancestors) had considerable knowledge of whakapapa, traditional trails, places for gathering kai (food) and other taonga, ways in which to use the resources of the land, the relationship of people with the land and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngai Tahu today.

The retrieval of large amounts of pounamu from this source, so far inland and over a range of physical barriers, attests to the importance of this resource to the economy and customs of the iwi over many generations. The people would also gather native birds for kai, and firewood with which to cook and provide warmth, from the forests covering the lower flanks of Pikirakatahi. Strategic marriages between hapu strengthened the kupenga (net) of whakapapa and thus rights to use the resources of the mountain. It is because of these patterns of activity that Pikirakatahi continues to be important to runanga located in Otago, Murihiku and beyond. These runanga carry the responsibilities of kaitiaki in relation to the area, and are represented by the tribal structure, Te Runanga o Ngai Tahu.

The mauri of Pikirakatahi represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with Pikirakatahi.

Purposes of Statutory Acknowledgement

Pursuant to section 212, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai Tahu as required by regulations made pursuant to section 207 (clause 12.2.3 of the deed of settlement);
- (b) To require that consent authorities, the Historic Places Trust, or the Environment Court, as the case may be, have regard to this statutory acknowledgement in relation to Pikirakatahi, as provided in sections 208 to 210 (clause 12.2.4 of the deed of settlement);
- (c) To empower the Minister responsible for management of Pikirakatahi or the Commissioner of Crown Lands, as the case may be, to enter into a Deed of Recognition as provided in section 212 (clause 12.2.6 of the deed of settlement); and
- (d) To enable Te Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Pikirakatahi as provided in section 211 (clause 12.2.5 of the deed of settlement).

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Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is not to be taken into account in, the exercise of any power, duty, or function by any person or entity under any statute, regulation, or bylaw; and
- (b) Without limiting paragraph (a), no person or entity, in considering any matter or making any decision or recommendation under statute, regulation, or bylaw, may give any greater or lesser weight to Ngai Tahu's association to Pikirakatahi (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Pikirakatahi.

Except as expressly provided in this Act, this statutory acknowledgement does not affect the lawful rights or interests of any person who is not a party to the deed of settlement.

Except as expressly provided in this Act, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Pikirakatahi.

SCHEDULE 30

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR LAKE HAWEA

Statutory Area

The statutory area to which this statutory acknowledgement applies is the lake known as Hawea, the location of which is shown on Allocation Plan MD 37 (SO 24718).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Lake Hawea, as set out below.

Ngai Tahu Association with Lake Hawea

Hawea is one of the lakes referred to in the tradition of 'Nga Puna Wai Karikari o Rakaihautu' which tells how the principal lakes of Te Wai Pounamu were dug by the rangatira (chief) Rakaihautu. Rakaihautu was the captain of the canoe, Uruao, which brought the tribe, Waitaha, to New Zealand. Rakaihautu beached his canoe at Whakatu (Nelson). From Whakatu, Rakaihautu divided the new arrivals in two, with his son taking one party to explore the coastline southwards and Rakaihautu

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taking another southwards by an inland route. On his inland journey southward Rakaihautu used his famous ko (a tool similar to a spade) to dig the principal lakes of Te Wai Pounamu, including Hawea.

For Ngai Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngai Tahu as an iwi.

The name Hawea may derive from Hawea, tupuna (ancestor) of the Waitaha hapu, Ngati Hawea.

Hawea was traditionally noted as a rich tuna (eel) fishery, with many thousands of the fish once being caught, preserved and transported back to the kainga nohoanga (settlements) of coastal Otago.

The tupuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of Hawea, the relationship of people with the lake and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngai Tahu today.

The mauri of Hawea represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of Life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the lake.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai Tahu as required by regulations made pursuant to section 207 (clause 12.2.3 of the deed of settlement); and
- (b) To require that consent authorities, the Historic Places Trust, or the Environment Court, as the case may be, have regard to this statutory acknowledgement in relation to Lake Hawea, as provided in sections 208 to 210 (clause 12.2.4 of the deed of settlement); and
- (c) To empower the Minister responsible for management of Lake Hawea or the Commissioner of Crown Lands, as the case may be, to enter into a Deed of Recognition as provided in section 212 (clause 12.2.6 of the deed of settlement); and
- (d) To enable Te Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Lake Hawea as provided in section 211 (clause 12.2.5 of the deed of

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settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is not to be taken into account in, the exercise of any power, duty, or function by any person or entity under any statute, regulation, or bylaw; and
- (b) Without limiting paragraph (a), no person or entity, in considering any matter or making any decision or recommendation under statute, regulation, or bylaw, may give any greater or lesser weight to Ngai Tahu's association to Lake Hawea (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Lake Hawea.

Except as expressly provided in this Act, this statutory acknowledgement does not affect the lawful rights or interests of any person who is not a party to the deed of settlement.

Except as expressly provided in this Act, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Lake Hawea.

SCHEDULE 36

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR LAKE WANAKA

Statutory Area

The statutory area to which this statutory acknowledgement applies is the Lake known as Wanaka, the location of which is shown on Allocation Plan MD 38 (SO 24719).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Lake Wanaka, as set out below.

Ngai Tahu Association with Lake Wanaka

Wanaka is one of the lakes referred to in the tradition of 'Nga Puna Wai Karikari o Rakaihautu' which tells how the principal lakes of Te Wai Pounamu were dug by the rangatira (chief) Rakaihautu. Rakaihautu was the captain of the canoe, Uruao, which brought the tribe, Waitaha, to New Zealand. Rakaihautu beached his canoe

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at Whakatu (Nelson). From Whakatu, Rakaihautu divided the new arrivals in two, with his son taking one party to explore the coastline southwards and Rakaihautu taking another southwards by an inland route. On his inland journey southward Rakaihautu used his famous ko (a tool similar to a spade) to dig the principal lakes of Te Wai Pounamu, including Wanaka.

For Ngai Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngai Tahu as an iwi.

The name 'Wanaka' is considered by some to be a South Island variant of the word 'wananga' which refers to the ancient schools of learning. In these schools Ngai Tahu tohunga (men of learning) would be taught whakapapa (genealogies) which stretched back to over a hundred generations and karakia incantations) for innumerable situations. All of this learning they would be required to commit to memory.

Wanaka was traditionally noted as a rich tuna (eel) fishery, with many thousands of the fish once being caught, preserved and transported back to the kainga nohoanga (settlements) of coastal Otago.

The tupuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of Wanaka, the relationship of people with the lake and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngai Tahu today.

In 1836 an eeling party was attacked by Te Puoho, a rangatira (chief) of the North Island Ngati Tama iwi. Te Puoho had plans of conquering Te Wai Pounamu, beginning his campaign at the southern end of the island. He compared his strategy to boning an eel which is started at the tail end of the fish. Having travelled down Te Tai Poutini (the West Coast) to Jackson Bay, Te Puoho crossed Haast Past into Wanaka and Lake Hawea where he found a Ngai Tahu eeling party which he captured at Makarora. Two infant girls were captured and eaten. Te Puoho suspected this family was an outpost and so he gave instructions for two guards to follow a young teenager called Pukuharuru who was ordered to show them where the main camp was. However, Pukuharuru managed to escape after dark and alert his father, Te Raki. Te Raki killed the two guards, who were lost without their guide, and the Wanaka families managed to escape the region.

Te Puoho continued his campaign at Tukurau where there were other families fishing. However, some of the people managed to escape to Tiwai Point near Bluff where they lit a warning fire. This fire alerted the southern forces and, under the leadership of Tuhawaiki, Ngai Tahu prepared to meet Te Puoho at Tukurau. After discussing the situation with the tohunga, Ngai Tahu were assured of victory. While

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the priests chanted their karakia to the gods of war, the heart of the enemy chief appeared before Ngai Tahu in the firelight, carried by the wings of a bird. With this omen that the gods of war were on the side of Ngai Tahu, they attacked Te Puoho the next morning.

Te Puoho was shot by a young Ngai Tahu called Topi and his army was taken captive. The head of Te Puoho was cut from his body and stuck on a pole facing his home in the north. Wanaka is therefore noted in history for its part in what was to be the last battle between North and South Island tribes.

The mauri of Wanaka represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the lake.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai Tahu as required by regulations made pursuant to section 207 (clause 12.2.3 of the deed of settlement); and
- (b) To require that consent authorities, the Historic Places Trust, or the Environment Court, as the case may be, have regard to this statutory acknowledgement in relation to Lake Wanaka, as provided in sections 208 to 210 (clause 12.2.4 of the deed of settlement); and
- (c) To empower the Minister responsible for management of Lake Wanaka or the Commissioner of Crown Lands, as the case may be, to enter into a Deed of Recognition as provided in section 212 (clause 12.2.6 of the deed of settlement); and
- (d) To enable Te Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Lake Wanaka as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is not to be taken into account in, the exercise of any power, duty, or function by any person or entity under any statute, regulation, or bylaw; and
- (b) without limiting paragraph (a), no person or entity, in considering any matter or making any decision or recommendation under statute, regulation, or bylaw, may give any greater or lesser weight to Ngai Tahu's association to Lake Wanaka (as described in this statutory acknowledgement) than that

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person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Lake Wanaka.

Except as expressly provided in this Act, this statutory acknowledgement does not affect the lawful rights or interests of any person who is not a party to the deed of settlement.

Except as expressly provided in this Act, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Lake Wanaka.

SCHEDULE 75

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR WHAKATIPU WAI MAORI (LAKE WAKATIPU)

Statutory Area

The statutory area to which this statutory acknowledgement applies is the Lake known as Whakatipu-wai-maori (Lake Wakatipu), the location of which is shown on Allocation Plan MD 39 (SO 24720).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Whakatipu-wai-maori, as set out below.

Ngai Tahu Association with Whakatipu-wai-maori

The name Whakatipu-wai-maori originates from the earliest expedition of discovery made many generations ago by the tupuna Rakaihautu and his party from the Uruao waka. Rakaihautu is traditionally credited with creating the great waterways of the interior of the island with his famous ko (a tool similar to a spade), known as Tu Whakaroria and renamed Tuhiraki at the conclusion of the expedition.

There are many traditions relating to the lake. One of the most famous tells that the hollow which forms the bed of the lake was created when the people known as Te Rapuwai came upon the giant tipua (ogre) Matau as he lay there in a deep sleep. Matau had been responsible for the disappearance of many small hunting parties and had entrapped a beautiful maiden, Manata. The father of Manata offered her in marriage to the man who could bring her safely home. Matakauri, who was in love with Manata ventured forth, discovering that Matau slept when the northwest wind blew. Matakauri selected a day when the wind was blowing the right way and set forth. He found Manata and, using his mere, he attempted to sever the bonds which

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held her, but try as he would he failed. Manata began to sob bitterly, and as her tears fell on the cords, they melted away. Matakauri carried Manata back to the village where they became man and wife. However, Matakauri knew that while Matau lived no maiden was safe, so he set forth when again the northwest wind blew, and set fire to the large growth of bracken that acted as a bed for the giant. Matau was smothered in flames, the fat from his body augmenting the fire, until the blaze was so fierce that it burned a hole more than 1,000 feet deep. The snow on the surrounding hills melted and filled the hole, which is known today as Lake Wakatipu.

For Ngai Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngai Tahu as an iwi.

Whakatipu-wai-maori once supported nohoanga and villages which were the seasonal destinations of Otago and Murihiku (Southland) whanau and hapu for many generations, exercising ahi ka and accessing mahinga kai and providing a route to access the treasured pounamu located beyond the head of the lake. Strategic marriages between hapu strengthened the kupenga (net) of whakapapa and thus rights to use the resources of the lake. It is because of these patterns of activity that the lake continues to be important to runanga located in Murihiku, Otago and beyond. These runanga carry the responsibilities of kaitiaki in relation to the area, and are represented by the tribal structure Te Runanga o Ngai Tahu.

The lake also supported permanent settlements, such as the kaika (village) Tahuna near present-day Queenstown, Te Kirikiri Pa, located where the Queenstown gardens are found today, a Ngati Mamoe kaika near the Kawarau Falls called O Te Roto, and another called Takerehaka near Kingston. The Ngati Mamoe chief Tu Wiri Roa had a daughter, Haki Te Kura, who is remembered for her feat of swimming across the lake from Tahuna, a distance of some three kilometres.

The tupuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of the lake, the relationship of people with the lake and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngai Tahu today.

A key attraction of the lake was the access it provided to seasonal campsites and the pounamu located at the head of the lake at the Dart and Routeburn River catchments, from which countless generations gathered inaka and koko-takiwai pounamu and transported it back to coastal settlements for fashioning into tools, ornaments and weapons.

Waka and mokihi were the key modes of transport for the pounamu trade, travelling the length and breadth of Whakatipu-wai-maori. Thus there were numerous

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tauranga waka (landing places) on the lake and the islands upon it (Matau and Wawahi-waka). The tupuna had an intimate knowledge of navigation, river routes, safe harbours and landing places, and the locations of food and other resources on the lake. The lake was an integral part of a network of trails which were used in order to ensure the safest journey and incorporated locations along the way that were identified for activities including camping overnight and gathering kai. Knowledge of these trails continues to be held by whanau and hapu and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the roto (lake).

Whakatipu-wai-maori is an important source of freshwater, the lake itself being fed by hukawai (melt waters). These are waters with the highest level of purity and were accorded traditional classifications by Ngai Tahu that recognised this value. Thus it is a puna (spring) which sustains many ecosystems important to Ngai Tahu. The mauri of Whakatipu-wai-maori represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the lake.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai Tahu as required by regulations made pursuant to section 207 (clause 12.2.3 of the deed of settlement); and
- (b) To require that consent authorities, the Historic Places Trust, or the Environment Court, as the case may be, have regard to this statutory acknowledgement in relation to Whakatipu-wai-maori as provided in sections 208 to 210 (clause 12.2.4 of the deed of settlement); and
- (c) To empower the Minister responsible for management of Whakatipu-wai-maori or the Commissioner of Crown Lands, as the case may be, to enter into a Deed of Recognition as provided in section 212 (clause 12.2.6 of the deed of settlement); and
- (d) To enable Te Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Whakatipu-wai-maori as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is not to be taken into account in, the exercise of any power, duty, or function by any person or entity

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under any statute, regulation, or bylaw; and

- (b) Without limiting paragraph (a), no person or entity, in considering any matter or making any decision or recommendation under statute, regulation, or bylaw, may give any greater or lesser weight to Ngai Tahu's association to Whakatipu-wai-maori (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Whakatipu-wai-maori.

Except as expressly provided in this Act, this statutory acknowledgement does not affect the lawful rights or interests of any person who is not a party to the deed of settlement.

Except as expressly provided in this Act, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Whakatipu-wai-maori.

SCHEDULE 61

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR TE WAIRERE (LAKE DUNSTAN)

Statutory Area

The statutory area to which this statutory acknowledgement applies is the lake known as Te Wairere (Lake Dunstan), the location of which is shown on Allocation Plan MD 490 (SO 24729)

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Te Wairere as set out below.

Ngai Tahu Association with Te Wairere

The name 'Te Wairere' refers to the speed with which the river once ran at this point.

The whole of the Mata-au (Clutha River), on which Te Wairere lies, was part of a mahinga kai trail that led inland and was used by Otago hapu including Kati Kuri, Ngati Ruahikihiki, Ngati Huirapa and Ngai Tuahuriri. The river was used as a highway into the interior, and provided many resources to sustain travellers on that journey. The river was a significant indigenous fishery, providing tuna (eels), kanakana (lamprey) and kokopu in the area over which Te Wairere now lies. Manu

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(birds), including moa, were taken from areas adjoining the river, over which the lake now lies.

The tupuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of the river, the relationship of people with the river and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngai Tahu today.

The waterway was also very important in the transportation of pounamu from inland areas down to settlements on the coast, from where it was traded north and south. Because of its location at the confluence of Mata-au and Kawarau Rivers, Te Wairere was an important staging post on journeys inland and down-river. A tauranga waka and nohanga sited at the junction of the two rivers acted as such a staging post. As a result of this history of use and occupation there are a number of wahi taonga (including rock shelters and archaeological sites) in the area, some of which are now under the waters of the lake. Wahi tapu are important as places holding the memories and traditions of Ngai Tahu tupuna.

The tupuna had an intimate knowledge of navigation, river routes, safe harbours and landing places, and the locations of food and other resources on the river. The waterway was an integral part of a network of trails which were used in order to ensure the safest journey and incorporated locations along the way that were identified for activities including camping overnight and gathering kai. Knowledge of these trails continues to be held by whanau and hapu and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the waterway.

The mauri of Te Wairere represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the lake.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai Tahu as required by regulations made pursuant to section 207 (clause 12.2.3 of the deed of settlement); and
- (b) To require that consent authorities, the Historic Places Trust, or the Environment Court, as the case may be, have regard to this statutory acknowledgement in relation to Te Wairere, as provided in sections 208 to

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210 (clause 12.2.4 of the deed of settlement); and

- (c) To empower the Minister responsible for management of Te Wairere or the Commissioner of Crown Lands, as the case may be, to enter into a Deed of Recognition as provided in section 212 (clause 12.2.6 of the deed of settlement); and
- (d) To enable Te Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Te Wairere as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is not to be taken into account in, the exercise of any power, duty, or function by any person or entity under any statute, regulation, or bylaw; and
- (b) Without limiting paragraph (a), no person or entity, in considering any matter or making any decision or recommendation under statute, regulation, or bylaw, may give any greater or lesser weight to Ngai Tahu's association to Te Wairere (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Te Wairere.

Except as expressly provided in this Act, this statutory acknowledgement does not affect the lawful rights or interests of any person who is not a party to the deed of settlement.

Except as expressly provided in this Act, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Te Wairere.

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SCHEDULE 22

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR KA MOANA HAEHAE (LAKE ROXBURGH)

Statutory Area

The statutory area to which this statutory acknowledgement applies is the lake known as Ka Moana Haehae (Lake Roxburgh), the location of which is shown on Allocation Plan MD 491 (SO 24730).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Ka Moana Haehae, as set out below.

Ngai Tahu Association with Ka Moana Haehae

The name Ka Moana Haehae refers to the joining of two waterways. In this case it refers to the confluence of the Mata-au and Manuherikia Rivers over which the lake lies.

The whole of the Mata-au (Clutha River), on which Ka Moana Haehae lies, was part of a mahinga kai trail that led inland and was used by Otago hapu including Ngati Kuri, Ngati Ruahikihiki, Ngati Huirapa and Ngai Tuahuriri. The river was used as a highway into the interior, and provided many resources to sustain travellers on that journey. The river was a significant indigenous fishery, providing tuna (eels), kanakana (lamprey) and kokopu in the area over which Ka Moana Haehae now lies. Manu (birds), including moa, were taken from areas adjoining the river, over which the lake now lies.

The tupuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of the river, the relationship of people with the river and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngai Tahu today.

The waterway was also very important in the transportation of pounamu from inland areas down to settlements on the coast, from where it was traded north and south. Thus there were numerous tauranga waka (landing places) along it. The tupuna had an intimate knowledge of navigation, river routes, safe harbours and landing places, and the locations of food and other resources on the river. The waterway was an integral part of a network of trails which were used in order to ensure the safest journey and incorporated locations along the way that were identified for activities including camping overnight and gathering kai. Knowledge of these trails continues

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to be held by whanau and hapu and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the waterway.

The mauri of Ka Moana Haehae represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the lake.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai Tahu as required by regulations made pursuant to section 207 (clause 12.2.3 of the deed of settlement); and
- (b) To require that consent authorities, the Historic Places Trust, or the Environment Court, as the case may be, have regard to this statutory acknowledgement in relation to Ka Moana Haehae, as provided in sections 208 to 210 (clause 12.2.4 of the deed of settlement); and
- (c) To empower the Minister responsible for management of Ka Moana Haehae or the Commissioner of Crown Lands, as the case may be, to enter into a Deed of Recognition as provided in section 212 (clause 12.2.6 of the deed of settlement); and
- (d) To enable Te Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Ka Moana Haehae as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is not to be taken into account in, the exercise of any power, duty, or function by any person or entity under any statute, regulation, or bylaw; and
- (b) Without limiting paragraph (a), no person or entity, in considering any matter or making any decision or recommendation under statute, regulation, or bylaw, may give any greater or lesser weight to Ngai Tahu's association to Ka Moana Haehae (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Ka Moana Haehae.

Except as expressly provided in this Act, this statutory acknowledgement does not affect the lawful rights or interests of any person who is not a party to the deed of settlement.

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Except as expressly provided in this Act, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Ka Moana Haehae.

SCHEDULE 40

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR MATA-AU (CLUTHA RIVER)

Statutory Area

The statutory area to which this statutory acknowledgement applies is the River known as Mata-au (Clutha River), the location of which is shown on Allocation Plan MD 122 (SO 24727).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to the Mata-au, as set out below.

Ngai Tahu Association with the Mata-au

The Mata-au river takes its name from a Ngai Tahu whakapapa that traces the genealogy of water. On that basis, the Mata-au is seen as a descendant of the creation traditions. For Ngai Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngai Tahu as an iwi.

On another level, the Mata-au was part of a mahinga kai trail that led inland and was used by Otakou hapu including Ngati Kuri, Ngati Ruahikihiki, Ngati Huirapa and Ngai Tuahuriri. The tupuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of the river, the relationship of people with the river and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngai Tahu today.

The river was also very important in the transportation of pounamu from inland areas down to settlements on the coast, from where it was traded north and south. Thus there were numerous tauranga waka (landing places) along it. The tupuna had an intimate knowledge of navigation, river routes, safe harbours and landing places, and the locations of food and other resources on the river. The river was an integral part of a network of trails which were used in order to ensure the safest journey and incorporated locations along the way that were identified for activities including

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camping overnight and gathering kai. Knowledge of these trails continue to be held by whanau and hapu and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the river.

The Mata-au is where Ngai Tahu's leader, Te Hautapunui o Tu, established the boundary line between Ngai Tahu and Ngati Mamoe. Ngati Mamoe were to hold mana (authority) over the lands south of the river and Ngai Tahu were to hold mana northwards. Eventually, the unions between the families of Te Hautapunui o Tu and Ngati Mamoe were to overcome these boundaries. For Ngai Tahu, histories such as this represent the links and continuity between past and present generations, reinforce tribal identity, and document the events which shaped Ngai Tahu as an iwi.

Strategic marriages between hapu further strengthened the kupenga (net) of whakapapa, and thus rights to travel on and use the resources of the river. It is because of these patterns of activity that the river continues to be important to runanga located in Otago and beyond. These runanga carry the responsibilities of kaitiaki in relation to the area, and are represented by the tribal structure, Te Runanga o Ngai Tahu.

Urupa and battlegrounds are located all along this river. One battleground, known as Te Kauae Whakatoro (downstream of Tuapeka), recalls a confrontation between Ngai Tahu and Ngati Mamoe that led to the armistice established by Te Hautapunui o Tu. Urupa are the resting places of Ngai Tahu tupuna and, as such, are the focus for whanau traditions. These are places holding the memories, traditions, victories and defeats of Ngai Tahu tupuna, and are frequently protected by secret locations.

The mauri of Mata-au represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the river.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai Tahu as required by regulations made pursuant to section 207 (clause 12.2.3 of the deed of settlement); and
- (b) To require that consent authorities, the Historic Places Trust, or the Environment Court, as the case may be, have regard to this statutory acknowledgement in relation to the Mata-au, as provided in sections 208 to 210 (clause 12.2.4 of the deed of settlement); and
- (c) To empower the Minister responsible for management of the Mata-au or the Commissioner of Crown Lands, as the case may be, to enter into a Deed of

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Recognition as provided in section 212 (clause 12.2.6 of the deed of settlement); and

- (d) To enable Te Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to the Mata-au as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is not to be taken into account in, the exercise of any power, duty, or function by any person or entity under any statute, regulation, or bylaw; and
- (b) Without limiting paragraph (a), no person or entity, in considering any matter or making any decision or recommendation under statute, regulation, or bylaw, may give any greater or lesser weight to Ngai Tahu's association to the Mata-au (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of the Mata-au.

Except as expressly provided in this Act, this statutory acknowledgement does not affect the lawful rights or interests of any person who is not a party to the deed of settlement.

Except as expressly provided in this Act, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, the Mata-au.

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SCHEDULE 52

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR POMAHAKA RIVER

Statutory Area

The statutory area to which this statutory acknowledgement applies is the River known as Pomahaka, the location of which is shown on Allocation Plan MD 12 (SO 24726).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to the Pomahaka River, as set out below.

Ngai Tahu Association with the Pomahaka River

The Pomahaka was an important mahinga kai for Ngati Mamoe and Ngai Tahu kainga (settlements) in the Catlins and Tautuku areas. The river was particularly noted for its kanakana (lamprey) fishery. Other mahinga kai associated with the river included weka and other manu (birds).

The tupuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of the Pomahaka, the relationship of people with the river and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngai Tahu today.

The mauri of the Pomahaka represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the river.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai Tahu as required by regulations made pursuant to section 207 (clause 12.2.3 of the deed of settlement);
- (b) To require that consent authorities, the Historic Places Trust, or the Environment Court, as the case may be, have regard to this statutory acknowledgement in relation to the Pomahaka River, as provided in sections 208 to 210 (clause 12.2.4 of the deed of settlement);

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- (c) To empower the Minister responsible for management of the Pomahaka River or the Commissioner of Crown Lands, as the case may be, to enter into a Deed of Recognition as provided in section 212 (clause 12.2.6 of the deed of settlement); and
- (d) To enable Te Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to the Pomahaka River as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is not to be taken into account in, the exercise of any power, duty, or function by any person or entity under any statute, regulation, or bylaw; and
- (b) Without limiting paragraph (a), no person or entity, in considering any matter or making any decision or recommendation under statute, regulation, or bylaw, may give any greater or lesser weight to Ngai Tahu's association to the Pomahaka River (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of the Pomahaka River.

Except as expressly provided in this Act, this statutory acknowledgement does not affect the lawful rights or interests of any person who is not a party to the deed of settlement.

Except as expressly provided in this Act, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, the Pomahaka River.

SCHEDULE 23

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR KAKAUNUI RIVER

Statutory Area

The statutory area to which this statutory acknowledgement applies is the River known as Kakaunui, the location of which is shown on Allocation Plan MD 120 (SO 24725).

Preamble

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Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to the Kakaunui River, as set out below.

Ngai Tahu Association with the Kakaunui River

The creation of the Kakaunui relates in time to Te Waka o Aoraki, and the further shaping of the island by Tu Te Rakiwhanoa and his assistants including Marokura who stocked the waterways and Kahukura, who stocked the forests. For Ngai Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngai Tahu as an iwi. The origin of the name 'Kakaunui' has been lost, but is likely to refer to swimming in the river.

There was a tauranga waka (landing place) at the mouth of the Kakaunui, which was an important part of the coastal trails north and south. The river was also a part of the seasonal trail of mahinga kai and resource gathering and hapu and whanau bonding. The tupuna had an intimate knowledge of navigation, river routes, safe harbours and landing places, and the locations of food and other resources on the river. The Kakaunui was an integral part of a network of trails which were used in order to ensure the safest journey and incorporated locations along the way that were identified for activities including camping overnight and gathering kai. Knowledge of these trails continues to be held by whanau and hapu and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the river.

The Kakaunui was a noted indigenous fishery, offering tuna (eel), inaka (whitebait), kanakana (lamprey), kokopu and other species. Other materials provided by the river included raupo, harakeke and watercress. The tupuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of the Kakaunui, the relationship of people with the river and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngai Tahu today.

These mahinga kai resources supported both semi-permanent and seasonal occupations, including a kainga on the northern bank of the river near Maheno. The surviving rock art remnants and rock shelters are a particular taonga of the area, providing a unique record of the lives and beliefs of the people who travelled the river.

The mauri of the Kakaunui represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the river.

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Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai Tahu as required by regulations made pursuant to section 207 (clause 12.2.3 of the deed of settlement); and
- (b) To require that consent authorities, the Historic Places Trust, or the Environment Court, as the case may be, have regard to this statutory acknowledgement in relation to the Kakaunui River, as provided in sections 208 to 210 (clause 12.2.4 of the deed of settlement); and
- (c) To empower the Minister responsible for management of the Kakaunui River or the Commissioner of Crown Lands, as the case may be, to enter into a Deed of Recognition as provided in section 212 (clause 12.2.6 of the deed of settlement); and
- (d) To enable Te Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to the Kakaunui River as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is not to be taken into account in, the exercise of any power, duty, or function by any person or entity under any statute, regulation, or bylaw; and
- (b) Without limiting paragraph (a), no person or entity, in considering any matter or making any decision or recommendation under statute, regulation, or bylaw, may give any greater or lesser weight to Ngai Tahu's association to the Kakaunui River (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of the Kakaunui River.

Except as expressly provided in this Act, this statutory acknowledgement does not affect the lawful rights or interests of any person who is not a party to the deed of settlement.

Except as expressly provided in this Act, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, the Kakaunui River.

SCHEDULE 70

Sections 205 and 206

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STATUTORY ACKNOWLEDGEMENT FOR WAIHOLA/WAIPORI WETLAND

Statutory Area

The statutory area to which this statutory acknowledgement applies is the Wetland known as Waihola/Waipori, the location of which is shown on Allocation Plan MD 55 (SO 24721).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Waihola/Waipori, as set out below.

Ngai Tahu Association with Waihola/Waipori

The Waihola/Waipori wetlands were once one of the most significant food baskets in the Otago region, and featured in the seasonal activity of the coastal settlements as far away as the Otago Peninsula and harbour area, Purakaunui and Puketeraki. The wetlands were once much larger in water area and deeper than at present, connected by a labyrinth of waterways and having a gravel bed which has now been overlaid by silt and mud.

The names Waihola/Waipori are likely of Waitaha derivation, with 'hola' being the Waitaha form of 'hora' meaning flat, spread out or widespread. Waipori may in fact be a misrecording of Waipouri, which is used in many older manuscripts, being a reference to the dark, tanin-stained water the wetland receives from Waipori River, a heavily wooded catchment.

The Waihola/Waipori area was visited and occupied by Waitaha, Ngati Mamoe and Ngai Tahu in succession, who through conflict and alliance, have merged in the whakapapa (genealogy) of Ngai Tahu Whanui. The wetland supported a number of pa within its environs and nearby. For example, Whakaraupuka, the pa of the Ngati Mamoe chief Tukiauu was located in the area now known as Sinclair Wetlands, although Tukiauu eventually relocated further to the south as the southward movement of his Ngai Tahu foes became uncomfortably close.

There were also many nohoanga (temporary campsites) located within the complex, used by food gathering parties which would travel to the lakes and camp on the fringes for two to three days to gather kai; to eel, hunt water fowl and gather flax. There were also permanent or semi-permanent settlements located in a number of locations around the lakes, some on islands in the wetlands system.

A number of other settlements further afield were also dependent on the mahinga kai resources of Waihola/Waipori for sustenance, including Tu Paritaniwha Pa near Momona, Omoua Pa above Henley, Maitapapa (Henley area), the kaik south of Henley and Takaaihitau near the old Taieri Ferry bridge, in addition to other settlements adjacent to the Taieri River up and downstream of the wetlands. Otakou

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and Puketeraki hapu would also make seasonal visits to gather resources and strengthen and maintain the kupenga (net) of whakapapa on which their rights to use those resources were based.

There is an account which tells of a sudden flood which required people trapped on the bank at a place called Whakaraupo, on the network of waterways that link Waihola with Waipori, to hastily construct a mokihi out of raupo to reach safety. A meeting place was opened here in 1901 by the locals, the house was named Te Waipounamu.

For Ngai Tahu, histories such as these reinforce tribal identity and solidarity and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngai Tahu as an iwi.

Waihola/Waipori was a key mahinga kai resource for Ngai Tahu based along the Otago coastal region, where an abundance of tuna (eel), inaka (whitebait), patiki (flounder) and other indigenous fish were available. Waterfowl and fibre resources such as harakeke and raupo were also easily accessible from the wetlands. Spearing, setting hinaki and nets, and bobbing for eel were regular activities on the wetlands in the season. The gathering of young ducks in the moult, and the catching of herons, pukeko and other birds supplemented the broad range of kai available from the wetlands.

The tupuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of Waihola/Waipori, the relationship of people with the lake and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngai Tahu today.

The attractiveness of Waihola/Waipori as a mahinga kai was enhanced by their accessibility. With the direct link to the Taieri River, access via the Taieri to villages on the banks of the Taieri River, upstream and down, and access by waka to the coast and northward to Otakou, kai and other resources gathered from the wetlands could be transported back to these home bases with relative ease.

The tupuna had an intimate knowledge of navigation, river routes, safe harbours and landing places, and the locations of food and other resources on the wetlands. Knowledge of these trails continues to be held by whanau and hapu and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the wetlands.

Because of the long history of use of Waihola/Waipori as a mahinga kai, supporting permanent and temporary settlements, there are numerous urupa, wahi tapu and wahi taonga associated with the wetlands. These are all places holding the memories, traditions, victories and defeats of Ngai Tahu tupuna, and are frequently

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protected by secret locations. Urupa are the resting places of Ngai Tahu tupuna and, as such, are a particular focus for whanau traditions.

The mauri of Waihola/Waipori represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the wetlands. The wetlands represent, in their resources and characteristics, a strong element of identity for those who had manawhenua (tribal authority over the area) whose tupuna were nurtured on the food and resources of the wetlands for generations.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai Tahu as required by regulations made pursuant to section 207 (clause 12.2.3 of the deed of settlement); and
- (b) To require that consent authorities, the Historic Places Trust, or the Environment Court, as the case may be, have regard to this statutory acknowledgement in relation to Waihola/Waipori, as provided in sections 208 to 210 (clause 12.2.4 of the deed of settlement); and
- (c) To empower the Minister responsible for management of Waihola/Waipori or the Commissioner of Crown Lands, as the case may be,) to enter into a Deed of Recognition as provided in section 212 (clause 12.2.6 of the deed of settlement); and
- (d) To enable Te Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Waihola/Waipori as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is not to be taken into account in, the exercise of any power, duty, or function by any person or entity under any statute, regulation, or bylaw; and
- (b) Without limiting paragraph (a), no person or entity, in considering any matter or making any decision or recommendation under statute, regulation, or bylaw, may give any greater or lesser weight to Ngai Tahu's association to Waihola/Waipori (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Waihola/Waipori.

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Except as expressly provided in this Act, this statutory acknowledgement does not affect the lawful rights or interests of any person who is not a party to the deed of settlement.

Except as expressly provided in this Act, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Waihola/Waipori.

SCHEDULE 60

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR TE TAURAKA POTI (MERTON TIDAL ARM)

Statutory Area

The statutory area to which this statutory acknowledgement applies is the Wetland known as Te Tauraka Poti (Merton Tidal Arm), the location of which is shown on Allocation Plan MD 56 (SO 24722).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Te Tauraka Poti, as set out below.

Ngai Tahu Association with Te Tauraka Poti

Te Tauraka Poti, fed by the streams known as Kirikiri Whakahoro and Kokonui, was a major mahinga kai for kainga and pa located on the coast north of the Otago Peninsula. The wetlands were a rich source of kai, including tuna (eels), mohoa (black flounder), giant kokopu and water fowl. The wetlands were particularly valued as a spawning ground for inaka (whitebait).

The tupuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of Te Tauraka Poti, the relationship of people with the wetland and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngai Tahu today.

As a result of this history of use, there are a number of wahi taonga within the wetland area, including middens and other evidence of occupation. These are important as places holding the memories of Ngai Tahu tupuna.

Te Tauraka Poti formed an integral part of a network of trails which were used in order to ensure the safest journey and incorporated locations along the way that were identified for activities including camping overnight and gathering kai.

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Knowledge of these trails continues to be held by whanau and hapu and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the wetland.

Much of Te Tauraka Poti's continuing significance to Ngai Tahu lies in the fact that it is the only remaining wetland area of any significance in the vicinity. The mauri of Te Tauraka Poti represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the wetland.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai Tahu as required by regulations made pursuant to section 207 (clause 12.2.3 of the deed of settlement);
- (b) To require that consent authorities, the Historic Places Trust, or the Environment Court, as the case may be, have regard to this statutory acknowledgement in relation to Te Tauraka Poti, as provided in sections 208 to 210 (clause 12.2.4 of the deed of settlement);
- (c) To empower the Minister responsible for management of Te Tauraka Poti or the Commissioner of Crown Lands, as the case may be, to enter into a Deed of Recognition as provided in section 212 (clause 12.2.6 of the deed of settlement); and
- (d) To enable Te Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Te Tauraka Poti as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is not to be taken into account in, the exercise of any power, duty, or function by any person or entity under any statute, regulation, or bylaw; and
- (b) Without limiting paragraph (a), no person or entity, in considering any matter or making any decision or recommendation under statute, regulation, or bylaw, may give any greater or lesser weight to Ngai Tahu's association to Te Tauraka Poti (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Te Tauraka Poti.

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Except as expressly provided in this Act, this statutory acknowledgement does not affect the lawful rights or interests of any person who is not a party to the deed of settlement.

Except as expressly provided in this Act, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Te Tauraka Poti.

SCHEDULE 28

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR KURAMEA (LAKE CATLINS)

Statutory Area

The statutory area to which this statutory acknowledgement applies is the Lake known as Kuramea (Lake Catlins), the location of which is shown on Allocation Plan MD 134 (SO 24728).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Kuramea, as set out below.

Ngai Tahu Association with Kuramea

Kuramea is the traditional name for the waterway now known as Catlins Lake.

The lake and estuary were significant sources of mahinga kai, supporting a number of nohoanga (settlements) in the vicinity. Tuna (eels), inaka (whitebait), tuaki (cockles), pupu (mudsnails), pipi and flatfish were taken from Kuramea. The lake was also a source of raranga (weaving) materials including harakeke and paru (mud used in dying).

The tupuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of Kuramea, the relationship of people with the lake and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngai Tahu today.

As a result of this history of use, there are a number of wahi taonga within the wetland area, including middens and other evidence of occupation. These are important as places holding the memories of Ngai Tahu tupuna. In particular, a number of archaeological finds within the wetlands confirm the area's history as a wake (canoe) building area.

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The mauri of Kuramea represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the lake.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai Tahu as required by regulations made pursuant to section 207 (clause 12.2.3 of the deed of settlement); and
- (b) To require that consent authorities, the Historic Places Trust, or the Environment Court, as the case may be, have regard to this statutory acknowledgement in relation to Kuramea, as provided in sections 208 to 210 (clause 12.2.4 of the deed of settlement); and
- (c) To empower the Minister responsible for management of Kuramea or the Commissioner of Crown Lands, as the case may be, to enter into a Deed of Recognition as provided in section 212 (clause 12.2.6 of the deed of settlement); and
- (d) To enable Te Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Kuramea as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is not to be taken into account in, the exercise of any power, duty, or function by any person or entity under any statute, regulation, or bylaw; and
- (b) Without limiting paragraph (a), no person or entity, in considering any matter or making any decision or recommendation under statute, regulation, or bylaw, may give any greater or lesser weight to Ngai Tahu's association to Kuramea (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Kuramea.

Except as expressly provided in this Act, this statutory acknowledgement does not affect the lawful rights or interests of any person who is not a party to the deed of settlement.

Except as expressly provided in this Act, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Kuramea.

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SCHEDULE 41

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR MATAKAEA (SHAG POINT)

Statutory Area

The statutory area to which this statutory acknowledgement applies is the area known as Matakaea Recreation Reserve and Onewhenua Historic Reserve, as shown on Allocation Plan MS 9 (SO 24686).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Matakaea.

Ngai Tahu Association with Matakaea

The name Matakaea recalls the tradition of the Arai Te Uru canoe, which capsized off Moeraki. From Moeraki, the crew managed to swim ashore leaving the cargo to be taken ashore by the waves. The crew members fled inland and were transformed into the mountains which form the Southern Alps.

The Arai Te Uru tradition is also important because it explains the origins of kumara. The story originally began with Roko i Tua who came to Aotearoa and met the Kahui Tipua. The Kahui Tipua gave Roko i Tua mamaku (tree fern) to eat. However Roko i Tua preferred the kumara that he had in his belt which he took out and soaked in a bowl of water. The Kahui Tipua tasted the kumara and asked where it was from. Roko i Tua replied saying that the kumara came from 'across the sea'.

The Kahui Tipua then made a canoe and, under the leadership of Tu Kakariki, went to Hawaiiiki and returned with the kumara to Aotearoa. The Kahui Tipua planted the kumara but the crop failed. However, Roko i Tua had also sailed to Hawaiiiki on the canoe called Arai Te Uru. Roko i Tua landed at Whangara, Hawaiiiki, and learnt the karakia (incantations) and tikanga (customs) connected with planting kumara. Roko i Tua then gave his canoe to two crew members called Pakihiwitahi and Hape ki Tua Raki. The Arai Te Uru returned under the leadership of these two commanders and eventually foundered off the Moeraki Coast at Matakaea.

For Ngai Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations and document the events which shaped the environment of Te Wai Pounamu and Ngai Tahu as an iwi.

The Matakaea area has been occupied for many centuries and is the site of numerous urupa and wahi tapu. Urupa are the resting places of Ngai Tahu tupuna (ancestors)

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and, as such, are the focus for whanau traditions. Urupa and wahi tapu are places holding the memories, traditions, victories and defeats of Ngai Tahu tupuna, and are frequently protected by secret locations.

The mauri of Matakaea represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the area.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai Tahu as required by regulations made pursuant to section 207 (clause 12.2.3 of the deed of settlement); and
- (b) To require that consent authorities, the Historic Places Trust, or the Environment Court, as the case may be, have regard to this statutory acknowledgement in relation to Matakaea, as provided in sections 208 to 210 (clause 12.2.4 of the deed of settlement); and
- (c) To empower the Minister responsible for management of Matakaea or the Commissioner of Crown Lands, as the case may be, to enter into a Deed of Recognition as provided in section 212 (clause 12.2.6 of the deed of settlement); and
- (d) To enable Te Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Matakaea as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is not to be taken into account in, the exercise of any power, duty, or function by any person or entity under any statute, regulation, or bylaw; and
- (b) Without limiting paragraph (a), no person or entity, in considering any matter or making any decision or recommendation under statute, regulation, or bylaw, may give any greater or lesser weight to Ngai Tahu's association to Matakaea (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Matakaea.

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Except as expressly provided in this Act, this statutory acknowledgement does not affect the lawful rights or interests of any person who is not a party to the deed of settlement.

Except as expressly provided in this Act, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Matakaea.

SCHEDULE 64

Sections 205 and 206

STATUTORY ACKNOWLEDGEMENT FOR TOKATA (THE NUGGETS)

Statutory Area

The statutory area to which this statutory acknowledgement applies is the area known as Tokata (The Nuggets), as shown on Allocation Plan MS 10 (SO 24699).

Preamble

Under sections 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Tokata as set out below.

Ngai Tahu Association with Tokata

The creation and shaping of Tokata and the surrounding coastline relates in time to Te Waka o Aoraki, and the subsequent efforts of Tu Te Rakiwhanoa. The name Tokata is a reference to the Nuggets, however, the individual nuggets also carry their own names: Te Ana Puta has a cave in it, Pae Koau is frequented by shags, three small nuggets on the north side are known collectively as Makunui and support a large seal colony, while the nugget furthest out to sea is Porokaea. The hill on which the lighthouse stands is known to Ngai Tahu as Taumata o Te Rakipokia, and a cave on the north side of this hill is Te Ana o Katiwairua. For Ngai Tahu, such traditional names and their associated histories reinforce tribal identity and solidarity, and continuity between generations, and document the events that have shaped the environment of Te Wai Pounamu and Ngai Tahu as an iwi.

The great explorer Rakaihautu passed by this area of the Otago coast on his journey northward, and the area was subsequently visited and occupied by Waitaha, Ngati Mamoe and Ngai Tahu in succession, who through conflict and alliance, have merged in the whakapapa (genealogy) of Ngai Tahu Whanui. This area of the Otago coast has many reminders of the uneasy relationships that once existed between Ngati Mamoe and Ngai Tahu. Skirmishes between the two iwi occurred intermittently just to the north. However, one battle occurred within the area referred to as Tokata after which some of the fallen were cooked. As a result of this activity, this area is now a wahi tapu. Such wahi tapu are the resting places of Ngai Tahu tupuna (ancestors) and, as such, are the focus for whanau traditions. These are

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places holding the memories, traditions, victories and defeats of Ngai Tahu tupuna, and are frequently protected by secret locations.

Tokata is a significant physical marker on the South Otago coast, with waka (canoes) voyaging south and north, or out to sea on fishing expeditions utilising it as a bearing marker. It also acted as a pointer to the safe tauranga waka (landing place) in Kaimataitai Bay, just to the north. The tupuna had an intimate knowledge of navigation, sea routes, safe harbours and landing places, and the locations of food and other resources on the coast. Tokata therefore formed an integral part of a network of trails which were used in order to ensure the safest journey and incorporated locations along the way that were identified for activities including camping overnight and gathering kai. Knowledge of these trails continues to be held by whanau and hapu and is regarded as taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the land and sea. Tokata also marks the south-eastern boundary of the Otakou Sale Deed area, marked out in 1844.

A variety of mahinga kai (principally kaimoana - seafood) is available at Tokata. The extensive rocky intertidal zone provides paua, kutai (mussels) and koura (crayfish) in abundance. The fur seal, leopard seal and sea lion all rest here, with their pups forming a ready source of kai in days gone by. Gull eggs, koau (shags) and titi (muttonbirds) were also harvested in the area. An excellent rimurapa (kelp) resource was utilised for making poha (storage bags), capable of preserving the titi for up to two years. Excellent fishing grounds seaward of Tokata supplied the resources of the coast.

The tupuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of the land and sea, the relationship of people with the coastline and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngai Tahu today.

The mauri of Tokata represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the area.

Purposes of Statutory Acknowledgement

Pursuant to section 215, and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai Tahu as required by regulations made pursuant to section 207 (clause 12.2.3 of the deed of settlement); and
- (b) To require that consent authorities, the Historic Places Trust, or the Environment Court, as the case may be, have regard to this statutory

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acknowledgement in relation to Tokata, as provided in sections 208 to 210 (clause 12.2.4 of the deed of settlement); and

- (c) To empower the Minister responsible for management of Tokata or the Commissioner of Crown Lands, as the case may be, to enter into a Deed of Recognition as provided in section 212 (clause 12.2.6 of the deed of settlement); and
- (d) To enable Te Runanga o Ngai Tahu and any member of Ngai Tahu Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Tokata as provided in section 211 (clause 12.2.5 of the deed of settlement).

Limitations on Effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is not to be taken into account in, the exercise of any power, duty, or function by any person or entity under any statute, regulation, or bylaw; and
- (b) Without limiting paragraph (a), no person or entity, in considering any matter or making any decision or recommendation under statute, regulation, or bylaw, may give any greater or lesser weight to Ngai Tahu's association to Tokata (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Tokata.

Except as expressly provided in this Act, this statutory acknowledgement does not affect the lawful rights or interests of any person who is not a party to the deed of settlement.

Except as expressly provided in this Act, this statutory acknowledgement does not, of itself, have the effect of granting, creating, or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Tokata.

SCHEDULE 103

Sections 205, 312 and 313

STATUTORY ACKNOWLEDGEMENT FOR TE TAI O ARAI TE URU (OTAGO COASTAL MARINE AREA)

Specific Area

The statutory area to which this statutory acknowledgement applies is Te Tai o Arai Te Uru (the Otago Coastal Marine Area), the Coastal Marine Area of the Moeraki, Dunedin Coastal and Molyneaux constituencies of the Otago region, as shown on

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SO Plans 24250, 24249, and 24252, Otago Land District and as shown on Allocation Plan NT 505 (SO 19901).

Preamble

Under section 313, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to Te Tai o Arai Te Uru as set out below.

Ngai Tahu Association with Te Tai o Arai Te Uru

The formation of the coastline of Te Wai Pounamu relates to the tradition of Te Waka o Aoraki, which foundered on a submerged reef, leaving its occupants, Aoraki and his brothers, to turn to stone. They are manifested now in the highest peaks in the Ka Tiritiri o Te Moana (the Southern Alps). The bays, inlets, estuaries and fiords which stud the coast are all the creations of Tu Te Rakiwhanoa, who took on the job of making the island suitable for human habitation.

The naming of various features along the coastline reflects the succession of explorers and iwi (tribes) who travelled around the coastline at various times. The first of these was Maui, who fished up the North Island, and is said to have circumnavigated Te Wai Pounamu. In some accounts the island is called Te Waka a Maui in recognition of his discovery of the new lands, with Rakiura (Stewart Island) being Te Puka a Maui (Maui's anchor stone). A number of coastal place names are attributed to Maui, particularly on the southern coast.

The great explorer Rakaihautu travelled overland along the coast, identifying the key places and resources. He also left many place names on prominent coastal features. Another explorer, Tamatea, sailed along the Otago coast in the waka Takitimu. After the waka eventually broke its back off the coast of Murihiku, Tamatea and the survivors made their way overland back to the North Island, arriving at the coast by the place Tamatea named O-amaru (Oamaru).

Place names along the coast record Ngai Tahu history and point to the landscape features which were significant to people for a range of reasons. For example, some of the most significant rivers which enter the coastal waters of Otago include: Waitaki, Kakaunui, Waihemo (Shag), Waikouaiti, Kaikarae (Kaikorai), Tokomairiro, Mata-au (Clutha), Pounaweia (Catlins). Estuaries include: Waitete (Waitati), Otakou (Otago), Makahoe (Papanui Inlet), Murikauhaka (Mate-au and Koau estuaries), Tahaukupu (Tahakopa estuary), Waipatiki (Wapati Estuary). Islands in the coastal area include Okaihe (St Michaels Island), Moturata (Taieri Island), Papanui, Matoketoke, Hakinikini, and Aonui (Cooks Head).

Particular stretches of the coastline also have their own traditions. The tradition of the waka (canoe) Arai Te Uru and its sinking at the mouth of the Waihemo (Shag River) has led to the coastal area of Otago being known as Te Tai o Araiteuru (the coast of Arai Te Uru). Accounts of the foundering, the wreckage, and the survivors of this waka are marked by numerous landmarks almost for the length of the Otago

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coast. The boulders on Moeraki coast (Kai Hinaki) and the Moeraki pebbles are all associated with the cargo of gourds, kumara and taro seed which were spilled when the Arai Te Uru foundered.

For Ngai Tahu, traditions such as these represent the links between the cosmological world of the gods and present generations. These histories reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngai Tahu as an iwi.

Because of its attractiveness as a place to establish permanent settlements, including pa (fortified settlements), the coastal area was visited and occupied by Waitaha, Ngati Mamoe and Ngai Tahu in succession, who, through conflict and alliance, have merged in the whakapapa (genealogy) of Ngai Tahu Whanui. Battle sites, urupa and landscape features bearing the names of tupuna (ancestors) record this history. Prominent headlands, in particular, were favoured for their defensive qualities and became the headquarters for a succession of rangatira and their followers. Notable pa on the Otago coast include: Makotukutuku (Oamaru), Te Raka-a-hineatea (Moeraki), Te Pa Katata, Pa a Te Wera, (Huriawa Peninsula), Mapoutahi (Purakaunui), Pukekura (Taiaroa Head), Moturata (Taieri Island). The estuaries from the Waitaki River to the Chaslands also supported various hapu.

Tupuna such as Waitai, Tukiauau, Whaka-taka-newha, Rakiiamo, Tarewai, Maru, Te Aparangi, Taoka, Moki II, Kapo, Te Wera, Tu Wiri Roa, Taikawa, Te Hautapanuiotu among the many illustrious ancestors of Ngati Mamoe and Ngai Tahu lineage whose feats and memories are enshrined in the landscape, bays, tides and whakapapa of Otago.

The results of the struggles, alliances and marriages arising out of these migrations were the eventual emergence of a stable, organised and united series of hapu located at permanent or semi-permanent settlements along the coast, with an intricate network of mahinga kai (food gathering) rights and networks that relied to a large extent on coastal resources. Chiefs such as Korako (several), Tahatu, Honekai, Ihutakuru, Karetai, Taiaroa, Potiki, Tuhawaiki, and Pokene being some among a number who had their own villages and fishing grounds. Otago Peninsula (Muaupoko) had many kaunga nohoanga with a multitude of hapu occupying them. At one time up to 12 kaunga existed in the lower Otago harbour, some larger and more important than others.

The whole of the coastal area offered a bounty of mahinga kai, including a range of kaimoana (sea food); sea fishing; eeling and harvest of other freshwater fish in lagoons and rivers; marine mammals providing whale meat and seal pups; waterfowl, sea bird egg gathering and forest birds; and a variety of plant resources including harakeke (flax), fern and ti root. In many areas the reliance on these resources increased after the land sales of the 1840s and 1850s, and the associated loss of access to much traditional land-based mahinga kai.

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Many reefs along the coast are known by name and are customary fishing grounds, many sand banks, channels, currents and depths are also known for their kaimoana. One example is Poatiri (Mt Charles - Cape Saunders) the name of which refers to a fish hook. Poatiri juts out into the Pacific, close to the continental shelf, and is a very rich fishing ground. Another example is Blueskin Bay which was once a kohanga (breeding ground) for the right whale, although it is well over 150 years since it has seen this activity.

Other resources were also important in the coastal area. Paru (black mud used for dying) was obtained from some areas. Some of the permanent coastal settlements, such as those at the mouth of the Mata-au (Clutha River), and at Otakou and Purakaunui, were important pounamu manufacturing sites. Trading between these villages to the south and north via sea routes was an important part of the economy.

The Otago coast was also a major highway and trade route, particularly in areas where travel by land was difficult. Pounamu and titi were traded north with kumara, taro, waka, stone resources and carvings coming south. Travel by sea between settlements and hapu was common, with a variety of different forms of waka, including the southern waka hunua (double-hulled canoe) and, post-contact, whale boats plying the waters continuously. Hence tauranga waka (landing places) occur up and down the coast in their hundreds and wherever a tauranga waka is located there is also likely to be a nohoanga (settlement), fishing ground, kaimoana resource, rimurapa (bull kelp - used to make the poha, in which titi were and still are preserved) with the sea trail linked to a land trail or mahinga kai resource. The tupuna had a huge knowledge of the coastal environment and weather patterns, passed from generation to generation. This knowledge continues to be held by whanau and hapu and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the coast.

Numerous urupa are being exposed or eroded at various times along much of coast. Water burial sites on the coast, known as waiwhakaheketupapaku, are also spiritually important and linked with important sites on the land. Places where kaitangata (the eating of those defeated in battle) occurred are also wahi tapu. Urupa are the resting places of Ngai Tahu tupuna and, as such, are the focus for whanau traditions. These are places holding the memories, traditions, victories and defeats of Ngai Tahu tupuna, and are frequently protected in secret locations.

The mauri of the coastal area represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the coastal area.

Purposes of Statutory Acknowledgement

Pursuant to section 215 and without limiting the rest of this schedule, the only purposes of this statutory acknowledgement are -

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- (a) To require that consent authorities forward summaries of resource consent applications to Te Runanga o Ngai Tahu as required by regulations made pursuant to section 207 (clause 12.2.3 of the deed of settlement); and
- (b) To require that consent authorities, the Historic Places Trust, or the Environment Court, as the case may be, have regard to this statutory acknowledgement in relation to Te Tai o Arai Te Uru, as provided in sections 208 to 210 (clause 12.2.4 of the deed of settlement); and
- (c) To enable Te Runanga o Ngai Tahu and any member of Ngai Tahu Tainui Whanui to cite this statutory acknowledgement as evidence of the association of Ngai Tahu to Te Tai o Arai Te Uru as provided in section 208 (clause 12.2.5 of the deed of settlement).

Limitations on effect of Statutory Acknowledgement

Except as expressly provided in sections 208 to 211, 213, and 215, -

- (a) This statutory acknowledgement does not affect, and is not to be taken into account in, the exercise of any power, duty or function by any person or entity under any statute, regulation, or bylaw; and
- (b) Without limiting paragraph (a), no person or entity, in considering any matter or making any decision or recommendation under statute, regulation, or bylaw, may give any greater or lesser weight to Ngai Tahu's association to Te Tai o Arai Te Uru (as described in this statutory acknowledgement) than that person or entity would give under the relevant statute, regulation, or bylaw, if this statutory acknowledgement did not exist in respect of Te Tai o Arai Te Uru.

Except as expressly provided in this Act, this statutory acknowledgement does not affect the lawful rights and interests of any person who is not a party to the deed of settlement.

Except as expressly provided in this Act, this statutory acknowledgement does not, of itself, have the effect of granting, creating or providing evidence of any estate or interest in, or any rights of any kind whatsoever relating to, Te Tai o Arai Te Uru.

Brooker's Editorial Note

It appears that the above reference (in (c) of 'Purposes') to "section 208" should be read as a reference to "section 211" because cl 208 of the Ngai Tahu Claims Settlement Bill, relating to the use of statutory acknowledgement with submissions, became s 211 of this Act.

APPENDIX 3: NGAI TAHU CLAIMS SETTLEMENT
ACT STATUTORY ACKNOWLEDGEMENTS

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