

Schedule 1

Wetland Management Areas

1.1 Introduction

Wetlands have been identified as nationally threatened ecosystems that have been reduced significantly from their former extent. Wetlands are characterised as being permanently or intermittently wet areas of shallow water, with land/water margins that support a natural ecosystem of predominantly indigenous plants and animals that are adapted to wet conditions.

The wetlands listed in this schedule are identified in the Plan as Wetland Management Areas.

This schedule has been compiled from existing information on significant freshwater wetlands in the Auckland Region identified in publicly available documents and existing databases. These information sources include:

- Auckland Department of Conservation Management Strategy;
- Department of Conservation Sites of Special Wildlife Interest Database (sites of outstanding, high, moderate-high or moderate ranking);
- WERI (Wetlands of Ecological and Representative Importance) database
- Regional and District Plans, including Appendix B of the Auckland Regional Policy Statement;
- Protected Natural Area Programme survey reports;
- Local reports such as Waiheke Island Sites of Significance.

These reports contain maps of wetlands which should be used to determine the exact boundaries of those wetlands identified in Plan Map Series 1.

The schedule reflects the range of wetland types in the Auckland Region, including raupo, cabbage tree, flax, and rush and sedge swamps, kahikatea swamp forest, wetlands associated with lakes, streams and volcanic systems, and wetlands associated with freshwater-estuarine ecological sequences. The schedule contains a number of wetlands that are associated with natural lakes. The wetlands associated with these lakes have been identified separately for their ecological and wildlife values. The schedule also contains freshwater wetlands that are associated with significant estuarine ecosystems such as the Kaipara, Waitemata and Manukau Harbours.

Schedule of Wetland Management Areas

Number	Wetland Name	Ecological Values
Kaipara Ecological Region		
222	Okahukura Peninsula Wetland	Swamp vegetation, cabbage tree, manuka, rushes and sedges. Ecological sequence from marine to freshwater. Threatened species.
809	Tapora Coast	Rich variety of habitats including freshwater wetlands. Of national and international significance.
208	Tapora Golf Course Wetland	Freshwater wetland formed by sand dunes. Raupo, <i>Baumea</i> , threatened birds.
221	Gum Store Creek Freshwater Wetland	Mangroves, mudflats, sand banks, freshwater wetland, rich assemblage of habitats.
211	Hiki Creek Scenic Reserve	Raupo and cabbage tree swamp on flood plain on lower slopes of area of broadleaved podocarp forest.
201	Hiki Stream Wetland	Raupo swamp with bordering manuka scrub. Threatened species.
241	Papakanui Wetlands	Wetlands in the area have rich botanical associations and are of national significance. Rich diversity of bird life and vegetation.
242	Waionui Inlet	An important estuarine habitat with succession of plant communities between tidal flats, freshwater wetlands and dune areas. Threatened wetland birds.
254	Lagoon Rd Wetland and Lake	Baumea, raupo, cabbage tree, manuka with buffer of kanuka. Habitat for threatened birds.
261	South Head Swamp	Raupo- <i>Schoenoplectus</i> reedland.
830	Kaukapakapa River	Scattered hill forest grading into alluvial areas of kaihikatea, cabbage tree, flax and native sedges and rushes, which grades into salt marsh and mangroves. Four main areas of wetland occur along river edges and associated tributaries.

Kaipara Dune Lakes

Extensive system of lakes that provide habitat for a number of threatened wildlife species. These lakes are dynamic and continually changing in size and extent. The schedule includes the following lakes.

318	Lake Kuwakatai	Lake with flax, raupo, <i>Schoenoplectus</i> sedgeland
470	Lake Okaihau	Lake with swamp areas dominated by raupo, with flax, <i>Juncus</i> spp. and <i>Cyperus ustulatus</i> . Swamp is contiguous with coastal forest. A valuable area for wildlife.

Number	Wetland Name	Ecological Values
372	Lake Kereta	Lake with raupo reedland.
387	Lake Karaka South (1a)	Lake with swamp vegetation.
391	Lake Karaka South (2)	Lake with <i>Juncus-Cyperus ustulatus</i> rush-sedgeland.
802	Lake Karaka South (3)	Lake with <i>Juncus-Cyperus ustulatus</i> rush-sedgeland.
803	Lake Karaka Wetlands	Lake with <i>Juncus-Cyperus ustulatus</i> rush-sedgeland.
824	Lake Karaka south -unnamed lake 4b	Lake with <i>Juncus-Cyperus ustulatus</i> rush-sedgeland.
416	Lake Otakanini Topu South	Lake with swamp vegetation.
302	Lake Ototoa	Lake with <i>Schoenoplectus</i> reedland.
804	Hedley's Lake 1	Lake with swamp vegetation.
808	Lake Piripoua (South)	Lake with <i>Juncus</i> rushland.
825	Lake Te Kanae	Lake with swamp reedland.
826	Lake Kowhai	Lake with reedland.
827	Lake Poutoa	Lake with <i>Cyperus ustulatus-Carex virgata-Juncus</i> sedgeland.
392	Loop Rd Closed Game Area	Threatened wetland birds.
404	Otakanini Topu Wetland	Diversity of wetland birds.
418	Fordyce Rd Swamp	Raupo- <i>Baumea-Schoenoplectus</i> reedland. Threatened species. High bird diversity.
373	Kaikore Creek Wetland	Raupo- <i>Schoenoplectus</i> reedland. Habitat for wetland.
427	Bradley Rd Swamp	Large swamp with diverse vegetation communities. Manuka, cabbage tree, flax, hangehange, Coprosma, Hebe, raupo, Carex, Juncus.
348	Waioneke Head Swamp	Vegetation sequence from swamp to scrub, threatened bird species.
359	Webber's Swamp (1)	Threatened bird species.
353	Webber's Swamp Remnants (2)	Three small remnants. Threatened species.
369	Wilson's Road Swamp	Threatened species habitat.
464	Okiritoto Wetland	Large swamp. Diverse habitats. Nesting area.
480	Taiapa Rd Bush and Wetland	Habitat for threatened bird species.
Rodney Ecological District		
41	Tomarata Lake and Wetland	Raupo, <i>Baumea</i> swamp, <i>Empodisma</i> peat swamp. Threatened birds.

Number	Wetland Name	Ecological Values
34 & 28	Spectacle Lake & Slipper Lake	Dune impounded lakes with freshwater wetland margin. Part of series of dune lakes in Pakiri.
24	Little Shag Lake	Lake with sedgeland border. Regenerating forest on margins.
25	Te Arai Point Little Lake	Dune lake surrounded by shrubland. Wetland birds.
220	Christian Bay Wetland	Flax, raupo, rushes and sedges, threatened bird species.
177	Omaha Kahikatea Forest	Rare intact sequence from salt marsh to forest. Only example of coastal kahikatea forest on sand in region. Threatened birds.
96	Pakiri Valley Swamp Forest	Remnant kahikatea wetland. Intact ecotone.
159 & 164	Wayby Wetland	Raupo, kahikatea swamp. Threatened birds .
342	Strakas Dam	Artificial dam with wetland vegetation, threatened birds.
389	Te Haruhi Bay Swamp	Raupo swamp in gully surrounded by regenerating forest. Threatened birds.
810	Araparera Freshwater Wetland	Raupo-rush-flax swamp. Threatened birds.
811	Ingelton Road wetland	Swamp bordered by bush.
409	Peak Road Swamp	Raupo, flax, manuka. Threatened birds.
Waitakere Ecological District		
492	Constable Road Swamp	Long strip of raupo. Threatened birds.
478	Goldies Bush Swamp	Small raupo swamp with kanuka margins. Threatened bird habitat.
563	Pararaha Swamp and Stream	Relatively large area of raupo, flax, rushes and sedges. Threatened species.
529	Piha Stream Swamp	Raupo swamp. Threatened bird habitat.
573	Taranaki Bay Swamp	Part of dune lake system at foot of coastal hills. Threatened bird species.
504 & 509	Te Henga Dunes and Lakes	Large area of sand dunes with several dune impounded lakes. Sequences from raupo reedland to cabbage tree to young kauri forest. Incl. Lakes Kawaupaka and Wainamu.
509	Lake Kawaupaka	One of few dune lakes in region surrounded by native forest. Threatened birds. Wetland is located on margins of lake, which is also identified as a Natural Lake Management Area.

Number	Wetland Name	Ecological Values
504	Lake Wainamu	Deep dune lake in vegetated catchment. Threatened birds. Freshwater fish.
571	Ohaka Head lake	Dune lake. Threatened birds.
828	Te Henga Wetland	Largest freshwater swamp in mainland of region. High diversity of vegetation and wildlife species. Threatened species.
576	Whatipu Sands	Extensive area of vegetated sand flats, containing freshwater and saline wetlands, impounding a stretch of cliffs.
Tamaki Ecological District		
450	Lake Pupuke	Small areas of raupo and rushes. Wetland birds Wetland is located on margins of Lake, which is also identified as an Urban Lake Management Area. [E509/04/106 Watercare Services Ltd]
812	Soldiers Bay	Ecological sequence from mangroves- sand flats-shell bank-salt marsh-freshwater swamp.
813	Chelsea reservoir	Wetland vegetation on margins of reservoirs including <i>Eleocharis sphacelata</i> .
814	Western Springs	Wetland vegetation associated with lake, including <i>Carex secta</i> swamp.
815	Tahuna-Torea	Complex of marine, intertidal, freshwater and terrestrial habitats.
816	Onehunga Springs	Groundwater springs with wetland features. Below One tree Hill lava flows.
817	Crater Hill Lake and wetland	Volcanic explosion crater with freshwater lake and wetland vegetation.
819	Puhinui Reserve	Coastal manuka, flax, cabbage tree, swamp coprosma in association with extensive shoreline saltmarsh.
Waiheke Island - Inner Gulf Islands		
481	Awaawaroa Bay	Vegetation sequence from mangrove-saltmarsh-freshwater wetland. Large number of wading birds.
452	Awaawaroa Stream Wetlands	One of best raupo wetlands in island. Threatened birds.
469	Putiki Bay	Ecological sequence from saline to freshwater wetlands. Threatened birds.
487	Rocky Bay Wetland	One of best saline and freshwater wetlands on island. Vegetation sequence. Threatened birds.

Number	Wetland Name	Ecological Values
482	Te Matuku Bay	The most important wader habitat on island. Best vegetation sequence from saline-freshwater-terrestrial on island. Threatened birds.
820	Ponui Island	Freshwater wetlands in gully systems. Threatened birds.
Great Barrier Island		
108	Blackwells Creek	Tidal stream and wetlands. Threatened birds.
101	Claris South Swamp	Manuka, raupo, tall sedge. Threatened birds.
97	Grandstand Swamp	Freshwater swamp enclosed with manuka. Threatened birds.
74	Kaitoke Swamp	Most significant and largest freshwater wetland in region. Vegetation sequences. Threatened species. Internationally significant.
111	Sugarloaf Creek (Medlands Beach North Creek)	Freshwater and tidal stream and wetlands. Threatened birds.
120	Orouaharo Stream	Stream margins, rushes, sedges, manuka, threatened birds.
22	Mabeys Road Swamp	Raupo surrounded by manuka. Once more extensive. Threatened birds.
7	Mabey's Farm Stream	Tidal stream with wetland vegetation. Threatened birds.
3	Motairehe Bay and Swamp	Tidal stream linking with freshwater swamp. Threatened birds.
10	Whangapoua Estuary	One of least modified estuaries in NZ. Sequence from saline-freshwater wetland-manuka scrub. High bird species richness. Internationally significant.
54	Awana Stream	Stream margins, kanuka, manuka, threatened birds
37	Harataonga Stream	Threatened birds.
150	Tryphena Stream	Tidal stream. Threatened birds.
Awhitu Ecological District		
591	Boiler Gully Swamp	Raupo, swamp maire, manuka. Intact forest-wetland sequences. Threatened bird habitat.
691	Lake Whatihua	Raupo, rushes and sedges. Threatened birds.
635 & 640 & 642	Pehiakura Lakes	Two lakes with raupo, <i>Baumea</i> . Wetland birds
612	Awhitu Regional Park Wetlands	Saline-freshwater wetland sequences. Threatened birds.

Number	Wetland Name	Ecological Values
581	Big Bay Estuary & wetland	Manuka swamp in association with estuarine ecosystem. Threatened birds
650	Lake Pokorua	Largest dune lake on peninsula. Significant wetland vegetation. Threatened birds
Manukau Ecological District		
653	Patumahoe Road Swamp	Diverse habitat. Raupo, <i>Carex</i> .
616	Don Urquarts Swamp	Raupo swamp. Threatened bird habitat.
627	Whangapouri Pond	Raupo swamp. Wetland bird habitat.
821	Kidd Road Wetland	Raupo swamp. Threatened bird habitat.
829	Hunter Rd Wetland	Raupo, flax, <i>Carex secta</i> , kahikatea wetland. Threatened bird species.
Hunua Ecological District		
823	Hattaway Raupo	Dense raupo backing onto mangrove saltmarsh. Wildlife habitat.
597	Hunua Road Dam (Hay's Creek Reservoir)	Wetland bird habitat.
562	Harrison's Flax Swamp	Flax swamp. Wetland plant diversity. Threatened birds.
559	Sharpe's Raupo	Long thin raupo swamp. Wetland bird, habitat.
588	Oram's Road Wetland	Best lowland raupo, kiokio wetland in district. Threatened birds.
822	Whakatiwai Wetlands	Coastal cabbage tree-raupo-sedge wetland vegetation associated with gravel ridges.

Schedule 2

Aquifer Water Availabilities & Levels

Aquifer Water Availabilities

(See Map Series 2)

Aquifer	Water availability (m ³ /year)
Orewa Waitemata	858,000
Whangaparaoa Waitemata	528,000
Tomarata Waitemata	638,000
Omaha Waitemata	105,000
Kumeu Waitemata	1,559,000
Western Springs Volcanic	9,600,000
Onehunga Volcanic	8,468,000
Mt Wellington Volcanic	6,570,000
Mt Richmond Volcanic	880,000
Manukau City Waitemata	660,000
Franklin Kaawa	
Pukekohe Kaawa	1,860,000
Karaka Kaawa	617,000
Pukekohe West Kaawa	1,780,000
Waiau Pa Kaawa	1,560,000
Waiuku Kaawa	2,450,000
Bombay - Drury Kaawa	718,000
Clevedon East Waitemata	379,400
Clevedon West Waitemata	964,400
Franklin Volcanic	
Pukekohe Central Volcanic	856,000
Pukekohe South Volcanic	650,000
Pukekohe West Volcanic	420,000
Pukekohe North Volcanic	420,000

Aquifer Groundwater Levels

Aquifer	Level (metres above mean sea level)	Location
Omaha Waitemata	3.25 (for any 11 months of the year)	Bore 25, Point Wells Rd
Waiwera Geothermal	0.5 averaged over any consecutive 12 months.	ARC beachfront Deep Bore No. 74
Parakai Geothermal	2.5 averaged over any consecutive 12 months.	ARC Deep Bore No. 86

Schedule 3

Industrial or Trade Activities

1. Schedule 3: Industrial or Trade Activities initially determines the risk of an **Industrial or Trade Activity** based on the size of the **Activity Area**. **Activity Area** is defined in Chapter 12 of the Plan. The level of risk (e.g. Low, Moderate or High) determines what type of authorisation is required for the activity. Thereafter compliance or otherwise with the provisions of the **Industrial or Trade Activity** rules, or changes to the size of the **Activity Area**, dictate the site's status and therefore the site's risk status can change over time.
2. Electrical substations that contain 1,000 litres or less of oil, are not considered an **Industrial or Trade Activity** for the purposes of the Plan.
3. Some activities are categorised as *Moderate Risk* even if they have no *Activity Area*. As they may pose an environmental risk, an *Environmental Management Plan* is required for such activities.
4. The owners or operators of *High Risk Industrial or Trade Activities* whose Schedule 3 Rule 5.5.16 permitted activity status expiry dates are approaching are strongly urged to commence the preparation of an *Environmental Management Plan* for the activity in accordance with Rule 5.5.14(i).

Description of Industrial or Trade Activity	Low Risk (Based on size of Activity Area)	Moderate Risk (Based on size of Activity Area)	High Risk (Based on size of Activity Area)	Months after Rule 5.5.16 becomes operative
Agricultural support industries	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	30
Animal feedstuffs	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	42
Chemical and associated product manufacturing	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	30
	Activity is never Low Risk	No Activity Area	Any Activity Area	24
	Activity is never Low Risk	Less than 1000m ²	More than 1,000m ²	48
	Activity is never Low Risk	Less than 1000m ²	More than 1000m ²	42
	Activity is never Low Risk	No Activity Area	Any Activity Area	24

Description of Industrial or Trade Activity	Low Risk (Based on size of Activity Area)	Moderate Risk (Based on size of Activity Area)	High Risk (Based on size of Activity Area)	Months after Rule 5.5.16 becomes operative
Industrial gas	Activity is never Low Risk	Less than 5,000m ²	More than 5,000m ²	42
Medicinal, pharmaceutical or veterinary products	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	42
Paint, pigment, inks and dyes	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	30
Polishes, adhesives or sealants	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	42
Solvents	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	36
Synthetic Resins	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	36
Acids, alkalis or heavy metals	Activity is never Low Risk	No Activity Area	Any Activity Area	30
Other Chemical Products (e.g. plastic manufacturing)	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	42
Slaughter	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	42
Commercial livestock processing industries Manufacture, store or handle products derived from animal slaughter (e.g. gelatin, fertiliser or meat products)	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	42
Scouring or carbonising greasy wool or fleeces	Activity is never Low Risk	Less than 1,000m ²	More than 1,000m ²	42
Tanneries or Fellmongeries	Activity is never Low Risk	No Activity Area	Any Activity Area	24
Rendering or fat extraction	Activity is never Low Risk	No Activity Area	Any Activity Area	42

Description of Industrial or Trade Activity	Low Risk (Based on size of Activity Area)	Moderate Risk (Based on size of Activity Area)	High Risk (Based on size of Activity Area)	Months after Rule 5.5.16 becomes operative
Electronics	Activity is never Low Risk	No Activity Area	Any Activity Area	24
Food or beverage manufacturing or handling	Circuit board manufacturing (excluding assembly only)	Less than 1000m ²	1,000m ² to 5,000m ²	42
	Bakery product manufacturing	Less than 1000m ²	More than 1000m ²	n/a
	Bakery product handling	Less than 1000m ²	1,000m ² to 5,000m ²	48
	Beverages or malt product manufacturing	Less than 1000m ²	More than 1,000m ²	n/a
	Beverages or malt product handling	Less than 1000m ²	1,000m ² to 5,000m ²	48
	Flour mill or cereal foods	Less than 1000m ²	1,000m ² to 5,000m ²	42
	Meat and meat product manufacture (including fish)	Less than 1000m ²	1,000m ² to 5,000m ²	n/a
	Meat product handling (including fish)	Less than 1000m ²	More than 1000m ²	42
	Oil or fat product manufacturing or handling	Less than 1000m ²	1,000m ² to 5,000m ²	42
	Processed dairy foods manufacturing	Less than 1000m ²	1,000m ² to 5,000m ²	42
	Processed dairy foods handling	Less than 1000m ²	More than 1,000m ²	n/a
	Vineyards or wine manufacturing	Less than 1000m ²	1,000m ² to 5,000m ²	42
	Other foodstuffs manufacturing	Less than 1000m ²	1,000m ² to 5,000m ²	48

Description of Industrial or Trade Activity		Low Risk (Based on size of Activity Area)	Moderate Risk (Based on size of Activity Area)	High Risk (Based on size of Activity Area)	Months after Rule 5.5.16 becomes operative
	Other foodstuffs handling	Less than 1000m ²	More than 1,000m ²	Activity is never High Risk	n/a
Research or defence	Research establishments	Less than 1000m ²	More than 1,000m ²	Activity is never High Risk	n/a
	Naval and airforce defence activities	Activity is never Low Risk	Less than 1000m ²	More than 1000m ²	0 (i.e. date rule becomes operative)
Machinery or equipment manufacturing	Industrial machinery or equipment	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	42
	Motor vehicles or parts	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	42
	Other machinery or equipment	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	42
Metal product manufacturing	Sheet and structural metal products	Less than 1000m ²	More than 1,000m ²	Activity is never High Risk	n/a
Motor Vehicle services facilities	Existing or new service stations that comply with the "Environmental Guidelines for Water Discharges from Petroleum Industry Sites in New Zealand, Ministry for the Environment, December 1998."	Activity is never Low Risk	Activity is always Moderate Risk	Activity is never High Risk	n/a
	All other service stations	Activity is never Low Risk	Activity is never Moderate Risk	Activity is always High Risk	36
	Mechanical servicing of motor vehicles	Activity is never Low Risk	Activity is always Moderate Risk	Activity is never High Risk	n/a

Description of Industrial or Trade Activity	Low Risk (Based on size of Activity Area)	Moderate Risk (Based on size of Activity Area)	High Risk (Based on size of Activity Area)	Months after Rule 5.5.16 becomes operative
Non-metallic mineral product manufacturing	Cement, lime, plaster and concrete products	Less than 1000m ²	More than 1,000m ²	24
	Concrete batching plants (ready mixed concrete)	No Activity Area	Any Activity Area	24
	Glass	Less than 5000m ²	More than 5,000m ²	42
Metal processing, metallurgical works or metal finishing	Metal plating, anodising or polishing	No Activity Area	Any Activity Area	0 (i.e. date rule becomes operative)
	Metal blasting or coating (excluding spray painting)	Less than 1000m ²	More than 1000m ²	24
	Refinement of ores	1,000m ² to 5,000m ²	More than 5,000m ²	24
	Processing of metals (e.g. smelting, casting)	1,000m ² to 5,000m ²	More than 5,000m ²	12
	Bitumen/asphalt premix or hot mix	Less than 1000m ²	More than 1000m ²	42
Petroleum or coal product manufacturing	Coal products	1,000m ² to 5,000m ²	More than 5,000m ²	42
	Petroleum refining	1,000m ² to 5,000m ²	More than 5,000m ²	42
	Petroleum hydrocarbon, oil or grease manufacturing	Less than 1000m ²	More than 1,000m ²	42

Description of Industrial or Trade Activity		Low Risk (Based on size of Activity Area)	Moderate Risk (Based on size of Activity Area)	High Risk (Based on size of Activity Area)	Months after Rule 5.5.16 becomes operative
Power	Electrical substations ²	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	42
	Electricity generation	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	30
Product storage or handling centres	Bulk chemicals	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	24
	Bulk hydrocarbons (non-service station)	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	30
Recycling, recovery, reuse or disposal	Automotive dismantling	Activity is never Low Risk	No Activity Area	Any Activity Area	12
	Batteries	Activity is never Low Risk	No Activity Area	Any Activity Area	36
	Chemicals	Activity is never Low Risk	No Activity Area	Any Activity Area	36
	Crushing, grinding or separation works (other than sand, gravel, rock or mineral) (e.g. slag, road base, demolition material)	Activity is never Low Risk	Less than 5,000m ²	More than 5,000m ²	36
	Hazardous materials storage or treatment	Activity is never Low Risk	No Activity Area	Any Activity Area	24
	Landfills	Activity is never Low Risk	No Activity Area	Any Activity Area	36
Metals (crushing, grinding, sorting or storage)	Activity is never Low Risk	Less than 1,000m ²	More than 1,000m ²	0 (i.e. date rule becomes operative)	

Description of Industrial or Trade Activity	Low Risk (Based on size of Activity Area)	Moderate Risk (Based on size of Activity Area)	High Risk (Based on size of Activity Area)	Months after Rule 5.5.16 becomes operative
Non-metal recycling (e.g. composting, glass, paper or paper board)	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	42
Oil, petroleum hydrocarbon wastes	Activity is never Low Risk	Less than 1,000m ²	More than 1,000m ²	30
Chemical containers cleaning reconditioning, or recycling	Activity is never Low Risk	Less than 1,000m ²	More than 1,000m ²	24
Sewage solids treatment or storage facilities	Activity is never Low Risk	No Activity Area	Any Activity Area	30
Tyres	Activity is never Low Risk	Less than 1000m ²	More than 1,000m ²	24
Waste transfer stations	Activity is never Low Risk	No Activity Area	Any Activity Area	24
Rubber industries				
Tyre manufacturing or retreading	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	30
Synthetic rubber manufacturing	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	24
Transport and related activities				
Boat or ship construction, repair or maintenance	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	0 (i.e. date rule becomes operative)
Bus Depots	Activity is never Low Risk	Less than 5000m ²	More than 5,000m ²	48

Description of Industrial or Trade Activity	Low Risk (Based on size of Activity Area)	Moderate Risk (Based on size of Activity Area)	High Risk (Based on size of Activity Area)	Months after Rule 5.5.16 becomes operative
Commercial airports other than Auckland International Airport Limited	Activity is never Low Risk	Less than 1,000m ²	More than 1,000m ²	48
Auckland International Airport Limited activities contained within the Secure Area as declared from time to time by the Director of Civil Aviation under section 84 of the Civil Aviation Act 1990 provided that the stormwater runoff from that secure Area complies with "Stormwater Management Devices: Design Guidelines Manual"; second edition, May 2003, Technical Publication 10.	Activity is never Low Risk	Activity is always Moderate Risk	Activity is never High Risk	n/a
Heliports other than Auckland International Airport Limited	Activity is never Low Risk	Less than 1000m ²	More than 1,000m ²	48
Road freight transport depot (non-chemical) with mechanical servicing	Less than 1000m ²	More than 1,000m ²	Activity is never High Risk	n/a
Road freight transport depot (bulk chemical)	Activity is never Low Risk	Less than 1,000m ²	More than 1,000m ²	30
Railway workshops or refueling depots	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	24
Shipping container reconditioning (not located at port areas)	Less than 1000m ²	More than 1,000m ²	Activity is never High Risk	n/a

Description of Industrial or Trade Activity	Low Risk (Based on size of Activity Area)	Moderate Risk (Based on size of Activity Area)	High Risk (Based on size of Activity Area)	Months after Rule 5.5.16 becomes operative
Commercial ports (including the Ports of Auckland Limited), shipping container reconditioning, and shipping loading/unloading	Activity is never Low Risk	Less than 5,000m ²	More than 5,000m ²	42
Existing or new truck refueling facilities (non service stations) that comply with the "Environmental Guidelines for Water Discharges from Petroleum Industry Sites in New Zealand, Ministry for the Environment, December 1998".	Activity is never Low Risk	Less than 1,000m ²	More than 1,000m ²	36
Wood or paper product storage, manufacturing or fabrication	Log storage yards (outside of forested areas)	Less than 5,000m ²	More than 5,000m ²	36
	Plywood or veneer manufacturing	1,000m ² to 5,000m ²	More than 5,000m ²	42
	Particle board or other wood panel manufacturing	1,000m ² to 5,000m ²	More than 5,000m ²	42
	Pulp, paper or paper board manufacturing	1,000m ² to 5,000m ²	More than 5,000m ²	42
Timber treatment	Activity is never Low Risk	Activity is never Moderate Risk	Any Activity Area	0 (i.e. date rule becomes operative)

Description of Industrial or Trade Activity		Low Risk (Based on size of Activity Area)	Moderate Risk (Based on size of Activity Area)	High Risk (Based on size of Activity Area)	Months after Rule 5.5.16 becomes operative
	Treated timber storage	Activity is never Low Risk	Less than 5,000m ²	More than 5,000m ²	12
Sewage treatment and handling (excluding any part of a sewage conveyance network as that network does not form an Industrial or Trade Activity for the purposes of Rules 5.5.14 to 5.5.19)	Environmentally hazardous substances storage or use (excluding sewage)	Activity is never Low Risk	No Activity Area	Any Activity Area	30
	Sewage solids storage.	Less than 1000m ²	1,000m ² to 5,000m ²	More than 5,000m ²	30

Schedule 4

Natural Lake Management Areas

Map Series 1 Identification (Wetland Number)	Lake Name	Map Series 1 Location	Ecological Values and Water Quality
34	Lake Spectacle	1	Has the worst water quality of the seven lakes monitored by the ARC, consistent with its location entirely within a pastoral catchment. Suffers regular blooms of algae, particularly during summer. A narrow fringe of vegetation exists around the margin comprising raupo, tall spike sedge, mingimingi and swamp kiokio. Provides a refuge and feeding habitat for resident and itinerant waterfowl.
28	Slipper Lake	1	Connected to Lake Spectacle by a drainage canal, with similar water quality. Prevalent algal blooms occur during summer. Some wetland vegetation occurs around the margin, which provides habitat for wetland birds
41	Lake Tomarata	1	A small dune lake with extensive wetland areas along its north, west and southern shores. Water quality is moderate compared to other lakes the ARC monitors, though may be deteriorating. Raupo dominates the marginal vegetation with sedges, rushes and the umbrella fern found within the wetland. Provides a refuge and feeding habitat for resident and itinerant waterfowl
302	Lake Ototoa	9	Has the best water quality of the seven lakes monitored by the ARC. The lakes supports dense beds of native submerged aquatic plants dominated by Chara sp. Marginal emergent vegetation is diverse with three Baumea species dominating. Large populations of dwarf inanga and bullies are present in the lake.
318	Lake Kuwakatai	9 & 14	Has very poor water quality typical of a shallow waterbody located within a pastoral catchment. The weed hornwort dominates the aquatic plant communities and many exotic fish are present, including koi carp. Provides a refuge and feeding habitat for resident and itinerant waterfowl.

Map Series 1 Identification (Wetland Number)	Lake Name	Map Series 1 Location	Ecological Values and Water Quality
825	Lake Te Kanae	14	No information available
372	Lake Kereta	14	A small turbid dune lake with poor water quality. High faecal bacteria counts indicate stock access to the water and large populations of resident waterfowl, including swans. The weed hornwort dominates the aquatic plant communities and many exotic fish are present.
No wetland	Lake Paekawau	22	A small lake located near Muriwai Beach. Little information exists.
470	Lake Okaihau	22 & 28	Also located near Muriwai Beach. Some historic information available.
828	Lake Te Henga	28	Located within the Te Henga Wetland, likely existing due to an impoundment of the river system.
504	Lake Wainamu	28	Water quality has undergone recent deterioration following the loss of submerged aquatic plants in the mid 1990's. A large amount of its catchment is native forest. Exotic fish are present including goldfish, perch, tench, rudd and catfish. A colony of black shag are also present.
509	Lake Kawaupaka	28	A small lake located entirely within a forested catchment. Water quality has declined recently following the introduction of exotic plants and fish during the past thirty years. A large colony of black shag are present.
635	Pehiakura Lake	43 & 47	No information available.
650	Lake Pokorua	43 & 47	A small dune lake located on the Awhitu Peninsula. Three threatened bird species are found at the lake, the Australasian bittern, New Zealand dabchick and the North Island fernbird. Waterfowl present include NZ scaup, paradise shelduck, black swan and shoveller duck. Other wetland, forest and coastal bird species present include: mallard duck, little shag, white fronted tern, black backed gulls, black shag, white faced heron, pukeko, harrier hawk and grey warbler.
691	Lake Whatihua	47	No information available

The above listed lakes are identified as Natural Lake Management Areas. The management area includes the area of water within the lake itself and a 50 metre buffer surrounding the lake edge. This buffer distance is measured landward from the Mean Annual Water Level.

Many of these lakes also contain wetlands around their margins which are identified in Schedule 1: Wetland Management Areas. The relevant Wetland Management Area number is listed in Column 1.

The Plan Maps (Map Series 1) also identify other lakes and waterbodies in the Auckland Region for information purposes and to provide geographic markers. They are not Natural Lake Management Areas and are shown as a different colour on the Plan Maps.

Schedule 5

Minimum Information Requirements for Agrichemical Spray Plan

Name: (landowner/occupier)	*Intended/approximate date/s or period of spray application:
*Spray area location (indicate on map):	*Name of Agrichemical Applicator Contact details (Ph.) GROWSAFE® Certification status: Certification current Yes No
*Agrichemical to be used: (a) Chemical (b) Trade name (c) Specific hazard (e.g. bee toxicity)	Crop/Target of use: (e.g. pest, disease, weed, parasite)
Application rate/dosage: (a) Chemical: (b) Total volume (kg or litres per hectare):	*Application method:
Additives used:	Weather conditions required for application: (wind speed, direction, relative humidity)
*Sensitive areas: (location map of application area, nature and location of sensitive area (including roads used by school children)):	*Names and contact details (when identified) of those to be advised of spraying:
Strategies to avoid contamination of sensitive areas (e.g. specific application techniques, buffer zones, observing/attending boundaries)	Details of notification method to be used to advise affected parties of spraying occurring
Weather conditions that increase potential drift hazard to identified sensitive areas:	Contingency plans for timetabling changes/ any adverse events