

Water Treatment Plants Water Quality Report - 1 July 2015 - 30 June 2016

Overview

This report shows compliance only for the parameters that have Maximum Acceptable Values (MAV) set out in the Drinking-water Standards for New Zealand 2005 (Revised 2008).

The MAV is the concentration of a microbial or chemical constituent in drinking-water below which the presence of the determinand does not result in any significant risk to the health of the consumer over a lifetime consumption of that water.

The MAVs have been based on the latest WHO guideline values.

The guideline value (GV) is the value of an aesthetic constituent in drinking-water that, if exceeded, may render the water unattractive to consumers due to colour or odour.

All test results shown in the report as ND (not detected) are lower than the laboratory's detection limits for the tested parameters.

Cryptosporidium and Giardia tests are conducted only at Ardmore and Waikato WTPs as part of the Bulk Water Agreement with Veolia Water. Cryptosporidium and Giardia test results are only reported when they met the analysis criteria.

Ardmore WTP A Block Treated Water

Acidic Herbicides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
1080 (Sodium fluoroacetate)	mg/L	1	ND	ND	ND	0.00005	0.0035		✓
2,4,5- trichlorophenoxyacetic acid (2,4,5-T)	mg/L	13	ND	ND	ND	0.0001			
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/L	13	ND	ND	ND	0.0001			
4-(2,4-dichlorophenoxy) butanoic acid (2,4-DB)	mg/L	13	ND	ND	ND	0.0001			
Bentazone	mg/L	13	ND	ND	ND	0.0001			
Dichlorprop	mg/L	13	ND	ND	ND	0.0001	0.1		✓
MCPA	mg/L	13	ND	ND	ND	0.0001	0.002		✓
Mecoprop	mg/L	13	ND	ND	ND	0.0001	0.01		✓
Picloram	mg/L	13	ND	ND	ND	0.0001	0.2		✓
Triclopyr	mg/L	13	ND	ND	ND	0.0001	0.1		✓

Chemical and Physical									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
UV absorbance	Abs units	13	0.020	0.010	0.010	0.002			
Alkalinity (Total)	mg/L CaCO ₃	52	22	15	18	1			
Aluminium	mg/L	52	0.10	0.02	0.02	0.005		0.1	
Bromate	mg/L	13	ND	ND	ND	0.005	0.01		✓
Bromide	mg/L	13	0.03	ND	0.02	0.01			
Calcium	mg/L	52	8.9	6.3	7.7	0.01			
Calcium Hardness	mg/L	52	22	16	19	0.025			
Chlorate	mg/L	13	ND	ND	ND	0.01	0.8		✓
Chloride	mg/L	13	14.00	13.00	13.08	0.02		250	
Chlorine Residual	mg/L	366	1.60	0.90	1.21	0.02	5	0.6-1.0	✓
Chlorite	mg/L	13	ND	ND	ND	0.005	0.8		✓
Colour	Hazen Units	52	ND	ND	ND	5		10	
Conductivity	mS/cm	13	11.4	10.3	10.8	0.5			
Cyanide	mg/L	12	ND	ND	ND	0.005	0.6		✓
Fluoride	mg/L	52	0.90	0.68	0.80	0.02	1.5		✓
Iodide	mg/L	13	0.006	ND	0.004	0.002			
Iron (Total)	mg/L	52	0.028	0.009	0.012	0.002		0.2	
Magnesium	mg/L	52	1.9	1.3	1.6	0.001			
Magnesium Hardness	mg/L	52	8	5	6	0.0041			
Manganese	mg/L	52	0.0310	0.0017	0.0083	0.0005	0.4	0.04	✓
pH	pH Units	366	8.70	6.80	7.87	0.1		7.0-8.5	
Potassium	mg/L	13	1.1	0.9	1.0	0.1			
Silicon	mg/L	13	16.0	12.0	14.2	0.1			
Sodium	mg/L	13	9.4	7.9	8.7	0.1		200	
Sulphate	mg/L	13	8.70	7.10	7.97	0.02		250	
Suspended Solids	mg/L	52	0.70	ND	0.13	0.2			
Total Hardness	mg/L	52	30.0	21.0	25.6	0.029		200	
Total Organic Carbon (TOC)	mg/L	13	1.3	0.8	1.0	0.1			
Turbidity	NTU	366	1.3	0.1	0.2	0.1		2.5	

Microbiology									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limits	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Cryptosporidium cysts/oocysts (Treated Water)	cysts/100L	4	ND	ND	ND	1	<1		J
Giardia cysts/oocysts (Treated Water)	cysts/100L	4	ND	ND	ND	1	<1		J
<i>E. coli</i>	MPN/100mL	366	ND	ND	ND	1	<1		J

Nutrients									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Ammonia	mg/L N	13	0.019	ND	0.004	0.005		1.5	
Dissolved Reactive Phosphorus	mg/L	13	0.010	0.007	0.009	0.005			
Nitrate	mg/L as NO ₃	13	0.055	0.023	0.039	0.002	50		J
Nitrite Nitrogen	mg/L	13	0.005	ND	0.001	0.002	0.2		J
TKN (Total Kjeldahl Nitrogen)	mg/L N	13	0.11	ND	0.01	0.1			
Total Phosphorus	mg/L	13	0.021	0.006	0.011	0.005			

Plasticizers									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
bis (2-ethylhexyl) adipate	µg/L	13	ND	ND	ND	2			
bis (2-ethylhexyl) phthalate	µg/L	13	ND	ND	ND	2	9		J

Polycyclic Aromatic Hydrocarbons									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Benzo(a)pyrene	µg/L	13	ND	ND	ND	0.1	0.7		J

Semi Volatile Organic Compounds									
Organochlorine Pesticides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Aldrin + Dieldrin	µg/L	13	ND	ND	ND	0.01	0.04		J
Chlordane	µg/L	13	ND	ND	ND	0.01	0.2		J
Lindane	µg/L	13	ND	ND	ND	0.01	2		J
Heptachlor	µg/L	13	ND	ND	ND	0.01			
Heptachlor epoxide	µg/L	13	ND	ND	ND	0.01			
Hexachlorobenzene	µg/L	13	ND	ND	ND	0.1			
Methoxychlor	µg/L	13	ND	ND	ND	0.2	20		J
Permethrin (cis + trans)	µg/L	13	ND	ND	ND	0.2			
DDT + isomers	µg/L	13	ND	ND	ND	0.2	1		J
Procymidone	µg/L	13	ND	ND	ND	0.2	700		J
Organonitrogen Herbicides									
Alachlor	µg/L	13	ND	ND	ND	0.2	20		J
Atrazine	µg/L	13	ND	ND	ND	0.1	2		J
Metolachlor	µg/L	13	ND	ND	ND	0.1	10		J
Molinate	µg/L	13	ND	ND	ND	0.1	7		J
Pendimethalin	µg/L	13	ND	ND	ND	0.2	20		J
Propanil	µg/L	13	ND	ND	ND	0.1			
Simazine	µg/L	13	ND	ND	ND	0.1	2		J
Terbuthilazine	µg/L	13	ND	ND	ND	0.2	8		J
Trifluralin	µg/L	13	ND	ND	ND	0.2	30		J
Organophosphorus Pesticides									
Chlorpyrifos	µg/L	13	ND	ND	ND	0.2	40		J
Diazinon	µg/L	13	ND	ND	ND	0.1			
Pyrimiphos methyl	µg/L	13	ND	ND	ND	0.2	100		J

Trace Elements									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Antimony	mg/L	13	ND	ND	ND	0.001	0.02		J
Arsenic	mg/L	13	0.0003	0.0001	0.0002	0.0001	0.01		J
Barium	mg/L	13	0.0075	0.0047	0.0063	0.0002	0.7		J
Boron	mg/L	13	0.010	ND	0.001	0.005	1.4		J
Cadmium	mg/L	13	ND	ND	ND	0.00005	0.004		J
Chromium	mg/L	13	0.0006	ND	0.0003	0.0001	0.05		J

Copper	mg/L	13	0.0012	ND	0.0005	0.0002	2		J
Lead	mg/L	13	0.0003	ND	ND	0.0001	0.01		J
Lithium	mg/L	13	0.0011	0.0005	0.0007	0.0001			
Mercury	mg/L	13	ND	ND	ND	0.00005	0.007		J
Molybdenum	mg/L	13	ND	ND	ND	0.0003	0.07		J
Nickel	mg/L	13	0.0055	ND	0.0007	0.0001	0.08		J
Selenium	mg/L	13	ND	ND	ND	0.0005	0.01		J
Zinc	mg/L	13	0.005	ND	0.001	0.001		1.5	

Trihalomethanes

Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Bromodichloromethane	mg/L	52	0.0120	0.0022	0.0056	0.0001	0.06		J
Bromoform	mg/L	52	0.0028	ND	0.0012	0.0001	0.1		J
Chloroform	mg/L	52	0.0130	0.0018	0.0062	0.0001	0.4		J
Dibromochloromethane	mg/L	52	0.0081	0.0014	0.0045	0.0001	0.15		J
THMs Ratio		52	0.30	0.05	0.15		1		J

Volatile Organic Compounds

Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
1,1,1-trichloroethane	mg/L	13	ND	ND	ND	0.0001			
1,2,3-trichlorobenzene	mg/L	13	ND	ND	ND	0.0001			
1,2,4-trichlorobenzene	mg/L	13	ND	ND	ND	0.0001			
1,2-dichlorobenzene	mg/L	13	ND	ND	ND	0.0001	1.5	0.001	J
1,2-dichloroethane	mg/L	13	ND	ND	ND	0.0001	0.03		J
1,4-dichlorobenzene	mg/L	13	ND	ND	ND	0.0001	0.4	0.0003	J
Benzene	mg/L	13	ND	ND	ND	0.0001	0.01		J
Carbon tetrachloride	mg/L	13	ND	ND	ND	0.0001			
Ethylbenzene	mg/L	13	ND	ND	ND	0.0001	0.3	0.002	J
Xylenes (total)	mg/L	13	ND	ND	ND	0.0001	0.6	0.02	J
Styrene	mg/L	13	ND	ND	ND	0.0001	0.03	0.004	J
Tetrachloroethene	mg/L	13	ND	ND	ND	0.0001	0.05		J
Toluene	mg/L	13	ND	ND	ND	0.0001	0.8	0.03	J
1,2-dichloroethene (cis + trans)	mg/L	13	ND	ND	ND	0.0001	0.06		J
Trichloroethene	mg/L	13	ND	ND	ND	0.0001	0.02		J

Ardmore WTP B1 Block Treated Water

Acidic Herbicides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
1080 (Sodium fluoroacetate)	mg/L	1	ND	ND	ND	0.00005	0.0035		J
2,4,5- trichlorophenoxyacetic acid (2,4,5-T)	mg/L	13	ND	ND	ND	0.0001			
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/L	13	ND	ND	ND	0.0001			
4-(2,4-dichlorophenoxy) butanoic acid (2,4-DB)	mg/L	13	ND	ND	ND	0.0001			
Bentazone	mg/L	13	ND	ND	ND	0.0001			
Dichlorprop	mg/L	13	ND	ND	ND	0.0001	0.1		J
MCPA	mg/L	13	ND	ND	ND	0.0001	0.002		J
Mecoprop	mg/L	13	ND	ND	ND	0.0001	0.01		J
Picloram	mg/L	13	ND	ND	ND	0.0001	0.2		J
Triclopyr	mg/L	13	ND	ND	ND	0.0001	0.1		J

Chemical and Physical									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
UV absorbance	Abs units	13	0.020	0.010	0.010	0.002			
Alkalinity (Total)	mg/L CaCO ₃	52	22	16	18	1			
Aluminium	mg/L	52	0.03	0.02	0.02	0.005		0.1	
Bromate	mg/L	13	ND	ND	ND	0.005	0.01		J
Bromide	mg/L	13	0.02	ND	0.02	0.01			
Calcium	mg/L	52	8.4	6.8	7.6	0.01			
Calcium Hardness	mg/L	52	21	17	19	0.025			
Chlorate	mg/L	13	ND	ND	ND	0.01	0.8		J
Chloride	mg/L	13	15.00	12.00	13.08	0.02		250	
Chlorine Residual	mg/L	366	1.56	0.47	1.08	0.02	5	0.6-1.00	J
Chlorite	mg/L	13	ND	ND	ND	0.005	0.8		J
Colour	Hazen Units	52	ND	ND	ND	5		10	
Conductivity	mS/cm	13	11.2	10.4	10.8	0.5			
Cyanide	mg/L	12	ND	ND	ND	0.005	0.6		J
Fluoride	mg/L	52	0.90	0.67	0.76	0.02	1.5		J
Iodide	mg/L	13	0.006	ND	0.003	0.002			
Iron (Total)	mg/L	52	0.023	0.007	0.009	0.002		0.2	
Magnesium	mg/L	52	1.8	1.3	1.5	0.001			
Magnesium Hardness	mg/L	52	7	5	6	0.0041			
Manganese	mg/L	52	0.0085	0.0011	0.0030	0.0005	0.4	0.04	J
pH	pH Units	366	8.3	7.4	7.9	0.1		7.0-8.5	
Potassium	mg/L	13	1.1	0.9	1.0	0.1			
Silicon	mg/L	13	16.0	12.0	14.1	0.1			
Sodium	mg/L	13	9.4	7.8	8.6	0.1		200	
Sulphate	mg/L	13	8.90	2.40	7.48	0.02		250	
Suspended Solids	mg/L	52	0.45	ND	0.03	0.20			
Total Hardness	mg/L	52	28.0	22.0	25.1	0.029		200	
Total Organic Carbon TOC	mg/L	13	1.4	0.8	1.0	0.1			
Turbidity	NTU	366	0.6	0.10	0.2	0.1		2.5	

Microbiology									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Cryptosporidium (Treated Water)	cysts/100L	6	ND	ND	ND	1	<1		J
Giardia (Treated Water)	cysts/100L	6	ND	ND	ND	1	<1		J
<i>E. coli</i>	MPN/100mL	366	ND	ND	ND	1	<1		J

Nutrients									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Ammonia	mg/L N	13	0.024	ND	0.004	0.005		1.5	
Dissolved Reactive Phosphorus	mg/L	13	0.010	0.006	0.008	0.005			
Nitrate	mg/L	13	0.056	0.024	0.040	0.002	50		J
Nitrite Nitrogen	mg/L	13	0.005	ND	0.001	0.002	0.2		J
TKN (Total Kjeldahl Nitrogen)	mg/L N	13	ND	ND	ND	0.1			
Total Phosphorus	mg/L	13	0.019	0.007	0.010	0.005			

Plasticizers									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
bis (2-ethylhexyl) adipate	µg/L	13	ND	ND	ND	2			
bis (2-ethylhexyl) phthalate	µg/L	13	ND	ND	ND	2	9		J

Polycyclic Aromatic Hydrocarbons									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Benzo(a)pyrene	µg/L	13	ND	ND	ND	0.1	0.7		J

Semi Volatile Organic Compounds									
Organochlorine Pesticides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Aldrin + Dieldrin	µg/L	13	ND	ND	ND	0.01	0.04		J
Chlordane	µg/L	13	ND	ND	ND	0.01	0.2		J
Lindane	µg/L	13	ND	ND	ND	0.01	2		J
Heptachlor	µg/L	13	ND	ND	ND	0.01			
Heptachlor epoxide	µg/L	13	ND	ND	ND	0.01			
Hexachlorobenzene	µg/L	13	ND	ND	ND	0.1			
Methoxychlor	µg/L	13	ND	ND	ND	0.2	20		J
Permethrin (cis + trans)	µg/L	13	ND	ND	ND	0.2			
DDT + isomers	µg/L	13	ND	ND	ND	0.2	1		J
Procymidone	µg/L	13	ND	ND	ND	0.2	700		J
Organonitrogen Herbicides									
Alachlor	µg/L	13	ND	ND	ND	0.2	20		J
Atrazine	µg/L	13	ND	ND	ND	0.1	2		J
Metolachlor	µg/L	13	ND	ND	ND	0.1	10		J
Molinate	µg/L	13	ND	ND	ND	0.1	7		J
Pendimethalin	µg/L	13	ND	ND	ND	0.2	20		J
Propanil	µg/L	13	ND	ND	ND	0.1			
Simazine	µg/L	13	ND	ND	ND	0.1	2		J
Terbutylazine	µg/L	13	ND	ND	ND	0.2	8		J
Trifluralin	µg/L		ND	ND	ND	0.2	30		J
Organophosphorus Pesticides									
Chlorpyrifos	µg/L	13	ND	ND	ND	0.2	40		J
Diazinon	µg/L	13	ND	ND	ND	0.1			
Pirymiphos methyl	µg/L	13	ND	ND	ND	0.2	100		J

Trace Elements									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Antimony	mg/L	13	ND	ND	ND	0.001	0.02		J
Arsenic	mg/L	13	0.0003	0.0001	0.0002	0.0001	0.01		J
Barium	mg/L	13	0.0077	0.0048	0.0062	0.0002	0.7		J
Boron	mg/L	13	0.010	ND	0.001	0.005	1.4		J
Cadmium	mg/L	13	ND	ND	ND	0.00005	0.004		J
Chromium	mg/L	13	0.0007	ND	0.0003	0.0001	0.05		J
Copper	mg/L	13	0.0004	ND	0.0003	0.0002	2		J
Lead	mg/L	13	ND	ND	ND	0.0001	0.01		J
Lithium	mg/L	13	0.0008	0.0003	0.0006	0.0001			
Mercury	mg/L	13	ND	ND	ND	0.00005	0.007		J
Molybdenum	mg/L	13	ND	ND	ND	0.0003	0.07		J
Nickel	mg/L	13	0.002	ND	ND	0.0001	0.08		J
Selenium	mg/L	13	ND	ND	ND	0.0005	0.01		J
Zinc	mg/L	13	0.003	ND	0.001	0.001		1.5	

Trihalomethanes									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Bromodichloromethane	mg/L	52	0.0140	0.0044	0.0085	0.0001	0.06		J
Bromoform	mg/L	52	0.0028	ND	0.0014	0.0001	0.1		J
Chloroform	mg/L	52	0.0150	0.0037	0.0084	0.0001	0.4		J
Dibromochloromethane	mg/L	52	0.0093	0.0026	0.0059	0.0001	0.15		J
THMs Ratio		52	0.33	0.11	0.22		1		J

Volatile Organic Compounds

Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
1,1,1-trichloroethane	mg/L	13	ND	ND	ND	0.0001			
1,2,3-trichlorobenzene	mg/L	13	ND	ND	ND	0.0001			
1,2,4-trichlorobenzene	mg/L	13	ND	ND	ND	0.0001			
1,2-dichlorobenzene	mg/L	13	ND	ND	ND	0.0001	1.5	0.001	✓
1,2-dichloroethane	mg/L	13	ND	ND	ND	0.0001	0.03		✓
1,4-dichlorobenzene	mg/L	13	ND	ND	ND	0.0001	0.4	0.0003	✓
Benzene	mg/L	13	ND	ND	ND	0.0001	0.01		✓
Carbon tetrachloride	mg/L	13	ND	ND	ND	0.0001			
Ethylbenzene	mg/L	13	ND	ND	ND	0.0001	0.3	0.002	✓
Xylenes (total)	mg/L	13	ND	ND	ND	0.0001	0.6	0.02	✓
Styrene	mg/L	13	ND	ND	ND	0.0001	0.03	0.004	✓
Tetrachloroethene	mg/L	13	ND	ND	ND	0.0001	0.05		✓
Toluene	mg/L	13	ND	ND	ND	0.0001	0.8	0.03	✓
1,2-dichloroethene (cis + trans)	mg/L	13	ND	ND	ND	0.0001	0.06		✓
Trichloroethene	mg/L	13	ND	ND	ND	0.0001	0.02		✓

Ardmore WTP B2 Block Treated Water

Acidic Herbicides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
1080 (Sodium fluoroacetate)	mg/L	1	ND	ND	ND	0.00005	0.0035		J
2,4,5- trichlorophenoxyacetic acid (2,4,5-T)	mg/L	13	ND	ND	ND	0.0001			
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/L	13	ND	ND	ND	0.0001			
4-(2,4-dichlorophenoxy) butanoic acid (2,4-DB)	mg/L	13	ND	ND	ND	0.0001			
Bentazone	mg/L	13	ND	ND	ND	0.0001			
Dichlorprop	mg/L	13	ND	ND	ND	0.0001	0.1		J
MCPA	mg/L	13	ND	ND	ND	0.0001	0.002		J
Mecoprop	mg/L	13	ND	ND	ND	0.0001	0.01		J
Picloram	mg/L	13	ND	ND	ND	0.0001	0.2		J
Triclopyr	mg/L	13	ND	ND	ND	0.0001	0.1		J

Chemical and Physical									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
UV absorbance	Abs units	13	0.020	0.010	0.010	0.002			
Alkalinity (Total)	mg/L CaCO ₃	52	22	16	18	1			
Aluminium	mg/L	52	0.03	0.02	0.02	0.005		0.1	
Bromate	mg/L	13	ND	ND	ND	0.005	0.01		J
Bromide	mg/L	13	0.02	ND	0.01	0.01			
Calcium	mg/L	52	12.0	6.7	7.7	0.01			
Calcium Hardness	mg/L	52	30	17	19	0.025			
Chlorate	mg/L	13	ND	ND	ND	0.01	0.8		J
Chloride	mg/L	13	15.00	13.00	13.15	0.02		250	
Chlorine Residual	mg/L	366	1.47	0.52	1.08	0.02	5	0.6-1.00	J
Chlorite	mg/L	13	ND	ND	ND	0.005	0.8		J
Colour	Hazen Units	52	ND	ND	ND	5		10	
Conductivity	mS/cm	13	11.1	10.4	10.8	0.5			
Cyanide	mg/L	12	ND	ND	ND	0.005	0.6		J
Fluoride	mg/L	52	0.93	0.68	0.76	0.02	1.5		J
Iodide	mg/L	13	0.007	ND	0.003	0.002			
Iron (Total)	mg/L	52	0.022	0.007	0.010	0.002		0.2	
Magnesium	mg/L	52	2.6	1.3	1.6	0.001			
Magnesium Hardness	mg/L	52	11	5	6	0.0041			
Manganese	mg/L	52	0.0250	0.0011	0.0033	0.0005	0.4	0.04	J
pH	pH Units	366	8.5	6.7	7.9	0.1		7.0-8.5	
Potassium	mg/L	13	1.1	0.9	1.0	0.1			
Silicon	mg/L	13	16.0	12.0	14.2	0.1			
Sodium	mg/L	13	9.4	7.8	8.6	0.1		200	
Sulphate	mg/L	13	9.30	3.90	7.63	0.02		250	
Suspended Solids	mg/L	52	0.25	ND	0.03	0.2			
Total Hardness	mg/L	52	41.0	22.0	25.5	0.029		200	
Total Organic Carbon TOC	mg/L	13	1.3	0.8	1.0	0.1			
Turbidity	NTU	366	0.7	0.10	0.2	0.1		2.5	

Microbiology									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Cryptosporidium (Treated Water)	cysts/100L	7	ND	ND	ND	1	<1		J
Giardia (Treated Water)	cysts/100L	7	ND	ND	ND	1	<1		J
<i>E.coli</i>	MPN/100mL	365*	ND	ND	ND	1	<1		J

* One *E.coli* sample collected from the treated water tank at the Ardmore WTP B2 Block has been withdrawn due to an external sample collection analysis error. Watercare confirmed that disinfection processes were stable throughout. This has been accepted by the Auckland Regional Public Health Service.

Nutrients									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Ammonia	mg/L N	13	0.053	ND	0.004	0.005		1.5	
Dissolved Reactive Phosphorus	mg/L	13	0.010	0.006	0.008	0.005			
Nitrate	mg/L	13	0.059	0.023	0.040	0.002	50		J
Nitrite Nitrogen	mg/L	13	0.005	ND	0.001	0.002	0.2		J
TKN (Total Kjeldahl Nitrogen)	mg/L N	13	ND	ND	ND	0.1			
Total Phosphorus	mg/L	13	0.045	0.006	0.012	0.005			

Plasticizers									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
bis (2-ethylhexyl) adipate	µg/L	13	ND	ND	ND	2			
bis (2-ethylhexyl) phthalate	µg/L	13	ND	ND	ND	2	9		J

Polycyclic Aromatic Hydrocarbons									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Benzo(a)pyrene	µg/L	13	ND	ND	ND	0.1	0.7		J

Semi Volatile Organic Compounds									
Organochlorine Pesticides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Aldrin + Dieldrin	µg/L	13	ND	ND	ND	0.01	0.04		J
Chlordane	µg/L	13	ND	ND	ND	0.01	0.2		J
Lindane	µg/L	13	ND	ND	ND	0.01	2		J
Heptachlor	µg/L	13	ND	ND	ND	0.01			
Heptachlor epoxide	µg/L	13	ND	ND	ND	0.01			
Hexachlorobenzene	µg/L	13	ND	ND	ND	0.1			
Methoxychlor	µg/L	13	ND	ND	ND	0.2	20		J
Permethrin (cis + trans)	µg/L	13	ND	ND	ND	0.2			
DDT + isomers	µg/L	13	ND	ND	ND	0.2	1		J
Procymidone	µg/L	13	ND	ND	ND	0.2	700		J
Organonitrogen Herbicides									
Alachlor	µg/L	13	ND	ND	ND	0.2	20		J
Atrazine	µg/L	13	ND	ND	ND	0.1	2		J
Metolachlor	µg/L	13	ND	ND	ND	0.1	10		J
Molinate	µg/L	13	ND	ND	ND	0.1	7		J
Pendimethalin	µg/L	13	ND	ND	ND	0.2	20		J
Propanil	µg/L	13	ND	ND	ND	0.1			
Simazine	µg/L	13	ND	ND	ND	0.1	2		J
Terbutylazine	µg/L	13	ND	ND	ND	0.2	8		J
Trifluralin	µg/L	13	ND	ND	ND	0.2	30		J
Organophosphorus Pesticides									
Chlorpyrifos	µg/L	13	ND	ND	ND	0.2	40		J
Diazinon	µg/L	13	ND	ND	ND	0.1			
Pirymiphos methyl	µg/L	13	ND	ND	ND	0.2	100		J

Trace Elements									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Antimony	mg/L	13	ND	ND	ND	0.001	0.02		J
Arsenic	mg/L	13	0.0003	0.0001	0.0002	0.0001	0.01		J
Barium	mg/L	13	0.007	0.005	0.006	0.0002	0.7		J
Boron	mg/L	13	0.010	ND	0.001	0.005	1.4		J
Cadmium	mg/L	13	ND	ND	ND	0.00005	0.004		J
Chromium	mg/L	13	0.0007	ND	0.0003	0.0001	0.05		J
Copper	mg/L	13	0.0004	ND	0.0003	0.0002	2		J
Lead	mg/L	13	ND	ND	ND	0.0001	0.01		J
Lithium	mg/L	13	0.0008	0.0004	0.0006	0.0001			
Mercury	mg/L	13	ND	ND	ND	0.00005	0.007		J
Molybdenum	mg/L	13	ND	ND	ND	0.0003	0.07		J
Nickel	mg/L	13	0.0001	ND	ND	0.0001	0.08		J
Selenium	mg/L	13	ND	ND	ND	0.0005	0.01		J
Zinc	mg/L	13	0.002	ND	0.001	0.001		1.5	

Trihalomethanes									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Bromodichloromethane	mg/L	52	0.0160	0.0047	0.0088	0.0001	0.06		J
Bromoform	mg/L	52	0.0030	ND	0.0013	0.0001	0.1		J
Chloroform	mg/L	52	0.0170	0.0040	0.0088	0.0001	0.4		J
Dibromochloromethane	mg/L	52	0.0083	0.0028	0.0059	0.0001	0.15		J
THMs Ratio		52	0.37	0.11	0.22		1		J

Volatile Organic Compounds

Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
1,1,1-trichloroethane	mg/L	13	ND	ND	ND	0.0001			
1,2,3-trichlorobenzene	mg/L	13	ND	ND	ND	0.0001			
1,2,4-trichlorobenzene	mg/L	13	ND	ND	ND	0.0001			
1,2-dichlorobenzene	mg/L	13	ND	ND	ND	0.0001	1.5	0.001	✓
1,2-dichloroethane	mg/L	13	ND	ND	ND	0.0001	0.03		✓
1,4-dichlorobenzene	mg/L	13	ND	ND	ND	0.0001	0.4	0.0003	✓
Benzene	mg/L	13	ND	ND	ND	0.0001	0.01		✓
Carbon tetrachloride	mg/L	13	ND	ND	ND	0.0001			
Ethylbenzene	mg/L	13	ND	ND	ND	0.0001	0.3	0.002	✓
Xylenes (total)	mg/L	13	ND	ND	ND	0.0001	0.6	0.02	✓
Styrene	mg/L	13	ND	ND	ND	0.0001	0.03	0.004	✓
Tetrachloroethene	mg/L	13	ND	ND	ND	0.0001	0.05		✓
Toluene	mg/L	13	ND	ND	ND	0.0001	0.8	0.03	✓
1,2-dichloroethene (cis + trans)	mg/L	13	ND	ND	ND	0.0001	0.06		✓
Trichloroethene	mg/L	13	ND	ND	ND	0.0001	0.02		✓

Bombay WTP Treated Water

Chemical and Physical									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Alkalinity (Total)	mg/L CaCO ₃	1	78	78	78	1			
Aluminium	mg/L	1	0.01	0.01	0.01	0.005		0.1	
Bromate	mg/L	1	ND	ND	ND	0.005	0.01		J
Bromide	mg/L	1	ND	ND	ND	0.01			
Calcium	mg/L	1	13.00	13.00	13.00	0.01			
Calcium Hardness	mg/L	1	32	32	32	0.025			
Chlorate	mg/L	1	ND	ND	ND	0.01	0.8		J
Chloride	mg/L	1	75.00	75.00	75.00	0.02		250	
Chlorine Residual	mg/L	122	1.77	0.47	0.91	0.02	5	0.2-1.0	J
Chlorite	mg/L	1	ND	ND	ND	0.005	0.8		J
Colour	Hazen Units	1	ND	ND	ND	5		10	
Conductivity	mS/cm	1	42.9	42.9	42.9	0.5			
Cyanide	mg/L	1	ND	ND	ND	0.005	0.6		J
Iodide	mg/L	1	0.010	0.010	0.010	0.002			
Iron (Total)	mg/L	1	0.002	0.002	0.002	0.002		0.2	
Magnesium	mg/L	1	12.0	12.0	12.0	0.001			
Magnesium Hardness	mg/L	1	50	50	50	0.0041			
Manganese	mg/L	1	ND	ND	ND	0.0005	0.4	0.04	J
pH	pH Units	122	8.1	6.7	7.7	0.1		7.0-8.5	
Potassium	mg/L	1	1.4	1.4	1.4	0.1			
Silicon	mg/L	1	42.0	42.0	42.0	0.1			
Sodium	mg/L	1	50.0	50.0	50.0	0.1		200	
Sulphate	mg/L	1	0.04	0.04	0.04	0.02		250	
Suspended Solids	mg/L	1	ND	ND	ND	0.2			
Total Dissolved Solids	mg/L	1	260	260	260	15		1000	
Total Hardness	mg/L	1	82	82	82	0.029		200	
Total Organic Carbon TOC	mg/L	12	0.5	ND	0.2	0.1			
Turbidity	NTU	122	0.6	0.1	0.1	0.1		2.5	

Microbiology									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
<i>E. coli</i>	MPN/100mL	122	ND	ND	ND	1	<1		J

Nutrients									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Ammonia	mg/L N	1	0.045	0.045	0.045	0.005		1.5	
Dissolved Reactive Phosphorus	mg/L	1	0.016	0.016	0.016	0.005			
Nitrate	mg/L as NO ₃	52	4.500	1.900	2.773	0.002	50		J
Nitrite	mg/L	1	0.004	0.004	0.004	0.002	0.20		J
TKN (Total Kjeldahl Nitrogen)	mg/L N	1	0.61	0.61	0.61	0.1			
Total Phosphorus	mg/L	1	0.021	0.021	0.021	0.005			

Plasticizers									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
bis (2-ethylhexyl) adipate	µg/L	1	ND	ND	ND	2			
bis (2-ethylhexyl) phthalate	µg/L	1	ND	ND	ND	2	9		J

Polycyclic Aromatic Hydrocarbons									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Benzo(a)pyrene	µg/L	1	ND	ND	ND	0.1	0.7		J

Semi Volatile Organic Compounds										
Organochlorine Pesticides										
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)	
Aldrin + Dieldrin	µg/L	1	ND	ND	ND	0.01	0.04		J	
Chlordane	µg/L	1	ND	ND	ND	0.01	0.2		J	
Lindane	µg/L	1	ND	ND	ND	0.01	2		J	
Heptachlor	µg/L	1	ND	ND	ND	0.01				
Heptachlor epoxide	µg/L	1	ND	ND	ND	0.01				
Hexachlorobenzene	µg/L	1	ND	ND	ND	0.1				
Methoxychlor	µg/L	1	ND	ND	ND	0.2	20		J	
Permethrin (cis + trans)	µg/L	1	ND	ND	ND	0.2				
DDT + isomers	µg/L	1	ND	ND	ND	0.2	1		J	
Procymidone	µg/L	1	ND	ND	ND	0.2	700		J	
Organonitrogen Herbicides										
Alachlor	µg/L	1	ND	ND	ND	0.2	20		J	
Atrazine	µg/L	1	ND	ND	ND	0.1	2		J	
Metolachlor	µg/L	1	ND	ND	ND	0.1	10		J	
Molinate	µg/L	1	ND	ND	ND	0.1	7		J	
Pendimethalin	µg/L	1	ND	ND	ND	0.2	20		J	
Propanil	µg/L	1	ND	ND	ND	0.1				
Simazine	µg/L	1	ND	ND	ND	0.1	2		J	
Terbutylazine	µg/L	1	ND	ND	ND	0.2	8		J	
Trifluralin	µg/L	1	ND	ND	ND	0.2	30		J	
Organophosphorus Pesticides										
Chlorpyrifos	µg/L	1	ND	ND	ND	0.2	40		J	
Diazinon	µg/L	1	ND	ND	ND	0.1				
Pirymiphos methyl	µg/L	1	ND	ND	ND	0.2	100		J	

Trace Elements										
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)	
Antimony	mg/L	1	ND	ND	ND	0.001	0.02		J	
Arsenic	mg/L	1	ND	ND	ND	0.0001	0.01		J	
Barium	mg/L	1	0.002	0.002	0.002	0.0002	0.7		J	
Boron	mg/L	1	0.007	0.007	0.007	0.005	1.4		J	
Cadmium	mg/L	1	ND	ND	ND	0.00005	0.004		J	
Chromium	mg/L	1	0.0003	0.0003	0.0003	0.0001	0.05		J	
Copper	mg/L	1	0.0081	0.0081	0.0081	0.0002	2		J	
Lead	mg/L	1	0.0008	0.0008	0.0008	0.0001	0.01		J	
Lithium	mg/L	1	0.0006	0.0006	0.0006	0.0001				
Mercury	mg/L	1	ND	ND	ND	0.00005	0.007		J	
Molybdenum	mg/L	1	ND	ND	ND	0.0003	0.07		J	
Nickel	mg/L	1	ND	ND	ND	0.0001	0.08		J	
Selenium	mg/L	1	ND	ND	ND	0.0005	0.01		J	
Zinc	mg/L	1	0.008	0.008	0.008	0.001		1.5		

Trihalomethanes										
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)	
Bromodichloromethane	mg/L	12	0.0022	ND	0.0004	0.0001	0.06		J	
Bromoform	mg/L	12	0.0012	ND	0.0002	0.0001	0.1		J	
Chloroform	mg/L	12	ND	ND	ND	0.0001	0.4		J	
Dibromochloromethane	mg/L	12	0.0013	ND	0.0002	0.0001	0.15		J	
THMs Ratio		12	0.06	ND	0.01		1		J	

Volatile Organic Compounds

Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
1,1,1-trichloroethane	mg/L	1	ND	ND	ND	0.0001			
1,2,3-trichlorobenzene	mg/L	1	ND	ND	ND	0.0001			
1,2,4-trichlorobenzene	mg/L	1	ND	ND	ND	0.0001			
1,2-dichlorobenzene	mg/L	1	ND	ND	ND	0.0001	1.5	0.001	✓
1,2-dichloroethane	mg/L	1	ND	ND	ND	0.0001	0.03		✓
1,4-dichlorobenzene	mg/L	1	ND	ND	ND	0.0001	0.4	0.0003	✓
Benzene	mg/L	1	ND	ND	ND	0.0001	0.01		✓
Carbon tetrachloride	mg/L	1	ND	ND	ND	0.0001			
Ethylbenzene	mg/L	1	ND	ND	ND	0.0001	0.3	0.002	✓
Xylenes (total)	mg/L	1	ND	ND	ND	0.0001	0.6	0.02	✓
Styrene	mg/L	1	ND	ND	ND	0.0001	0.03	0.004	✓
Tetrachloroethene	mg/L	1	ND	ND	ND	0.0001	0.05		✓
Toluene	mg/L	1	ND	ND	ND	0.0001	0.8	0.03	✓
1,2-dichloroethene (cis + trans)	mg/L	1	ND	ND	ND	0.0001	0.06		✓
Trichloroethene	mg/L	1	ND	ND	ND	0.0001	0.02		✓

Cornwall Road (Waiuku) WTP Treated Water

Chemical and Physical									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Alkalinity (Total)	mg/L CaCO ₃	1	130	130	130	1			
Aluminium	mg/L	1	ND	ND	ND	0.005		0.1	
Bromate	mg/L	1	ND	ND	ND	0.005	0.01		J
Bromide	mg/L	1	0.05	0.05	0.05	0.01			
Calcium	mg/L	1	33.0	33.0	33.0	0.01			
Calcium Hardness	mg/L	1	82.00	82.00	82.00	0.025			
Chlorate	mg/L	1	ND	ND	ND	0.01	0.8		J
Chloride	mg/L	1	32.00	32.00	32.00	0.02		250	
Chlorine Residual	mg/L	122	1.61	0.55	0.88	0.02	5	0.6-1.0	J
Chlorite	mg/L	1	ND	ND	ND	0.005	0.8		J
Colour	Hazen Units	1	ND	ND	ND	5		10	
Conductivity	mS/cm	1	37.0	37.0	37.0	0.5			
Cyanide	mg/L	1	ND	ND	ND	0.005	0.6		J
Fluoride	mg/L	1	0.05	0.05	0.05	0.02	1.5		J
Iodide	mg/L	1	0.005	0.005	0.005	0.002			
Iron (Total)	mg/L	12	0.004	ND	0.001	0.002		0.2	
Magnesium	mg/L	1	10.0	10.0	10.0	0.001			
Magnesium Hardness	mg/L	1	42	42	42	0.0041			
Manganese	mg/L	12	ND	ND	ND	0.0005	0.4	0.04	J
pH	pH Units	122	8.1	7.9	8.0	0.1		7.0-8.5	
Potassium	mg/L	1	3.3	3.3	3.3	0.1			
Silicon	mg/L	1	55.0	55.0	55.0	0.1			
Sodium	mg/L	1	22.0	22.0	22.0	0.1		200	
Sulphate	mg/L	1	5.00	5.00	5.00	0.02		250	
Suspended Solids	mg/L	1	0.20	0.20	0.20	0.2			
Total Dissolved Solids	mg/L	1	250	250	250	15		1000	
Total Hardness	mg/L	1	120.0	120.0	120.0	0.029		200	
Turbidity	NTU	122	0.5	ND	0.1	0.1		2.5	

Microbiology									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
<i>E. coli</i>	MPN/100mL	122	ND	ND	ND	1	<1		J

Nutrients									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Ammonia	mg/L N	1	ND	ND	ND	0.005		1.5	
Dissolved Reactive Phosphorus	mg/L	1	0.048	0.048	0.048	0.005			
Nitrate	mg/L as NO ₃	1	0.023	0.023	0.023	0.002	50		J
Nitrite	mg/L	1	ND	ND	ND	0.002	0.20		J
TKN (Total Kjeldahl Nitrogen)	mg/L N	1	ND	ND	ND	0.1			
Total Phosphorus	mg/L	1	0.071	0.071	0.071	0.005			

Plasticizers									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
bis (2-ethylhexyl) adipate	µg/L	1	ND	ND	ND	2			
bis (2-ethylhexyl) phthalate	µg/L	1	ND	ND	ND	2	9		J

Polycyclic Aromatic Hydrocarbons									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Benzo(a)pyrene	µg/L	1	ND	ND	ND	0.1	0.7		J

Semi Volatile Organic Compounds										
Organochlorine Pesticides										
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)	
Aldrin + Dieldrin	µg/L	1	ND	ND	ND	0.01	0.04		J	
Chlordane	µg/L	1	ND	ND	ND	0.01	0.2		J	
Lindane	µg/L	1	ND	ND	ND	0.01	2		J	
Heptachlor	µg/L	1	ND	ND	ND	0.01				
Heptachlor epoxide	µg/L	1	ND	ND	ND	0.01				
Hexachlorobenzene	µg/L	1	ND	ND	ND	0.1				
Methoxychlor	µg/L	1	ND	ND	ND	0.2	20		J	
Permethrin (cis + trans)	µg/L	1	ND	ND	ND	0.2				
pp-DDT	µg/L	1	ND	ND	ND	0.2	1		J	
Procymidone	µg/L	1	ND	ND	ND	0.2	700		J	
Organonitrogen Herbicides										
Alachlor	µg/L	1	ND	ND	ND	0.2	20		J	
Atrazine	µg/L	1	ND	ND	ND	0.1	2		J	
Metolachlor	µg/L	1	ND	ND	ND	0.1	10		J	
Molinate	µg/L	1	ND	ND	ND	0.1	7		J	
Pe0.00imethalin	µg/L	1	ND	ND	ND	0.2	20		J	
Propanil	µg/L	1	ND	ND	ND	0.1				
Simazine	µg/L	1	ND	ND	ND	0.1	2		J	
Terbutylazine	µg/L	1	ND	ND	ND	0.2	8		J	
Trifluralin	µg/L	1	ND	ND	ND	0.2	30		J	
Organophosphorus pesticides										
Chlorpyrifos	µg/L	1	ND	ND	ND	0.2	40		J	
Diazinon	µg/L	1	ND	ND	ND	0.1				
Pirymiphos methyl	µg/L	1	ND	ND	ND	0.2	100		J	

Trace Elements										
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)	
Antimony	mg/L	1	ND	ND	ND	0.001	0.02		J	
Arsenic	mg/L	12	0.0048	0.0042	0.0045	0.0001	0.01		J	
Barium	mg/L	1	ND	ND	ND	0.0002	0.7		J	
Boron	mg/L	1	0.016	0.016	0.016	0.005	1.4		J	
Cadmium	mg/L	1	ND	ND	ND	0.00005	0.004		J	
Chromium	mg/L	1	0.0005	0.0005	0.0005	0.0001	0.05		J	
Copper	mg/L	1	ND	ND	ND	0.0002	2		J	
Lead	mg/L	1	ND	ND	ND	0.0001	0.01		J	
Lithium	mg/L	1	0.0094	0.0094	0.0094	0.0001				
Mercury	mg/L	1	ND	ND	ND	0.00005	0.007		J	
Molybdenum	mg/L	1	ND	ND	ND	0.0003	0.07		J	
Nickel	mg/L	1	ND	ND	ND	0.0001	0.08		J	
Selenium	mg/L	1	ND	ND	ND	0.0005	0.01		J	
Zinc	mg/L	1	0.013	0.013	0.013	0.001		1.5		

Trihalomethanes										
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)	
Bromodichloromethane	mg/L	1	ND	ND	ND	0.0001	0.06		J	
Bromoform	mg/L	1	ND	ND	ND	0.0001	0.1		J	
Chloroform	mg/L	1	ND	ND	ND	0.0001	0.4		J	
Dibromochloromethane	mg/L	1	ND	ND	ND	0.0001	0.15		J	
THMs Ratio		1	ND	ND	ND		1		J	

Volatile Organic Compounds

Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
1,1,1-trichloroethane	mg/L	1	ND	ND	ND	0.0001			
1,2,3-trichlorobenzene	mg/L	1	ND	ND	ND	0.0001			
1,2,4-trichlorobenzene	mg/L	1	ND	ND	ND	0.0001			
1,2-dichlorobenzene	mg/L	1	ND	ND	ND	0.0001	1.5	0.001	✓
1,2-dichloroethane	mg/L	1	ND	ND	ND	0.0001	0.03		✓
1,4-dichlorobenzene	mg/L	1	ND	ND	ND	0.0001	0.4	0.0003	✓
Benzene	mg/L	1	ND	ND	ND	0.0001	0.01		✓
Carbon tetrachloride	mg/L	1	ND	ND	ND	0.0001			
Ethylbenzene	mg/L	1	ND	ND	ND	0.0001	0.3	0.002	✓
m- & p-Xylene	mg/L	1	ND	ND	ND	0.0001	0.6		✓
Styrene	mg/L	1	ND	ND	ND	0.0001	0.004	0.004	✓
Tetrachloroethene	mg/L	1	ND	ND	ND	0.0001	0.05		✓
Toluene	mg/L	1	ND	ND	ND	0.0001	0.8	0.03	✓
1,2-dichloroethene (cis + trans)	mg/L	1	ND	ND	ND	0.0001	0.06		✓
Trichloroethene	mg/L	1	ND	ND	ND	0.0001	0.02		✓

Helensville WTP Treated Water

Acidic Herbicides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
2,4,5- trichlorophenoxyacetic acid (2,4,5-T)	mg/L	4	ND	ND	ND	0.0001			
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/L	4	ND	ND	ND	0.0001			
4-(2,4-dichlorophenoxy) butanoic acid (2,4-DB)	mg/L	4	ND	ND	ND	0.0001			
Bentazone	mg/L	4	ND	ND	ND	0.0001			
Dichlorprop	mg/L	4	ND	ND	ND	0.0001	0.1		J
MCPA	mg/L	4	ND	ND	ND	0.0001	0.002		J
Mecoprop	mg/L	4	ND	ND	ND	0.0001	0.01		J
Picloram	mg/L	4	ND	ND	ND	0.0001	0.2		J
Triclopyr	mg/L	4	ND	ND	ND	0.0001	0.1		J

Chemical and Physical									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Alkalinity (Total)	mg/L CaCO ₃	12	110	45	75	1			
Aluminium	mg/L	12	0.02	0.02	0.02	0.005		0.1	
Calcium	mg/L	1	11.0	11.0	11.0	0.01			
Calcium Hardness	mg/L	1	28	28	28	0.025			
Chlorine Residual	mg/L	122	1.96	0.89	1.39	0.02	5	0.6-1.0	J
Colour	Hazen Units	12	ND	ND	ND	5		10	
Conductivity	mS/cm	12	55.5	36.7	45.7	0.5			
Fluoride	mg/L	12	0.08	0.03	0.05	0.02	1.5		J
Iron (Total)	mg/L	1	ND	ND	ND	0.002		0.2	
Magnesium	mg/L	1	9.7	9.7	9.7	0.001			
Magnesium Hardness	mg/L	1	40	40	40	0.0041			
Manganese	mg/L	1	0.0040	0.0040	0.0040	0.0005	0.4	0.04	J
pH	pH Units	122	7.90	6.90	7.25	0.1		7.0-8.5	
Sulphate	mg/L	12	64.00	35.00	48.33	0.02		250	
Suspended Solids	mg/L	1	0.20	0.20	0.20	0.2			
Total Dissolved Solids	mg/L	1	230	230	230	15		1000	
Total Hardness	mg/L	1	68.0	68.0	68.0	0.029		200	
Turbidity	NTU	122	0.3	0.1	0.1	0.1		2.5	

Microbiology									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
<i>E. coli</i>	MPN/100mL	122	ND	ND	ND	1	<1		J

Plasticizers									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
bis (2-ethylhexyl) adipate	µg/L	1	ND	ND	ND	2			
bis (2-ethylhexyl) phthalate	µg/L	1	ND	ND	ND	2	9		J

Polycyclic Aromatic Hydrocarbons									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Benzo(a)pyrene	µg/L	1	ND	ND	ND	0.1	0.7		J

Semi Volatile Organic Compounds									
Organochlorine Pesticides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Aldrin + Dieldrin	µg/L	4	ND	ND	ND	0.01	0.04		J
Chlordane	µg/L	4	ND	ND	ND	0.01	0.2		J
Lindane	µg/L	4	ND	ND	ND	0.01	2		J
Heptachlor	µg/L	4	ND	ND	ND	0.01			
Heptachlor epoxide	µg/L	4	ND	ND	ND	0.01			
Hexachlorobenzene	µg/L	4	ND	ND	ND	0.1			
Methoxychlor	µg/L	4	ND	ND	ND	0.2	20		J
Permethrin (cis + trans)	µg/L	4	ND	ND	ND	0.2			
pp-DDT	µg/L	4	ND	ND	ND	0.2	1		J
Procymidone	µg/L	4	ND	ND	ND	0.2	700		J
Organonitrogen Herbicides									
Alachlor	µg/L	4	ND	ND	ND	0.2	20		J
Atrazine	µg/L	4	ND	ND	ND	0.1	2		J
Metolachlor	µg/L	4	ND	ND	ND	0.1	10		J
Molinate	µg/L	4	ND	ND	ND	0.1	7		J
Pendimethalin	µg/L	4	ND	ND	ND	0.2	20		J
Propanil	µg/L	4	ND	ND	ND	0.1			
Simazine	µg/L	4	ND	ND	ND	0.1	2		J
Terbutylazine	µg/L	4	ND	ND	ND	0.2	8		J
Trifluralin	µg/L	4	ND	ND	ND	0.2	30		J
Organophosphorus pesticides									
Chlorpyrifos	µg/L	4	ND	ND	ND	0.2	40		J
Diazinon	µg/L	4	ND	ND	ND	0.1			
Pyrimiphos methyl	µg/L	4	ND	ND	ND	0.2	100		J

Trihalomethanes									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Bromodichloromethane	mg/L	12	0.0240	0.0067	0.0127	0.0001	0.06		J
Bromoform	mg/L	12	0.0110	ND	0.0046	0.0001	0.1		J
Chloroform	mg/L	12	0.0190	0.0020	0.0097	0.0001	0.4		J
Dibromochloromethane	mg/L	12	0.0200	0.0050	0.0131	0.0001	0.15		J
THMs Ratio		12	0.63	0.19	0.37		1		J

Volatile Organic Compounds									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
1,1,1-trichloroethane	mg/L	1	ND	ND	ND	0.0001			
1,2,3-trichlorobenzene	mg/L	1	ND	ND	ND	0.0001			
1,2,4-trichlorobenzene	mg/L	1	ND	ND	ND	0.0001			
1,2-dichlorobenzene	mg/L	1	ND	ND	ND	0.0001	1.5	0.001	J
1,2-dichloroethane	mg/L	1	ND	ND	ND	0.0001	0.03		J
1,4-dichlorobenzene	mg/L	1	ND	ND	ND	0.0001	0.4	0.0003	J
Benzene	mg/L	1	ND	ND	ND	0.0001	0.01		J
Carbon tetrachloride	mg/L	1	ND	ND	ND	0.0001			
Ethylbenzene	mg/L	1	ND	ND	ND	0.0001	0.3	0.002	J
m- & p-Xylene	mg/L	1	ND	ND	ND	0.0001	0.6		J
Styrene	mg/L	1	ND	ND	ND	0.0001	0.004	0.004	J
Tetrachloroethene	mg/L	1	ND	ND	ND	0.0001	0.05		J
Toluene	mg/L	1	ND	ND	ND	0.0001	0.8	0.03	J
1,2-dichloroethene (cis + trans)	mg/L	1	ND	ND	ND	0.0001	0.06		J
Trichloroethene	mg/L	1	ND	ND	ND	0.0001	0.02		J

Huia WTP Treated Water

Acidic Herbicides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
2,4,5- trichlorophenoxyacetic acid (2,4,5-T)	mg/L	13	ND	ND	ND	0.0001			
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/L	13	ND	ND	ND	0.0001			
4-(2,4-dichlorophenoxy) butanoic acid (2,4-DB)	mg/L	13	ND	ND	ND	0.0001			
Bentazone	mg/L	13	ND	ND	ND	0.0001			
Dichlorprop	mg/L	13	ND	ND	ND	0.0001	0.1		J
MCPA	mg/L	13	ND	ND	ND	0.0001	0.002		J
Mecoprop	mg/L	13	ND	ND	ND	0.0001	0.01		J
Picloram	mg/L	13	ND	ND	ND	0.0001	0.2		J
Triclopyr	mg/L	13	ND	ND	ND	0.0001	0.1		J

Chemical and Physical									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
UV absorbance	Abs units	52	0.022	0.007	0.015	0.002			
Alkalinity (Total)	mg/L CaCO ₃	52	27	13	18	1			
Aluminium	mg/L	52	0.036	0.018	0.023	0.005		0.1	
Bromate	mg/L	13	ND	ND	ND	0.005	0.01		J
Bromide	mg/L	13	0.05	0.01	0.03	0.01			
Calcium	mg/L	52	11.0	8.0	9.7	0.01			
Calcium Hardness	mg/L	52	28.00	20.00	24.16	0.025			
Chlorate	mg/L	13	ND	ND	ND	0.01	0.8		J
Chloride	mg/L	13	23.00	21.00	22.08	0.02		250	
Chlorine Residual	mg/L	366	1.25	0.69	0.94	0.02	5	0.6-1.0	J
Chlorite	mg/L	13	ND	ND	ND	0.005	0.8		J
Colour	Hazen Units	52	ND	ND	ND	5		10	
Conductivity	mS/cm	52	16.5	14.1	15.5	0.5			
Cyanide	mg/L	4	ND	ND	ND	0.005	0.6		J
Fluoride	mg/L	52	1.20	0.59	0.87	0.02	1.5		J
Iodide	mg/L	4	0.002	ND	0.001	0.002			
Iron (Total)	mg/L	52	0.024	0.009	0.012	0.002		0.2	
Magnesium	mg/L	52	3.2	2.1	2.7	0.001			
Magnesium Hardness	mg/L	52	13	9	11	0.0041			
Manganese	mg/L	52	0.0092	0.0014	0.0032	0.0005	0.4	0.04	J
pH	pH Units	366	8.4	7.0	7.8	0.1		7.0-8.5	
Potassium	mg/L	13	0.9	0.7	0.8	0.1			
Silicon	mg/L	13	16.0	11.0	14.5	0.1			
Sodium	mg/L	13	14.0	11.0	12.7	0.1		200	
Sulphate	mg/L	13	16.00	14.00	15.08	0.02		250	
Suspended Solids	mg/L	53	10.00	ND	0.49	0.2			
Total Hardness	mg/L	52	40	29	35	0.029		200	
Total Organic Carbon TOC	mg/L	52	1.7	0.8	1.1	0.1			
Turbidity	NTU	366	9.7	0.1	0.4	0.1		2.5	

Microbiology									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
<i>E.coli</i>	MPN/100mL	365*	ND	ND	ND	1	<1		J

* In 2015/16 one *E.coli* sampe from the Huia WTP was not included due to error in the sampling process; all disinfection processes on the affected day at the treatment plant have been confirmed as satisfactory.

Nutrients									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Ammonia	mg/L N	13	0.021	ND	0.002	0.005		1.5	
Dissolved Reactive Phosphorus	mg/L	13	0.010	0.007	0.009	0.005			
Nitrate	mg/L as NO ₃	13	0.035	0.016	0.024	0.002	50		J
Nitrite	mg/L	13	0.002	ND	ND	0.002	0.20		J
TKN (Total Kjeldahl Nitrogen)	mg/L N	13	ND	ND	ND	0.1			
Total Phosphorus	mg/L	13	0.021	0.006	0.011	0.005			

Plasticizers									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
bis (2-ethylhexyl) adipate	µg/L	1	ND	ND	ND	2			
bis (2-ethylhexyl) phthalate	µg/L	1	ND	ND	ND	2	9		J

Polycyclic Aromatic Hydrocarbons									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Benzo(a)pyrene	µg/L	1	ND	ND	ND	0.1	0.7		J

Semi Volatile Organic Compounds									
Organochlorine Pesticides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Aldrin + Dieldrin	µg/L	1	ND	ND	ND	0.01	0.04		J
Chlordane	µg/L	1	ND	ND	ND	0.01	0.2		J
Lindane	µg/L	1	ND	ND	ND	0.01	2		J
Heptachlor	µg/L	1	ND	ND	ND	0.01			
Heptachlor epoxide	µg/L	1	ND	ND	ND	0.01			
Hexachlorobenzene	µg/L	1	ND	ND	ND	0.1			
Methoxychlor	µg/L	1	ND	ND	ND	0.2	20		J
Permethrin (cis + trans)	µg/L	1	ND	ND	ND	0.2			
DDT + isomers	µg/L	1	ND	ND	ND	0.2	1		J
Procyimidone	µg/L	1	ND	ND	ND	0.2	700		J
Organonitrogen Herbicides									
Alachlor	µg/L	1	ND	ND	ND	0.2	20		J
Atrazine	µg/L	1	ND	ND	ND	0.1	2		J
Metolachlor	µg/L	1	ND	ND	ND	0.1	10		J
Molinate	µg/L	1	ND	ND	ND	0.1	7		J
Pendimethalin	µg/L	1	ND	ND	ND	0.2	20		J
Propanil	µg/L	1	ND	ND	ND	0.1			
Simazine	µg/L	1	ND	ND	ND	0.1	2		J
Terbuthilazine	µg/L	1	ND	ND	ND	0.2	8		J
Trifluralin	µg/L	1	ND	ND	ND	0.2	30		J
Organophosphorus Pesticides									
Chlorpyrifos	µg/L	1	ND	ND	ND	0.2	40		J
Diazinon	µg/L	1	ND	ND	ND	0.1			
Pirimiphos methyl	µg/L	1	ND	ND	ND	0.2	100		J

Trace Elements									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Antimony	mg/L	13	ND	ND	ND	0.001	0.02		J
Arsenic	mg/L	13	0.0002	ND	0.0001	0.0001	0.01		J
Barium	mg/L	13	0.0048	0.0038	0.0044	0.0002	0.7		J
Boron	mg/L	13	0.012	ND	0.001	0.005	1.4		J
Cadmium	mg/L	13	ND	ND	ND	0.00005	0.004		J
Chromium	mg/L	13	0.0006	ND	0.0003	0.0001	0.05		J
Copper	mg/L	13	0.0030	0.0009	0.0016	0.0002	2		J
Lead	mg/L	13	ND	ND	ND	0.0001	0.01		J
Lithium	mg/L	13	0.0007	ND	0.0005	0.0001			
Mercury	mg/L	13	ND	ND	ND	0.00005	0.007		J
Molybdenum	mg/L	13	ND	ND	ND	0.0003	0.07		J
Nickel	mg/L	13	0.0002	ND	0.0001	0.0001	0.08		J
Selenium	mg/L	13	ND	ND	ND	0.0005	0.01		J
Zinc	mg/L	13	0.005	ND	0.001	0.001		1.5	

Trihalomethanes									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Bromodichloromethane	mg/L	52	0.0190	0.0025	0.0062	0.0001	0.06		J
Bromoform	mg/L	52	0.0046	ND	0.0023	0.0001	0.1		J
Chloroform	mg/L	52	0.0170	ND	0.0039	0.0001	0.4		J
Dibromochloromethane	mg/L	52	0.0180	0.0016	0.0067	0.0001	0.15		J
THMs Ratio		52	0.48	0.06	0.18		1		J

Volatile Organic Compounds

Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
1,1,1-trichloroethane	mg/L	1	ND	ND	ND	0.0001			
1,2,3-trichlorobenzene	mg/L	1	ND	ND	ND	0.0001			
1,2,4-trichlorobenzene	mg/L	1	ND	ND	ND	0.0001			
1,2-dichlorobenzene	mg/L	1	ND	ND	ND	0.0001	1.5	0.001	✓
1,2-dichloroethane	mg/L	1	ND	ND	ND	0.0001	0.03		✓
1,4-dichlorobenzene	mg/L	1	ND	ND	ND	0.0001	0.4	0.0003	✓
Benzene	mg/L	1	ND	ND	ND	0.0001	0.01		✓
Carbon tetrachloride	mg/L	1	ND	ND	ND	0.0001			
Ethylbenzene	mg/L	1	ND	ND	ND	0.0001	0.3	0.002	✓
Xylenes (total)	mg/L	1	ND	ND	ND	0.0001	0.6	0.02	✓
Styrene	mg/L	1	ND	ND	ND	0.0001	0.03	0.004	✓
Tetrachloroethene	mg/L	1	ND	ND	ND	0.0001	0.05		✓
Toluene	mg/L	1	ND	ND	ND	0.0001	0.8	0.03	✓
1,2-dichloroethene (cis + trans)	mg/L	1	ND	ND	ND	0.0001	0.06		✓
Trichloroethene	mg/L	1	ND	ND	ND	0.0001	0.02		✓

Huia Village WTP Treated Water

Chemical and Physical									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Calcium	mg/L	13	6.1	4.8	5.3	0.01			
Calcium Hardness	mg/L	13	15	12	13	0.025			
Chlorine Residual	mg/L	122	1.47	0.56	0.98	0.02	5	0.6-1.0	J
Iron (Total)	mg/L	1	ND	ND	ND	0.002		0.2	
Magnesium	mg/L	13	3.3	2.6	3.1	0.001			
Magnesium Hardness	mg/L	13	14	11	13	0.0041			
Manganese	mg/L	1	ND	ND	ND	0.0005	0.4	0.04	J
pH	pH Units	122	8.3	7.6	7.9	0.1		7.0-8.5	
Total Hardness	mg/L	13	29	23	26	0.1		200	
Total Organic Carbon TOC	mg/L	13	1.5	0.9	1.2	0.1			
Turbidity	NTU	122	0.3	ND	0.1	0.10		2.5	

Microbiology									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
<i>E. coli</i>	MPN/100mL	122	ND	ND	ND	1	<1		J

Trihalomethanes									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Bromodichloromethane	mg/L	13	0.0110	0.0033	0.0068	0.0001	0.06		J
Bromoform	mg/L	13	0.0040	0.0010	0.0025	0.0001	0.1		J
Chloroform	mg/L	13	0.0059	0.0014	0.0037	0.0001	0.4		J
Dibromochloromethane	mg/L	13	0.0100	0.0047	0.0077	0.0001	0.15		J
THMs Ratio		13	0.29	0.10	0.20		1		J

Muriwai WTP Treated Water

Chemical and Physical									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Calcium	mg/L	1	7.6	7.6	7.6	0.01			
Calcium Hardness	mg/L	1	19	19	19	0.025			
Chlorine Residual	mg/L	122	1.34	0.50	0.84	0.02	5	0.6-1.0	J
Iron (Total)	mg/L	1	0.006	0.006	0.006	0.002		0.2	
Magnesium	mg/L	1	6.1	6.1	6.1	0.001			
Magnesium Hardness	mg/L	1	25	25	25	0.0041			
Manganese	mg/L	1	0.0019	0.0019	0.0019	0.0005	0.4	0.04	J
pH	pH Units	122	7.8	7.2	7.5	0.1		7.0-8.5	
Total Hardness	mg/L	1	44	44	44	0.029		200	
Total Organic Carbon TOC	mg/L	12	0.6	ND	0.2	0.1			
Turbidity	NTU	122	0.3	ND	0.1	0.1		2.5	

Microbiology									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
<i>E. coli</i>	MPN/100mL	122	ND	ND	ND	1	<1		J

Trihalomethanes									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Bromodichloromethane	mg/L	12	0.0022	ND	0.0003	0.0001	0.06		J
Bromoform	mg/L	12	0.0031	0.0011	0.0022	0.0001	0.1		J
Chloroform	mg/L	12	ND	ND	ND	0.0001	0.4		J
Dibromochloromethane	mg/L	12	0.0100	ND	0.0020	0.0001	0.15		J
THMs Ratio		12	0.11	0.01	0.04		1		J

Onehunga WTP Treated Water

Acidic Herbicides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
2,4,5- trichlorophenoxyacetic acid (2,4,5-T)	mg/L	13	ND	ND	ND	0.0001			
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/L	13	ND	ND	ND	0.0001			
4-(2,4-dichlorophenoxy) butanoic acid (2,4-DB)	mg/L	13	ND	ND	ND	0.0001			
Bentazone	mg/L	13	ND	ND	ND	0.0001			
Dichlorprop	mg/L	13	ND	ND	ND	0.0001	0.1		J
MCPA	mg/L	13	ND	ND	ND	0.0001	0.002		J
Mecoprop	mg/L	13	ND	ND	ND	0.0001	0.01		J
Picloram	mg/L	13	ND	ND	ND	0.0001	0.2		J
Triclopyr	mg/L	13	ND	ND	ND	0.0001	0.1		J

Chemical and Physical									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
UV absorbance	Abs units	52	0.017	0.005	0.009	0.002			
Alkalinity (Total)	mg/L CaCO ₃	52	69	53	60	1			
Aluminium	mg/L	52	0.04	0.02	0.03	0.005		0.1	
Bromate	mg/L	13	ND	ND	ND	0.005	0.01		J
Bromide	mg/L	13	0.09	0.02	0.06	0.01			
Calcium	mg/L	52	11.0	8.0	9.5	0.01			
Calcium Hardness	mg/L	52	27	20	24	0.025			
Chlorate	mg/L	13	0.06	0.03	0.04	0.01	0.8		J
Chloride	mg/L	13	22.00	20.00	20.62	0.02		250	
Chlorine Residual	mg/L	365*	1.35	0.67	0.98	0.02	5	0.6-1.0	J
Chlorite	mg/L	13	ND	ND	ND	0.005	0.8		J
Colour	Hazen Units	52	ND	ND	ND	5		10	
Conductivity	mS/cm	52	32.0	22.6	24.4	0.5			
Cyanide	mg/L	5	ND	ND	ND	0.005	0.6		J
Fluoride	mg/L	52	0.19	0.13	0.17	0.02	1.5		J
Iodide	mg/L	4	0.006	0.002	0.005	0.002			
Iron (Total)	mg/L	52	0.003	ND	0.001	0.002		0.2	
Magnesium	mg/L	52	9.4	6.9	8.2	0.001			
Magnesium Hardness	mg/L	52	39.0	29.0	33.5	0.0041			
Manganese	mg/L	52	ND	ND	ND	0.0005	0.4	0.04	J
pH	pH Units	365*	8.2	7.3	7.9	0.1		7.0-8.5	
Potassium	mg/L	13	3.3	2.7	3.1	0.1			
Silicon	mg/L	13	38.0	31.0	35.1	0.1			
Sodium	mg/L	13	23.0	20.0	21.8	0.1		200	
Sulphate	mg/L	13	14.00	12.00	13.23	0.02		250	
Suspended Solids	mg/L	52	0.20	ND	0.0200	0.2			
Total Hardness	mg/L	52	66	49	58	0.029		200	
Total Organic Carbon TOC	mg/L	52	0.9	0.3	0.5	0.1			
Turbidity	NTU	365*	0.5	ND	0.1	0.1		2.5	

Microbiology									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
<i>E. coli</i>	MPN/100mL	364**	ND	ND	ND	1	<1		J

* In 2015/16 one chlorine residual, pH and turbidity sample was not collected from the Onehunga WTP due to the treatment plant being shut down for maintenance purposes.

** In 2015/16 two *E. coli* samples were not collected from the Onehunga WTP. One *E. coli* sample was not collected due to the treatment plant being shut down for maintenance purposes. The second *E. coli* sample was not included due to error in the sampling process; all disinfection processes on the affected day at the treatment plant have been confirmed as satisfactory.

Nutrients									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Ammonia	mg/L N	13	0.011	ND	0.001	0.005		1.5	
Dissolved Reactive Phosphorus	mg/L	13	0.090	0.050	0.072	0.005			
Nitrate	mg/L as NO ₃	13	3.200	2.800	3.062	0.002	50		J
Nitrite	mg/L	13	0.008	ND	0.001	0.002	0.20		J
TKN (Total Kjeldahl Nitrogen)	mg/L N	13	ND	ND	ND	0.1			
Total Phosphorus	mg/L	13	0.100	0.051	0.077	0.005			

Plasticizers									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
bis (2-ethylhexyl) adipate	µg/L	1	ND	ND	ND	2			
bis (2-ethylhexyl) phthalate	µg/L	1	ND	ND	ND	2	9		J

Polycyclic Aromatic Hydrocarbons									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Benzo(a)pyrene	µg/L	1	ND	ND	ND	0.1	0.7		J

Semi Volatile Organic Compounds									
Organochlorine Pesticides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Aldrin + Dieldrin	µg/L	1	ND	ND	ND	0.01	0.04		J
Chlordane	µg/L	1	ND	ND	ND	0.01	0.2		J
Lindane	µg/L	1	ND	ND	ND	0.01	2		J
Heptachlor	µg/L	1	ND	ND	ND	0.01			
Heptachlor epoxide	µg/L	1	ND	ND	ND	0.01			
Hexachlorobenzene	µg/L	1	ND	ND	ND	0.1			
Methoxychlor	µg/L	1	ND	ND	ND	0.2	20		J
Permethrin (cis + trans)	µg/L	1	ND	ND	ND	0.2			
DDT + isomers	µg/L	1	ND	ND	ND	0.2	1		J
Procymidone	µg/L	1	ND	ND	ND	0.2	700		J
Organonitrogen Herbicides									
Alachlor	µg/L	1	ND	ND	ND	0.2	20		J
Atrazine	µg/L	1	ND	ND	ND	0.1	2		J
Metolachlor	µg/L	1	ND	ND	ND	0.1	10		J
Molinate	µg/L	1	ND	ND	ND	0.1	7		J
Pendimethalin	µg/L	1	ND	ND	ND	0.2	20		J
Propanil	µg/L	1	ND	ND	ND	0.1			
Simazine	µg/L	1	ND	ND	ND	0.1	2		J
Terbutylazine	µg/L	1	ND	ND	ND	0.2	8		J
Trifluralin	µg/L	1	ND	ND	ND	0.2	30		J
Organophosphorus Pesticides									
Chlorpyrifos	µg/L	1	ND	ND	ND	0.2	40		J
Diazinon	µg/L	1	ND	ND	ND	0.1			
Pirymiphos methyl	µg/L	1	ND	ND	ND	0.2	100		J

Trace Elements									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Antimony	mg/L	13	ND	ND	ND	0.001	0.02		J
Arsenic	mg/L	13	0.0003	0.0002	0.0003	0.0001	0.01		J
Barium	mg/L	13	0.0017	0.0011	0.0015	0.0002	1.4		J
Boron	mg/L	12*	0.059	0.031	0.044	0.005	0.7		J
Cadmium	mg/L	13	ND	ND	ND	0.00005	0.004		J
Chromium	mg/L	13	0.0012	0.0006	0.0009	0.0001	0.05		J
Copper	mg/L	13	0.0042	0.0016	0.0026	0.0002	2		J
Lead	mg/L	13	ND	ND	ND	0.0001	0.01		J
Lithium	mg/L	13	0.0008	ND	0.0004	0.0001			
Mercury	mg/L	13	ND	ND	ND	0.00005	0.007		J
Molybdenum	mg/L	13	0.0011	0.0008	0.0009	0.0003	0.07		J
Nickel	mg/L	13	0.0003	ND	0.0001	0.0001	0.08		J
Selenium	mg/L	13	0.0006	ND	0.0003	0.0005	0.01		J
Zinc	mg/L	13	0.004	ND	0.001	0.001		1.5	

* In November 2015 one Boron sample from the Onehunga WTP was not tested due to an issue with the Boron test experienced at the laboratory.

Trihalomethanes									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Bromodichloromethane	mg/L	52	0.0025	ND	0.0006	0.0001	0.06		✓
Bromoform	mg/L	52	0.0033	ND	0.0018	0.0001	0.1		✓
Chloroform	mg/L	52	0.0014	ND	0.0001	0.0001	0.4		✓
Dibromochloromethane	mg/L	52	0.0033	ND	0.0016	0.0001	0.15		✓
THMs Ratio		52	0.08	ND	0.03		1		✓

Volatile Organic Compounds									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
1,1,1-trichloroethane	mg/L	1	ND	ND	ND	0.0001			
1,2,3-trichlorobenzene	mg/L	1	ND	ND	ND	0.0001			
1,2,4-trichlorobenzene	mg/L	1	ND	ND	ND	0.0001			
1,2-dichlorobenzene	mg/L	1	ND	ND	ND	0.0001	1.5	0.001	✓
1,2-dichloroethane	mg/L	1	ND	ND	ND	0.0001	0.03		✓
1,4-dichlorobenzene	mg/L	1	ND	ND	ND	0.0001	0.4	0.0003	✓
Benzene	mg/L	1	ND	ND	ND	0.0001	0.01		✓
Carbon tetrachloride	mg/L	1	ND	ND	ND	0.0001			
Ethylbenzene	mg/L	1	ND	ND	ND	0.0001	0.3	0.002	✓
Xylenes (total)	mg/L	1	ND	ND	ND	0.0001	0.6	0.02	✓
Styrene	mg/L	1	ND	ND	ND	0.0001	0.03	0.004	✓
Tetrachloroethene	mg/L	1	ND	ND	ND	0.0001	0.05		✓
Toluene	mg/L	1	ND	ND	ND	0.0001	0.8	0.03	✓
1,2-dichloroethene (cis + trans)	mg/L	1	ND	ND	ND	0.0001	0.06		✓
Trichloroethene	mg/L	1	ND	ND	ND	0.0001	0.02		✓

Snells/Algies WTP Treated Water

Chemical and Physical									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Alkalinity (Total)	mg/L CaCO ₃	1	200	200	200	1			
Aluminium	mg/L	1	ND	ND	ND	0.005		0.1	
Bromate	mg/L	1	ND	ND	ND	0.005	0.01		J
Bromide	mg/L	1	0.03	0.03	0.03	0.01			
Calcium	mg/L	1	3.6	3.6	3.6	0.01			
Calcium Hardness	mg/L	1	9	9	9	0.025			
Chlorate	mg/L	1	ND	ND	ND	0.01	0.8		J
Chloride	mg/L	1	38.00	38.00	38.00	0.02		250	
Chlorine Residual	mg/L	122	1.77	0.71	1.07	0.02	5	0.6-1.0	J
Chlorine	mg/L	1	ND	ND	ND	0.005	0.8		J
Colour	Hazen Units	1	ND	ND	ND	5		10	
Conductivity	mS/cm	1	50.4	50.4	50.4	0.5			
Fluoride	mg/L	1	0.12	0.12	0.12	0.02	1.5		J
Iodide	mg/L	1	0.015	0.015	0.015	0.002			
Iron (Total)	mg/L	1	0.003	0.003	0.003	0.002		0.2	
Magnesium	mg/L	1	0.3	0.3	0.3	0.001			
Magnesium Hardness	mg/L	1	1	1	1	0.0041			
Manganese	mg/L	1	0.0012	0.0012	0.0012	0.0005	0.4	0.04	J
pH	pH Units	122	8.5	8.3	8.4	0.1		7.0-8.5	
Potassium	mg/L	1	0.3	0.3	0.3	0.1			
Silicon	mg/L	1	49.0	49.0	49.0	0.1			
Sodium	mg/L	1	120.0	120.0	120.0	0.1		200	
Sulphate	mg/L	1	4.10	4.10	4.10	0.02		250	
Suspended Solids	mg/L	1	ND	ND	ND	0.2			
Total Dissolved Solids	mg/L	1	330	330	330	15		1000	
Total Hardness	mg/L	1	10	10	10	0.029		200	
Total Organic Carbon TOC	mg/L	12	1.9	0.5	0.8	0.1			
Turbidity	NTU	122	0.5	ND	0.1	0.1		2.5	

Microbiology									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
<i>E. coli</i>	MPN/100mL	122	ND	ND	ND	1	<1		J

Nutrients									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Ammonia	mg/L N	1	ND	ND	ND	0.005		1.5	
Dissolved Reactive Phosphorus	mg/L	1	0.093	0.093	0.093	0.005			
Nitrate	mg/L as NO ₃	1	0.009	0.009	0.009	0.002	50		J
Nitrite	mg/L	1	ND	ND	ND	0.002	0.20		J
TKN (Total Kjeldahl Nitrogen)	mg/L N	1	0.11	0.11	0.11	0.1			
Total Phosphorus	mg/L	1	0.140	0.140	0.140	0.005			

Plasticizers									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
bis (2-ethylhexyl) adipate	µg/L	1	ND	ND	ND	2			
bis (2-ethylhexyl) phthalate	µg/L	1	ND	ND	ND	2	9		J

Polycyclic Aromatic Hydrocarbons									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Benzo(a)pyrene	µg/L	1	ND	ND	ND	0.1	0.7		J

Semi Volatile Organic Compounds									
Organochlorine Pesticides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Aldrin + Dieldrin	µg/L	1	ND	ND	ND	0.01	0.04		J
gamma-Chlordan	µg/L	1	ND	ND	ND	0.01			
Lindane	µg/L	1	ND	ND	ND	0.01	2		J
Heptachlor	µg/L	1	ND	ND	ND	0.01			
Heptachlor epoxide	µg/L	1	ND	ND	ND	0.01			
Hexachlorobenzene	µg/L	1	ND	ND	ND	0.1			
Methoxychlor	µg/L	1	ND	ND	ND	0.2	20		J
Permethrin (cis + trans)	µg/L	1	ND	ND	ND	0.2			
DDT + isomers	µg/L	1	ND	ND	ND	0.2	1		J
Procyimdone	µg/L	1	ND	ND	ND	0.2	700		J
Organonitrogen Herbicides									
Alachlor	µg/L	1	ND	ND	ND	0.2	20		J
Atrazine	µg/L	1	ND	ND	ND	0.1	2		J
Metolachlor	µg/L	1	ND	ND	ND	0.1	10		J
Molinate	µg/L	1	ND	ND	ND	0.1	7		J
Pendimethalin	µg/L	1	ND	ND	ND	0.2	20		J
Propanil	µg/L	1	ND	ND	ND	0.1			
Simazine	µg/L	1	ND	ND	ND	0.1	2		J
Terbuthilazine	µg/L	1	ND	ND	ND	0.2	8		J
Trifluralin	µg/L	1	ND	ND	ND	0.2	30		J
Organophosphorus Pesticides									
Chlorpyrifos	µg/L	1	ND	ND	ND	0.2	40		J
Diazinon	µg/L	1	ND	ND	ND	0.1			
Pirymiphos methyl	µg/L	1	ND	ND	ND	0.2	100		J

Trace Elements									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Antimony	mg/L	1	ND	ND	ND	0.001	0.02		J
Arsenic	mg/L	1	ND	ND	ND	0.0001	0.01		J
Barium	mg/L	1	0.0002	0.0002	0.0002	0.0002	0.7		J
Boron	mg/L	1	0.160	0.160	0.160	0.005	1.4		J
Cadmium	mg/L	1	ND	ND	ND	0.00005	0.004		J
Chromium	mg/L	1	0.0004	0.0004	0.0004	0.0001	0.05		J
Copper	mg/L	1	0.0008	0.0008	0.0008	0.0002	2		J
Lead	mg/L	1	ND	ND	ND	0.0001	0.01		J
Lithium	mg/L	1	0.0240	0.0240	0.0240	0.0001			
Mercury	mg/L	1	ND	ND	ND	0.00005	0.007		J
Molybdenum	mg/L	1	ND	ND	ND	0.0003	0.07		J
Nickel	mg/L	1	ND	ND	ND	0.0001	0.08		J
Selenium	mg/L	1	ND	ND	ND	0.0005	0.01		J
Zinc	mg/L	1	0.004	0.004	0.004	0.001		1.5	

Trihalomethanes									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Bromodichloromethane	mg/L	1	ND	ND	ND	0.0001	0.06		J
Bromoform	mg/L	1	ND	ND	ND	0.0001	0.1		J
Chloroform	mg/L	1	0.0007	0.0007	0.0007	0.0001	0.4		J
Dibromochloromethane	mg/L	1	0.0010	0.0010	0.0010	0.0001	0.15		J
THMs Ratio		1	0.01	0.01	0.01		1		J

Volatile Organic Compounds

Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
1,1,1-trichloroethane	mg/L	1	ND	ND	ND	0.0001			
1,2,3-trichlorobenzene	mg/L	1	ND	ND	ND	0.0001			
1,2,4-trichlorobenzene	mg/L	1	ND	ND	ND	0.0001			
1,2-dichlorobenzene	mg/L	1	ND	ND	ND	0.0001	1.5	0.001	✓
1,2-dichloroethane	mg/L	1	ND	ND	ND	0.0001	0.03		✓
1,4-dichlorobenzene	mg/L	1	ND	ND	ND	0.0001	0.4	0.0003	✓
Benzene	mg/L	1	ND	ND	ND	0.0001	0.01		✓
Carbon tetrachloride	mg/L	1	ND	ND	ND	0.0001			
Ethylbenzene	mg/L	1	ND	ND	ND	0.0001	0.3	0.002	✓
Xylene	mg/L	1	ND	ND	ND	0.0001	0.6	0.02	✓
Styrene	mg/L	1	ND	ND	ND	0.0001	0.03	0.004	✓
Tetrachloroethene	mg/L	1	ND	ND	ND	0.0001	0.05		✓
Toluene	mg/L	1	ND	ND	ND	0.0001	0.8	0.03	✓
1,2-dichloroethene (cis + trans)	mg/L	1	ND	ND	ND	0.0001	0.06		✓
Trichloroethene	mg/L	1	ND	ND	ND	0.0001	0.02		✓

Victoria Avenue (Waiuku) WTP Treated Water

Chemical and Physical									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Alkalinity (Total)	mg/L CaCO ₃	1	130	130	130	1			
Aluminium	mg/L	1	ND	ND	ND	0.005		0.1	
Bromate	mg/L	1	ND	ND	ND	0.005	0.01		J
Bromide	mg/L	1	0.03	0.03	0.03	0.01			
Calcium	mg/L	1	29.0	29.0	29.0	0.01			
Calcium Hardness	mg/L	1	73	73	73	0.025			
Chlorate	mg/L	1	0.01	0.01	0.01	0.01	0.8		J
Chloride	mg/L	1	33.00	33.00	33.00	0.02		250	
Chlorine Residual	mg/L	122	1.30	0.53	0.81	0.02	5	0.6-1.0	J
Chlorite	mg/L	1	ND	ND	ND	0.005	0.8		J
Colour	Hazen Units	1	ND	ND	ND	5		10	
Conductivity	mS/cm	1	36.4	36.4	36.4	0.5			
Cyanide	mg/L	1	ND	ND	ND	0.005	0.6		J
Iodide	mg/L	1	0.005	0.005	0.005	0.002			
Iron (Total)	mg/L	12	0.003	ND	0.001	0.002		0.2	
Magnesium	mg/L	1	9.1	9.1	9.1	0.001			
Magnesium Hardness	mg/L	1	37	37	37	0.0041			
Manganese	mg/L	12	0.0023	ND	0.0016	0.0005	0.4	0.04	J
pH	pH Units	122	8.1	7.8	7.9	0.1		7.0-8.5	
Potassium	mg/L	1	3.9	3.9	3.9	0.1			
Silicon	mg/L	1	54.0	54.0	54.0	0.1			
Sodium	mg/L	1	25.0	25.0	25.0	0.1		200	
Sulphate	mg/L	1	4.80	4.80	4.80	0.02		250	
Suspended Solids	mg/L	1	ND	ND	ND	0.2			
Total Dissolved Solids	mg/L	1	240	240	240	15		1000	
Total Hardness	mg/L	1	110.0	110.0	110.0	0.029		200	
Turbidity	NTU	122	0.6	0.1	0.1	0.1		2.5	

Microbiology									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
<i>E.coli</i>	MPN/100mL	122	ND	ND	ND	1	<1		J

Nutrients									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Ammonia	mg/L N	1	ND	ND	ND	0.005		1.5	
Dissolved Reactive Phosphorus	mg/L	1	0.062	0.062	0.062	0.005			
Nitrate	mg/L as NO ₃	1	0.014	0.014	0.014	0.002	50		J
Nitrite	mg/L	1	ND	ND	ND	0.002	0.20		J
TKN (Total Kjeldahl Nitrogen)	mg/L N	1	ND	ND	ND	0.1			
Total Phosphorus	mg/L	1	0.083	0.083	0.083	0.005			

Plasticizers									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
bis (2-ethylhexyl) adipate	µg/L	1	ND	ND	ND	2			
bis (2-ethylhexyl) phthalate	µg/L	1	ND	ND	ND	2	9		J

Polycyclic Aromatic Hydrocarbons									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Benzo(a)pyrene	µg/L	1	ND	ND	ND	0.1	0.7		J

Semi Volatile Organic Compounds									
Organochlorine Pesticides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Aldrin + Dieldrin	µg/L	1	ND	ND	ND	0.01	0.04		J
Chlordane	µg/L	1	ND	ND	ND	0.01	0.2		J
Lindane	µg/L	1	ND	ND	ND	0.01	2		J
Heptachlor	µg/L	1	ND	ND	ND	0.01			
Heptachlor epoxide	µg/L	1	ND	ND	ND	0.01			
Hexachlorobenzene	µg/L	1	ND	ND	ND	0.1			
Methoxychlor	µg/L	1	ND	ND	ND	0.2	20		J
Permethrin (cis + trans)	µg/L	1	ND	ND	ND	0.2			
DDT + isomers	µg/L	1	ND	ND	ND	0.2	1		J
Procyimdone	µg/L	1	ND	ND	ND	0.2	700		J
Organonitrogen Herbicides									
Alachlor	µg/L	1	ND	ND	ND	0.2	20		J
Atrazine	µg/L	1	ND	ND	ND	0.1	2		J
Metolachlor	µg/L	1	ND	ND	ND	0.1	10		J
Molinate	µg/L	1	ND	ND	ND	0.1	7		J
Pendimethalin	µg/L	1	ND	ND	ND	0.2	20		J
Propanil	µg/L	1	ND	ND	ND	0.1			
Simazine	µg/L	1	ND	ND	ND	0.1	2		J
Terbutylazine	µg/L	1	ND	ND	ND	0.2	8		J
Trifluralin	µg/L	1	ND	ND	ND	0.2	30		J
Organophosphorus pesticides									
Chlorpyrifos	µg/L	1	ND	ND	ND	0.2	40		J
Diazinon	µg/L	1	ND	ND	ND	0.1			
Pirymiphos methyl	µg/L	1	ND	ND	ND	0.2	100		J

Trace Elements									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Antimony	mg/L	1	ND	ND	ND	0.001	0.02		J
Arsenic	mg/L	12	0.0051	0.0032	0.0046	0.0001	0.01		J
Barium	mg/L	1	0.0009	0.0009	0.0009	0.0002	0.7		J
Boron	mg/L	1	0.026	0.026	0.026	0.005	1.4		J
Cadmium	mg/L	1	ND	ND	ND	0.00005	0.004		J
Chromium	mg/L	1	0.0003	0.0003	0.0003	0.0001	0.05		J
Copper	mg/L	1	0.0006	0.0006	0.0006	0.0002	2		J
Lead	mg/L	1	0.0001	0.0001	0.0001	0.0001	0.01		J
Lithium	mg/L	1	0.0091	0.0091	0.0091	0.0001			
Mercury	mg/L	1	ND	ND	ND	0.00005	0.007		J
Molybdenum	mg/L	1	0.0003	0.0003	0.0003	0.0003	0.07		J
Nickel	mg/L	1	ND	ND	ND	0.0001	0.08		J
Selenium	mg/L	1	ND	ND	ND	0.0005	0.01		J
Zinc	mg/L	1	0.032	0.032	0.032	0.001		1.5	

Trihalomethanes									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Bromodichloromethane	mg/L	1	ND	ND	ND	0.0001	0.06		J
Bromoform	mg/L	1	0.0023	0.0023	0.0023	0.0001	0.1		J
Chloroform	mg/L	1	ND	ND	ND	0.0001	0.4		J
Dibromochloromethane	mg/L	1	0.0027	0.0027	0.0027	0.0001	0.15		J
THMs Ratio		1	0.04	0.04	0.04		1		J

Volatile Organic Compounds

Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
1,1,1-trichloroethane	mg/L	1	ND	ND	ND	0.0001			
1,2,3-trichlorobenzene	mg/L	1	ND	ND	ND	0.0001			
1,2,4-trichlorobenzene	mg/L	1	ND	ND	ND	0.0001			
1,2-dichlorobenzene	mg/L	1	ND	ND	ND	0.0001	1.5	0.001	✓
1,2-dichloroethane	mg/L	1	ND	ND	ND	0.0001	0.03		✓
1,4-dichlorobenzene	mg/L	1	ND	ND	ND	0.0001	0.4	0.0003	✓
Benzene	mg/L	1	ND	ND	ND	0.0001	0.01		✓
Carbon tetrachloride	mg/L	1	ND	ND	ND	0.0001			
Ethylbenzene	mg/L	1	ND	ND	ND	0.0001	0.3	0.002	✓
Xylenes (total)	mg/L	1	ND	ND	ND	0.0001	0.6	0.02	✓
Styrene	mg/L	1	ND	ND	ND	0.0001	0.03	0.004	✓

Waitakere WTP Treated Water

Acidic Herbicides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
2,4,5- trichlorophenoxyacetic acid (2,4,5-T)	mg/L	13	ND	ND	ND	0.0001			
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/L	13	ND	ND	ND	0.0001			
4-(2,4-dichlorophenoxy) butanoic acid (2,4-DB)	mg/L	13	ND	ND	ND	0.0001			
Bentazone	mg/L	13	ND	ND	ND	0.0001			
Dichlorprop	mg/L	13	ND	ND	ND	0.0001	0.1		J
MCPA	mg/L	13	ND	ND	ND	0.0001	0.002		J
Mecoprop	mg/L	13	ND	ND	ND	0.0001	0.01		J
Picloram	mg/L	13	ND	ND	ND	0.0001	0.2		J
Triclopyr	mg/L	13	ND	ND	ND	0.0001	0.1		J

Chemical and Physical									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
UV absorbance	Abs units	45*	0.025	0.002	0.015	0.002			
Alkalinity (Total)	mg/L CaCO ₃	45*	41	10	16	1			
Aluminium	mg/L	45*	0.03	0.02	0.02	0.005		0.1	
Bromate	mg/L	13	ND	ND	ND	0.005	0.01		J
Bromide	mg/L	13	0.04	0.01	0.03	0.01			
Calcium	mg/L	45*	13.0	8.7	10.6	0.01			
Calcium Hardness	mg/L	45*	33	22	26	0.025			
Chlorate	mg/L	13	0.06	ND	ND	0.01	0.8		J
Chloride	mg/L	13	27.00	16.00	23.85	0.02		250	
Chlorine Residual	mg/L	317*	1.12	0.22	0.87	0.02	5	0.6-1.0	J
Chlorite	mg/L	13	ND	ND	ND	0.005	0.8		J
Colour	Hazen Units	45*	ND	ND	ND	5		10	
Conductivity	mS/cm	45*	18.6	14.8	16.6	0.5			
Cyanide	mg/L	4	ND	ND	ND	0.005	0.6		J
Fluoride	mg/L	45*	1.20	0.71	0.93	0.02	1.5		J
Iodide	mg/L	4	0.003	ND	0.003	0.002			
Iron (Total)	mg/L	45*	0.020	0.009	0.013	0.002		0.2	
Magnesium	mg/L	45*	3.1	2.0	2.6	0.001			
Magnesium Hardness	mg/L	45*	13	8	11	0.0041			
Manganese	mg/L	45*	0.0220	0.0014	0.0036	0.0005	0.4	0.04	J
pH	pH Units	317*	8.1	6.6	7.6	0.1		7.0-8.5	
Potassium	mg/L	13	1.9	0.7	0.9	0.1			
Silicon	mg/L	13	19.0	9.0	14.1	0.1			
Sodium	mg/L	13	15.0	11.0	13.8	0.1		200	
Sulphate	mg/L	13	21.00	14.00	18.08	0.02		250	
Suspended Solids	mg/L	45*	0.20	ND	0.04	0.2			
Total Hardness	mg/L	45*	45.0	31.0	37.2	0.029		200	
Total Organic Carbon TOC	mg/L	45*	1.6	0.8	1.2	0.1			
Turbidity	NTU	317*	0.7	0.1	0.2	0.1		2.5	

Microbiology									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
<i>E.coli</i>	MPN/100mL	317*	ND	ND	ND	1	<1		J

* In 2015/16, 49 chlorine residual, pH, turbidity and *E.coli* samples, and 7 chemical and physical samples were not collected due to the Waitakere WTP being shutdown for maintenance purposes. The Waitakere WTP was shutdown over the first 13 days in July, on 1/12/15 and between 25/05/16 and 28/06/16.

Nutrients									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005
Ammonia	mg/L N	13	0.032	ND	0.005	0.005		1.5	
Dissolved Reactive Phosphorus	mg/L	13	0.016	0.007	0.009	0.005			
Nitrate	mg/L as NO ₃	13	0.620	0.005	0.057	0.002	50		J
Nitrite	mg/L	13	0.003	ND	ND	0.002	0.20		J
TKN (Total Kjeldahl Nitrogen)	mg/L N	13	0.18	ND	0.01	0.1			
Total Phosphorus	mg/L	13	0.032	0.006	0.010	0.005			

Plasticizers									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
bis (2-ethylhexyl) adipate	µg/L	2	ND	ND	ND	2			
bis (2-ethylhexyl) phthalate	µg/L	2	ND	ND	ND	2	9		J

Polycyclic Aromatic Hydrocarbons									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Benzo(a)pyrene	µg/L	2	ND	ND	ND	0	0.7		✓

Semi Volatile Organic Compounds									
Organochlorine Pesticides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Aldrin + Dieldrin	µg/L	2	ND	ND	ND	0.01	0.04		✓
Chlordane	µg/L	2	ND	ND	ND	0.01	0.2		✓
Lindane	µg/L	2	ND	ND	ND	0.01	2		✓
Heptachlor	µg/L	2	ND	ND	ND	0.01			
Heptachlor epoxide	µg/L	2	ND	ND	ND	0.01			
Hexachlorobenzene	µg/L	2	ND	ND	ND	0.1			
Methoxychlor	µg/L	2	ND	ND	ND	0.2	20		✓
Permethrin (cis + trans)	µg/L	2	ND	ND	ND	0.2			
DDT + isomers	µg/L	2	ND	ND	ND	0.2	1		✓
Procymidone	µg/L	2	ND	ND	ND	0.2	700		✓
Organonitrogen Herbicides									
Alachlor	µg/L	2	ND	ND	ND	0.2	20		✓
Atrazine	µg/L	2	ND	ND	ND	0.1	2		✓
Metolachlor	µg/L	2	ND	ND	ND	0.1	10		✓
Molinate	µg/L	2	ND	ND	ND	0.1	7		✓
Pendimethalin	µg/L	2	ND	ND	ND	0.2	20		✓
Propanil	µg/L	2	ND	ND	ND	0.1			
Simazine	µg/L	2	ND	ND	ND	0.1	2		✓
Terbuthilazine	µg/L	2	ND	ND	ND	0.2	8		✓
Trifluralin	µg/L	2	ND	ND	ND	0.2	30		✓
Organophosphorus Pesticides									
Chlorpyrifos	µg/L	2	ND	ND	ND	0.2	40		✓
Diazinon	µg/L	2	ND	ND	ND	0.1			
Pyrimphos methyl	µg/L	2	ND	ND	ND	0.2	100		✓

Trace Elements									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Antimony	mg/L	13	ND	ND	ND	0.001	0.02		✓
Arsenic	mg/L	13	0.0002	ND	0.0001	0.0001	0.01		✓
Barium	mg/L	13	0.0085	0.0052	0.0063	0.0002	0.7		✓
Boron	mg/L	12*	0.052	ND	0.005	0.005	1.4		✓
Cadmium	mg/L	13	ND	ND	ND	0.00005	0.004		✓
Chromium	mg/L	13	0.0006	ND	0.0003	0.0001	0.05		✓
Copper	mg/L	13	0.0049	0.0021	0.0029	0.0002	2		✓
Lead	mg/L	13	ND	ND	ND	0.0001	0.01		✓
Lithium	mg/L	13	0.0120	0.0003	0.0021	0.0001			
Mercury	mg/L	12	ND	ND	ND	0.00005	0.007		✓
Molybdenum	mg/L	13	ND	ND	ND	0.0003	0.07		✓
Nickel	mg/L	13	0.0002	ND	0.00005	0.0001	0.08		✓
Selenium	mg/L	13	ND	ND	ND	0.0005	0.01		✓
Zinc	mg/L	13	0.006	0.002	0.003	0.001		1.5	

* In November 2015 one Boron sample from the Waitakere WTP was not tested due to an issue with the Boron test experienced at the laboratory.

Trihalomethanes									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Bromodichloromethane	mg/L	52	0.0200	0.0030	0.0092	0.0001	0.06		✓
Bromoform	mg/L	52	0.0050	ND	0.0027	0.0001	0.1		✓
Chloroform	mg/L	52	0.0220	0.0020	0.0065	0.0001	0.4		✓
Dibromochloromethane	mg/L	52	0.0160	0.0031	0.0091	0.0001	0.15		✓
THMs Ratio		52	0.48	0.09	0.26		1		✓

Volatile Organic Compounds

Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
1,1,1-trichloroethane	mg/L	2	ND	ND	ND	0.0001			
1,2,3-trichlorobenzene	mg/L	2	ND	ND	ND	0.0001			
1,2,4-trichlorobenzene	mg/L	2	ND	ND	ND	0.0001			
1,2-dichlorobenzene	mg/L	2	ND	ND	ND	0.0001	1.5	0.001	✓
1,2-dichloroethane	mg/L	2	ND	ND	ND	0.0001	0.03		✓
1,4-dichlorobenzene	mg/L	2	ND	ND	ND	0.0001	0.4	0.0003	✓
Benzene	mg/L	2	ND	ND	ND	0.0001	0.01		✓
Carbon tetrachloride	mg/L	2	ND	ND	ND	0.0001			
Ethylbenzene	mg/L	2	ND	ND	ND	0.0001	0.3	0.002	✓
Xylenes (total)	mg/L	2	ND	ND	ND	0.0001	0.6	0.02	✓
Styrene	mg/L	2	ND	ND	ND	0.0001	0.03	0.03	✓
Tetrachloroethene	mg/L	2	ND	ND	ND	0.0001	0.05		✓
Toluene	mg/L	2	ND	ND	ND	0.0001	0.8	0.03	✓
1,2-dichloroethene (cis + trans)	mg/L	2	ND	ND	ND	0.0001	0.06		✓
Trichloroethene	mg/L	2	ND	ND	ND	0.0001	0.02		✓

Waikato WTP Treated Water

Acidic Herbicides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
1080 (Sodium fluoroacetate)	mg/L	2	ND	ND	ND	0.00005	0.0035		J
2,4,5- trichlorophenoxyacetic acid (2,4,5-T)	mg/L	4	ND	ND	ND	0.0001			
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/L	4	ND	ND	ND	0.0001			
4-(2,4-dichlorophenoxy) butanoic acid (2,4-DB)	mg/L	4	ND	ND	ND	0.0001			
Bentazone	mg/L	4	ND	ND	ND	0.0001			
Dichlorprop	mg/L	4	ND	ND	ND	0.0001	0.1		J
MCPA	mg/L	4	ND	ND	ND	0.0001	0.002		J
Mecoprop	mg/L	4	ND	ND	ND	0.0001	0.01		J
Picloram	mg/L	4	ND	ND	ND	0.0001	0.2		J
Triclopyr	mg/L	4	ND	ND	ND	0.0001	0.1		J

Chemical and Physical									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
UV absorbance	Abs units	52	0.036	ND	0.018	0.002			
Alkalinity (Total)	mg/L CaCO ₃	52	54	33	44	1			
Aluminium	mg/L	52	0.057	0.014	0.032	0.005		0.1	
Bromate	mg/L	13	ND	ND	ND	0.005	0.01		J
Bromide	mg/L	13	0.025	ND	0.007	0.01			
Calcium	mg/L	53	22.0	11.0	16.6	0.01			
Calcium Hardness	mg/L	52	54	28	42	0.025			
Chlorate	mg/L	13	0.26	0.12	0.16	0.01	0.8		J
Chloride	mg/L	13	21.00	17.00	19.46	0.02		250	
Chlorine Residual	mg/L	366	1.71	0.41	1.18	0.02	5	0.6-1.0	J
Chlorite	mg/L	13	ND	ND	ND	0.005	0.8		J
Colour	Hazen Units	52	ND	ND	ND	5		10	
Conductivity	mS/cm	52	24.4	19.2	22.1	0.5			
Cyanide	mg/L	13	ND	ND	ND	0.005	0.6		J
Fluoride	mg/L	52	0.92	0.64	0.81	0.02	1.5		J
Iodide	mg/L	13	0.004	ND	0.002	0.002			
Iron (Total)	mg/L	52	0.06	0.01	0.03	0.002		0.2	
Magnesium	mg/L	52	3.10	2.50	2.83	0.001			
Magnesium Hardness	mg/L	52	13	10	12	0.0041			
Manganese	mg/L	52	0.008	0.0007	0.003	0.0005	0.4	0.04	J
pH	pH Units	366	8.6	6.9	7.8	0.1		7.0-8.5	
Potassium	mg/L	52	3.6	2.7	3.0	0.1			
Silicon	mg/L	13	37.0	23.0	31.9	0.1			
Sodium	mg/L	13	22.0	14.0	19.2	0.1		200	
Sulphate	mg/L	13	27.00	14.00	23.08	0.02		250	
Suspended Solids	mg/L	52	1.4	ND	0.3	0.2			
Total Hardness	mg/L	52	66	40	54	0.029		200	
Total Organic Carbon TOC	mg/L	52	2.4	0.6	1.2	0.1			
Turbidity	NTU	366	26.0*	0.10	0.4	0.1		2.5	

* One sample collected from the Waikato WTP treated water tap had turbidity of 26 NTU. The investigation confirmed that this turbidity event resulted from cleaning of one of the treated water tanks, and it was caused by insoluble lime entering the treated water supply. Turbidity trends review after the membrane filters showed that they all operated effectively, meeting compliance criteria throughout this turbidity event. This was notified to Veolia Water on 8th April 2016.

Microbiology									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Cryptosporidium (Treated Water)	cysts/100L	52	ND	ND	ND	1	<1		J
Giardia (Treated Water)	cysts/100L	52	ND	ND	ND	1	<1		J
<i>E.coli</i>	MPN/100mL	366	ND	ND	ND	1	<1		J

Nutrients									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Ammonia	mg/L N	13	0.016	ND	0.002	0.005		1.5	
Dissolved Reactive Phosphorus	mg/L	13	0.016	0.009	0.012	0.002			
Nitrate	mg/L	13	0.990	0.100	0.419	0.002	50		J
Nitrite	mg/L	13	0.008	ND	0.001	0.002	0.20		J
TKN (Total Kjeldahl Nitrogen)	mg/L N	13	0.31	ND	0.04	0.1			
Total Phosphorus	mg/L	13	0.023	0.008	0.013	0.005			

Plasticizers									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
bis (2-ethylhexyl) adipate	µg/L	13	ND	ND	ND	2			
bis (2-ethylhexyl) phthalate	µg/L	13	ND	ND	ND	2	9		J

Polycyclic Aromatic Hydrocarbons									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Benzo(a)pyrene	µg/L	13	ND	ND	ND	0.1	0.7		J

Semi Volatile Organic Compounds									
Organochlorine Pesticides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Aldrin + Dieldrin	µg/L	13	ND	ND	ND	0.01	0.04		J
Chlordane	µg/L	13	ND	ND	ND	0.01	0.2		J
Lindane	µg/L	13	ND	ND	ND	0.01	2		J
Heptachlor	µg/L	13	ND	ND	ND	0.01			
Heptachlor epoxide	µg/L	13	ND	ND	ND	0.01			
Hexachlorobenzene	µg/L	13	ND	ND	ND	0.1			
Methoxychlor	µg/L	13	ND	ND	ND	0.2	20		J
Permethrin (cis + trans)	µg/L	13	ND	ND	ND	0.2			
DDT + isomers	µg/L	13	ND	ND	ND	0.2	1		J
Procymidone	µg/L	13	ND	ND	ND	0.2	700		J
Organonitrogen Herbicides									
Alachlor	µg/L	13	ND	ND	ND	0.2	20		J
Atrazine	µg/L	13	ND	ND	ND	0.1	2		J
Metolachlor	µg/L	13	ND	ND	ND	0.1	10		J
Molinate	µg/L	13	ND	ND	ND	0.1	7		J
Pendimethalin	µg/L	13	ND	ND	ND	0.2	20		J
Propanil	µg/L	13	ND	ND	ND	0.1			
Simazine	µg/L	13	ND	ND	ND	0.1	2		J
Terbutylazine	µg/L	13	ND	ND	ND	0.2	8		J
Trifluralin	µg/L	13	ND	ND	ND	0.2	30		J
Organophosphorus Pesticides									
Chlorpyrifos	µg/L	13	ND	ND	ND	0.2	40		J
Diazinon	µg/L	13	ND	ND	ND	0.1			
Pyrimiphos methyl	µg/L	13	ND	ND	ND	0.2	100		J

Trace Elements									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Antimony	mg/L	13	ND	ND	ND	0.001	0.02		✓
Arsenic	mg/L	13	0.0019	0.0004	0.0009	0.0001	0.01		✓
Barium	mg/L	13	0.0210	0.0140	0.0181	0.0002	0.7		✓
Boron	mg/L	13	0.230	0.089	0.173	0.005	1.4		✓
Cadmium	mg/L	13	ND	ND	ND	0.00005	0.004		✓
Chromium	mg/L	13	0.0009	0.00010	0.0005	0.0001	0.05		✓
Copper	mg/L	13	0.0011	0.00020	0.0005	0.0002	2		✓
Lead	mg/L	13	0.0002	ND	ND	0.0001	0.01		✓
Lithium	mg/L	13	0.0790	0.0280	0.0575	0.0001			
Mercury	mg/L	52	ND	ND	ND	0.00005	0.007		✓
Molybdenum	mg/L	13	0.0005	ND	0.0002	0.0003	0.07		✓
Nickel	mg/L	13	0.0003	ND	0.0002	0.0001	0.08		✓
Selenium	mg/L	13	ND	ND	ND	0.0005	0.01		✓
Zinc	mg/L	13	0.004	ND	0.002	0.001		1.5	

Trihalomethanes									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Bromodichloromethane	mg/L	64	0.0075	0.0017	0.0036	0.0001	0.06		✓
Bromoform	mg/L	64	0.0029	ND	0.0010	0.0001	0.1		✓
Chloroform	mg/L	64	0.0140	ND	0.0037	0.0001	0.4		✓
Dibromochloromethane	mg/L	64	0.0063	0.0007	0.0032	0.0001	0.15		✓
THMs Ratio		64	0.21	0.04	0.10		1		✓

Volatile Organic Compounds									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
1,1,1-trichloroethane	mg/L	13	ND	ND	ND	0.0001			
1,2,3-trichlorobenzene	mg/L	13	ND	ND	ND	0.0001			
1,2,4-trichlorobenzene	mg/L	13	ND	ND	ND	0.0001			
1,2-dichlorobenzene	mg/L	13	ND	ND	ND	0.0001	1.5	0.001	✓
1,2-dichloroethane	mg/L	13	ND	ND	ND	0.0001	0.03		✓
1,4-dichlorobenzene	mg/L	13	ND	ND	ND	0.0001	0.4	0.0003	✓
Benzene	mg/L	13	ND	ND	ND	0.0001	0.01		✓
Carbon tetrachloride	mg/L	13	ND	ND	ND	0.0001			
Ethylbenzene	mg/L	13	ND	ND	ND	0.0001	0.3	0.002	✓
Xylenes (total)	mg/L	13	ND	ND	ND	0.0001	0.6	0.02	✓
Styrene	mg/L	13	ND	ND	ND	0.0001	0.03	0.004	✓
Tetrachloroethene	mg/L	13	ND	ND	ND	0.0001	0.05		✓
Toluene	mg/L	13	ND	ND	ND	0.0001	0.8	0.03	✓
1,2-dichloroethene (cis + trans)	mg/L	13	ND	ND	ND	0.0001	0.06		✓
Trichloroethene	mg/L	13	ND	ND	ND	0.0001	0.02		✓

Waiuku Road (Waiuku) WTP Treated Water

Chemical and Physical									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Alkalinity (Total)	mg/L CaCO ₃	1	120	120	120	1			
Aluminium	mg/L	1	ND	ND	ND	0.005		0.1	
Bromate	mg/L	1	ND	ND	ND	0.005	0.01		J
Bromide	mg/L	1	0.03	0.03	0.03	0.01			
Calcium	mg/L	1	28.0	28.0	28.0	0.01			
Calcium Hardness	mg/L	1	69	69	69	0.025			
Chlorate	mg/L	1	0.01	0.01	0.01	0.01	0.8		J
Chloride	mg/L	1	32.00	32.00	32.00	0.02		250	
Chlorine Residual	mg/L	121	1.21	0.34	0.81	0.02	5	0.6-1.0	J
Chlorite	mg/L	1	ND	ND	ND	0.005	0.8		J
Colour	Hazen Units	1	ND	ND	ND	5		10	
Conductivity	mS/cm	1	35.1	35.1	35.1	0.5			
Cyanide	mg/L	1	ND	ND	ND	0.005	0.6		J
Iodide	mg/L	1	0.026	0.026	0.026	0.002			
Iron (Total)	mg/L	12	0.006	ND	0.002	0.002		0.2	
Magnesium	mg/L	1	6.9	6.9	6.9	0.001			
Magnesium Hardness	mg/L	1	28	28	28	0.0041			
Manganese	mg/L	12	0.0016	ND	0.0007	0.0005	0.4	0.04	J
pH	pH Units	121	8.0	7.6	7.9	0.1		7.0-8.5	
Potassium	mg/L	1	4.7	4.7	4.7	0.1			
Silicon	mg/L	1	35.0	35.0	35.0	0.1			
Sodium	mg/L	1	27.0	27.0	27.0	0.1		200	
Sulphate	mg/L	1	4.70	4.70	4.70	0.02		250	
Suspended Solids	mg/L	1	2.00	2.00	2.00	0.2			
Total Dissolved Solids	mg/L	1	210	210	210	15		1000	
Total Hardness	mg/L	1	98	98	98	0.03		200	
Turbidity	NTU	121	0.7	ND	0.1	0.1		2.5	

Microbiology									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
<i>E. coli</i>	MPN/100mL	121	ND	ND	ND	1	<1		J

Nutrients									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Ammonia	mg/L N	1	ND	ND	ND	0.005		1.5	
Dissolved Reactive Phosphorus	mg/L	1	0.055	0.055	0.055	0.005			
Nitrate	mg/L as NO ₃	1	0.017	0.017	0.017	0.002	50		J
Nitrite	mg/L	1	ND	ND	ND	0.002	0.20		J
TKN (Total Kjeldahl Nitrogen)	mg/L N	1	ND	ND	ND	0.1			
Total Phosphorus	mg/L	1	0.065	0.065	0.065	0.005			

Plasticizers									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
bis (2-ethylhexyl) adipate	µg/L	1	ND	ND	ND	2			
bis (2-ethylhexyl) phthalate	µg/L	1	ND	ND	ND	2	9		J

Polycyclic Aromatic Hydrocarbons									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Benzo(a)pyrene	µg/L	1	ND	ND	ND	0.1	0.7		J

Semi Volatile Organic Compounds									
Organochlorine Pesticides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Aldrin + Dieldrin	µg/L	1	ND	ND	ND	0.01	0.04		J
Chlordane	µg/L	1	ND	ND	ND	0.01	0.2		J
Lindane	µg/L	1	ND	ND	ND	0.01	2		J
Heptachlor	µg/L	1	ND	ND	ND	0.01			
Heptachlor epoxide	µg/L	1	ND	ND	ND	0.01			
Hexachlorobenzene	µg/L	1	ND	ND	ND	0.1			
Methoxychlor	µg/L	1	ND	ND	ND	0.2	20		J
Permethrin (cis + trans)	µg/L	1	ND	ND	ND	0.2			
DDT + isomers	µg/L	1	ND	ND	ND	0.2	1		J
Procymidone	µg/L	1	ND	ND	ND	0.2	700		J
Organonitrogen Herbicides									
Alachlor	µg/L	1	ND	ND	ND	0.2	20		J
Atrazine	µg/L	1	ND	ND	ND	0.1	2		J
Metolachlor	µg/L	1	ND	ND	ND	0.1	10		J
Molinate	µg/L	1	ND	ND	ND	0.1	7		J
Pendimethalin	µg/L	1	ND	ND	ND	0.2	20		J
Propanil	µg/L	1	ND	ND	ND	0.1			
Simazine	µg/L	1	ND	ND	ND	0.1	2		J
Terbuthilazine	µg/L	1	ND	ND	ND	0.2	8		J
Trifluralin	µg/L	1	ND	ND	ND	0.2	30		J
Organophosphorus Pesticides									
Chlorpyrifos	µg/L	1	ND	ND	ND	0.2	40		J
Diazinon	µg/L	1	ND	ND	ND	0.1			
Pirymiphos methyl	µg/L	1	ND	ND	ND	0.2	100		J

Trace Elements									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Antimony	mg/L	1	ND	ND	ND	0.001	0.02		J
Arsenic	mg/L	12	0.0038	0.0030	0.0034	0.0001	0.01		J
Barium	mg/L	1	ND	ND	ND	0.0002	0.7		J
Boron	mg/L	1	0.022	0.022	0.022	0.005	1.4		J
Cadmium	mg/L	1	ND	ND	ND	0.00005	0.004		J
Chromium	mg/L	1	0.0003	0.0003	0.0003	0.0001	0.05		J
Copper	mg/L	1	0.0015	0.0015	0.0015	0.0002	2		J
Lead	mg/L	1	0.0002	0.0002	0.0002	0.0001	0.01		J
Lithium	mg/L	1	0.0130	0.0130	0.0130	0.0001			
Molybdenum	mg/L	1	ND	ND	ND	0.00005	0.07		J
Mercury	mg/L	1	ND	ND	ND	0.0003	0.007		J
Nickel	mg/L	1	ND	ND	ND	0.0001	0.08		J
Selenium	mg/L	1	ND	ND	ND	0.0005	0.01		J
Zinc	mg/L	1	0.022	0.022	0.022	0.001		1.5	

Trihalomethanes									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Bromodichloromethane	mg/L	1	ND	ND	ND	0.0001	0.06		J
Bromoform	mg/L	1	0.0017	0.0017	0.0017	0.0001	0.1		J
Chloroform	mg/L	1	0.0012	0.0012	0.0012	0.0001	0.4		J
Dibromochloromethane	mg/L	1	0.0030	0.0030	0.0030	0.0001	0.15		J
THMs Ratio		1	0.04	0.04	0.04		1		J

Volatile Organic Compounds

Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
1,1,1-trichloroethane	mg/L	1	ND	ND	ND	0.0001			
1,2,3-trichlorobenzene	mg/L	1	ND	ND	ND	0.0001			
1,2,4-trichlorobenzene	mg/L	1	ND	ND	ND	0.0001			
1,2-dichlorobenzene	mg/L	1	ND	ND	ND	0.0001	1.5	0.001	✓
1,2-dichloroethane	mg/L	1	ND	ND	ND	0.0001	0.03		✓
1,4-dichlorobenzene	mg/L	1	ND	ND	ND	0.0001	0.4	0.0003	✓
Benzene	mg/L	1	ND	ND	ND	0.0001	0.01		✓
Carbon tetrachloride	mg/L	1	ND	ND	ND	0.0001			
Ethylbenzene	mg/L	1	ND	ND	ND	0.0001	0.3	0.002	✓
m- & p-Xylene	mg/L	1	ND	ND	ND	0.0001	0.6		✓
Styrene	mg/L	1	ND	ND	ND	0.0001	0.03	0.004	✓
Tetrachloroethene	mg/L	1	ND	ND	ND	0.0001	0.05		✓
Toluene	mg/L	1	ND	ND	ND	0.0001	0.8	0.03	✓
1,2-dichloroethene (cis + trans)	mg/L	1	ND	ND	ND	0.0001	0.06		✓
Trichloroethene	mg/L	1	ND	ND	ND	0.0001	0.02		✓

Warkworth WTP Treated Water

Acidic Herbicides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
2,4,5- trichlorophenoxyacetic acid (2,4,5-T)	mg/L	4	ND	ND	ND	0.0001			
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/L	4	ND	ND	ND	0.0001			
4-(2,4-dichlorophenoxy) butanoic acid (2,4-DB)	mg/L	4	ND	ND	ND	0.0001			
Bentazone	mg/L	4	ND	ND	ND	0.0001			
Dichlorprop	mg/L	4	ND	ND	ND	0.0001	0.1		J
MCPA	mg/L	4	ND	ND	ND	0.0001	0.002		J
Mecoprop	mg/L	4	ND	ND	ND	0.0001	0.01		J
Picloram	mg/L	4	ND	ND	ND	0.0001	0.2		J
Triclopyr	mg/L	4	ND	ND	ND	0.0001	0.1		J

Chemical and Physical									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Alkalinity (Total)	mg/L CaCO ₃	1	32	32	32	1			
Aluminium	mg/L	12	0.03	0.01	0.02	0.005		0.1	
Calcium	mg/L	1	12.0	12.0	12.0	0.01			
Calcium Hardness	mg/L	1	31	31	31	0.025			
Chlorine Residual	mg/L	122	1.57	0.62	0.97	0.02	5	0.6-1.0	J
Colour	Hazen Units	1	ND	ND	ND	5		10	
Conductivity	mS/cm	1	23.5	23.5	23.5	0.5			
Fluoride	mg/L	1	ND	ND	ND	0.02	1.5		J
Iron (Total)	mg/L	1	0.026	0.026	0.026	0.002		0.2	
Magnesium	mg/L	1	3.9	3.9	3.9	0.001			
Magnesium Hardness	mg/L	1	16	16	16	0.0041			
Manganese	mg/L	1	0.0220	0.0022	0.0022	0.0005	0.4	0.04	J
pH	pH Units	122	8.4	7.1	7.4	0.1		7.0-8.5	
Sulphate	mg/L	1	32.00	32.00	32.00	0.02		250	
Suspended Solids	mg/L	1	ND	ND	ND	0.2			
Total Dissolved Solids	mg/L	1	140.00	140.00	140.00	15		1000	
Total Hardness	mg/L	1	47.0	47.0	47.0	0.029		200	
Total Organic Carbon TOC	mg/L	52	2.6	0.8	1.5	0.1			
Turbidity	NTU	122	0.4	0.05	0.1	0.1		2.5	

Microbiology									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
<i>E. coli</i>	MPN/100mL	122	ND	ND	ND	1	<1		J

Plasticizers									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
bis (2-ethylhexyl) adipate	µg/L	4	ND	ND	ND	2			
bis (2-ethylhexyl) phthalate	µg/L	4	ND	ND	ND	2	9		J

Polycyclic Aromatic Hydrocarbons									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Benzo(a)pyrene	µg/L	4	ND	ND	ND	0.1	0.7		J

Semi Volatile Organic Compounds									
Organochlorine Pesticides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Aldrin + Dieldrin	µg/L	4	ND	ND	ND	0.01	0.04		✓
Chlordane	µg/L	4	ND	ND	ND	0.01	0.2		✓
Lindane	µg/L	4	ND	ND	ND	0.01	2		✓
Heptachlor	µg/L	4	ND	ND	ND	0.01			
Heptachlor epoxide	µg/L	4	ND	ND	ND	0.01			
Hexachlorobenzene	µg/L	4	ND	ND	ND	0.1			
Methoxychlor	µg/L	4	ND	ND	ND	0.2	20		✓
Permethrin (cis + trans)	µg/L	4	ND	ND	ND	0.2			
DDT + isomers	µg/L	4	ND	ND	ND	0.2	1		✓
Procyimdone	µg/L	4	ND	ND	ND	0.2	700		✓
Organonitrogen Herbicides									
Alachlor	µg/L	4	ND	ND	ND	0.2	20		✓
Atrazine	µg/L	4	ND	ND	ND	0.1	2		✓
Metolachlor	µg/L	4	ND	ND	ND	0.1	10		✓
Molinate	µg/L	4	ND	ND	ND	0.1	7		✓
Pendimethalin	µg/L	4	ND	ND	ND	0.2	20		✓
Propanil	µg/L	4	ND	ND	ND	0.1			
Simazine	µg/L	4	ND	ND	ND	0.1	2		✓
Terbutylazine	µg/L	4	ND	ND	ND	0.2	8		✓
Trifluralin	µg/L	4	ND	ND	ND	0.2	30		✓
Organophosphorus Pesticides									
Chlorpyrifos	µg/L	4	ND	ND	ND	0.2	40		✓
Diazinon	µg/L	4	ND	ND	ND	0.1			
Pirymiphos methyl	µg/L	4	ND	ND	ND	0.2	100		✓

Trihalomethanes									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Bromodichloromethane	mg/L	12	0.0099	0.0017	0.0050	0.0001	0.06		✓
Bromoform	mg/L	12	0.0035	0.0003	0.0022	0.0001	0.1		✓
Chloroform	mg/L	12	0.0100	ND	0.0036	0.0001	0.4		✓
Dibromochloromethane	mg/L	12	0.0088	0.0030	0.0055	0.0001	0.15		✓
THMs Ratio		12	0.26	0.06	0.15		1		✓

Volatile Organic Compounds									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
1,1,1-trichloroethane	mg/L	1	ND	ND	ND	0.0001			
1,2,3-trichlorobenzene	mg/L	1	ND	ND	ND	0.0001			
1,2,4-trichlorobenzene	mg/L	1	ND	ND	ND	0.0001			
1,2-dichlorobenzene	mg/L	1	ND	ND	ND	0.0001	1.5	0.001	✓
1,2-dichloroethane	mg/L	1	ND	ND	ND	0.0001	0.03		✓
1,4-dichlorobenzene	mg/L	1	ND	ND	ND	0.0001	0.4	0.0003	✓
Benzene	mg/L	1	ND	ND	ND	0.0001	0.01		✓
Carbon tetrachloride	mg/L	1	ND	ND	ND	0.0001			
Ethylbenzene	mg/L	1	ND	ND	ND	0.0001	0.3	0.002	✓
Xylenes (total)	mg/L	1	ND	ND	ND	0.0001	0.6	0.02	✓
Styrene	mg/L	1	ND	ND	ND	0.0001	0.03	0.004	✓
Tetrachloroethene	mg/L	1	ND	ND	ND	0.0001	0.05		✓
Toluene	mg/L	1	ND	ND	ND	0.0001	0.8	0.03	✓
1,2-dichloroethene (cis + trans)	mg/L	1	ND	ND	ND	0.0001	0.06		✓
Trichloroethene	mg/L	1	ND	ND	ND	0.0001	0.02		✓

Wellsford WTP Treated Water

Acidic Herbicides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
2,4,5- trichlorophenoxyacetic acid (2,4,5-T)	mg/L	4	ND	ND	ND	0.0001			
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/L	4	ND	ND	ND	0.0001			
4-(2,4-dichlorophenoxy) butanoic acid (2,4-DB)	mg/L	4	ND	ND	ND	0.0001			
Bentazone	mg/L	4	ND	ND	ND	0.0001			
Dichlorprop	mg/L	4	ND	ND	ND	0.0001	0.1		J
MCPA	mg/L	4	ND	ND	ND	0.0001	0.002		J
Mecoprop	mg/L	4	ND	ND	ND	0.0001	0.01		J
Picloram	mg/L	4	ND	ND	ND	0.0001	0.2		J
Triclopyr	mg/L	4	ND	ND	ND	0.0001	0.1		J

Chemical and Physical									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Alkalinity (Total)	mg/L CaCO ₃	1	39	39	39	1			
Aluminium	mg/L	12	0.25	0.01	0.03	0.005		0.1	
Calcium	mg/L	1	12.0	12.0	12.0	0.01			
Calcium Hardness	mg/L	1	30	30	30	0.025			
Chlorine Residual	mg/L	122	1.72	0.42	1.04	0.02	5	0.6-1.0	J
Colour	Hazen Units	1	ND	ND	ND	5		10	
Conductivity	mS/cm	1	23.6	23.6	23.6	0.5			
Fluoride	mg/L	1	0.03	0.03	0.03	0.02	1.5		J
Iron (Total)	mg/L	1	0.011	0.011	0.011	0.002		0.2	
Magnesium	mg/L	1	4.3	4.3	4.3	0.001			
Magnesium Hardness	mg/L	1	18	18	18	0.0041			
Manganese	mg/L	1	0.0079	0.0079	0.0079	0.0005	0.4	0.04	J
pH	pH Units	122	7.5	6.9	7.3	0.1		7.0-8.5	
Sulphate	mg/L	1	27.00	27.00	27.00	0.02		250	
Suspended Solids	mg/L	1	ND	ND	ND	0.2			
Total Dissolved Solids	mg/L	1	140	140	140	15		1000	
Total Hardness	mg/L	1	47	47	47	0.029		200	
Total Organic Carbon TOC	mg/L	52	2.8	1.3	2.0	0.1			
Turbidity	NTU	122	0.8	0.05	0.2	0.1		2.5	

Microbiology									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
<i>E. coli</i>	MPN/100mL	122	ND	ND	ND	1	<1		J

Plasticizers									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
bis (2-ethylhexyl) adipate	µg/L	4	ND	ND	ND	2			
bis (2-ethylhexyl) phthalate	µg/L	4	ND	ND	ND	2	9		J

Polycyclic Aromatic Hydrocarbons									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Benzo(a)pyrene	µg/L	4	ND	ND	ND	0.1	0.7		J

Semi Volatile Organic Compounds									
Organochlorine Pesticides									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Aldrin + Dieldrin	µg/L	4	ND	ND	ND	0.01	0.04		✓
Chlordane	µg/L	4	ND	ND	ND	0.01	0.2		✓
Lindane	µg/L	4	ND	ND	ND	0.01	2		✓
Heptachlor	µg/L	4	ND	ND	ND	0.01			
Heptachlor epoxide	µg/L	4	ND	ND	ND	0.01			
Hexachlorobenzene	µg/L	4	ND	ND	ND	0.1			
Methoxychlor	µg/L	4	ND	ND	ND	0.2	20		✓
Permethrin (cis + trans)	µg/L	4	ND	ND	ND	0.2			
DDT + isomers	µg/L	4	ND	ND	ND	0.2	1		✓
Procyimdone	µg/L	4	ND	ND	ND	0.2	700		✓
Organonitrogen Herbicides									
Alachlor	µg/L	4	ND	ND	ND	0.2	20		✓
Atrazine	µg/L	4	ND	ND	ND	0.1	2		✓
Metolachlor	µg/L	4	ND	ND	ND	0.1	10		✓
Molinate	µg/L	4	ND	ND	ND	0.1	7		✓
Pendimethalin	µg/L	4	ND	ND	ND	0.2	20		✓
Propanil	µg/L	4	ND	ND	ND	0.1			
Simazine	µg/L	4	ND	ND	ND	0.1	2		✓
Terbutylazine	µg/L	4	ND	ND	ND	0.2	8		✓
Trifluralin	µg/L	4	ND	ND	ND	0.2	30		✓
Organophosphorus Pesticides									
Chlorpyrifos	µg/L	4	ND	ND	ND	0.2	40		✓
Diazinon	µg/L	4	ND	ND	ND	0.1			
Pirymiphos methyl	µg/L	4	ND	ND	ND	0.2	100		✓

Trihalomethanes									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
Bromodichloromethane	mg/L	12	0.0150	0.0033	0.0098	0.0001	0.06		✓
Bromoform	mg/L	12	0.0029	ND	0.0016	0.0001	0.1		✓
Chloroform	mg/L	12	0.0280	0.0022	0.0112	0.0001	0.4		✓
Dibromochloromethane	mg/L	12	0.0097	0.0031	0.0067	0.0001	0.15		✓
THMs Ratio		12	0.38	0.09	0.25		1		✓

Volatile Organic Compounds									
Component Name	Units	Number of Samples	Max	Min	Average	Detection Limit	MAV DWSNZ	GV DWSNZ	Compliance DWSNZ 2005 (Revised 2008)
1,1,1-trichloroethane	mg/L	1	ND	ND	ND	0.0001			
1,2,3-trichlorobenzene	mg/L	1	ND	ND	ND	0.0001			
1,2,4-trichlorobenzene	mg/L	1	ND	ND	ND	0.0001			
1,2-dichlorobenzene	mg/L	1	ND	ND	ND	0.0001	1.5	0.001	✓
1,2-dichloroethane	mg/L	1	ND	ND	ND	0.0001	0.03		✓
1,4-dichlorobenzene	mg/L	1	ND	ND	ND	0.0001	0.4	0.0003	✓
Benzene	mg/L	1	ND	ND	ND	0.0001	0.01		✓
Carbon tetrachloride	mg/L	1	ND	ND	ND	0.0001			
Ethylbenzene	mg/L	1	ND	ND	ND	0.0001	0.3	0.002	✓
Xylenes (total)	mg/L	1	ND	ND	ND	0.0001	0.6	0.02	✓
Styrene	mg/L	1	ND	ND	ND	0.0001	0.03	0.004	✓
Tetrachloroethene	mg/L	1	ND	ND	ND	0.0001	0.05		✓
Toluene	mg/L	1	ND	ND	ND	0.0001	0.8	0.03	✓
1,2-dichloroethene (cis + trans)	mg/L	1	ND	ND	ND	0.0001	0.06		✓
Trichloroethene	mg/L	1	ND	ND	ND	0.0001	0.02		✓