

2006 River Water Quality Monitoring Report – 2006

Table 3: Trend slopes for water quality parameters for 18 RWQMN sites with *p*-values (%) shown in brackets, including the 4 sites in the National network from January 1997 to December 2007 or when records began (see table 4).

	Temperature (10 ⁻³ °C/yr)	Dissolved oxygen (10 ⁻³ % saturation/yr)	Dissolved oxygen (10 ⁻³ mgL ⁻¹ /yr)	Conductivity (10 ⁻³ mS/m@25°C/yr)	pH (10 ⁻³ /yr)	Turbidity (10 ⁻³ NTU/yr)	Visual clarity (10 ⁻³ m/yr)	Dissolved colour (10 ⁻³ G-abs@340nm/ cm/yr)	Dissolved colour (10 ⁻³ G-abs@440nm/ cm/yr)
Victoria	-168 (≤5)	290 (≤20)	50 (≤20)	17	10	-54 (≤10)	-110 (≤5)	45	8
Awanui (FNDC take)	-398 (≤20)	-310	24	70	-37 (≤5)	-116	NA	336 (≤10)	-21
Awanui (Waihue)	-169 (≤5)	140	10	129 (≤5)	7	-376 (≤5)	18	231 (≤10)	148 (≤5)
Waitangi (Waimate)	-239 (≤20)	550 (≤10)	124 (≤5)	-5	76 (≤5)	-28	-12	149 (≤20)	49 (≤20)
Waitangi(Watea)	-154 (≤10)	-73	18	-46 (≤5)	5	2	-14	59	17
Waipapa	-13	53	4	26 (≤20)	16 (≤5)	-104 (≤5)	46 (≤5)	-34	-7
Punakitere	-253	-255	59	-39	39	-134	NA	788	172
Waiotu	-113	770 (≤10)	129 (≤5)	-19	84 (≤5)	-45	NA	179	16
Whakapara	-43	1060 (≤5)	180 (≤5)	-26	44 (≤5)	-159 (≤20)	48 (≤5)	310 (≤5)	70 (≤5)
Mangahahuru	-81 (≤10)	1520 (≤5)	225 (≤5)	170 (≤5)	27 (≤5)	-300 (≤5)	69 (≤5)	390 (≤10)	49
Wairua	-42	511 (≤5)	71 (≤5)	-20	22 (≤5)	-89	4	158	13
Mangakahia (Twin)	-117 (≤20)	56	NA	123 (≤5)	23 (≤10)	-81	-9	25	50
Mangakahia (Titoki)	15	63	5	-24	9 (≤5)	93	-11 (≤10)	77	6
Opouteke	-92	202 (≤5)	NA	121 (≤10)	32 (≤5)	-50	-2	59	46
Mangere	-153 (≤10)	741 (≤5)	94	8	50 (≤5)	-192 (≤5)	44 (≤5)	229 (≤20)	109 (≤10)
Manganui	-21	357	12	230	53	-436	NA	245	-5
Kaihu	-49	295	-91	NA	-23	-571 (≤10)	NA	NA	NA
Waipoua	-17	-1053	-182	NA	0	-150	NA	NA	NA

Note: Apart from Waipoua River all parameters were flow adjusted. Trends shown in bold are significant (*p* ≤ 5%).

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Table 3 cont: Trend slopes for water quality parameters for 18 RWQMN sites with p -values (%) shown in brackets, including the 4 sites in the National network from January 1997 to December 2007 or when records began (see table 4).

	<i>Escherichia coli</i> (CFU/100mL/yr)	Dissolved reactive phosphorus (10^{-3} gm ⁻³ /yr)	Total Phosphorus (10^{-3} gm ⁻³ /yr)	Nitrate/Nitrite nitrogen or Nitrate (10^{-3} gm ⁻³ /yr)	Total nitrogen (10^{-3} gm ⁻³ /yr)	Ammoniacal nitrogen (10^{-3} gm ⁻³ /yr)	Total kjedahl nitrogen (10^{-3} gm ⁻³ /yr)
Victoria	-6	-3.7 (≤5)	-5.0 (≤5)	-0.7 (≤5)	-1.0	-0.7 (≤5)	NA
Awanui (FNDC take)	5	-0.2	-0.3	-1.1	3.2	-4.5 (≤5)	4.5
Awanui (Waihue)	19 (≤20)	-16 (≤5)	-27 (≤5)	0.3	6.0	-0.7 (≤5)	3.1
Waitangi (Waimate)	25 (≤20)	-0.3	1.6 (≤5)	-13 (≤5)	-0.2	-1.9 (≤5)	15 (≤5)
Waitangi(Watea)	NA	-0.2 (≤5)	0.3	-0.2	2.4	0.0	-5.0 (≤5)
Waipapa	NA	-0.2 (≤5)	-0.1	-1.4 (≤5)	-0.2	-0.3 (≤5)	1.7 (≤20)
Punakitere	17	-0.2	3.4 (≤20)	-10	-23	-1.5	-0.9
Waiotu	-1	0.2	1.9	-12 (≤5)	-31 (≤20)	-2.5 (≤5)	-13.5
Whakapara	-3	-3.0 (≤5)	-5.0 (≤5)	-9.5 (≤5)	-3.2	-0.4	6.4 (≤10)
Mangahahuru	-9	-5.0 (≤5)	-8.5 (≤5)	-0.2	3.6	-3.6 (≤5)	2.4
Wairua	NA	-0.8 (≤10)	1.0 (≤5)	-16 (≤20)	-15 (≤5)	-1.1 (≤5)	1.8
Mangakahia (Twin)	2	-0.9	-4.8 (≤20)	-0.4	-4.5	-0.2 (≤20)	0.9
Mangakahia (Titoki)	NA	-0.2 (≤5)	0.0	-4.7 (≤5)	-5.5 (≤10)	-0.5 (≤5)	2.8 (≤10)
Opouteke	5 (≤20)	-4.8 (≤5)	-13 (≤5)	-1.8 (≤10)	0.1	-0.2 (≤20)	3.5
Mangere	118 (≤5)	-5.8 (≤5)	-11 (≤5)	-47 (≤5)	-47 (≤5)	-4.7 (≤5)	-3.5
Manganui	401	3.8 (≤5)	1.3	-9.5 (≤5)	-45 (≤5)	-4.7 (≤5)	-7
Kaihu	-3	0.0	3.1	-23	-44 (≤10)	-3.5 (≤5)	-25 (≤5)
Waipoua	-9	2.0 (≤5)	2.0 (≤5)	-0.5	-6.0 (≤5)	-2.5 (≤5)	NA

Note: Apart from Waipoua River all parameters were flow adjusted. Trends shown in bold are significant ($p < 5\%$).