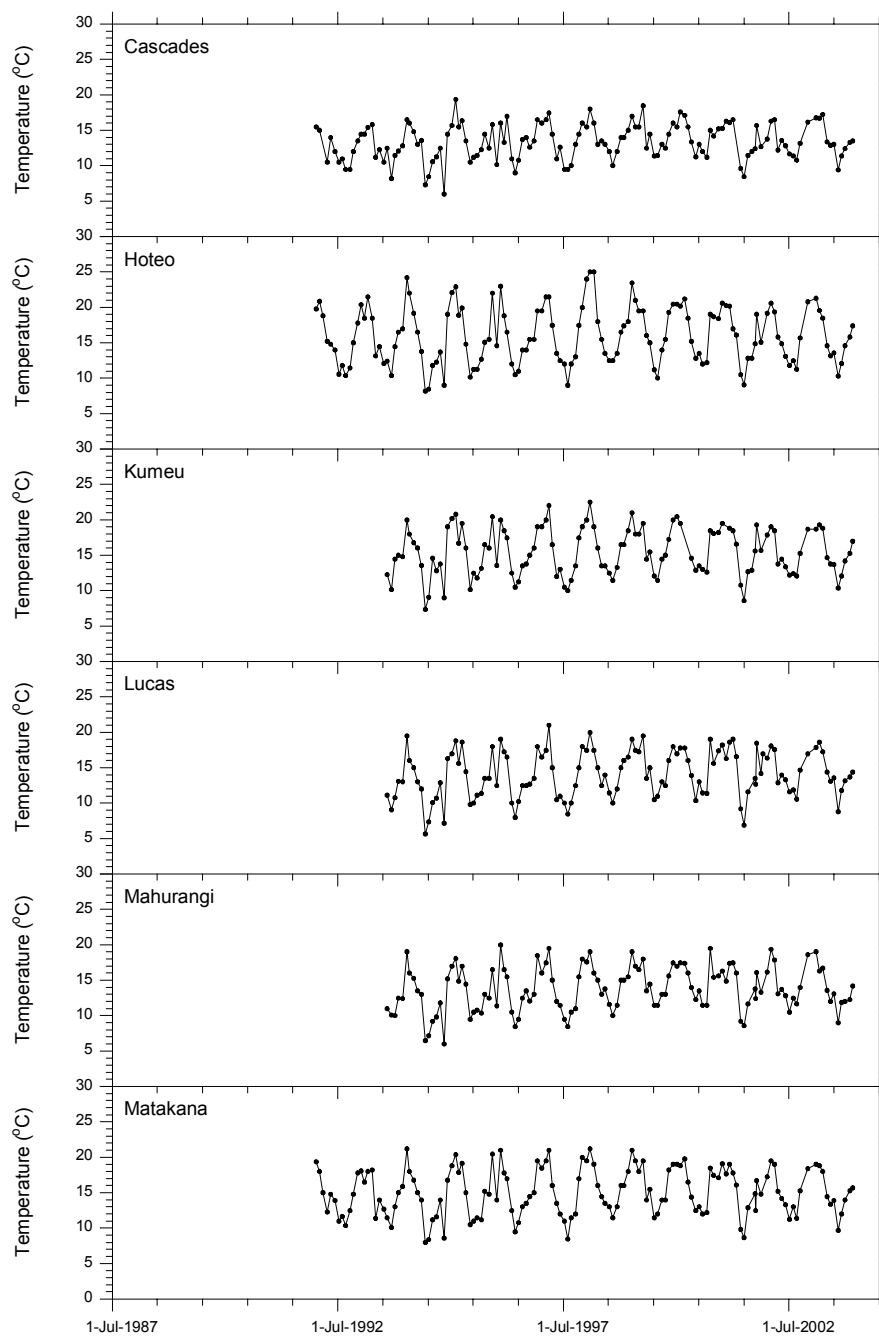


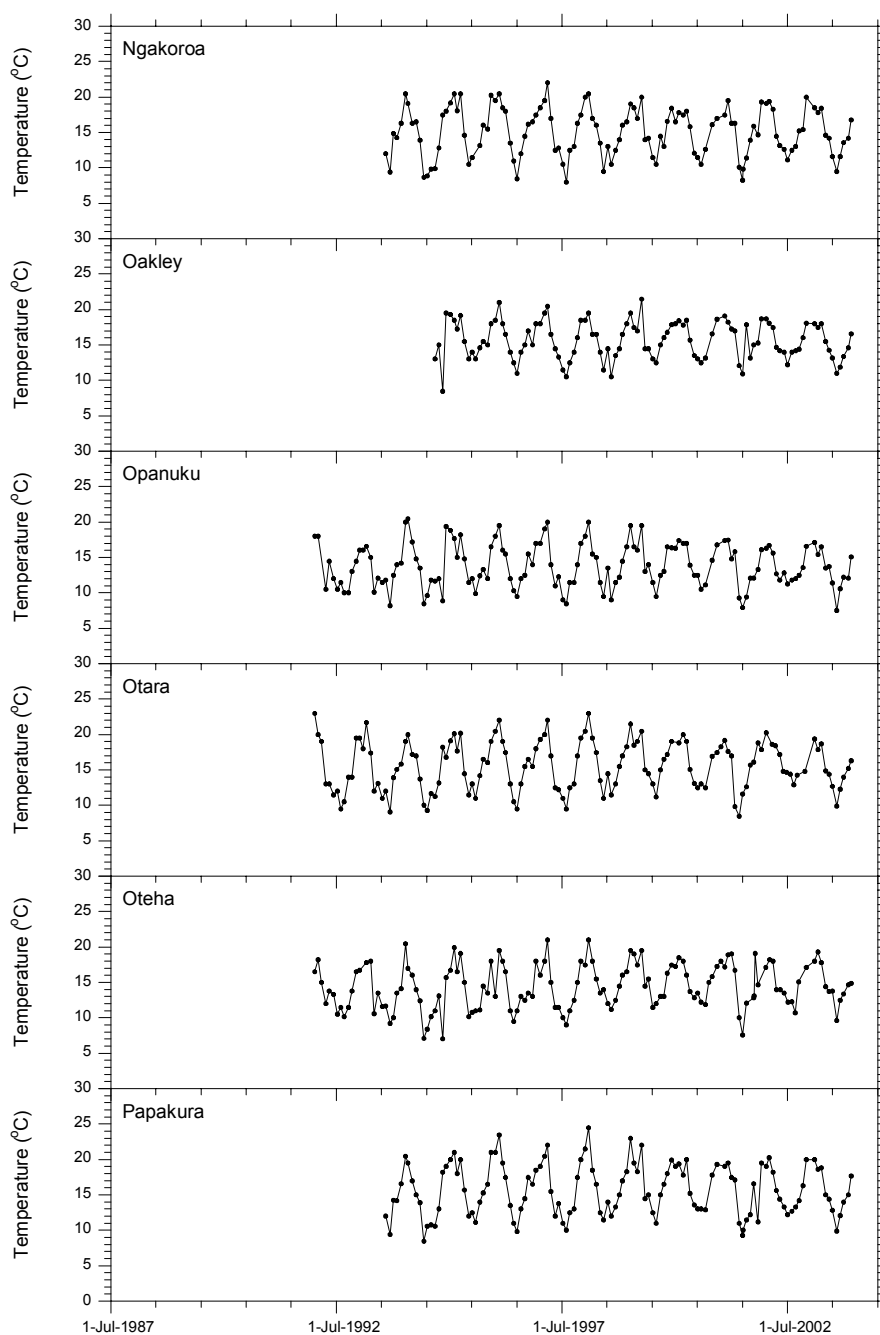
APPENDIX 1: FRESHWATER – TEMPERATURE

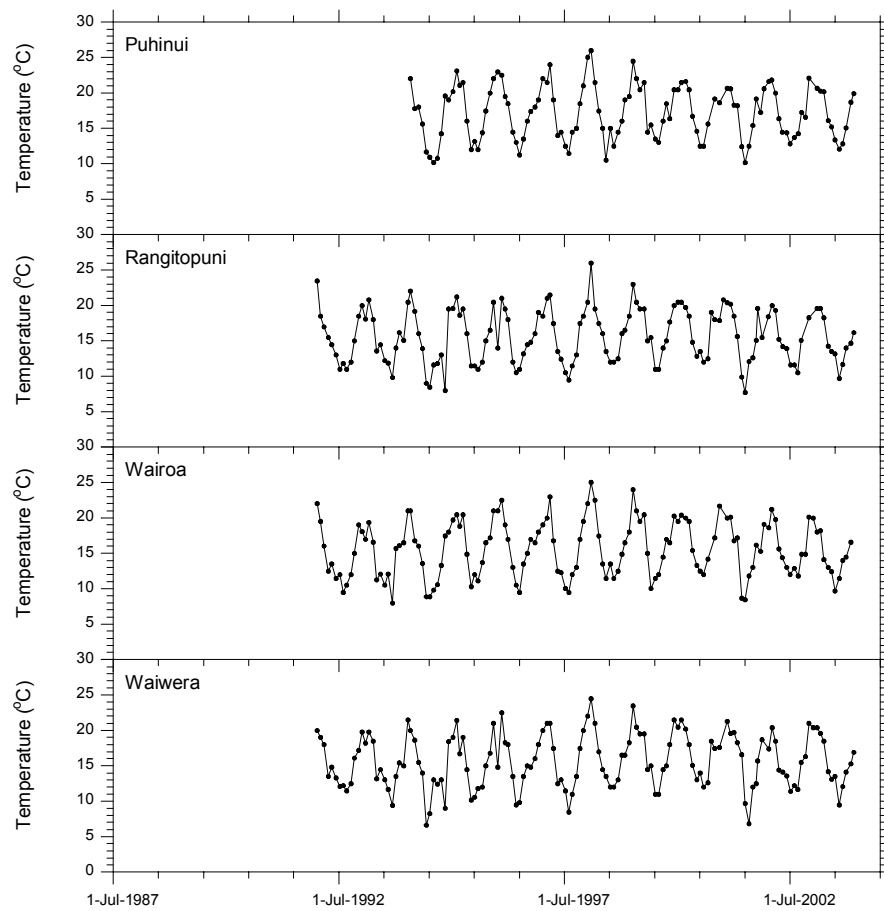
Temperature (°C) for the period January 2003 to December 2003																
Date	Cascades	Hoteo	Kumeu	Lucas	Mahurangi	Matakana	Ngakoroa	Oakley	Opanuku	Otara	Oteha	Papakura	Puhinui	Rangitopuni	Wairoa	Waiwera
7-Jan-03																
4-Feb-03	16.8	21.3	18.7	17.9	19.0	19.0	18.5	18.0	17.1	19.4	18.0	20.0	20.7	19.6	20.0	20.4
4-Mar-03	16.7	19.6	19.3	18.6	16.3	18.8	17.8	17.5	15.4	17.9	19.3	18.6	20.3	19.6	18.0	19.6
1-Apr-03	17.3	18.5	18.8	17.3	16.7	18.0	18.4	18.0	16.5	18.7	17.8	18.8	20.2	18.3	18.2	18.5
6-May-03	13.4	14.6	14.7	14.4	13.6	14.5	14.6	15.5	13.5	14.9	14.4	15.0	16.1	14.3	14.1	14.2
4-Jun-03	12.9	13.2	13.8	13.1	12.0	13.4	14.2	14.3	13.7	14.4	13.7	14.4	15.2	13.5	13.0	13.1
1-Jul-03	13.0	13.6	13.7	13.6	13.1	13.9	11.6	13.2	11.4	12.7	13.8	12.8	13.4	13.2	12.4	13.5
7-Aug-03	9.4	10.3	10.4	8.8	9.0	9.7	9.5	11.0	7.5	9.9	9.6	9.9	12.1	9.7	9.7	9.5
2-Sep-03	11.4	12.1	12.1	11.8	11.9	12.0	11.6	11.9	10.6	12.3	12.5	12.1	12.8	11.7	11.5	12.1
30-Sep-03	12.4	14.6	14.2	13.2	12.0	14.0	13.6	13.4	12.2	14.0	13.4	14.0	15.1	14.0	14.0	14.1
4-Nov-03	13.3	15.8	15.3	13.7	12.3	15.3	14.2	14.6	12.1	15.2	14.7	15.0	18.7	14.7	14.5	15.3
1-Dec-03	13.5	17.4	17.0	14.4	14.2	15.7	16.8	16.6	15.1	16.3	14.9	17.7	19.9	16.2	16.6	16.9
Median	13.3	14.6	14.7	13.7	13.1	14.5	14.2	14.6	13.5	14.9	14.4	15.0	16.1	14.3	14.1	14.2
IQR/median %	18.4	31.2	27.9	19.7	24.8	22.1	33.1	25.7	25.9	25.2	19.4	31.7	36.0	27.3	32.6	31.0

NB: The dates given are for sites N1-N9. Sites S1-S7 were sampled on 8-Jan, 5-Feb, 5-Mar, 2-Apr, 7-May, 5-Jun, 2-Jul, 6-Aug, 5-Sep, 29 Sep, 5-Nov and 3-Dec.

The graphs on the following pages show temperature results for the period August 1987 to December 2003 (where data available).





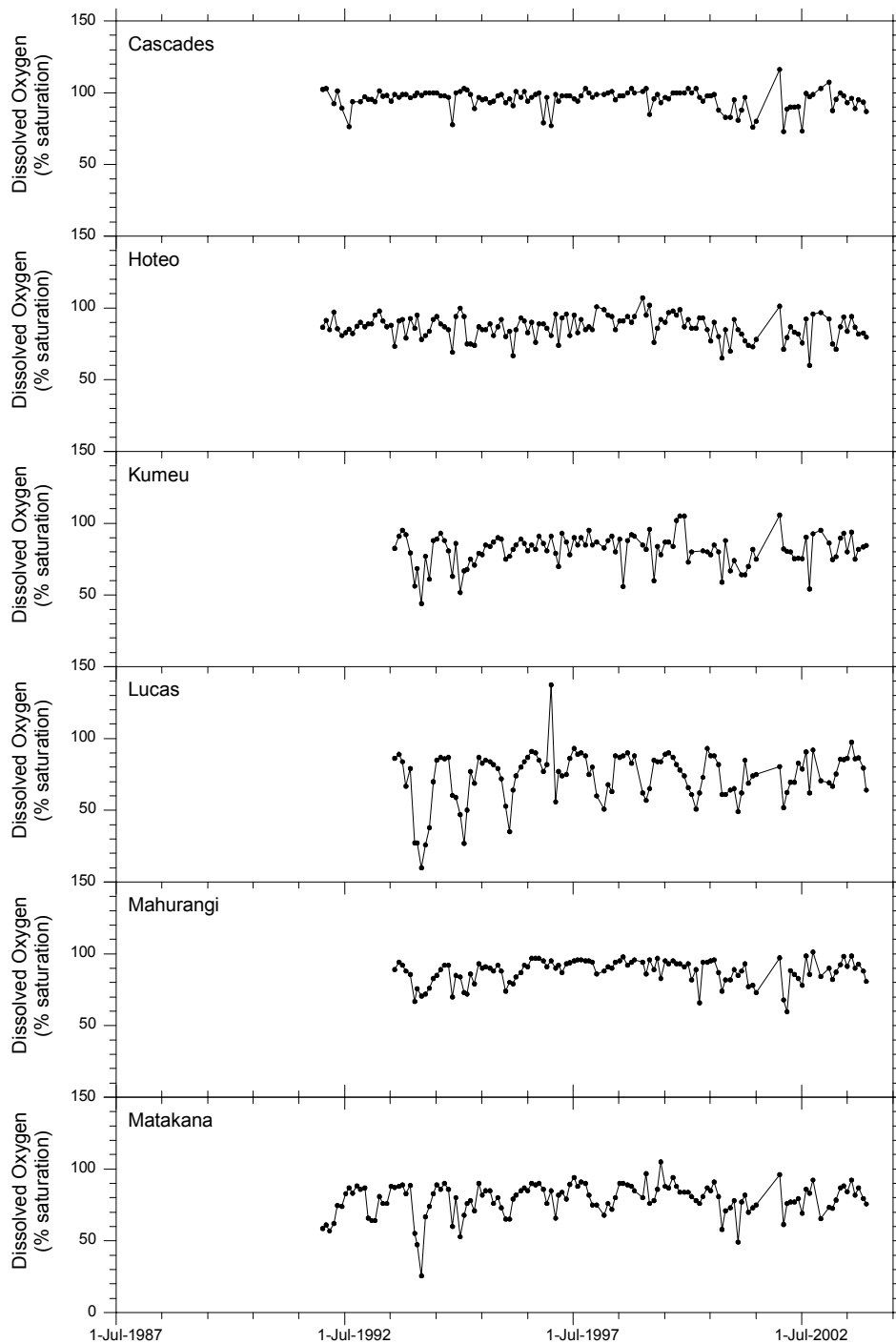


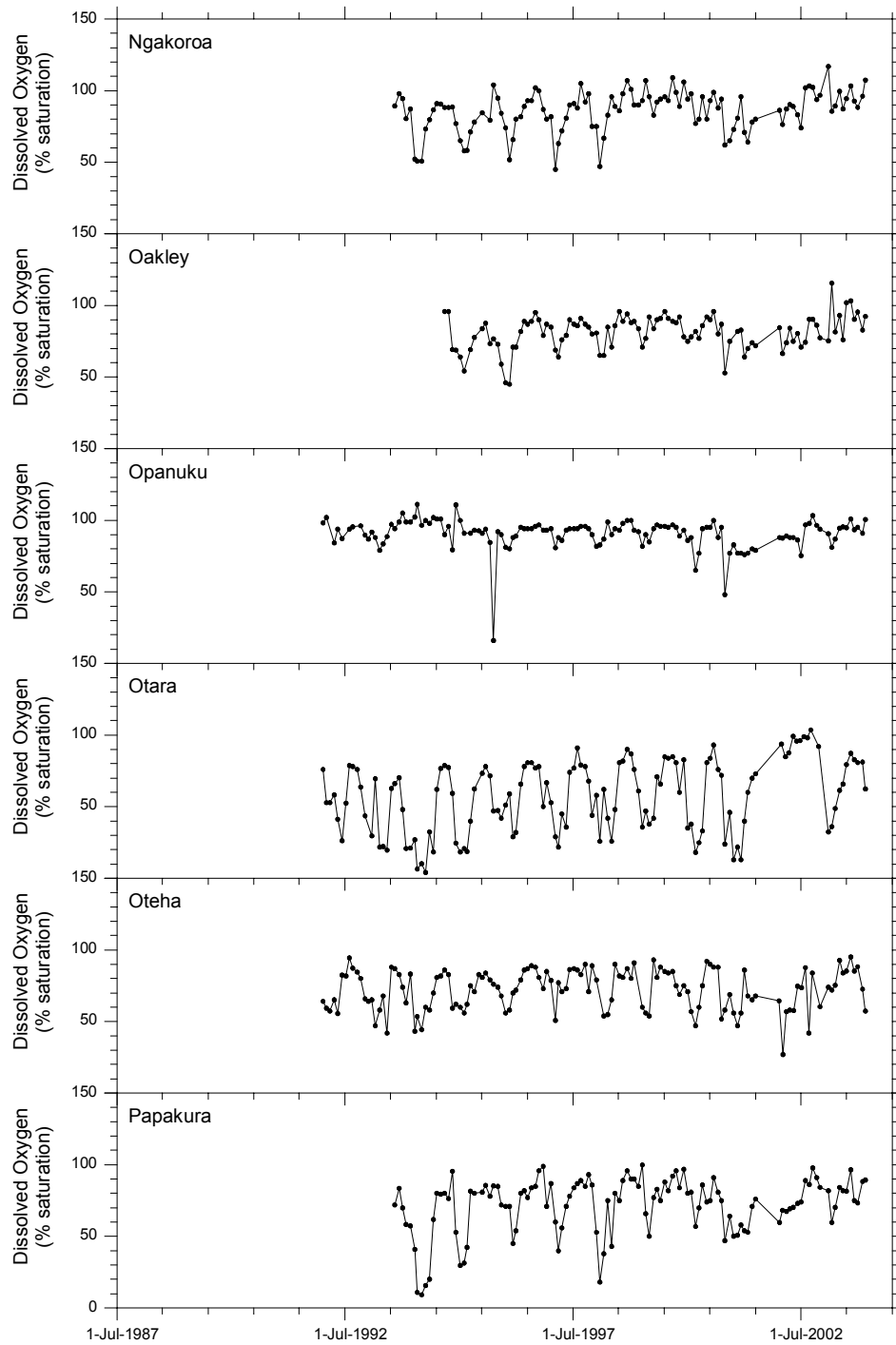
APPENDIX 2: FRESHWATER – DISSOLVED OXYGEN, % SATURATION

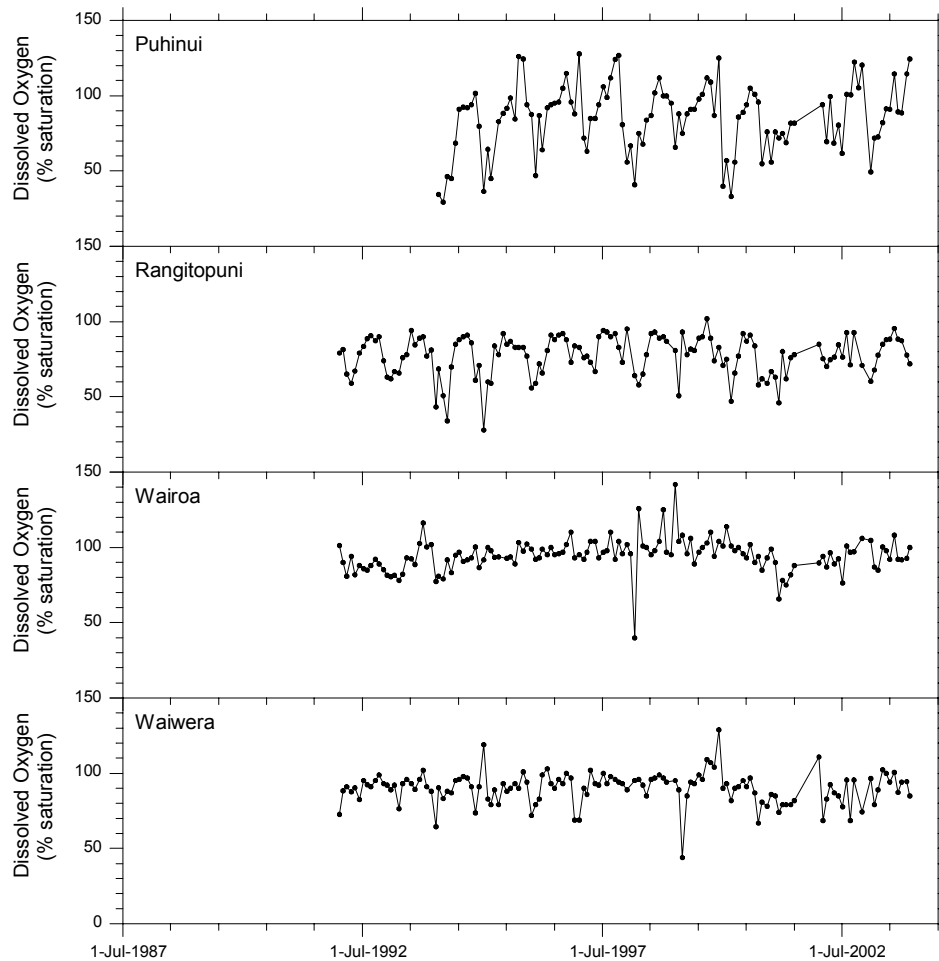
Dissolved Oxygen (% saturation) for the period January 2003 to December 2003															
Date	Cascades	Hoteo	Kumeu	Lucas	Mahurangi	Matakana	Ngakoroa	Oakley	Opanuku	Otara	Oteha	Papakura	Puhinui i	Rangitopuni	Wairoa Waiwera
7-Jan-03															
4-Feb-03	107.3	92.5	86.3	69.1	90.2	73.5	117.1	75.6	90.7	32.6	74.0	81.8	49.6	60.4	104.8 96.5
4-Mar-03	87.7	74.9	74.7	66.7	82.4	72.7	85.7	115.6	81.1	36.3	71.8	59.7	72.0	67.8	86.8 79.0
1-Apr-03	95.5	71.2	76.8	75.5	87.5	78.5	89.3	81.4	86.8	48.7	75.6	70.3	72.7	77.7	84.8 89.0
6-May-03	100.1	87.0	89.7	85.5	92.3	87.1	99.5	93.1	94.5	61.6	92.8	84.4	82.3	85.0	100.2 102.4
4-Jun-03	97.9	93.8	93.1	85.4	98.3	88.2	87.2	76.1	95.7	66.0	83.9	81.7	91.6	88.0	98.0 99.8
1-Jul-03	93.0	84.0	80.0	86.4	91.4	84.2	94.7	101.9	94.8	79.5	85.3	81.6	91.1	88.2	92.1 94.0
7-Aug-03	96.3	94.2	93.7	97.5	98.6	92.6	103.4	103.5	101.1	87.2	95.0	96.4	114.7	95.7	108.3 100.5
2-Sep-03	89.2	86.6	75.0	85.8	89.9	81.9	92.8	90.6	93.5	82.9	85.3	75.2	89.5	88.4	92.2 87.5
30-Sep-03	95.1	82.0	81.8	86.6	92.9	87.1	88.3	95.6	95.1	81.0	88.5	73.2	88.8	87.4	91.8 94.2
4-Nov-03	93.4	82.5	83.7	79.5	88.0	79.7	96.2	82.7	91.2	81.3	72.7	88.3	114.7	77.8	92.8 94.6
1-Dec-03	87.0	79.8	84.7	64.2	80.9	75.8	107.6	92.3	100.6	62.5	57.4	89.4	124.5	71.9	99.8 85.1
Median	95.1	84.0	83.7	85.4	90.2	81.9	94.7	92.3	94.5	66.0	83.9	81.7	89.5	85.0	92.8 94.2
IQR/median %	6.3	10.5	11.5	16.2	5.4	12.1	13.4	18.1	4.7	39.4	16.2	14.9	28.7	15.6	8.7 10.5

NB: The dates given are for sites N1-N9. Sites S1-S7 were sampled on 8-Jan, 5-Feb, 5-Mar, 2-Apr, 7-May, 5-Jun, 2-Jul, 6-Aug, 5-Sep, 29 Sep, 5-Nov and 3-Dec.

The graphs on the following pages show DO results for the period August 1987 to December 2003 (where data available).







APPENDIX 3: FRESHWATER – BIOCHEMICAL OXYGEN DEMAND

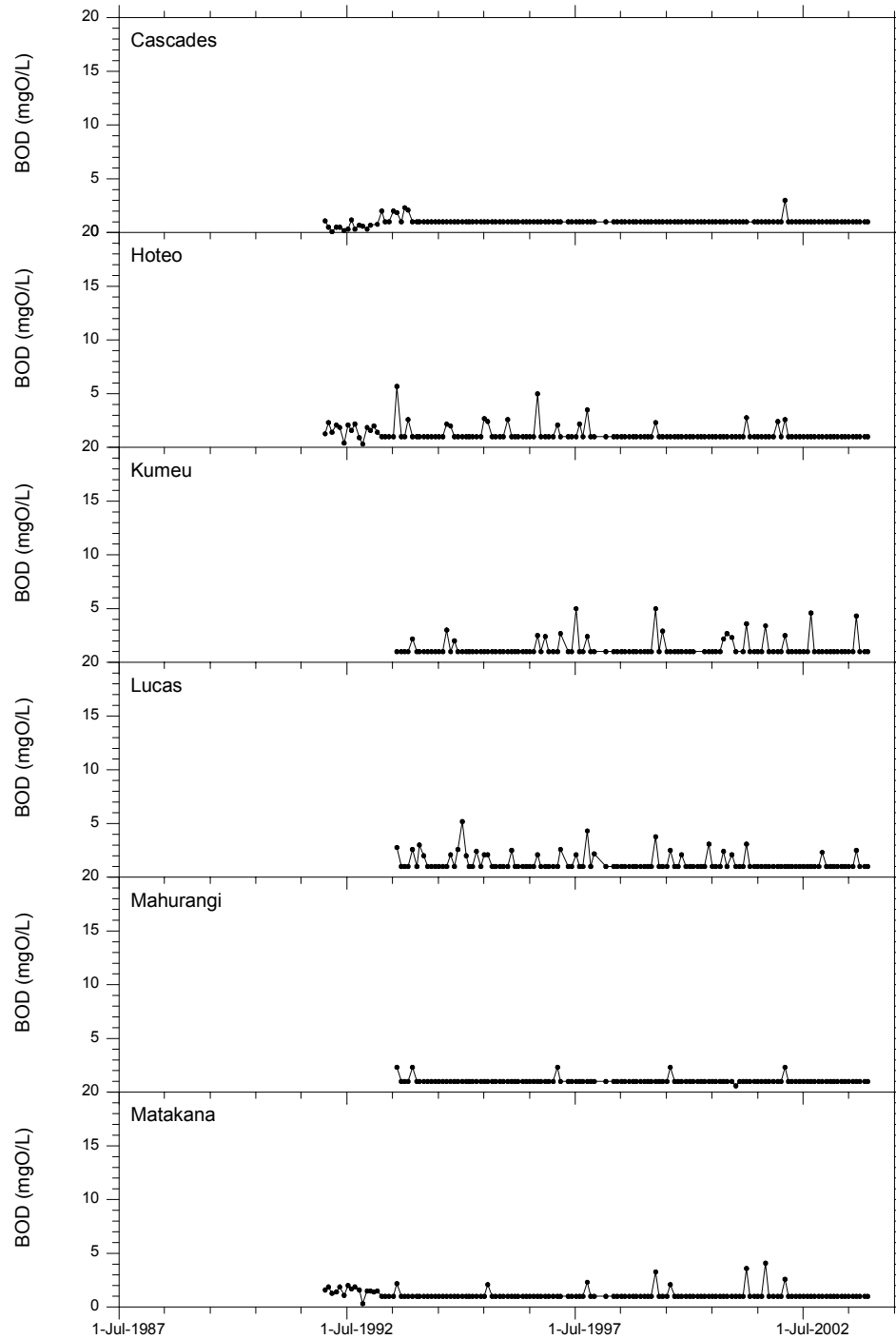
(Note that $\text{g/m}^3 = \text{g m}^{-3} = \text{mg/L}$)

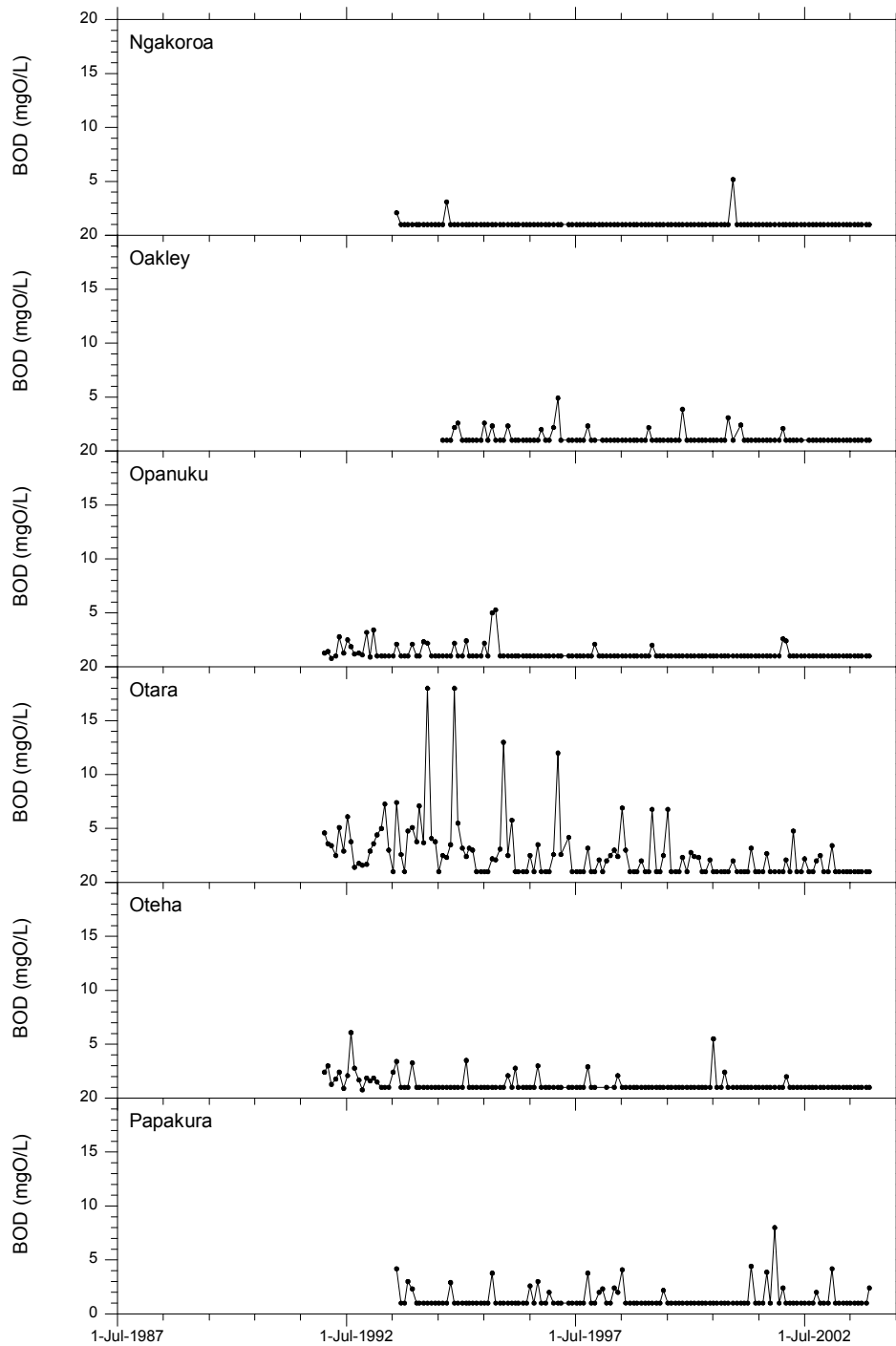
Biochemical oxygen demand for the period January 2003 to December 2003																
Date	Cascades	Hoteo	Kumeu	Lucas	Mahurangi	Matakana	Ngakoroa	Oakley	Opanuku	Otara	Oteha	Papakura	Puhinui	Rangitopuni	Wairoa	Waiwera
7-Jan-03	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
4-Feb-03	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	3.4	<2.0	4.2	2.2	<2.0	2.2	<2.0
4-Mar-03	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1-Apr-03	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
6-May-03	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
4-Jun-03	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1-Jul-03	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
7-Aug-03	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
2-Sep-03	<2.0	<2.0	4.3	2.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	4.1	<2.0	<2.0	<2.0
30-Sep-03	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
4-Nov-03	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1-Dec-03	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.4	3.1	<2.0	<2.0	<2.0
Median	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
IQR/median %	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0

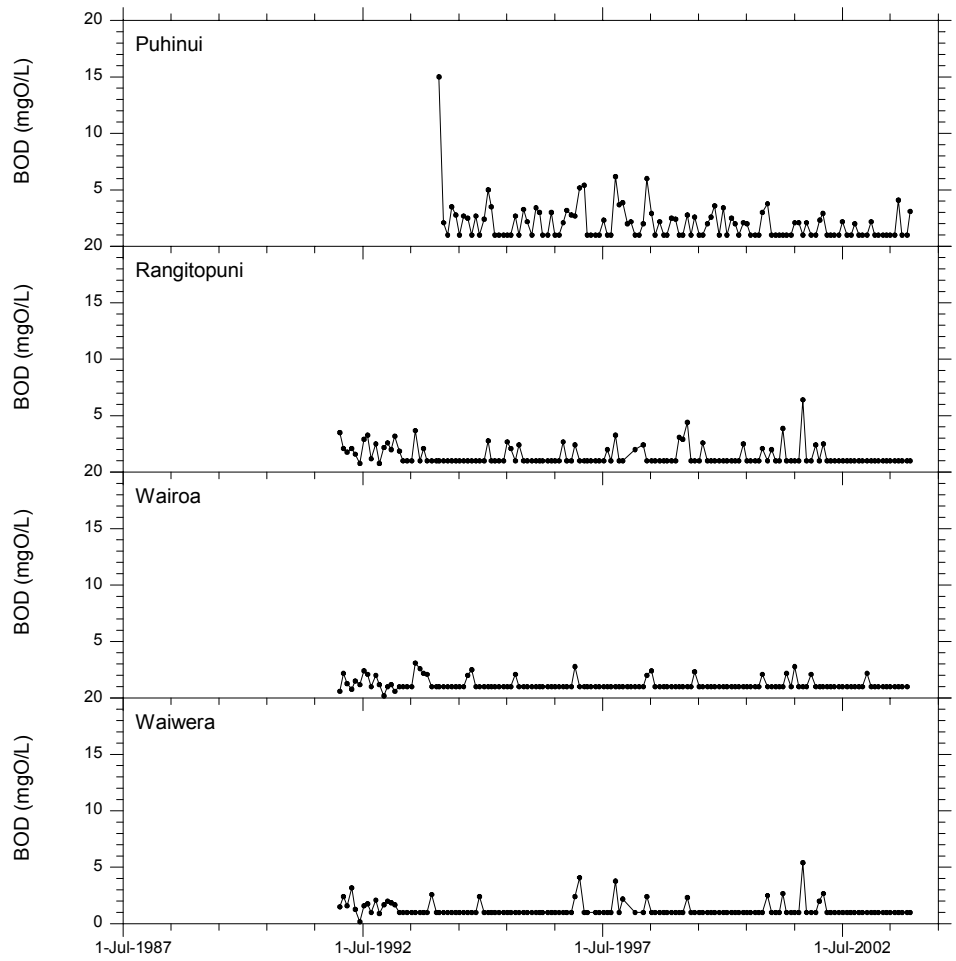
NB: The dates given are for sites N1-N9. Sites S1-S7 were sampled on 8-Jan, 5-Feb, 5-Mar, 2-Apr, 7-May, 5-Jun, 2-Jul, 6-Aug, 5-Sep, 29 Sep, 5-Nov and 3-Dec.

Method detection limit is 2.0 mg/L. For summary statistics, a result of "<2.0" is taken to have the value 1.0

The graphs on the following pages show BOD results for the period August 1987 to December 2003 (where data available).





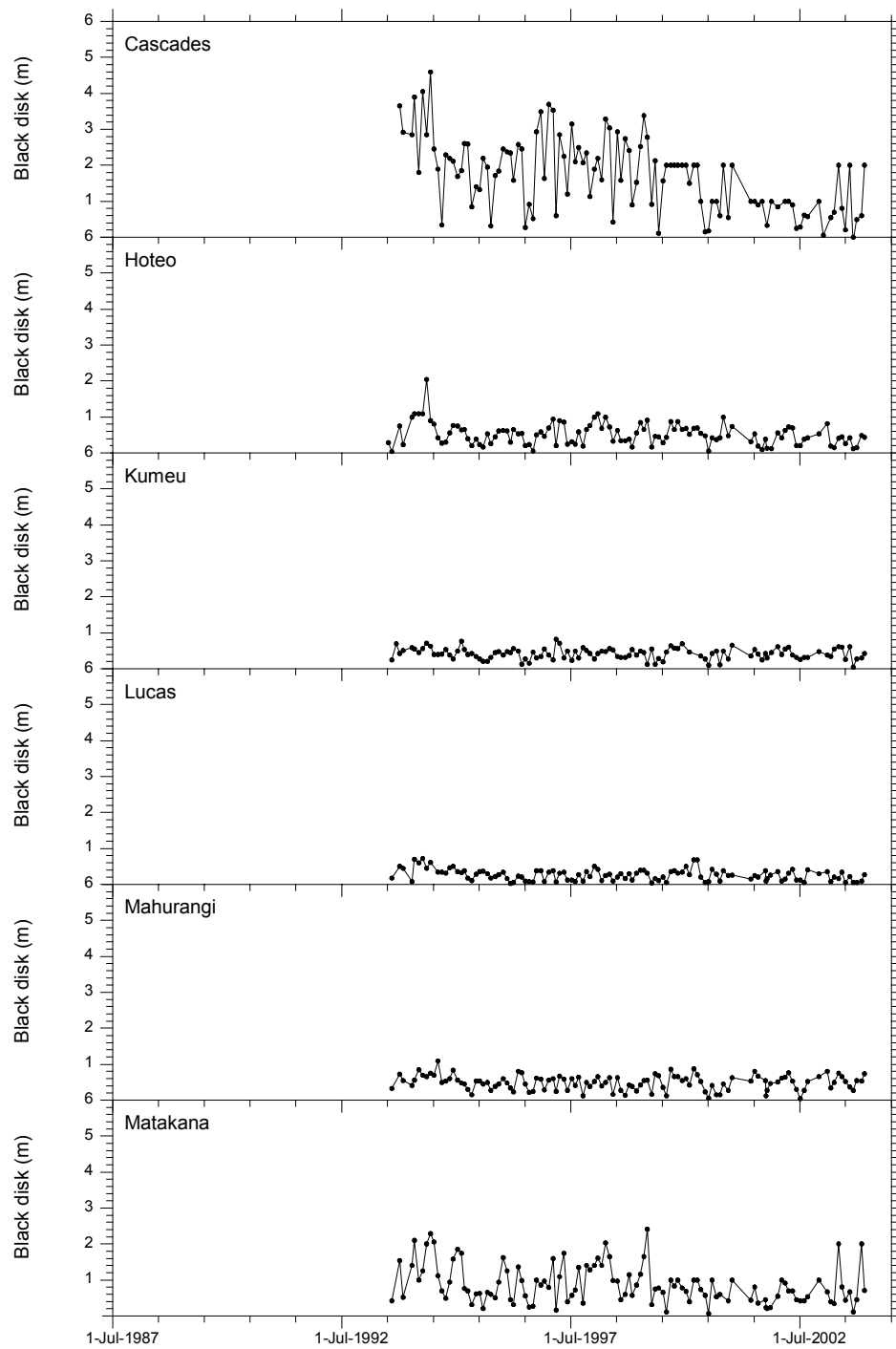


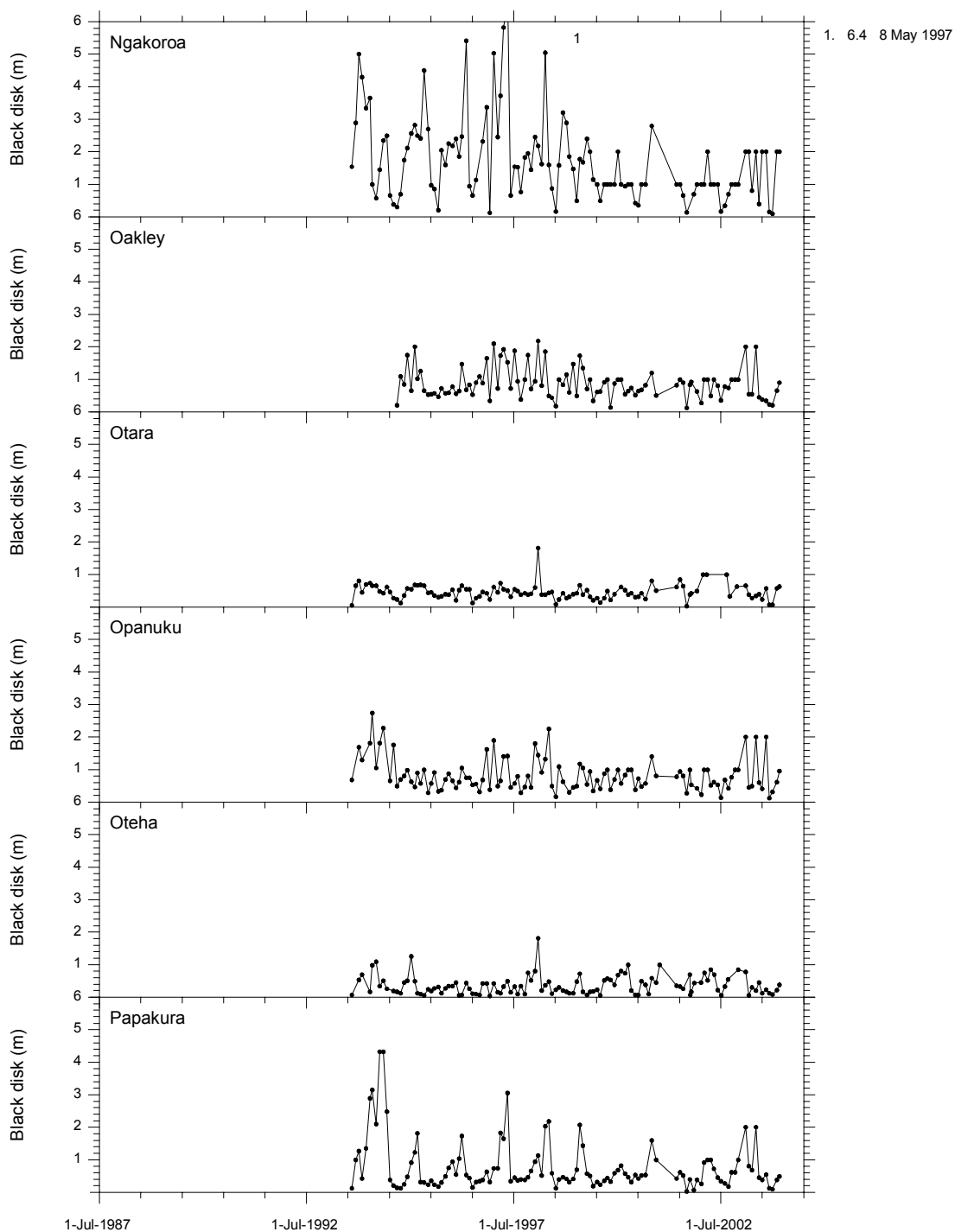
APPENDIX 4: FRESHWATER – BLACK DISK TRANSPARENCY

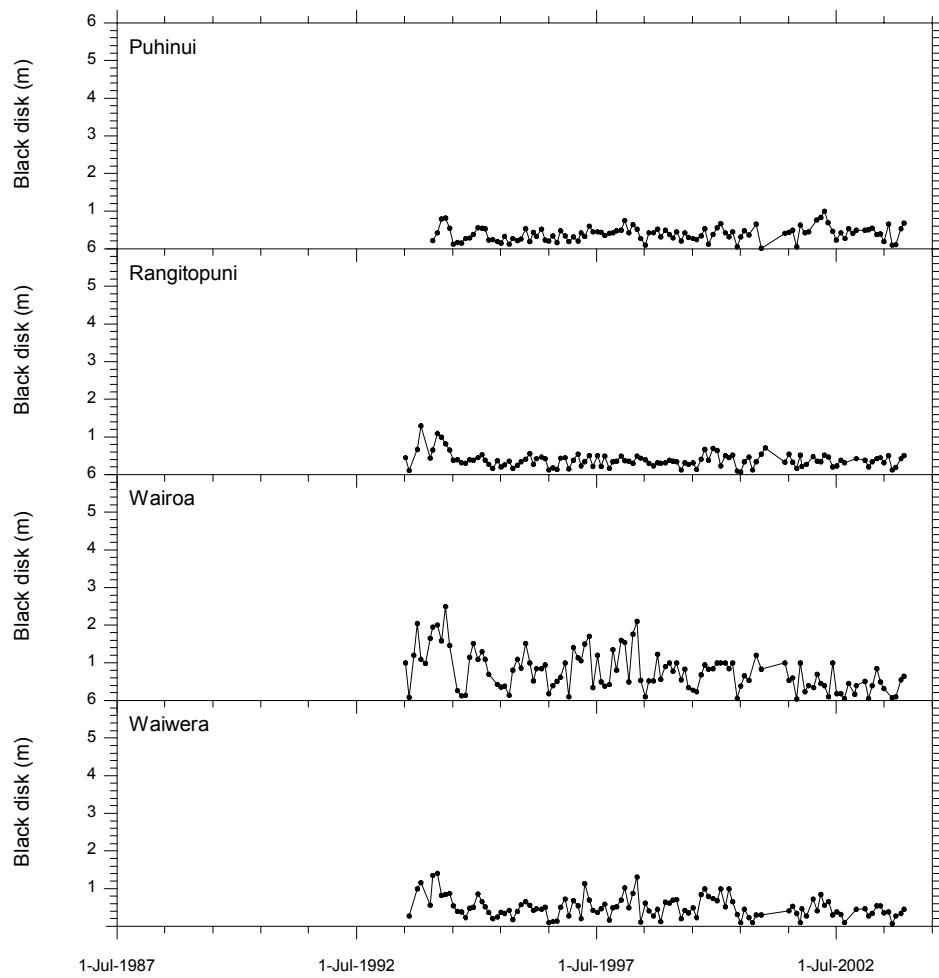
Black disk transparency (m) for the period January 2003 to December 2003																
Date	Cascades	Hoteo	Kumeu	Lucas	Mahurangi	Matakana	Ngakoroa	Oakley	Opanuku	Otara	Oteha	Papakura	Puhinui	Rangitopuni	Wairoa	Waiwera
7-Jan-03	<0.1															
4-Feb-03		0.82	0.38	0.36	0.80	0.67	2.00	2.00	2.00	0.65	0.78	2.00	0.50	0.39	0.51	0.47
4-Mar-03	0.55	0.19	0.35	0.08	0.35	0.40	2.00	0.55	0.46	0.38	0.06	0.80	0.51	0.21	0.05	0.28
1-Apr-03	0.70	0.15	0.55	0.20	0.50	0.35	0.80	0.55	0.50	0.27	0.30	0.68	0.55	0.35	0.40	0.35
6-May-03	2.00	0.41	0.61	0.17	0.75	2.00	2.00	2.00	2.00	0.35	0.20	2.00	0.38	0.43	0.85	0.55
4-Jun-03	0.80	0.45	0.60	0.35	0.65	0.80	0.40	0.45	0.60	0.40	0.45	0.45	0.40	0.45	0.50	0.55
1-Jul-03	0.20	0.26	0.26	0.06	0.52	0.44	2.00	0.39	0.41	0.23	0.12	0.39	0.19	0.32	0.32	0.36
7-Aug-03	2.00	0.43	0.61	0.22	0.37	0.67	2.00	0.35	2.00	0.58	0.23	0.55	0.65	0.51		0.38
2-Sep-03	0.00	0.12	0.04	0.05	0.28	0.11	0.15	0.23	0.13	0.07	0.13	0.12	0.09	0.12	0.07	0.07
30-Sep-03	0.50	0.15	0.27	0.05	0.55	0.45	0.10	0.21	0.31	0.07	0.08	0.09	0.11	0.19	0.09	0.27
4-Nov-03	0.60	0.49	0.30	0.10	0.54	2.00	2.00	0.66	0.62	0.58	0.22	0.38	0.54	0.43	0.55	0.35
1-Dec-03	2.00	0.44	0.43	0.27	0.74	0.71	2.00	0.90	0.96	0.63	0.38	0.49	0.68	0.51	0.64	0.46
Median	0.60	0.41	0.38	0.17	0.54	0.67	2.00	0.55	0.60	0.38	0.22	0.49	0.50	0.39	0.45	0.36
IQR/median %	175.0	67.1	76.3	102.9	48.1	50.0	70.0	74.5	174.2	86.8	97.7	72.4	52.0	44.9	87.2	41.7

NB: The dates given are for sites N1-N9. Sites S1-S7 were sampled on 8-Jan, 5-Feb, 5-Mar, 2-Apr, 7-May, 5-Jun, 2-Jul, 6-Aug, 5-Sep, 29 Sep, 5-Nov and 3-Dec.

The graphs on the following pages show black disk transparency results for the period August 1987 to December 2003 (where data available).





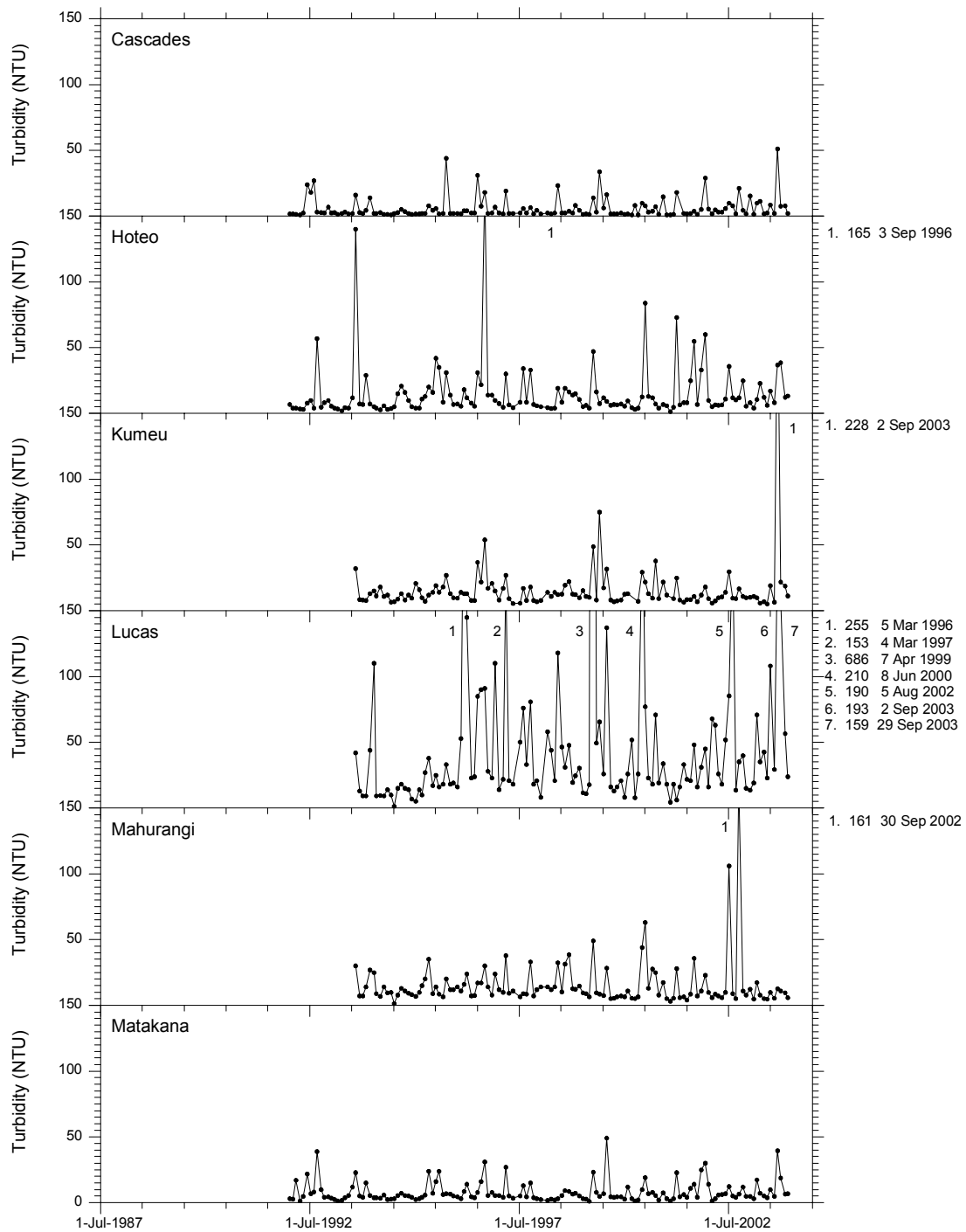


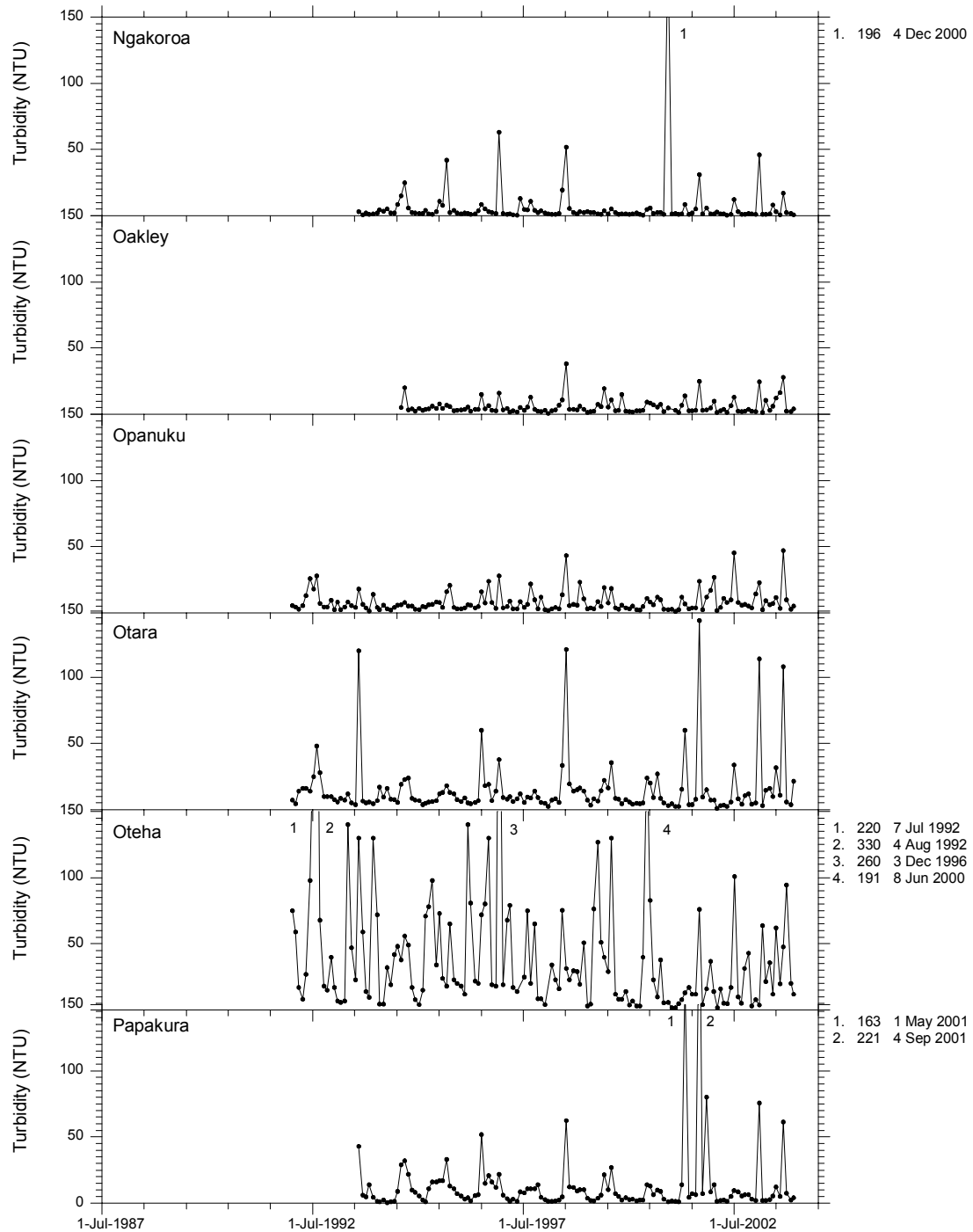
APPENDIX 5: FRESHWATER – TURBIDITY

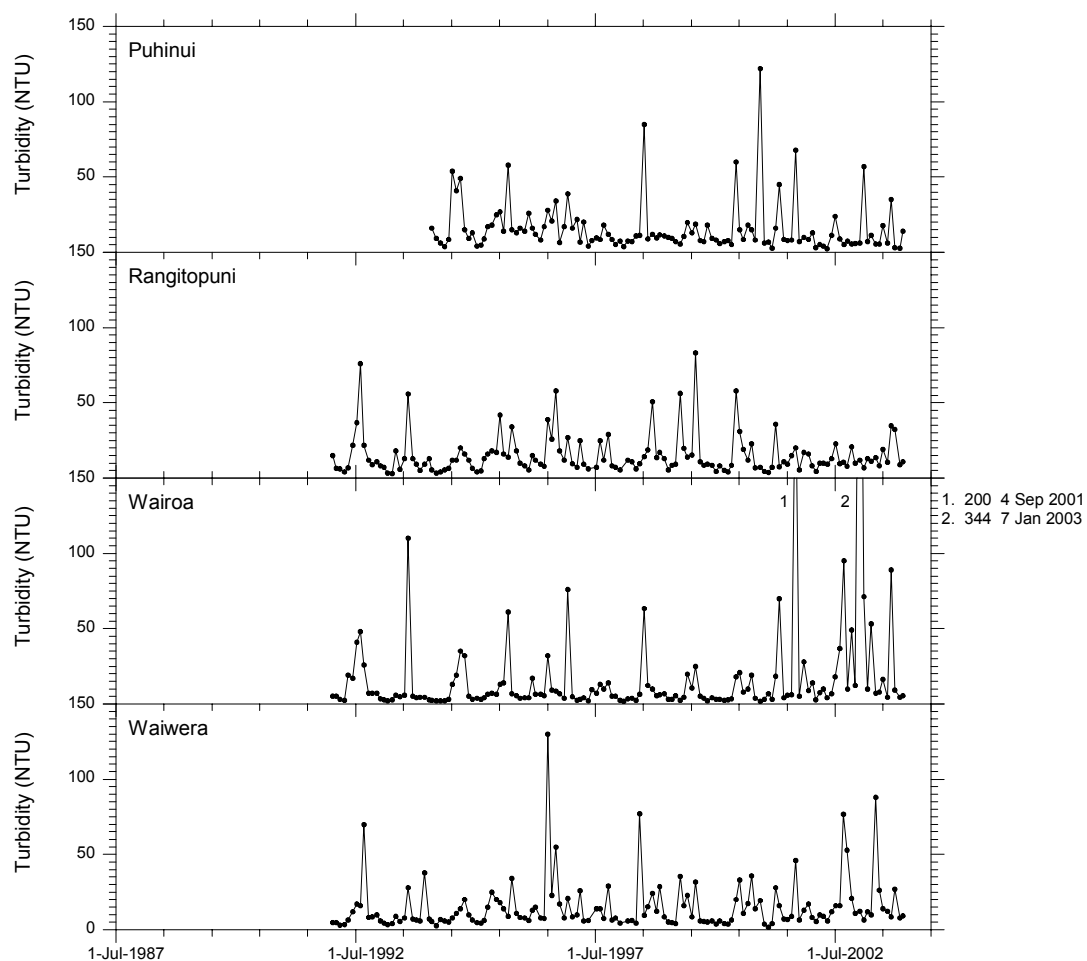
Turbidity (NTU) for the period January 2003 to December 2003																
Date	Cascades	Hoteo	Kumeu	Lucas	Mahurangi	Matakana	Ngakoroa	Oakley	Opanuku	Otara	Oteha	Papakura	Puhinui	Rangitopuni	Wairoa	Waiwera
7-Jan-03	15.3	8.3	10.3	13.7	12.2	4.9	1.1	2.0	14.3	5.3	7.9	2.0	6.1	11.8	348	12.3
4-Feb-03	1.6	4.3	11.0	19.0	4.9	3.0	46.0	24.6	22.8	114.0	3.6	75.8	56.9	6.7	71.4	6.5
4-Mar-03	9.9	10.7	9.9	71.0	17.4	17.5	1.1	1.5	2.4	3.2	63.8	2.0	7.2	12.9	10.0	12.0
1-Apr-03	11.2	23.0	5.9	35.2	7.8	7.3	1.1	10.7	9.2	14.7	21.6	2.2	11.5	11.2	53.1	10.1
6-May-03	1.7	12.3	6.7	42.6	5.3	5.3	1.4	3.3	6.1	16.0	36.0	2.7	5.4	13.7	7.3	87.9
4-Jun-03	2.3	6.2	5.1	23.0	4.8	3.6	8.1	6.3	7.2	10.0	12.0	5.6	5.5	8.1	7.7	26.5
1-Jul-03	8.8	17.0	19.0	108.0	10.0	10.0	3.3	12.4	11.7	31.8	62.0	12.3	17.9	19.0	16.5	14.1
7-Aug-03	2.1	8.3	6.7	29.5	5.6	4.8	0.9	16.5	3.6	11.1	19.9	5.1	6.2	10.5	4.5	12.2
2-Sep-03	51.2	36.7	228.0	193.0	12.8	39.5	17.1	28.1	47.1	108.0	47.9	61.3	35.3	34.8	89.2	8.8
30-Sep-03	7.5	38.5	21.7	159.0	10.8	18.7	2.6	2.4	9.9	5.7	94.5	7.6	3.3	32.4	9.4	27.1
4-Nov-03	7.8	12.2	18.8	56.7	9.6	6.5	1.9	2.0	2.8	3.7	20.1	2.4	2.9	8.9	4.4	7.8
1-Dec-03	2.0	13.2	11.3	23.9	6.0	6.8	0.7	4.3	5.0	21.6	11.9	4.3	13.9	11.1	5.7	9.2
Median	7.6	12.3	10.7	38.9	8.7	6.6	1.6	5.3	8.2	12.9	20.9	4.7	6.7	11.5	9.7	12.1
IQR/median %	106	83	114	145	64	106	212	210	94	144	189	138	141	43	524	67

NB: The dates given are for sites N1-N9. Sites S1-S7 were sampled on 8-Jan, 5-Feb, 5-Mar, 2-Apr, 7-May, 5-Jun, 2-Jul, 6-Aug, 5-Sep, 29 Sep, 5-Nov and 3-Dec.

The graphs on the following pages show turbidity results for the period August 1987 to December 2003 (where data available).







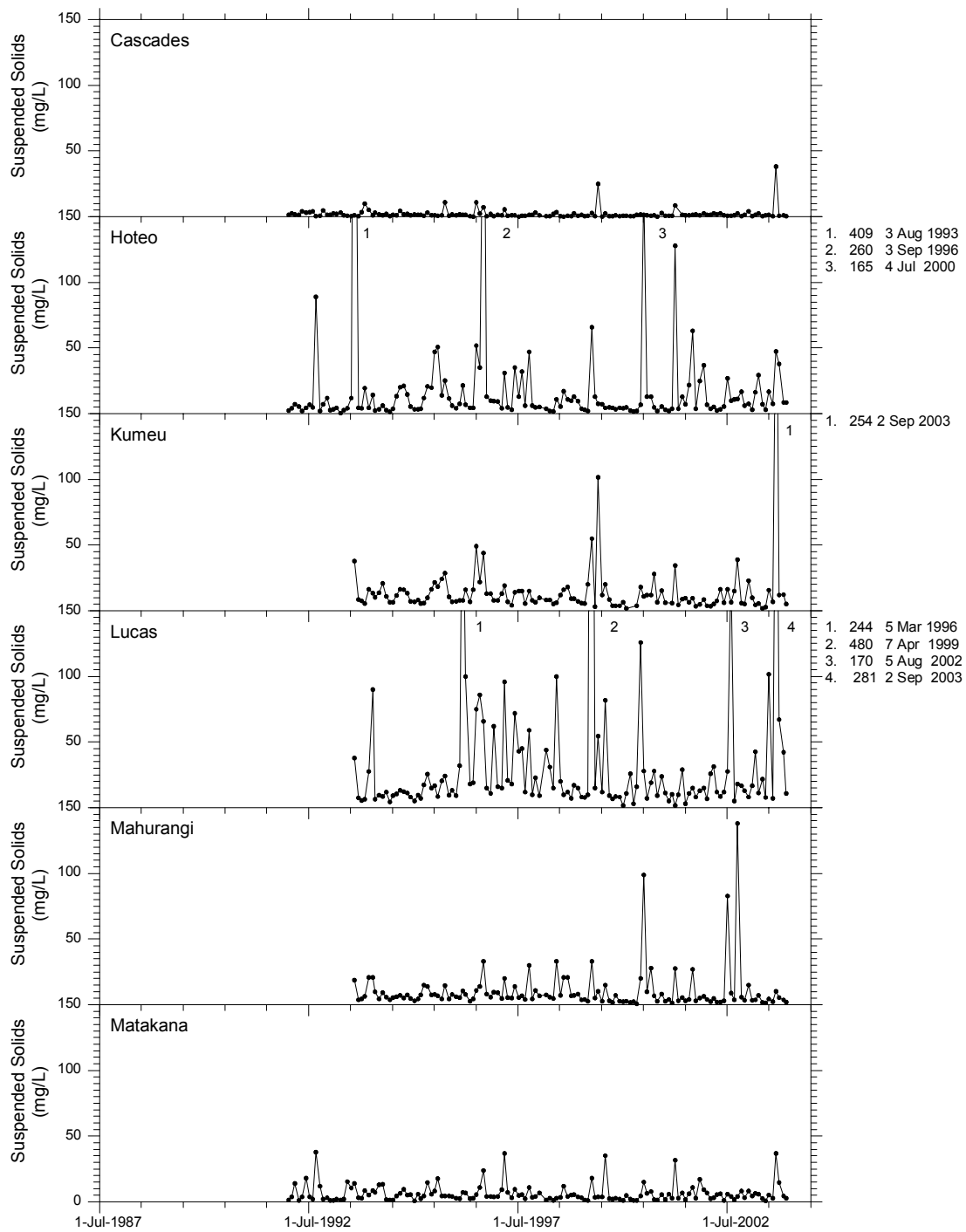
APPENDIX 6: FRESHWATER – SUSPENDED SOLIDS

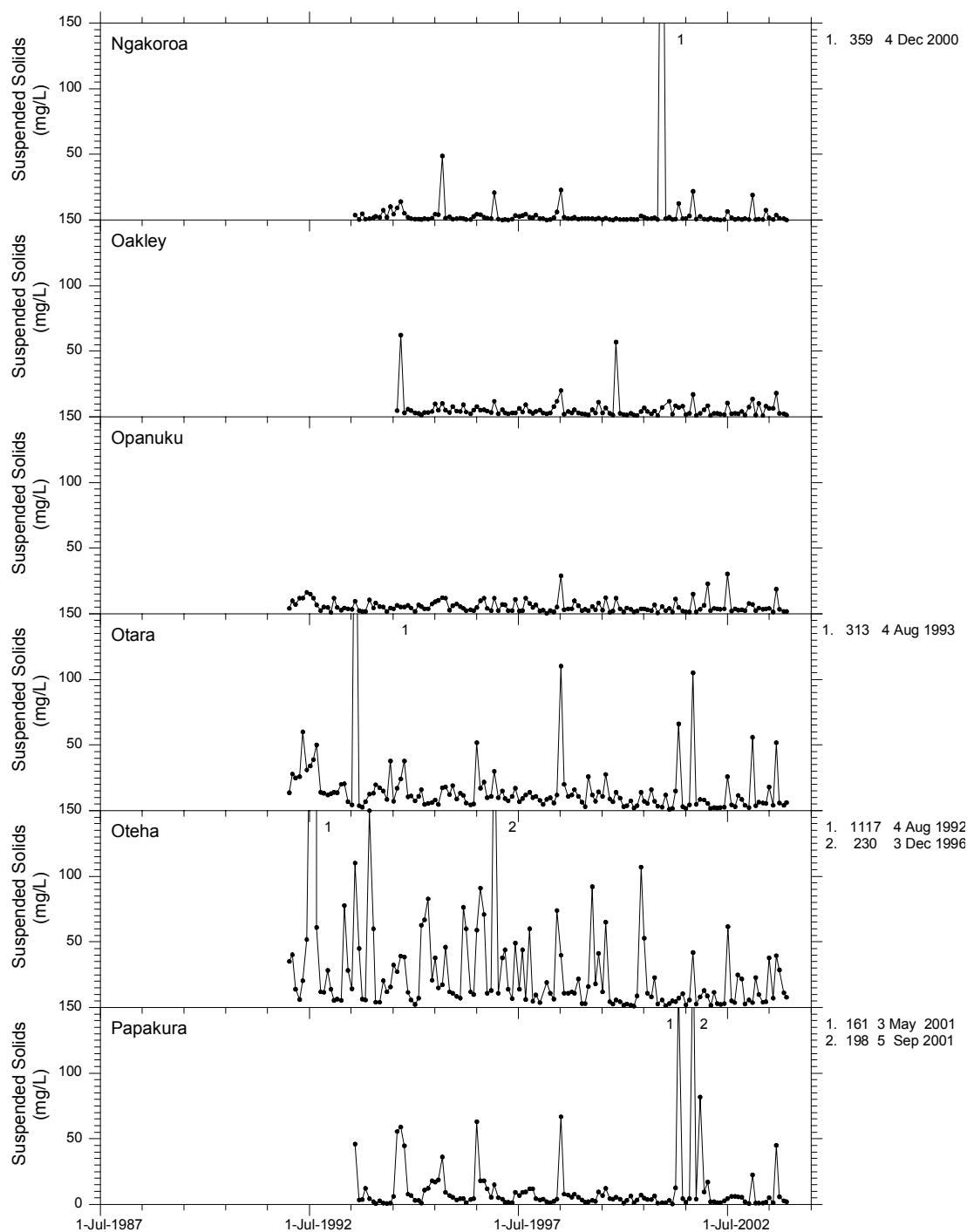
(Note that $\text{g/m}^3 = \text{g m}^{-3} = \text{mg/L}$)

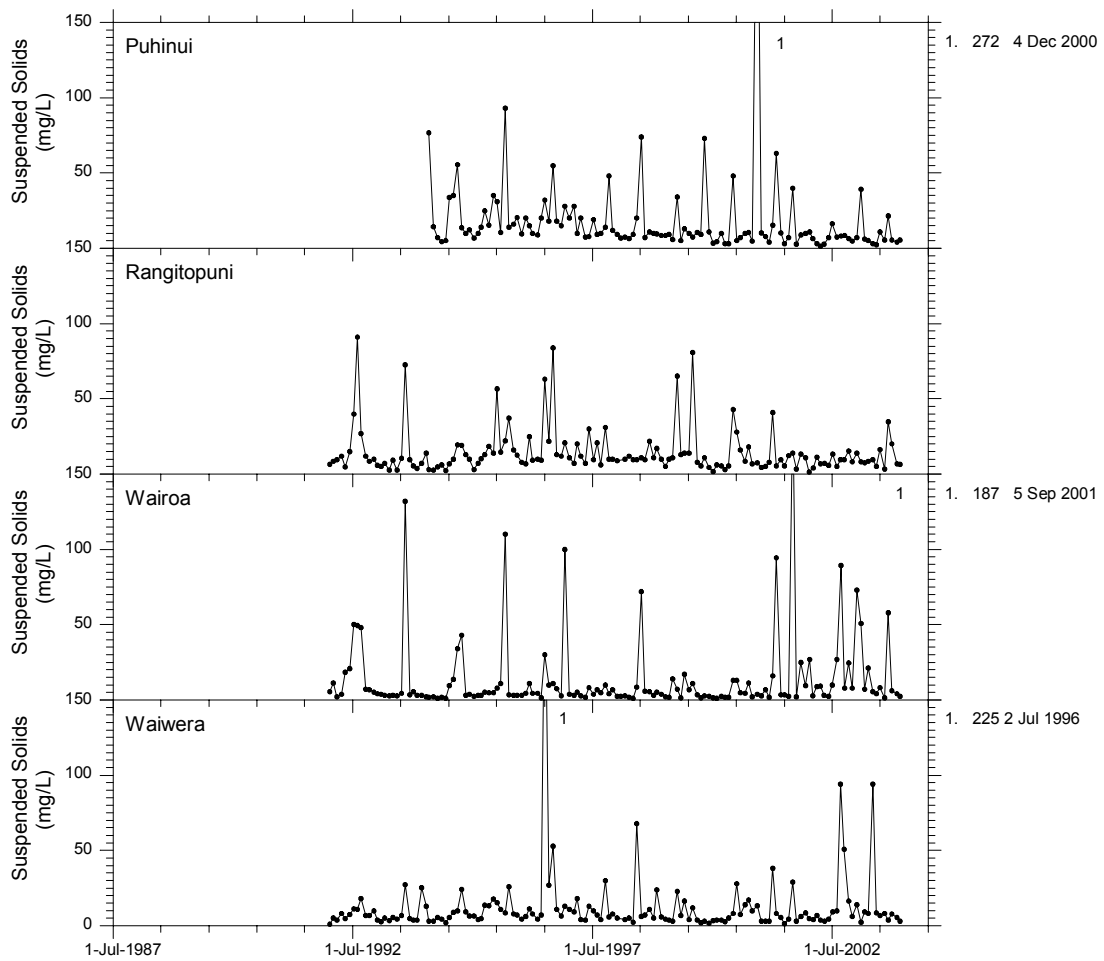
Suspended solids (mg/L) for the period January 2003 to December 2003																
Date	Cascades	Hoteo	Kumeu	Lucas	Mahurangi	Matakana	Ngakoroa	Oakley	Opanuku	Otara	Oteha	Papakura	Puhinui	Rangitopuni	Wairoa	Waiwera
7-Jan-03	4.3	7.5	23.0	8.4	15.0	8.3	0.4	7.6	7.9	2.6	6.0	0.8	7.1	14.0	73.0	14.0
4-Feb-03	0.4	3.1	10.0	16.8	3.5	4.7	19.2	13.8	7.4	55.9	3.6	22.6	39.4	8.2	50.9	2.4
4-Mar-03	1.5	16.3	4.4	42.8	3.6	6.5	0.5	1.6	2.6	3.8	22.7	0.9	6.2	7.6	7.4	9.2
1-Apr-03	2.5	29.5	5.4	11.4	7.3	5.8	0.7	10.3	4.5	6.4	10.1	1.0	5.3	8.8	21.1	8.4
6-May-03	0.4	7.2	1.9	22.0	1.7	2.5	0.6	1.0	3.5	6.0	4.0	1.1	3.2	9.5	5.4	94.1
4-Jun-03	1.2	3.3	2.7	7.8	1.6	0.7	7.6	8.3	3.9	5.6	4.6	1.8	2.5	5.0	4.2	8.5
1-Jul-03	1.3	16.7	15.7	101.7	4.6	5.0	1.8	6.4	4.1	18.3	37.8	5.3	10.9	16.6	8.1	6.9
7-Aug-03	0.5	7.6	7.0	7.4	2.3	2.7	0.5	6.6	1.3	4.2	7.1	1.3	5.5	3.4	1.6	8.4
2-Sep-03	38.3	47.6	254	281	10.4	36.9	3.9	18.2	18.7	52.0	39.6	45.0	21.6	34.9	58.0	3.7
30-Sep-03	0.8	37.7	11.9	67.3	5.6	14.6	1.3	2.8	3.4	5.8	28.8	5.8	5.5	20.1	6.3	7.9
4-Nov-03	0.9	8.5	12.2	42.5	3.9	4.6	1.2	2.6	1.8	4.1	11.4	2.9	4.1	6.8	4.2	5.6
1-Dec-03	0.6	8.7	5.1	10.9	2.0	2.8	0.1	1.4	1.7	6.1	7.8	2.2	5.7	6.6	2.4	3.1
Median	1.1	8.6	8.5	19.4	3.8	4.9	1.0	6.5	3.7	5.9	9.0	2.0	5.6	8.5	6.9	8.2
IQR/median %	112	145	96	199	101	86	192	99	76	88	208	218	54	93	355	44

NB: The dates given are for sites N1-N9. Sites S1-S7 were sampled on 8-Jan, 5-Feb, 5-Mar, 2-Apr, 7-May, 5-Jun, 2-Jul, 6-Aug, 5-Sep, 29 Sep, 5-Nov and 3-Dec.

The graphs on the following pages show suspended solids results for the period August 1987 to December 2003 (where data available).





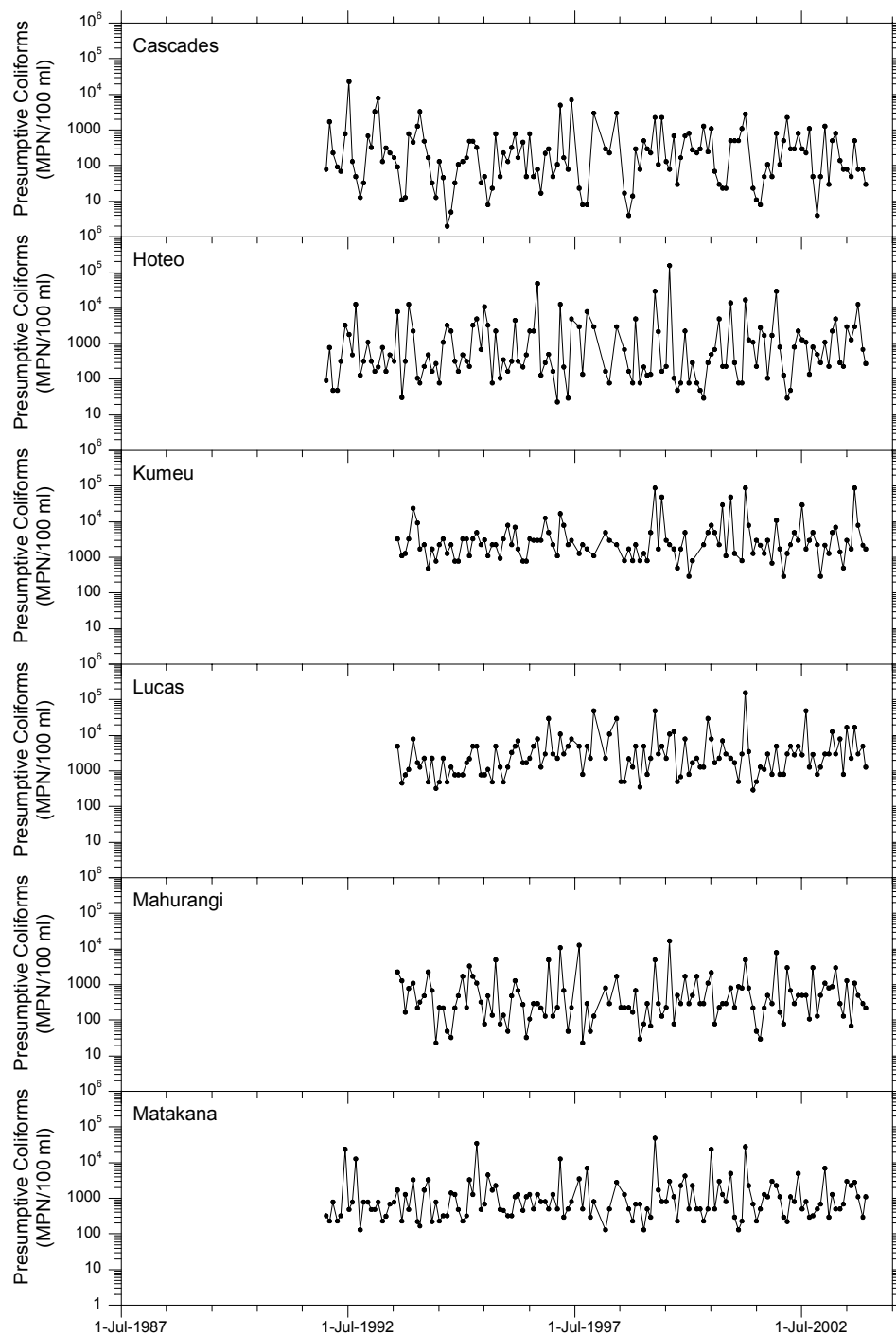


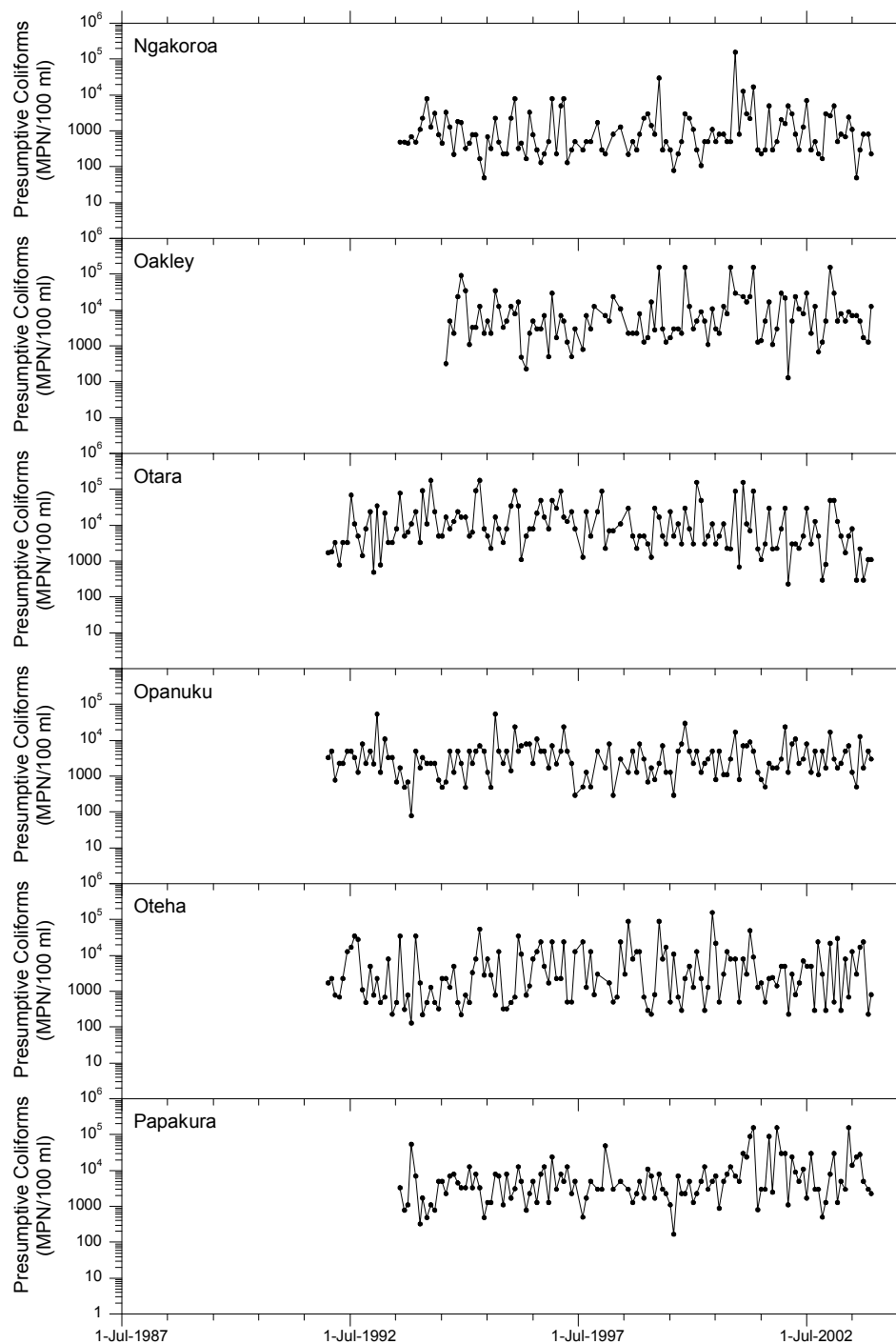
APPENDIX 7: FRESHWATER – PRESUMPTIVE COLIFORMS

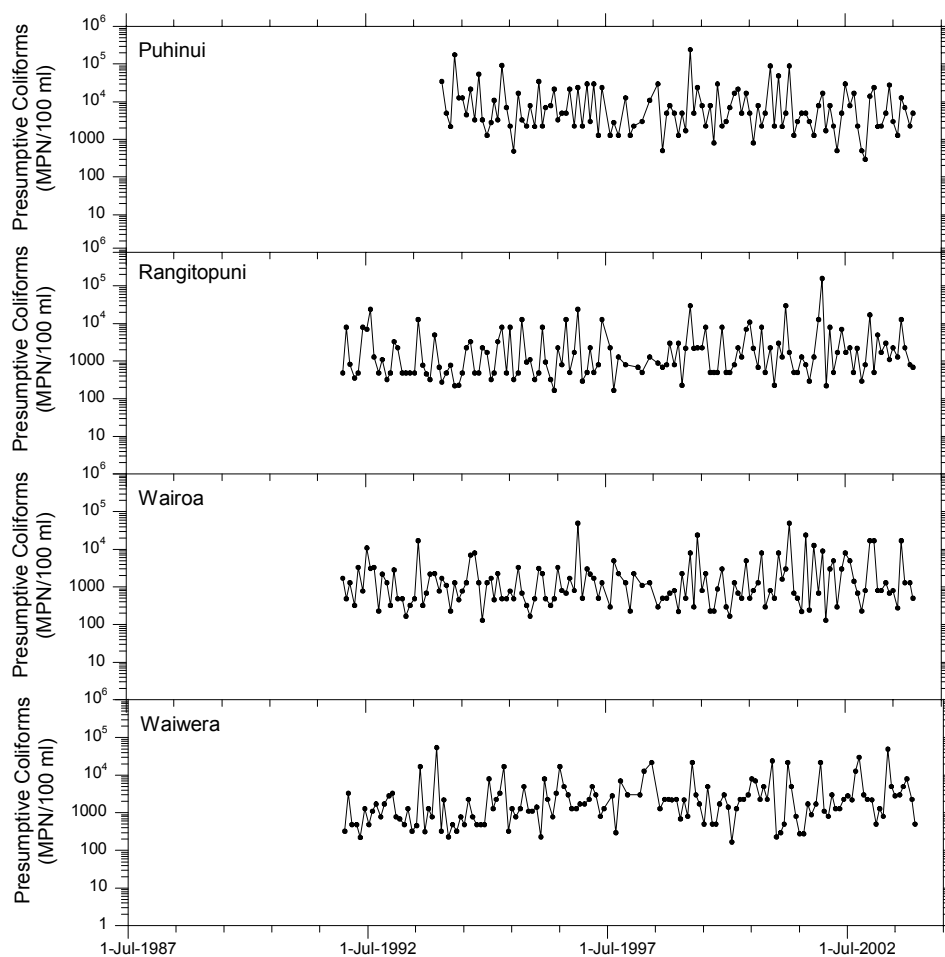
Presumptive coliforms (MPN/100 mL) for the period January 2003 to December 2003																
Date	Cascades	Hoteo	Kumeu	Lucas	Mahurangi	Matakana	Ngakoroa	Oakley	Opanuku	Otara	Oteha	Papakura	Puhinui	Rangitopuni	Wairoa	Waiwera
7-Jan-03	1300	1100	2200	3000	1100	7000	2700	160000	17000	50000	22000	8000	14000	17000	17000	2200
4-Feb-03	30	230	1300	3000	800	300	5000	30000	3000	50000	500	30000	24000	500	17000	500
4-Mar-03	500	2300	5000	13000	900	1300	500	5000	1700	13000	30000	1300	2200	5000	800	1300
1-Apr-03	800	5000	7000	3000	3000	500	800	8000	2300	5000	300	5000	2300	1700	800	800
6-May-03	140	300	1400	8000	300	500	700	5000	5000	1700	8000	3000	5000	3000	1300	50000
4-Jun-03	80	230	500	800	130	700	2400	9000	7000	5000	700	160000	28000	1100	700	5000
1-Jul-03	80	3000	3000	17000	1300	3000	1100	7000	1300	8000	13000	14000	3000	2300	800	2800
7-Aug-03	50	1300	1700	2300	70	2300	50	7000	500	300	3000	24000	1300	1300	280	3000
2-Sep-03	500	3000	90000	17000	1100	2800	300	5000	13000	2200	17000	28000	13000	13000	17000	5000
30-Sep-03	80	13000	8000	3000	500	1100	800	1700	1700	300	24000	5000	7000	2300	1300	8000
4-Nov-03	80	700	2200	5000	300	300	800	1300	5000	1100	230	3000	2300	800	1300	2300
1-Dec-03	30	280	1700	1300	220	1100	230	13000	3000	1100	800	2300	5000	700	500	500
Median	80	1200	2200	3000	650	1100	800	7000	3000	3600	5500	6500	5000	2000	1050	2550
IQR/median %	534	225	176	214	126	175	122	71	127	226	320	338	219	124	424	150

NB: The dates given are for sites N1-N9. Sites S1-S7 were sampled on 8-Jan, 5-Feb, 5-Mar, 2-Apr, 7-May, 5-Jun, 2-Jul, 6-Aug, 5-Sep, 29 Sep, 5-Nov and 3-Dec.

The graphs on the following pages show presumptive coliform results for the period August 1987 to December 2003 (where data available).







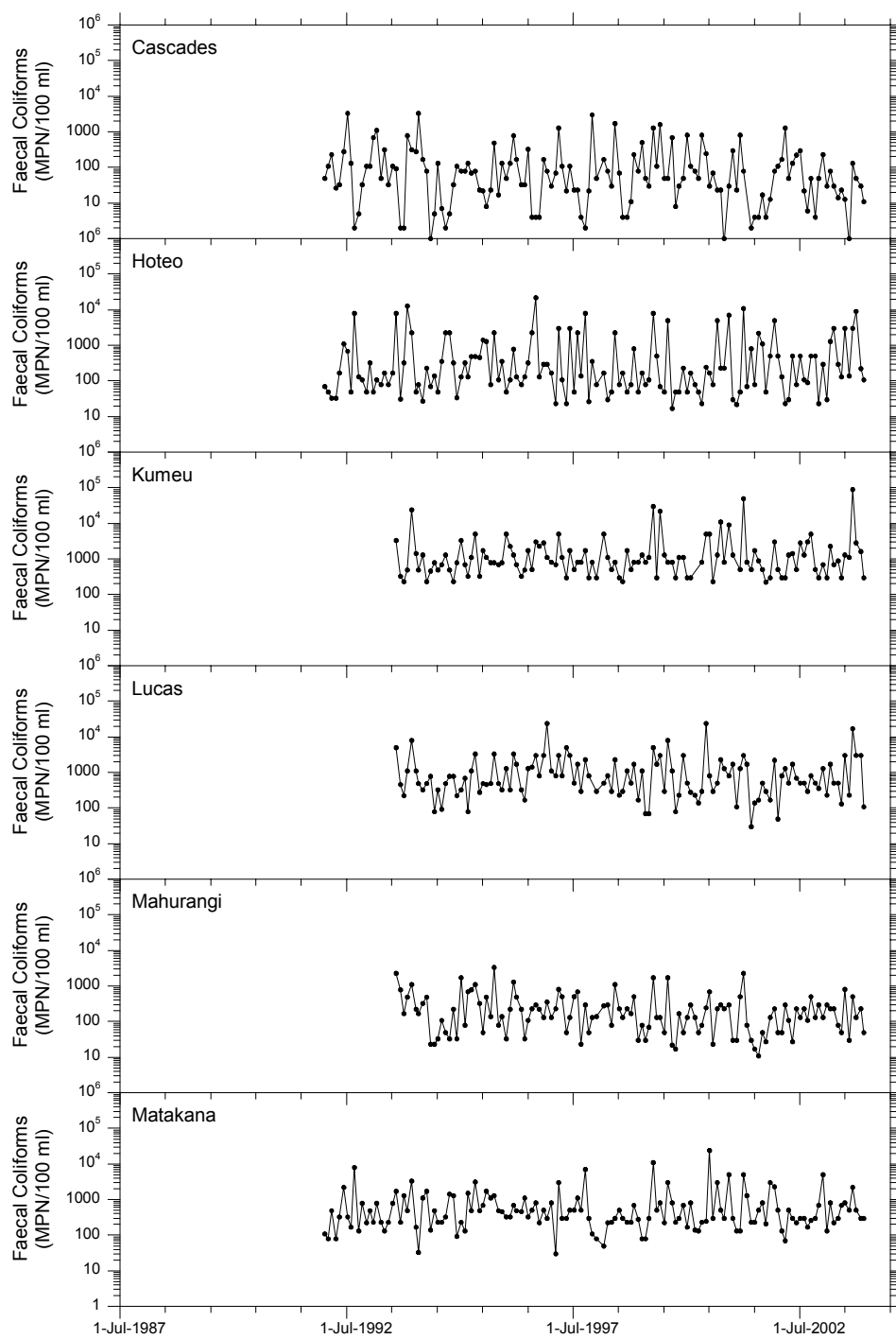
APPENDIX 8: FRESHWATER – FAECAL COLIFORMS

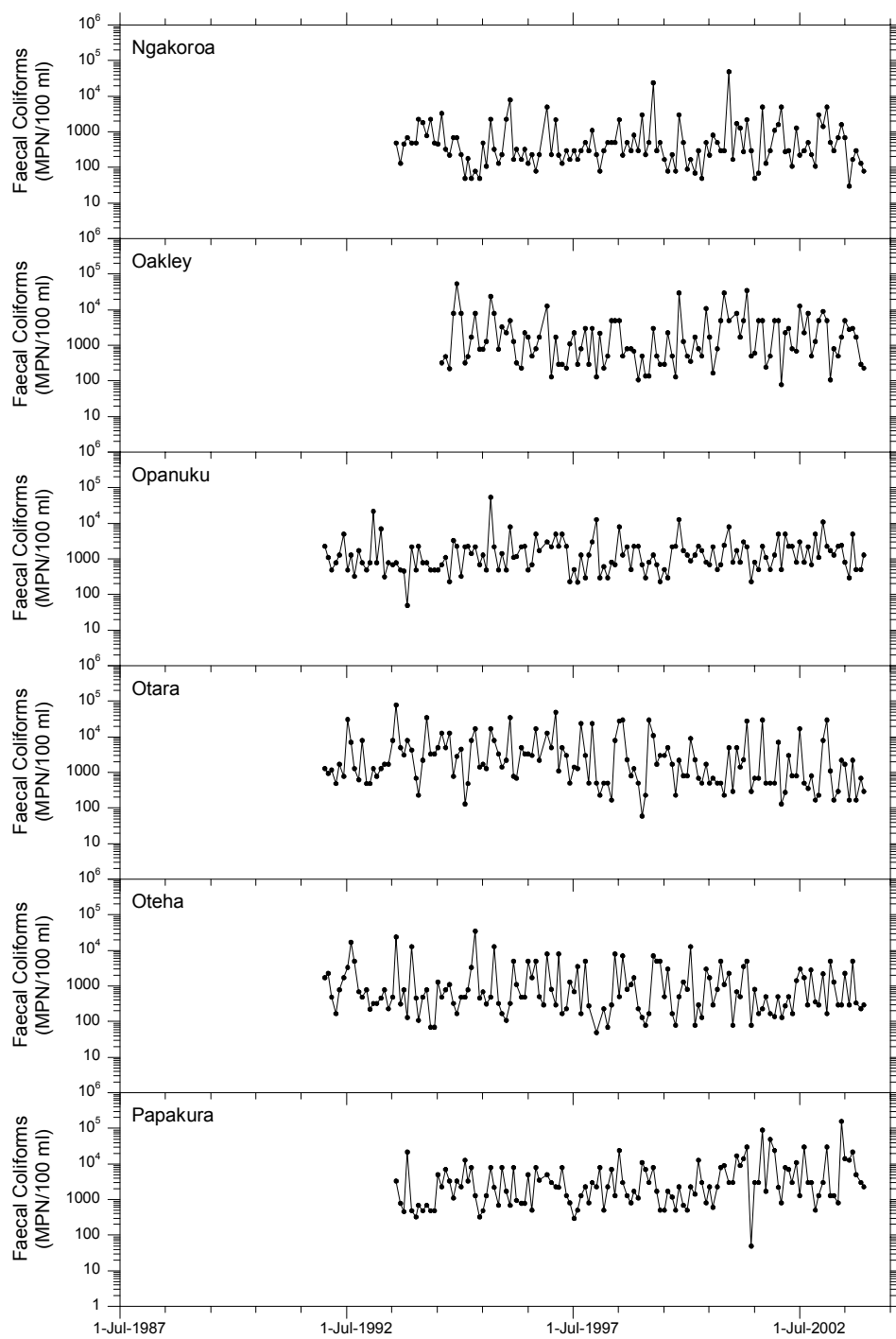
Faecal coliforms (MPN/100 mL) for the period January 2003 to December 2003																
Date	Cascades	Hoteo	Kumeu	Lucas	Mahurangi	Matakana	Ngakoroa	Oakley	Opanuku	Otara	Oteha	Papakura	Puhinui	Rangitopuni	Wairoa	Waiwera
7-Jan-03	230	300	700	1300	130	5000	1400	9000	11000	8000	2200	3000	5000	8000	17000	1700
4-Feb-03	30	30	300	230	300	130	5000	5000	2300	30000	170	30000	13000	230	17000	230
4-Mar-03	80	1300	2300	1700	230	800	500	110	1700	1100	5000	1300	2200	1700	300	800
1-Apr-03	30	3000	700	500	230	220	300	800	1300	170	1300	1300	2300	1100	500	500
6-May-03	14	300	900	500	80	300	700	500	2300	300	300	800	5000	800	170	50000
4-Jun-03	23	130	300	130	50	700	1600	1700	2400	2200	300	160000	7000	1100	300	5000
1-Jul-03	13	3000	1300	3000	800	800	700	5000	800	1700	2300	14000	2300	1300	300	1700
7-Aug-03	<2	140	1100	230	30	500	30	2800	300	170	300	13000	500	130	140	800
2-Sep-03	130	3000	90000	17000	500	2200	170	3000	5000	2200	5000	22000	2300	13000	17000	110
30-Sep-03	50	9000	2800	3000	130	500	300	1700	500	170	340	5000	2300	2300	500	1700
4-Nov-03	30	220	1600	3000	230	300	130	300	500	700	230	3000	2300	800	800	800
1-Dec-03	11	110	300	110	50	300	80	230	1300	300	300	2300	1700	700	130	140
Median	30	300	1000	900	180	500	400	1700	1500	900	320	4000	2300	1100	400	800
IQR/median %	146	954	118	308	97	100	179	179	107	215	602	349	118	98	1146	158

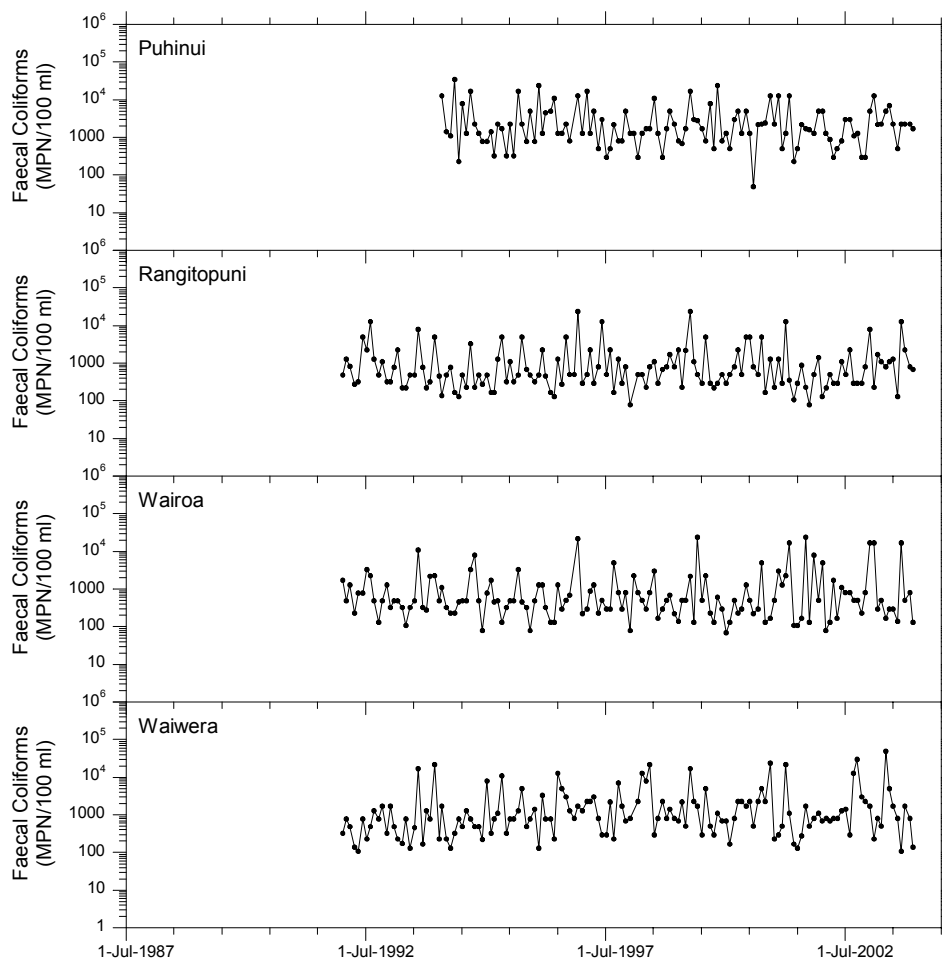
NB: The dates given are for sites N1-N9. Sites S1-S7 were sampled on 8-Jan, 5-Feb, 5-Mar, 2-Apr, 7-May, 5-Jun, 2-Jul, 6-Aug, 5-Sep, 29 Sep, 5-Nov and 3-Dec.

Detection limit is 2 MPN/100 mL. For summary statistics, a result of "<2" is taken to have the value 1.

The graphs on the following pages show faecal coliform results for the period August 1987 to December 2003 (where data available).







APPENDIX 9: FRESHWATER – AMMONIA NITROGEN

(Note that $\text{g/m}^3 = \text{g m}^{-3} = \text{mg/L}$)

Ammonia-nitrogen (mg/L) for the period January 2003 to December 2003

Date	Cascades	Hoteo	Kumeu	Lucas	Mahurangi	Matakana	Ngakoroa	Oakley	Opanuku	Otara	Oteha	Papakura	Puhinui	Rangitopuni	Wairoa	Waiwera
7-Jan-03	<0.01	0.05	0.08	0.25	0.06	0.08	0.02	0.04	0.03	0.04	0.03	0.04	0.12	0.08	0.05	0.07
4-Feb-03	0.02	0.03	0.05	0.09	0.04	0.04	0.06	0.08	0.04	0.25	0.03	0.16	0.08	0.09	0.07	0.03
4-Mar-03	<0.01	0.06	0.05	0.07	0.04	0.04	0.02	0.05	0.04	0.05	0.05	0.10	0.13	0.06	0.02	0.04
1-Apr-03	0.03	0.10	0.04	0.05	0.02	0.04	<0.01	0.18	0.04	0.05	0.04	0.04	0.04	0.05	0.08	0.02
6-May-03	<0.01	0.04	0.02	0.06	0.04	0.03	0.02	0.03	0.02	0.03	0.03	0.04	0.04	0.05	0.03	0.09
4-Jun-03	<0.01	0.02	0.02	0.02	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	0.03	0.08	0.04	0.02	<0.01	0.07
1-Jul-03	<0.01	0.04	0.06	0.07	0.03	0.02	0.04	0.06	0.04	0.04	0.04	0.05	0.04	0.05	<0.01	0.03
7-Aug-03	<0.01	0.03	0.05	0.06	<0.01	0.05	<0.01	0.07	0.02	0.14	0.05	0.03	0.03	0.07	0.02	0.06
2-Sep-03	0.02	0.07	0.13	0.10	0.03	0.04	0.02	0.07	0.05	0.05	0.14	0.14	0.08	0.05	0.15	0.02
30-Sep-03	<0.01	0.09	0.10	0.05	0.05	0.03	<0.01	0.02	0.02	0.03	0.07	0.04	0.05	0.09	0.03	0.04
4-Nov-03	<0.01	0.04	0.05	0.03	<0.01	0.04	<0.01	0.03	0.02	0.04	0.02	0.02	0.04	0.04	0.03	0.04
1-Dec-03	<0.01	0.04	0.03	0.05	0.02	0.02	0.04	0.04	0.03	0.02	0.03	0.05	0.05	0.05	0.05	0.02
Median	0.005	0.04	0.05	0.06	0.03	0.04	0.020	0.045	0.03	0.04	0.035	0.045	0.045	0.05	0.03	0.04
IQR/median %	75	63	55	42	79	31	100	89	67	50	57	100	89	45	117	88

NB: The dates given are for sites N1-N9. Sites S1-S7 were sampled on 8-Jan, 5-Feb, 5-Mar, 2-Apr, 7-May, 5-Jun, 2-Jul, 6-Aug, 5-Sep, 29 Sep, 5-Nov and 3-Dec.

Method detection limit is 0.01 mg/L. For summary statistics, a result of “<0.01” is taken to have the value 0.005

The graphs on the following pages show ammonia-nitrogen results for the period August 1987 to December 2003 (where data available).

