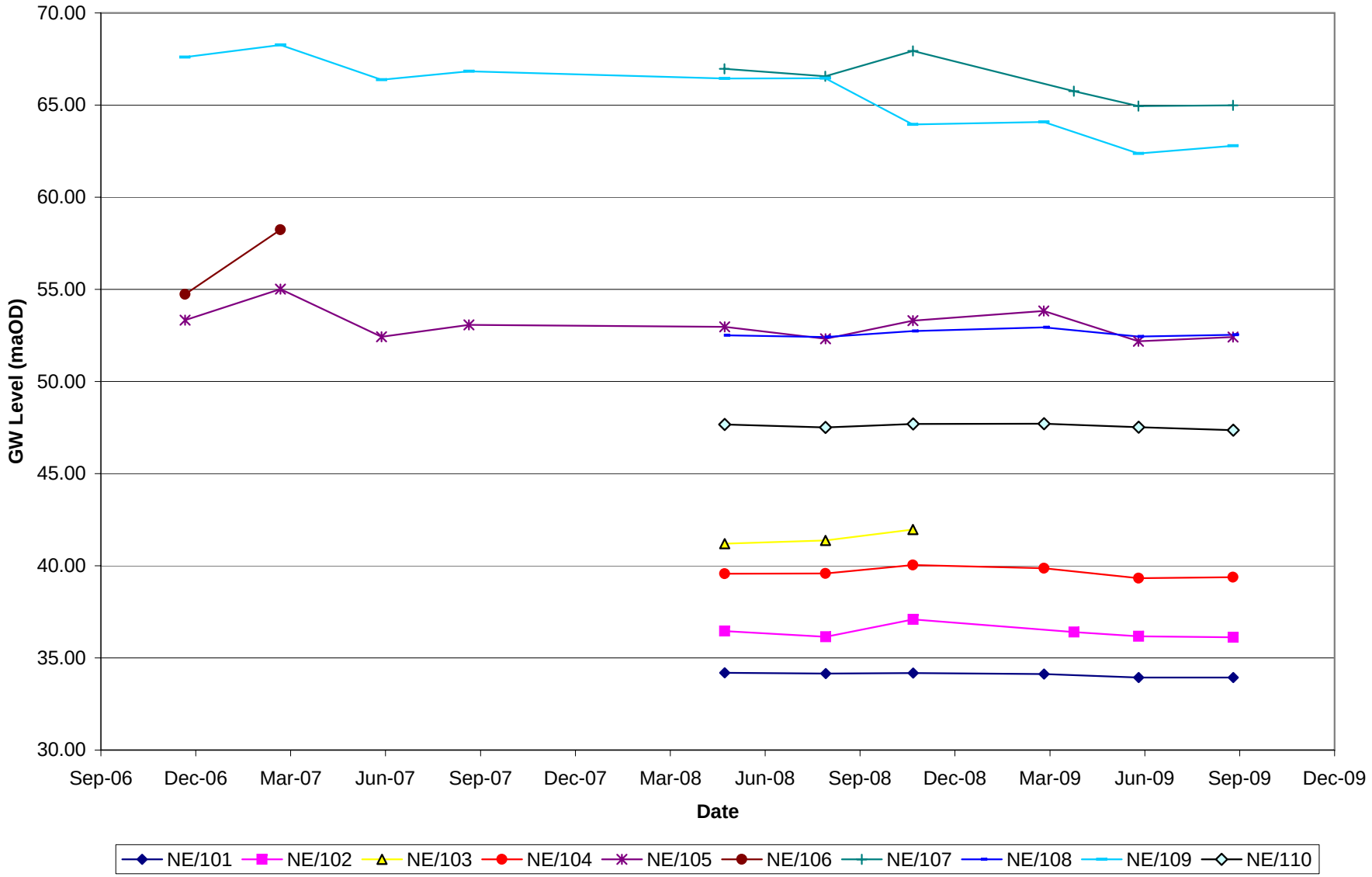
Appendix 9-1
Summary of Daily Rainfall Statistics from EA Rainfall Gauge at Lutton

Year	Daily Rainfall (mm)				
	Count	Min	Average	Max	Sum (mm/yr)
1974	61	0	5.75	25.2	350.9
1975	365	0	2.91	57.8	1063.1
1976	366	0	3.00	39.8	1098.3
1977	365	0	3.87	37.4	1411.1
1978	365	0	3.54	39.6	1293.3
1979	365	0	4.06	52.9	1480.9
1980	366	0	4.13	58.4	1509.9
1981	365	0	4.40	58.9	1606.5
1982	365	0	4.20	48.6	1533.4
1983	365	0	3.43	42	1253.4
1984	366	0	3.60	33.9	1318
1985	365	0	3.42	36.4	1248.7
1986	365	0	4.32	42.5	1575.6
1987	365	0	3.51	44.3	1281
1988	366	0	3.91	47.2	1432
1989	365	0	3.36	46.4	1226.5
1990	365	0	3.47	57.1	1266.3
1991	365	0	3.93	71.3	1434.8
1992	366	0	3.53	29.5	1291
1993	365	0	4.34	56.4	1584.5
1994	365	0	4.64	66.2	1693.5
1995	365	0	3.69	41.1	1348
1996	366	0	3.80	40.6	1390.1
1997	365	0	3.82	42	1394.4
1998	365	0	4.58	49.5	1669.9
1999	365	0	4.27	48.5	1558.7
2000	366	0	4.78	65.6	1748.5
2001	365	0	3.53	33.5	1289.7
2002	365	0	4.63	63.1	1690.9
2003	365	0	3.22	33.3	1176.8
2004	366	0	3.62	48	1326.2
2005	365	0	3.58	37.4	1305.5
2006	365	0	3.46	36.3	1261.8
2007	365	0	4.39	37.4	1600.9
2008	366	0	4.36	48.8	1594.5
2009	59	0	5.14	40.3	303.2

Appendix 9-1
Summary of Daily Rainfall Statistics from EA Rainfall Gauge at Cornwood

Year	Daily Rainfall (mm)				
	Count	Min	Average	Max	Sum
1998	214	0	5.75	43	1230
1999	365	0	2.93	50	1071
2000	366	0	4.62	66	1689.5
2001	365	0	4.17	87	1522.5
2002	365	0	4.86	52	1773.5
2003	365	0	3.19	35.5	1166
2004	366	0	3.94	70.5	1441
2005	365	0	4.05	51.4	1479.9
2006	365	0	3.8	45	1387
2007	365	0	4.44	39.2	1619
2008	366	0	4.68	48.2	1712.4
2009	95	0	4.03	37.8	382.4


70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
GW Level (maOD)
Sep-06
Dec-06
Mar-07
Jun-07
Sep-07
Dec-07
Mar-08
Jun-08
Sep-08
Dec-08
Mar-09
Jun-09
Sep-09
Dec-09
Date
NE/101
NE/102
NE/103
NE/104
NE/105
NE/106
NE/107
NE/108
NE/109
NE/110

The permeabilities have been calculated based on the Hvorslev method for a constant head test as per guidance in BS 5930: 1999, code of practice for ground investigations section 4

$$k = \frac{q}{FHc}$$

where:

$$F = \frac{2\pi L}{\log_e[(L/D) + \sqrt{\{1 + (L/D)^2\}}]}$$

Borehole No	Diameter of Borehole (m)	SLR Pumping rate (m3/sec)	Wetted Length before Test (m)	Wetted Length for 1m drawdown (m)	Wetted Length for 0.5m Drawdown (m)	F for 1m Drawdown (m)	F for 0.5m drawdown (m)	K for 1m drawdown (m/sec)	K for 0.5m drawdown (m/sec)	Lowest Permeability (m/sec)	Geology
NE/101	0.08	2.60E-05	22.21	21.71	21.96	21.66	21.87	1.20E-06	5.94E-07	5.94E-07	Slate
NE/102	0.08	6.41E-05	22.45	21.95	22.2	21.86	22.07	2.93E-06	1.45E-06	1.45E-06	Dolerite
NE/103	0.08	1.35E-04	22.56	22.06	22.31	21.96	22.17	6.15E-06	3.05E-06	3.05E-06	Dolerite
NE/104	0.08	7.69E-05	20.9	20.4	20.65	20.56	20.77	3.74E-06	1.85E-06	1.85E-06	Slate
NE/105	0.08	1.04E-04	16.08	15.58	15.83	16.41	16.63	6.34E-06	3.13E-06	3.13E-06	Slate
NE/106	0.08	1.37E-04	27.05	26.55	26.8	25.67	25.88	5.34E-06	2.65E-06	2.65E-06	Dolerite
NE/107	0.08	5.05E-05	44.04	43.54	43.79	39.12	39.32	1.29E-06	6.42E-07	6.42E-07	Slate
NE/108	0.08										
NE/109	0.08	3.46E-06	29	28.5	28.75	27.26	27.46	1.27E-07	6.30E-08	6.30E-08	Slate
NE/110	0.08	6.34E-06	28.17	27.67	27.92	26.59	26.79	2.38E-07	1.18E-07	1.18E-07	Dolerite

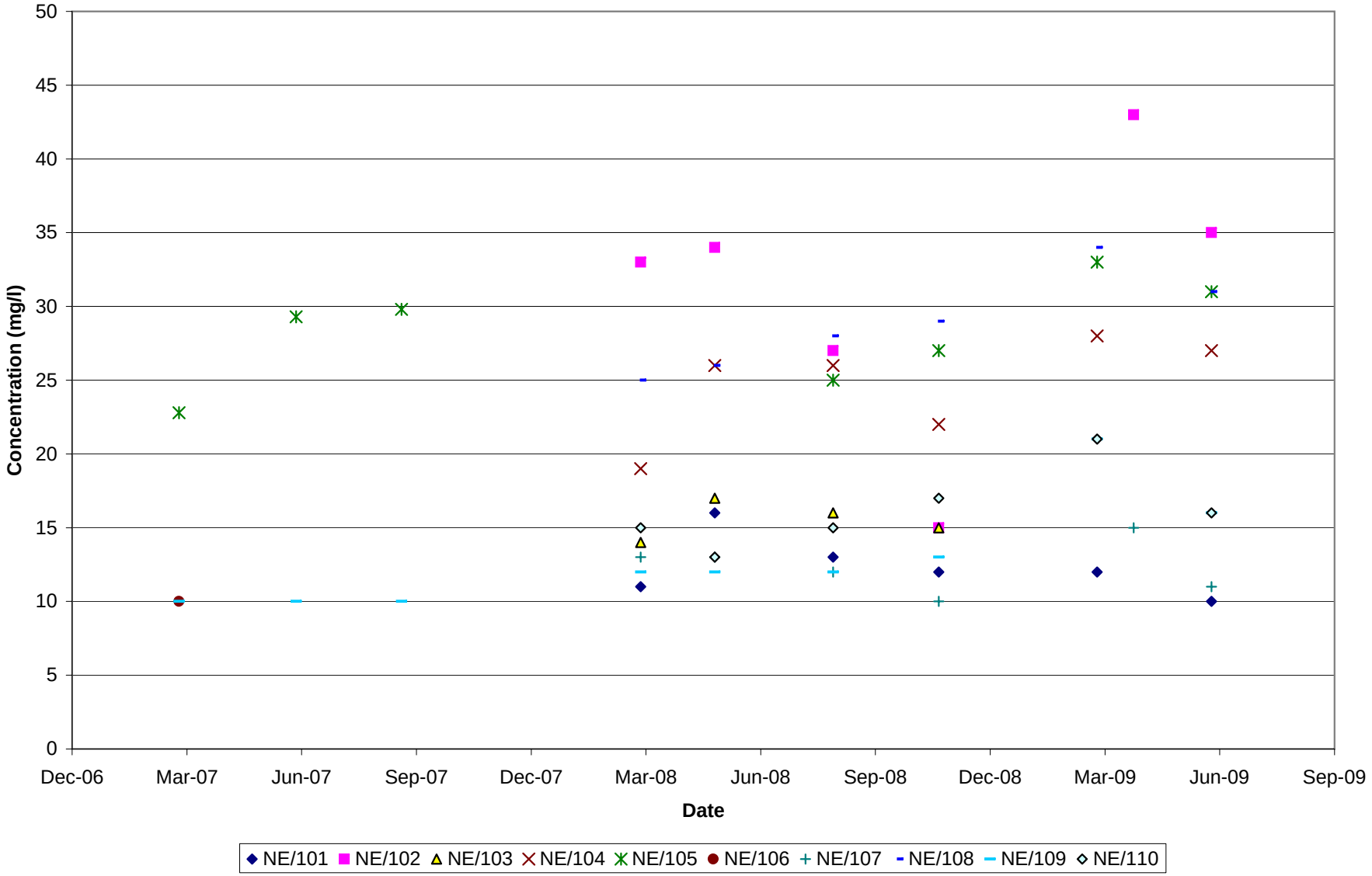
notes:
pumping rate based on rate (m3/sec) calculated during last stage of each pumping test
wetted length values based on values provided by Peter Bretts Associates, Dec 2005

Determinand		NE/101	NE/102	NE/103	NE/104	NE/105	NE/106	NE/107	NE/108	NE/109	NE/110
Calcium (mg/l)	Count	6.00	6.00	4.00	6.00	6.00		6.00	6.00	8.00	6.00
	Min	31.00	30.00	34.00	80.00	94.00		55.00	86.00	95.00	46.00
	Mean	44.67	37.50	40.75	88.33	97.38		59.83	93.17	110.63	60.33
	Max	54.00	59.00	44.00	98.00	105.00		75.00	107.00	147.00	74.00
Magnesium (mg/l)	Count	6.00	6.00	4.00	6.00	6.00		6.00	6.00	8.00	6.00
	Min	6.86	6.28	10.00	25.00	27.00		5.69	25.00	7.35	11.00
	Mean	11.74	14.05	12.75	29.67	29.20		7.98	31.17	12.55	15.67
	Max	15.00	19.00	17.00	36.00	32.00		12.00	41.00	20.20	22.00
Potassium (mg/l)	Count	6.00	6.00	4.00	6.00	6.00		6.00	6.00	8.00	6.00
	Min	1.42	0.50	0.80	0.73	1.01		1.06	0.78	0.48	1.38
	Mean	3.01	0.77	1.07	1.57	1.78		1.81	2.22	1.72	2.53
	Max	4.00	1.29	1.30	3.40	2.72		3.70	3.90	2.90	4.80
Sodium (mg/l)	Count	6.00	6.00	4.00	6.00	6.00		6.00	6.00	8.00	6.00
	Min	8.15	8.84	10.00	18.00	19.00		7.52	22.00	20.00	13.00
	Mean	13.74	18.64	13.25	19.33	22.68		9.32	29.00	24.84	17.17
	Max	20.00	26.00	19.00	24.00	28.00		15.00	37.00	33.00	23.00
Chloride (mg/l)	Count	6.00	6.00	4.00	6.00	7.00	1.00	6.00	6.00	9.00	6.00
	Min	10.00	15.00	14.00	19.00	22.80	10.00	10.00	25.00	10.00	13.00
	Mean	12.33	31.17	15.50	24.67	28.27	10.00	12.33	28.83	12.89	16.17
	Max	16.00	43.00	17.00	28.00	33.00	10.00	15.00	34.00	21.00	21.00
SO4 (mg/l)	Count	6.00	6.00	4.00	6.00	4.00		6.00	6.00	6.00	6.00
	Min	2.50	11.00	12.00	35.00	42.00		13.00	41.00	15.00	9.00
	Mean	7.00	13.17	13.00	44.00	44.75		16.17	55.67	16.17	12.83
	Max	17.00	15.00	15.00	49.00	49.00		22.00	65.00	19.00	21.00
NO3 (mg/l) N	Count	6.00	6.00	4.00	6.00	7.00	1.00	6.00	6.00	9.00	6.00
	Min	0.15	0.15	0.15	0.15	0.15	0.80	0.15	0.15	0.50	0.15
	Mean	0.15	0.18	0.19	0.59	0.17	0.80	0.29	0.15	1.37	0.28
	Max	0.15	0.30	0.30	1.90	0.20	0.80	0.60	0.15	4.94	0.40

Determinand		NE/101	NE/102	NE/103	NE/104	NE/105	NE/106	NE/107	NE/108	NE/109	NE/110
Hardness as CaCO3	Count	6.00	6.00	4.00	6.00	4.00		6.00	6.00	6.00	6.00
	Min	51.00	54.80	59.50	121.00	144.00		64.00	127.00	110.00	64.00
	Mean	71.55	60.43	61.75	173.96	202.00		72.97	181.79	157.67	103.90
	Max	105.90	69.00	63.50	352.75	358.01		93.00	357.76	273.00	176.02
Conductivity	Count	6.00	6.00	4.00	6.00	7.00	1.00	6.00	6.00	9.00	6.00
	Min	228.00	273.00	227.00	424.00	479.00	199.00	267.00	438.00	411.00	282.00
	Mean	346.83	354.67	357.50	542.17	598.86	199.00	306.33	573.17	522.44	366.67
	Max	658.00	675.00	677.00	602.00	654.00	199.00	433.00	623.00	770.00	717.00
pH	Count	6.00	6.00	4.00	6.00	7.00	1.00	6.00	6.00	9.00	6.00
	Min	7.10	7.70	7.60	7.60	7.11	7.88	7.90	7.30	7.14	7.30
	Mean	7.32	7.95	7.90	7.77	7.59	7.88	8.07	7.53	7.54	7.87
	Max	8.20	8.20	8.30	8.20	7.90	7.88	8.40	7.90	7.80	8.20
Ammoniacal Nitrgogen (N:mg/l)	Count	6.00	6.00	4.00	6.00	7.00	1.00	6.00	6.00	9.00	6.00
	Min	0.75	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02
	Mean	0.90	0.04	0.02	0.02	0.04	0.03	0.03	0.02	0.04	0.02
	Max	1.14	0.07	0.02	0.02	0.10	0.03	0.06	0.02	0.09	0.02
Iron (Dissolved) (mg/l)	Count	6.00	6.00	4.00	6.00	7.00	1.00	6.00	6.00	9.00	6.00
	Min	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02
	Mean	0.02	0.02	0.04	0.02	0.02	0.03	0.02	0.02	0.16	0.02
	Max	0.03	0.03	0.08	0.03	0.03	0.03	0.03	0.03	1.27	0.03
BOD (mg/l)	Count	6.00	6.00	4.00	6.00	7.00	1.00	6.00	6.00	9.00	6.00
	Min	0.50	0.50	0.50	0.50	0.50	4.75	0.50	0.50	0.50	0.50
	Mean	2.00	0.83	0.50	0.75	2.26	4.75	0.83	0.75	1.66	0.83
	Max	5.00	2.00	0.50	2.00	4.75	4.75	2.00	2.00	4.75	2.00
Nickel (Dissolved) (mg/l)	Count	6.00	6.00	4.00	6.00	7.00	1.00	6.00	6.00	9.00	6.00
	Min	0.45	0.45	0.45	0.45	0.45	2.50	0.45	2.10	0.45	0.45
	Mean	1.78	1.48	1.99	1.55	3.35	2.50	1.48	5.65	6.32	1.62
	Max	2.50	2.50	2.50	2.50	5.80	2.50	2.50	11.90	41.40	2.50
Lead (Dissolved) (ug/l)	Count	6.00	6.00	4.00	6.00	7.00	1.00	6.00	6.00	9.00	6.00
	Min	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	1.00	1.00
	Mean	2.33	2.08	2.13	2.25	2.07	3.00	2.08	1.75	2.56	1.75
	Max	6.00	3.00	2.50	3.00	3.00	3.00	3.00	2.50	6.52	2.50

Determinand		NE/101	NE/102	NE/103	NE/104	NE/105	NE/106	NE/107	NE/108	NE/109	NE/110
Alluminium (Dissolved) (ug/l)	Count	6.00	6.00	4.00	6.00	4.00		6.00	6.00	6.00	6.00
	Min	10.00	10.00	10.00	10.00	10.00		10.00	10.00	10.00	10.00
	Mean	15.83	15.17	22.50	17.00	10.00		19.17	14.67	15.50	21.67
	Max	45.00	41.00	49.00	39.00	10.00		42.00	38.00	43.00	54.00
COD (mg/l)	Count	6.00	6.00	4.00	6.00	7.00	1.00	6.00	6.00	9.00	6.00
	Min	83.00	10.00	10.00	26.00	8.50	19.10	21.00	45.00	23.20	48.00
	Mean	180.00	21.17	29.25	58.33	80.09	19.10	75.83	139.00	88.49	115.00
	Max	268.00	45.00	51.00	120.00	179.00	19.10	165.00	257.00	194.00	219.00
Zinc (Dissolved) (ug/l)	Count	6.00	6.00	4.00	6.00	7.00	1.00	6.00	6.00	9.00	6.00
	Min	2.50	2.50	2.50	2.50	2.50	5.50	1.00	2.50	1.00	2.50
	Mean	9.25	5.58	8.00	8.42	6.36	5.50	4.33	5.92	16.28	4.33
	Max	17.00	7.00	16.00	26.00	16.00	5.50	11.00	10.00	112.00	8.00
TON (N:mg/l)	Count	6.00	6.00	4.00	6.00	4.00		6.00	6.00	6.00	6.00
	Min	0.15	0.15	0.15	0.15	0.15		0.15	0.15	0.50	0.15
	Mean	0.15	0.22	0.19	0.59	0.15		0.29	0.15	0.85	0.28
	Max	0.15	0.40	0.30	1.90	0.15		0.60	0.15	1.50	0.40
Chromium (Dissolved) (ug/l)	Count	6.00	6.00	4.00	6.00	7.00	1.00	6.00	6.00	9.00	6.00
	Min	0.50	0.50	0.50	0.50	0.50	2.00	0.50	0.50	0.50	0.50
	Mean	1.50	1.50	2.00	1.50	1.43	2.00	1.50	1.50	8.54	1.50
	Max	2.50	2.50	2.50	2.50	2.50	2.00	2.50	2.50	63.90	2.50
Alkalinity (mg/l)	Count	6.00	6.00	4.00	6.00	4.00		6.00	6.00	6.00	6.00
	Min	123.00	93.60	98.70	255.00	274.00		118.00	240.00	248.00	139.00
	Mean	183.67	105.52	114.18	270.50	294.25		134.00	292.00	289.67	162.17
	Max	254.00	139.00	125.00	284.00	330.00		142.00	337.00	396.00	187.00
Copper (Dissolved) (ug/l)	Count	6.00	6.00	4.00	6.00	7.00	1.00	6.00	6.00	9.00	6.00
	Min	0.50	0.50	1.00	0.50	0.50	24.20	0.50	0.50	0.50	0.50
	Mean	2.42	2.58	2.75	2.08	1.14	24.20	2.58	1.58	3.08	1.75
	Max	5.00	6.00	5.00	5.00	2.50	24.20	6.00	2.50	15.20	2.50

Determinand		NE/101	NE/102	NE/103	NE/104	NE/105	NE/106	NE/107	NE/108	NE/109	NE/110
Cadmium (Dissolved) (ug/l)	Count	6.00	6.00	4.00	6.00	7.00	1.00	6.00	6.00	9.00	6.00
	Min	0.15	0.15	0.15	0.15	0.15	0.28	0.15	0.15	0.15	0.15
	Mean	0.24	0.20	0.23	0.20	0.22	0.28	0.26	0.20	0.23	0.20
	Max	0.40	0.25	0.25	0.25	0.28	0.28	0.50	0.25	0.28	0.25
Arsenic (Dissolved) (ug/l)	Count	6.00	6.00	4.00	6.00	4.00		6.00	6.00	6.00	6.00
	Min	0.50	0.50	0.50	0.50	0.50		0.50	0.50	0.50	0.50
	Mean	0.92	0.50	0.50	0.50	0.50		0.50	0.67	0.50	0.67
	Max	2.00	0.50	0.50	0.50	0.50		0.50	1.00	0.50	1.00
Manganese (mg/l)	Count	6.00	6.00	4.00	6.00	4.00		6.00	6.00	6.00	6.00
	Min	5.22	0.01	0.36	0.04	0.05		0.02	0.41	0.02	0.02
	Mean	6.54	0.16	0.72	0.96	0.38		0.34	1.22	0.39	0.52
	Max	7.89	0.33	0.95	3.39	0.68		1.07	1.71	1.26	1.08


Concentration (mg/l)
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30
25
20
15
10
5
0
Dec-06
Mar-07
Jun-07
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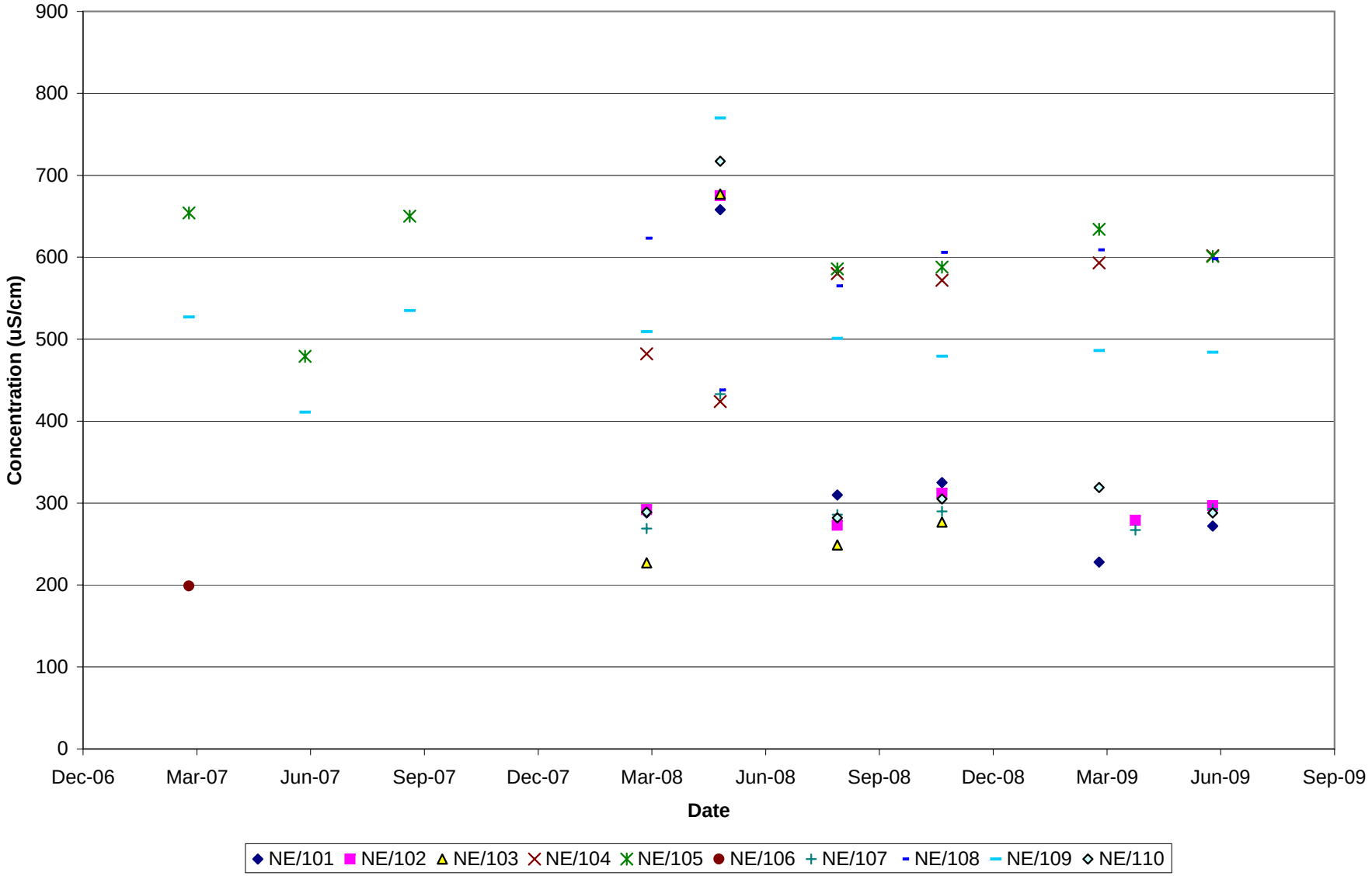
Dec-07
Mar-08
Jun-08
Sep-08
Dec-08
Mar-09
Jun-09
Sep-09
Date
NE/101
NE/102
NE/103
NE/104
NE/105
NE/106
NE/107
NE/108
NE/109
NE/110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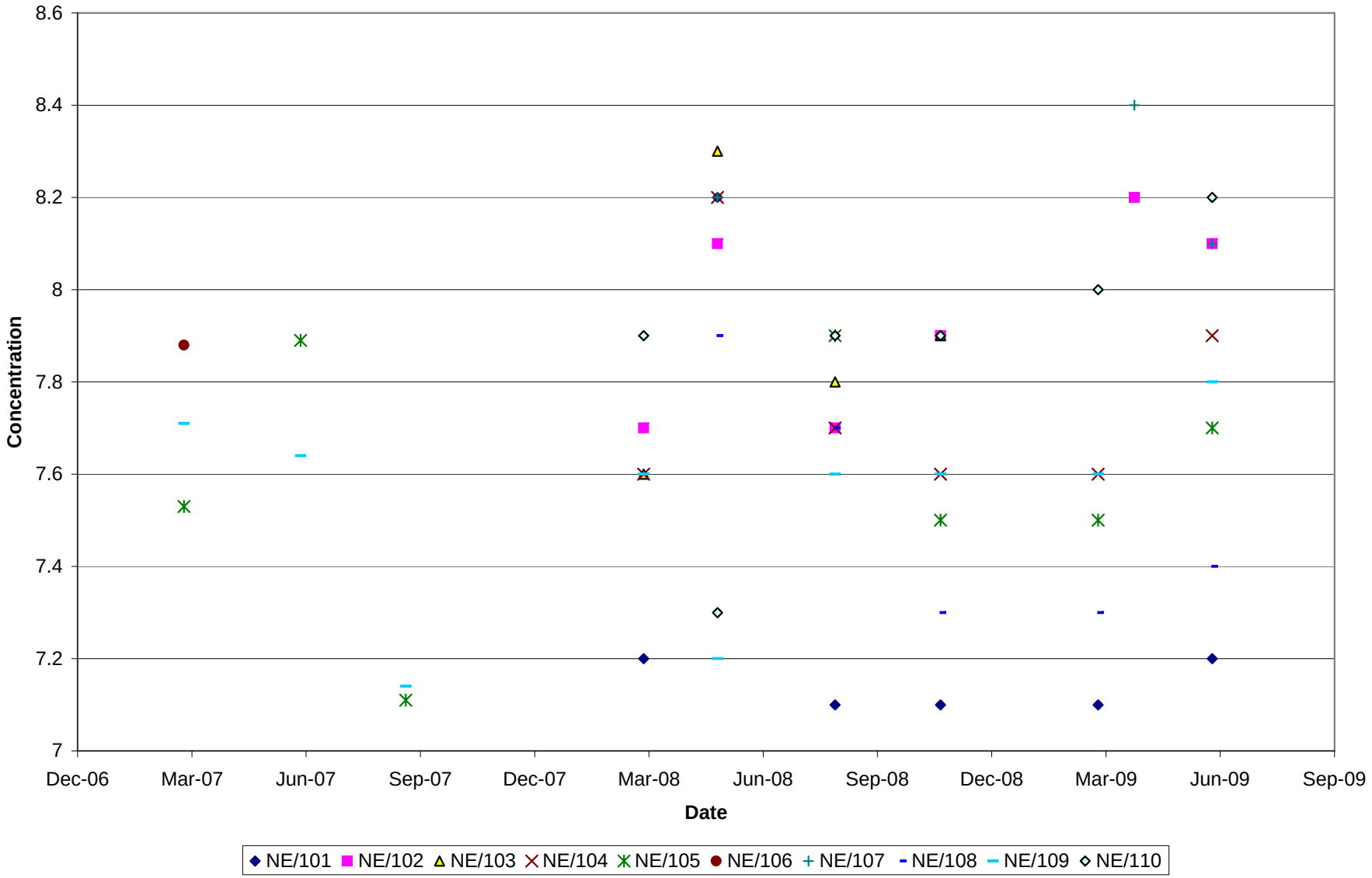
800
700
600
500
400
300
200
100
0
Concentration (uS/cm)
Dec-06
Mar-07
Jun-07
Sep-07
Dec-07
Mar-08
Jun-08
Sep-08
Dec-08
Mar-09
Jun-09
Sep-09
Date
NE/101
NE/102
NE/103
NE/104
NE/105
NE/106
NE/107
NE/108
NE/109
NE/110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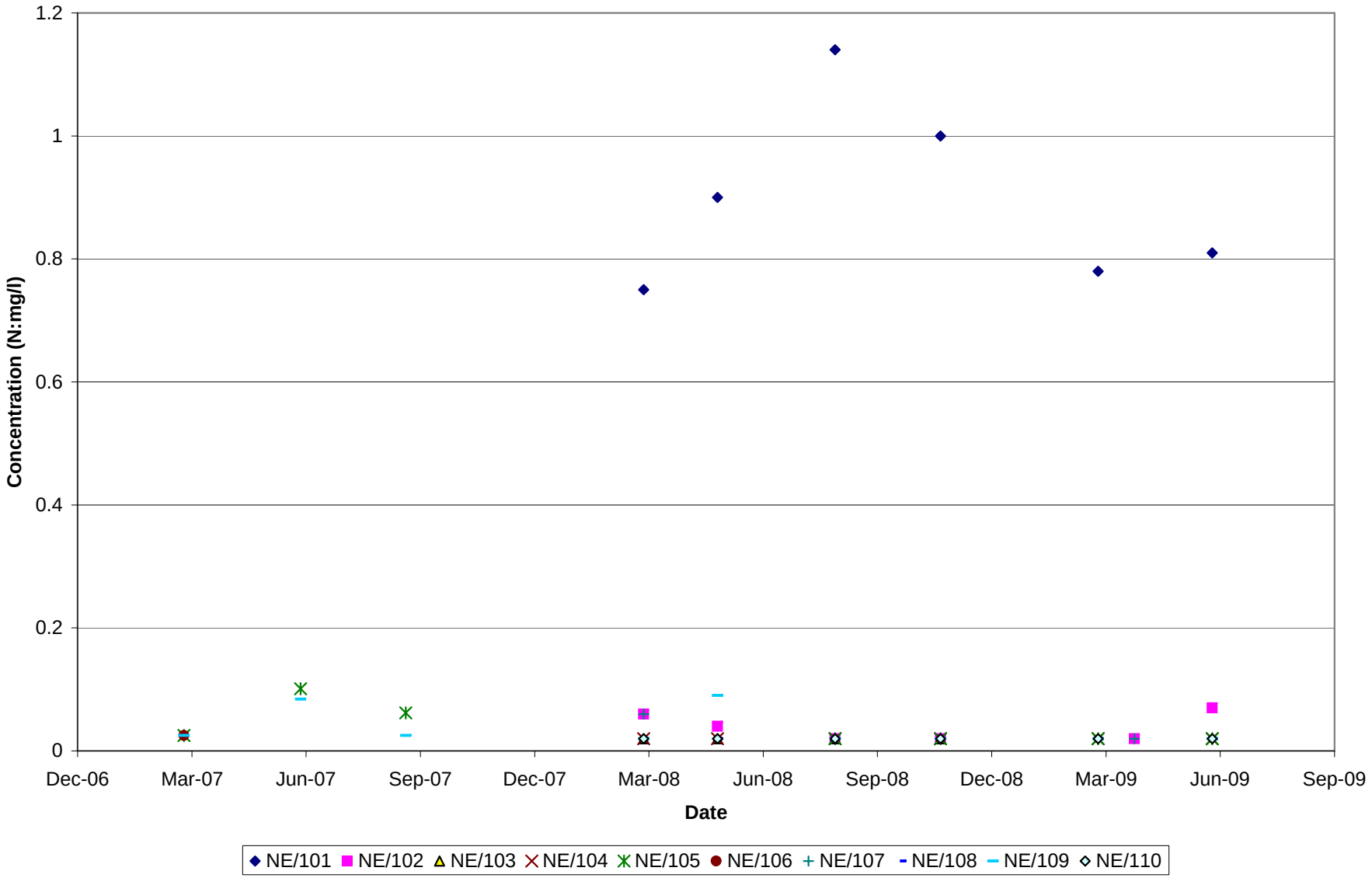
8.4
8.2
8
7.8
7.6
7.4
7.2
7
Concentration
Dec-06
Mar-07
Jun-07
Sep-07
Dec-07
Mar-08
Jun-08
Sep-08
Dec-08
Mar-09
Jun-09
Sep-09
Date
NE/101
NE/102
NE/103
NE/104
NE/105
NE/106
NE/107
NE/108
NE/109
NE/110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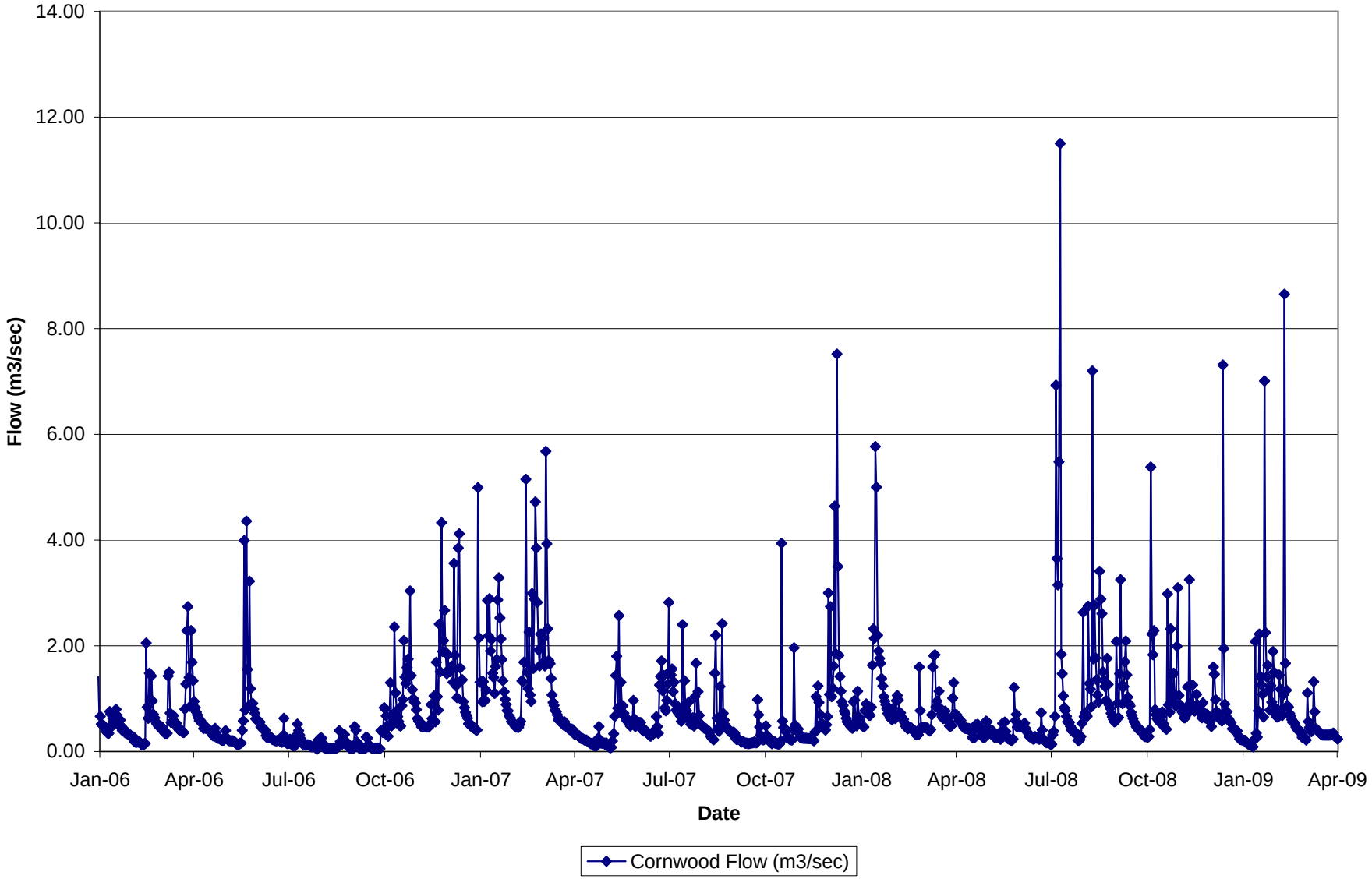
0.8
0.6
0.4
0.2
0
Concentration (N:mg/l)
Dec-06
Mar-07
Jun-07
Sep-07
Dec-07
Mar-08
Jun-08
Sep-08
Dec-08
Mar-09
Jun-09
Sep-09
Date
NE/101
NE/102
NE/103
NE/104
NE/105
NE/106
NE/107
NE/108
NE/109
NE/110

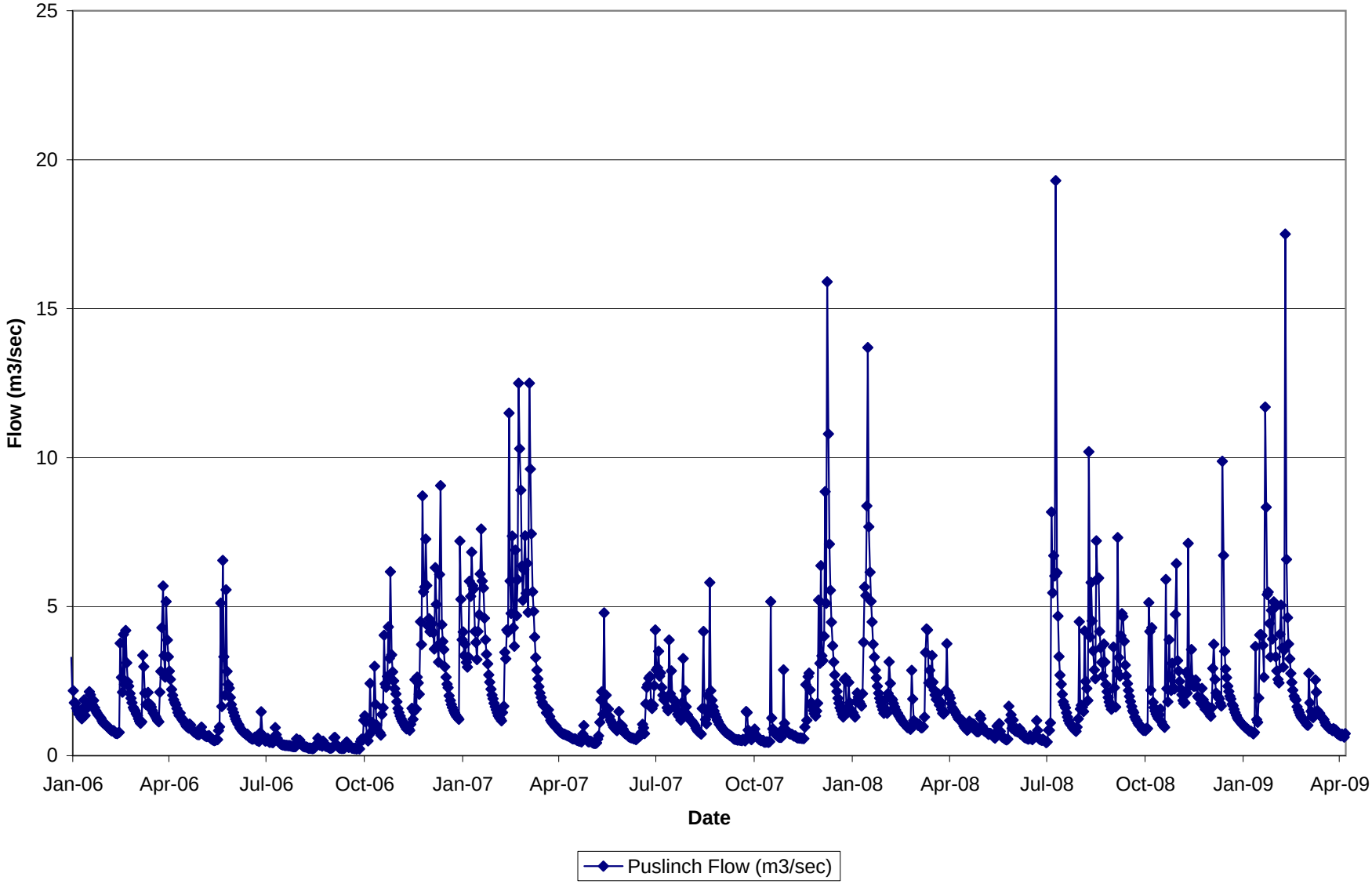
Appendix 9-6
Puslinch Flow Data (1966 – 2009)

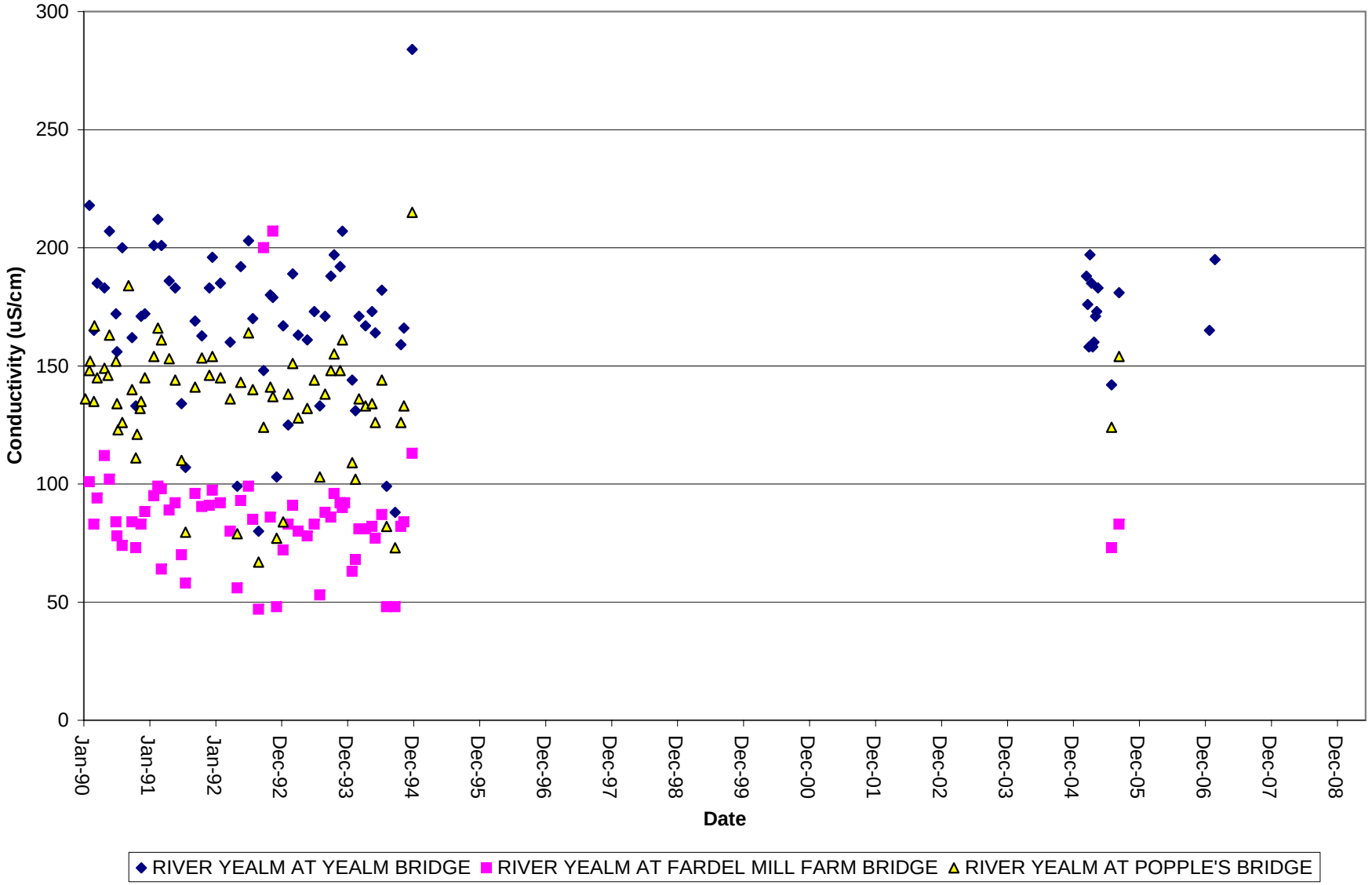
Year	Puslinch Flow Rate (m^3/Sec)			
	Count	Min	Mean	Max
1966	306	0.272	1.62	10.2
1967	365	0.041	1.83	11.4
1968	366	0.288	1.63	16.1
1969	365	0.204	1.31	9.11
1970	365	0.243	1.67	12
1971	365	0.169	1.05	11.6
1972	366	0.184	1.83	10
1973	365	0.252	0.91	4.16
1974	365	0.233	2.13	18.5
1975	365	0.155	1.07	9.48
1976	366	0.002	1.09	7.24
1977	365	0.144	1.61	9.78
1978	365	0.105	1.35	12.3
1979	365	0.205	1.65	22.9
1980	366	0.242	1.78	12.3
1981	365	0.206	2.03	24.2
1982	365	0.188	1.97	12.1
1983	365	0.144	1.44	12.2
1984	366	0.066	1.57	12.9
1985	365	0.305	1.65	11.2
1986	365	0.338	2.15	13.7
1987	365	0.207	1.45	12.4
1988	366	0.248	1.82	13.4
1989	365	0.147	1.43	12.3
1990	365	0.146	1.34	15.4
1991	365	0.275	1.73	11.8
1992	366	0.263	1.69	19.2
1993	365	0.468	2.14	15.6
1994	365	0.366	2.49	16.8
1995	365	0.111	1.79	17.9
1996	366	0.188	1.71	9.71
1997	365	0.202	1.53	12.7
1998	365	0.273	2.11	17
1999	365	0.192	1.90	18
2000	366	0.272	2.41	20.2
2001	365	0.224	2.05	9.04
2002	365	0.539	4.33	10.2
2003	365	0.145	1.21	16.2
2004	366	0.297	1.50	8.45
2005	365	0.294	1.47	11.8
2006	365	0.23	1.54	9.06
2007	365	0.412	2.10	15.9
2008	366	0.44	2.12	19.3
2009	96	0.627	2.37	17.5

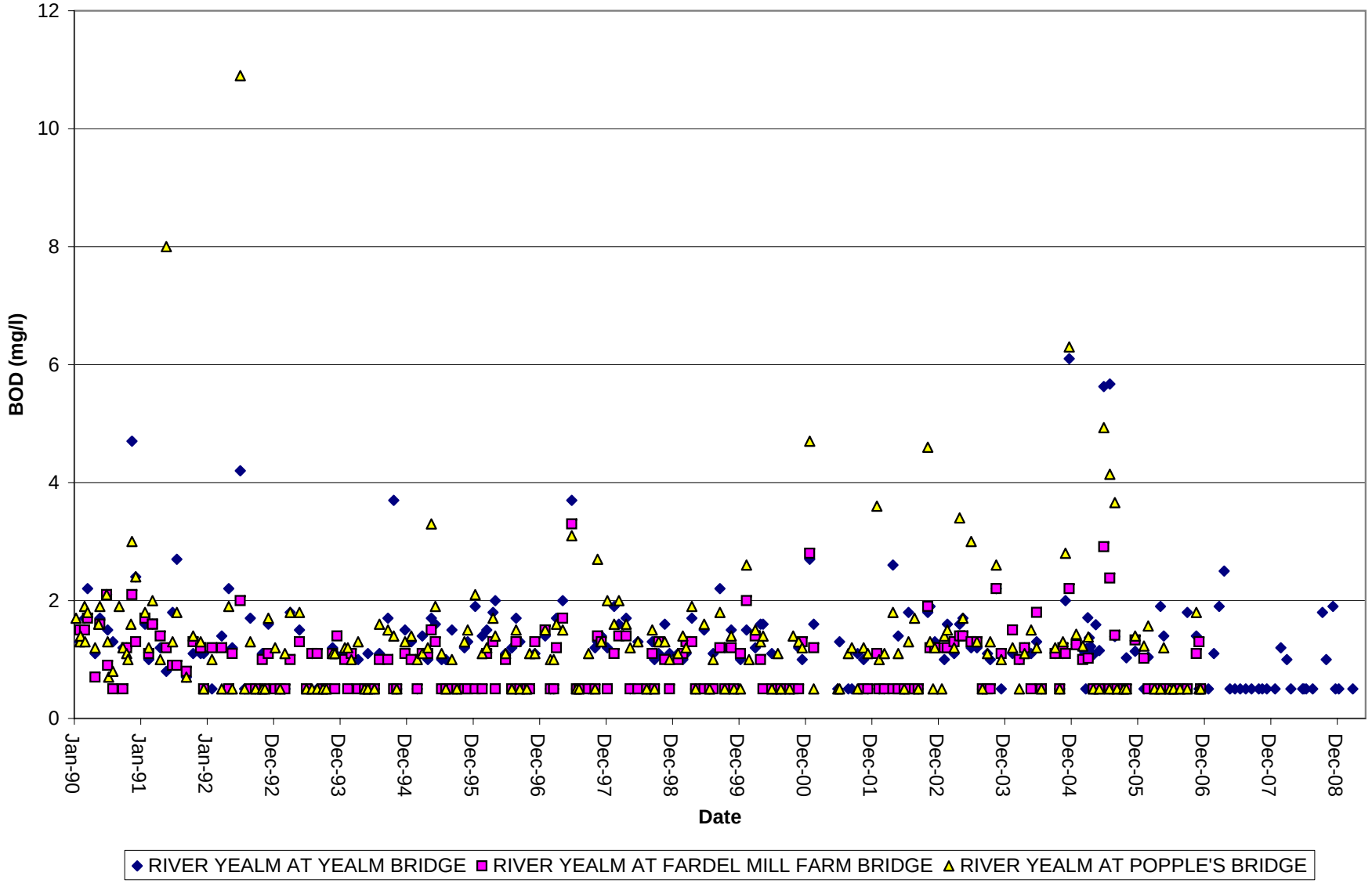
Appendix 9-6
Cornwood Flow Data (1998 – 2009)

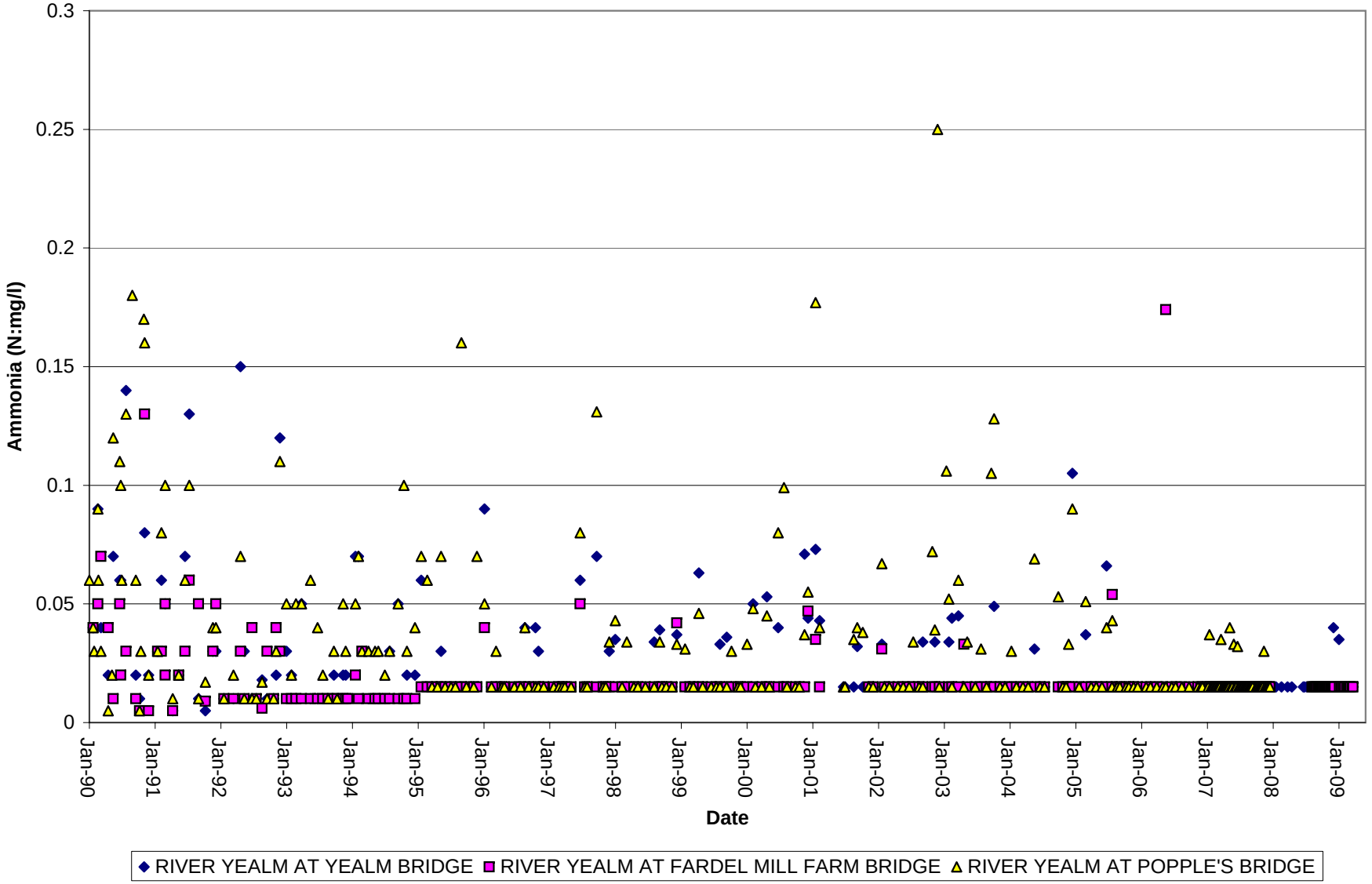
Year	Cornwood Flow Rate (m^3/Sec)			
	Count	Min	Mean	Max
1998	365	0.289	0.90	9.82
1999	365	0.054	0.67	8.05
2000	366	0.022	0.76	16.1
2001	365	0.022	0.49	4.38
2002	365	0.03	0.72	7.43
2003	365	0.027	0.43	5.12
2004	366	0.05	0.60	4.88
2005	365	0.008	0.56	7.81
2006	365	0.049	0.62	4.99
2007	365	0.071	0.84	7.52
2008	366	0.133	0.90	11.5
2009	97	0.091	0.76	8.65

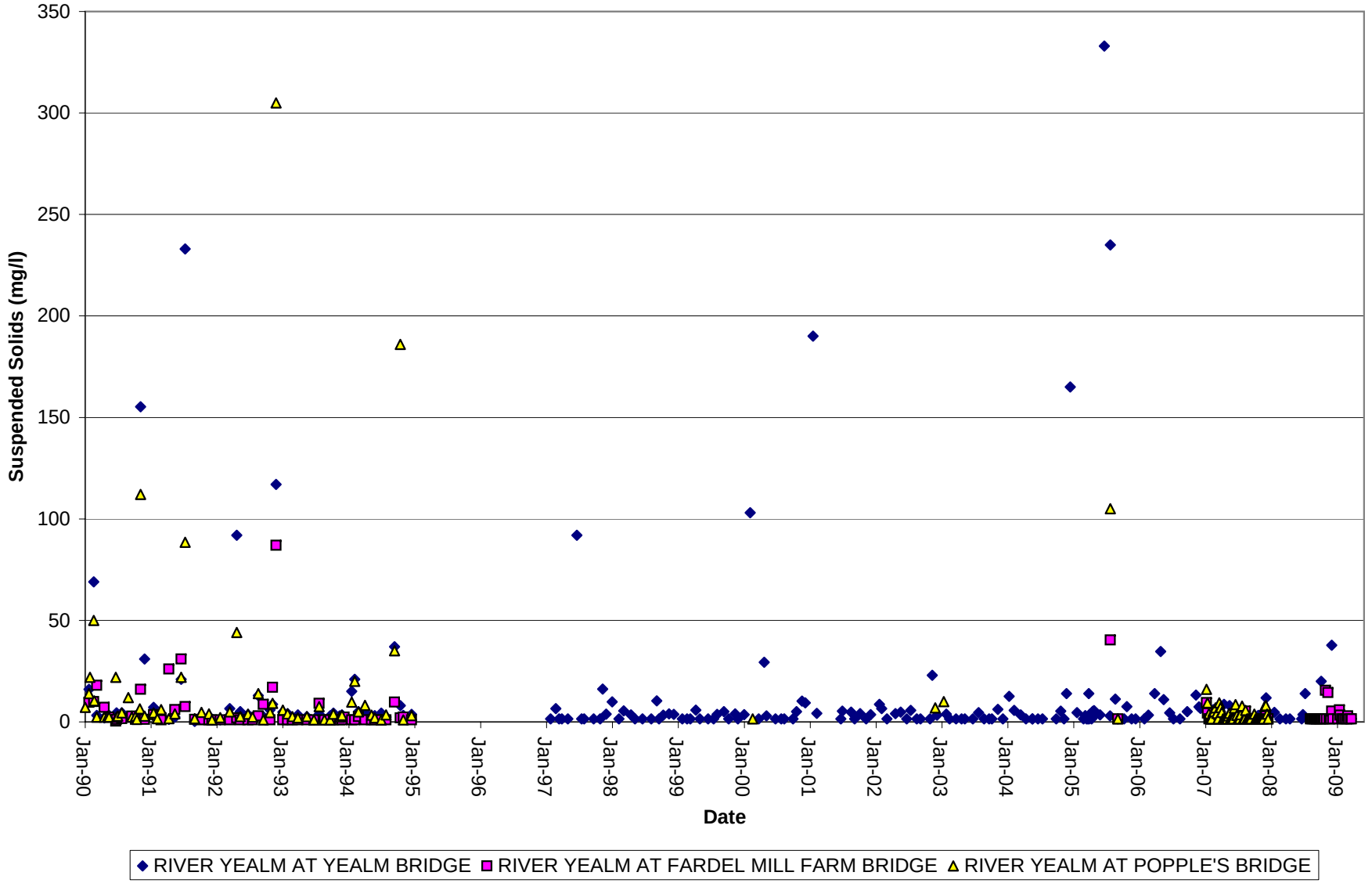

14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
Flow (m3/sec)
Jan-06
Apr-06
Jul-06
Oct-06
Jan-07
Apr-07
Jul-07
Oct-07
Jan-08
Apr-08
Jul-08
Oct-08
Jan-09
Apr-09
Date
Cornwood Flow (m3/sec)

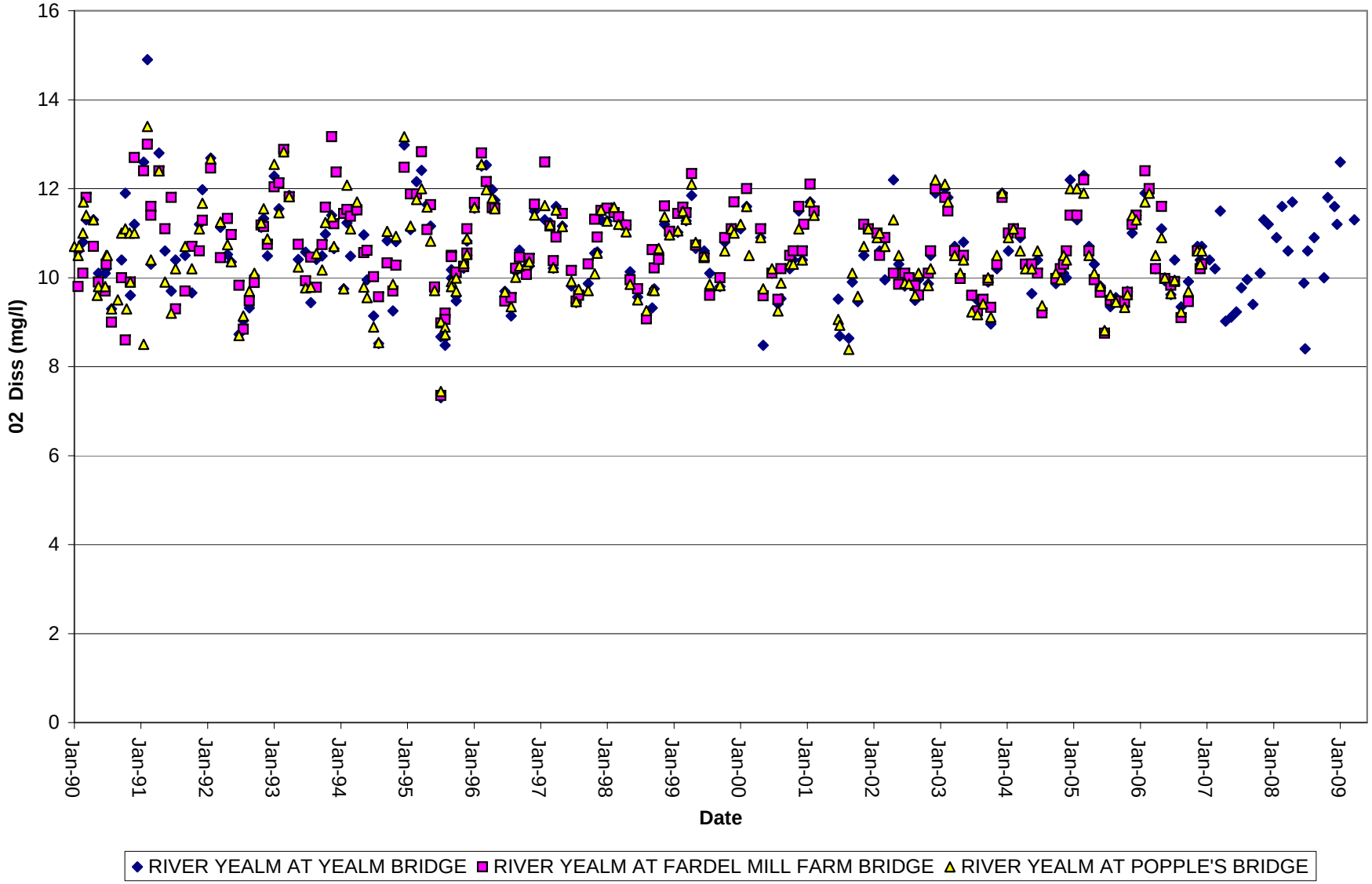

25
20
15
10
5
0
Flow (m3/sec)
Jan-06
Apr-06
Jul-06
Oct-06
Jan-07
Apr-07
Jul-07
Oct-07
Jan-08
Apr-08
Jul-08
Oct-08
Jan-09
Apr-09
Date
Puslinch Flow (m3/sec)

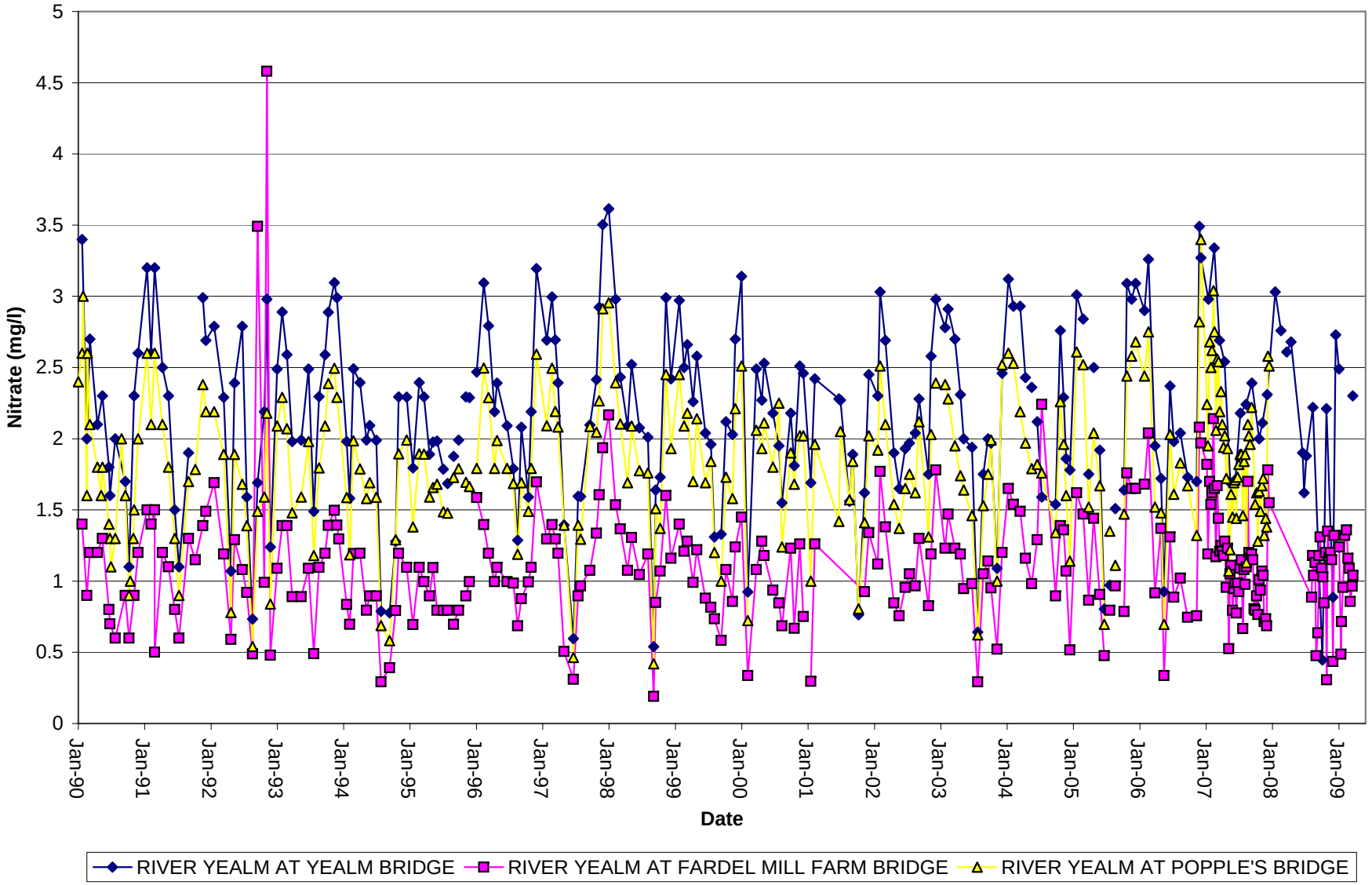

Conductivity (uS/cm)
300
250
200
150
100
50
0
Jan-90
Jan-91
Jan-92
Dec-92
Dec-93
Dec-94
Dec-95
Dec-96
Dec-97
Dec-98
Dec-99
Dec-00
Dec-01
Dec-02
Dec-03
Dec-04
Dec-05
Dec-06
Dec-07
Dec-08
Date
RIVER YEALM AT YEALM BRIDGE
RIVER YEALM AT FARDEL MILL FARM BRIDGE
RIVER YEALM AT POPPLE'S BRIDGE


12
10
8
6
4
2
0
BOD (mg/l)
Jan-90
Jan-91
Jan-92
Dec-92
Dec-93
Dec-94
Dec-95
Dec-96
Dec-97
Dec-98
Dec-99
Dec-00
Dec-01
Dec-02
Dec-03
Dec-04
Dec-05
Dec-06
Dec-07
Dec-08
Date
RIVER YEALM AT YEALM BRIDGE
RIVER YEALM AT FARDEL MILL FARM BRIDGE
RIVER YEALM AT POPPLE'S BRIDGE


0.3
0.25
0.2
0.15
0.1
0.05
0
Ammonia (N:mg/l)
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Date
RIVER YEALM AT YEALM BRIDGE
RIVER YEALM AT FARDEL MILL FARM BRIDGE
RIVER YEALM AT POPPLE'S BRIDGE


350
300
250
200
150
100
50
0
Suspended Solids (mg/l)
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Date
RIVER YEALM AT YEALM BRIDGE
RIVER YEALM AT FARDEL MILL FARM BRIDGE
RIVER YEALM AT POPPLE'S BRIDGE


02 Diss (mg/l)
16
14
12
10
8
6
4
2
0
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Date
RIVER YEALM AT YEALM BRIDGE
RIVER YEALM AT FARDEL MILL FARM BRIDGE
RIVER YEALM AT POPPLE'S BRIDGE


Nitrate (mg/l)
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Date
RIVER YEALM AT YEALM BRIDGE
RIVER YEALM AT FARDEL MILL FARM BRIDGE
RIVER YEALM AT POPPLE'S BRIDGE

Appendix 9-8
Licensed Surface Water Discharges within 3km of New England Quarry

Drawing No	Consent Ref No (Date issued)	Site Name and NGR	Holder Details	Nature	Discharge To:	Volume / limits
SW7	303681 (05-Nov-07)	Choakford AGI SX 58931 54588	Wales & West Utilities Choakford AGI New England Road Choakford PL7 5BB	Trade	Tributary of River Yealm	9.9m^3/day pH: 7-9 Al: 170ug/l
SW8	NRA-SW-7121 (08-Dec-94)	West Barn SX 58150 54280	Mr D Richards West Barn West Pitton Farm Yealmpton	Sewage	Not Specified	1.62m^3/day
SW9	NRA-SW-7335	North Barn SX 58200 54400	Mr & Mrs KG Jane North Barn West Pitton Farm Yealmpton	Sewage	Not Specified	1m^3/day
SW10	303328 (31-Aug-05)	Higher venton Farmhouse SX 58930 56730	Mr N Jones Higher Venton Farmhouse Venton Sparkwell PL7 5DR	Sewage	Tributary of River Yealm	1.2m^3/day
SW11	NRA-SW-3426 (19-Dec-91)	New England Quarry SX 59660 54770	Viridor Waste (Somerset) ltd New England Quarry Plympton	Trade	Tributary of River Yealm	1512m^3/day pH: 6-9 SS: 60mg/l
SW12	NRA-SW-6422 (11-Mar-94)	New England Quarry	Viridor Waste (Somerset) ltd	Trade	River Yealm	2m^3/day pH: 6-9

		SX 59660 54770	New England Quarry Plympton			Temp: 30°C max BOD: 20mg/l Ammonia: 20mg/l SS: 30mg/l
SW13	301626 01-Oct-00	Lee Mill Pumping Station SX 59937 55698	South West Water Leem Mill Pumping St The Avenue Lee mill PL21 9DX	Sewage - - Screened storm + Emergency Sewage effluent	River Yealm	
SW14	NRA-SW-0237 (14-Oct-08)	Lee Mill STW SX 60320 55624	South West Water Lee Mill STW Ermington	Sewage – Final Effluent	Tributary of River Yealm	390m^3/day BOD: 20mg/l Ammonia: 10ug/l SS: 30mg/l
SW15	FDA 512	Hithcombe SX 59900 56150	Hitchcombe Lee Mill Ivybridge	Agricultural drainage	Unnamed stream to Lee mill leat	5m^3/day
SW16	NPSWQD002088	Cadleigh Lodge SX 61582 56744	Mr R Sutton Cadleigh Lodge Cadleigh PL21 9HW	Sewage	Tributary of River Yealm	1.2m^3/day