

Appendix A: Water Quality Summary Tables

Table A-1. Summary of dissolved aluminum data ($\mu\text{g/L}$).....	1
Table A-2. Summary of dissolved iron data ($\mu\text{g/L}$)	1
Table A-3. Summary of total aluminum data ($\mu\text{g/L}$).....	2
Table A-4. Summary of total iron data ($\mu\text{g/L}$).....	2
Table A-5. Summary of MDE water quality data from 2004, 2005, 2008 and comparison to criteria ($\mu\text{g/L}$)	3

Table A-1. Summary of dissolved aluminum data (µg/L)

Station	Minimum date	Maximum date	Count of samples	Min	Max	Avg
EKL0003	03-Apr-08	22-Oct-08	6	2.50	230.50	69.57
LNB0014	03-Apr-08	22-Oct-08	6	5.74	2069.00	359.72
RTF0005	03-Apr-08	22-Oct-08	6	2.50	52.60	28.00
SAD0004	03-Apr-08	22-Oct-08	6	48.96	215.78	101.76
TFR0016	03-Apr-08	22-Oct-08	6	21.52	4488.08	1024.77
TFR0021	03-Apr-08	22-Oct-08	6	29.85	509.00	147.56
ULF0003	03-Apr-08	22-Oct-08	6	2.50	3492.00	1480.71
ZWT0000	03-Apr-08	22-Oct-08	6	4.96	88.87	32.81
POTOMAC-1	03-Apr-08	22-Oct-08	6	8.67	23.96	17.71
SITE 1	03-Apr-08	22-Oct-08	6	2.50	216.46	41.48
SITE 14	03-Apr-08	22-Oct-08	5	5.16	29.46	13.37
SITE 17	03-Apr-08	22-Oct-08	6	10.58	77.01	27.51
SITE 9	03-Apr-08	22-Oct-08	6	18.57	91.25	49.10
PNB-00014	03-Apr-08	22-Oct-08	6	8.83	121.14	28.15
PNB-00041	03-Apr-08	22-Oct-08	6	24.45	131.81	86.79
PNB-00046	03-Apr-08	22-Oct-08	6	2.50	26.27	12.77

Table A-2. Summary of dissolved iron data (µg/L)

Station	Minimum date	Maximum date	Count of samples	Min	Max	Avg
EKL0003	30-Mar-05	22-Oct-08	12	15.00	213.59	98.85
GLR0031	30-Mar-05	02-Nov-05	6	54.32	235.00	134.81
LNB0014	30-Mar-05	22-Oct-08	12	15.00	9813.60	2736.26
LRE0029	30-Mar-05	02-Nov-05	6	44.25	305.00	113.05
LUR0017	30-Mar-05	02-Nov-05	6	12.86	91.08	54.26
NPL0001	30-Mar-05	02-Nov-05	6	18.67	77.47	45.52
NPL0018	30-Mar-05	02-Nov-05	6	46.50	179.02	107.56
NYD0004	30-Mar-05	02-Nov-05	6	22.37	166.97	69.13
RTF0005	04-Apr-05	22-Oct-08	12	31.71	8486.00	2500.37
SAD0004	30-Mar-05	22-Oct-08	12	11.16	99.18	42.36
SHO0016	30-Mar-05	02-Nov-05	6	9.64	81.05	28.15
SPL0016	30-Mar-05	02-Nov-05	6	61.50	371.03	144.96
TFR0016	04-Apr-05	22-Oct-08	12	15.00	2771.60	413.43
TFR0021	04-Apr-05	22-Oct-08	12	4.10	99.50	27.50
ULF0003	30-Mar-05	22-Oct-08	12	32.30	1706.70	512.62
WOL0004	30-Mar-05	02-Nov-05	6	9.51	64.10	32.16
ZWT0000	03-Apr-08	22-Oct-08	6	15.00	161.00	39.33
POTOMAC-1	03-Apr-08	22-Oct-08	6	15.00	153.20	38.03
SITE 1	03-Apr-08	22-Oct-08	6	15.00	163.10	60.75
SITE 14	03-Apr-08	22-Oct-08	5	15.00	30.00	18.00
SITE 17	03-Apr-08	22-Oct-08	6	15.00	143.60	36.43
SITE 9	03-Apr-08	22-Oct-08	6	15.00	15.00	15.00
PNB-00014	03-Apr-08	22-Oct-08	6	15.00	145.10	36.68
PNB-00041	03-Apr-08	22-Oct-08	6	15.00	19.30	15.72
PNB-00046	03-Apr-08	22-Oct-08	6	15.00	137.90	65.13

Table A-3. Summary of total aluminum data (µg/L)

Station	Minimum date	Maximum date	Count of samples	Min	Max	Avg
EKL0003	30-Mar-05	22-Oct-08	12	20.60	557.10	184.92
GLR0031	30-Mar-05	02-Nov-05	6	37.00	725.88	285.97
LNB0014	30-Mar-05	22-Oct-08	12	144.51	9690.00	2881.57
LRE0029	30-Mar-05	02-Nov-05	6	80.50	660.51	345.35
LUR0017	30-Mar-05	02-Nov-05	6	17.50	568.90	175.49
NPL0001	30-Mar-05	02-Nov-05	6	4.15	1178.95	417.63
NPL0018	30-Mar-05	02-Nov-05	6	50.90	554.48	262.43
NYD0004	30-Mar-05	02-Nov-05	6	13.10	973.57	325.96
RTF0005	04-Apr-05	22-Oct-08	12	158.00	3806.00	1400.90
SAD0004	30-Mar-05	22-Oct-08	12	43.60	512.37	175.69
SHO0016	30-Mar-05	02-Nov-05	6	20.60	395.95	135.20
SPL0016	30-Mar-05	02-Nov-05	6	41.20	397.24	202.14
TFR0016	04-Apr-05	22-Oct-08	12	1729.60	18800.00	7066.02
TFR0021	04-Apr-05	22-Oct-08	12	63.00	558.20	294.00
ULF0003	30-Mar-05	22-Oct-08	12	135.00	4605.32	1854.06
WOL0004	30-Mar-05	02-Nov-05	6	12.80	1525.79	330.85
ZWT0000	03-Apr-08	22-Oct-08	6	32.27	1152.45	260.42
POTOMAC-1	03-Apr-08	22-Oct-08	6	74.17	632.45	230.38
SITE 1	03-Apr-08	22-Oct-08	6	29.35	478.73	133.03
SITE 14	03-Apr-08	22-Oct-08	5	18.57	481.40	162.48
SITE 17	03-Apr-08	22-Oct-08	6	28.55	2446.00	560.13
SITE 9	03-Apr-08	22-Oct-08	6	67.62	4651.41	973.30
PNB-00014	03-Apr-08	22-Oct-08	6	22.39	1574.00	498.02
PNB-00041	03-Apr-08	22-Oct-08	6	65.85	2648.78	729.54
PNB-00046	03-Apr-08	22-Oct-08	6	21.99	872.29	269.69

Table A-4. Summary of total iron data (µg/L)

Station	Minimum date	Maximum date	Count of samples	Min	Max	Avg
EKL0003	30-Mar-05	22-Oct-08	12	15.00	642.40	328.60
GLR0031	30-Mar-05	02-Nov-05	6	253.12	599.40	370.15
LNB0014	30-Mar-05	22-Oct-08	12	419.20	12130.40	4662.04
LRE0029	30-Mar-05	02-Nov-05	6	67.71	1132.52	292.17
LUR0017	30-Mar-05	02-Nov-05	6	54.20	496.17	249.08
NPL0001	30-Mar-05	02-Nov-05	6	59.30	783.66	216.60
NPL0018	30-Mar-05	02-Nov-05	6	97.68	1198.47	506.61
NYD0004	30-Mar-05	02-Nov-05	6	71.61	933.51	450.51
RTF0005	04-Apr-05	22-Oct-08	12	41.45	9973.40	3809.12
SAD0004	30-Mar-05	22-Oct-08	12	55.54	528.47	233.04
SHO0016	30-Mar-05	02-Nov-05	6	55.61	342.99	187.52
SPL0016	30-Mar-05	02-Nov-05	6	208.68	915.56	454.28
TFR0016	04-Apr-05	22-Oct-08	12	2934.84	31375.26	10543.45
TFR0021	04-Apr-05	22-Oct-08	12	15.00	88.80	43.34
ULF0003	30-Mar-05	22-Oct-08	12	517.90	2415.36	1078.16
WOL0004	30-Mar-05	02-Nov-05	6	23.62	324.12	107.57
ZWT0000	03-Apr-08	22-Oct-08	6	15.00	2052.50	409.65

FINAL

POTOMAC-1	03-Apr-08	22-Oct-08	6	15.00	331.50	160.30
SITE 1	03-Apr-08	22-Oct-08	6	15.00	537.10	284.43
SITE 14	03-Apr-08	22-Oct-08	5	15.00	411.00	148.18
SITE 17	03-Apr-08	22-Oct-08	6	15.00	918.20	391.75
SITE 9	03-Apr-08	22-Oct-08	6	15.00	2159.80	951.15
PNB-00014	03-Apr-08	22-Oct-08	6	15.00	741.00	230.35
PNB-00041	03-Apr-08	22-Oct-08	6	102.10	1773.20	629.35
PNB-00046	03-Apr-08	22-Oct-08	6	340.10	6127.00	1514.38

Table A-5. Summary of MDE water quality data from 2004, 2005, 2008 and comparison to criteria (µg/L)

Watershed	Station	Date	Fe (total) (mg/L)	Fe criteria (mg/L)	Fe exceedance	Al (dissolved) (mg/L)	Al criteria (mg/L)	Al exceedance
Laurel Run	LNB0014	04/21/08	7.639	1.000	yes	0.012	0.087	no
		04/03/08	12.130	1.000	yes	2.069	0.087	yes
		04/16/08	7.131	1.000	yes	0.011	0.087	no
		10/09/08	0.817	1.000	no	0.007	0.087	no
		09/23/08	0.419	1.000	no	0.006	0.087	no
		10/22/08	6.990	1.000	yes	0.053	0.087	no
	ULF0003	04/21/08	1.566	1.000	yes	3.492	0.087	yes
		04/03/08	0.795	1.000	no	1.980	0.087	yes
		04/16/08	1.018	1.000	yes	2.568	0.087	yes
		10/09/08	0.917	1.000	no	0.005	0.087	no
		09/23/08	0.518	1.000	no	0.513	0.087	yes
	UNB-4	10/22/08	0.681	1.000	no	0.329	0.087	yes
		10/01/04	7.585	1.000	yes	0.027	0.087	no
Sand Run	SAD0004	05/01/05	6.574	1.000	yes	0.145	0.087	yes
		04/21/08	0.161	1.000	no	-	-	-
		04/03/08	0.192	1.000	no	-	-	-
		04/16/08	0.398	1.000	no	-	-	-
		10/09/08	0.161	1.000	no	-	-	-
		09/23/08	0.282	1.000	no	-	-	-
	UNB-6	10/22/08	0.333	1.000	no	-	-	-
		10/01/04	1.270	1.000	yes	-	-	-
Three Forks Run	RTF0005	05/01/05	0.658	1.000	no	-	-	-
		04/21/08	4.907	1.000	yes	0.053	0.087	no
		04/03/08	7.886	1.000	yes	0.013	0.087	no
		04/16/08	9.973	1.000	yes	0.050	0.087	no
		10/09/08	4.070	1.000	yes	0.005	0.087	no
		09/23/08	4.470	1.000	yes	0.011	0.087	no
	TFR0016	10/22/08	0.470	1.000	no	0.039	0.087	no
		04/21/08	3.412	1.000	yes	0.022	0.087	no
		04/03/08	4.514	1.000	yes	4.488	0.087	yes
		04/16/08	5.010	1.000	yes	0.038	0.087	no
		10/09/08	11.336	1.000	yes	0.711	0.087	yes
		09/23/08	10.055	1.000	yes	0.408	0.087	yes
		10/22/08	15.444	1.000	yes	0.481	0.087	yes
		TFR0021	04/21/08	0.070	1.000	no	0.067	0.087

Watershed	Station	Date	Fe (total) (mg/L)	Fe criteria (mg/L)	Fe exceedance	Al (dissolved) (mg/L)	Al criteria (mg/L)	Al exceedance	
		04/03/08	0.075	1.000	no	0.127	0.087	yes	
		04/16/08	0.026	1.000	no	0.509	0.087	yes	
		10/09/08	0.030	1.000	no	0.030	0.087	no	
		09/23/08	0.030	1.000	no	0.089	0.087	yes	
		10/22/08	0.030	1.000	no	0.064	0.087	no	
	ZWT0000	04/21/08	0.208	1.000	no	0.058	0.087	no	
		04/03/08	0.083	1.000	no	0.089	0.087	yes	
		04/16/08	0.085	1.000	no	0.031	0.087	no	
		10/09/08	0.030	1.000	no	0.006	0.087	no	
		09/23/08	0.030	1.000	no	0.005	0.087	no	
	UNB-21	10/22/08	2.053	1.000	yes	0.008	0.087	no	
		10/01/04	11.864	1.000	yes	0.260	0.087	yes	
	UNBPR	POTOMAC-1 ALT	05/01/05	3.394	1.000	yes	0.349	0.087	yes
			04/21/08	0.332	1.000	no	-	-	-
04/03/08			0.313	1.000	no	-	-	-	
04/16/08			0.192	1.000	no	-	-	-	
10/09/08			0.030	1.000	no	-	-	-	
09/23/08			0.030	1.000	no	-	-	-	
SITE 1		10/22/08	0.095	1.000	no	-	-	-	
		04/21/08	0.537	1.000	no	-	-	-	
		04/03/08	0.271	1.000	no	-	-	-	
		04/16/08	0.251	1.000	no	-	-	-	
		10/09/08	0.030	1.000	no	-	-	-	
		09/23/08	0.297	1.000	no	-	-	-	
SITE 17		10/22/08	0.335	1.000	no	-	-	-	
		04/21/08	0.918	1.000	no	-	-	-	
		04/03/08	0.708	1.000	no	-	-	-	
		04/16/08	0.652	1.000	no	-	-	-	
		10/09/08	0.030	1.000	no	-	-	-	
		09/23/08	0.030	1.000	no	-	-	-	
SITE 9		10/22/08	0.043	1.000	no	-	-	-	
		04/21/08	1.639	1.000	yes	-	-	-	
		04/03/08	2.160	1.000	yes	-	-	-	
		04/16/08	1.715	1.000	yes	-	-	-	
		10/09/08	0.030	1.000	no	-	-	-	
		09/23/08	0.030	1.000	no	-	-	-	
UNB-9		10/22/08	0.164	1.000	no	-	-	-	
		10/01/04	1.086	1.000	yes	-	-	-	
UNB-13		05/01/05	1.048	1.000	yes	-	-	-	
		10/01/04	0.813	1.000	no	-	-	-	
UNB-17		05/01/05	1.526	1.000	yes	-	-	-	
		10/01/04	0.610	1.000	no	-	-	-	
UNB-20	05/01/05	1.064	1.000	yes	-	-	-		
	10/01/04	0.550	1.000	no	-	-	-		