

Summary of Phosphorus Data from "Unimpacted" Region of WCA-2A

"Unimpacted" Defined by FDEP as Region with 0-10 cm Soil P < 600 mg/kg

Water-Column Total P Concentrations (ppb)

Source	Count	Geometric Mean	CV	Min	Max	First	Last
All Data							
All	1738	9.8	0.719	1.0	1440.0	06/29/78	09/08/98
DUKE	352	12.7	0.920	2.1	1440.0	01/01/90	11/04/97
EMAP	23	13.3	0.435	6.6	30.9	04/07/94	09/23/96
ESRD	791	8.8	0.491	4.0	102.0	12/21/93	09/08/98
CAWQ	322	9.5	0.940	1.0	318.0	06/29/78	02/21/84
WRED	250	9.5	0.589	2.0	257.0	09/25/86	02/11/92

Station South of S10's, >10 km from Levee-29

All	1095	8.7	0.686	1.0	1440.0	06/29/78	09/08/98
DUKE	147	11.2	0.991	2.1	1440.0	01/01/90	11/04/97
EMAP	10	10.9	0.335	6.6	24.1	04/07/94	09/23/96
ESRD	548	8.2	0.499	4.0	102.0	12/21/93	09/08/98
CAWQ	140	7.5	0.972	1.0	307.0	06/29/78	02/21/84
WRED	250	9.5	0.589	2.0	257.0	09/25/86	02/11/92

1994-1998 Data

All	1046	8.9	0.520	2.1	102.0	01/04/94	09/08/98
DUKE	242	8.9	0.601	2.1	60.6	11/28/94	11/04/97
EMAP	23	13.3	0.435	6.6	30.9	04/07/94	09/23/96
ESRD	781	8.9	0.491	4.0	102.0	01/04/94	09/08/98

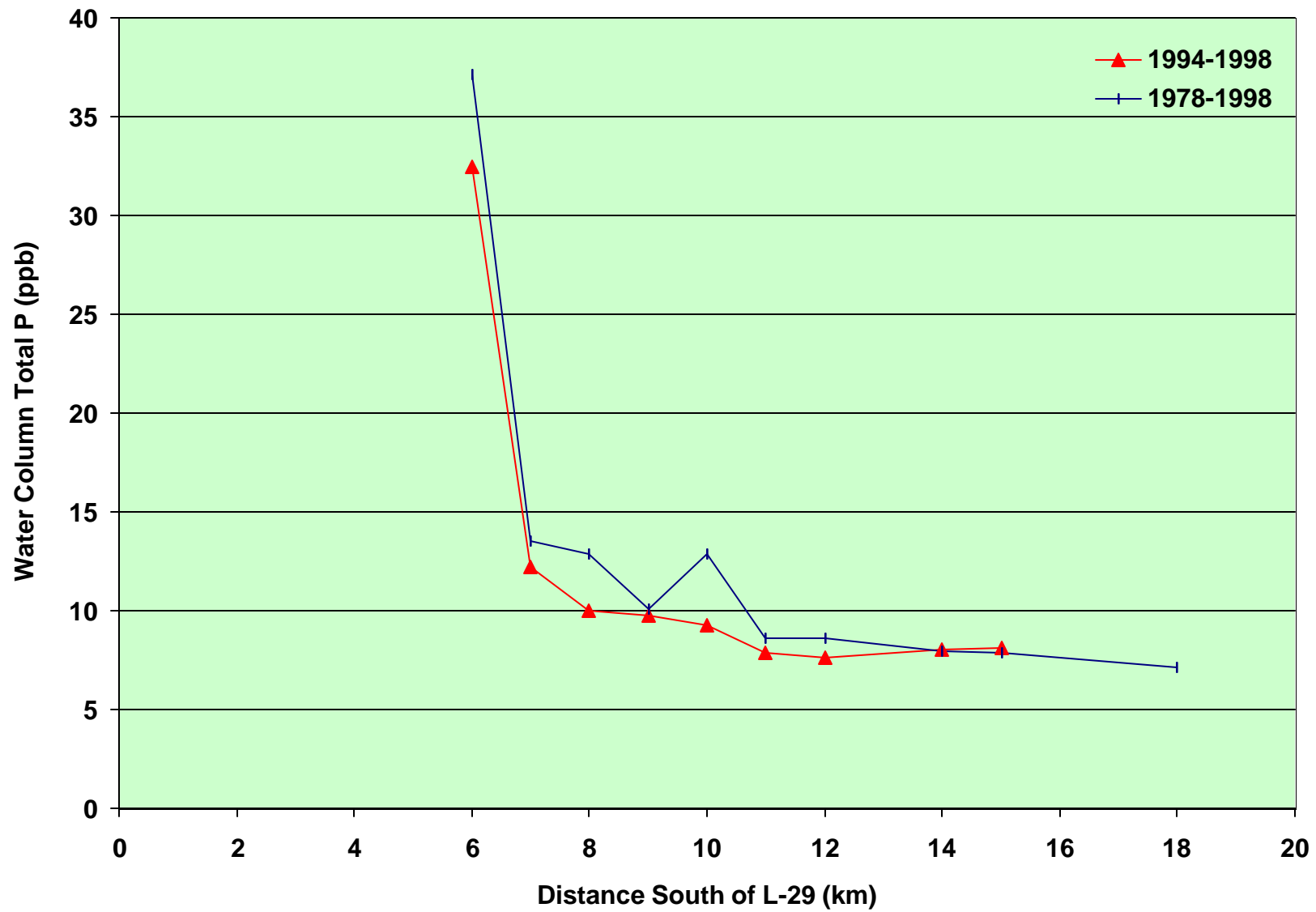
1994-1998 Data, Stations South of S10's, >=10 km from Levee-29

All	652	8.1	0.497	2.1	102.0	01/04/94	09/08/98
DUKE	101	7.3	0.479	2.1	37.8	11/28/94	11/04/97
EMAP	10	10.9	0.335	6.6	24.1	04/07/94	09/23/96
ESRD	541	8.2	0.499	4.0	102.0	01/04/94	09/08/98

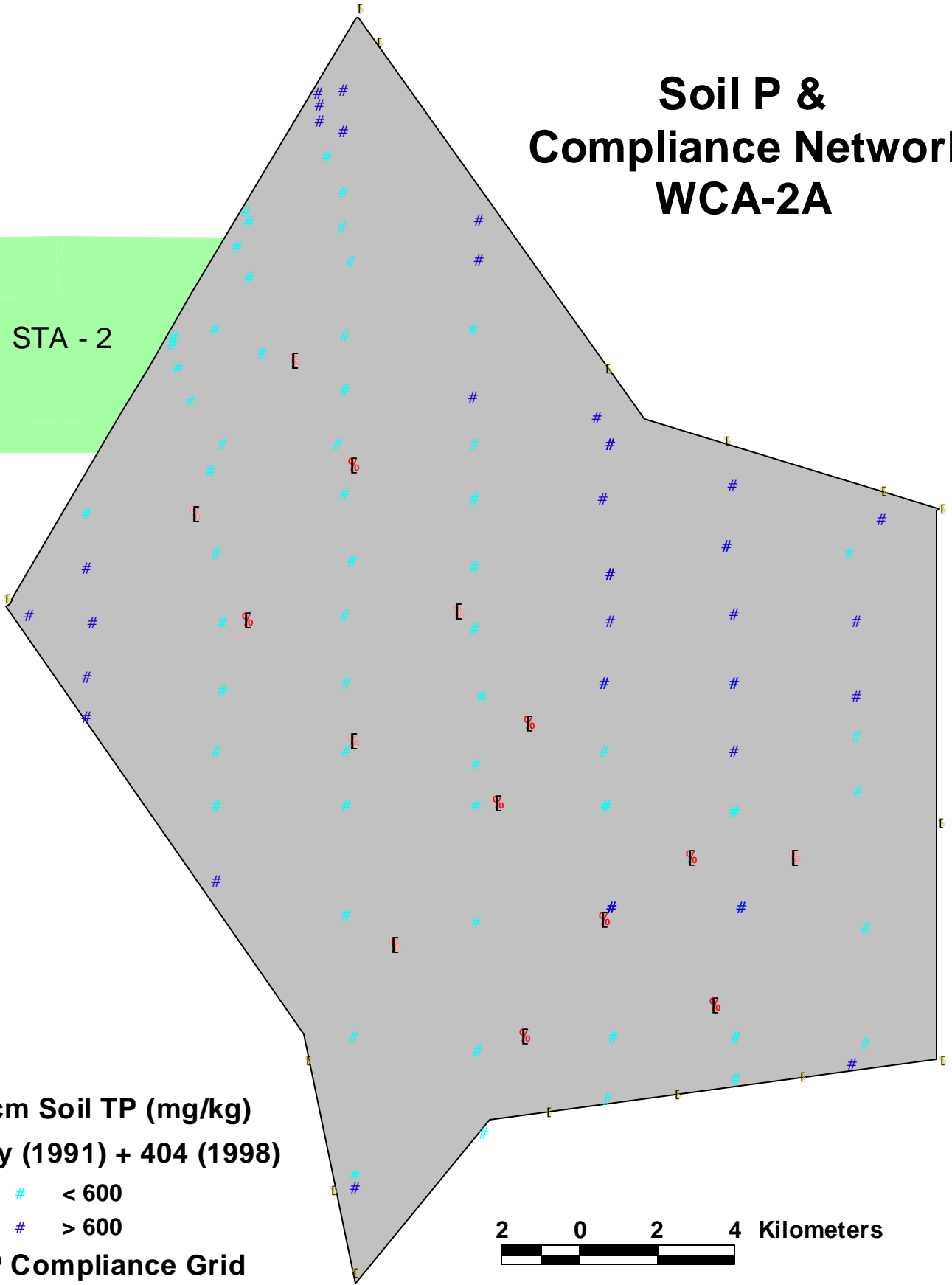
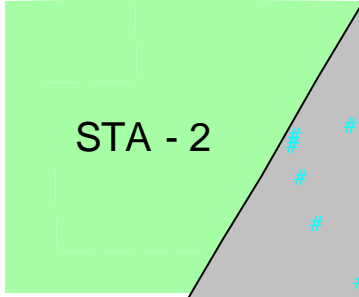
SFWMD Historical Grid Sampling, N-217, ESRD Transect, Duke Transect

Distance South of S10 Structures (km) (6 = 6.0 to 6.999)												
Number of Samples												
Year	6	7	8	9	10	11	12	14	15	18	Other	All 10-18
1978		4		4			8		4	4	16	40 24
1979		5		5			10		5	5	19	49 30
1980		5		5			10		5	5	18	48 30
1981		9		8			19		8	9	22	75 53
1982		5		6			12		6	6	18	53 35
1983		5		5			10		5	5	19	49 30
1984		1		1			2		1	1	2	8 6
1986							18					18 18
1987							51					51 51
1988							61					61 61
1989							21					21 21
1990	5	6	14	8	19	7	39					98 98
1991	4	4	8	4	8	4	54					86 86
1992							6					6 6
1993	2	2	4	6	5	3	3	4				29 29
1994	2	2	4	34	4	24	27	21	21			139 139
1995	9	21	30	59	30	60	48	24	24			305 305
1996			7	80	14	55	23	44	44			267 267
1997	3	3	14	65	22	34	17	16	17			191 191
1998			6	42	10	19	15	15	14			121 121
All	25	72	87	332	112	206	454	124	154	35	114	1715 1601
1994-1998	14	26	61	280	80	192	130	120	120	0	0	1023 1023

Geometric Mean Total P (ppb)												
Year	6	7	8	9	10	11	12	14	15	18	Other	All 10-18
1978		7.0		8.7			6.0		3.7	5.6	8.2	6.8 5.0
1979		10.5		6.9			6.2		5.4	6.2	13.0	8.7 6.0
1980		9.7		20.7			10.6		18.2	4.3	13.6	11.9 9.4
1981		15.5		8.8			11.9		9.1	11.8	17.7	13.0 10.8
1982		7.7		10.8			6.0		4.6	9.6	12.1	8.5 6.4
1983		10.1		4.8			4.5		5.7	3.2	9.9	6.6 4.3
1984		25.0		19.0			38.3		11.0	43.0	20.4	24.7 26.3
1986							14.0					14.0 14.0
1987							10.6					10.6 10.6
1988							10.4					10.4 10.4
1989							6.3					6.3 6.3
1990	64.1	65.5	36.4	38.7	49.4	58.2	11.1					26.7 31.8
1991	48.4	19.2	19.9	14.0	22.0	17.0	7.2					10.7 13.9
1992							8.4					8.4 8.4
1993	14.2	11.8	6.5	10.1	6.3	10.1	4.0	6.2				7.7 6.3
1994	38.9	13.4	11.5	9.4	6.7	8.3	6.8	9.2	10.8			9.0 8.2
1995	31.7	11.3	7.3	7.5	6.9	6.2	7.0	6.8	6.0			7.4 6.6
1996			11.3	9.2	12.5	8.3	8.3	7.4	8.1			8.6 8.8
1997	30.9	19.1	16.0	12.1	10.8	10.2	8.0	7.7	9.5			11.0 9.2
1998			12.6	11.4	12.0	8.8	9.6	11.5	7.3			10.3 9.7
All	37.1	13.5	12.9	10.1	12.9	8.6	8.6	8.0	7.8	7.1	12.4	9.7 8.7
1994-1998	32.5	12.2	10.0	9.7	9.3	7.9	7.6	8.0	8.1			8.9 8.2



Soil P & Compliance Network WCA-2A



**0-10 cm Soil TP (mg/kg)
Reddy (1991) + 404 (1998)**

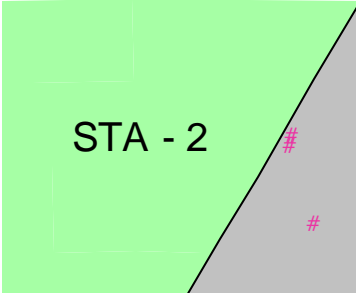
- # < 600
- # > 600

FDEP Compliance Grid

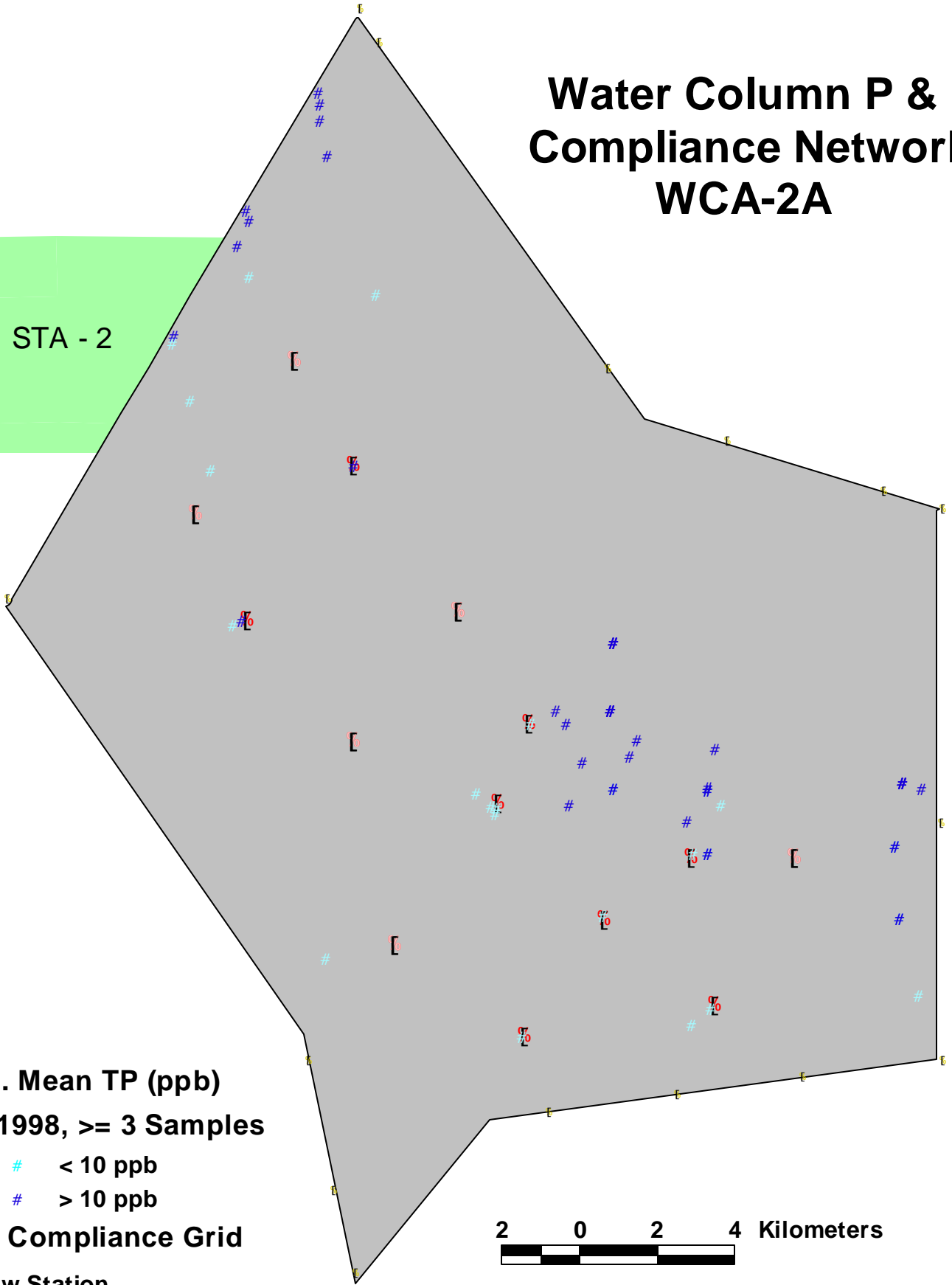
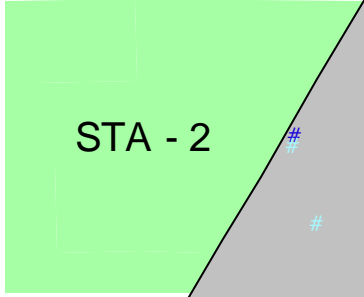
- New Station
- Historical Station

2 0 2 4 Kilometers

Water Quality Stations WCA-2A



Water Column P & Compliance Network WCA-2A



Geom. Mean TP (ppb)
1978-1998, >= 3 Samples

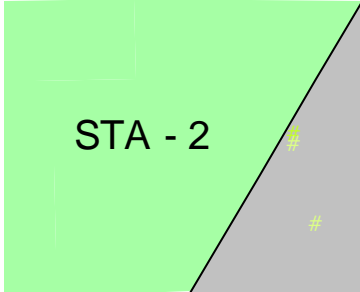
- # < 10 ppb
- # > 10 ppb

FDEP Compliance Grid

- [New Station
- [Historical Station

2 0 2 4 Kilometers

Hydrography & Topography WCA-2A

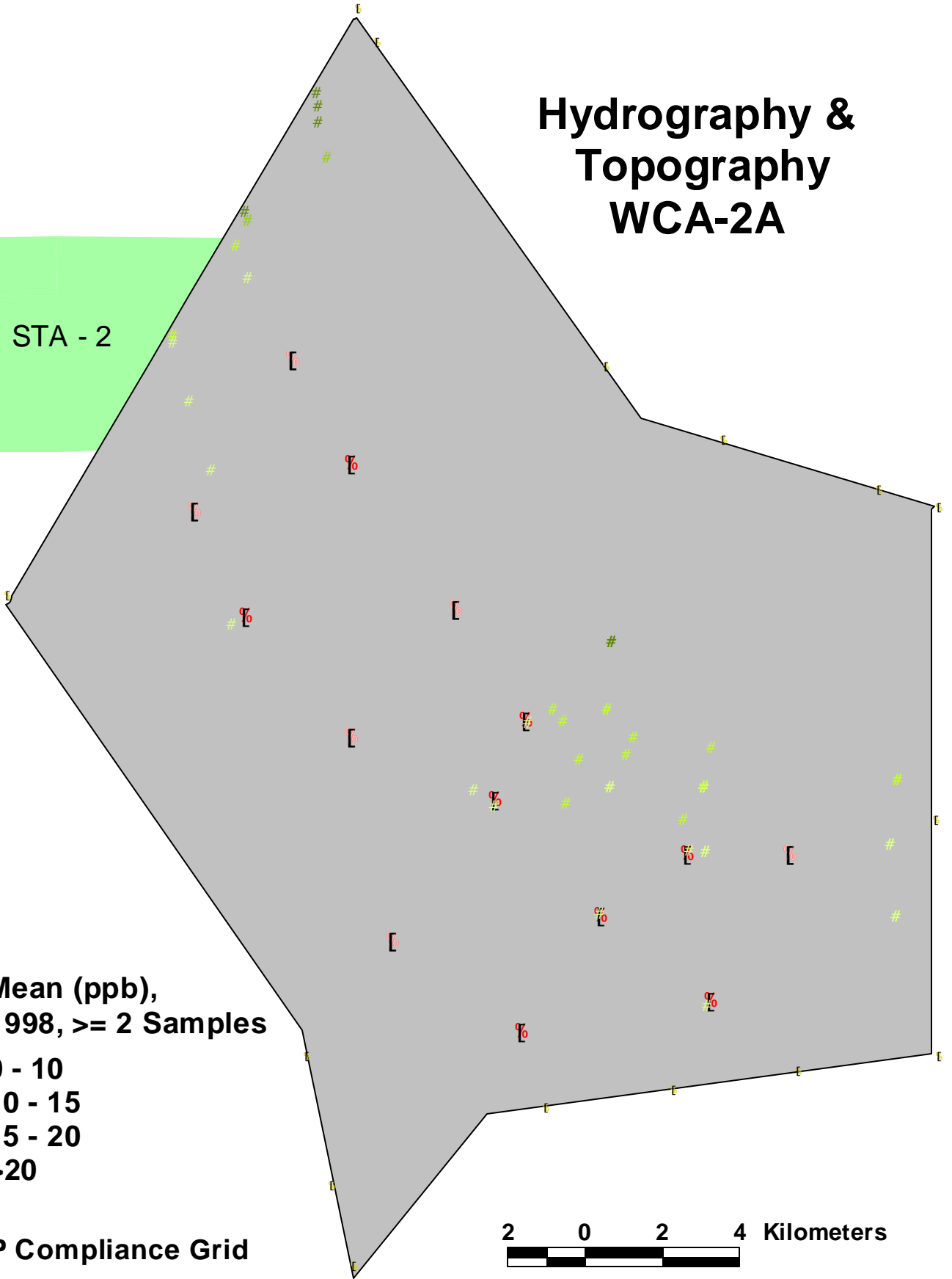


**Geo. Mean (ppb),
1994-1998, >= 2 Samples**

- # 0 - 10
- # 10 - 15
- # 15 - 20
- # >20

FDEP Compliance Grid

- [New Station
- # Historical Station



Hydrography & Topography WCA-2A

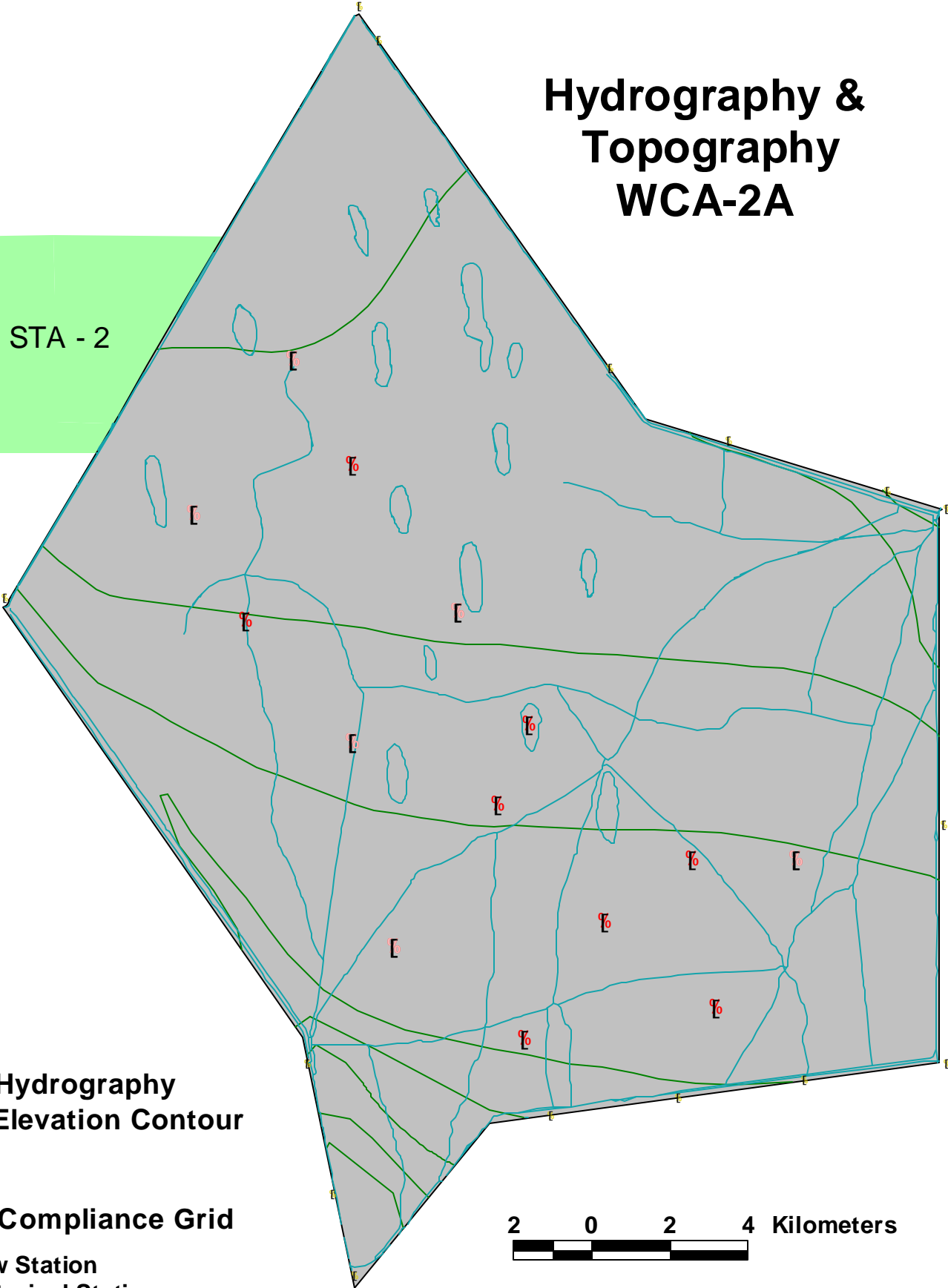
STA - 2

 Hydrography
 Elevation Contour

FDEP Compliance Grid

 New Station
 Historical Station

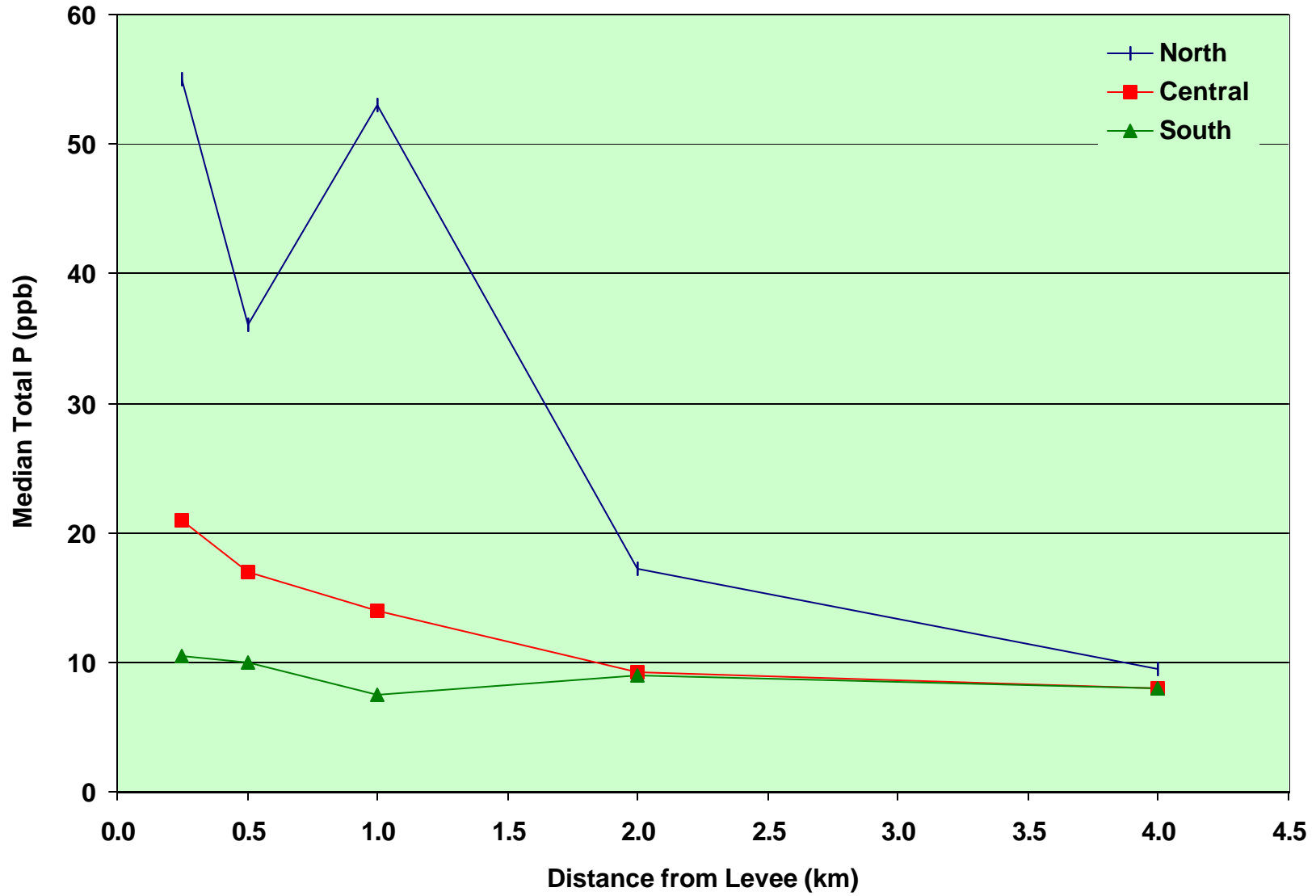
2 0 2 4 Kilometers

**404 Permit Transects
Total P Concentrations (ppb)**

Station	Date							GeoMean	Median
	03/30/98	04/23/98	08/12/98	10/21/98	11/09/98	12/22/98	01/11/99		
N.25	31	34		300	80	55		67	55
N.5	24	23		280	79	39	33	50	36
N1	27	25		120	53	76		50	53
N2	15				19			17	17
N4	10				9			9	10
G Mean	20	27		216	36	55	33	44	34
Median	22	26		248	44	55	33	47	39
C.25	20	21		23	26	16		21	21
C.5	17	21		20	15	11		16	17
C1	13				15			14	14
C2	9				9			9	9
C4	8				8			8	8
G Mean	13	21		22	13	13		16	13
Median	13	21		22	14	13		16	14
S.25	11	21		8	10			12	11
S.5	8	10		8	12	10		9	10
S1	7				8			7	8
S2	7	10		8	10			9	9
S4	6	8	9	8	8	4	7	7	8
G Mean	8	11	9	8	9	6	7	8	8
Median	7	10	9	8	10	6	7	8	8
2A-217 Stage	13.94	12.76	12.29	12.68	13.09				

404 Transect Data, 1998-1999



404 Permit Soils Data, 1998

Total P (mg/kg)	Computed-->							Dominant Veget.
	0-2	2-10	10-20	20-30	0-10	0-20	0-30	
Site								
N.25	1262	608	244	157	731	516	390	Cattail
N.5	1212	508	255	139	679	469	346	Cattail
N1	998	577	285	189	655	495	400	Cattail
N2	1091	476	305	191	580	457	387	Sawgrass
N4	697	433	248	137	483	365	295	Sawgrass
C.25	799	451	298	202	521	405	345	Sawgrass
C.5	960	487	292	159	574	456	368	Cattail
C1	682	445	285	173	488	399	331	Sawgrass
C2	583	410	217	157	443	335	276	Sawgrass
C4	593	328	267	157	368	318	269	Sawgrass
S.25	631	478	312	171	502	419	344	Sawgrass
S.5	681	501	301	202	538	429	360	Sawgrass
S1	560	444	286	179	467	386	328	Sawgrass
S2	678	428	288	173	478	394	327	Sawgrass
S4	522	377	222	137	401	314	273	???

Bulk Density (g/cm3)	Computed-->						
	0-2	2-10	10-20	20-30	0-10	0-20	0-30
Site							
N.25	0.145	0.157	0.122	0.150	0.155	0.138	0.142
N.5	0.166	0.129	0.134	0.162	0.137	0.135	0.144
N1	0.150	0.165	0.124	0.128	0.162	0.143	0.138
N2	0.117	0.144	0.111	0.089	0.139	0.125	0.113
N4	0.086	0.091	0.090	0.081	0.090	0.090	0.087
C.25	0.150	0.149	0.161	0.130	0.149	0.155	0.147
C.5	0.168	0.188	0.132	0.132	0.184	0.158	0.150
C1	0.135	0.153	0.117	0.113	0.149	0.133	0.127
C2	0.108	0.113	0.104	0.106	0.112	0.108	0.107
C4	0.073	0.105	0.095	0.085	0.098	0.097	0.093
S.25	0.110	0.145	0.109	0.107	0.138	0.123	0.118
S.5	0.137	0.132	0.113	0.107	0.133	0.123	0.118
S1	0.134	0.132	0.108	0.093	0.132	0.120	0.111
S2	0.114	0.115	0.091	0.089	0.115	0.103	0.098
S4	0.086	0.110	0.099	0.062	0.105	0.102	0.089

404 Transect Data, 1998-1999

