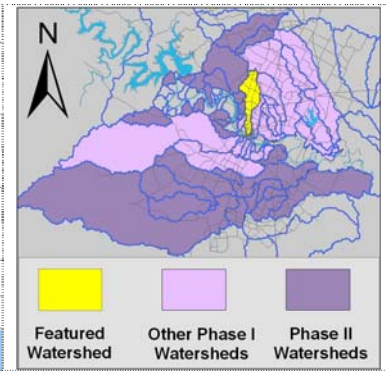


Shoal Creek Watershed

Summary Sheet

Catchment	Total area	13 square miles		
	Area in recharge	3 square miles		
	Creek length	11 miles		
Demographics	Receiving water	Town Lake		
	2000 population	59,011		
	2030 projected population	78,759		
	30 year projected % increase	33 %		
Land Use	Impervious cover (2003 estimate)	47.28 %		
Overall EII Scores	2000	2003	2006	2009
	60	54	55	63



Flow Regime* for Sample Sites on Shoal Creek Upstream to Downstream

Site # upstream to downstream	Site Name	2003					2006					2009				
		Feb WQ	Mar Bio	May WQ	Sep WQ	Dec WQ	Feb WQ	May WQ	Jul Bio	Aug WQ	Nov WQ	Feb WQ	Jun WQ	Jun Bio	Jun-July WQ	Dec WQ
118	Shoal downstream of Cross Creek	B	B	B	B	n	B	B	B	n	B	B	B	B	B	B
117	Shoal at Shoal Edge Court	B	B	B	B	B	B	B	B	n	B	B	B	B	B	B
116	Shoal at 24th St	B	B	B	B	B	B	B	B	n	B	B	B	B	B	B
122	Shoal above 1st Street	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B

* B = baseflow n = no flow S = storm flow blue = Samples were taken grey = Samples were not taken blank = not visited

Summary of 2009 Data for Shoal Creek

2009 Summary	Parameter	Mean	Max	Min	Discussion
Physicochemical	D.O. mg/l	8.6	12.5	5.3	Wide range of values, highly variable, no apparent trends
	pH st.units	7.9	8.2	6.7	Generally within normal range
	Cond uS/cm	546	954	303	Wide range of values, generally low upstream and high downstream
Nutrients	NH ₃ mg/l	0.01	0.026	0.005	Generally within normal range, with higher concentrations at site 112
	NO ₃ mg/l	0.36	1.22	0.004	Generally within normal range, with higher concentrations at site 112
	Ortho P mg/l	0.06	0.2	0.02	Generally within normal range, with higher concentrations at site 112
Sediment Load	TSS mg/l	0.9	2.2	0.5	Generally within normal range
	Turbidity ntu	1.5	2.7	0.8	Generally within normal range
Biology	E.Coli /100ml	995	2420	91	Chronically high
	Benthic Macs	Much improved from previous years, most sites good diversity and community structure			
	Diatoms	Much improved from previous years, but generally low Cymbella richness and moderate diversity			

Index Scores* for Shoal Creek Sites by Year

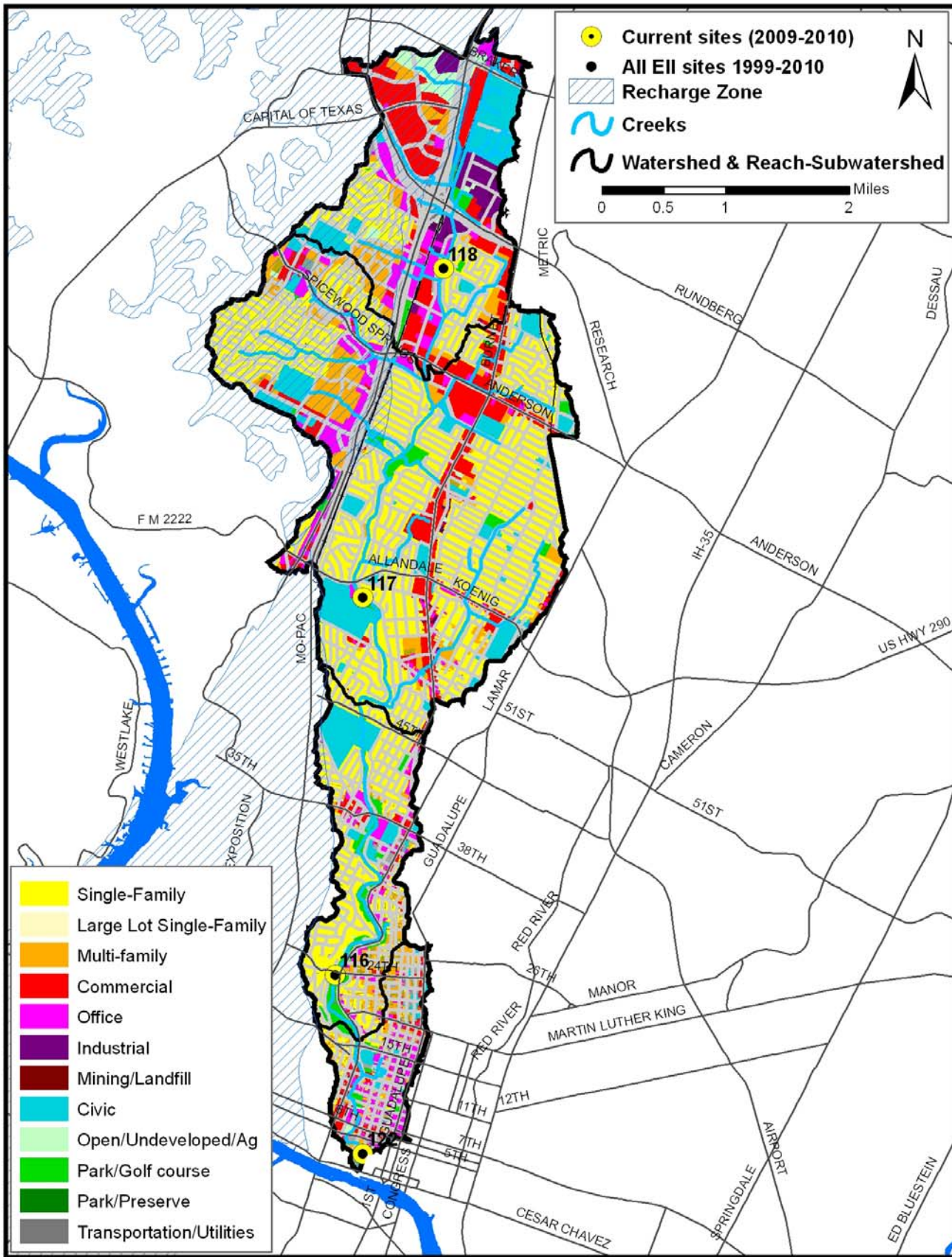
Reach	Site	Site Name	Year	Water Quality	Sediment**	Contact Recreation	Non-Contact Recreation	Physical Integrity	Aquatic Life	Benthic subindex	Diatom subindex	Total EII Score
SHL1	122	Shoal Creek Above 1st St.	2000	44	89	63	64	33	37	31	42	55
SHL2	116	Shoal Creek @ 24th Street	2000	53	89	74	63	26	38	40	36	57
SHL3	117	Shoal Creek @ Shoal Edge Court	2000	62	89	65	77	45	39	40	37	63
SHL4	118	Shoal Downstream of Crosscreek Dr	2000	64	89	75	63	42	62	60	64	66
SHL1	122	Shoal Creek Above 1st St.	2003	32	68	60	34	35	45	34	56	46
SHL2	116	Shoal Creek @ 24th Street	2003	51	68	41	66	32	36	29	43	49
SHL3	117	Shoal Creek @ Shoal Edge Court	2003	62	68	62	65	65	36	32	40	60
SHL4	118	Shoal Downstream of Crosscreek Dr	2003	68	68	67	68	54	37	41	32	60
SHL1	122	Shoal Creek Above 1st St.	2006	34	59	30	59	46	38	30	45	44
SHL2	116	Shoal Creek @ 24th Street	2006	48	59	24	79	47	64	62	66	54
SHL3	117	Shoal Creek @ Shoal Edge Court	2006	67	59	49	72	57	59	58	60	61
SHL4	118	Shoal Downstream of Crosscreek Dr	2006	70	59	59	53	58	56	53	59	59
SHL1	122	Shoal Creek Above 1st St.	2009	48	60	25	79	57	79	83	75	58
SHL2	116	Shoal Creek @ 24th Street	2009	64	60	28	84	59	94	91	97	65
SHL3	117	Shoal Creek @ Shoal Edge Court	2009	69	60	37	78	72	79	90	68	66
SHL4	118	Shoal Downstream of Crosscreek Dr	2009	76	60	36	83	49	74	65	82	63

* blank cells indicate parameter was not collected, blank columns indicate site was dropped **sediment samples only collected at the downstream site

100-87.5 Excellent 87.5-75 V. Good 75-62.5 Good 62.5-50 Fair 50-37.5 Marginal 37.5-25 Poor 25-12.5 Bad 12.5-0 V. Bad

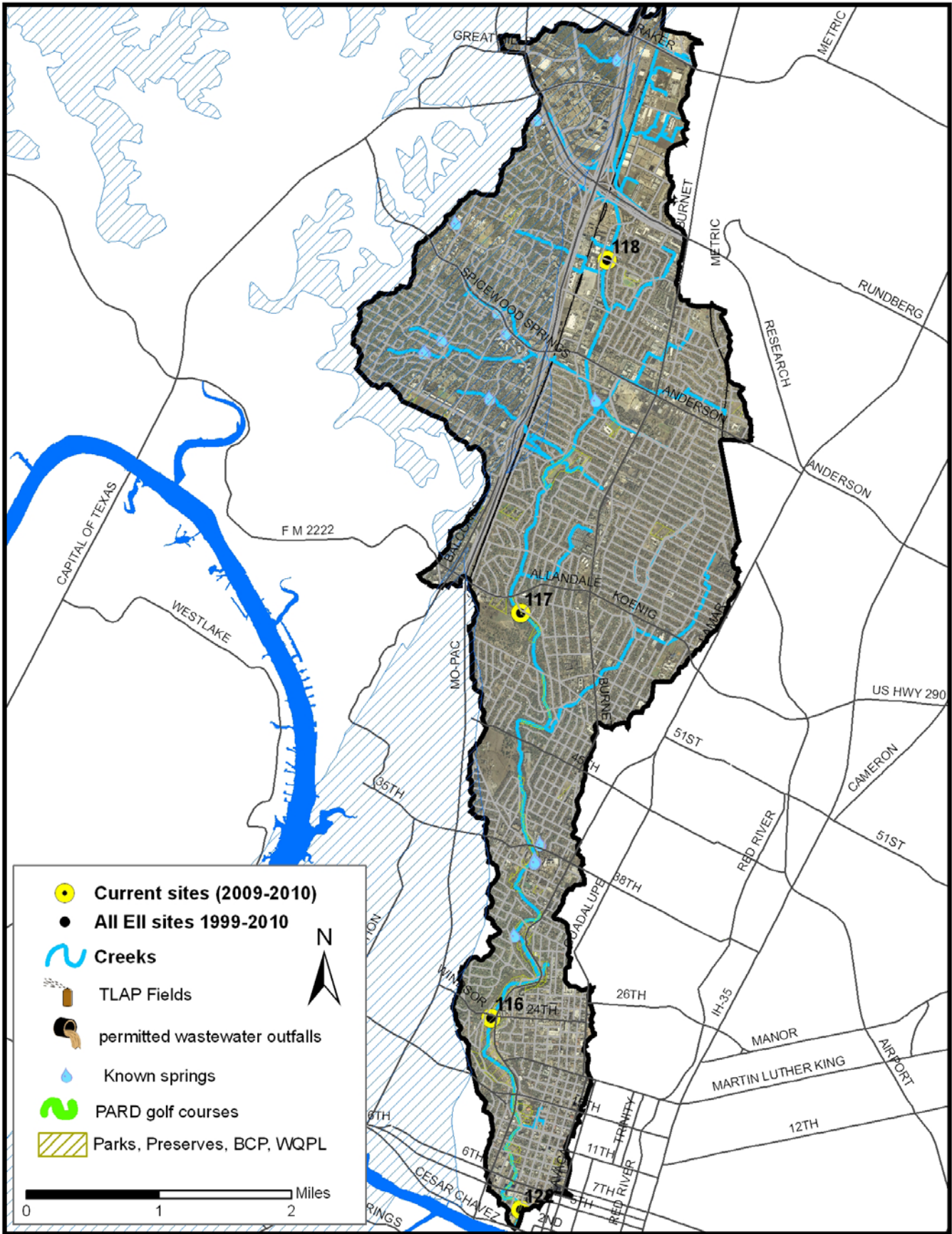
Shoal Creek Watershed

Land Use Map



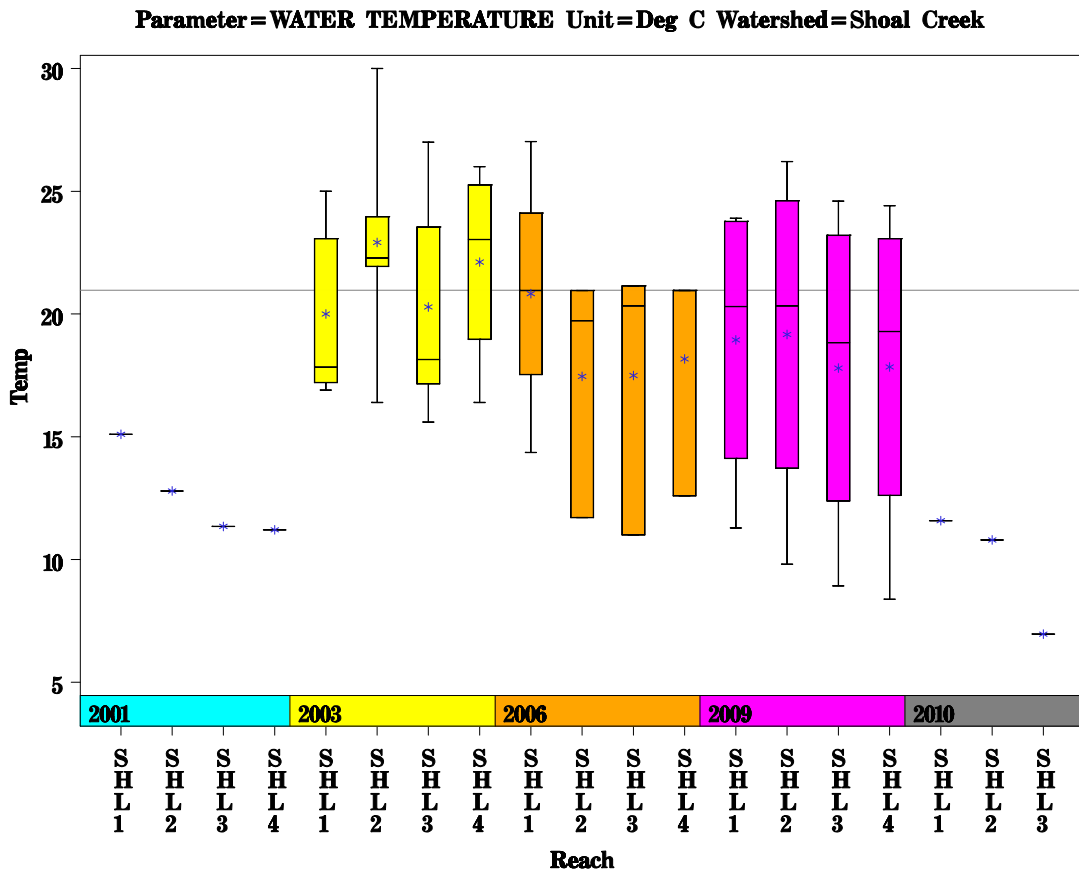
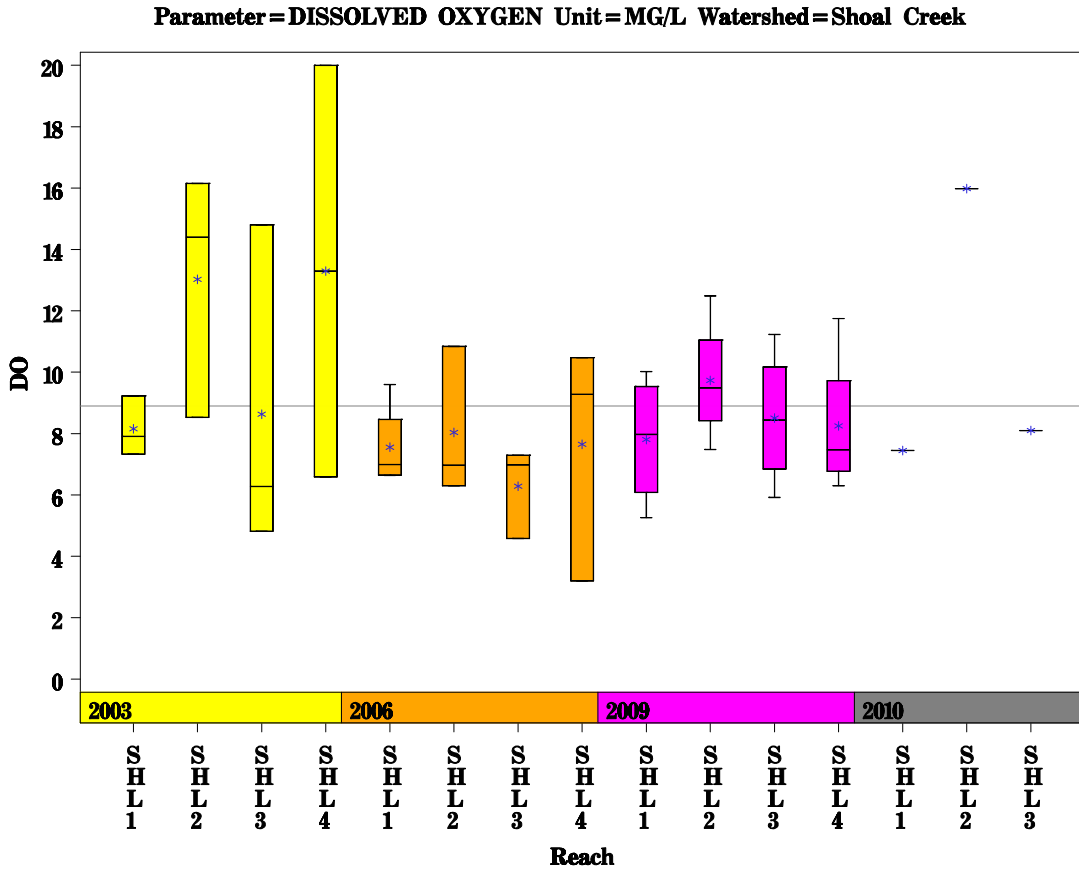
Shoal Creek Watershed

Aerial Map



Shoal Creek Watershed

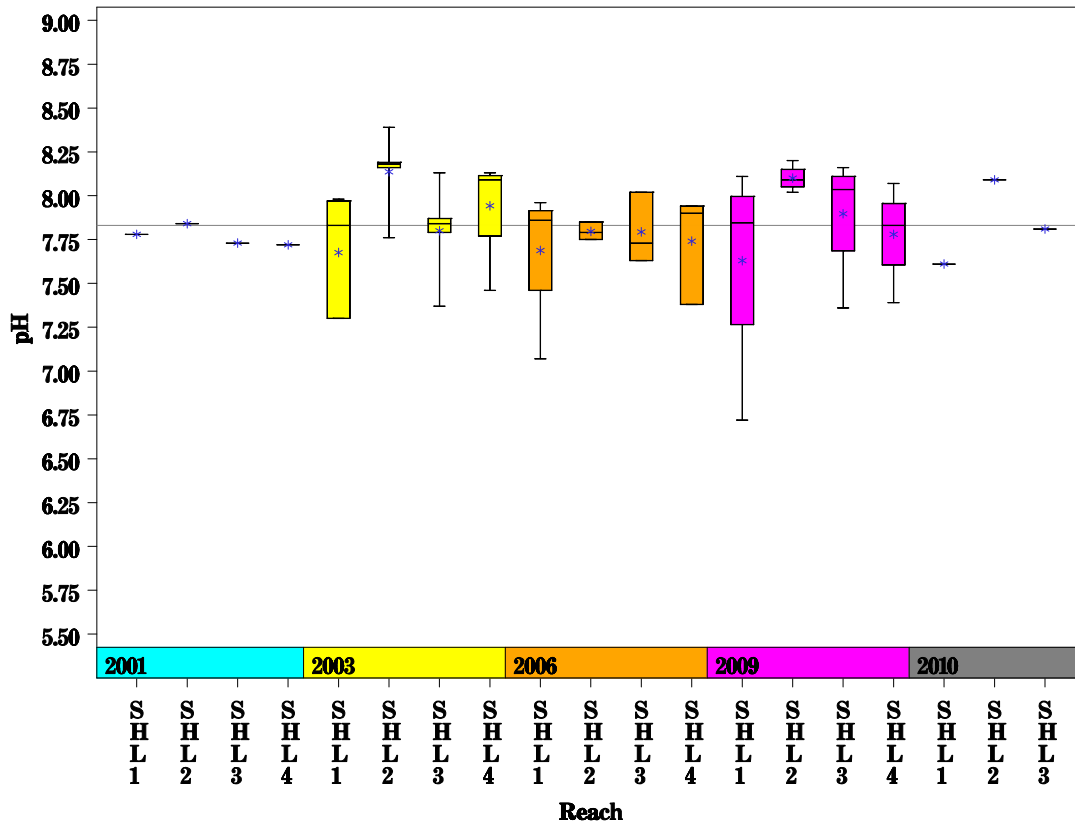
Data Summary Graphs – Dissolved Oxygen and Temperature (Downstream to Upstream by Year)



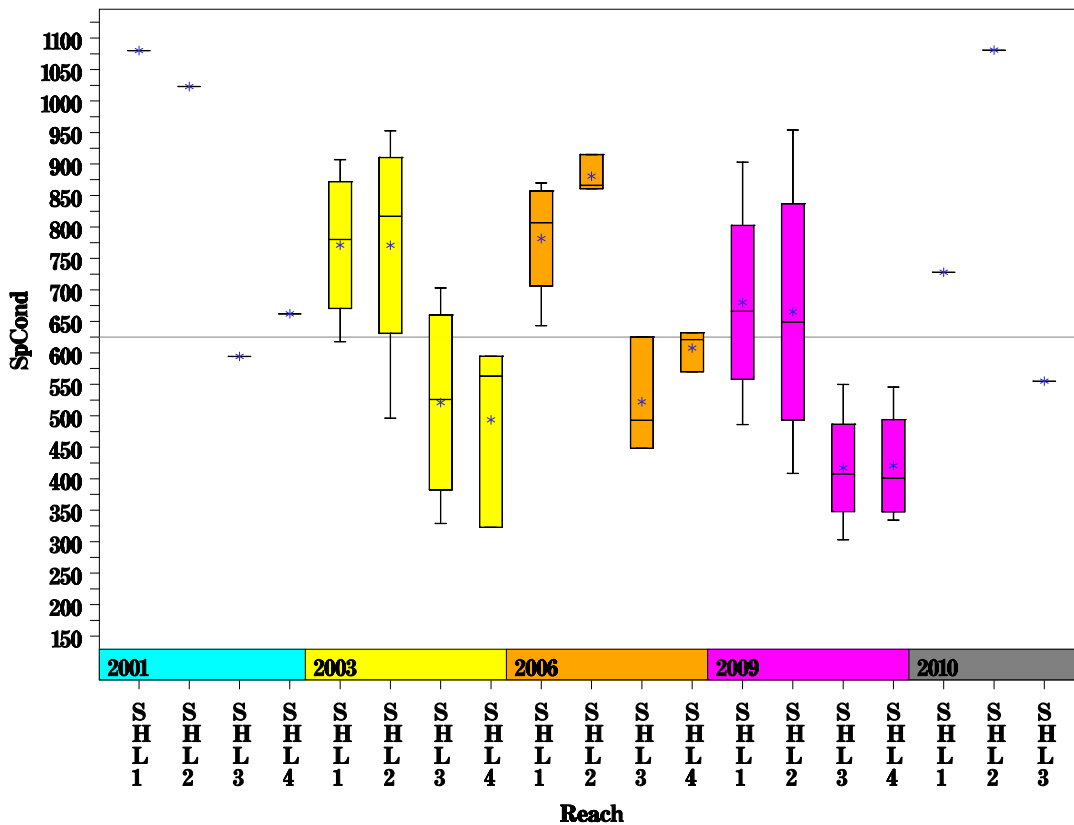
Shoal Creek Watershed

Data Summary Graphs – pH and Conductivity (Downstream to Upstream by Year)

Parameter=PH Unit=Standard units Watershed=Shoal Creek



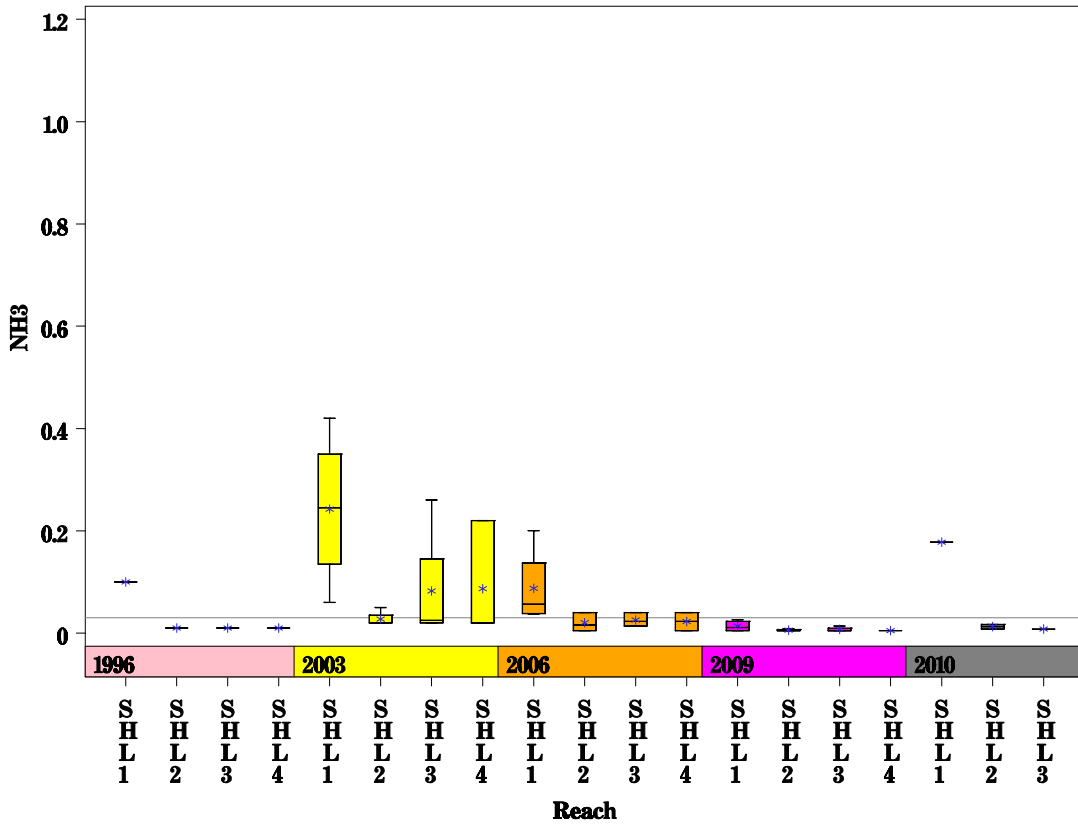
Parameter=CONDUCTIVITY Unit=uS/cm Watershed=Shoal Creek



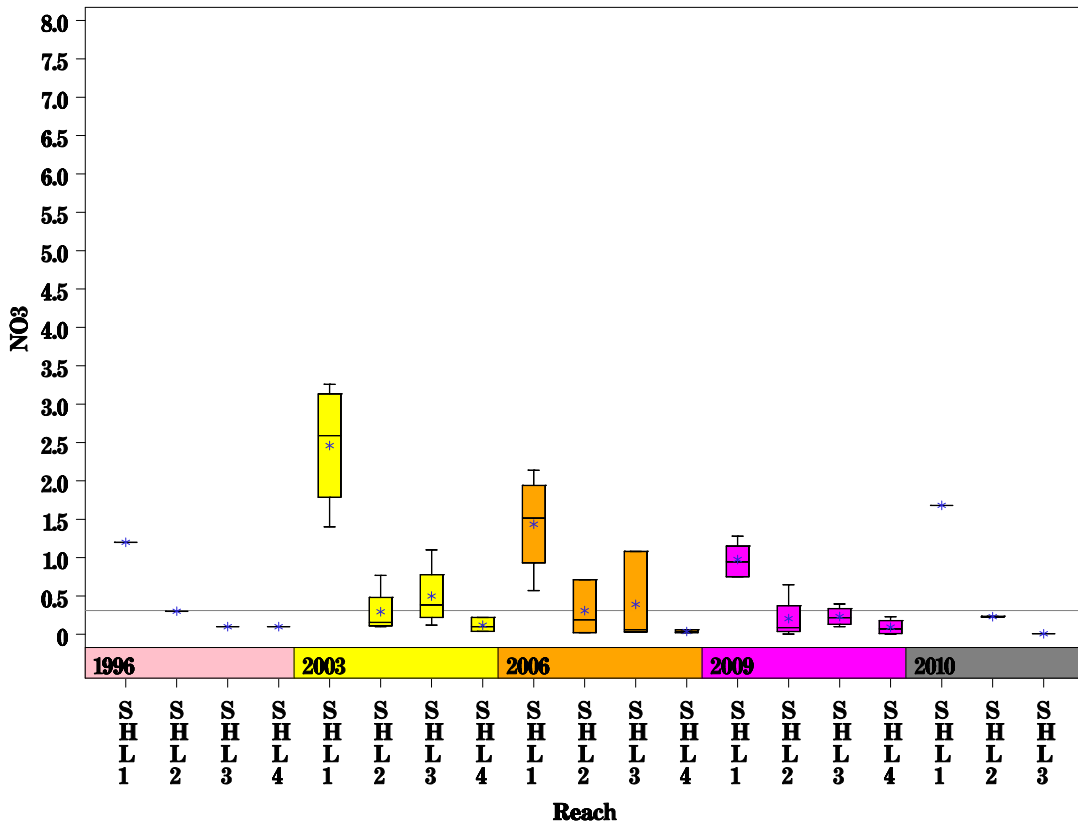
Shoal Creek Watershed

Data Summary Graphs – Ammonia and Nitrate/Nitrite (Downstream to Upstream by Year)

Parameter = AMMONIA AS N Unit = MG/L Watershed = Shoal Creek



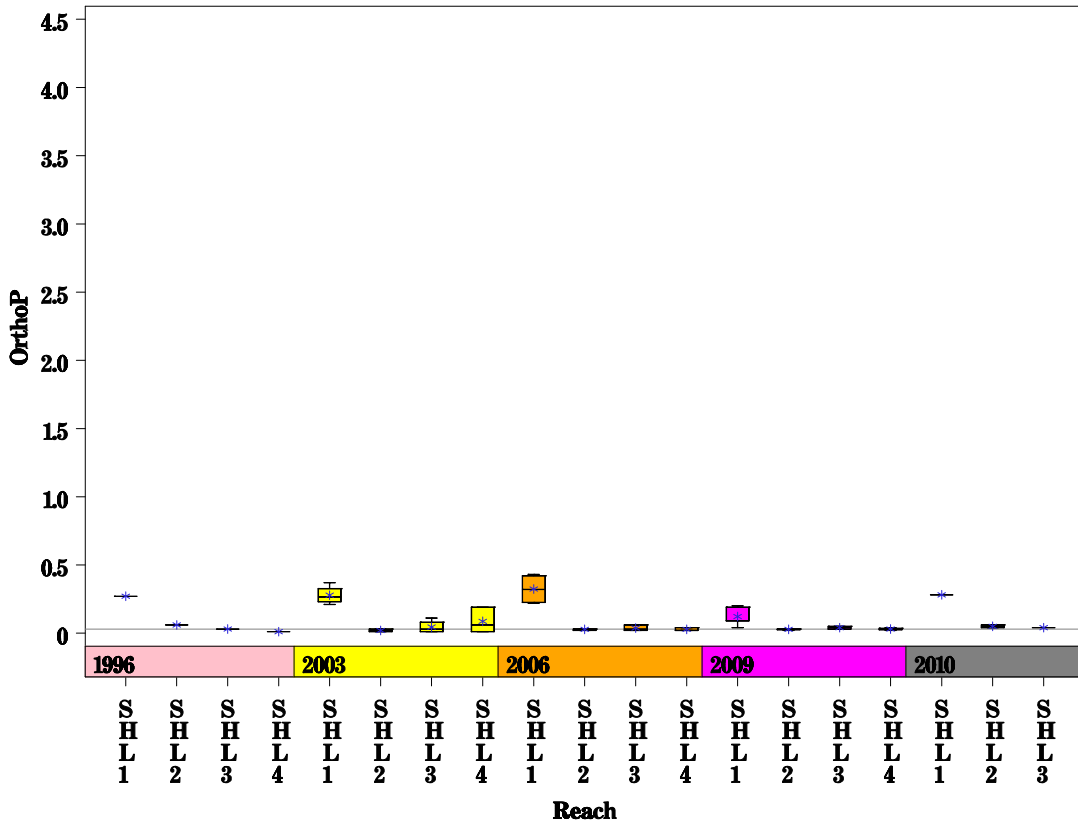
Parameter = NITRATE AS N Unit = MG/L Watershed = Shoal Creek



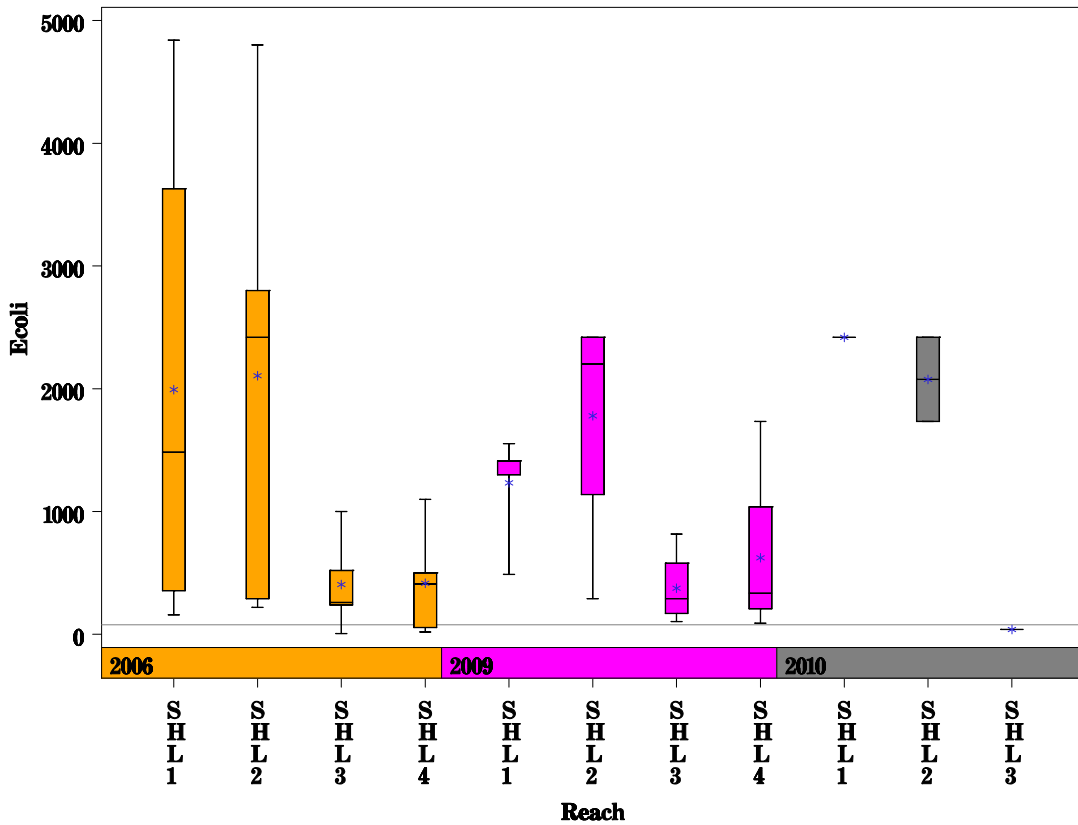
Shoal Creek Watershed

Data Summary Graphs – Orthophosphate and E.coli (Downstream to Upstream by Year)

Parameter= ORTHOPHOSPHORUS AS P Unit=MG/L Watershed=Shoal Creek



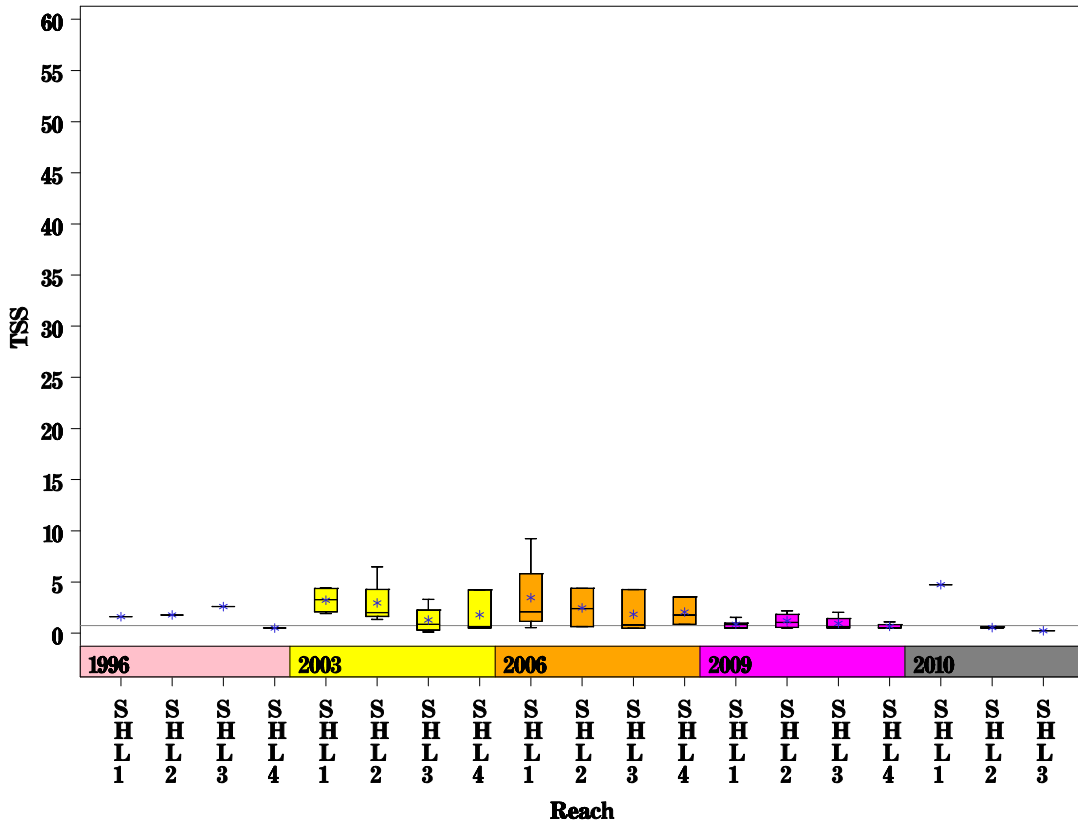
Parameter= E COLI BACTERIA Unit=MPN/dL Watershed=Shoal Creek



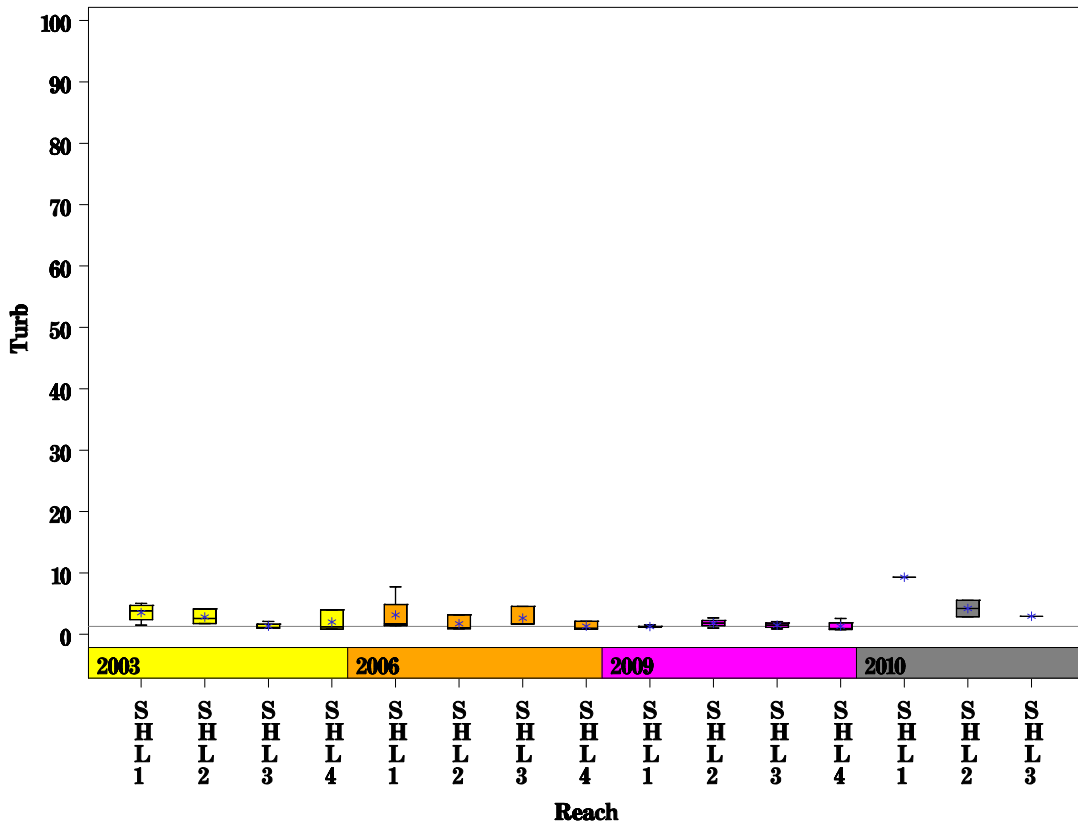
Shoal Creek Watershed

Data Summary Graphs – Total Suspended Solids and Turbidity (Downstream to Upstream by Year)

Parameter = TOTAL SUSPENDED SOLIDS Unit = MG/L Watershed = Shoal Creek

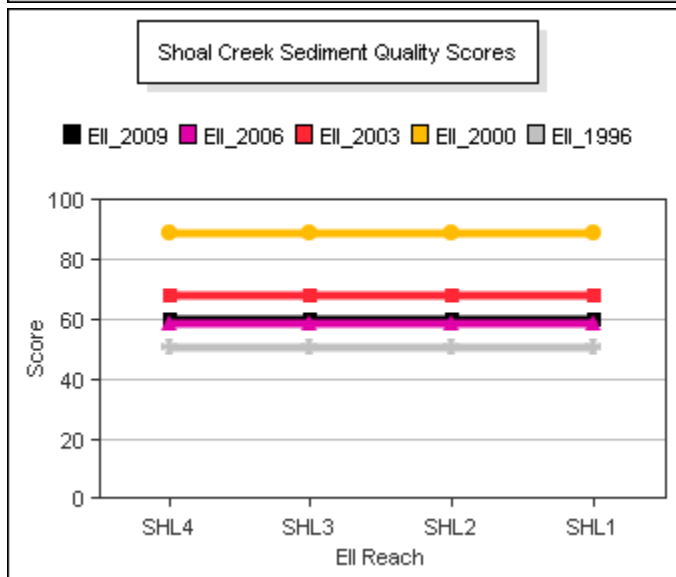
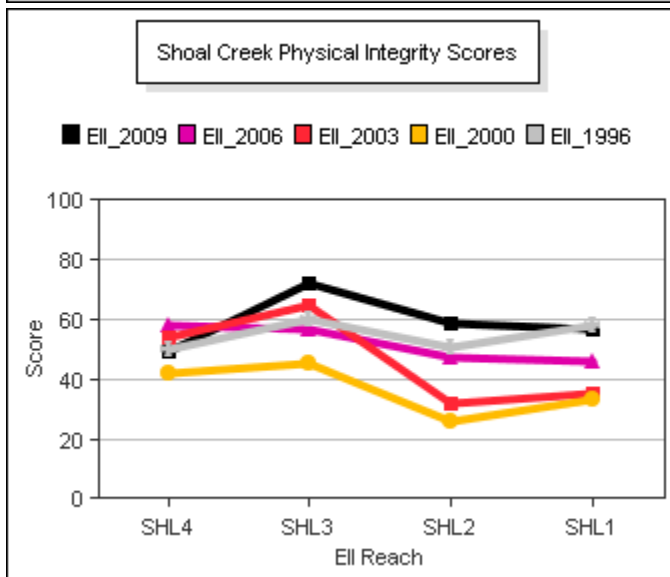
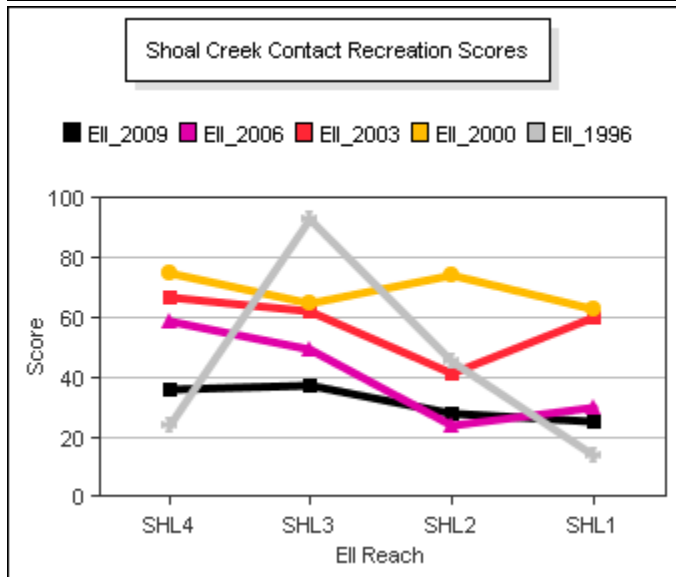
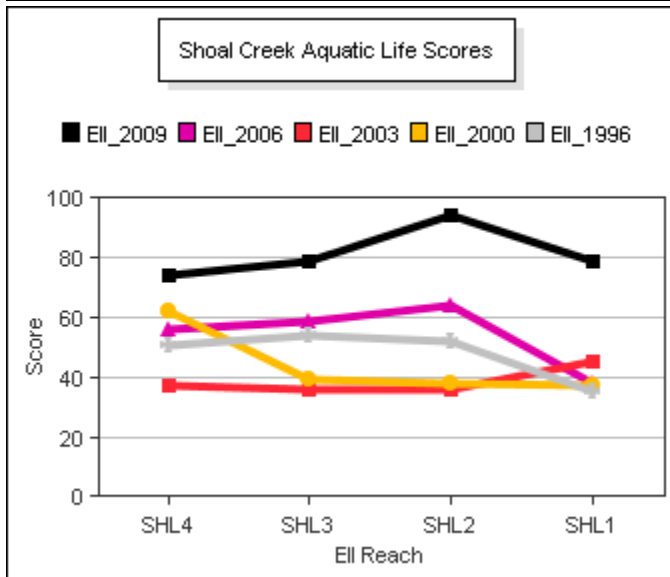
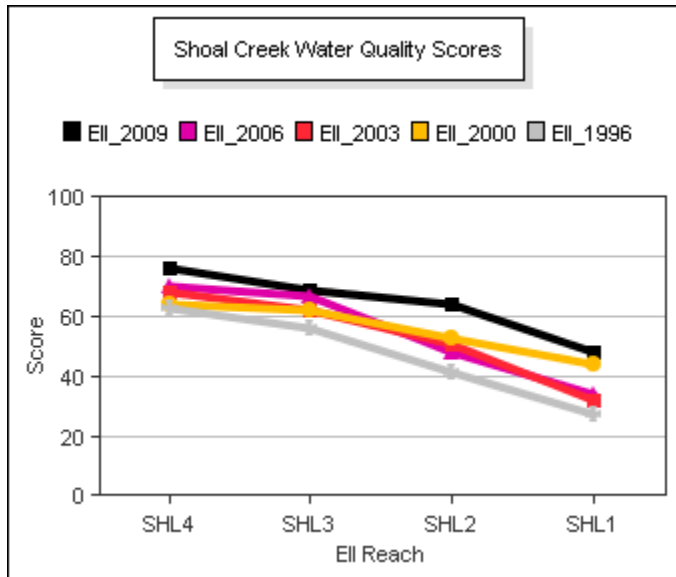
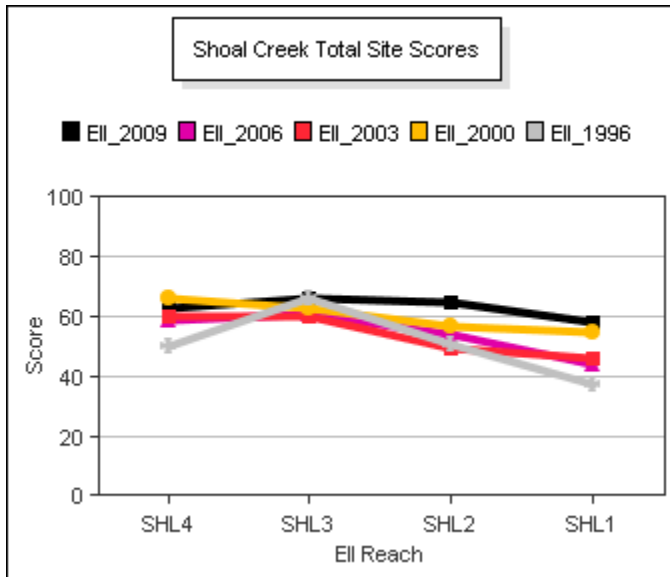


Parameter = TURBIDITY Unit = NTU Watershed = Shoal Creek



Shoal Creek Watershed

Score Summary – Reach scores for each sample year



Shoal Creek Watershed

Site Photographs



118_t00-us-07_07_2006



118_t00-ds-07_07_2006



117_t00-ds-02_12_2001



117_t00-us-07_07_2006



117-t00-us-05-28-2009



117-t00-ds-05-28-2009

Shoal Creek Watershed

Site Photographs



116_t00-ds-02_12_2001



116_t00-ds-03_11_2003



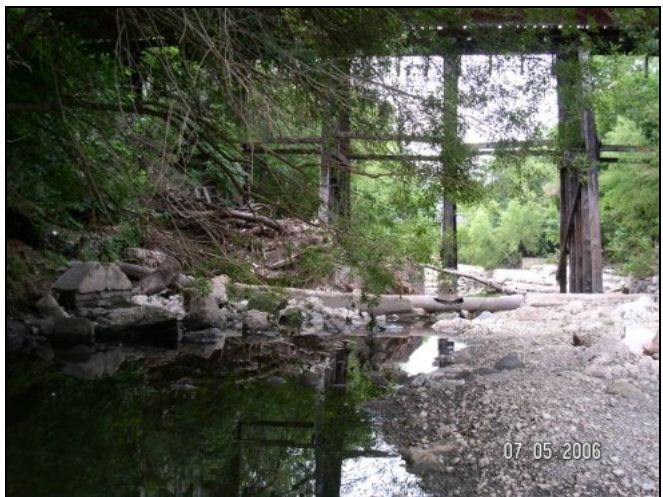
116_t00-us1-07_07_2006



116-t00-us-05-28-2009



122_t00-us-07_05_2006



122_t00-ds-07_05_2006

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