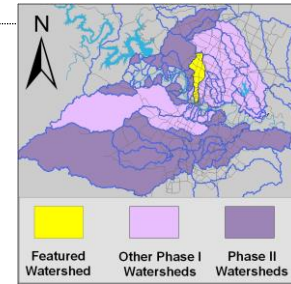


Shoal Creek Watershed

Summary Sheet

Catchment	Total area	13 square miles				
	Area in recharge	3 square miles				
	Creek length	11 miles				
	Receiving water	Town Lake				
Demographics	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	2011	
	60	54	55	63	57	



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

Site #	Site Name	2003					2006					2009				2010	2011						
		Feb	Mar	Mar	May	Sep	Dec	Feb	Mar	May	Jul	Aug	Nov	Feb	May	May	Oct	Dec	Dec	Mar	Jun	Jun	Sep
		WQ	WQ	Bio	WQ	WQ	WQ	WQ	WQ	WQ	Bio	WQ	WQ	WQ	WQ	Bio	WQ	WQ	WQ	WQ	WQ	Bio	WQ
118	Crosscreek	B	B	B	B	B	n	B	B	B	B	n	B	B	B	B	B	n	B	n	n	n	
117	Shl Edge Ct	B	B	B	B	B	B	B	B	B	B	n	B	B	B	B	B	B	B	n	n	n	
116	24th	B	B	B	B	B	B	B	B	B	B	n	B	B	B	B	B	B	B	B	B	B	
122	us 1st	B	B	B	B	B	B	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 2011 Data for Shoal Creek

Summary	Parameter	Mean	Max	Min	Discussion
Physicochemical	D.O. mg/l	8.9	16.0	5.0	Wide range of values, high at site 116, low at mouth site.
	pH st.units	7.88	8.40	7.61	Mostly within normal range with some elevated values at site 116.
	Cond uS/cm	807	1431	555	Mostly within normal range, some high values at site 116.
Nutrients	NH ₃ mg/l	0.078	0.242	0.008	Consistently high at mouth site.
	NO ₃ mg/l	0.485	1.680	0.008	Concentrations increase at downstream sites, but all within normal range.
	Ortho P mg/l	0.131	0.380	0.020	Consistently high at mouth site.
Sediment Load	TSS mg/l	1.2	4.7	0.2	Within normal range, values increase at downstream sites.
	Turbidity ntu	3.42	9.30	1.310	Within normal range, increases downstream.
Biology	E.Coli /100ml	1414	2420	36	Wide range, consistently high at mouth site, some high values at site 116.
	Benthic Macroinvertebrates and Diatoms: evaluations are provided in the introduction of this report				

Index Scores* for Shoal Creek Sites by Year

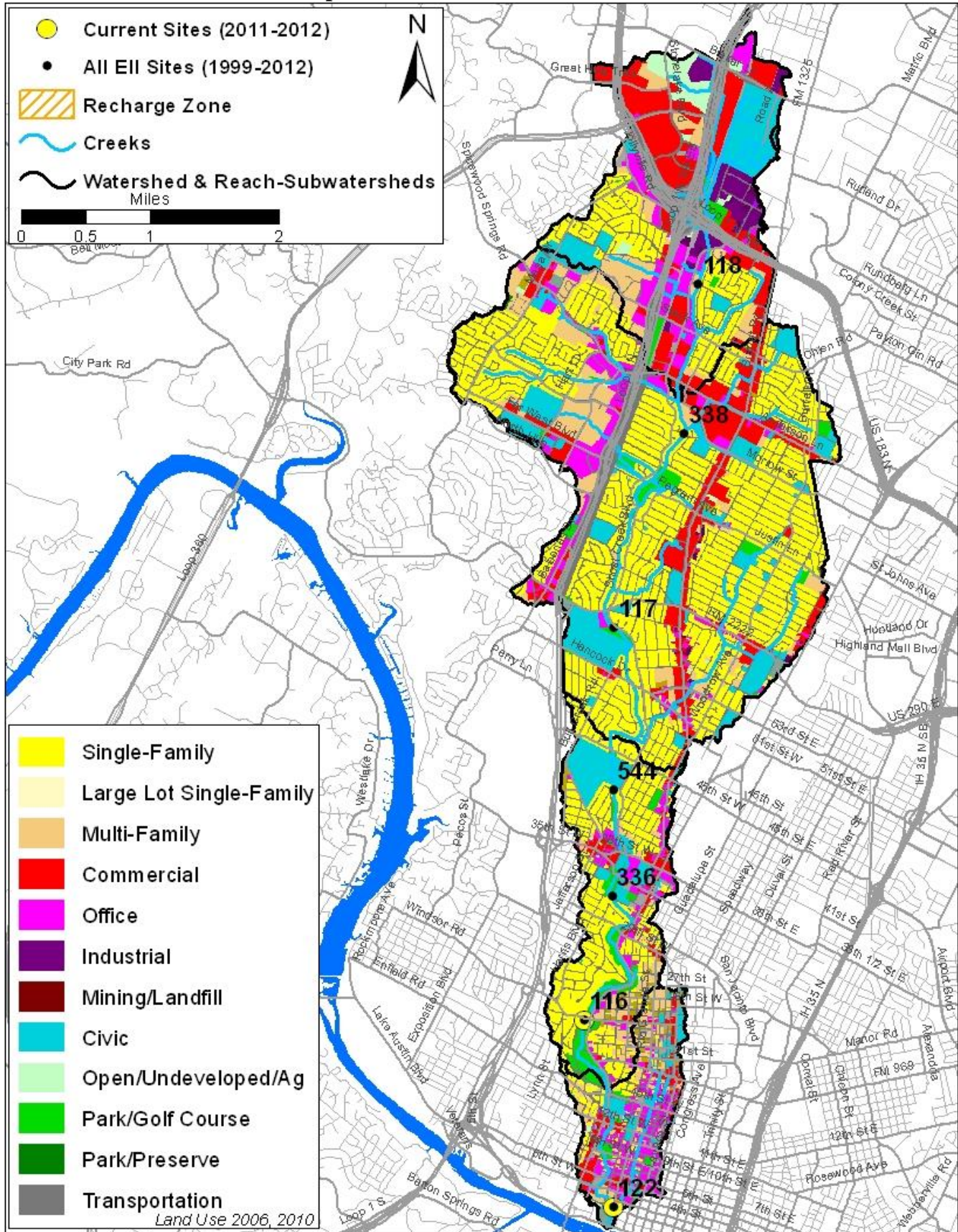
Reach	Site	Site Name	Year	Water Quality	Sediment*	Contact Rec.	Non-Contact Rec.	Physical Integrity	Aquatic Life	Benthic subindex	Diatom subindex	Total EII Score
SHL1	122	Shoal Creek Upstream of 1st St.	1996	27	51	14	57	58	35	39	39	37
SHL2	116	Shoal Creek @ 24th Street	1996	41	51	45	68	51	52	52	51	51
SHL3	117	Shoal Creek @ Shoal Edge Court (EII)	1996	56	51	93	79	60	54	69	38	66
SHL4	118	Shoal Creek DS of Crosscreek Drive	1996	63	51	24	59	50	51	32	70	50
SHL1	122	Shoal Creek Upstream of 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 (EII)	2000	62	89	65	77	45	39	40	37	63
SHL4	118	Shoal Creek DS of Crosscreek Drive	2000	64	89	75	63	42	62	60	64	66
SHL1	122	Shoal Creek Upstream of 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 (EII)	2003	62	68	62	65	65	36	32	40	60
SHL4	118	Shoal Creek DS of Crosscreek Drive	2003	68	68	67	68	54	37	41	32	60
SHL1	122	Shoal Creek Upstream of 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 (EII)	2006	67	59	49	72	57	59	58	60	61
SHL4	118	Shoal Creek DS of Crosscreek Drive	2006	70	59	59	53	58	56	53	59	59
SHL1	122	Shoal Creek Upstream of 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 (EII)	2009	69	60	37	78	72	79	90	68	66
SHL4	118	Shoal Creek DS of Crosscreek Drive	2009	76	60	36	83	49	74	65	82	63
SHL1	122	Shoal Creek Upstream of 1st St.	2011	36	70	25	55	54	53	46	60	49
SHL2	116	Shoal Creek @ 24th Street	2011	62	70	48	80	50	62	61	63	62
SHL3	117	Shoal Creek @ Shoal Edge Court (EII)	2011	79	70	62	76	63	64	60	67	69
SHL4	118	Shoal Creek DS of Crosscreek Drive	2011	85	70	25	42	60				47

* 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

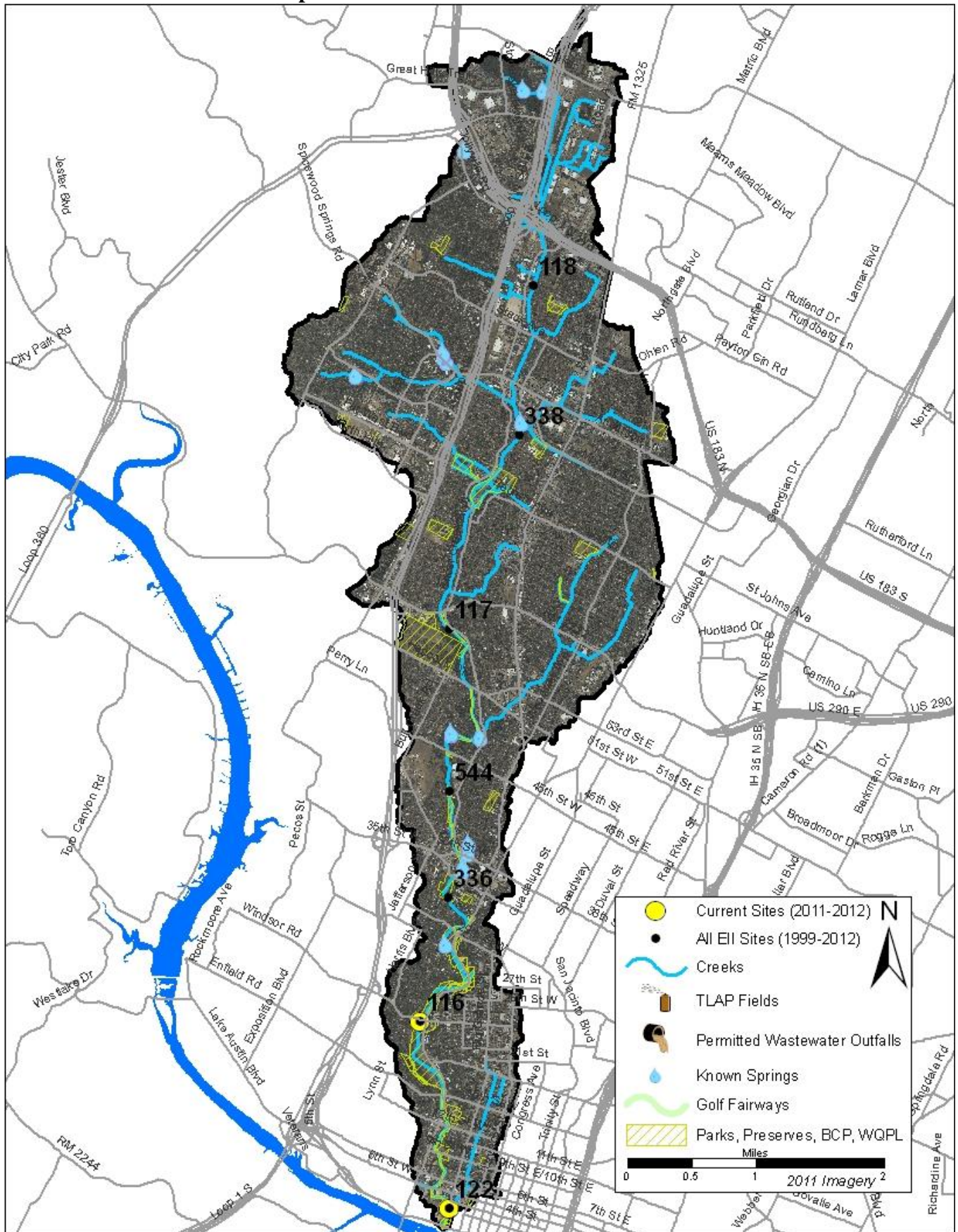
Shoal Creek Watershed

Land Use Map



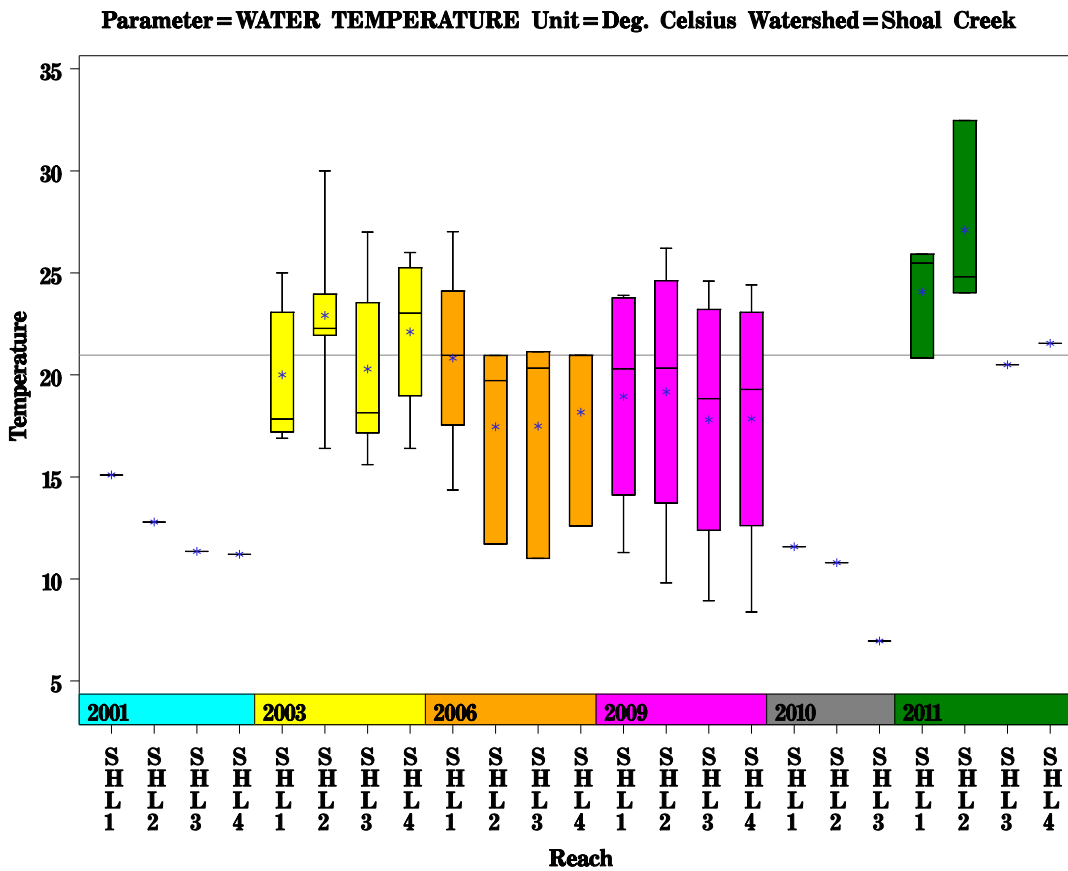
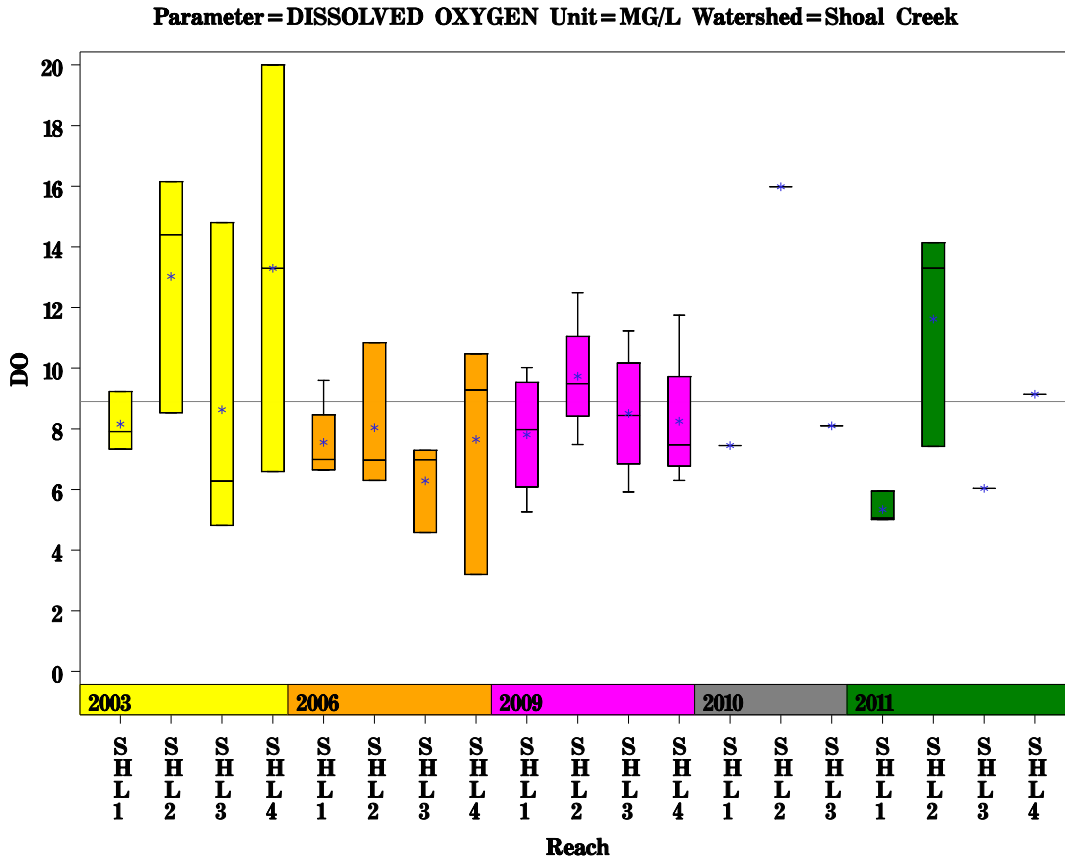
Shoal Creek Watershed

Aerial Map



Shoal Creek Watershed

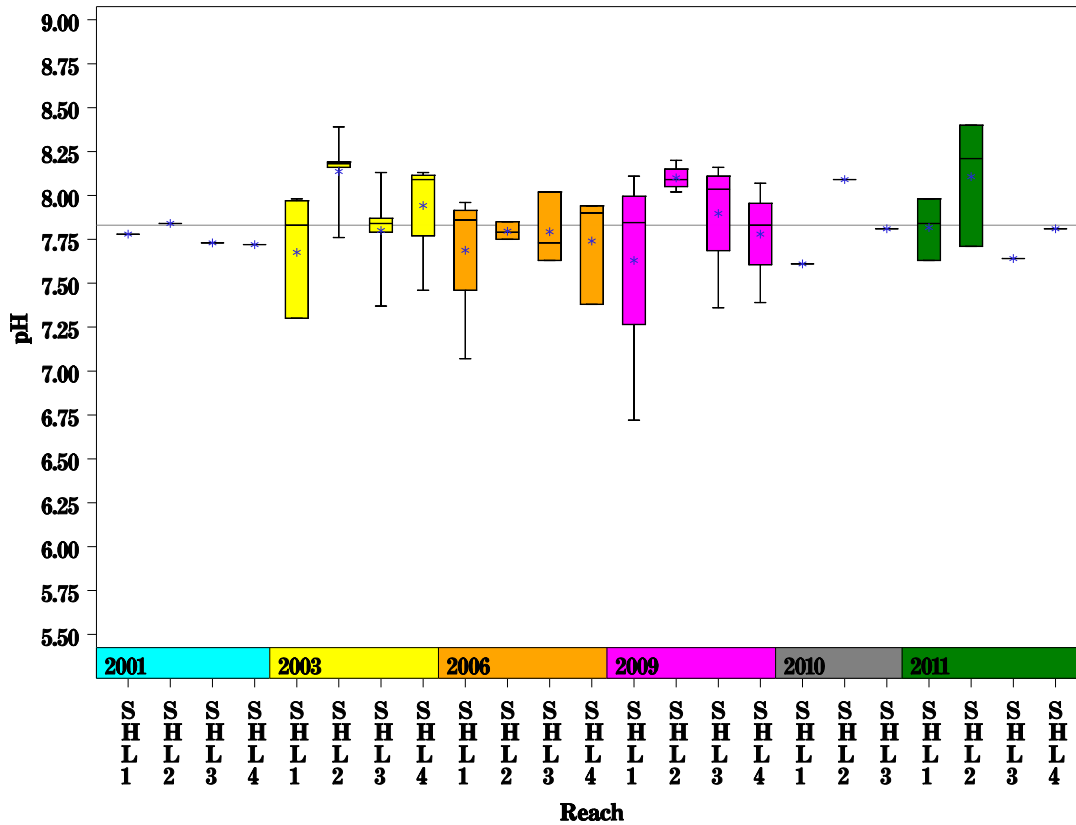
Data Summary Graphs – Dissolved Oxygen and Temperature (Downstream to Upstream by Year)



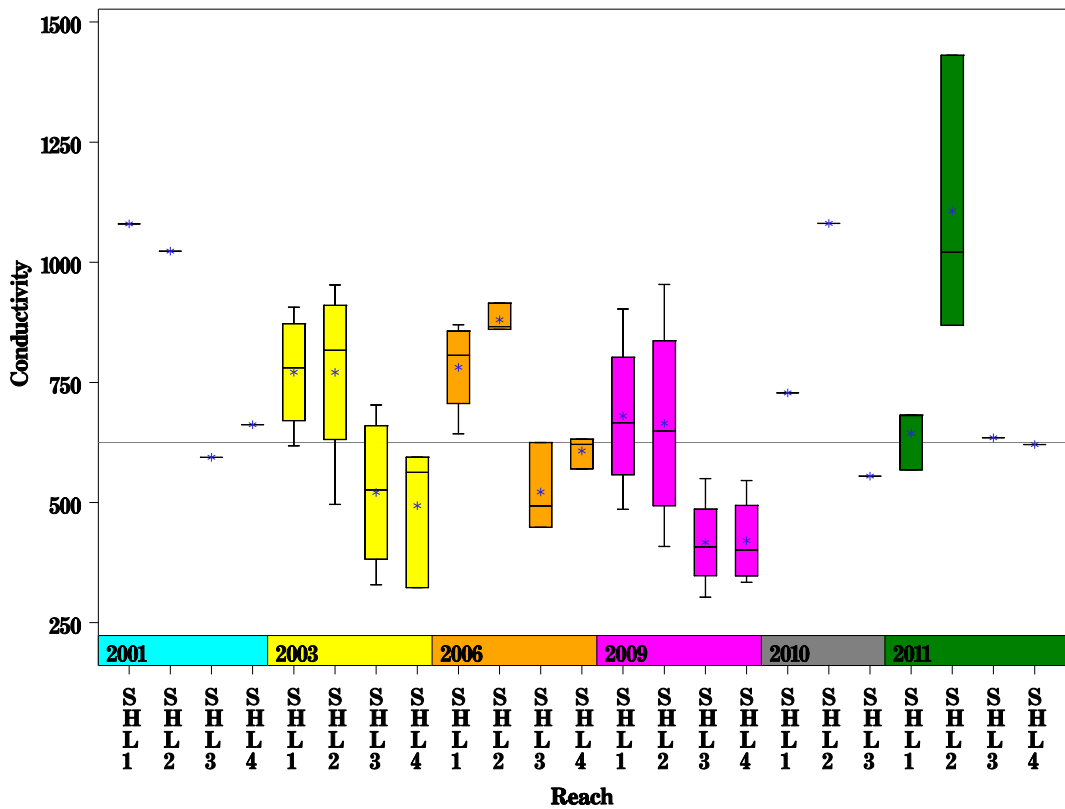
Shoal Creek Watershed

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

Parameter=PH Unit=Standard units Watershed=Shoal Creek



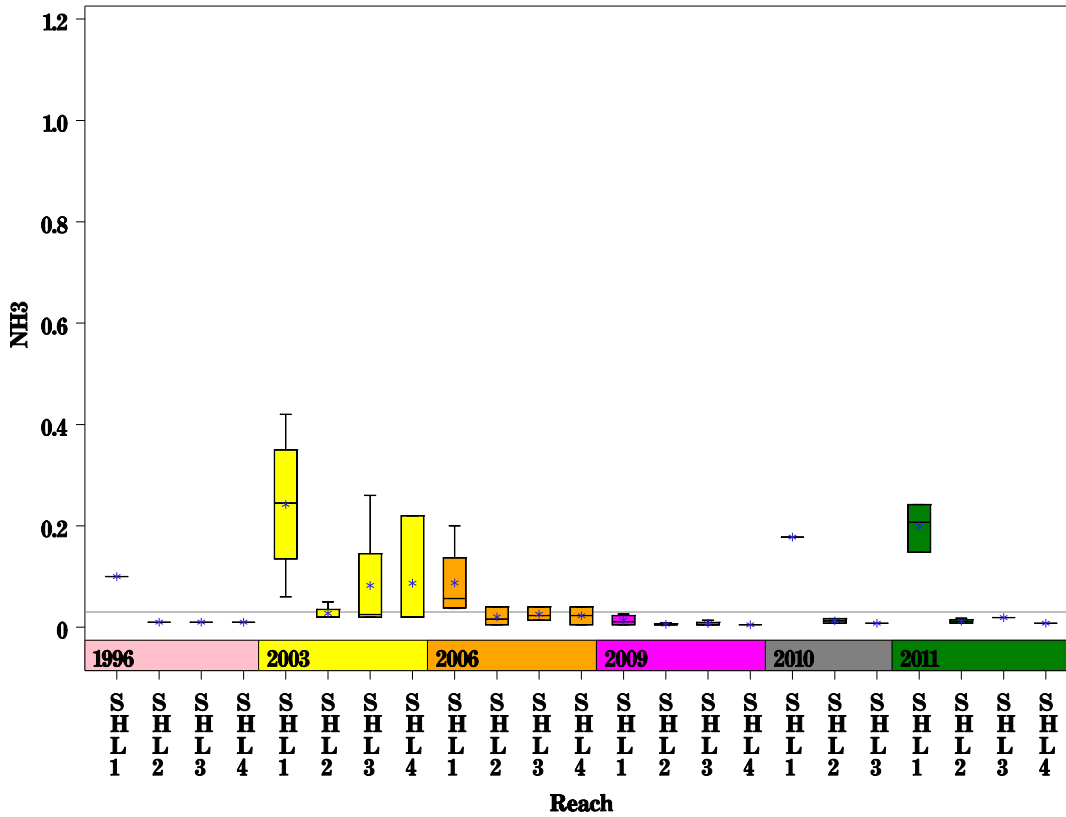
Parameter=CONDUCTIVITY Unit=uS/cm Watershed=Shoal Creek



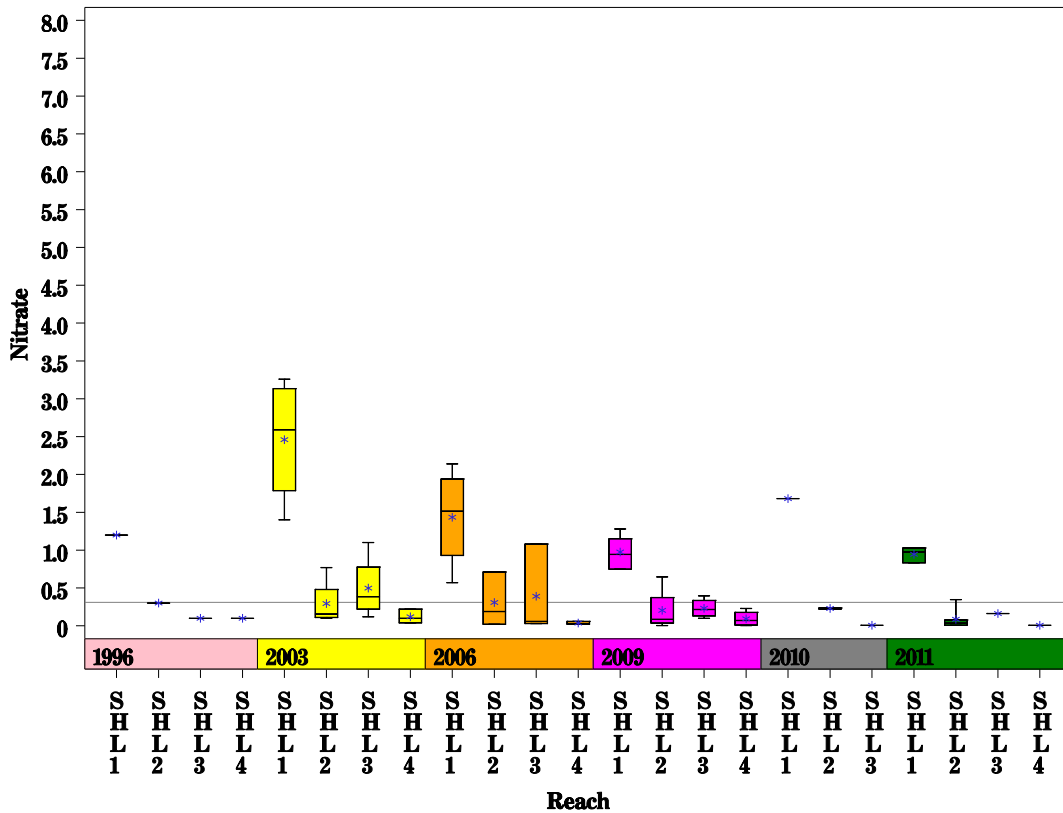
Shoal Creek Watershed

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

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



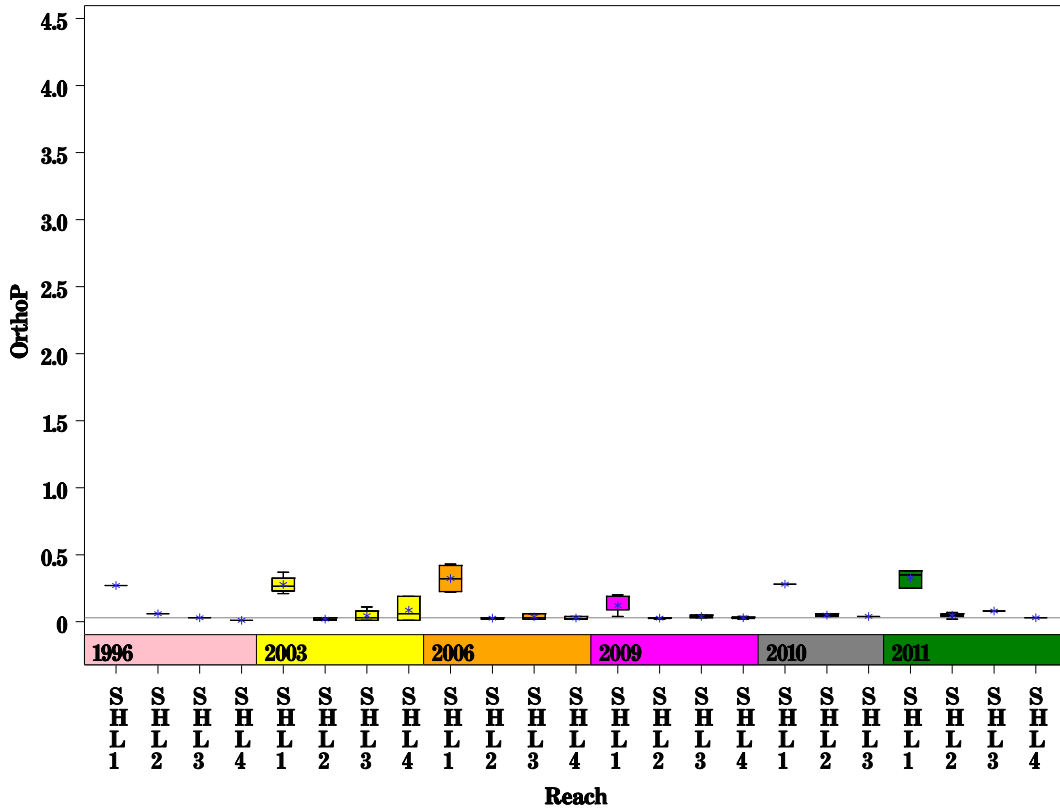
Parameter = NITRATE AS N Unit = MG/L Watershed = Shoal Creek



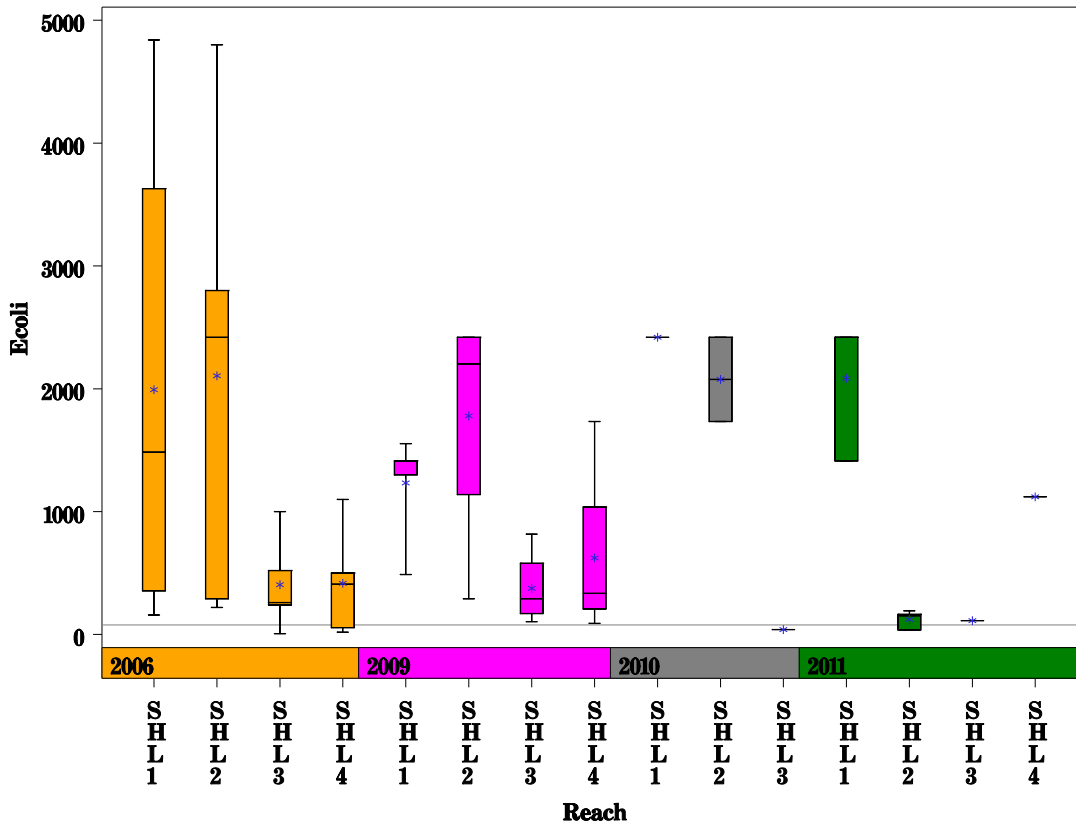
Shoal Creek Watershed

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

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



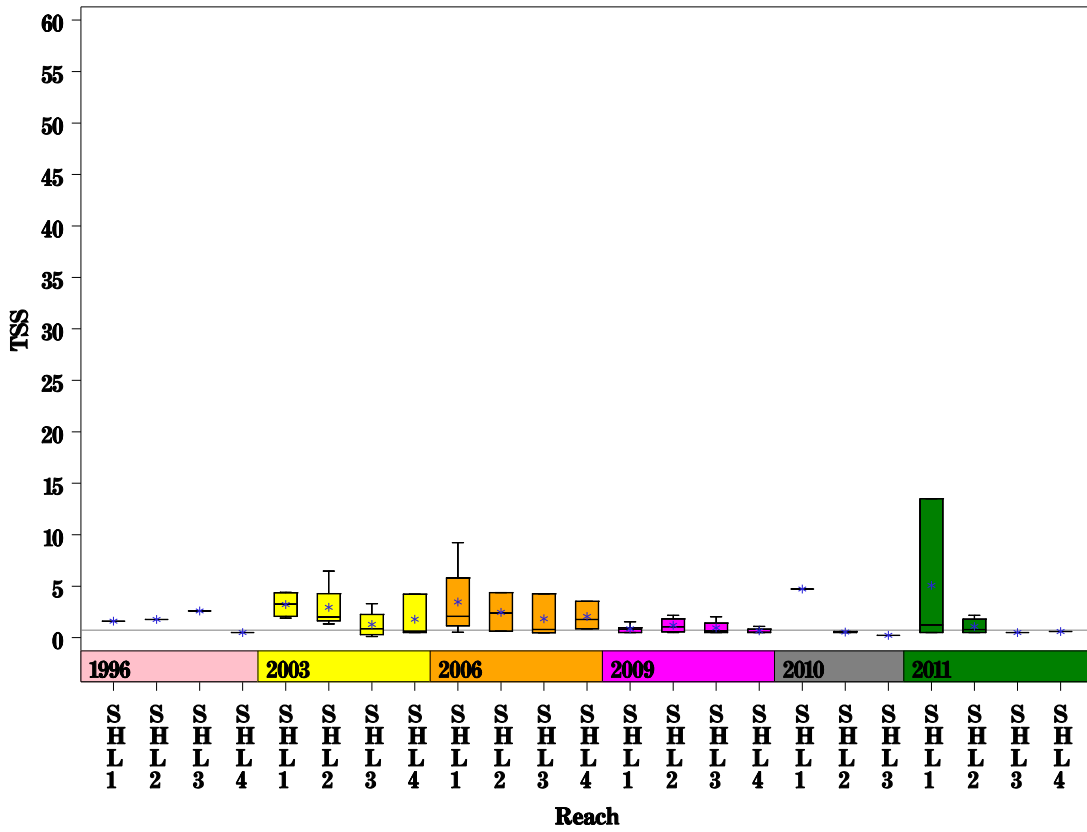
Parameter = E COLI BACTERIA Unit = MPN/100ML Watershed = Shoal Creek



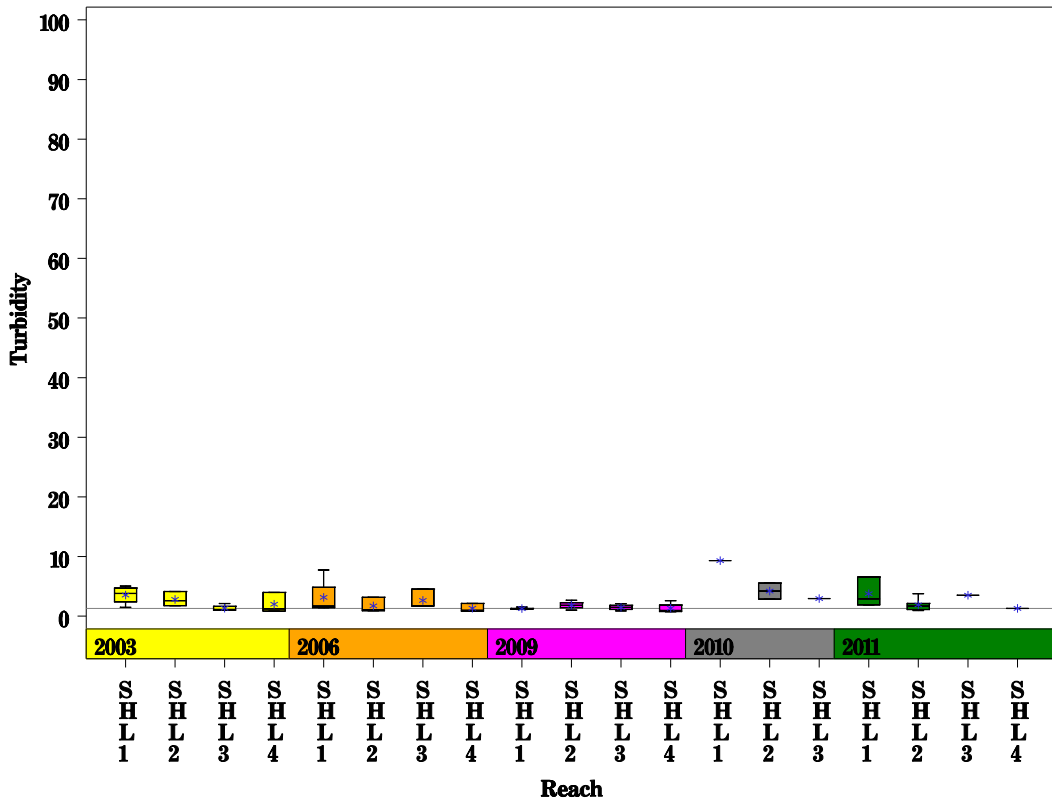
Shoal Creek Watershed

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

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

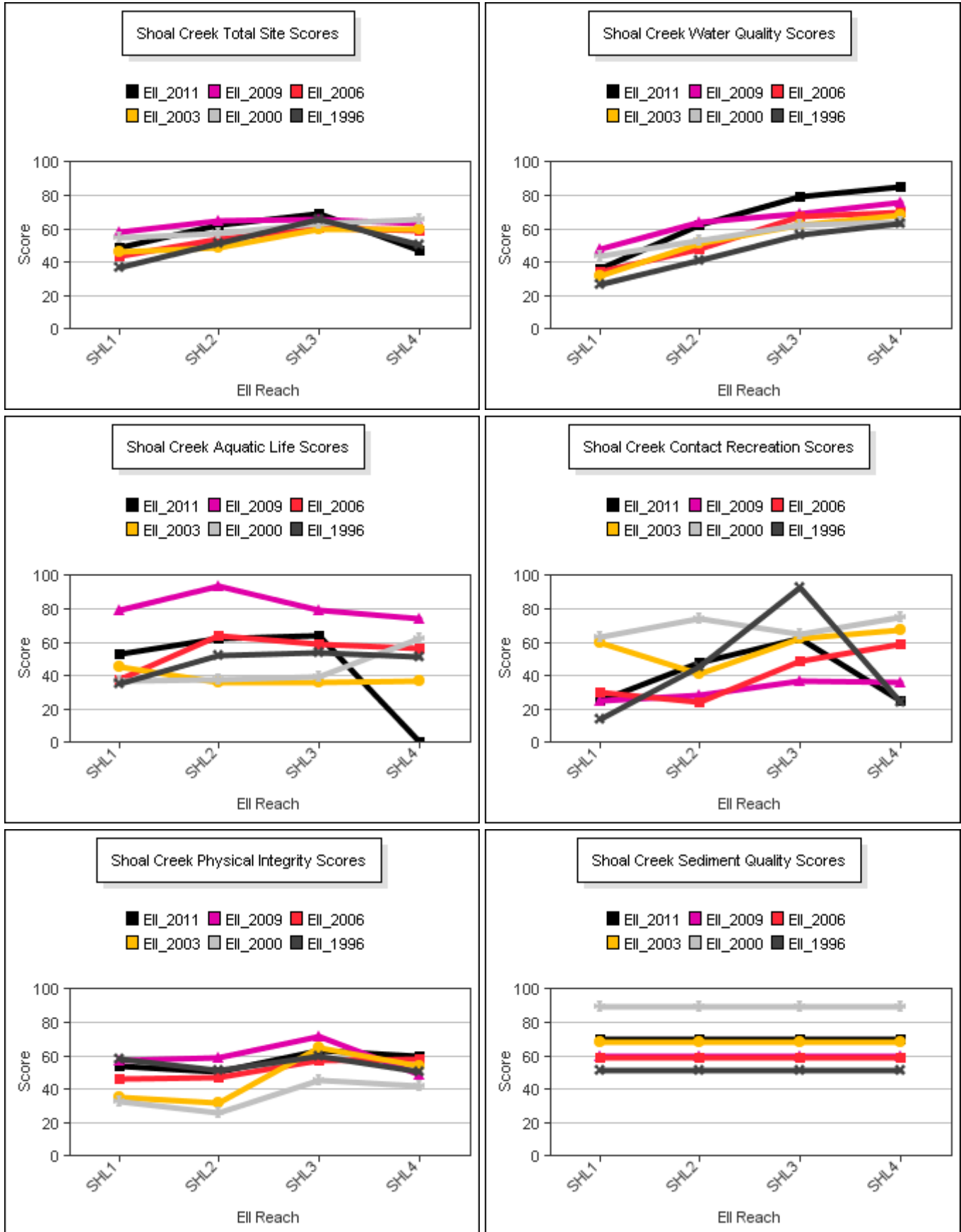


Parameter = TURBIDITY Unit = NTU Watershed = Shoal Creek



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



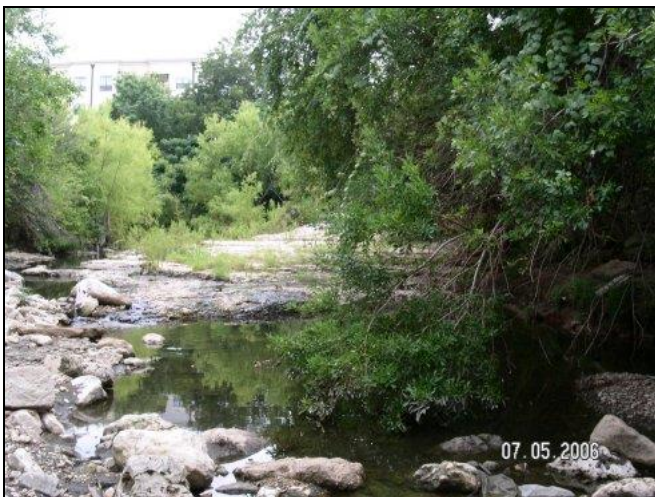
116_t00-ds-03_11_2003



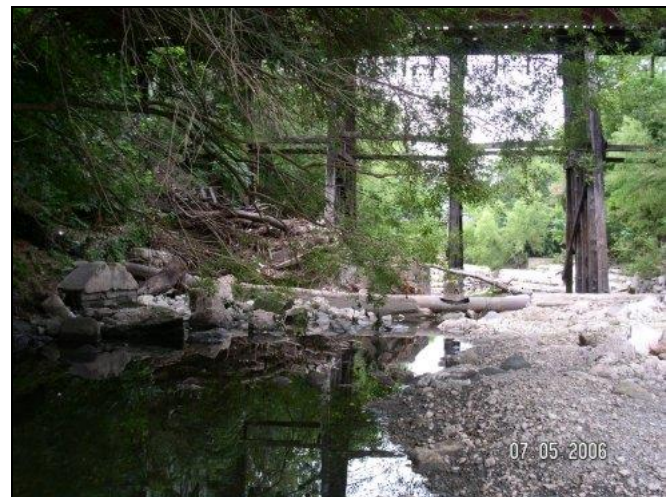
116_t00-us1-07_07_2006



116-t00-us-05-28-2009



122_t00-us-07_05_2006



122_t00-ds-07_05_2006

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