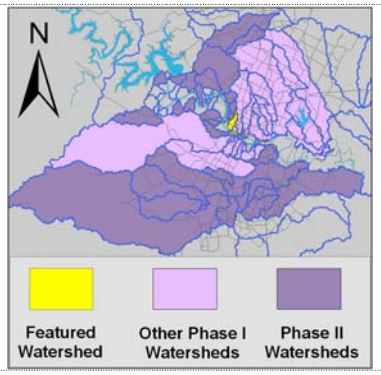
Johnson Creek Watershed

Summary Sheet

Catchment	Total area		2 square miles	
	Area in recharge		1.9 square miles	
	Creek length		3 miles	
	Receiving water		Town Lake	
Demographics	2000 population		7,655	
	2030 projected population		10,820	
	30 year projected % increase		41 %	
Land Use	Impervious cover (2003 estimate)		44.18 %	
Overall EII Scores	2000	2003	2006	2009
	53	56	47	51



Flow Regime* for Sample Sites on Johnson Creek

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
847	Johnson at S. Tarrytown	B	B	B	B	B										
897	Johnson at Woodmont	n	B	n	n	n	n	B	B	n	B	B	B	B	B	B

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

Summary of 2009 Data for Johnson Creek

2009 Summary	Parameter	Mean	Max	Min	Discussion
Physicochemical	**D.O.** mg/l	8.9	11.2	5.5	Generally within normal range with some low levels in past years
	pH st.units	8.0	8.3	7.1	Generally within normal range
	Cond uS/cm	850	1078	689	Generally higher than average values
Nutrients	**NH_3** mg/l	0.03	0.11	0.005	Generally within normal range with some elevated levels in past years
	NO_3 mg/l	0.25	0.51	0.004	Generally within normal range
	Ortho P mg/l	0.11	0.18	0.08	Generally above average concentrations, but not high
Sediment Load	**TSS** mg/l	1.9	4.9	0.5	Generally above average concentrations, but not high
	Turbidity ntu	2.0	4.7	0.6	Generally above average values, but not high
Biology	**E.Coli** /100ml	1896	2420	326	Chronically high, but lower than past years
	Benthic Macs	Pollution tolerant community with low diversity and poor community structure			
	Diatoms	Generally below average metrics with no Cymbella and a high percent motile taxa			

Index scores* for Johnson Creek Sites by Year

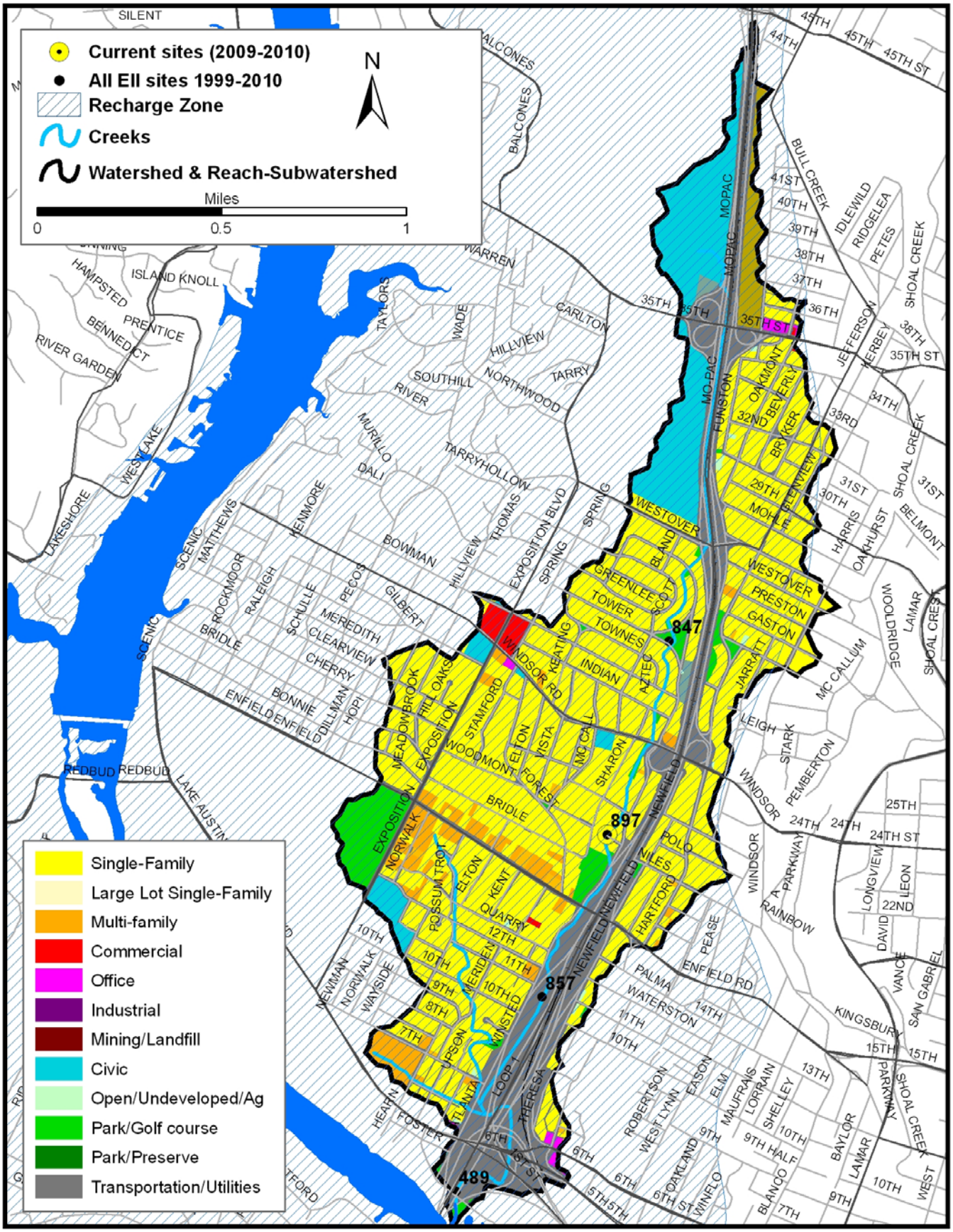
Reach	Site	Site Name	Year	Water Quality	Sediment**	Contact Recreation	Non-Contact Recreation	Physical Integrity	Aquatic Life	Benthic subindex	Diatom subindex	**Total EII Score**
JOH1	489	Johnson Creek @ Stephen F Austin Dr	2000		82		65	23				43
JOH1	847	Johnson Creek @ South Tarrytown	2000	43	82	70	87	43	34	47	20	60
JOH1	1357	Unnamed (Possum Trot) Trib abv W. 7th	2000		82		78	30				48
JOH1	847	Johnson Creek @ South Tarrytown	2003	49	60	53	71	57	39	61	16	55
JOH1	897	Johnson Creek @ Woodmont Avenue	2003		60		75	57	33	37	28	56
JOH1	897	Johnson Creek @ Woodmont Avenue	2006	44	65	24	49	45	55	36	73	47
JOH1	897	Johnson Creek @ Woodmont Avenue	2009	49	73	27	59	41	59	59	58	51

* blank cells indicate parameter was not collected, blank row 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

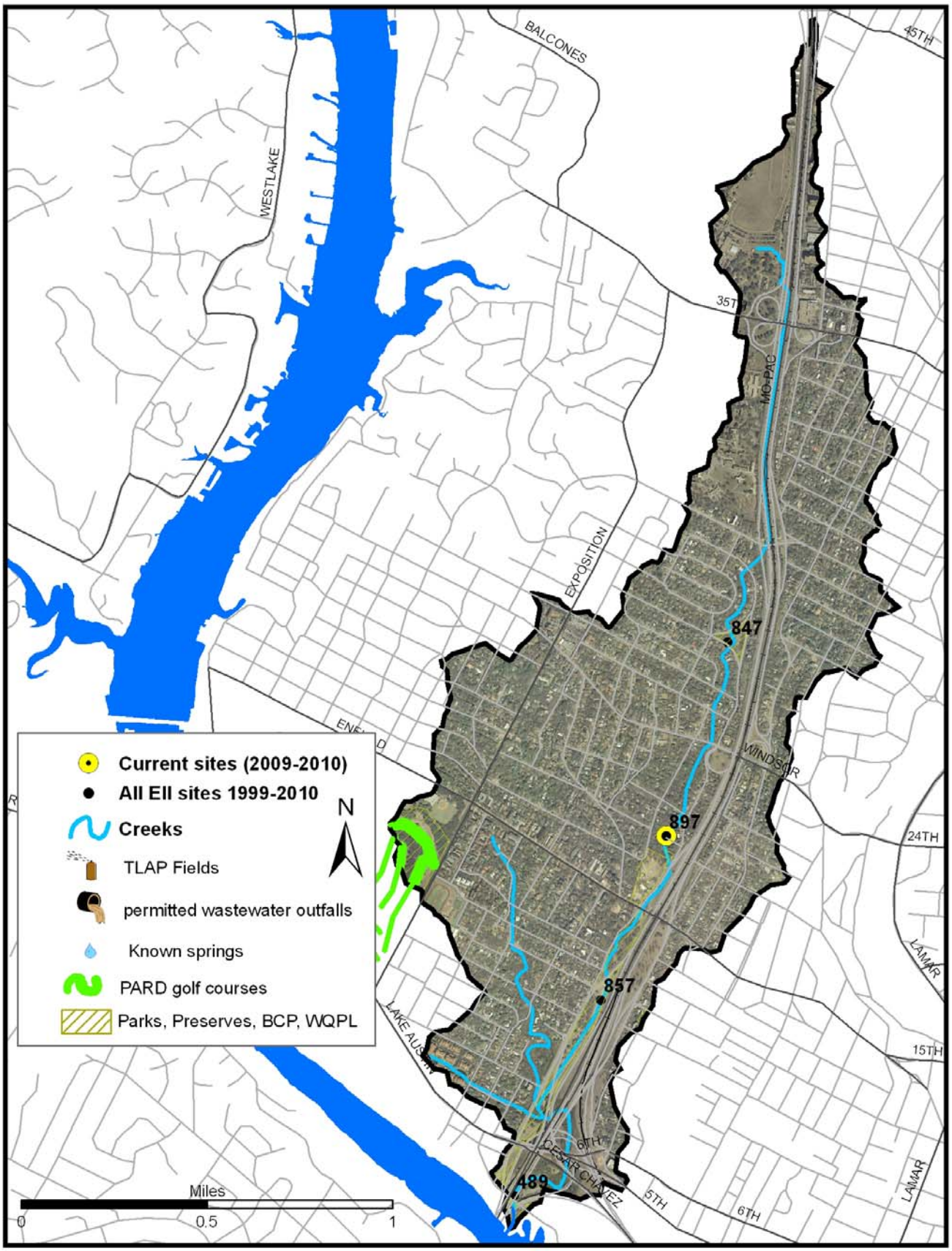
Johnson Creek Watershed

Land Use Map



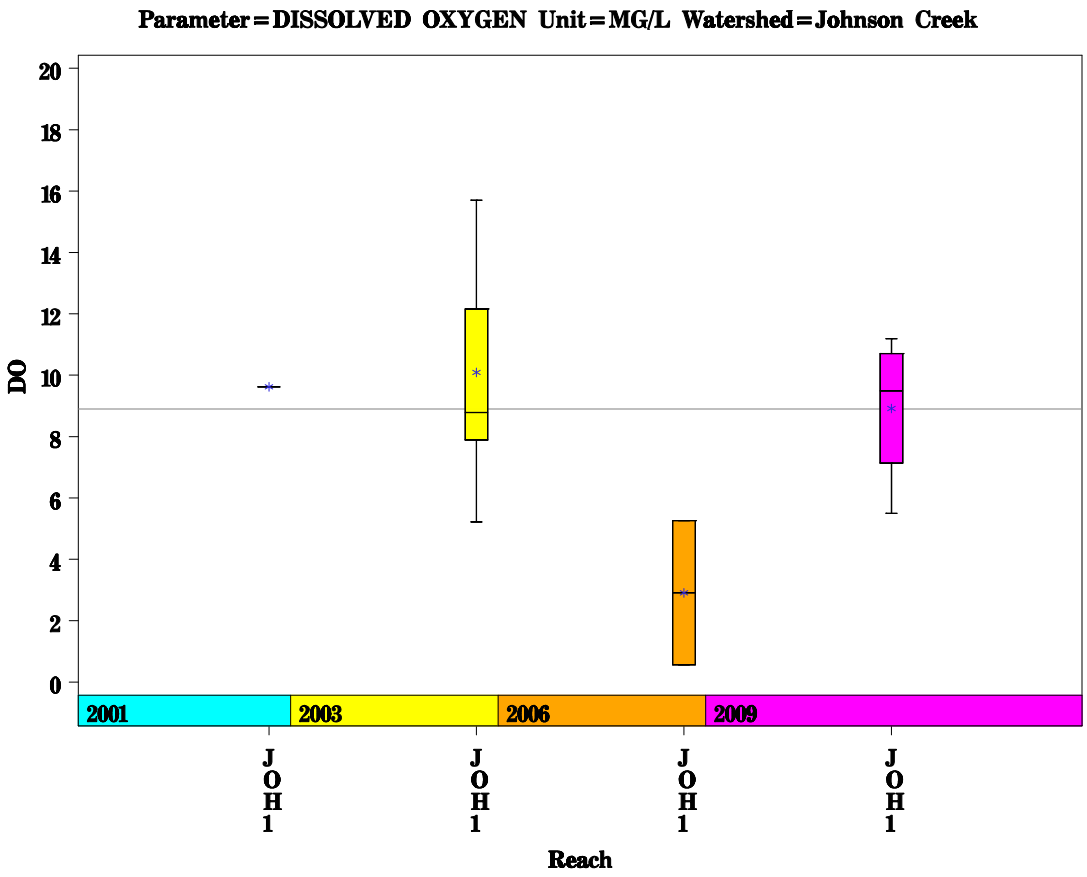
Johnson Creek Watershed

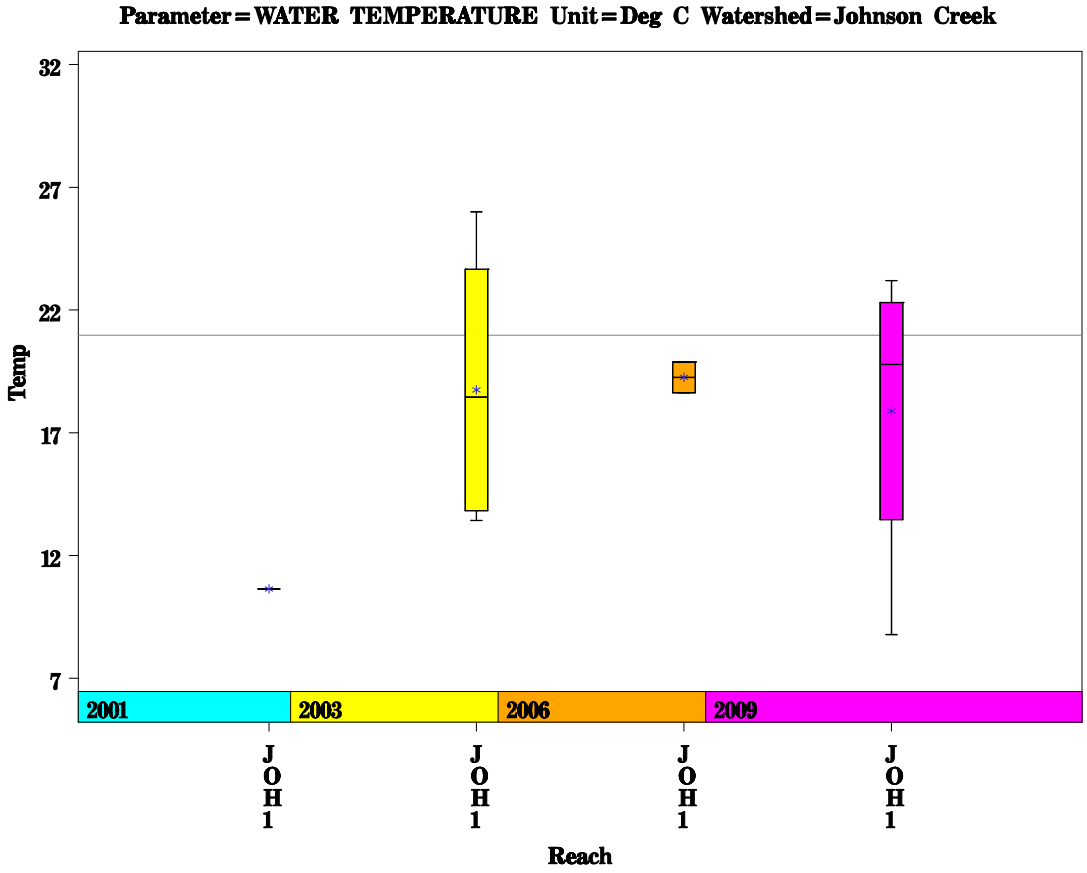
Aerial Map



Johnson Creek Watershed

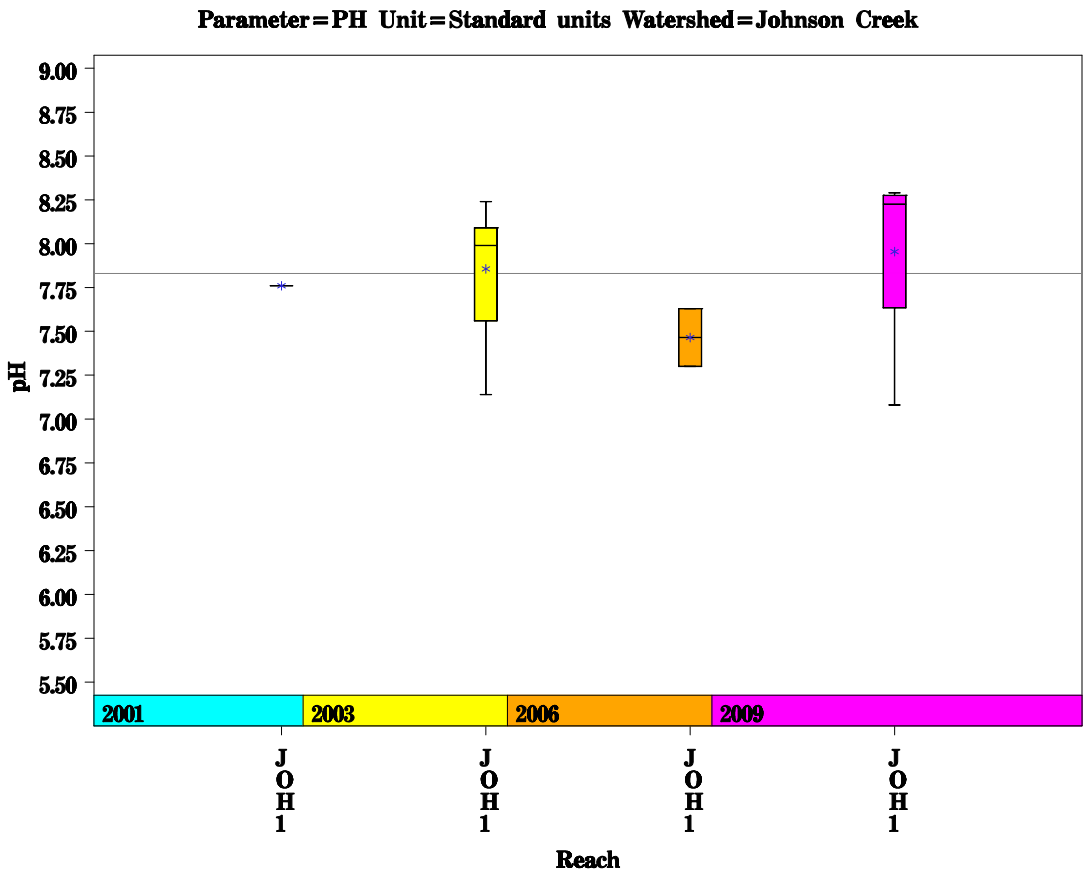
Data Summary Graphs – Dissolved Oxygen and Temperature (Downstream to Upstream by Year)

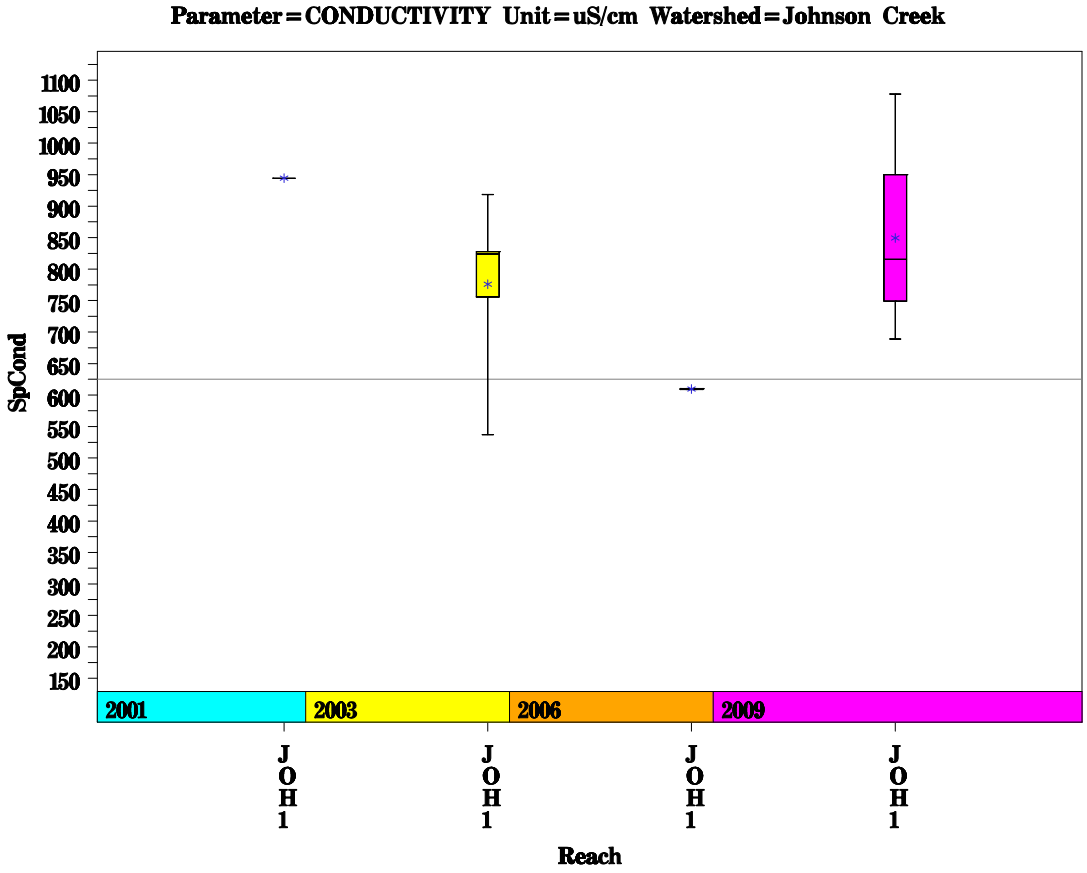




Johnson Creek Watershed

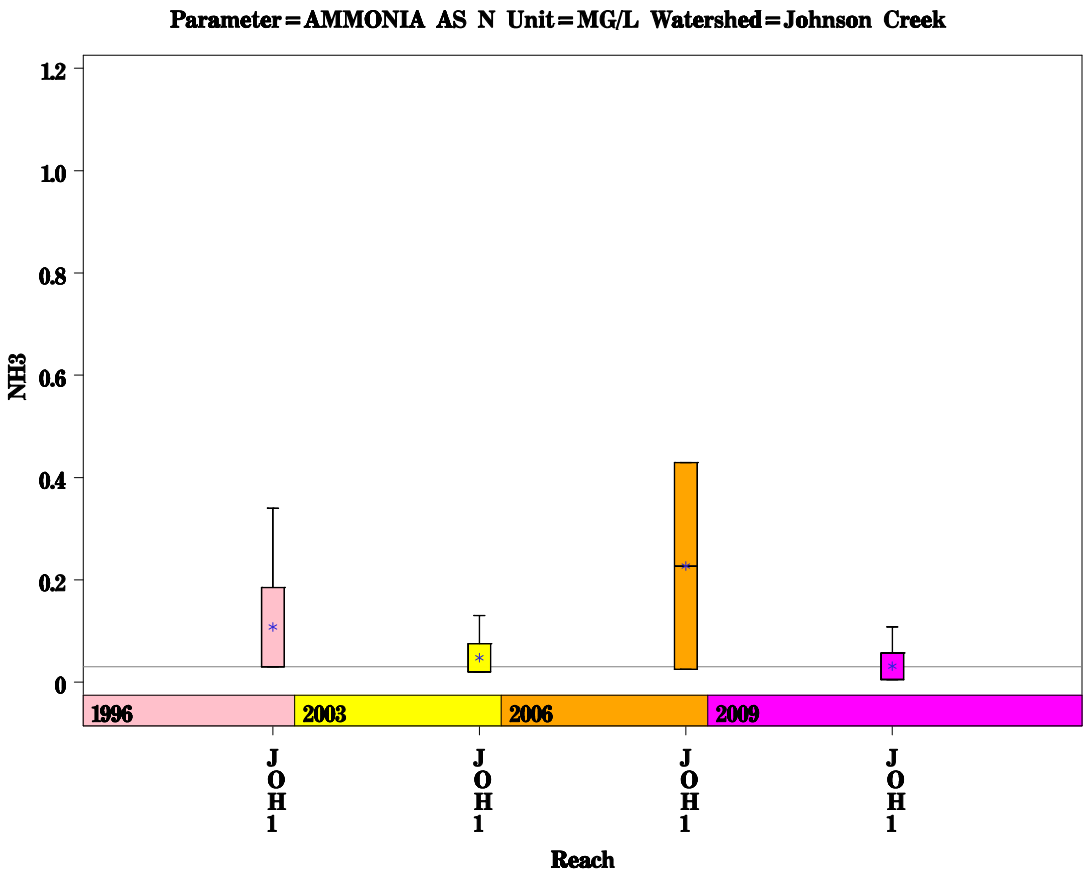
Data Summary Graphs – pH and Conductivity (Downstream to Upstream by Year)

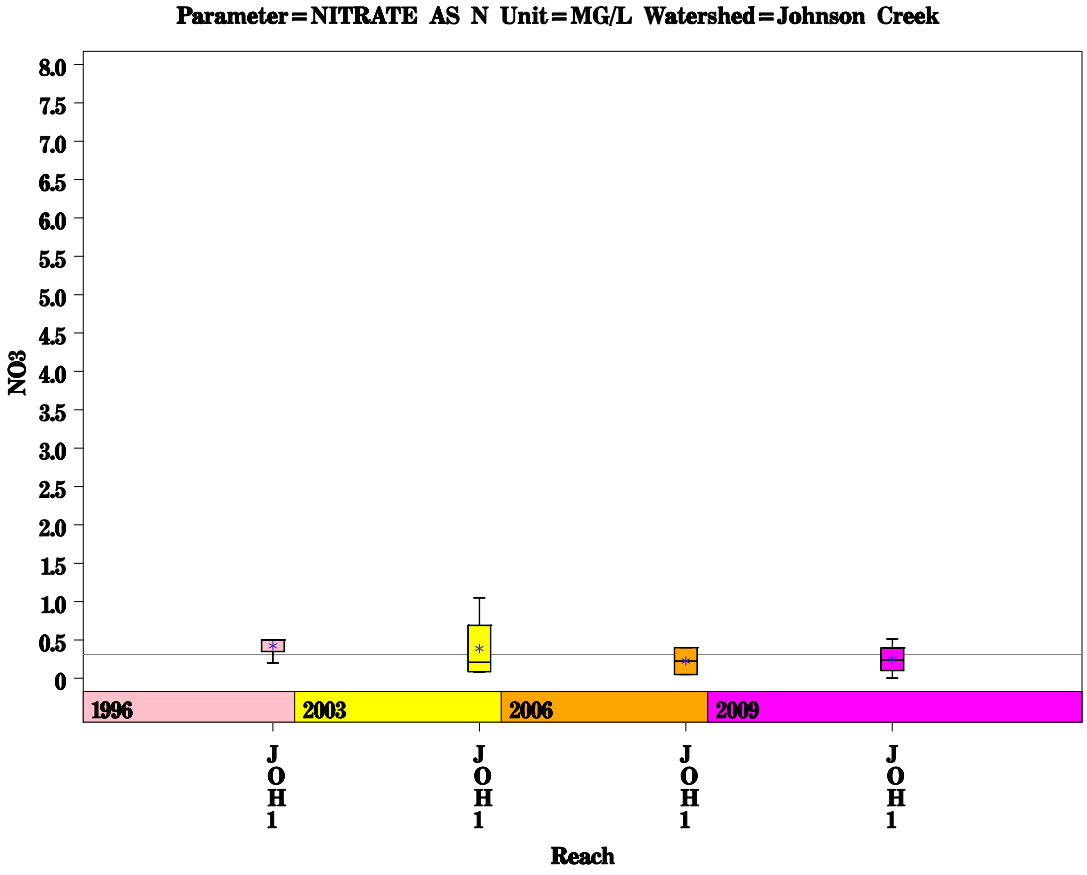




Johnson Creek Watershed

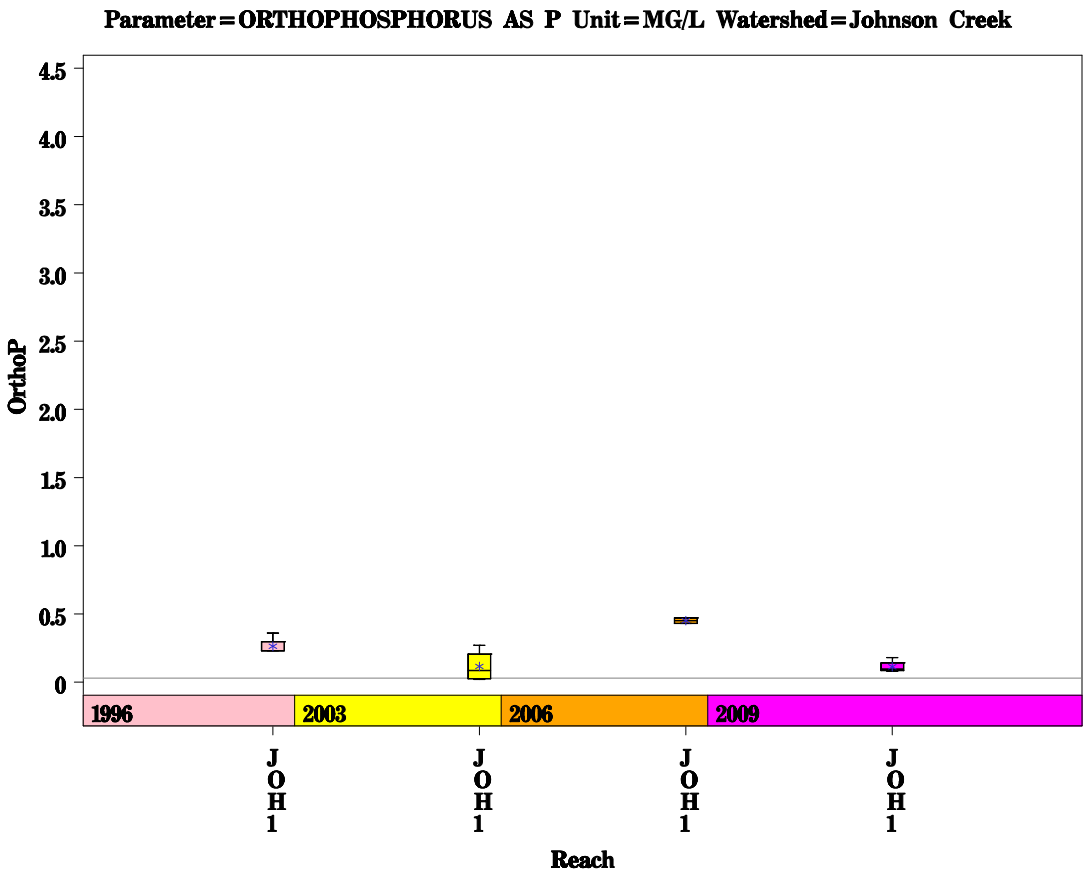
Data Summary Graphs – Ammonia and Nitrate/Nitrite (Downstream to Upstream by Year)

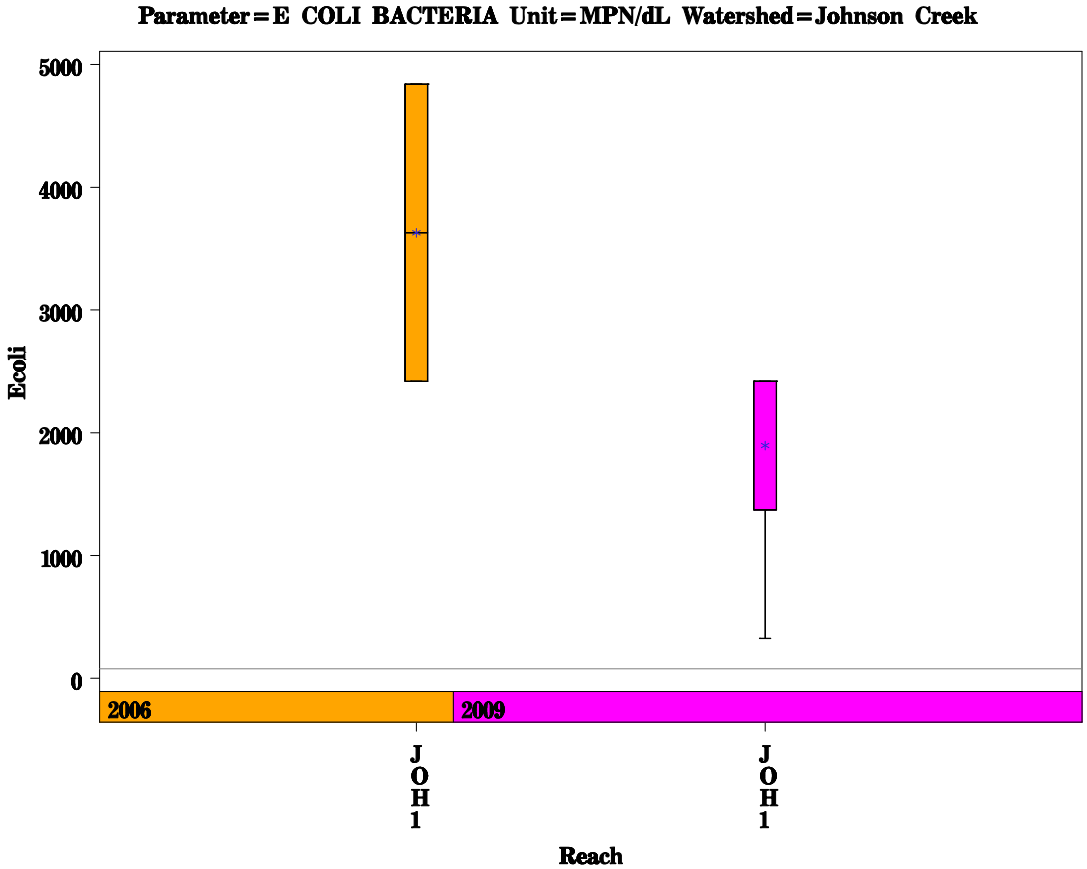




Johnson Creek Watershed

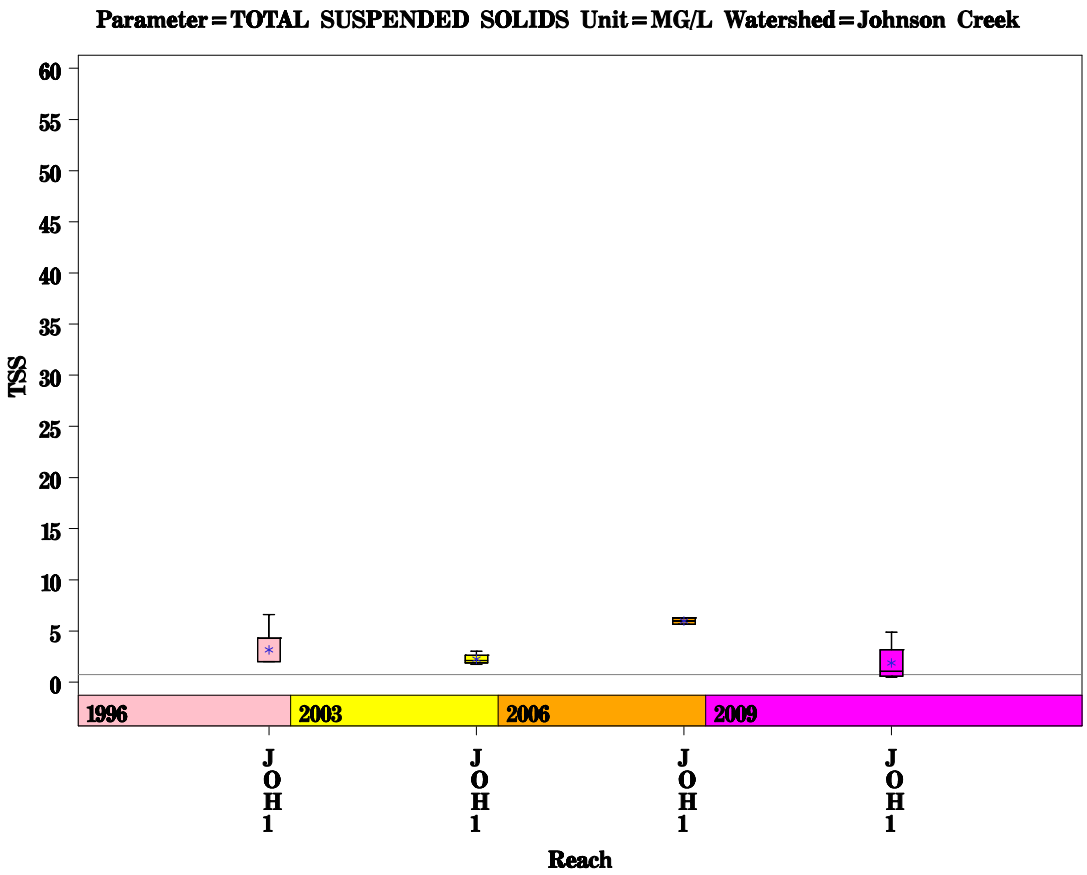
Data Summary Graphs – Orthophosphate and *E.coli* (Downstream to Upstream by Year)

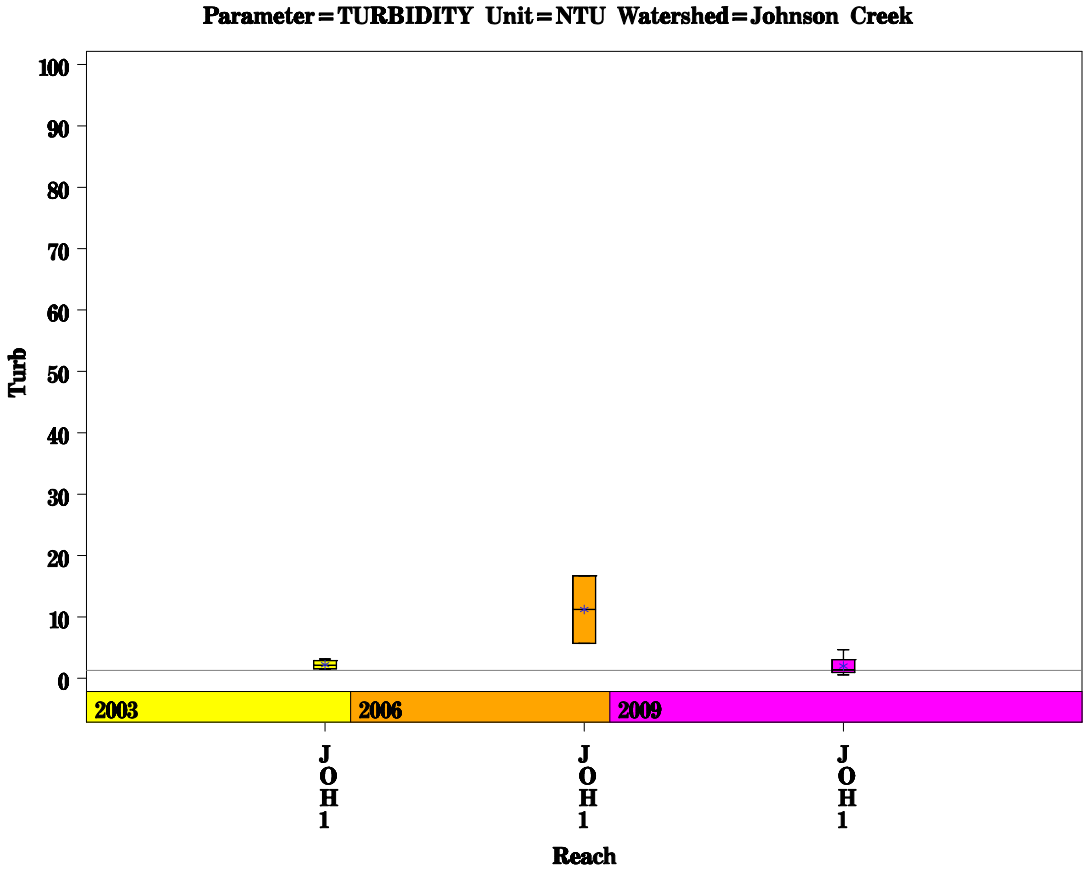




Johnson Creek Watershed

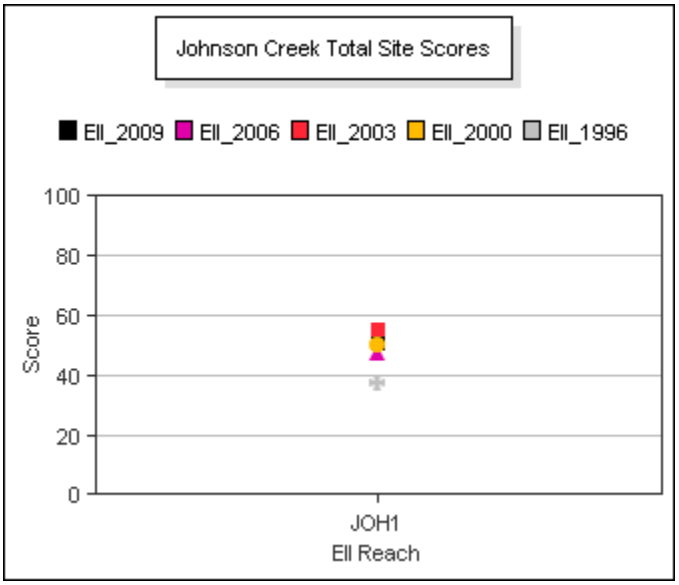
Data Summary Graphs – Total Suspended Solids and Turbidity (Downstream to Upstream by Year)

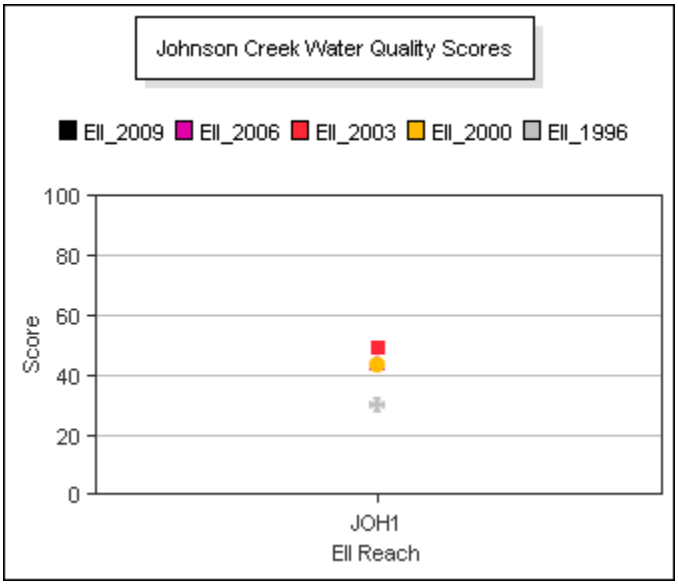


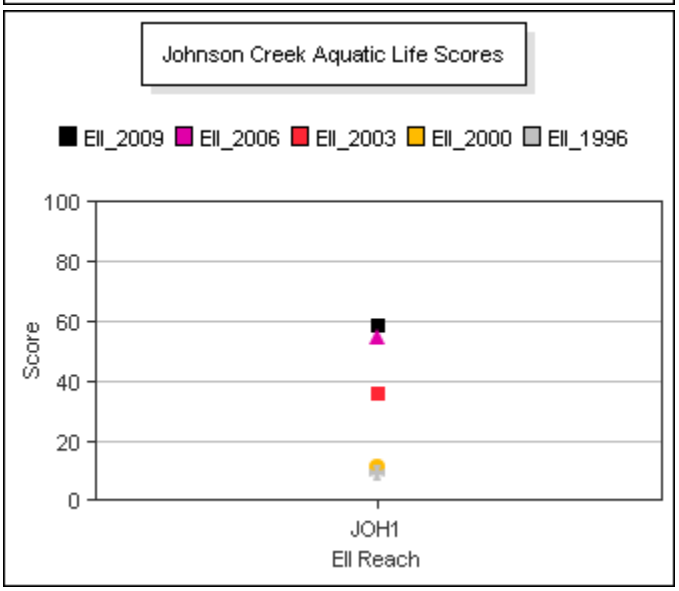


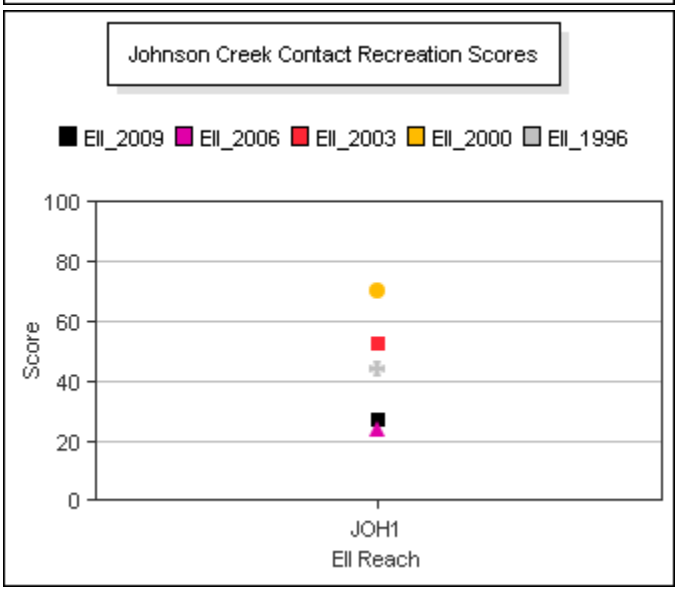
Johnson Creek Watershed

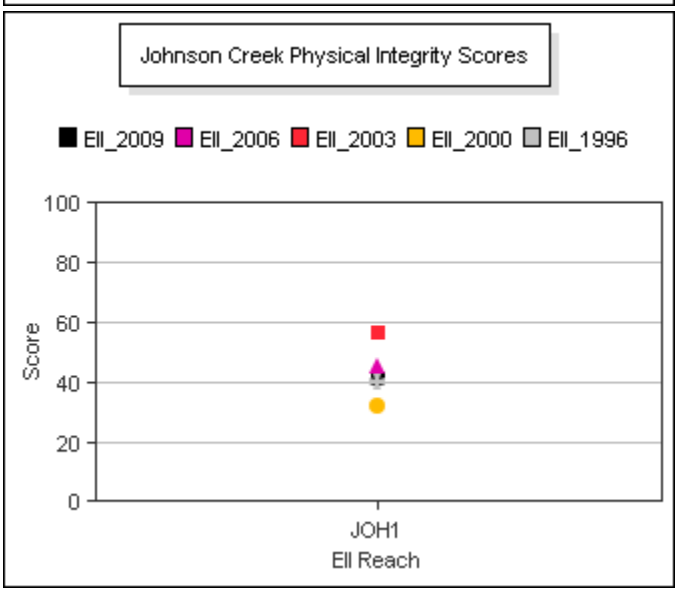
Score Summary – Reach scores for each sample year

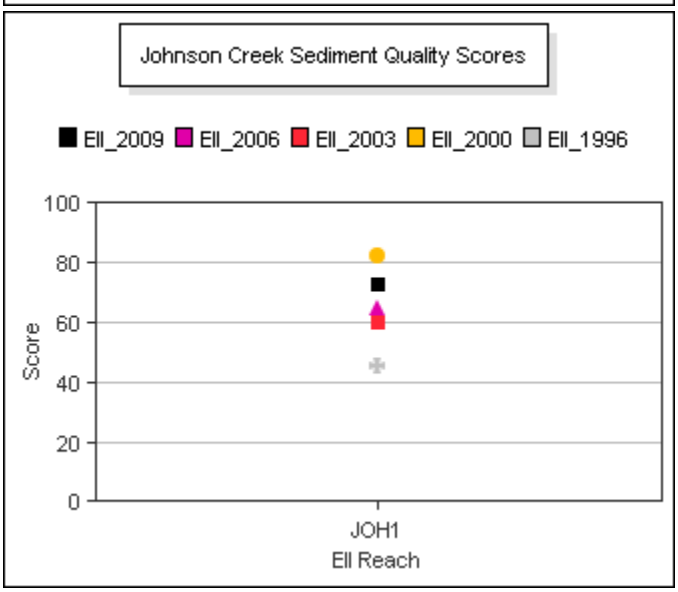






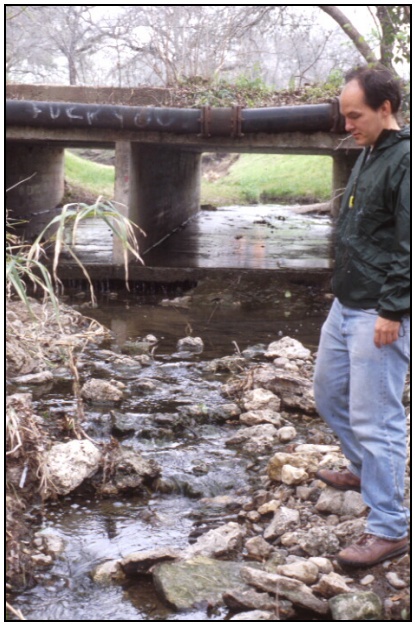






Johnson Creek Watershed

Site Photographs



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