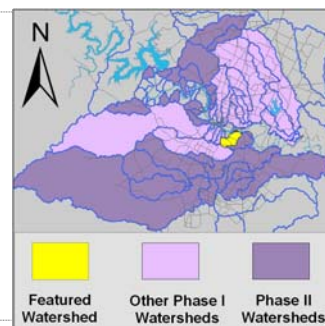


Country Club Creek Watershed

Summary Sheet

Catchment	Total area				5 square miles					
	Area in recharge				none					
	Creek length				7 miles					
	Receiving water				Colorado River					
Demographics	2000 population				14,620					
	2030 projected population				15,903					
	30 year projected % increase				9 %					
Land Use	Impervious cover (2003 est.)				East 18.96 %		West 30.47 %			
Overall EII Scores	west 2000 east		west 2003 east		west 2006 east		west 2009 east		west 2011 east	
	60	55	54	47	51	42	51	47	47	25



Flow Regime* for Sample Sites on Country Club East

Site #	Site Name	2003						2006					2009						2010	2011				
		Feb	Mar	Mar	May	Sep	Dec	Feb	May	Jul	Aug	Nov	Feb	May	May	Jun	Oct	Dec	Dec	Mar	Jun	Jun	Sep	
		WQ	WQ	Bio	WQ	WQ	WQ	WQ	WQ	Bio	WQ	WQ	WQ	WQ	Bio	Bio	WQ	WQ	WQ	WQ	WQ	Bio	WQ	
848	d/s Grove	B	B	B	B	B	B																	
1475	ACC							B	n	n	n	B	n	n	n	n	n	B	n	n	n	n	n	

Flow Regime* for Sample Sites on Country Club West

850	E Oltorf	B	B	B	B	B	B	B	B	B	n	B	B	B		B	B	B	B	B	B	B	n
1474	Krieg Field	B	B	B	B	B	n	n	n	n	n	n	n	n	n		n	B	n	n	n	n	n

* 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 Country Club (East and West) Creek

Summary	Parameter	Mean	Max	Min	Discussion
Physicochemical	D.O. mg/l	8.1	10.7	6.2	Mostly within normal range with some high values.
	pH st.units	7.80	7.94	7.61	Within normal range.
	Cond uS/cm	640	669	611	Within normal range.
Nutrients	NH ₃ mg/l	0.034	0.040	0.029	Within normal range.
	NO ₃ mg/l	0.015	0.019	0.012	Within normal range.
	Ortho P mg/l	0.113	0.120	0.110	Within normal range.
Sediment Load	TSS mg/l	6.9	16.5	1.5	Mostly within normal range with some high values.
	Turbidity ntu	4.79	7.74	2.98	Some above average values, but within normal range.
Biology	E.Coli /100ml	310	579	40	Within normal range.
	Benthic Macroinvertebrates and Diatoms: evaluations are provided in the introduction of this report				

Index scores* for Country Club East 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
CCE1	848	East Country Club Creek ds of Grove Dr	2000		87		53	31	48	53	43	55
CCE1	848	East Country Club Creek ds of Grove Dr	2003	31	70	59	58	33	29	20	37	47
CCE1	1475	East Country Club @ ACC	2006	54	85	43	45	24				42
CCE1	1475	East Country Club @ ACC	2009	50	79	25	45	60	23	23		47
CCE1	1475	East Country Club @ ACC	2011				37	39				25

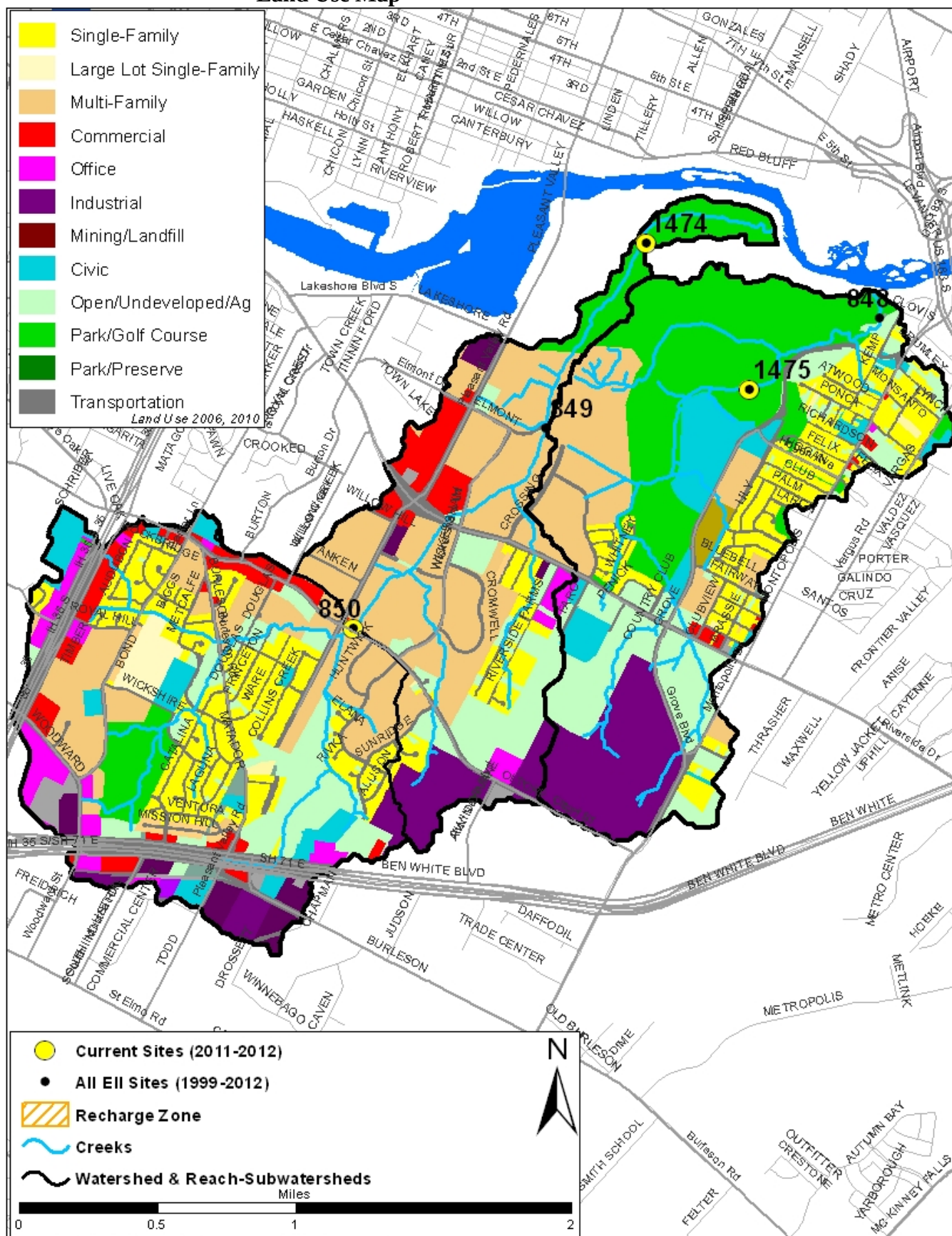
Index scores* for Country Club West sites by year

CCW1	1474	West Country Club @ Krieg Fields	2000	52	87	72	78	52	43	44	42	64
CCW2	850	West Country Club Creek @ East Oltorf	2000	54	87	73	71	28	22	29	14	56
CCW1	1474	West Country Club @ Krieg Fields	2003	50	70	57	81	57	49	35	63	61
CCW2	850	West Country Club Creek @ East Oltorf	2003	48	70	51	54	55	42	36	48	53
CCW1	1474	West Country Club @ Krieg Fields	2006		66		53	52				43
CCW2	850	West Country Club Creek @ East Oltorf	2006	58	66	39	78	59	46	41	51	58
CCW1	1474	West Country Club @ Krieg Fields	2009	55	69	28	58	53				44
CCW2	850	West Country Club Creek @ East Oltorf	2009	50	69	34	78	57	64	43	84	59
CCW1	1474	West Country Club @ Krieg Fields	2011				57	34				30
CCW2	850	West Country Club Creek @ East Oltorf	2011	56		42	74	58	54	34	73	57

* blank cells indicate parameter was not collected, blank row indicate site was dropped

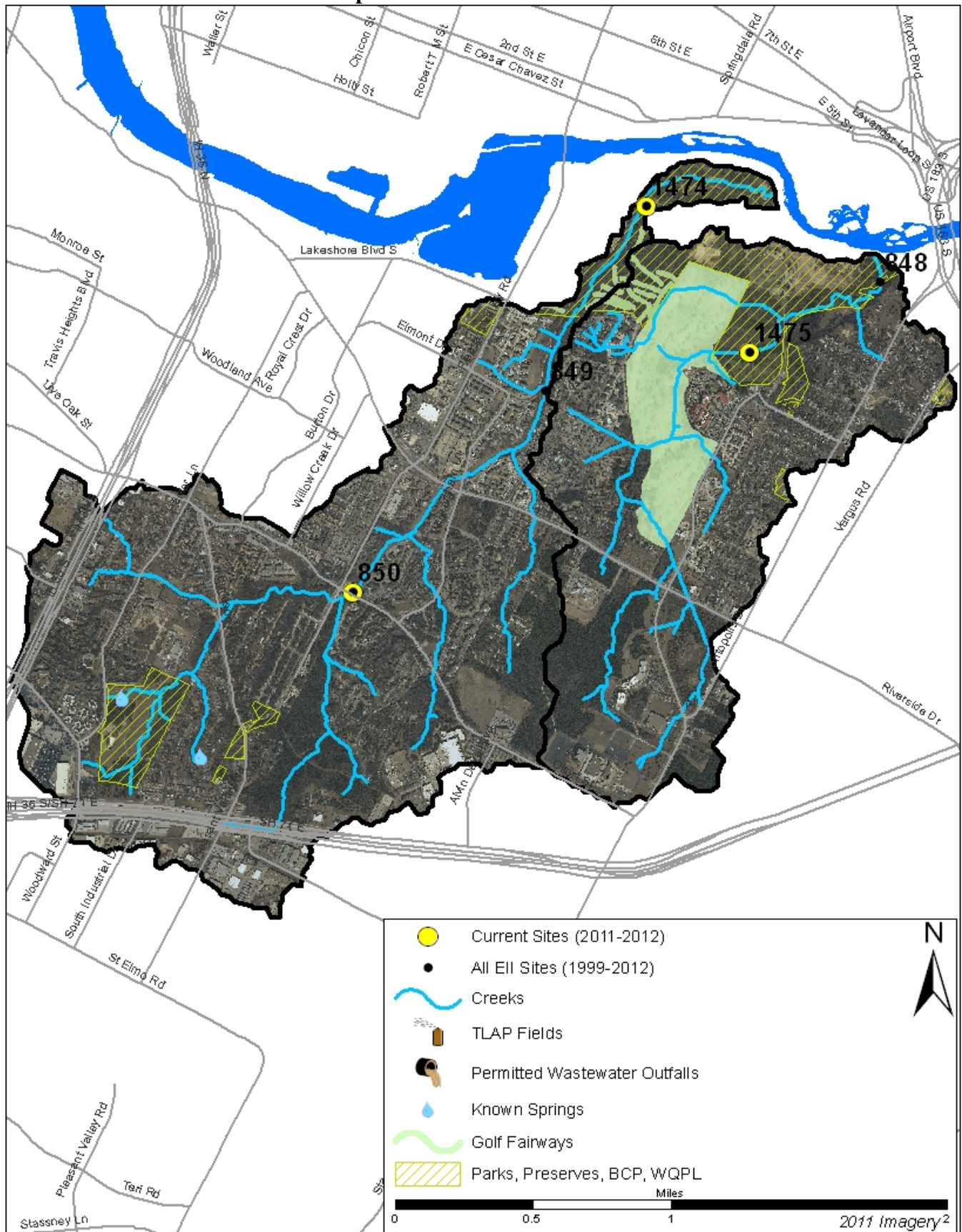
**sediment samples only collected at the downstream site

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



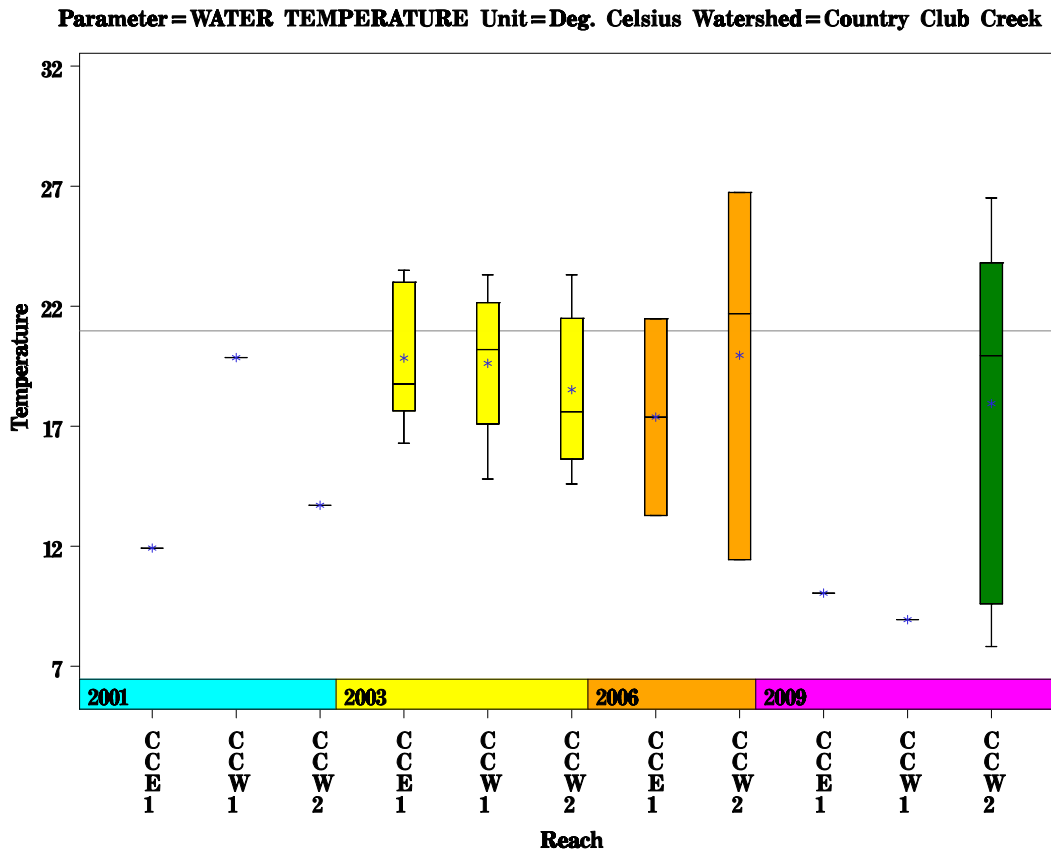
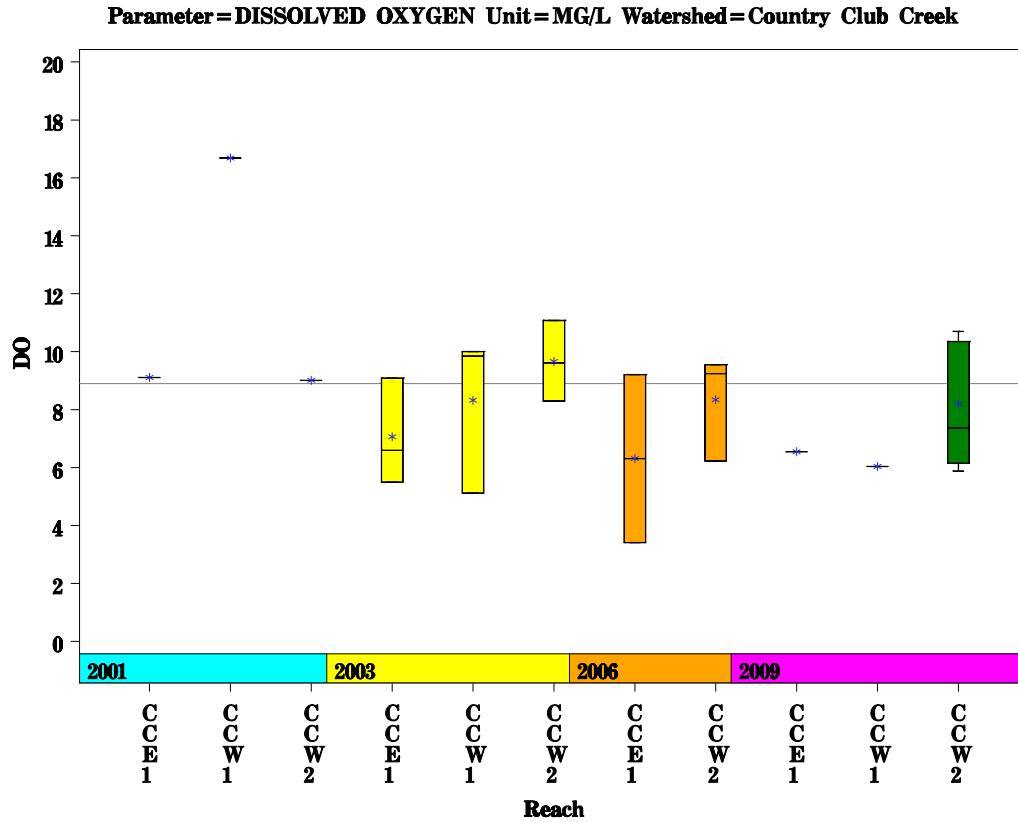
Country Club Creek Watershed

Aerial Map



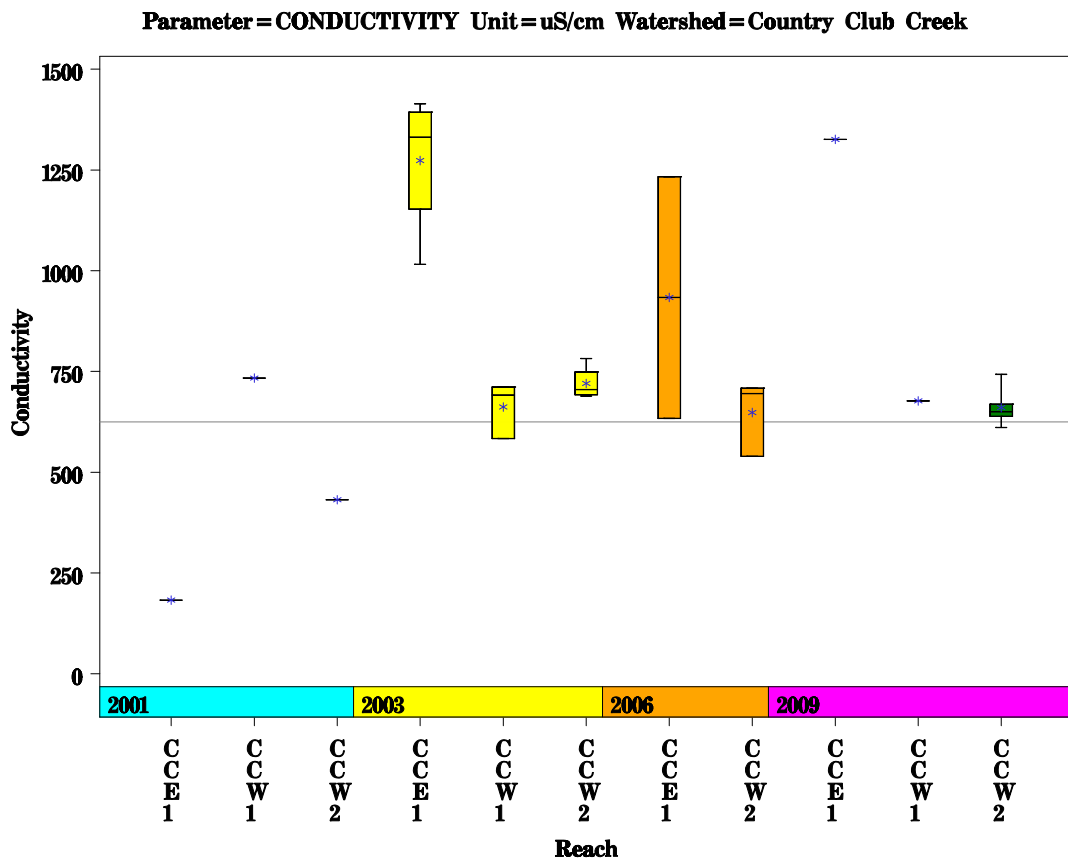
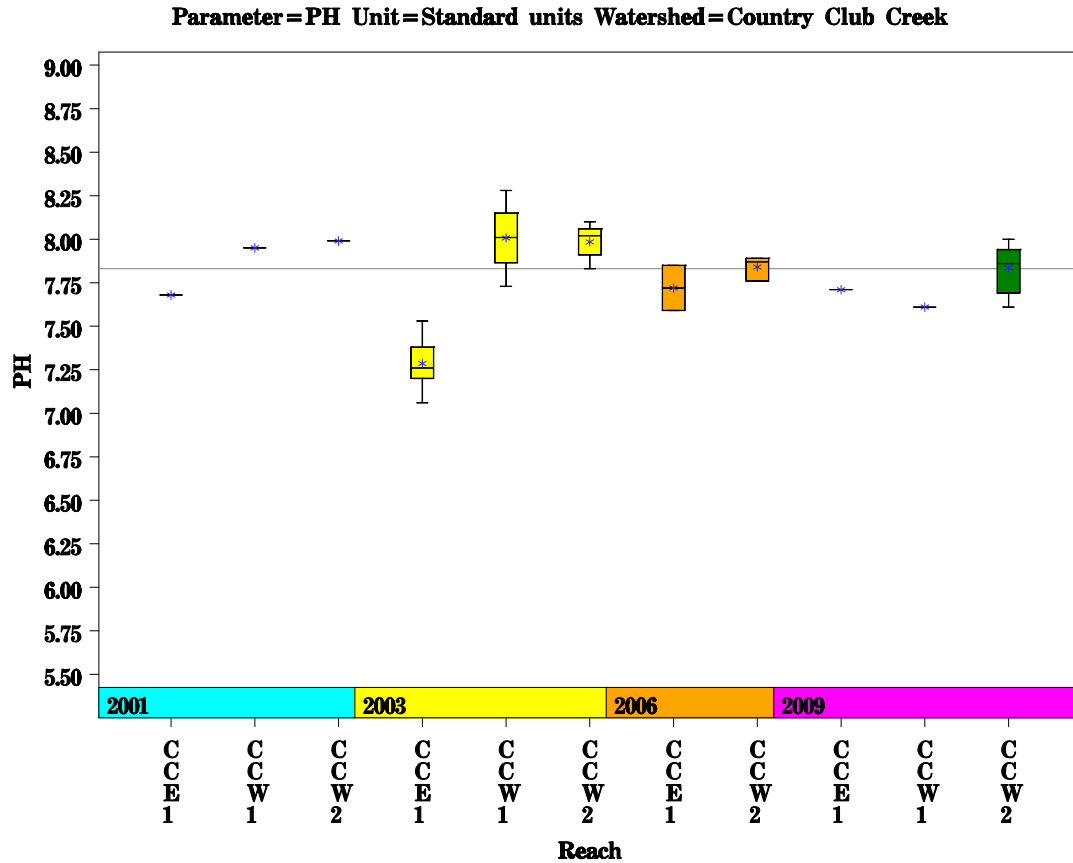
Country Club Creek Watershed

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



Country Club Creek Watershed

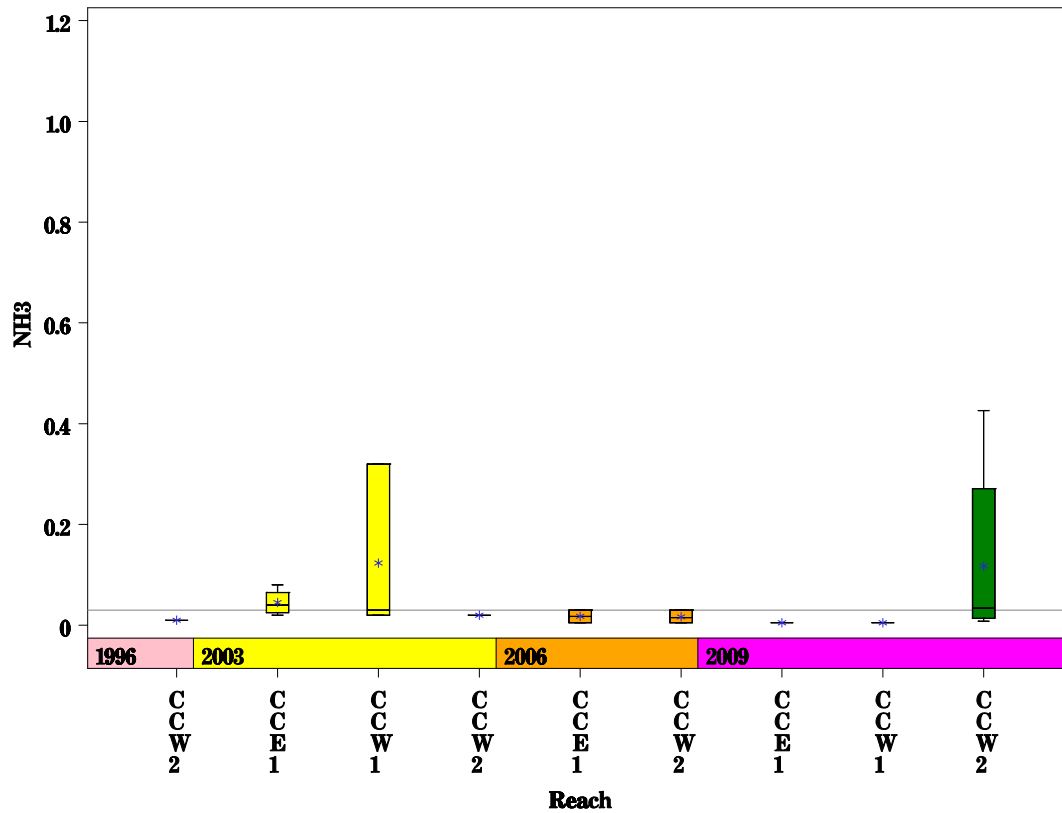
Data Summary Graphs – pH and Conductivity (Downstream to Upstream by Year)



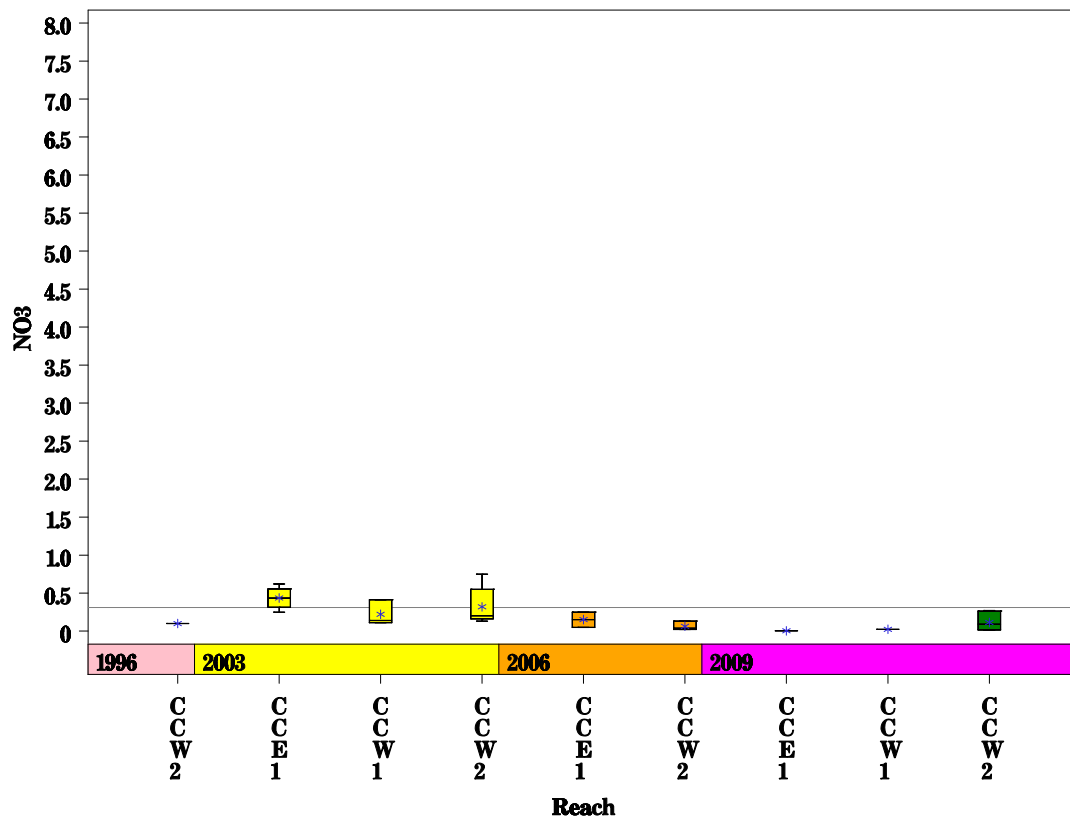
Country Club Creek Watershed

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

Parameter=AMMONIA AS N Unit=MG/L Watershed=Country Club Creek

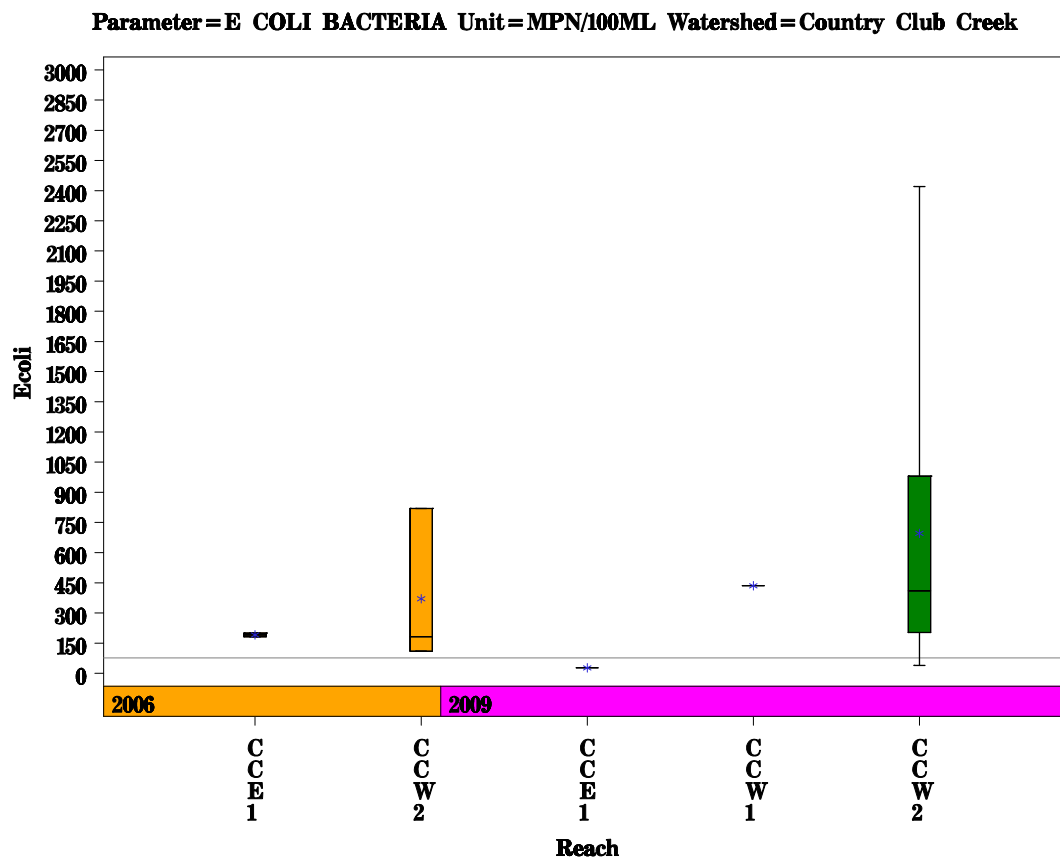
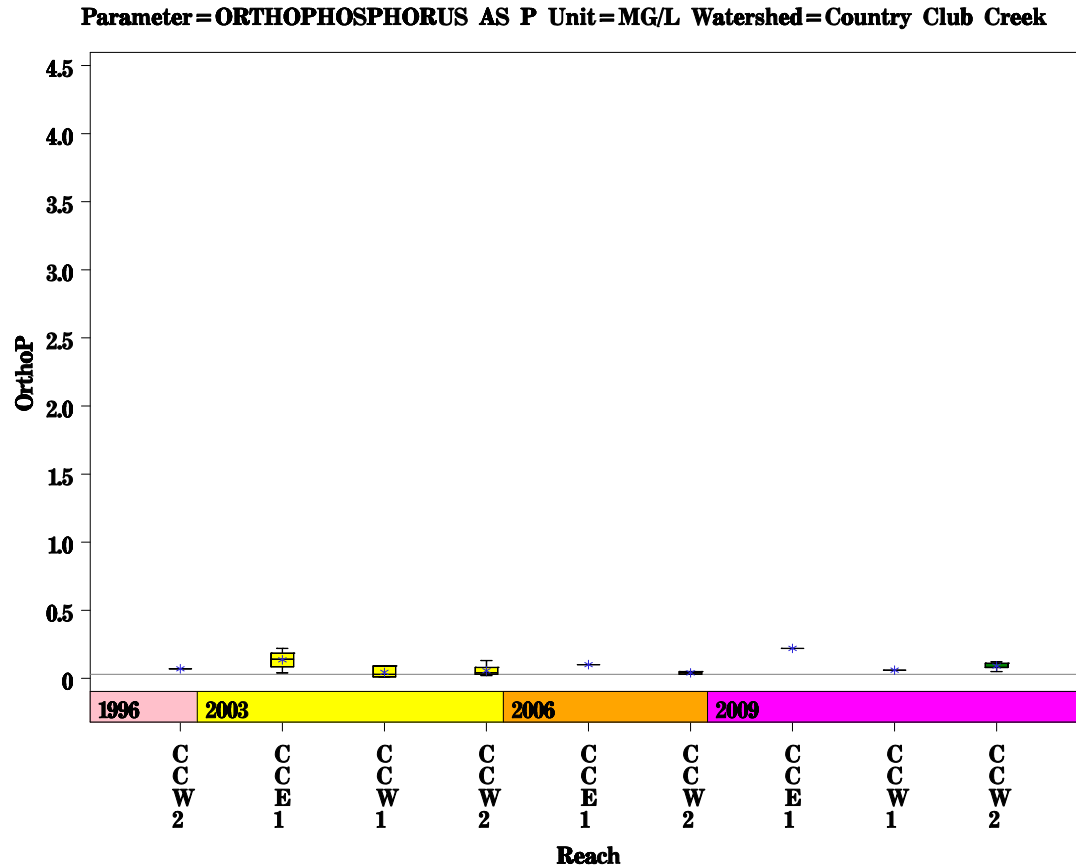


Parameter=NITRATE AS N Unit=MG/L Watershed=Country Club Creek



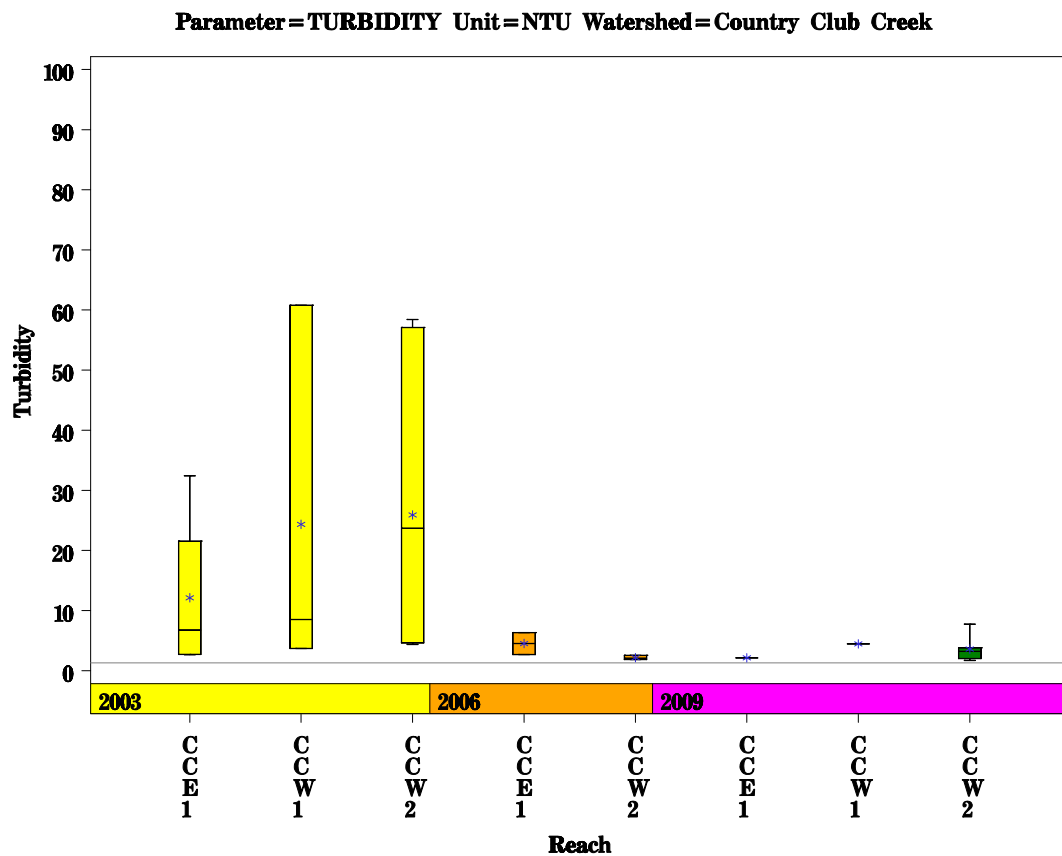
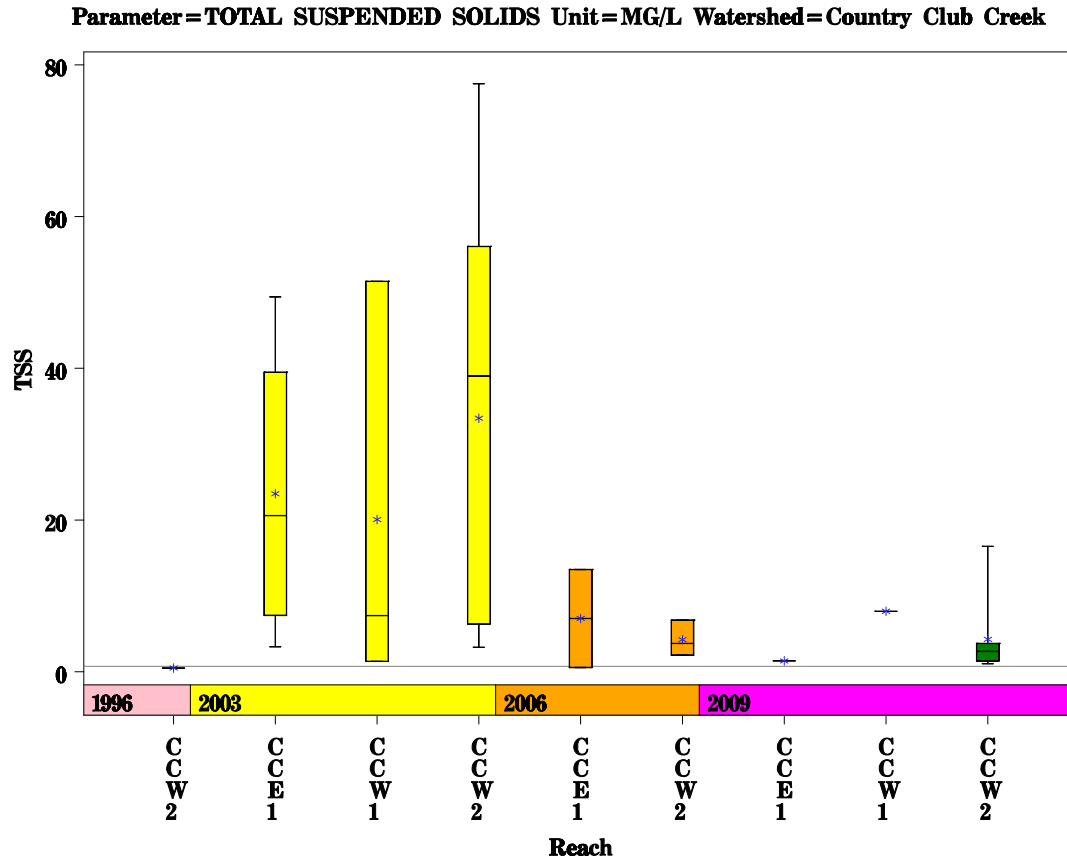
Country Club Creek Watershed

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



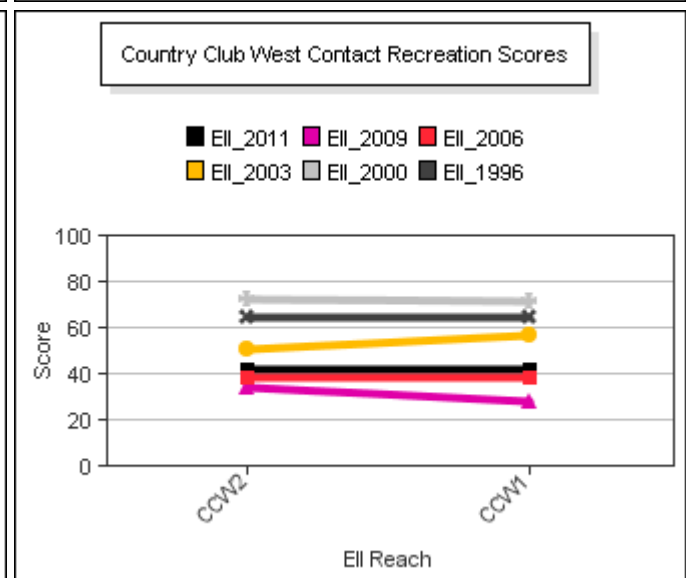
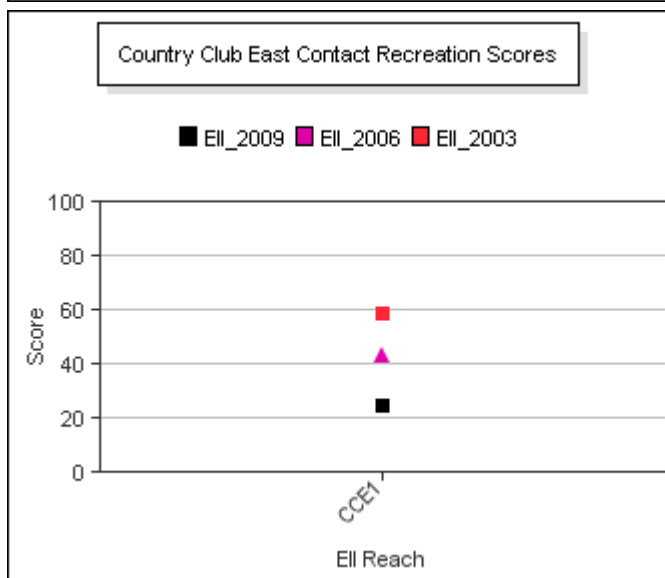
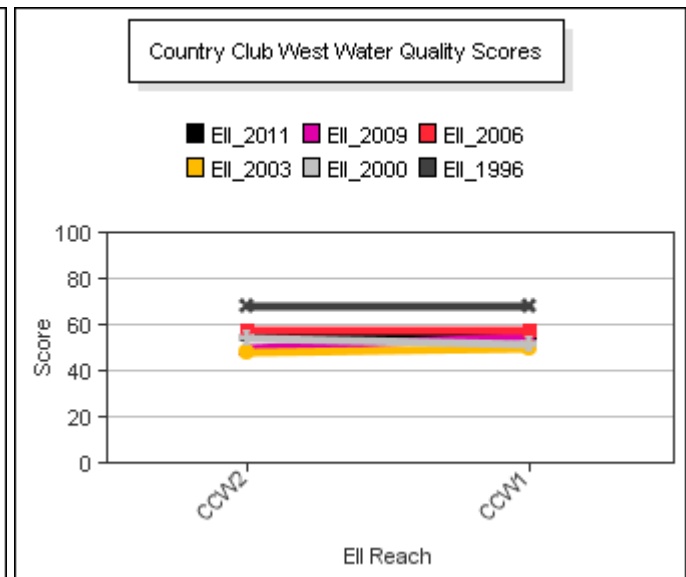
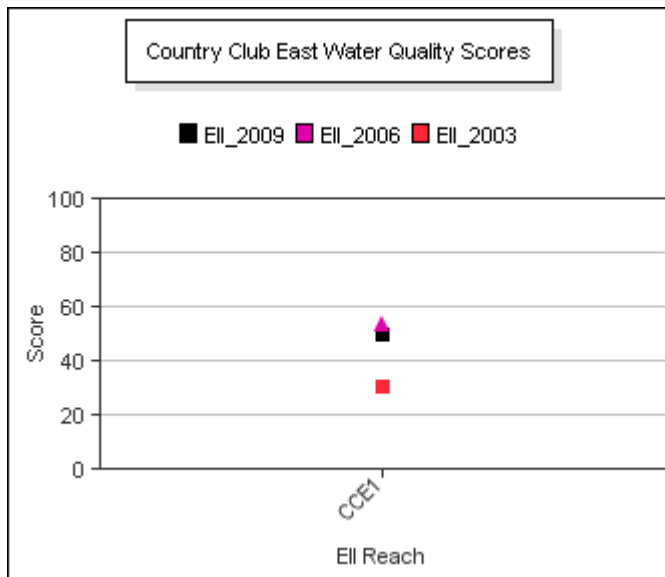
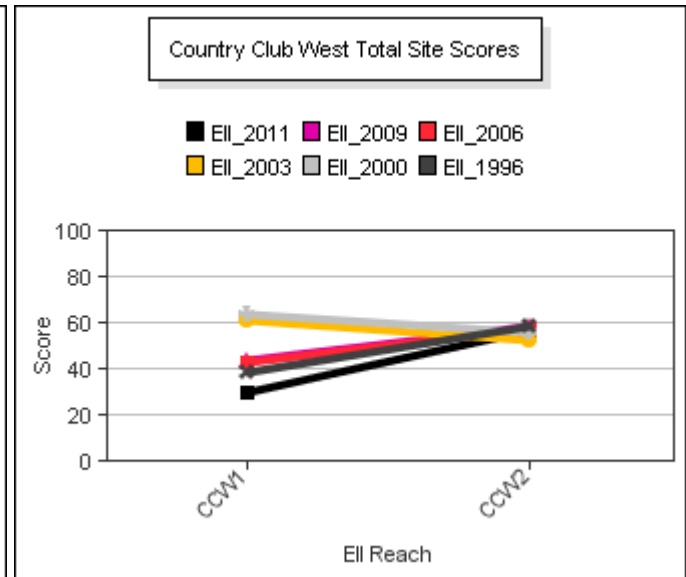
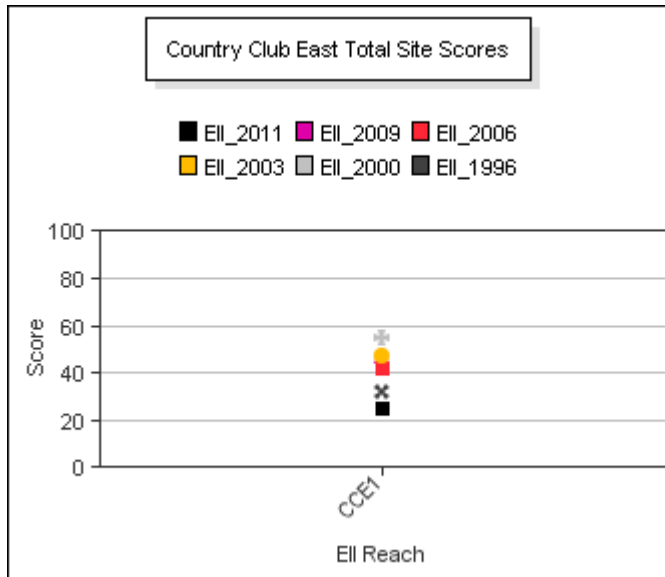
Country Club Creek Watershed

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



Country Club Creek Watershed

Score Summary – Reach scores for each sample year



Country Club Creek Watershed

Site Photographs



1475_t00-us-07_06_2006



1475-t00-us-05-29-2009



848_t00-ds-12_14_2000



848_t00-us-12_14_2000



848_t00-ds-03_13_2003



848_t00-us-03_13_2003

Country Club Creek Watershed

Site Photographs



849_t00-ds-02_16_2001



849_t00-us-02_16_2001



850_t00-us-12_14_2000



850-t00-ur-06-01-2009



1474_t00-us-07_06_2006



1474-t00-us-05-29-2009

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