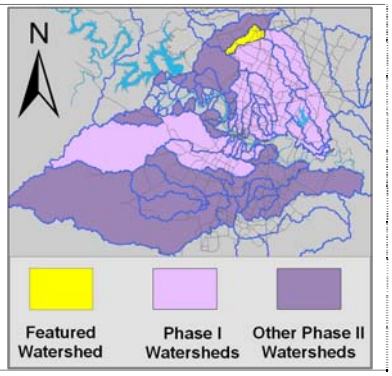
Rattan Creek Watershed

Summary Sheet

Catchment	Total area		7.2 sq. miles	
	Area in recharge		7 sq. miles	
	Creek length		8 miles	
	Receiving water		Lake Creek	
Demographics	2000 population		11,863	
	2030 projected population		33,506	
	30 year projected % increase		182	
Land Use	Impervious cover (2003 estimate)		10.06 %	
Overall EII Scores	2001	2004	2007	2010
	69	49	54	52



Flow Regime* for Sample Sites on Rattan Creek

Site # upstream to downstream	Site Name	2001				2004					2007					2010			
		Mar WQ	Jun WQ	Sep WQ	Dec WQ	Mar WQ	May Bio	Jun WQ	Oct WQ	Dec WQ	Feb WQ	May WQ	Jun Bio	Sep WQ	Dec WQ	Mar WQ	May WQ	May Bio	Oct WQ
1009	above Parmer Lane	B	B	B	B	B	B	B	B	B	B	n	B	n	n	B	B	n	B
1097	at Shadowbrook Circle	B	B	B	B	n	n	B	B	B	B	B	n	n	n	n	n	n	n

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

Summary of 2009 Data for Rattan Creek

2010 Summary	Parameter	Mean	Max	Min	Discussion
Physicochemical	**D.O.** mg/l	8.2	10.9	5.4	Wide range, but generally within normal range
	pH st.units	7.4	7.6	7.1	Wide range, but generally within normal range
	Cond uS/cm	628	687	570	Wide range, but generally within normal range, low values in previous years
Nutrients	**NH_3** mg/l	0.06	0.11	0.01	Generally low to normal range
	NO_3 mg/l	0.41	0.78	0.03	Generally normal but typically higher at upstream site than at downstream
	Ortho P mg/l	0.06	0.09	0.02	Consistently low
Sediment Load	**TSS** mg/l	6.7	14.1	2.1	Generally within normal range with some elevated levels in previous years
	Turbidity ntu	1.2	1.6	0.7	Generally within normal range with some elevated levels in previous years
Biology	**E.Coli** /100ml	91	111	72	Generally within normal range with some elevated levels in previous years
	Benthic Macs	Primarily a pollution tolerant community with average or below average metric scores with a poor Hilsenhoff Biotic Index. Site 1097 not assessed due to dry conditions.			
	Diatoms	No diatoms collected due to lack of flow.			

Index scores* for Rattan Creek Sites by Year

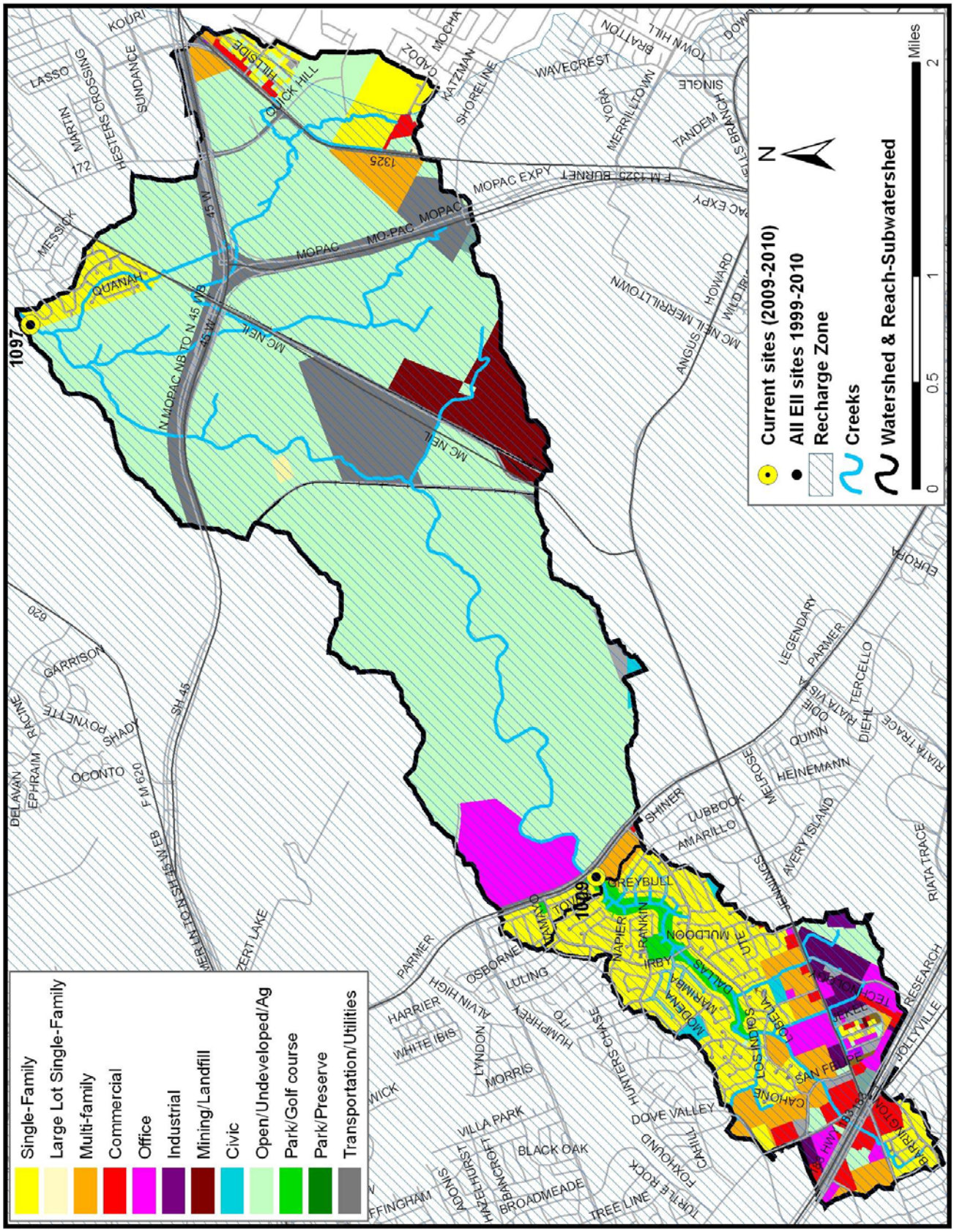
Reach	Site	Site Name	Year	Water Quality	Sediment**	Contact Recreation	Non-Contact Recreation	Physical Integrity	Aquatic Life	Benthic subindex	Diatom subindex	Total Site Score
RAT1	1097	Rattan Creek @ Shadowbrook Circle	1998	50	78	84	59	68	56	60	52	66
RAT2	1009	Rattan Creek Above Parmer Lane	1998	75	78	75	62	59				58
RAT1	1097	Rattan Creek @ Shadowbrook Circle	2001	50	90	74	73	63	59	60	58	65
RAT2	1009	Rattan Creek Above Parmer Lane	2001	51	90	84	73	46	69	75	63	67
RAT1	1097	Rattan Creek @ Shadowbrook Circle	2004	56	82	32	71	53				49
RAT2	1009	Rattan Creek Above Parmer Lane	2004	64	82	37	53	50				48
RAT1	1097	Rattan Creek @ Shadowbrook Circle	2007	69	76	74	51	30				50
RAT2	1009	Rattan Creek Above Parmer Lane	2007	49	76	50	62	41	61	61		57
RAT1	1097	Rattan Creek @ Shadowbrook Circle	2010	68		48	47	57				44
RAT2	1009	Rattan Creek Above Parmer Lane	2010	62		50	52	64	67	67		59

* 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

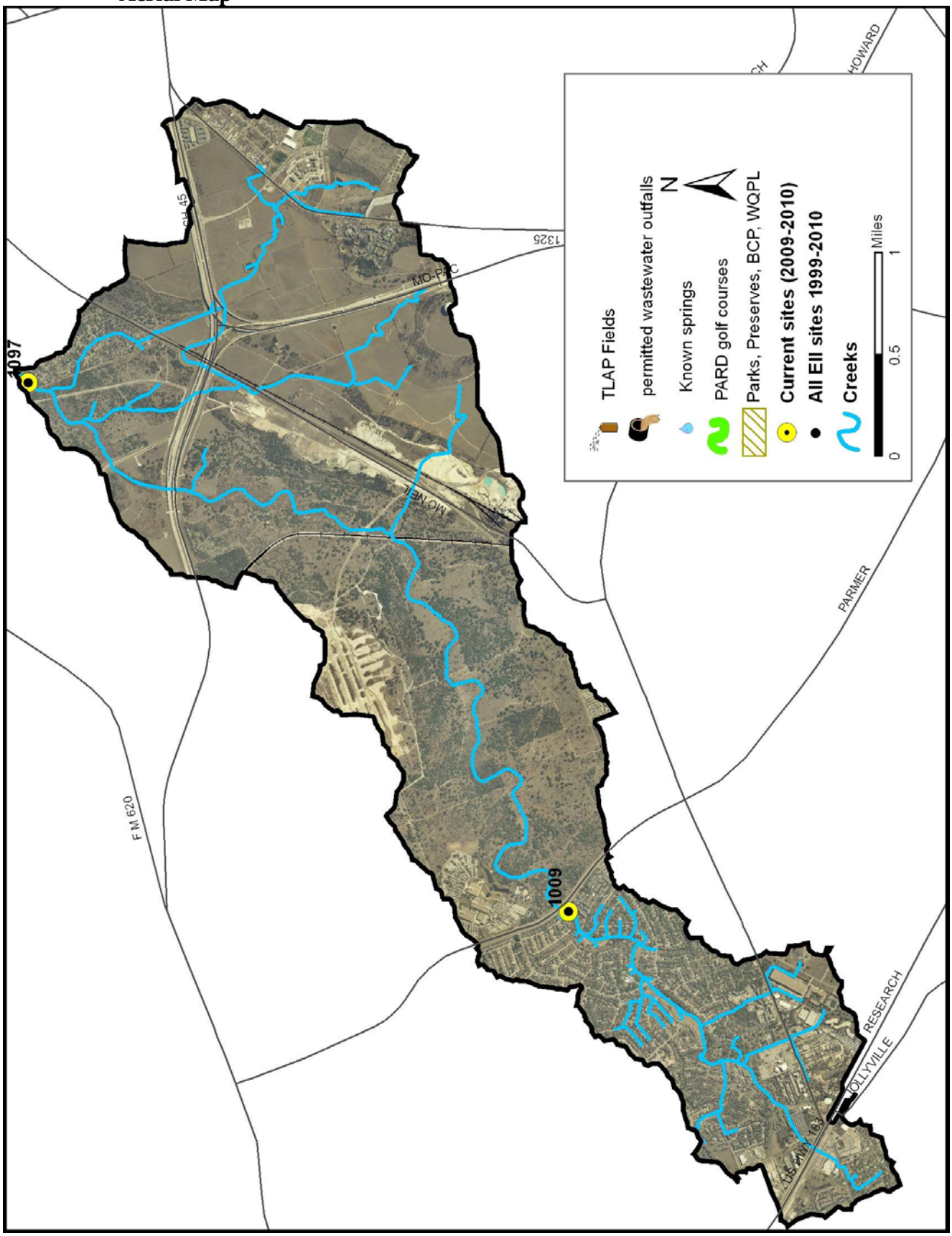
Rattan Creek Watershed

Land Use Map



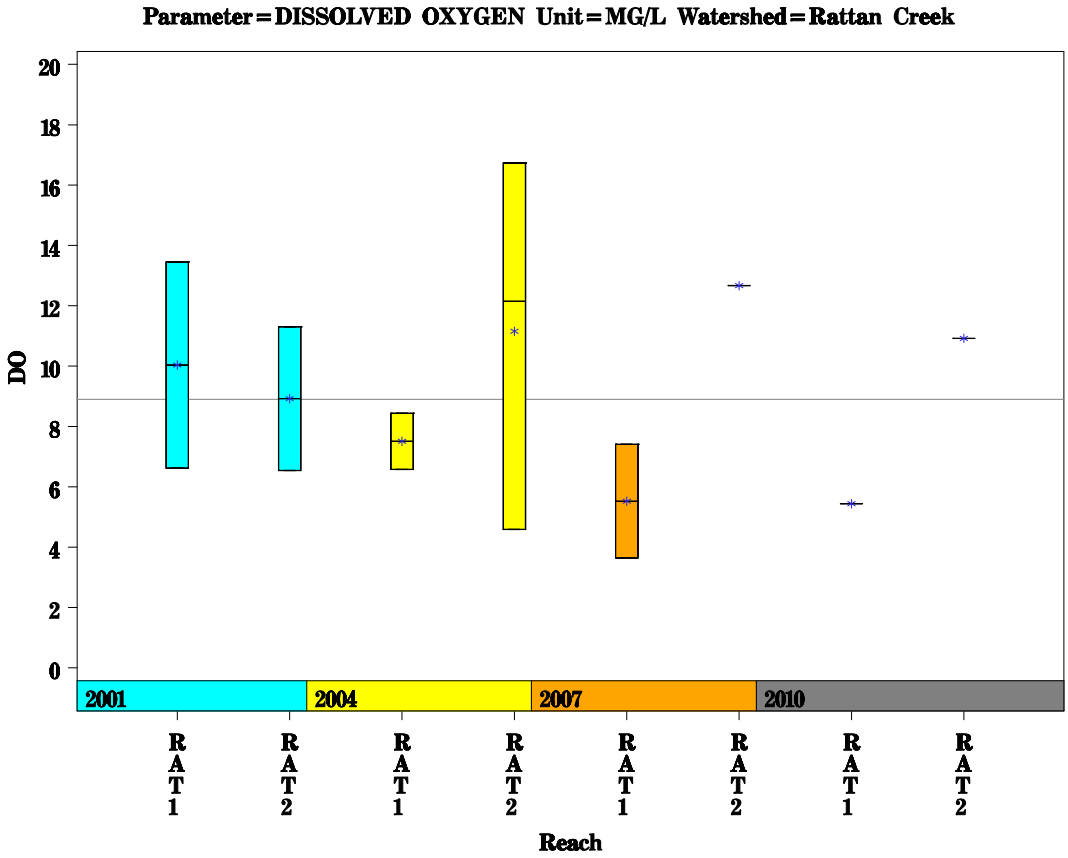
Rattan Creek Watershed

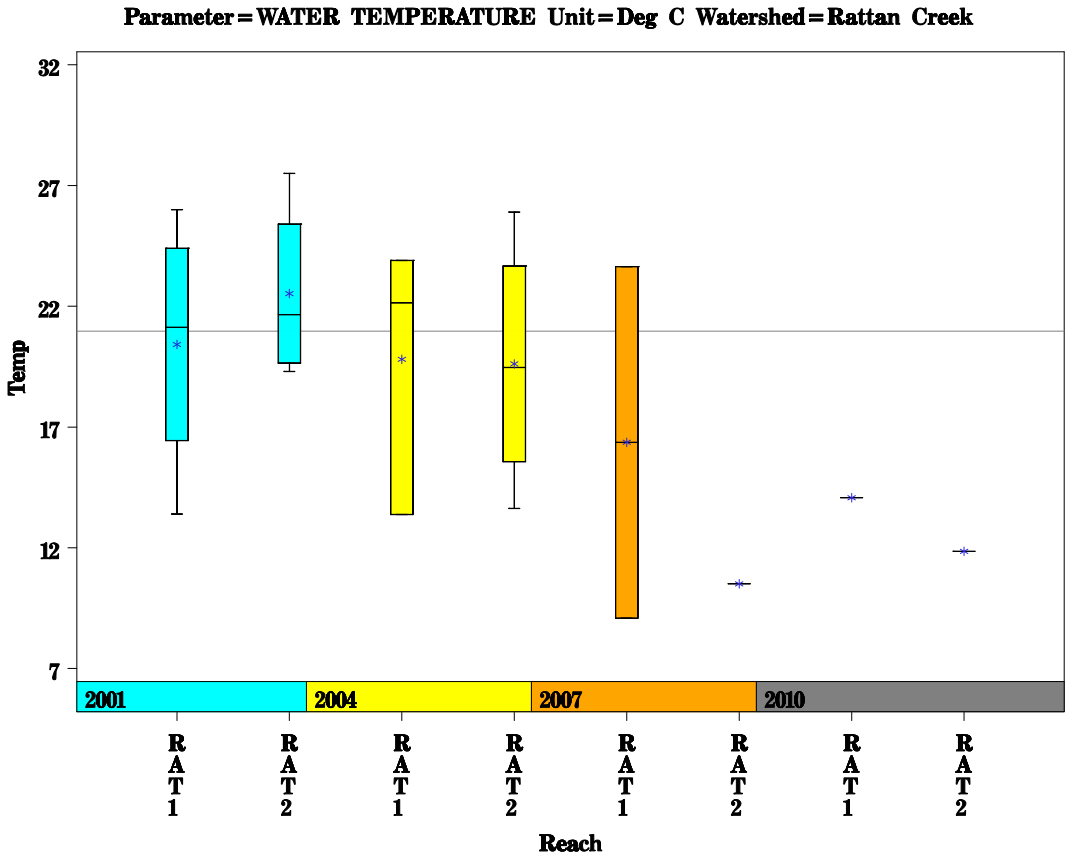
Aerial Map



Rattan Creek Watershed

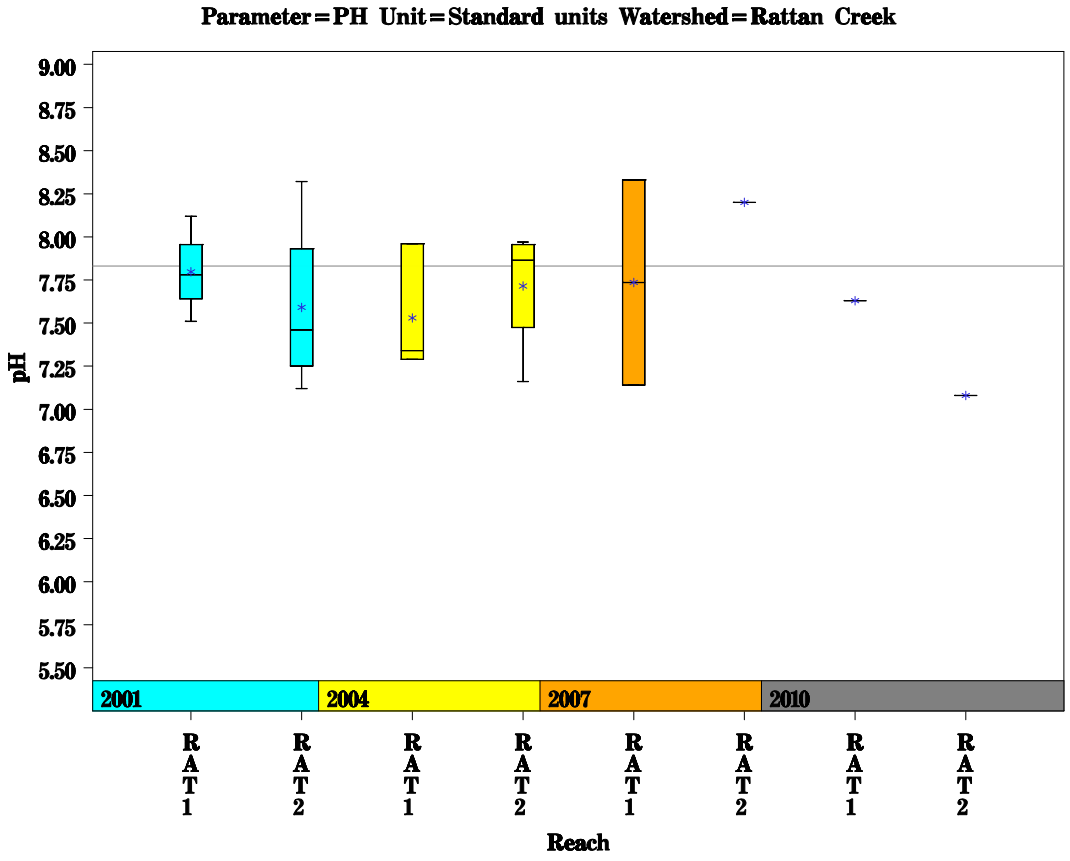
Data Summary Graphs – Dissolved Oxygen and Temperature (Downstream to Upstream by Year)

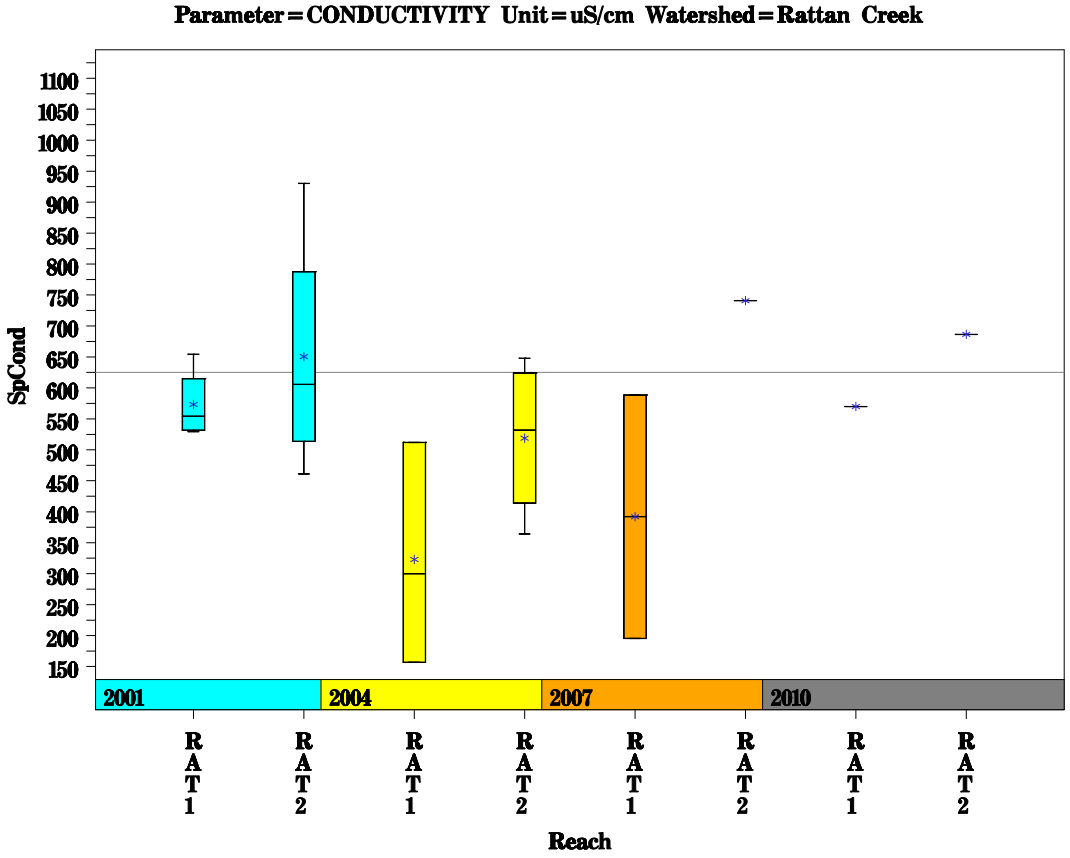




Rattan Creek Watershed

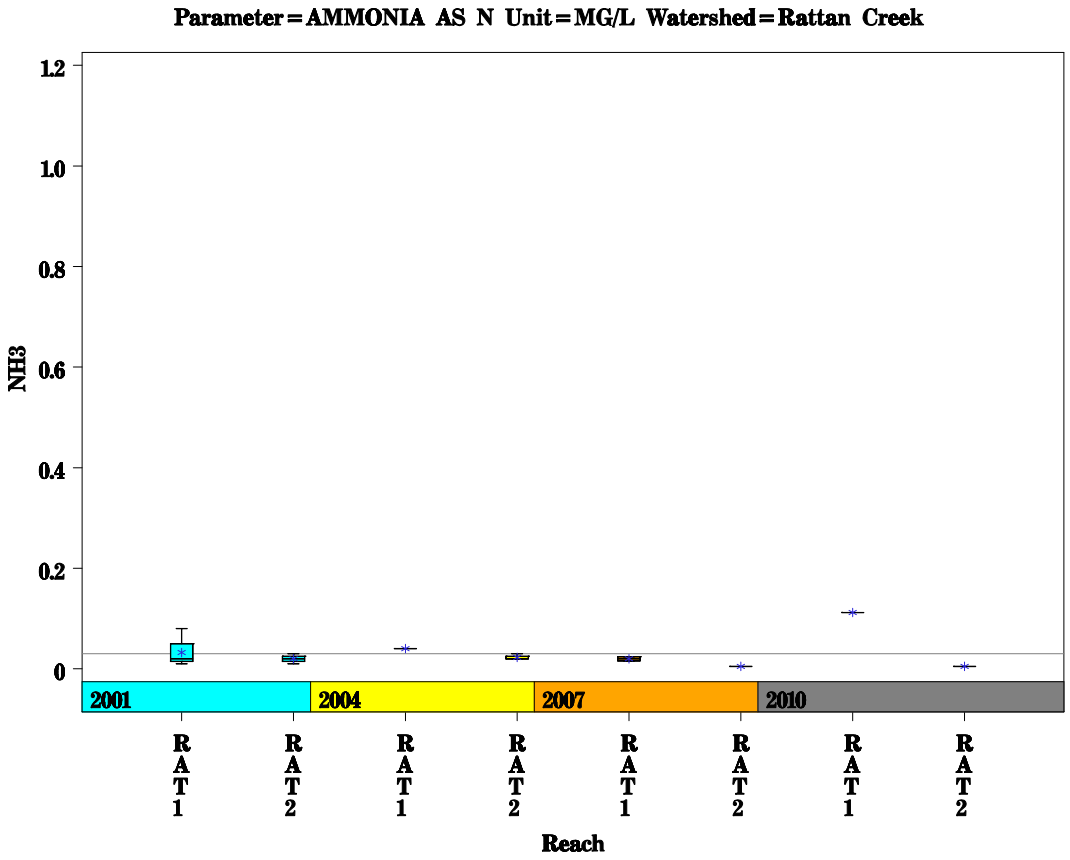
Data Summary Graphs – pH and Conductivity (Downstream to Upstream by Year)

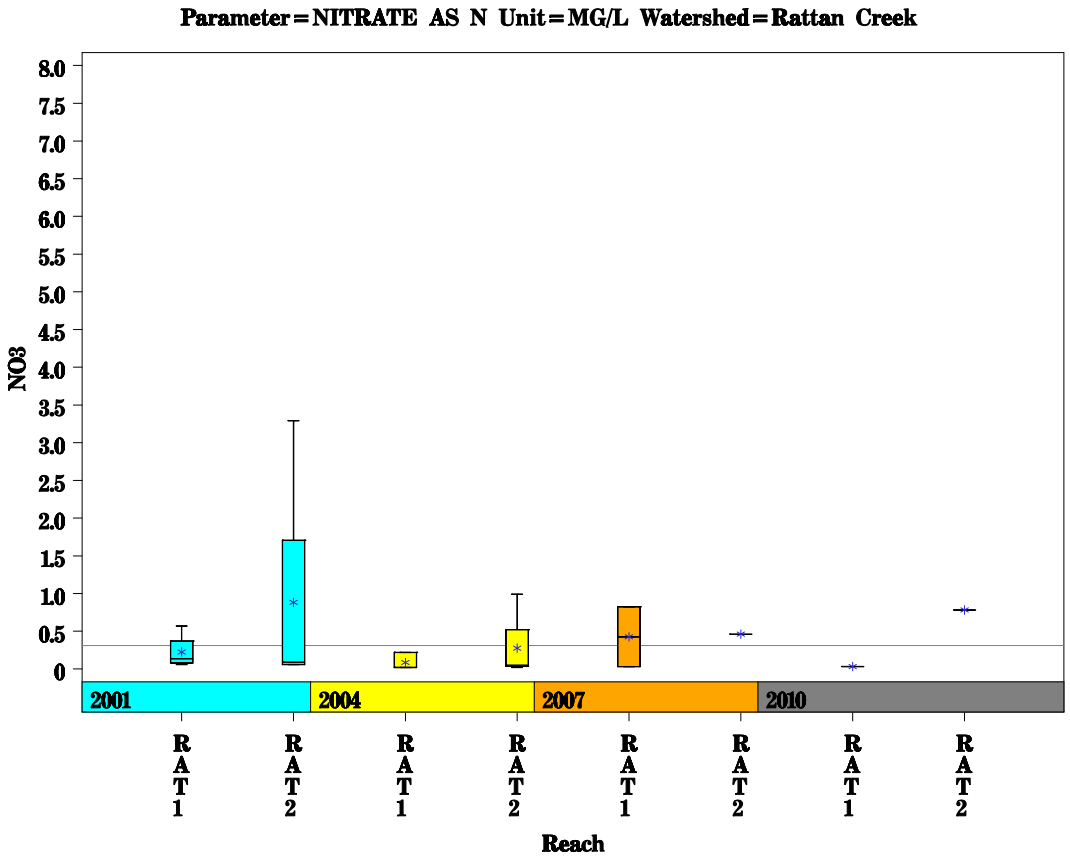




Rattan Creek Watershed

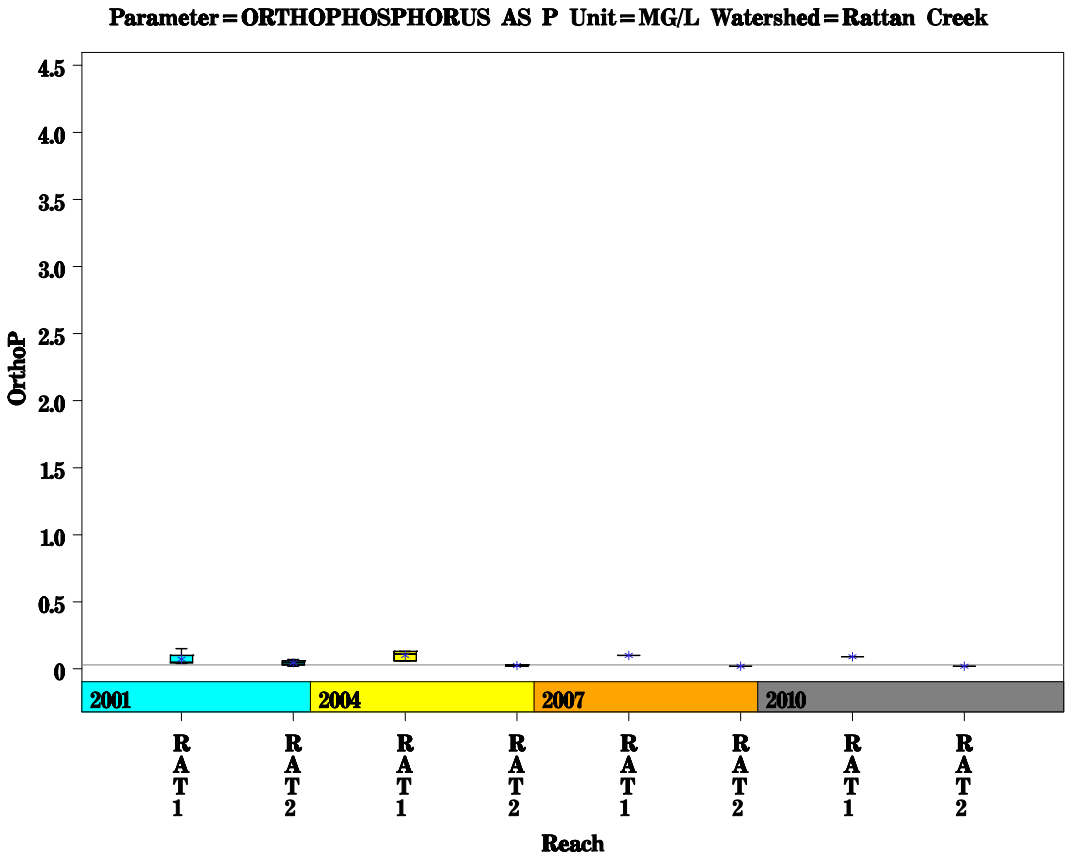
Data Summary Graphs – Ammonia and Nitrate/Nitrite (Downstream to Upstream by Year)

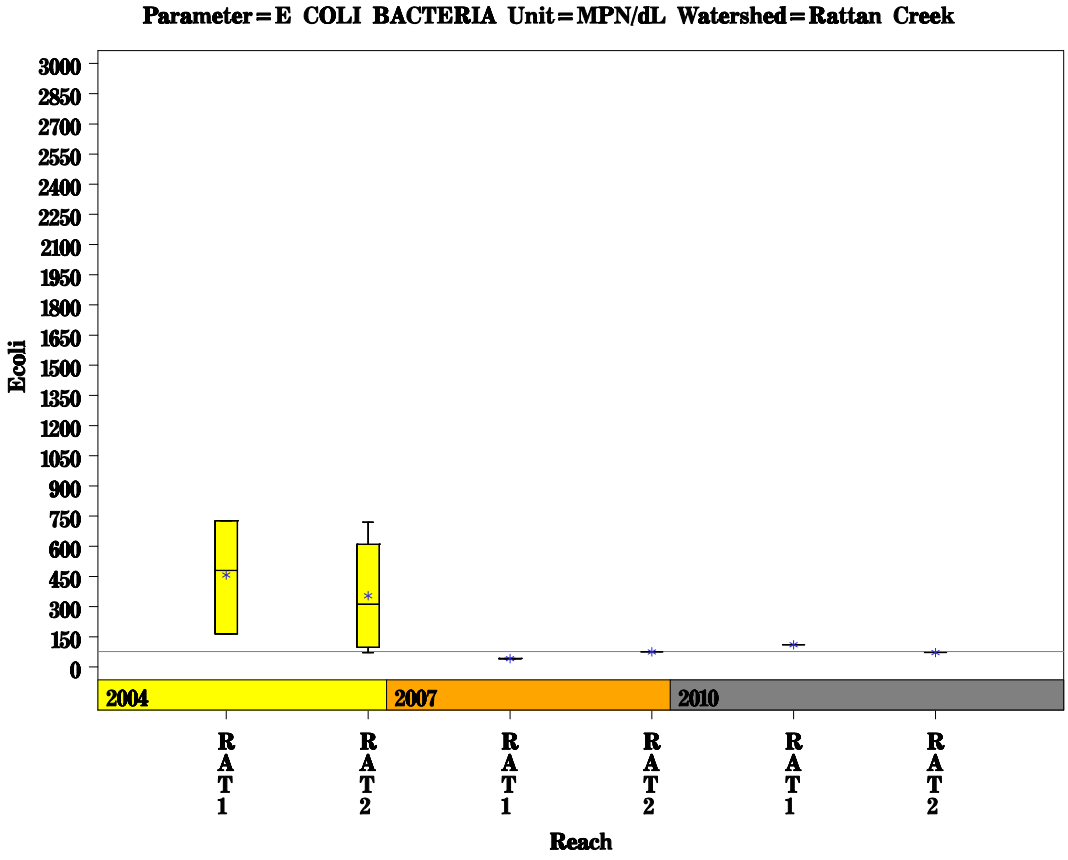




Rattan Creek Watershed

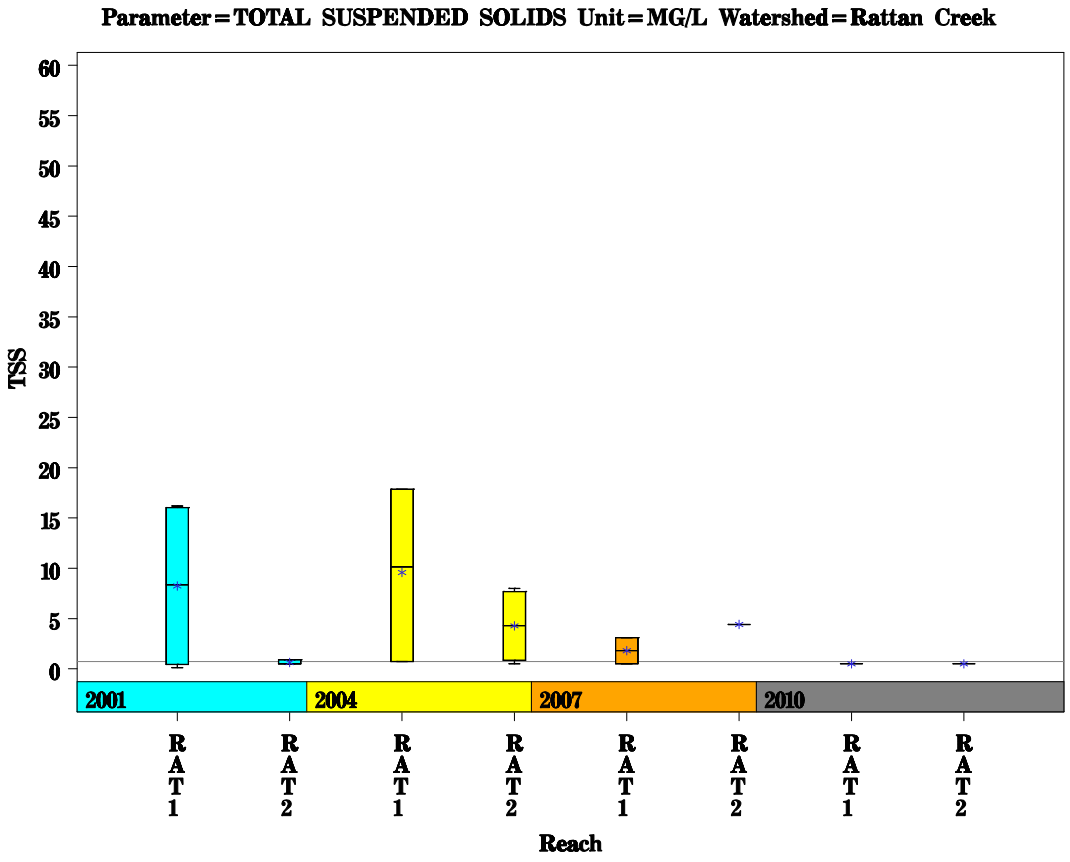
Data Summary Graphs – Orthophosphate and *E.coli* (Downstream to Upstream by Year)

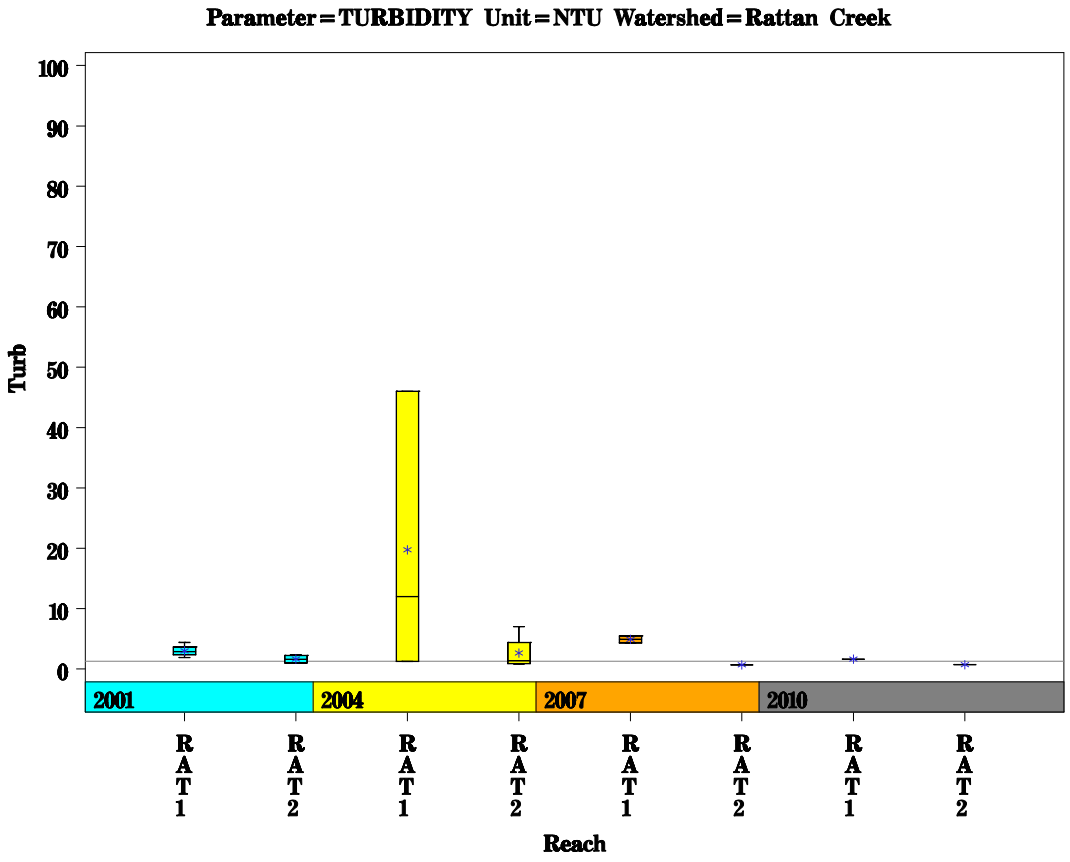




Rattan Creek Watershed

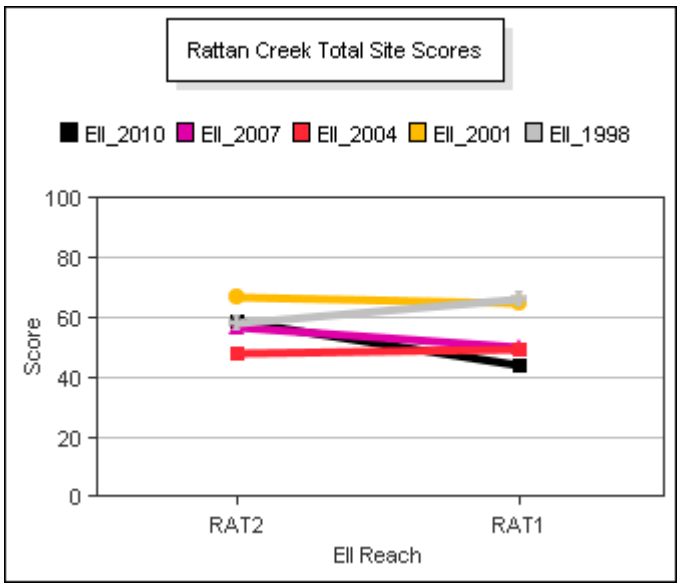
Data Summary Graphs – Total Suspended Solids and Turbidity (Downstream to Upstream by Year)

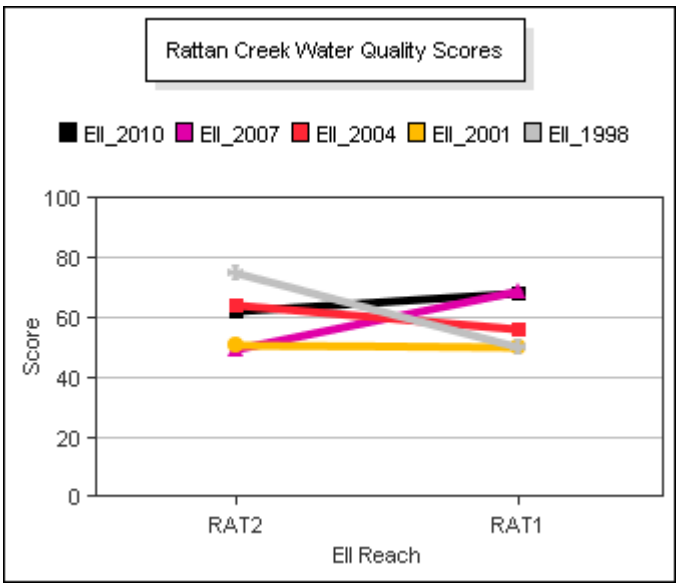


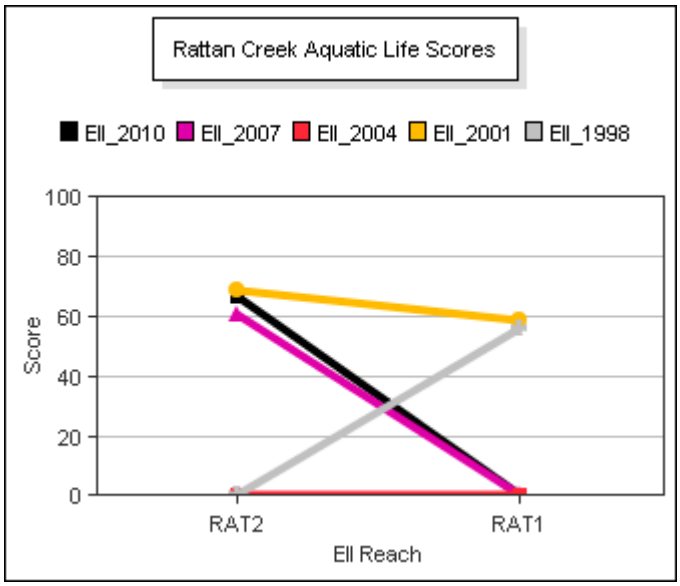


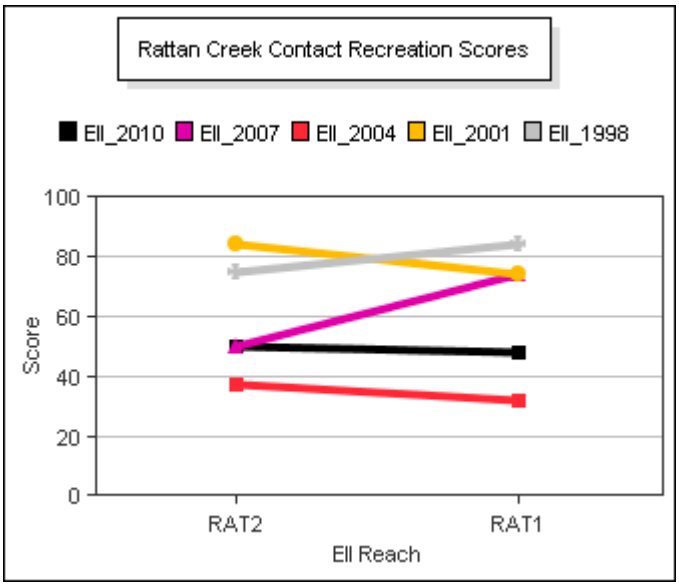
Rattan Creek Watershed

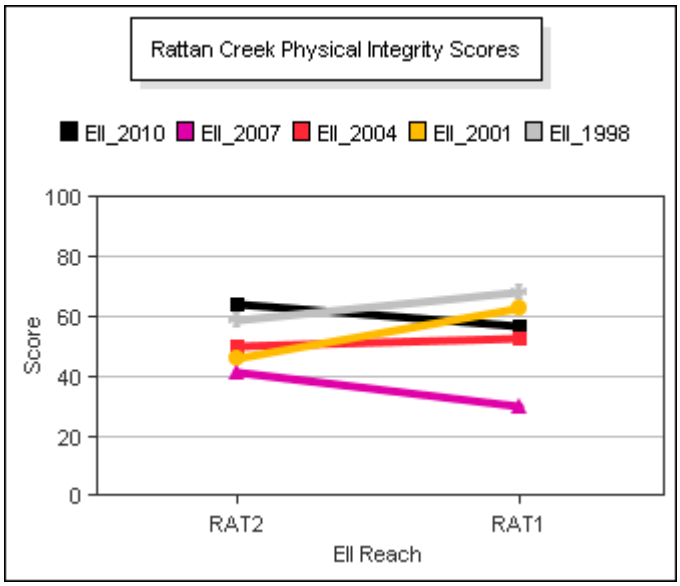
Score Summary – Reach scores for each sample year

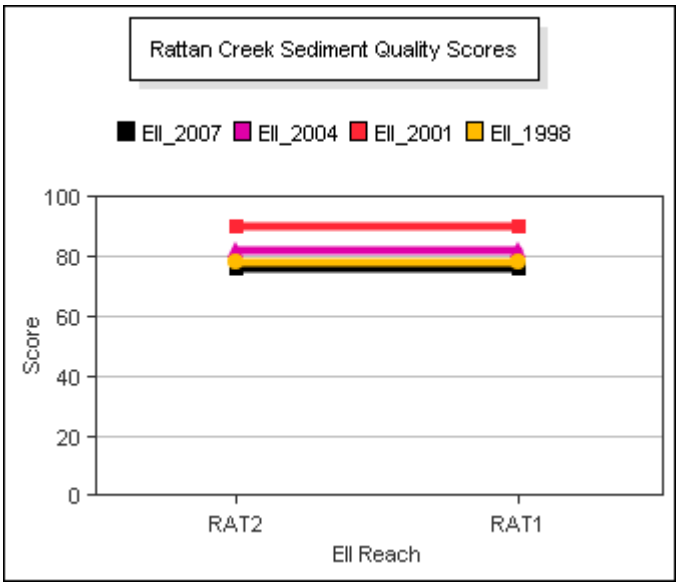












Rattan Creek Watershed

Site Photographs

1009_us_06_19_2007

1009_ur_06_19_2007

1009_00-ds-05_24_2010

1009_00-ur-05_24_2010

1009_00-us-05_24_2010

1009_00-us-05_17_2010

Rattan Creek Watershed

Site Photographs

1097_us_06_19_2007

1097_ds_06_19_2007

1097_pool_06_19_2007

1097_ur_06_19_2007

1097_00-us-05_24_2010

1097_00-ds-05_24_2010

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