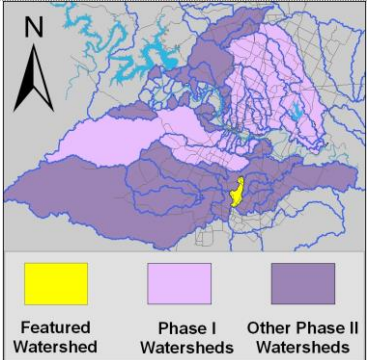


# Marble Creek Watershed

## Summary Sheet

Catchment	Total area	4 sq. miles				
	Area in recharge	0				
	Creek length	7 miles				
	Receiving water	Onion Creek				
Demographics	2000 population	1,028				
	2030 projected population	6,388				
	30 year projected % increase	521 %				
Land Use	Impervious cover (2003 estimate)	5.5 %				
Overall EII Scores	1999	2002	2005	2008	2010	2012
	60	61	59	58	67	67



### Flow Regime\* for Sample Sites on Marble Creek

Site #	Site Name	2002					2005					2008					2010				2011	2012	
		Feb	Feb	May	Aug	Nov	Mar	Jun	Jun	Sep	Dec	Feb	May	Jun	Sep	Dec	Mar	May	May	Oct	Dec	Mar	May
		WQ	Bio	WQ	WQ	WQ	WQ	WQ	Bio	WQ	WQ	WQ	WQ	Bio	WQ	WQ	WQ	WQ	Bio	WQ	WQ	WQ	Bio
232	Thaxton	n		n	n	B	B	B	n	n	n	n	n	n	n	B	n	B	B	n	B	B	
231	us ONI	B	B	B	B	B	B	B	B	B	B	B	B	n	B	B	B	B	B	B	B	B	B

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

### Summary of 2012 Data for Marble Creek

Summary	Parameter	Mean	Max	Min	Discussion
Physicochemical	D.O. mg/l	5.8	8.2	2.7	Some low values at downstream site 231.
	pH st.units	7.71	8.33	7.40	Wide range: some high values upstream, some low values downstream.
	Cond uS/cm	628	732	534	Within normal range.
Nutrients	NH <sub>3</sub> mg/l	0.073	0.329	0.008	Mostly within normal range, some high values at site 231.
	NO <sub>3</sub> mg/l	1.761	4.08	0.008	Some above average values at site 231, but within normal range.
	Ortho P mg/l	0.014	0.051	0.004	Within normal range.
Sediment Load	TSS mg/l	3.5	8.5	1.0	Some above average values, but within normal range.
	Turbidity ntu	1.12	1.21	1.02	Within normal range.
Biology	E.Coli /100ml	221	687	73	Wide range of values, but all within normal range.
Benthic Macroinvertebrates and Diatoms: evaluations are provided in the introduction of this report					

### Index scores\* for Marble Creek Sites by Year

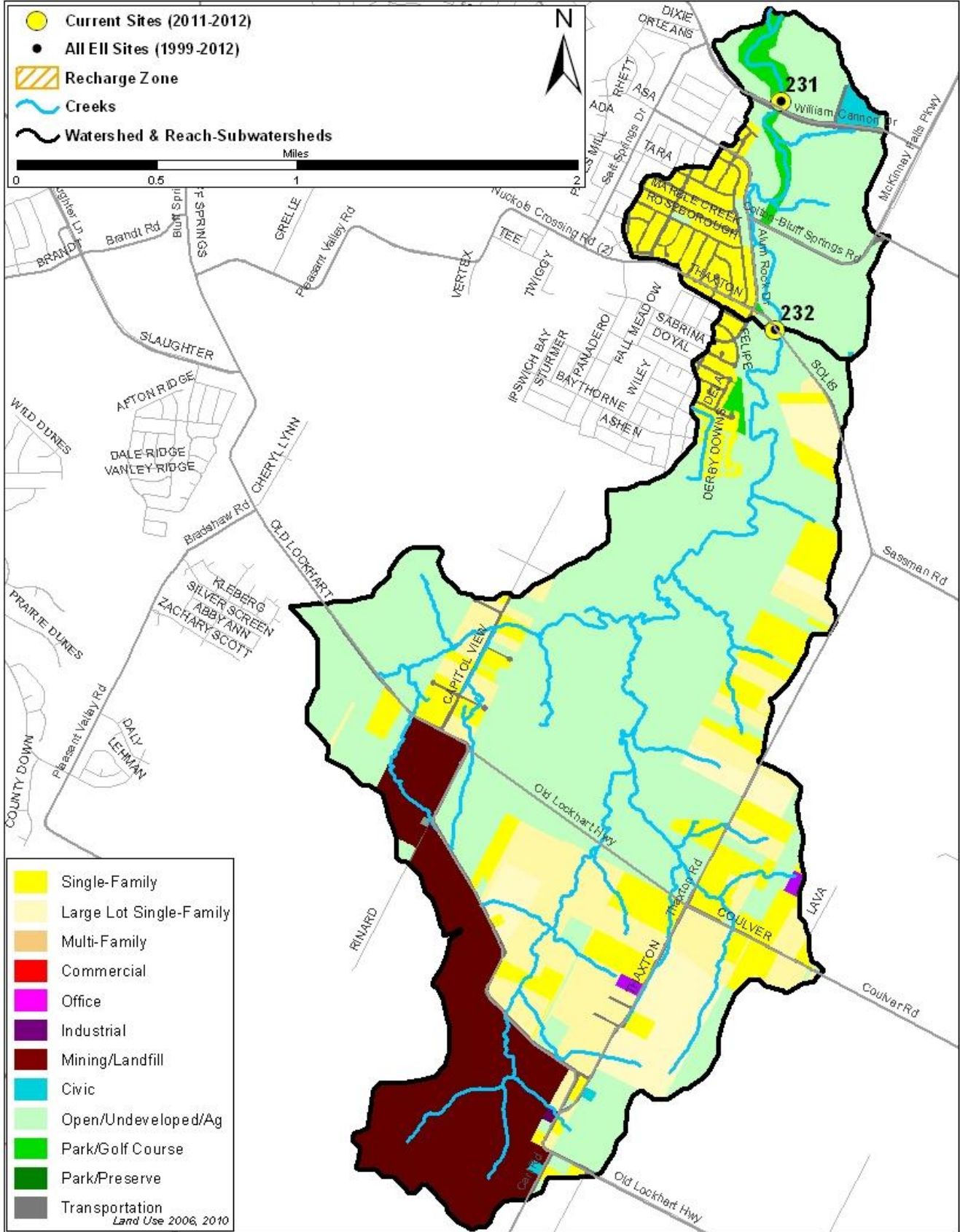
Reach	Site	Site Name	Year	Water Quality	Sediment**	Contact Rec.	Non-Contact Rec.	Physical Integrity	Aquatic Life	Benthic subindex	Diatom subindex	Total EII Score
1-Mar	231	Marble Creek @ William Cannon	1999	47	84	93	53	65	32	36	28	62
2-Mar	232	Marble Creek @ Thaxton Road (M2)	1999	62	84	92	58	43				57
1-Mar	231	Marble Creek @ William Cannon	2002	43	83	82	58	72	60	44	75	66
2-Mar	232	Marble Creek @ Thaxton Road (M2)	2002	58	83	97	58	33				55
1-Mar	231	Marble Creek @ William Cannon	2005	46	84	54	58	74	57	41	72	62
2-Mar	232	Marble Creek @ Thaxton Road (M2)	2005	65	84	92	41	48				55
1-Mar	231	Marble Creek @ William Cannon	2008	47	61	50	73	72	71	57	85	62
2-Mar	232	Marble Creek @ Thaxton Road (M2)	2008		61		53	56	55	55		56
1-Mar	231	Marble Creek @ William Cannon	2010	49	68	55	67	60	83	76	89	64
2-Mar	232	Marble Creek @ Thaxton Road (M2)	2010	69	68	76	63	67	73	55	91	69
1-Mar	231	Marble Creek @ William Cannon	2012	51	76	42	68	78	85	98	71	67
2-Mar	232	Marble Creek @ Thaxton Road (M2)	2012	68	76	48	72	54	83	85	80	67

\* 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

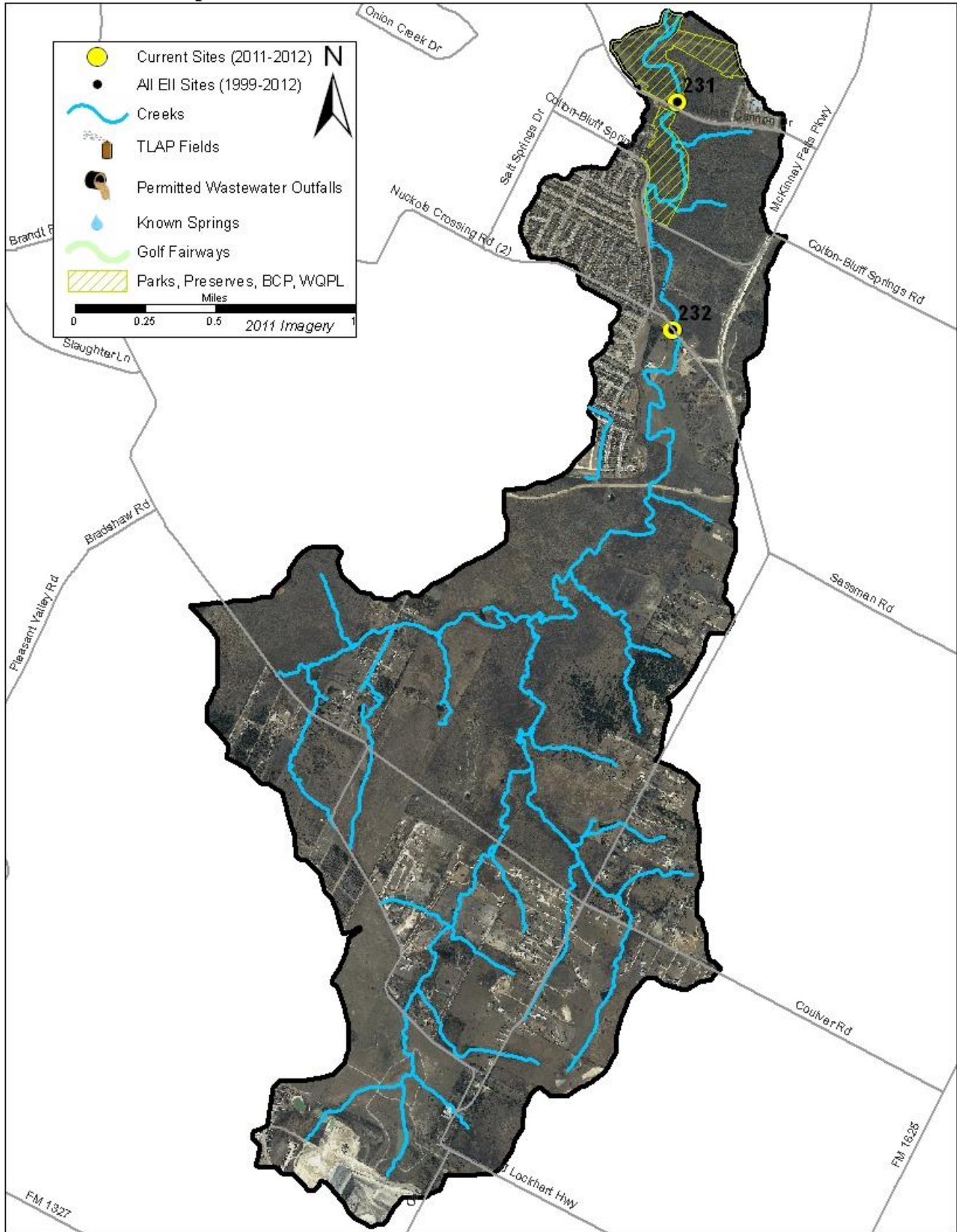
# Marble Creek Watershed

## Land Use Map



# Marble Creek Watershed

## Aerial Map

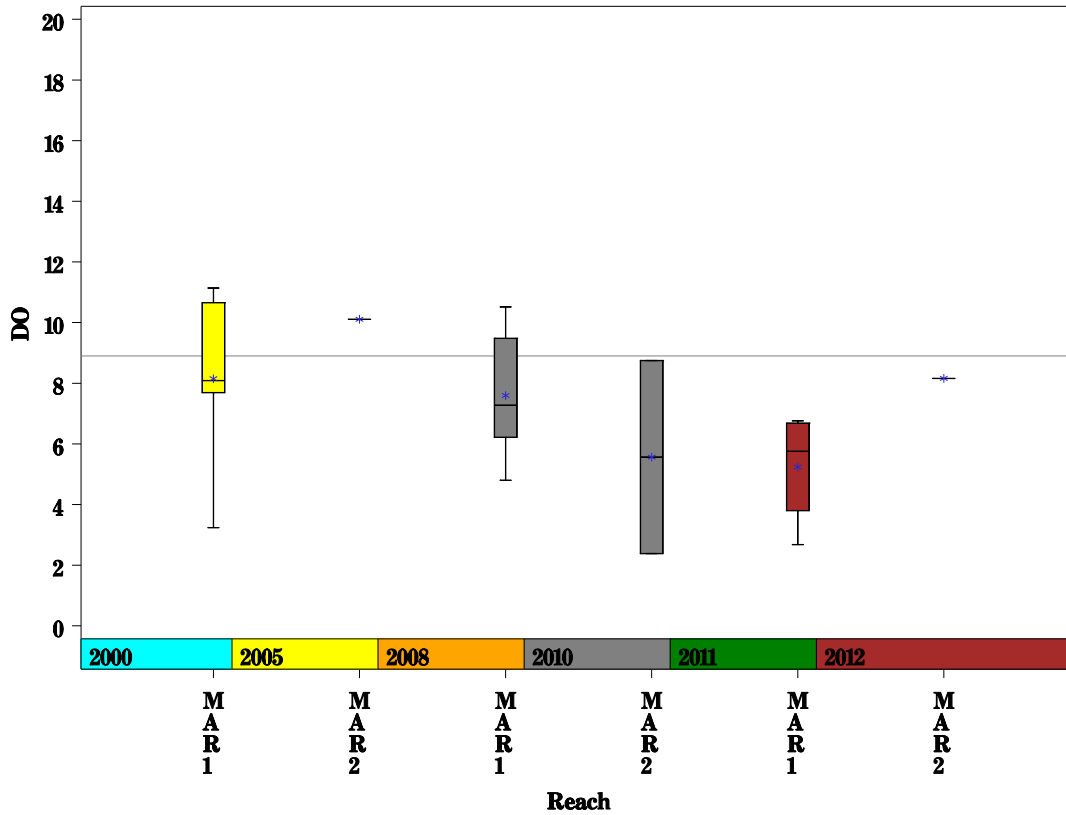




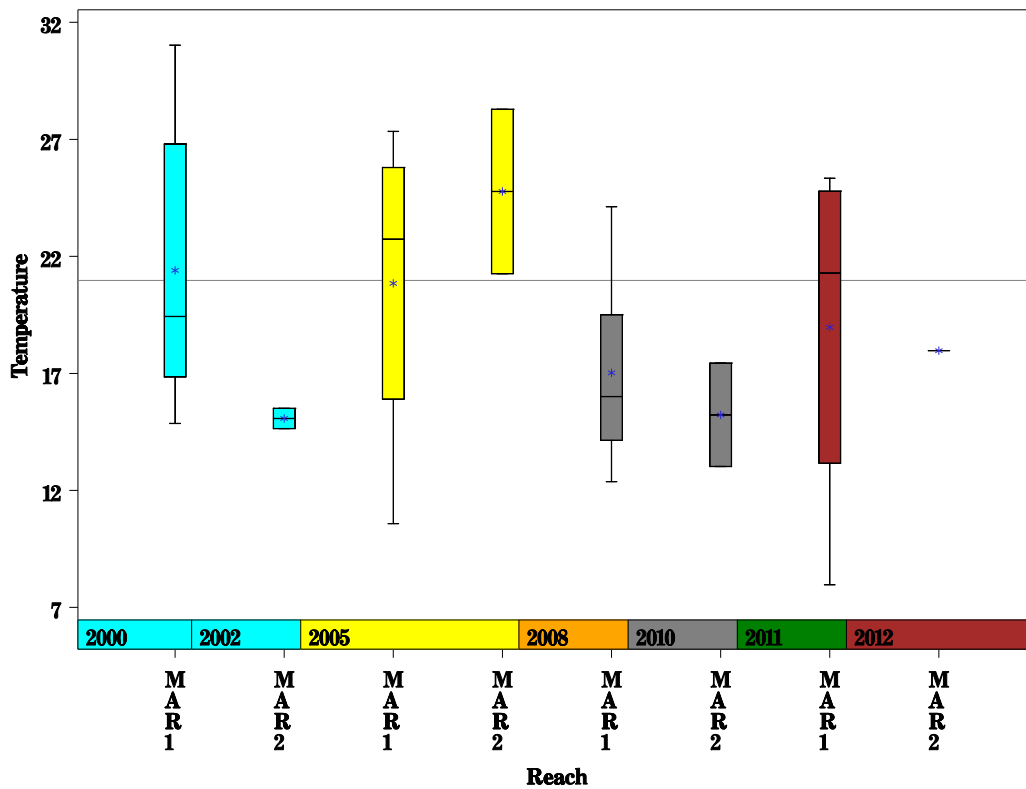
# Marble Creek Watershed

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

Parameter = DISSOLVED OXYGEN Unit = MG/L Watershed = Marble Creek

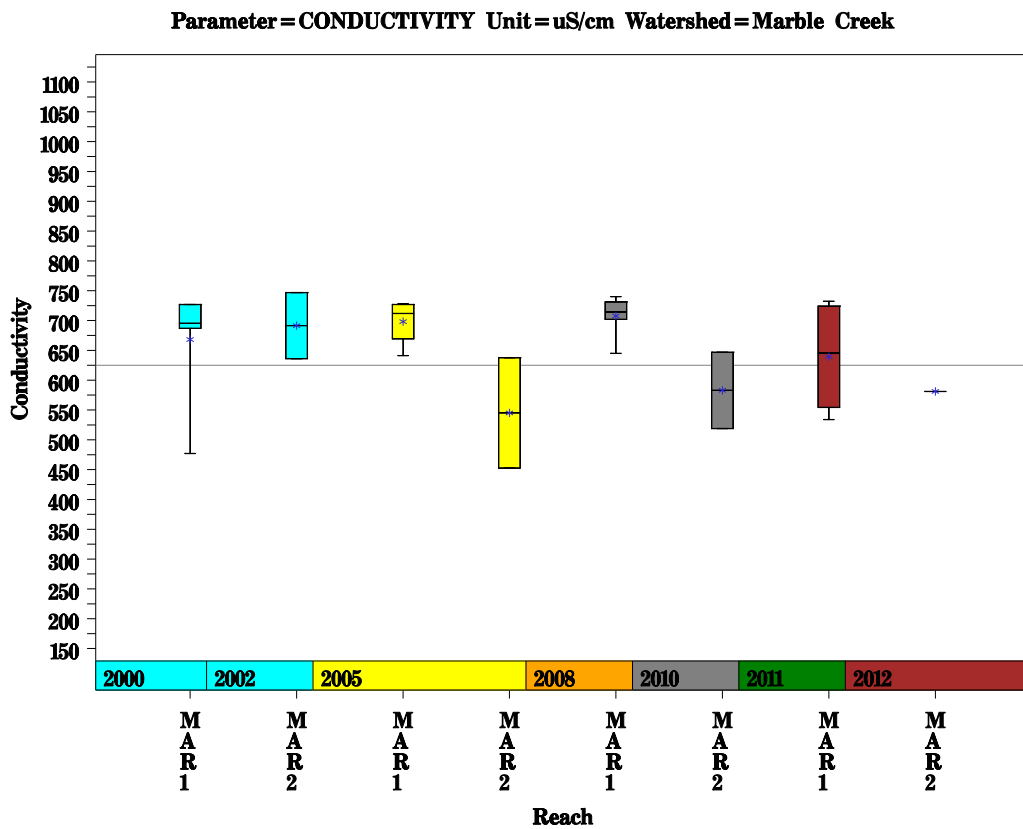
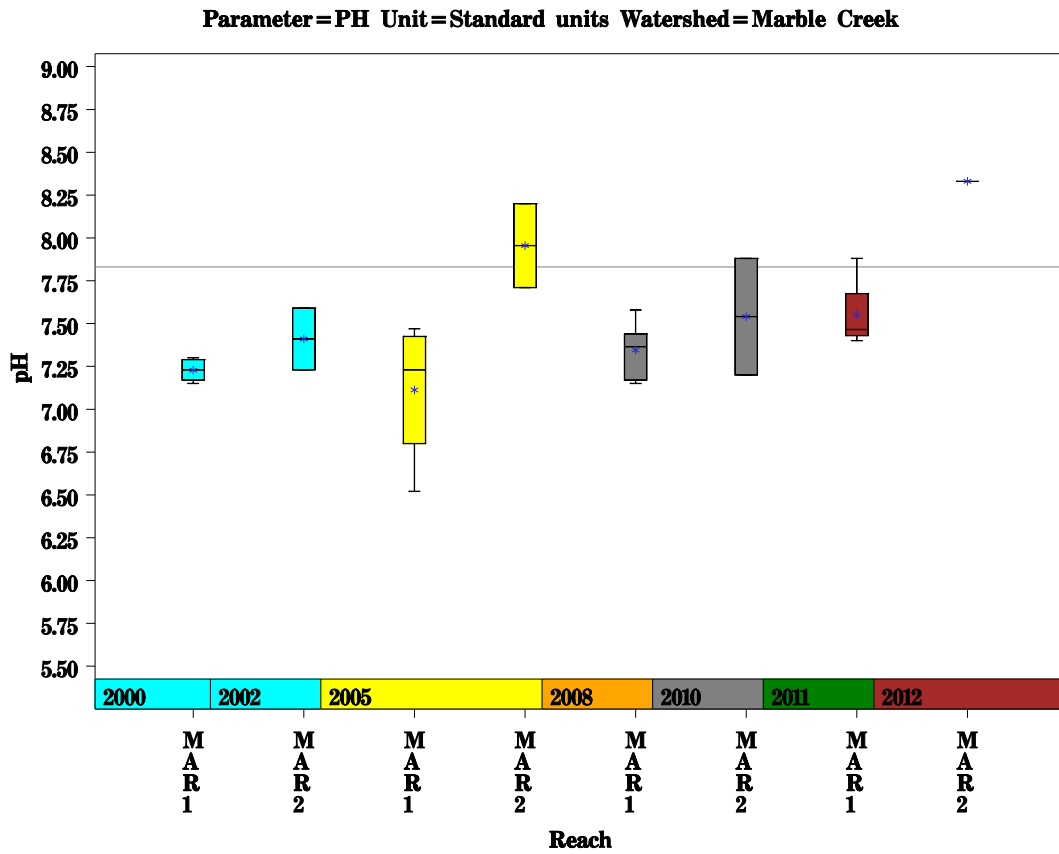


Parameter = WATER TEMPERATURE Unit = Deg. Celsius Watershed = Marble Creek



# Marble Creek Watershed

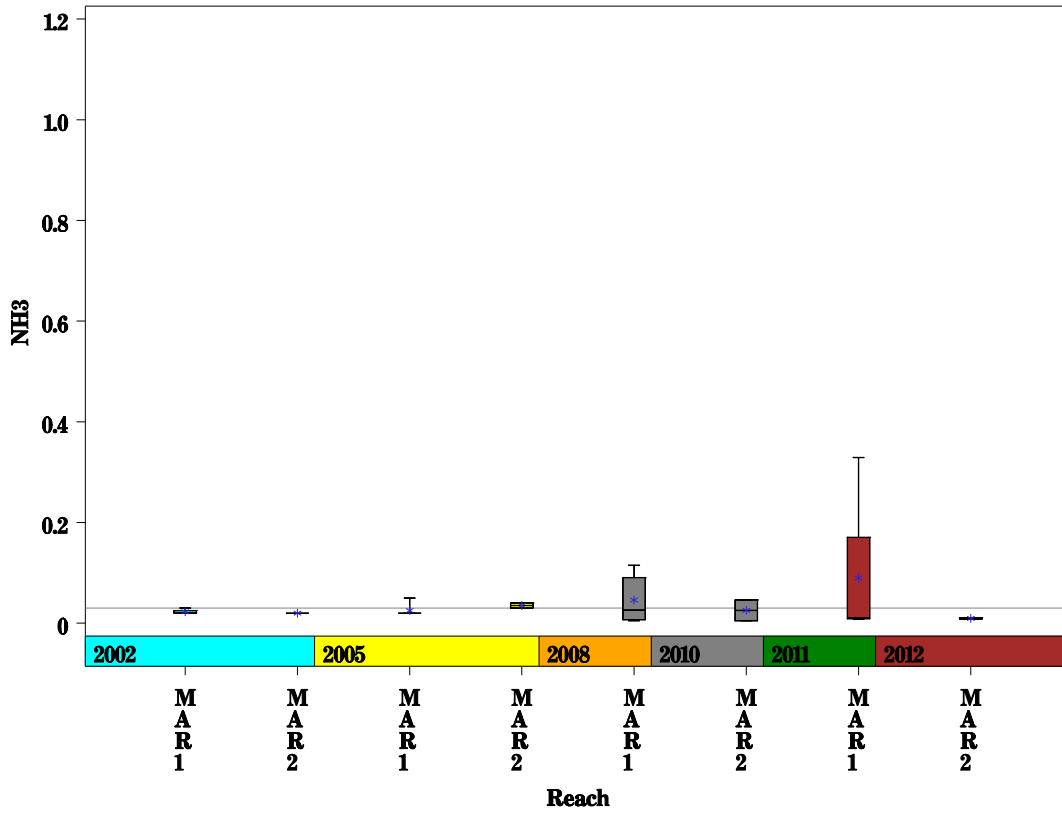
Data Summary Graphs – pH and Conductivity (Downstream to Upstream by Year)



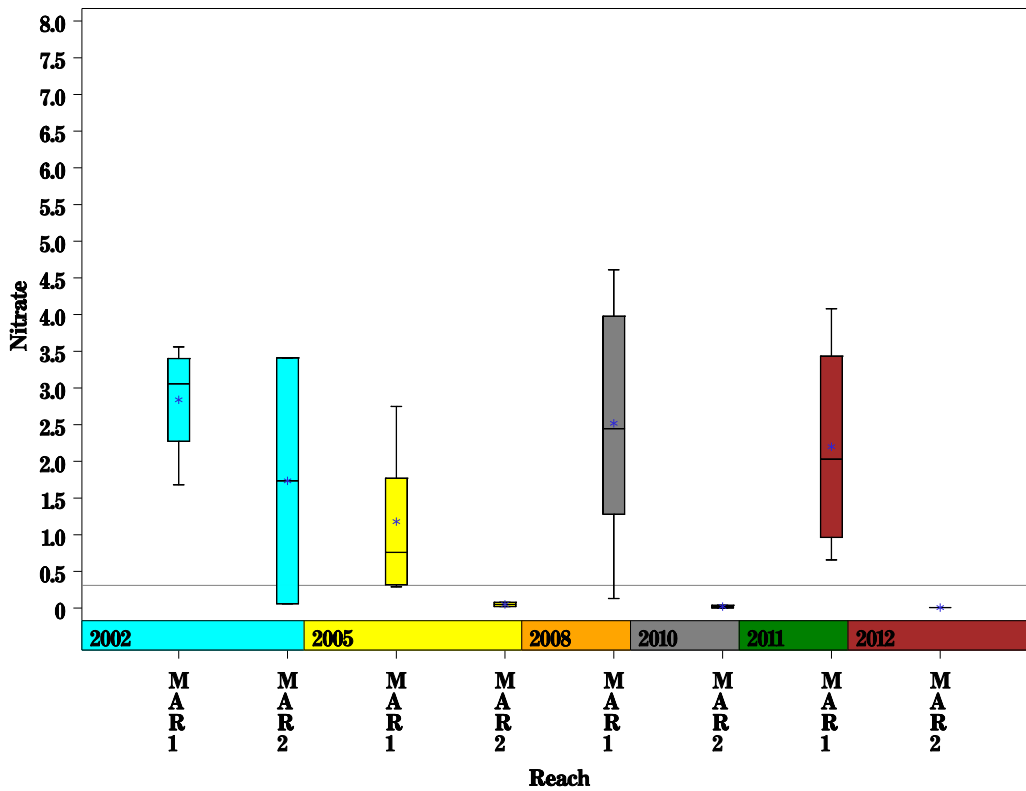
# Marble Creek Watershed

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

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



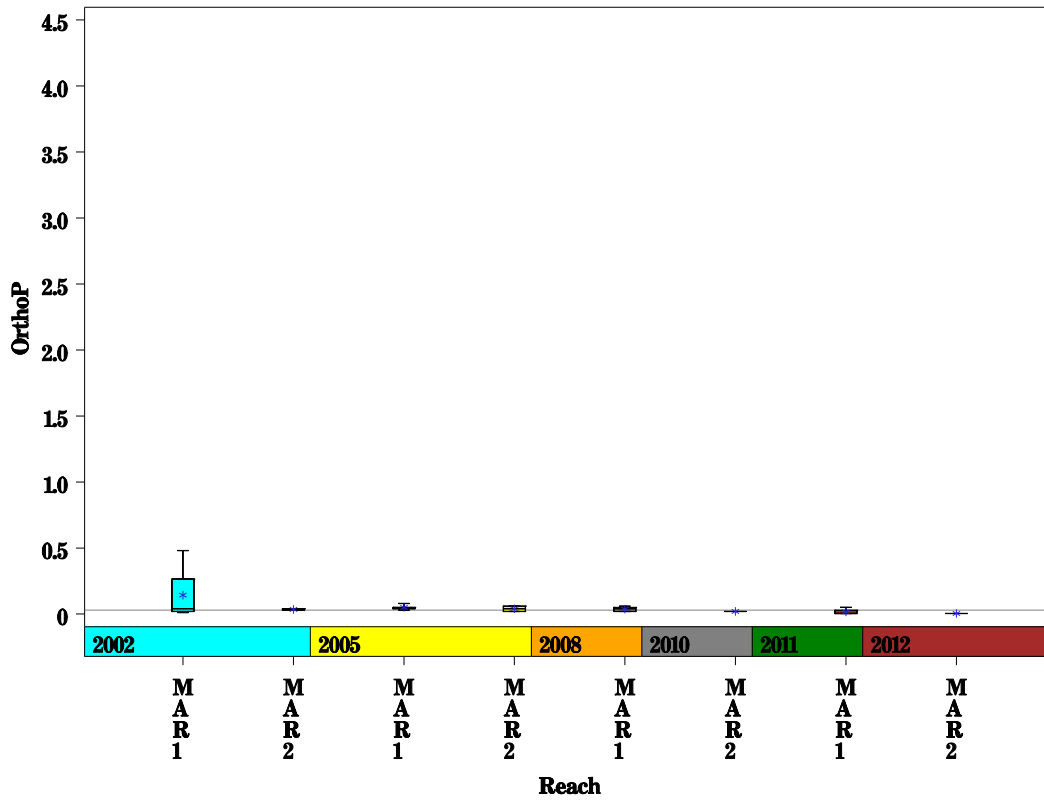
Parameter = NITRATE AS N Unit = MG/L Watershed = Marble Creek



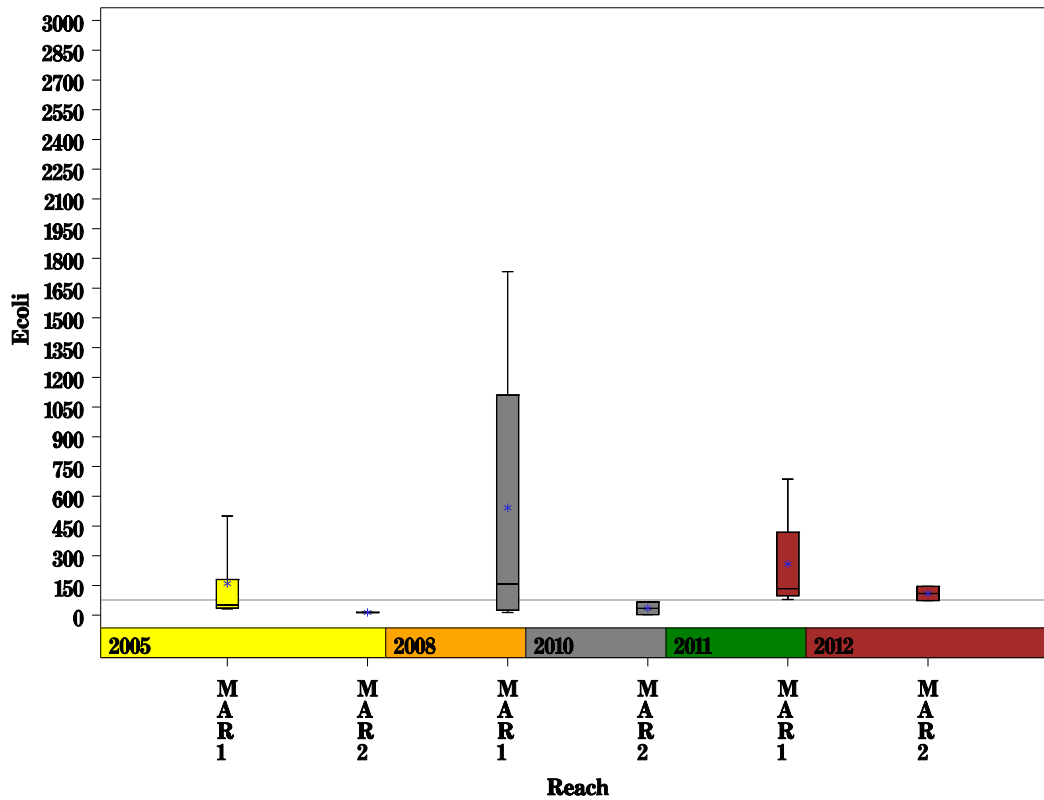
# Marble Creek Watershed

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

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

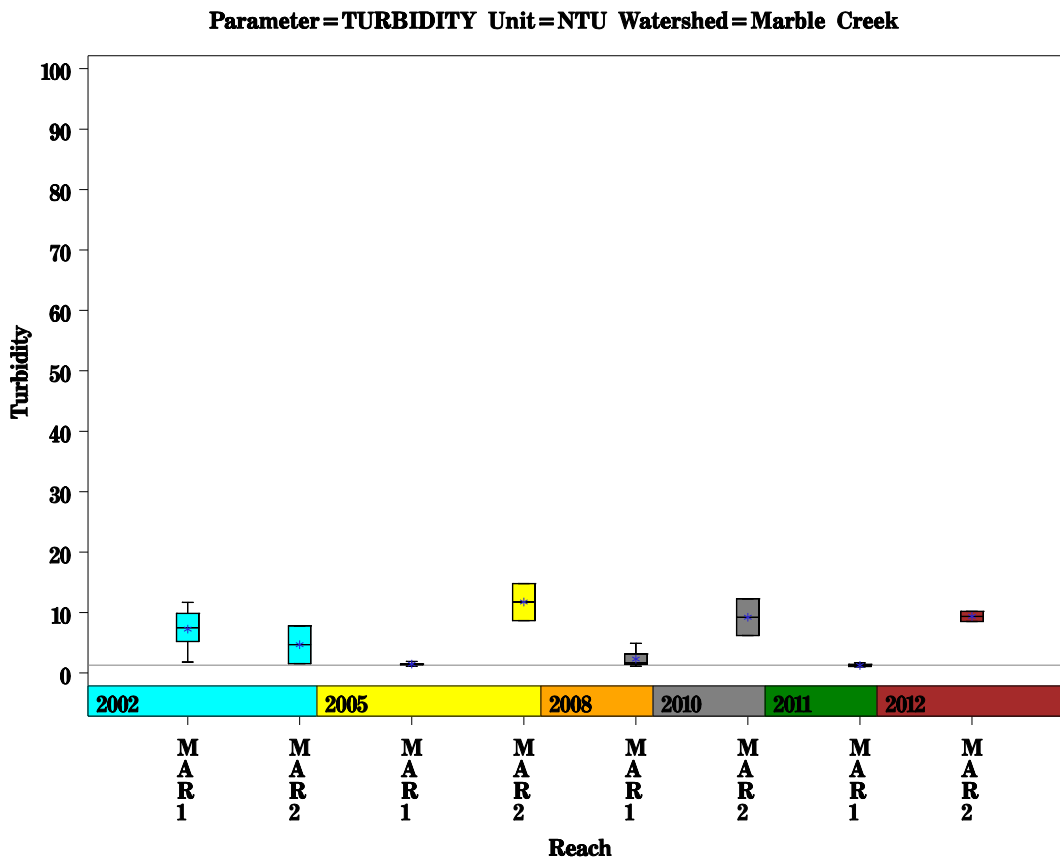
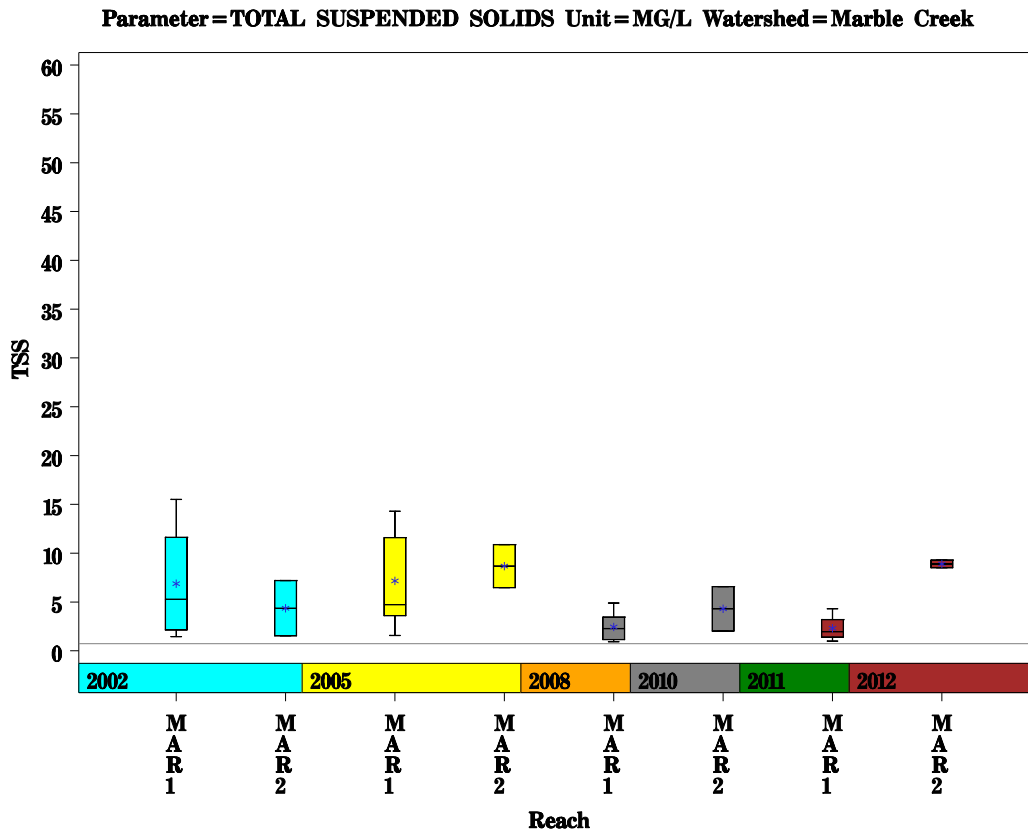


Parameter=E COLI BACTERIA Unit=MPN/100ML Watershed=Marble Creek



# Marble Creek Watershed

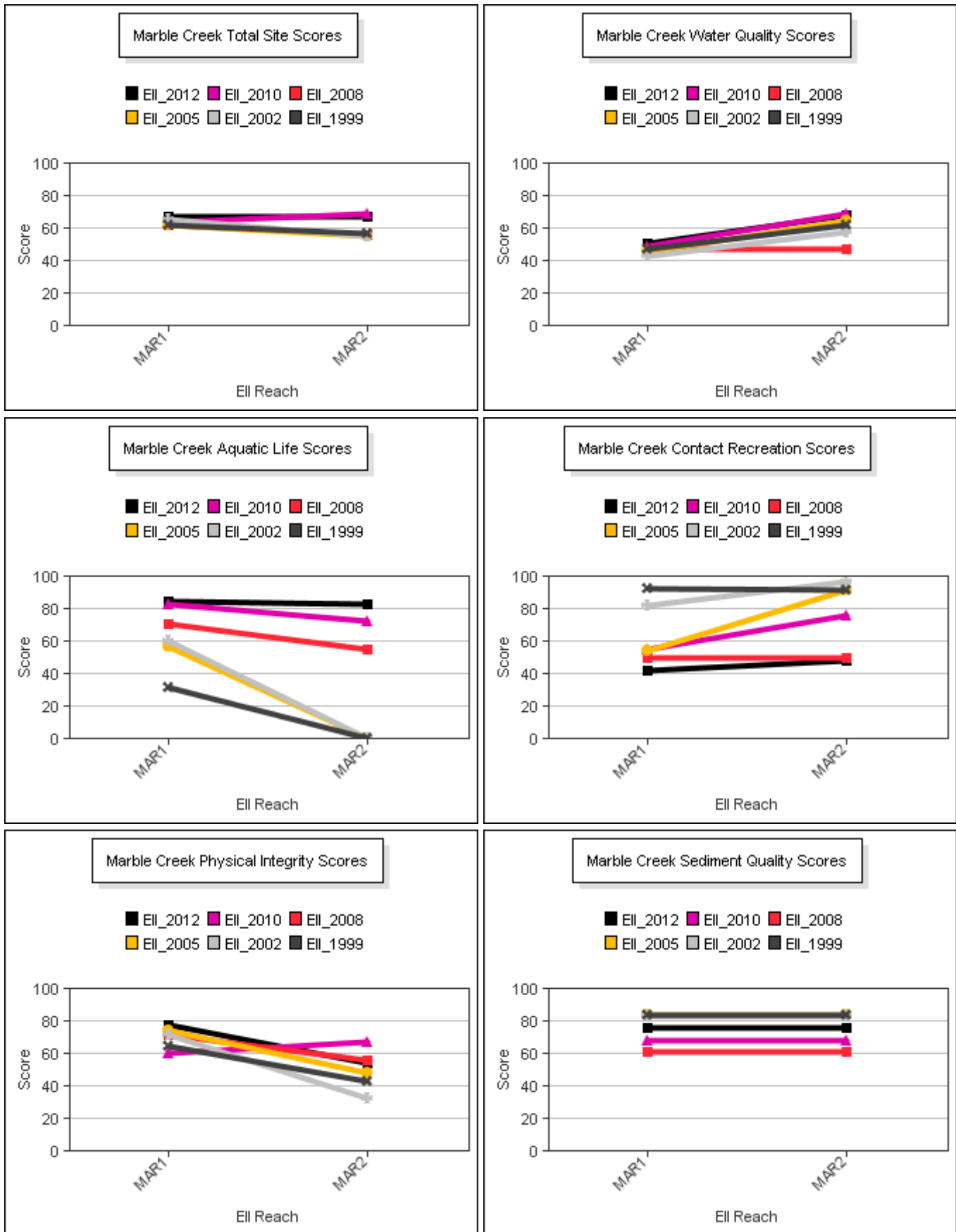
Data Summary Graphs – Total Suspended Solids and Turbidity (Downstream to Upstream by Year)





# Marble Creek Watershed

## Score Summary – Reach scores for each sample year



# Marble Creek Watershed

## Site Photographs



231\_t00-ds-03\_28\_2002



231\_t00-ur-03\_28\_2002



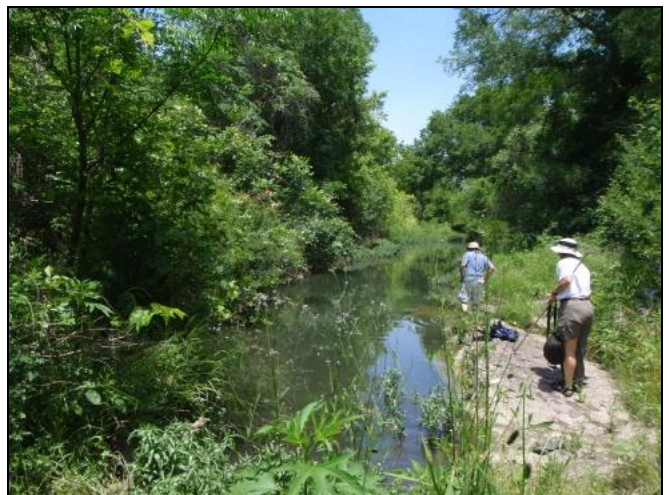
231\_t00-us-06\_16\_2005



231\_t0-us-06\_16\_2008



231\_00-us-05\_18\_2010



231\_00-ds-05\_18\_2010



# Marble Creek Watershed

## Site Photographs



232\_t00-na-03\_28\_2002



232\_t00-us-03\_28\_2002



232\_t00-ds-06\_15\_2005



232\_t0-us-06\_16\_2008



232\_00-us-05\_19\_2010



232\_00-ds-05\_19\_2010

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