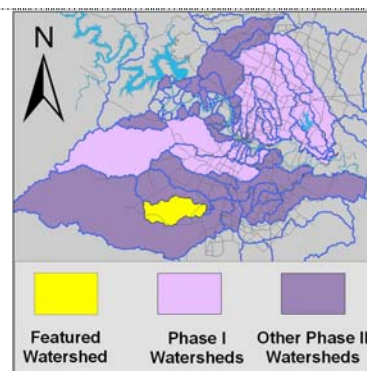


Little Bear Creek Watershed

Summary Sheet

Catchment	Total area	23.1 sq. miles				
	Area in recharge	18.8 sq. miles				
	Creek length	15 miles				
	Receiving water	Bear Creek				
Demographics	2000 population	4,232				
	2030 projected population	18,341				
	30 year projected % increase	333 %				
Land Use	Impervious cover (2003 estimate)	3.94 %				
Overall EII Scores	2001	2004	2007	2010	2012	
	72	65	76	80	77	



Flow Regime* for Sample Sites on Little Bear Creek

Site #	Site Name	2004						2007						2010				2011	2012		
		Mar	May	May	Jun	Oct	Dec	Feb	May	Jun	Jul	Sep	Dec	Mar	May	May	Oct	Dec	Mar	Apr	May
		WQ	WQ	Bio	WQ	WQ	WQ	WQ	WQ	Bio	Bio	WQ	WQ	WQ	WQ	Bio	WQ	WQ	WQ	Bio	Bio
1103	FM 967	n																			
3374	Ashmun		B	B	B	n	B	B	B	B		B	n	B	B	B	B	n	B	B	
1101	BER	B	n		B	n	B	B	B		B	B	B	B	B	B	B	n	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 Little Bear Creek

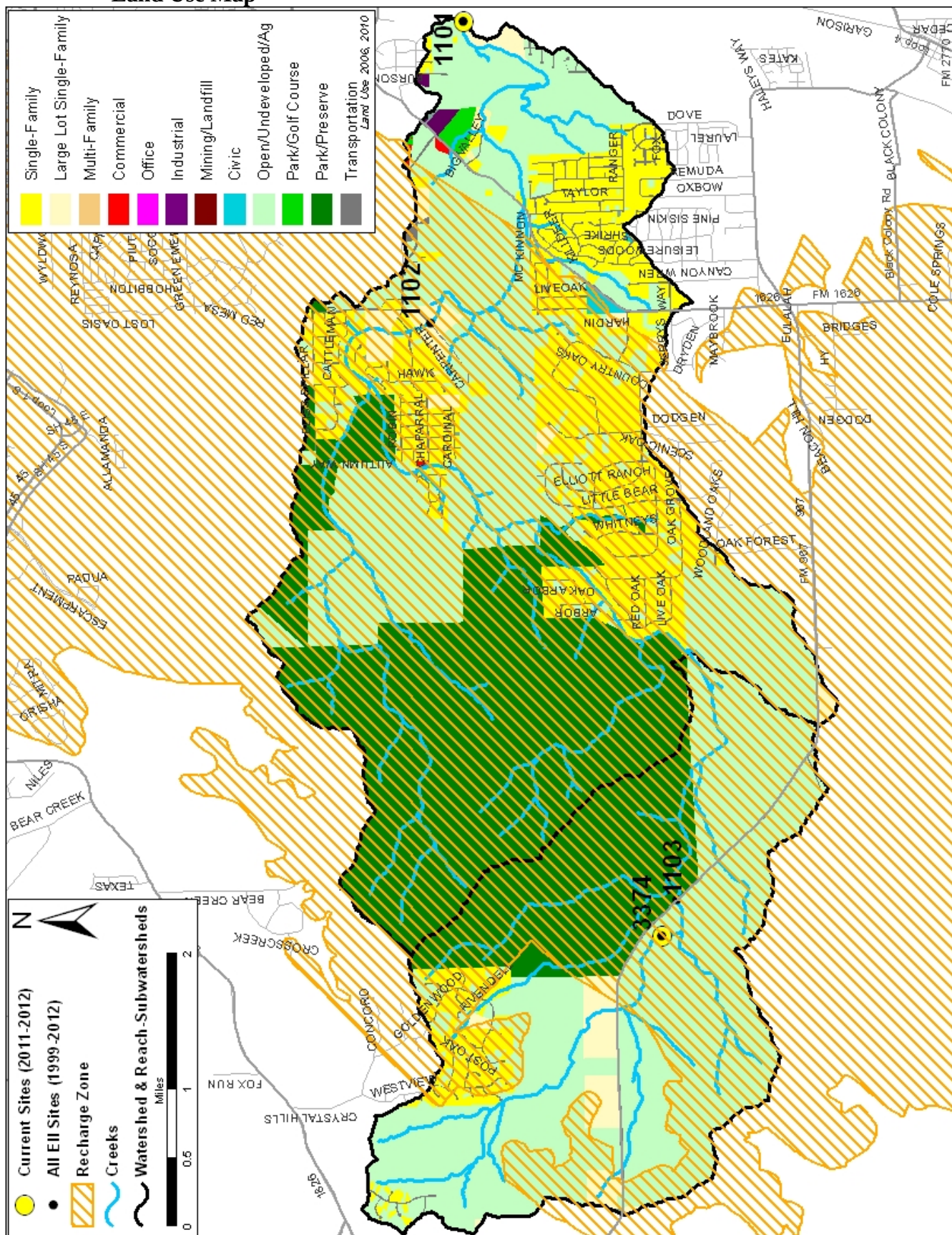
Summary	Parameter	Mean	Max	Min	Discussion
Physicochemical	D.O. mg/l	2.6	2.6	2.6	Some low values.
	pH st.units	7.60	8.13	7.01	Mostly within normal range, some low values.
	Cond uS/cm	497	540	443	Consistently below average.
Nutrients	NH ₃ mg/l	0.008	0.008	0.008	Consistently low.
	NO ₃ mg/l	0.881	1.600	0.048	Within normal range.
	Ortho P mg/l	0.011	0.022	0.004	Within normal range.
Sediment Load	TSS mg/l	3.2	7.3	1.0	Within normal range, some above average values.
	Turbidity ntu	8.91	8.91	8.91	Within normal range, some above average values.
Biology	E.Coli /100ml	65	82	50	Consistently low.
	Benthic Macroinvertebrates and Diatoms: evaluations are provided in the introduction of this report				

Index scores* for Little Bear 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
LBR1	1101	Little Bear Creek @ Bear Creek	1998	50	86	80	63	78	42	49	34	67
LBR1	1102	Little Bear Creek @ Carpenter Rd	1998		86		65	76				57
LBR2	1103	Little Bear Creek @ FM 967	1998	71	86	94	81	76	81	70	92	82
LBR1	1101	Little Bear Creek @ Bear Creek	2001	63	81	84	71	74	39	45	33	66
LBR2	1103	Little Bear Creek @ FM 967	2001	53	81	78	88	75	68	61	75	70
LBR1	1101	Little Bear Creek @ Bear Creek	2004	55	84	53	62	58				52
LBR2	3374	Little Bear @ Ashmun Property	2004	71	84	55	92	87	82	75	89	79
LBR1	1101	Little Bear Creek @ Bear Creek	2007	58	76	59	83	78	66	71	61	70
LBR2	3374	Little Bear @ Ashmun Property	2007	78	76	86	95	78	76	69	82	82
LBR1	1101	Little Bear Creek @ Bear Creek	2010	68	83	90	78	76	70	89	51	78
LBR2	3374	Little Bear @ Ashmun Property	2010	79	83	56	96	88	86	85	86	81
LBR1	1101	Little Bear Creek @ Bear Creek	2012	68	80	59	81	93	77	98	55	76
LBR2	3374	Little Bear @ Ashmun Property	2012	67	80	57	98	89	72	92	52	77

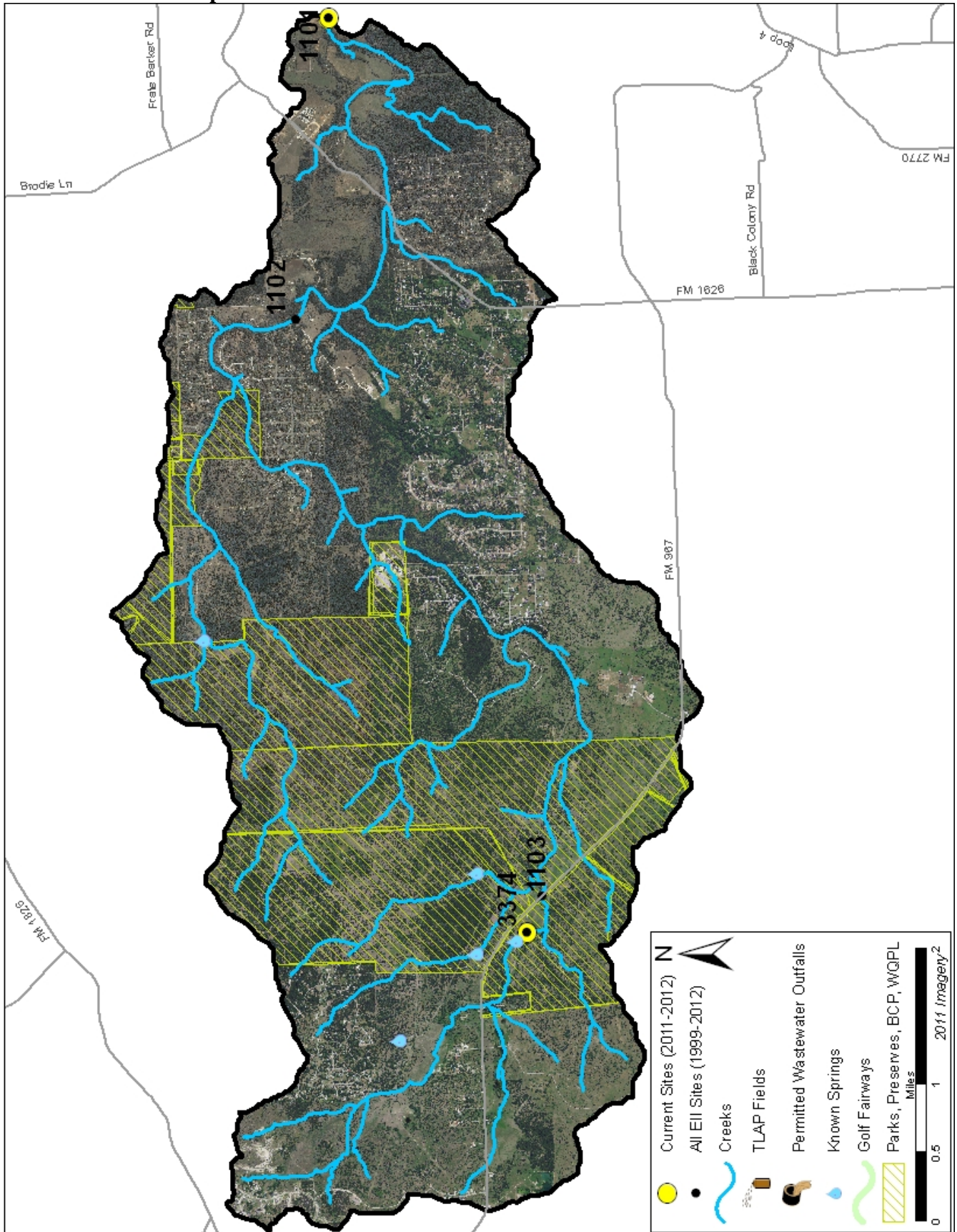
* blank cells indicate parameter was not collected, blank row indicate site was dropped **sediment samples only collected at the downstream site

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



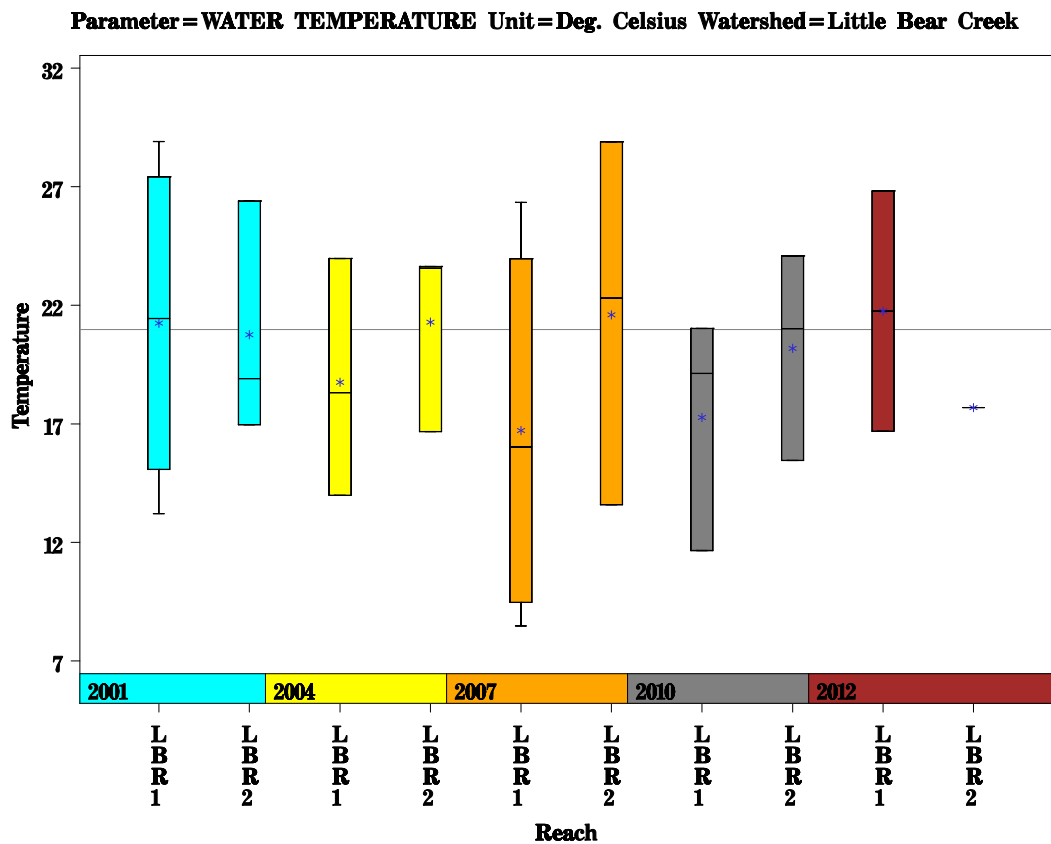
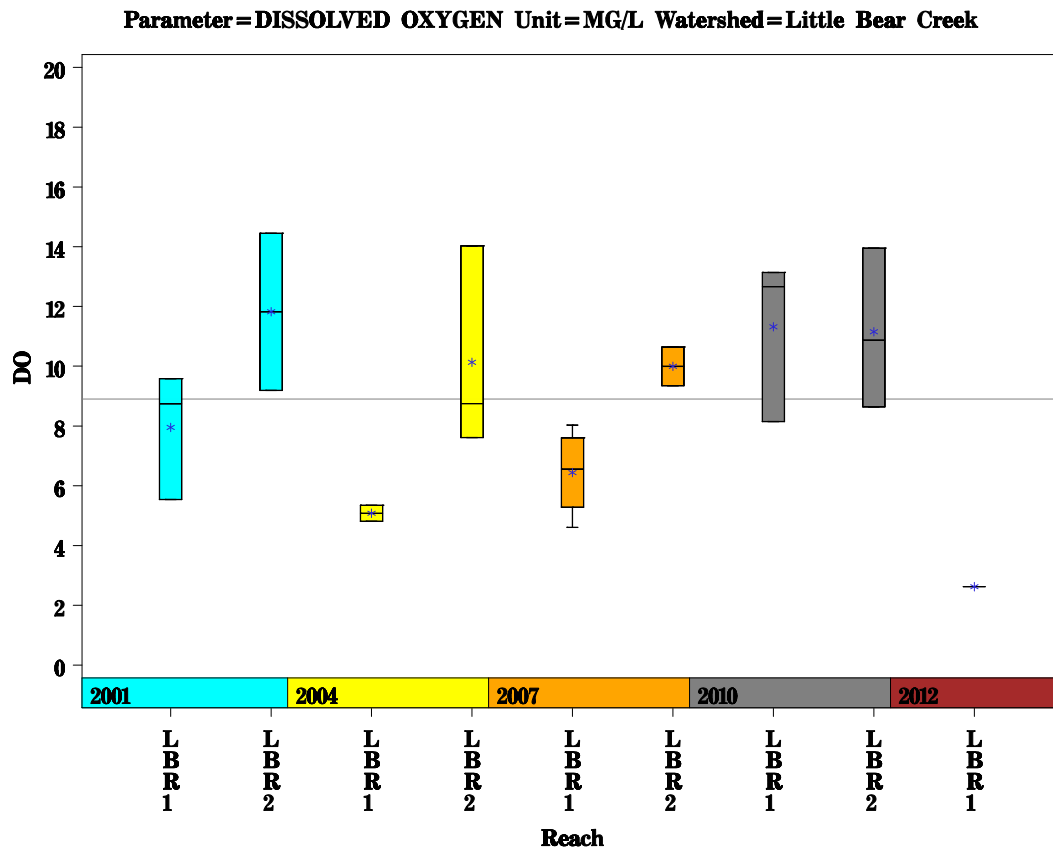
Little Bear Creek Watershed

Aerial Map



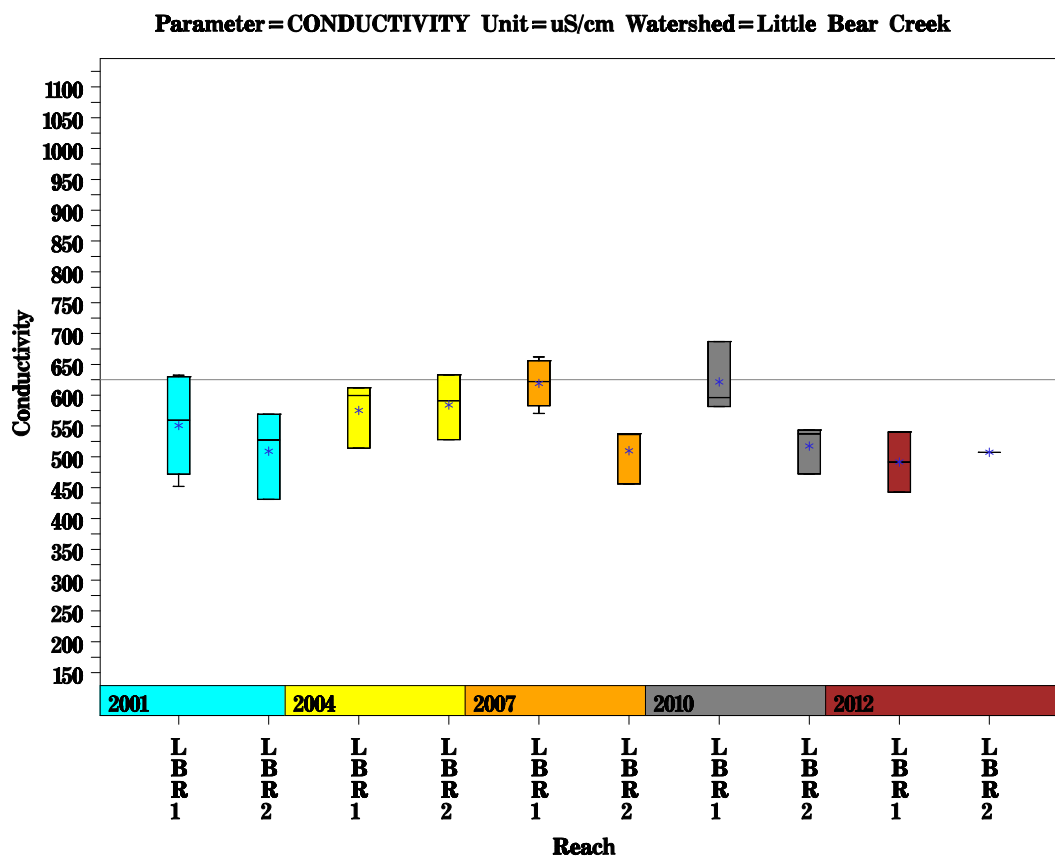
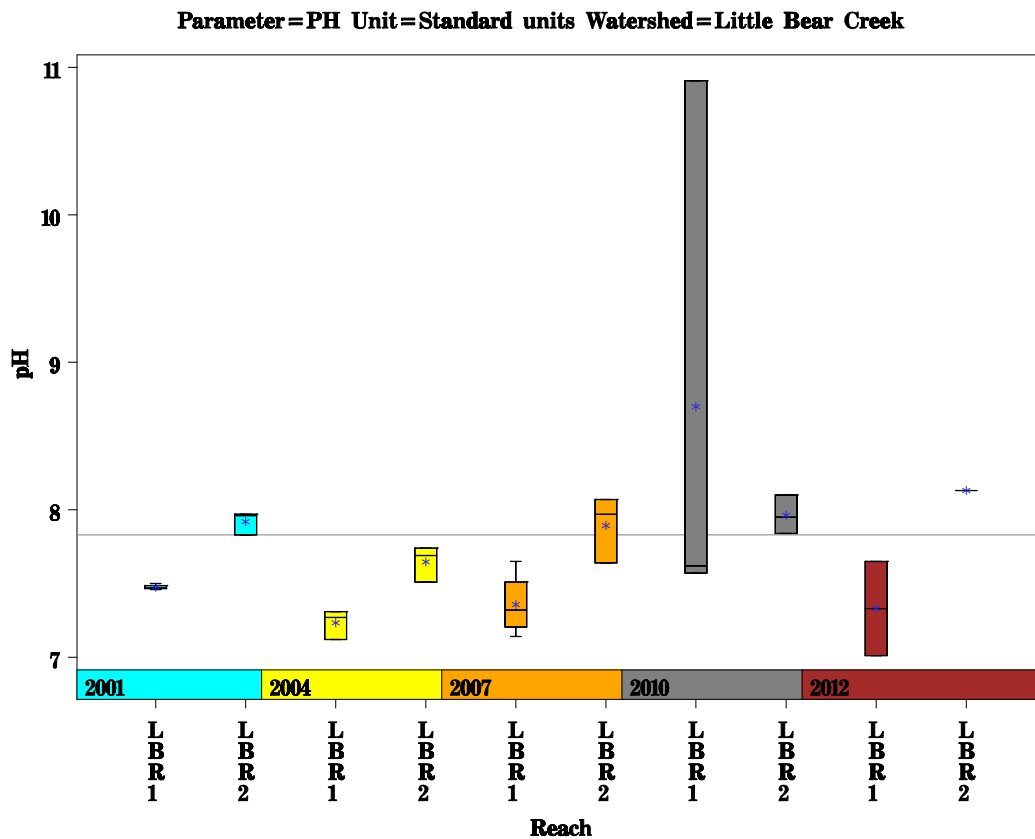
Little Bear Creek Watershed

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



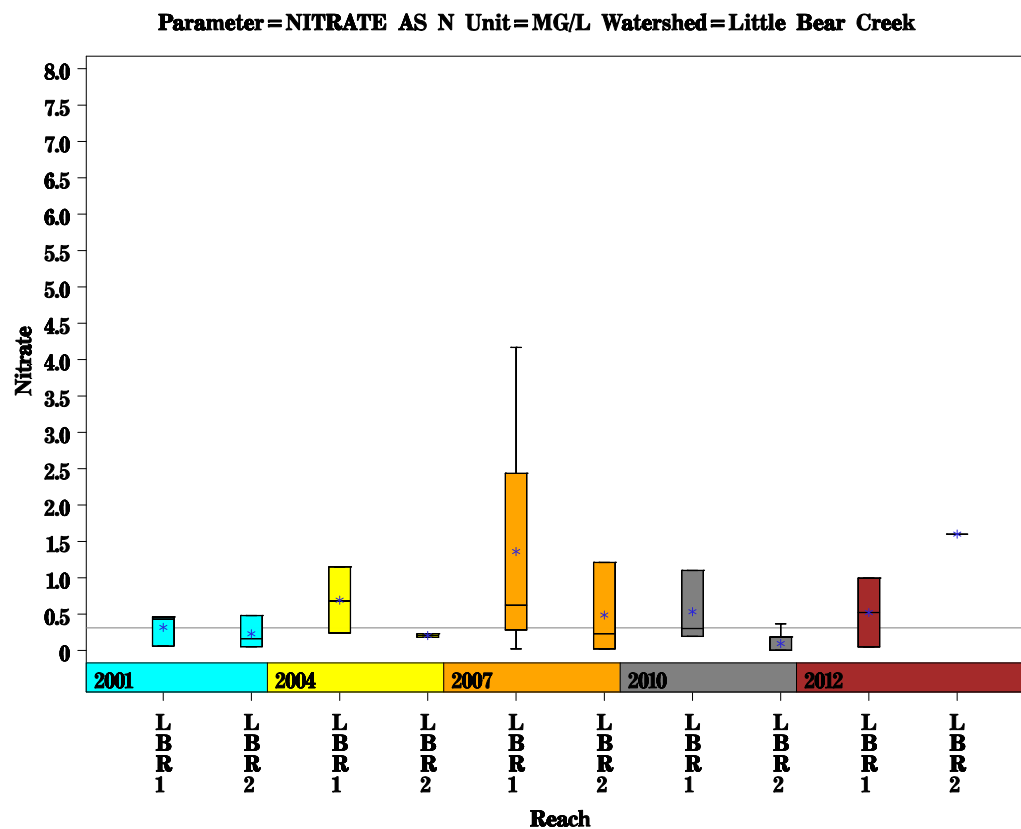
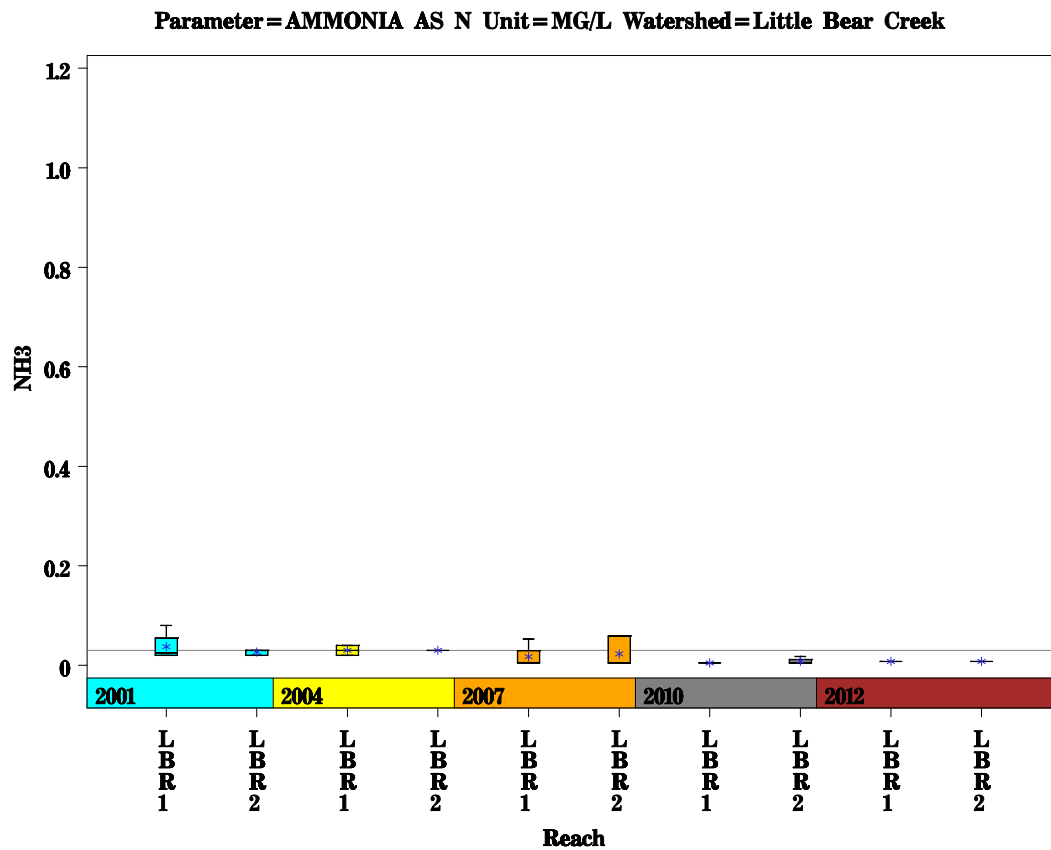
Little Bear Creek Watershed

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



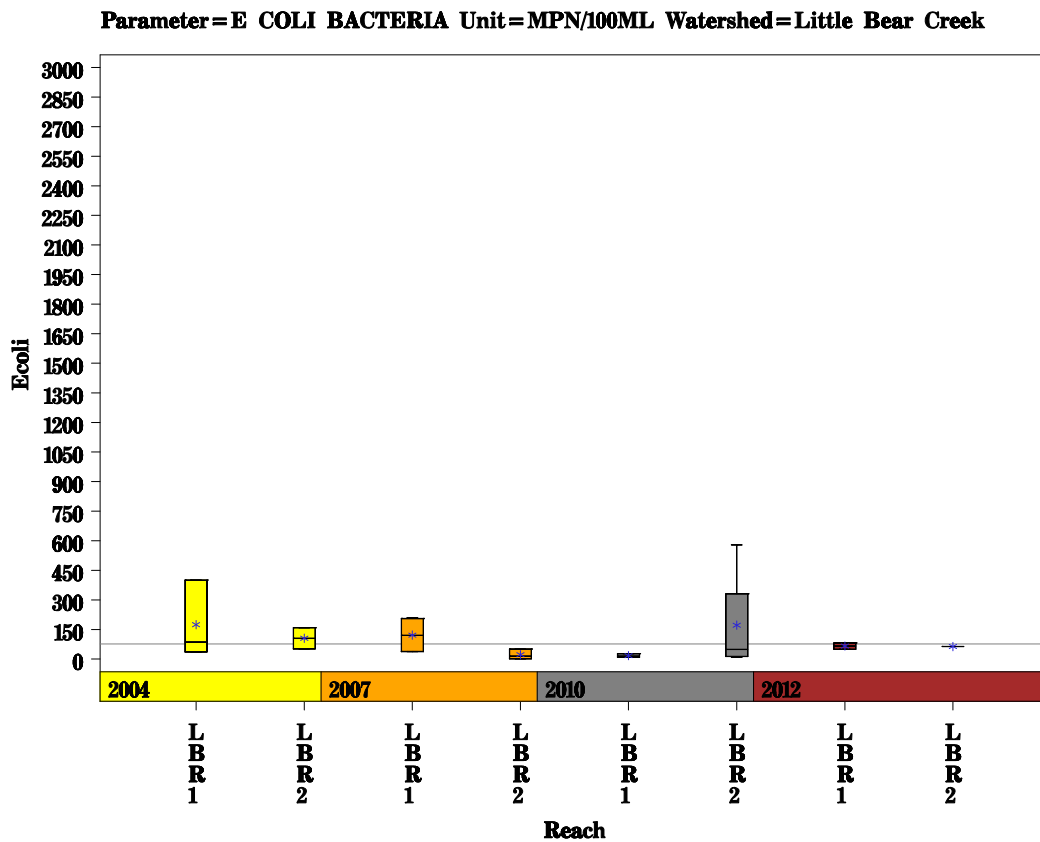
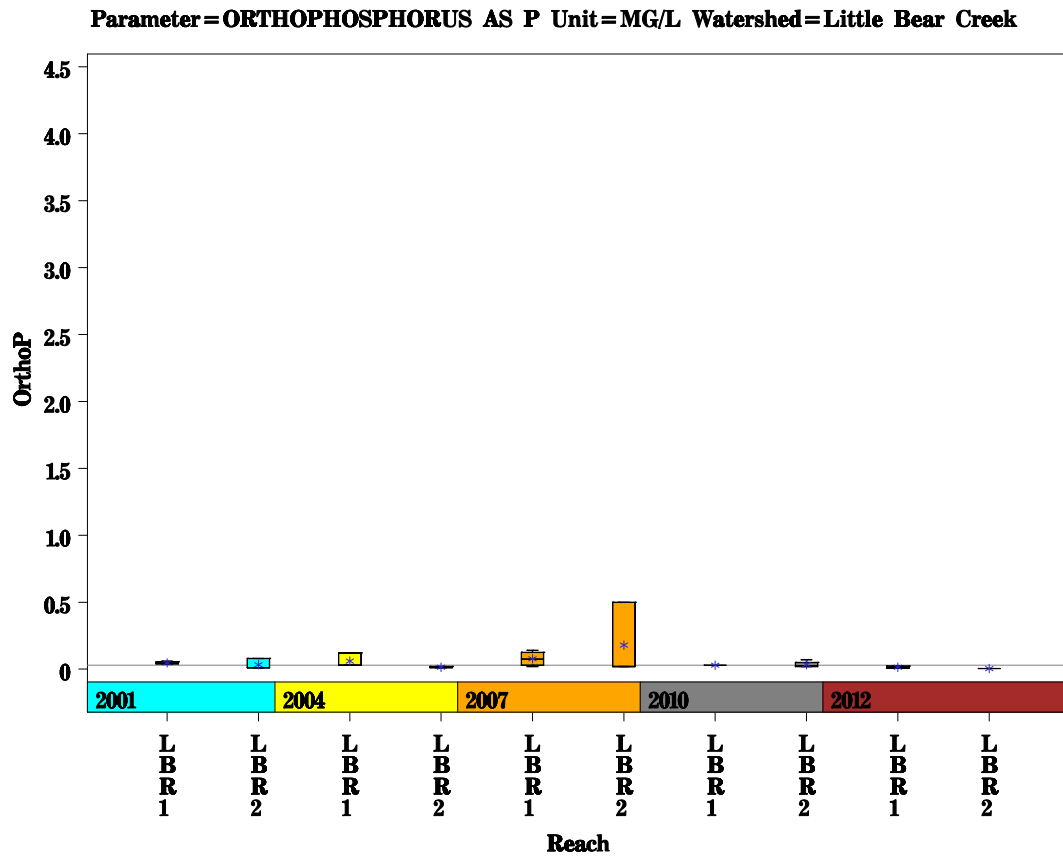
Little Bear Creek Watershed

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



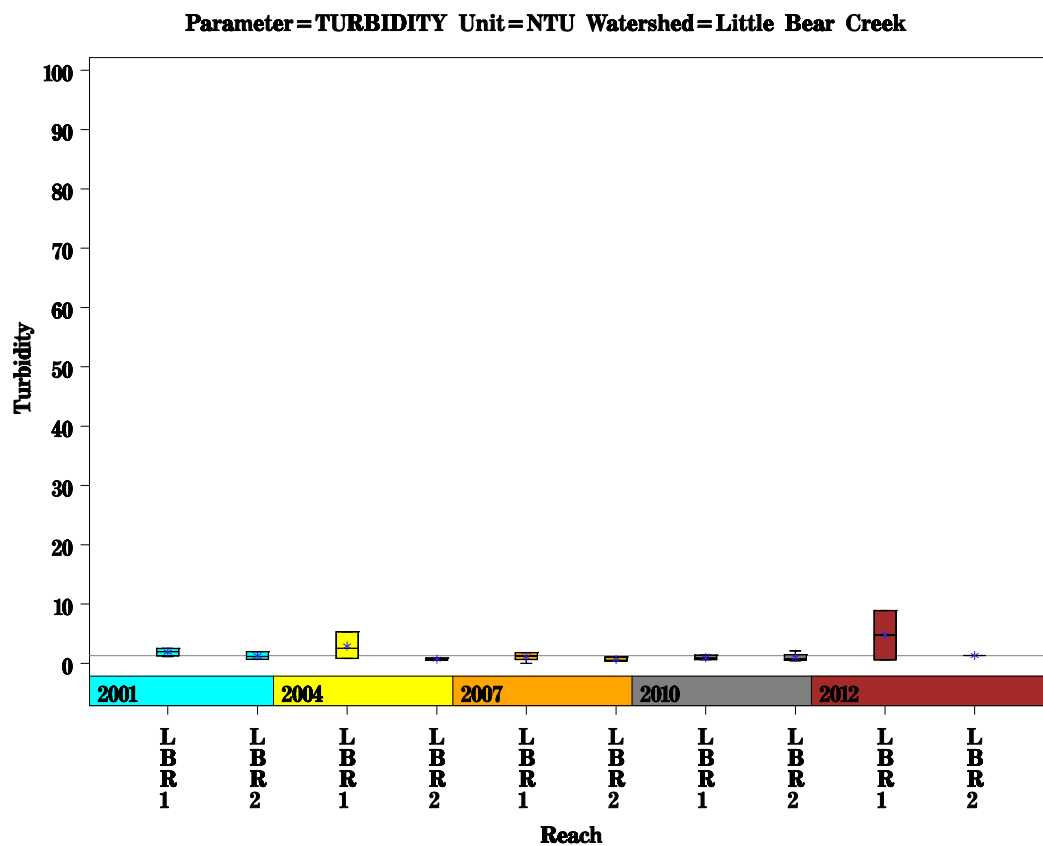
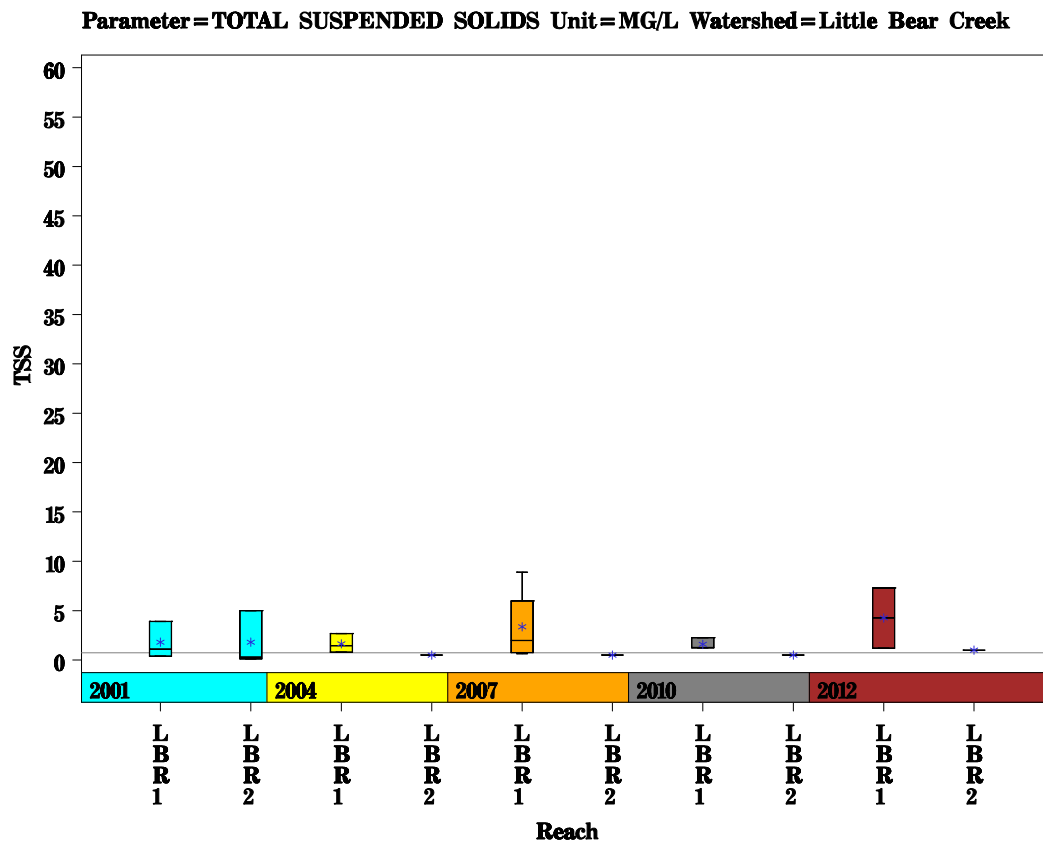
Little Bear Creek Watershed

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



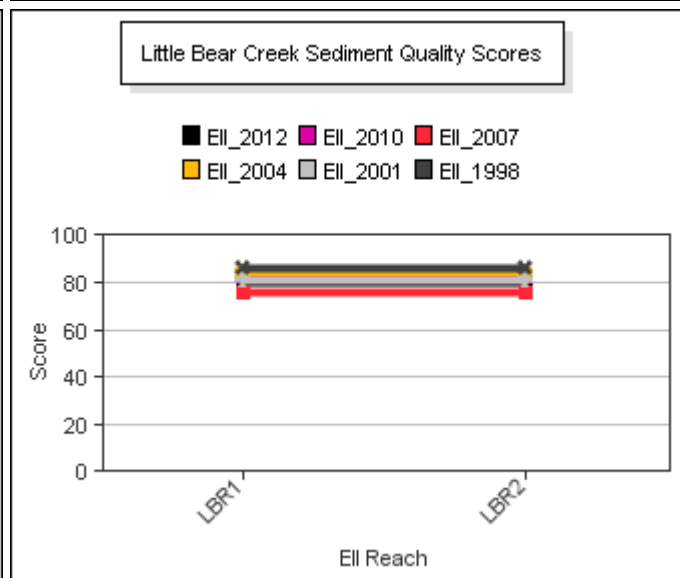
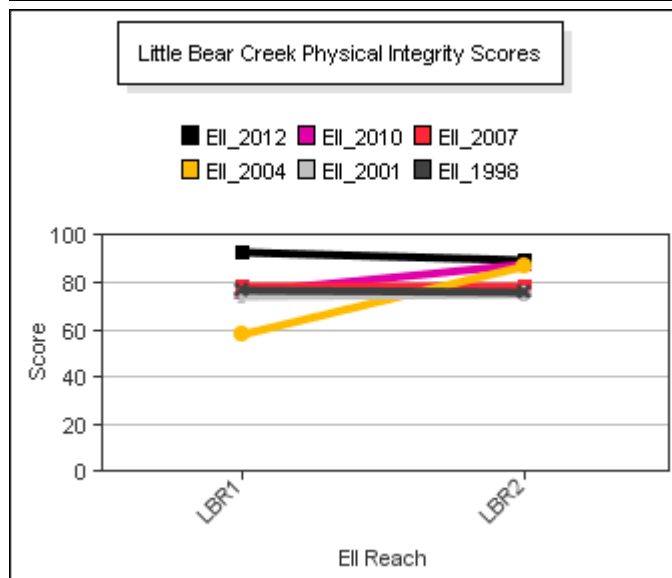
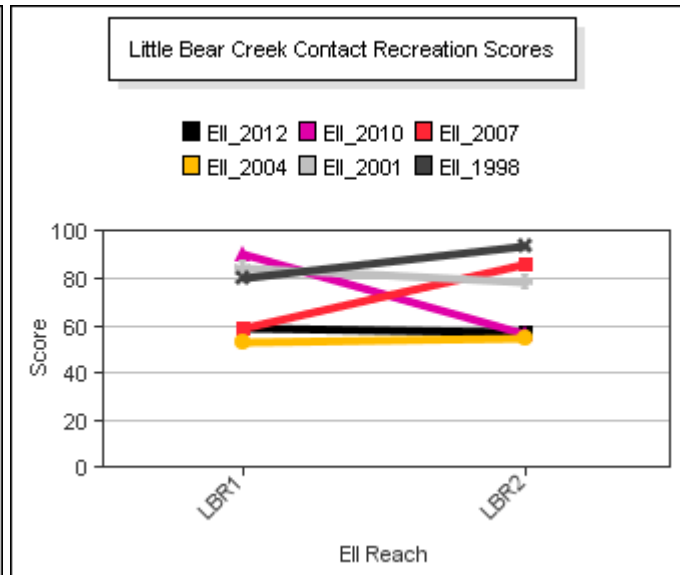
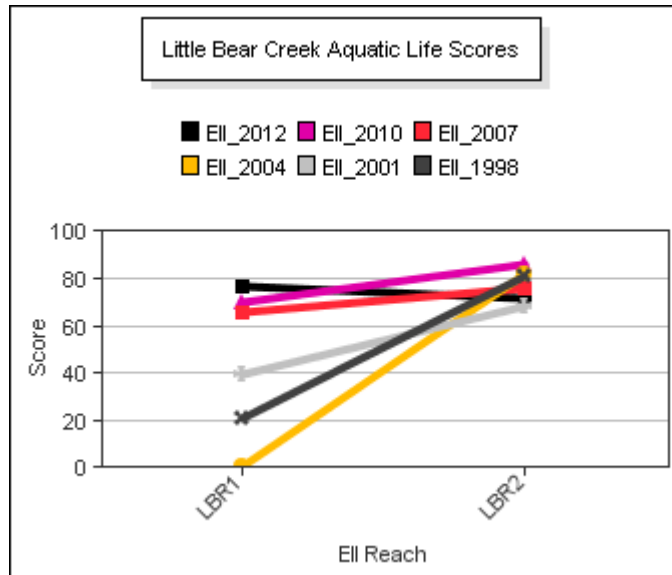
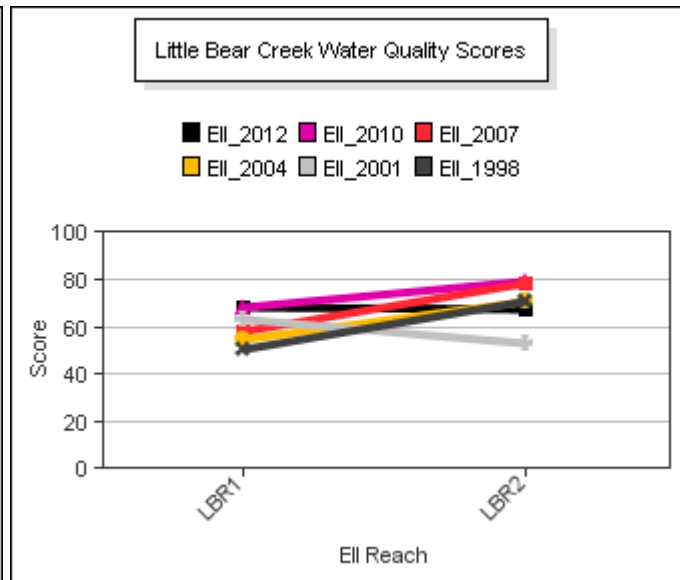
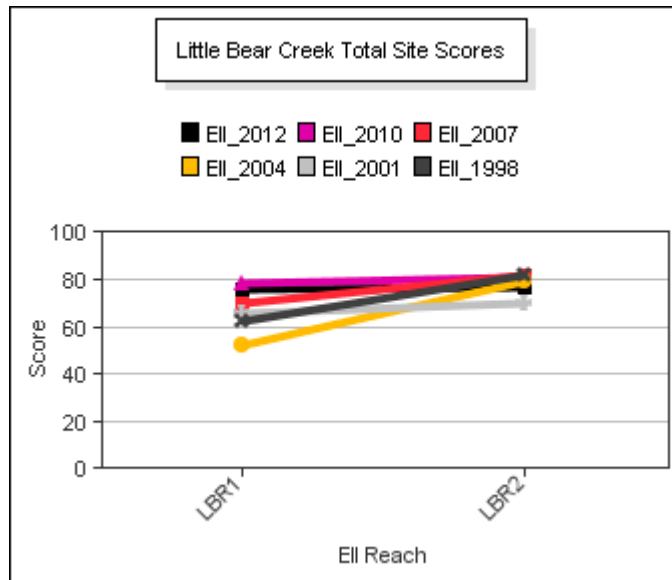
Little Bear Creek Watershed

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



Little Bear Creek Watershed

Score Summary – Reach scores for each sample year



Little Bear Creek Watershed

Site Photographs



3374_t00-ds-05_25_2004



3374_t00-us-05_25_2004



3374_00-ur-05_20_2010



3374_ur_06_27_2007



3374_00-ds-05_20_2010



3374_00-us-05_20_2010

Little Bear Creek Watershed

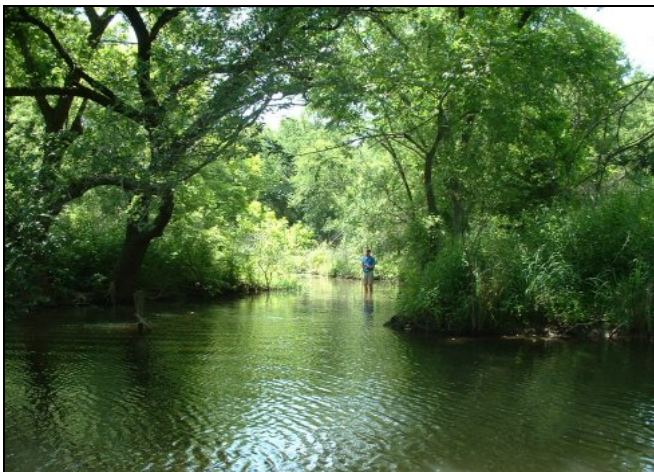
Site Photographs



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1103_t00-us-05_17_2004



1101_t00-us-05_25_2004



1101_us_07_13_2007



1101_00-us-05_28_2010



1101_00-ds-05_28_2010

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