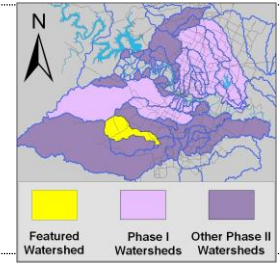


# Bear Creek Watershed

## Summary Sheet

Catchment	Total area	26.93 sq. miles				
	Area in recharge	6.47 sq. miles				
	Creek length	17 miles				
Demographics	Receiving water	Onion Creek				
	2000 population	5,419				
	2030 projected population	31,009				
	30 year projected % increase	472 %				
Land Use	Impervious cover (2003 estimate)	3.64 %				
Overall EII Scores	2001	2004	2007	2010	2012	
	79	67	79	72	69	



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

Site #	Site Name	2004								2007					2010				2011-2012	
		Mar	May	May	Jun	Jun	Oct	Dec	Feb	May	Jun	Sep	Dec	Mar	May	May	Oct	Dec	Mar	Apr
		WQ	WQ	Bio	WQ	Bio	WQ	WQ	WQ	WQ	Bio	WQ	WQ	WQ	WQ	Bio	WQ	WQ	WQ	Bio
1089	ds FM1826 [N Fork]	n	n		B		n	B												
1534	ds Bear Cr Pass	B			B	B	B	B												
4112	Bear Cr Pass								B	B	S	B	B	B	B	B	B	B	B	
3935	Escondido								n	B	B	B	n	B	n	n	n	n	n	
1087	Twin Creeks Rd	B	B	B	B		n	B	B	B	S	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 Bear Creek

Summary	Parameter	Mean	Max	Min	Discussion
Physicochemical	D.O. mg/l	7.7	10.3	5.0	Mostly within normal range, some low values.
	pH st.units	7.63	7.94	7.23	Mostly within normal range, some low values.
	Cond uS/cm	675	691	639	Within normal range.
Nutrients	NH <sub>3</sub> mg/l	0.010	0.016	0.008	Consistently below average.
	NO <sub>3</sub> mg/l	2.188	6.27	0.008	Mostly within normal range, some high values.
	Ortho P mg/l	0.004	0.004	0.004	Consistently low.
Sediment Load	TSS mg/l	2.2	4.4	1.1	Within normal range.
	Turbidity ntu	4.16	5.81	1.02	Within normal range.
Biology	E.Coli /100ml	103	299	1	Consistently below average.
	Benthic Macroinvertebrates and Diatoms: evaluations are provided in the introduction of this report				

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

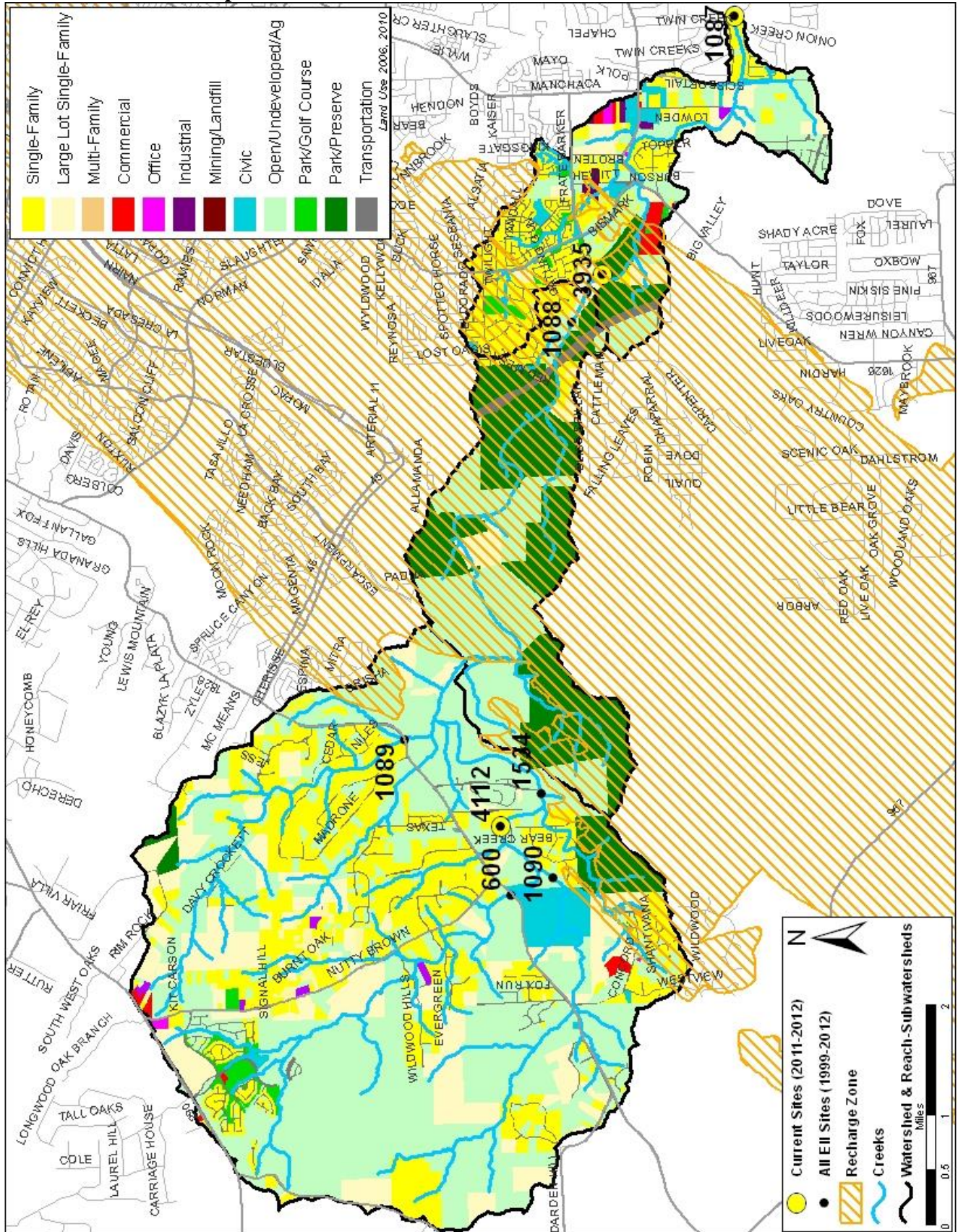
Reach	Site	Site Name	Year	Water Quality	Sediment**	Contact Rec.	Non-Contact Rec.	Physical Integrity	Aquatic Life	Benthic subindex	Diatom subindex	Total EII Score
BER1	1087	Bear Creek @ Twin Creeks Road	1998	72	81	99	78	69	75	54	95	79
BER2	1088	Bear Creek @ Bears Den Court	1998	74	81	95	68	80				66
BER3	600	Bear Creek @ FM 1826 (S. Fork)	1998	76	81	95	96	88	85	84	85	87
BER3	1089	Bear Creek DS of FM 1826 (N. Fork)	1998	72	81	96	93	74	69	66	71	81
BER3	1090	Bear Creek @ Spanish Oaks Circle	1998	80	81	94	93	84	84	83	85	86
BER1	1087	Bear Creek @ Twin Creeks Road	2001	54	82	90	68	91	62	58	66	71
BER2	1088	Bear Creek @ Bears Den Court	2001	61	82	90	91	80	75	61	88	76
BER3	600	Bear Creek @ FM 1826 (S. Fork)	2001	65	82	90	98	84	74	72	76	78
BER3	1089	Bear Creek DS of FM 1826 (N. Fork)	2001	55	82	83	97	83	49	66	31	71
BER3	1090	Bear Creek @ Spanish Oaks Circle	2001	66	82	89	99	81	81	100	62	80
BER1	1087	Bear Creek @ Twin Creeks Road	2004	59	74	71	59	72	64	62	66	67
BER3	1089	Bear Creek DS of FM 1826 (N. Fork)	2004	64	74	59	63	70				55
BER3	1534	Bear Creek DS of Bear Creek Pass	2004	75	74	89	90	73	74	66	82	79
BER1	1087	Bear Creek @ Twin Creeks Road	2007	65	82	64	85	71	95	91	98	77
BER2	3935	Bear Creek @ Escondido	2007	76	82	69	92	73	77	100	54	78
BER3	4112	Bear Creek @ Bear Creek Pass	2007	67	82	74	92	82	98	99	97	83
BER1	1087	Bear Creek @ Twin Creeks Road	2010	62	74	57	54	69	87	89	85	67
BER2	3935	Bear Creek @ Escondido	2010	72	74	94	67	70				63
BER3	4112	Bear Creek @ Bear Creek Pass	2010	67	74	86	98	89	98	96	100	85
BER1	1087	Bear Creek @ Twin Creeks Road	2012	55	79	64	74	76	76	85	67	71
BER2	3935	Bear Creek @ Escondido	2012		79		62	82				56
BER3	4112	Bear Creek @ Bear Creek Pass	2012	65	79	61	78	90	97	100	94	78

\* 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



# Bear Creek Watershed

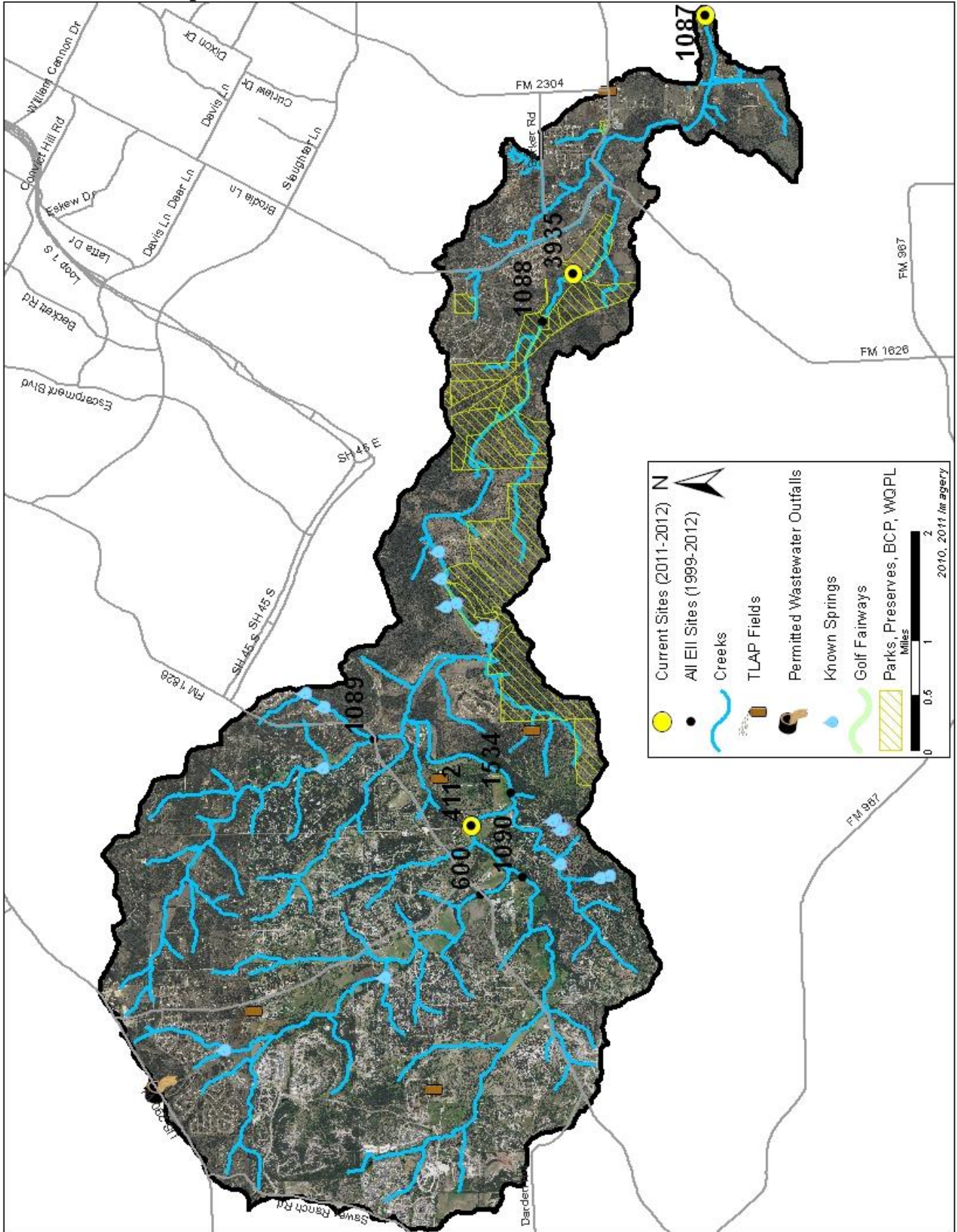
## Land Use Map





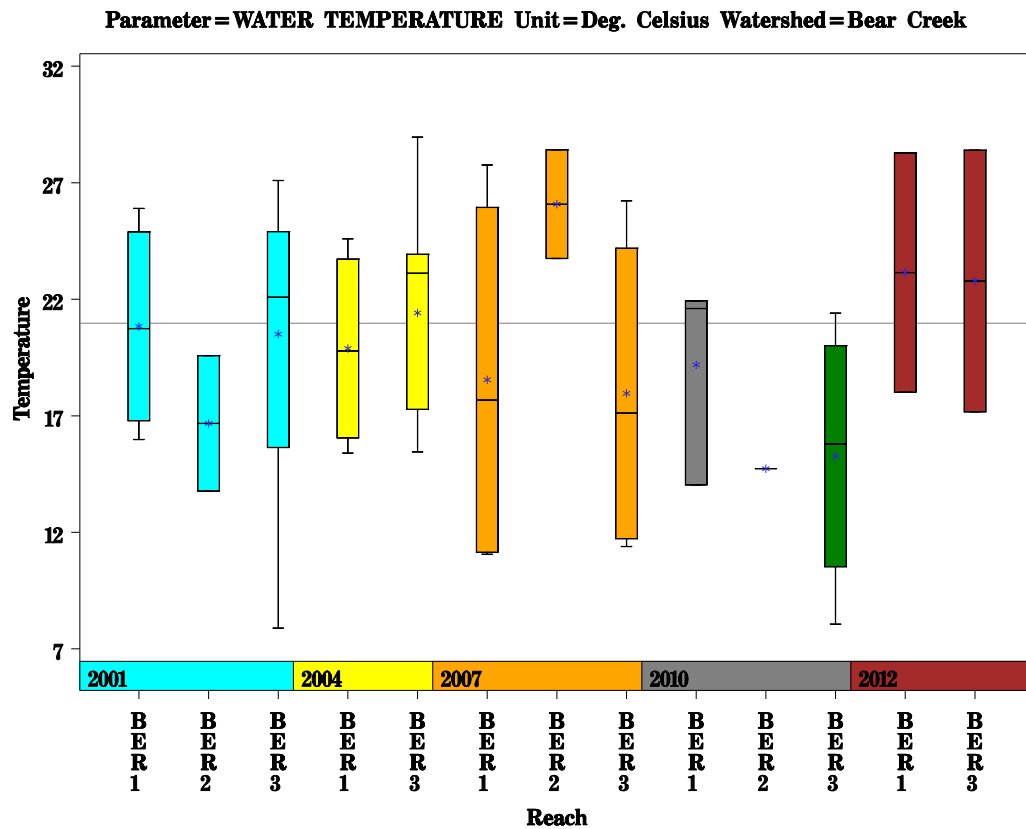
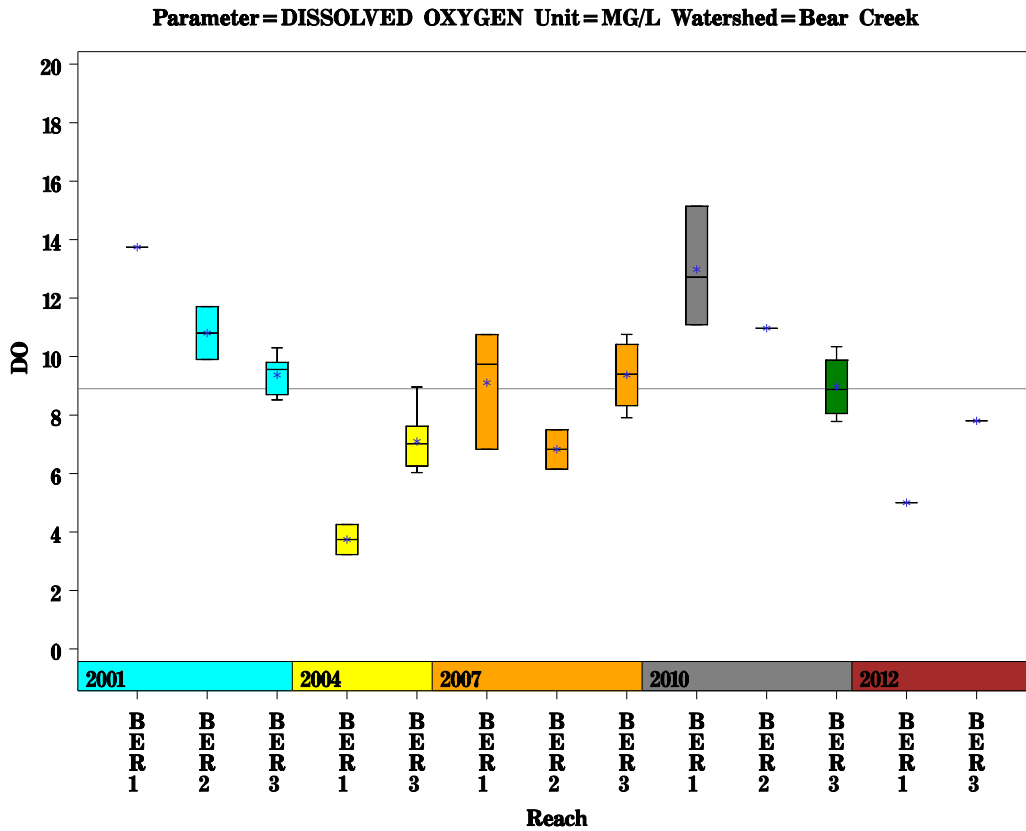
# Bear Creek Watershed

## Aerial Map



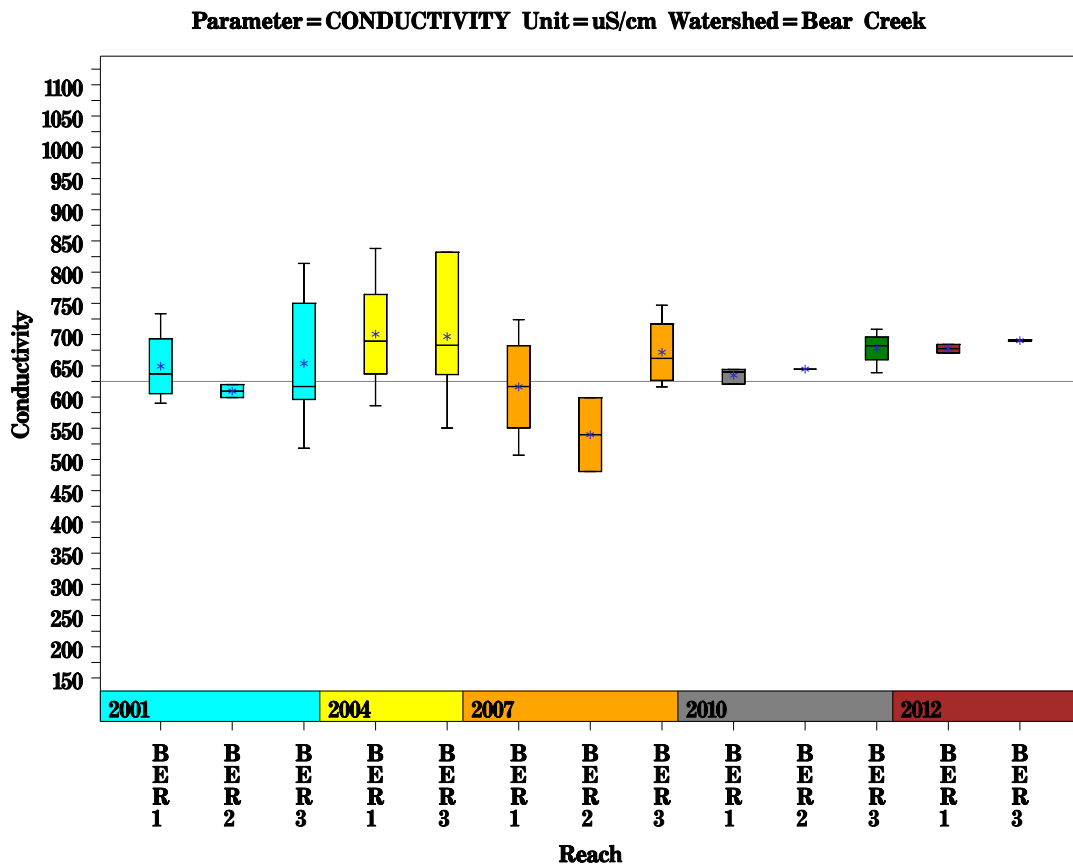
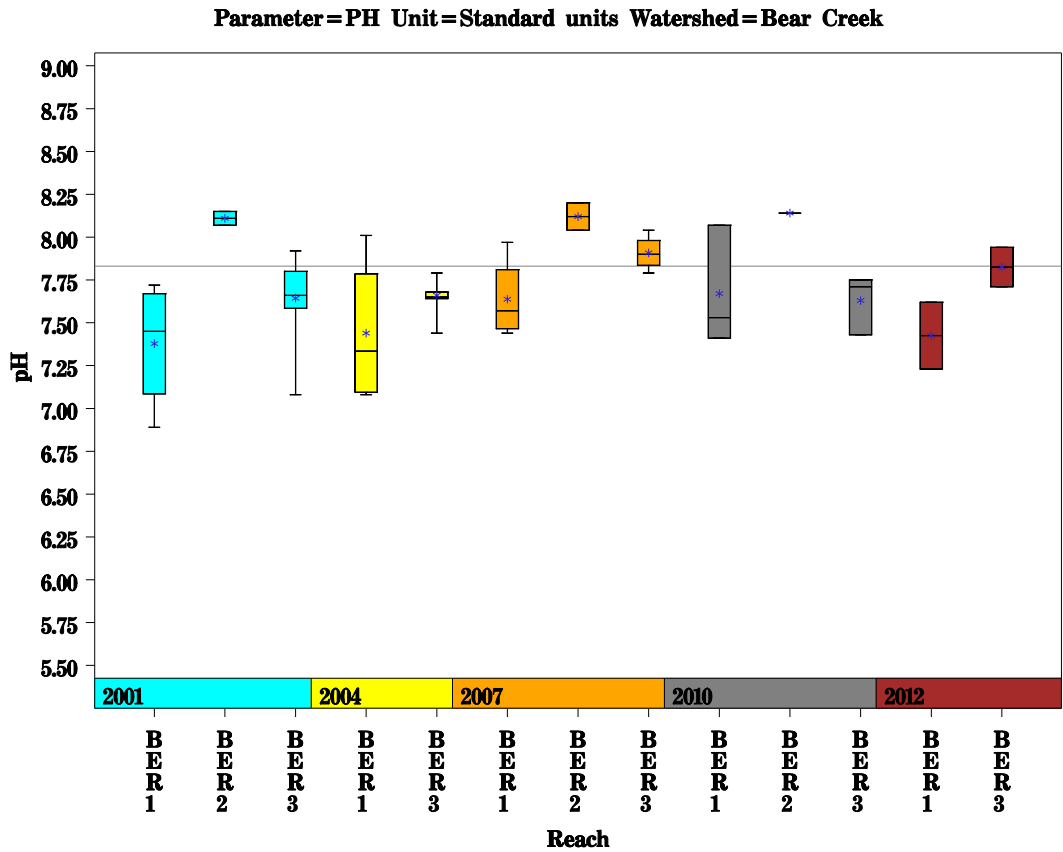
# Bear Creek Watershed

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



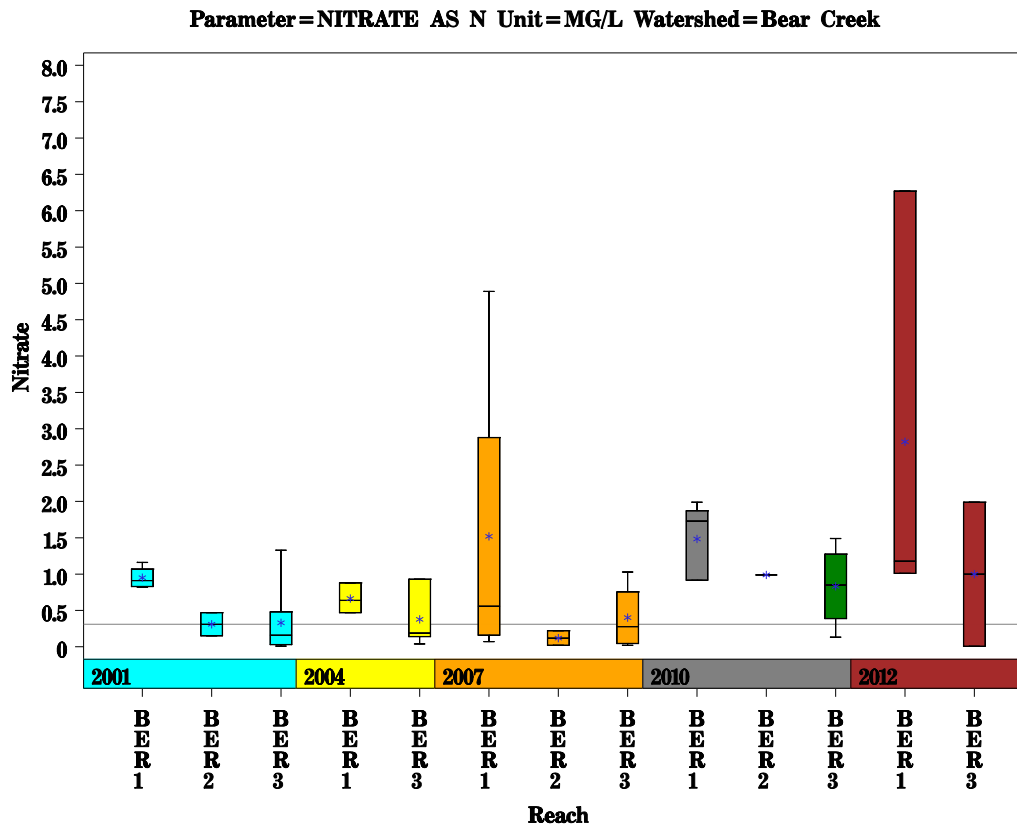
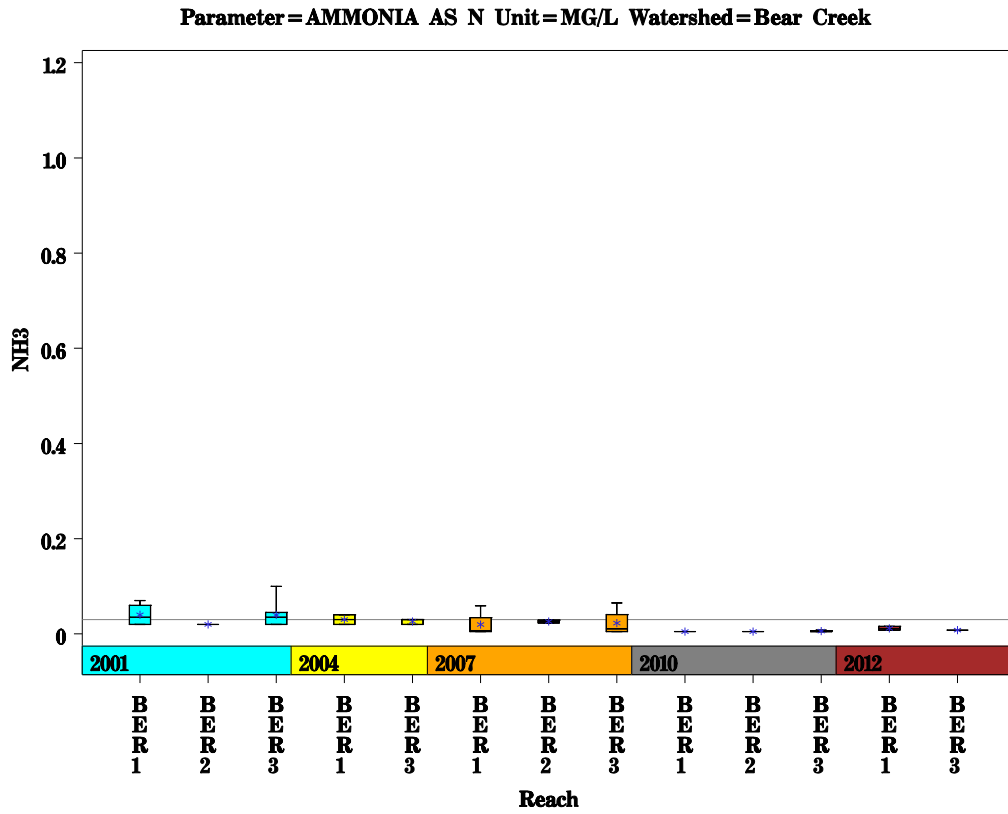
# Bear Creek Watershed

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



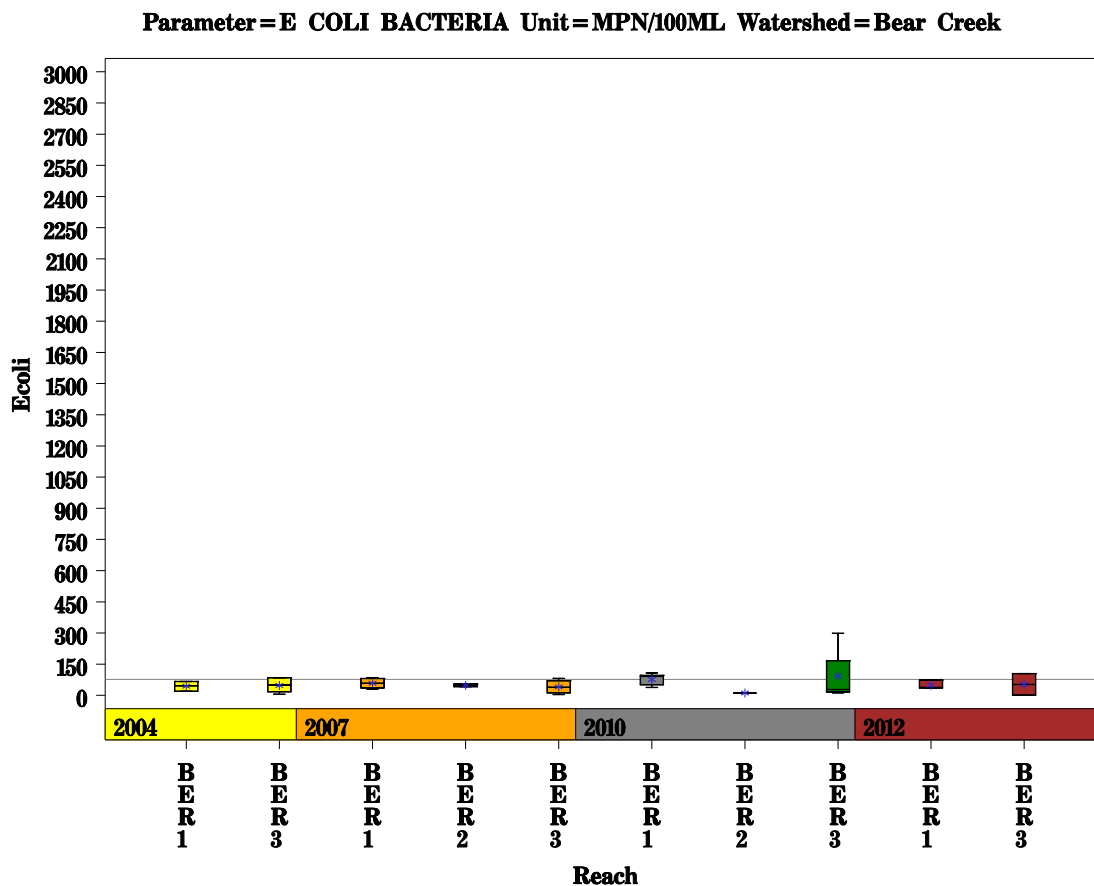
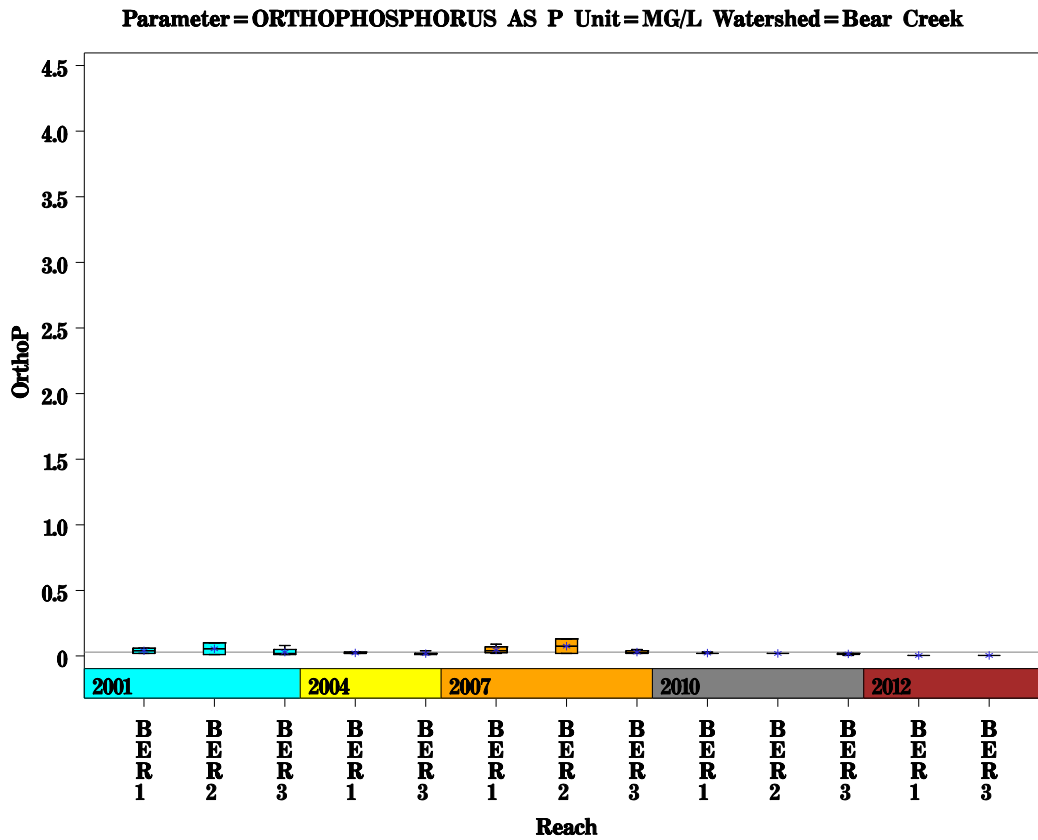
# Bear Creek Watershed

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



# Bear Creek Watershed

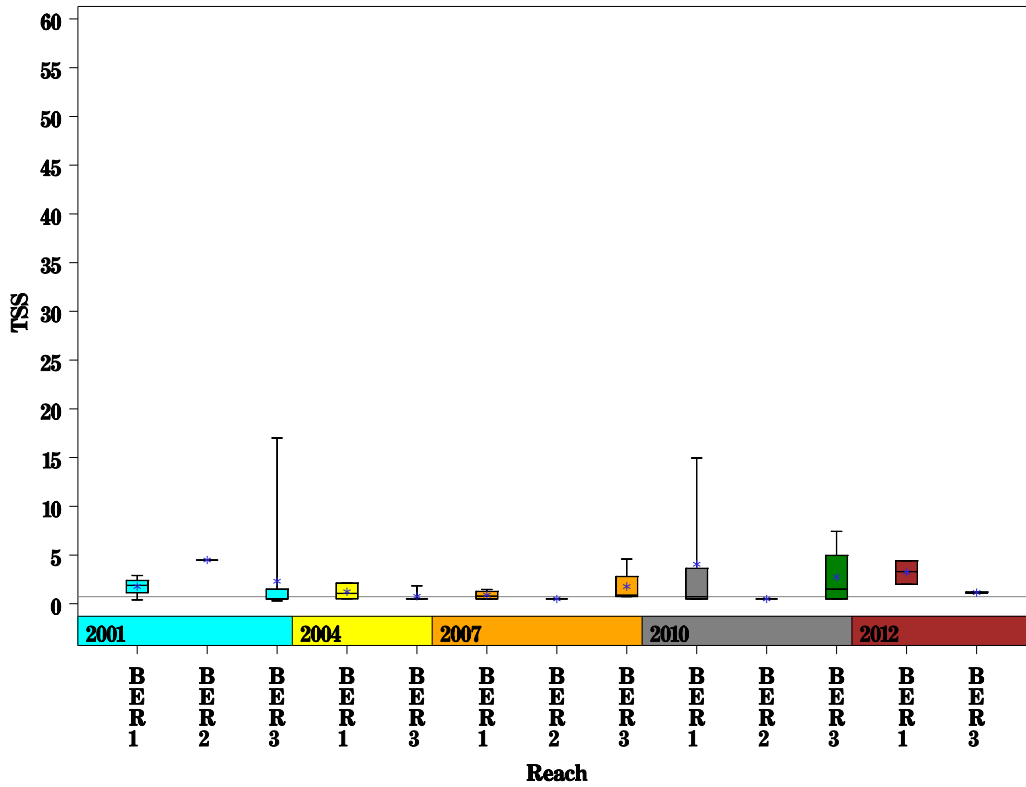
Data Summary Graphs – Orthophosphate and E.coli (Downstream to Upstream by Year)



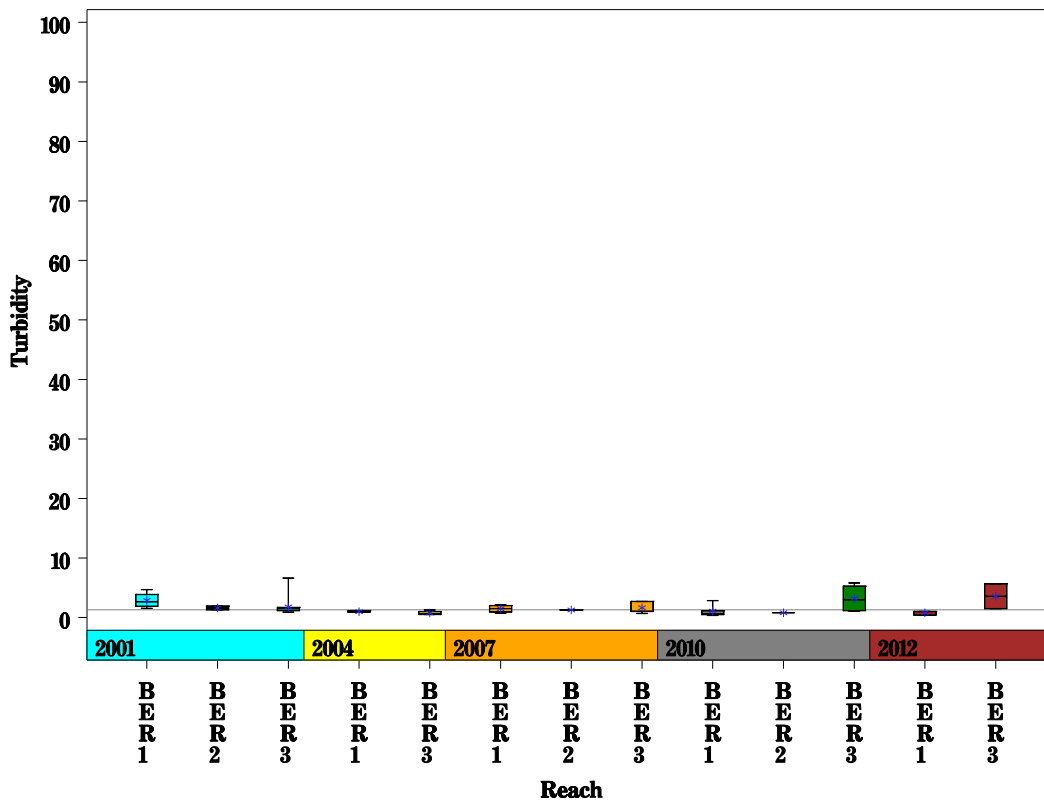
# Bear Creek Watershed

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

Parameter=TOTAL SUSPENDED SOLIDS Unit=MG/L Watershed=Bear Creek



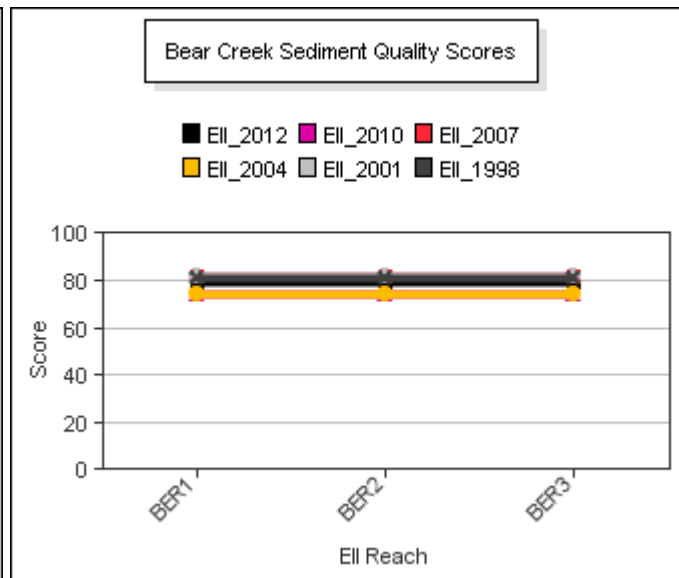
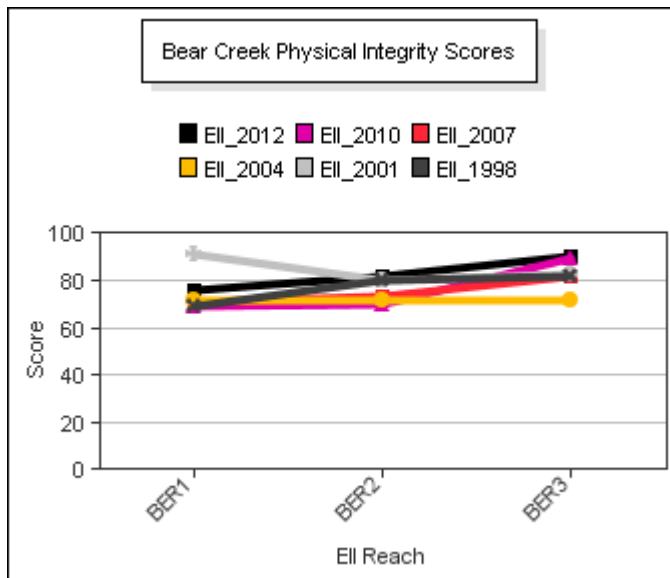
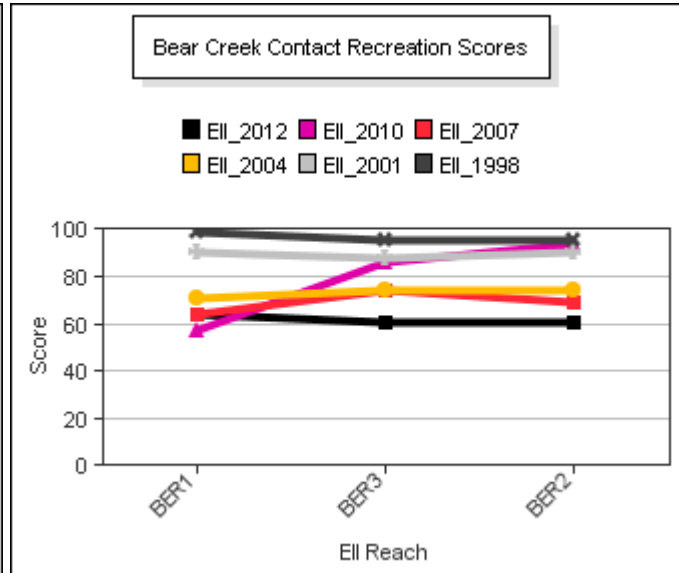
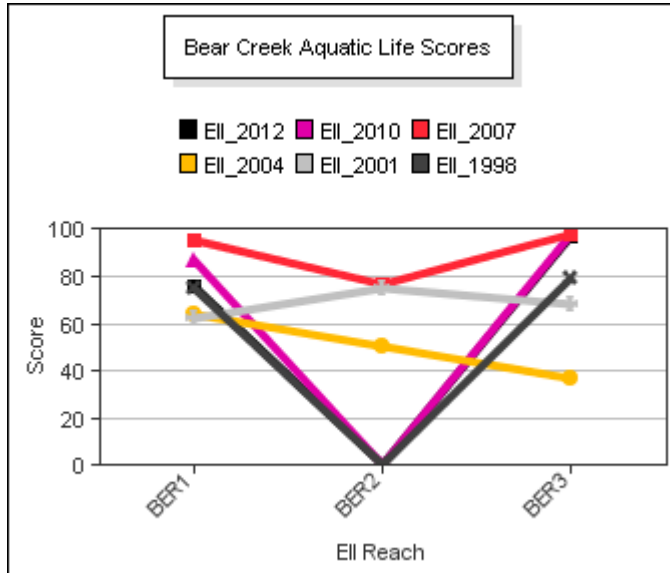
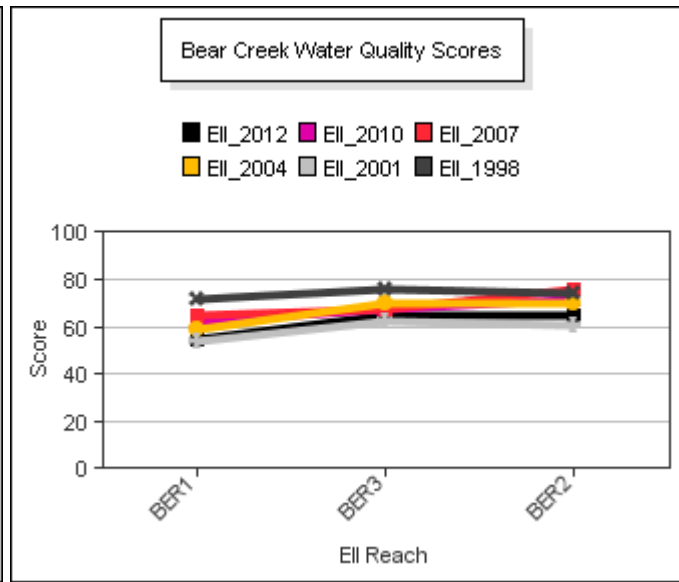
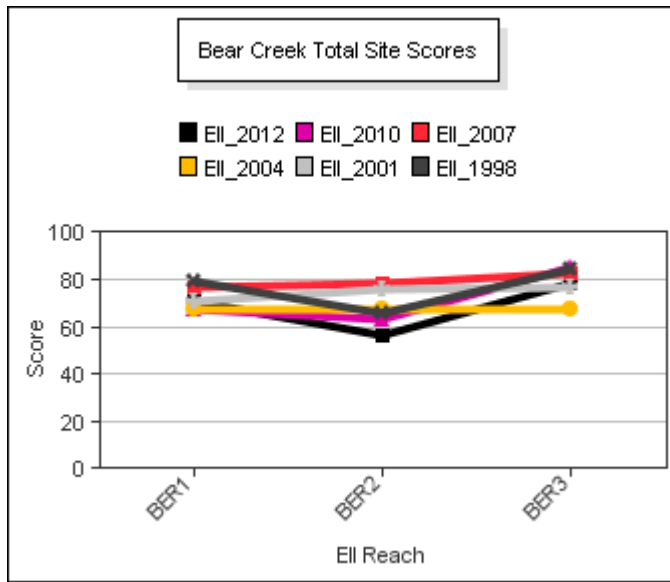
Parameter= TURBIDITY Unit=NTU Watershed=Bear Creek





# Bear Creek Watershed

Score Summary – Reach scores for each sample year



# Bear Creek Watershed

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## Site Photographs



4112\_00-ds-05\_19\_2010



4112\_00-ur-05\_19\_2010



06.20.2007

1534\_ur\_06\_20\_2007

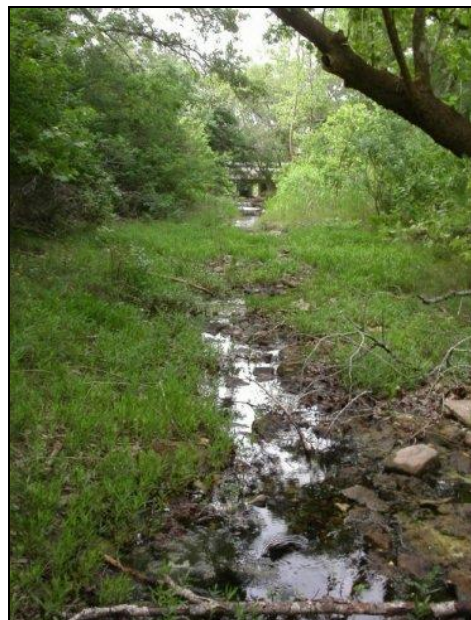


06.20.2007

1534\_ds\_06\_20\_2007



1089\_t00-ur-05\_26\_2004



1089\_t00-ds-05\_26\_2004



# Bear Creek Watershed

## Site Photographs



3935\_ur\_06\_27\_2007



3935\_ds\_06\_27\_2007



1087\_ur\_06\_20\_2007



1087\_t00-ds-05\_20\_2004



1087\_00-us-05\_27\_2010



1087\_00-ds-05\_27\_2010

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