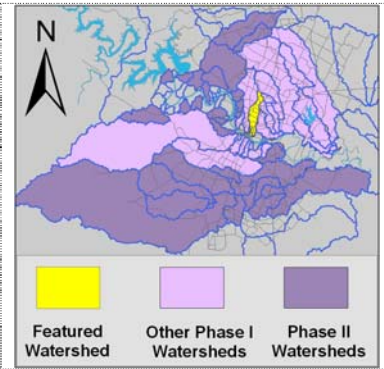


# Waller Creek Watershed

## Summary Sheet

Catchment	Total area	6 square miles		
	Area in recharge	none		
	Creek length	7 miles		
	Receiving water	Town Lake		
Demographics	2000 population	32,076		
	2030 projected population	42,264		
	30 year projected % increase	32 %		
Land Use	Impervious cover (2003 estimate)	49.98 %		
Overall EII Scores	2000	2003	2006	2009
	54	58	54	56



### Flow Regime\* for Sample Sites on Waller Creek Upstream to Downstream

Site # upstream to downstream	Site Name	2003					2006					2009				
		Feb WQ	Mar Bio	May WQ	Sep WQ	Dec WQ	Feb WQ	May WQ	Jul Bio	Aug WQ	Nov WQ	Feb WQ	Jun WQ	Jun Bio	Jun- WQ	Dec WQ
780	Waller at 51st Street	B	B	B	B	B	B	B	B	B	B	n	B	B	B	B
781	Waller at Shipe Park	B	B	B	B	B										
624	Waller upstream of 23rd Street	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
38	Waller Below Cesar Chavez	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B

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

### Summary of 2009 Data for Waller Creek

2009 Summary	Parameter	Mean	Max	Min	Discussion
Physicochemical	D.O. mg/l	7.7	12	3.4	Generally within normal range with some low values
	pH st.units	7.8	8.3	7.4	Generally within normal range
	Cond uS/cm	573	768	404	Wide range of values with no apparent trend
Nutrients	NH <sub>3</sub> mg/l	0.02	0.08	0.005	Chronically above average but not high
	NO <sub>3</sub> mg/l	0.43	1.15	0	Chronically above average but not high
	Ortho P mg/l	0.11	0.22	0.02	Generally within normal range
Sediment Load	TSS mg/l	3.1	15.5	0.5	Generally within normal range with some high values in the headwater sites
	Turbidity ntu	3.2	11.6	0.8	Generally within normal range
Biology	E.Coli /100ml	1291	2420	230	Chronically high at all sites
	Benthic Macs	Downstream and mid-reach sites have generally average or above average metrics, however, the upstream reach (site 780) has very low diversity (6 taxa) composed entirely of pollution tolerant taxa.			
	Diatoms	Poor Cymbella richness at all sites and low diversity at site 624, but otherwise average metric values			

### Index scores\* for Waller 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 EII Score
WLR1	38	Waller Creek Below Cesar Chavez	2000	41	63	63	59	27	28	22	34	47
WLR2	624	Waller Upstream of 23rd Street	2000	40	63	49	80	49	35	31	38	53
WLR3	780	Waller Creek @ 51st Street	2000	68	63	69	71	45	29	38	20	58
WLR3	781	Waller Creek @ Shipe Park	2000	53	63	74	84	39	26	20	31	57
WLR1	38	Waller Creek Below Cesar Chavez	2003	44	76	51	53	43	24	34	14	49
WLR2	624	Waller Upstream of 23rd Street	2003	49	76	63	82	63	37	45	29	62
WLR3	780	Waller Creek @ 51st Street	2003	54	76	57	69	63	30	39	21	58
WLR3	781	Waller Creek @ Shipe Park	2003	58	76	69	80	60	36	34	37	63
WLR1	38	Waller Creek Below Cesar Chavez	2006	38	61	26	68	48	45	30	59	48
WLR2	624	Waller Upstream of 23rd Street	2006	41	61	33	87	68	37	45	28	55
WLR3	780	Waller Creek @ 51st Street	2006	59	61	32	90	64	44	49	39	58
WLR1	38	Waller Creek Below Cesar Chavez	2009	49	62	29	62	44	78	73	83	54
WLR2	624	Waller Upstream of 23rd Street	2009	54	62	25	81	76	79	86	71	63
WLR3	780	Waller Creek @ 51st Street	2009	57	62	25	58	59	49	24	74	52

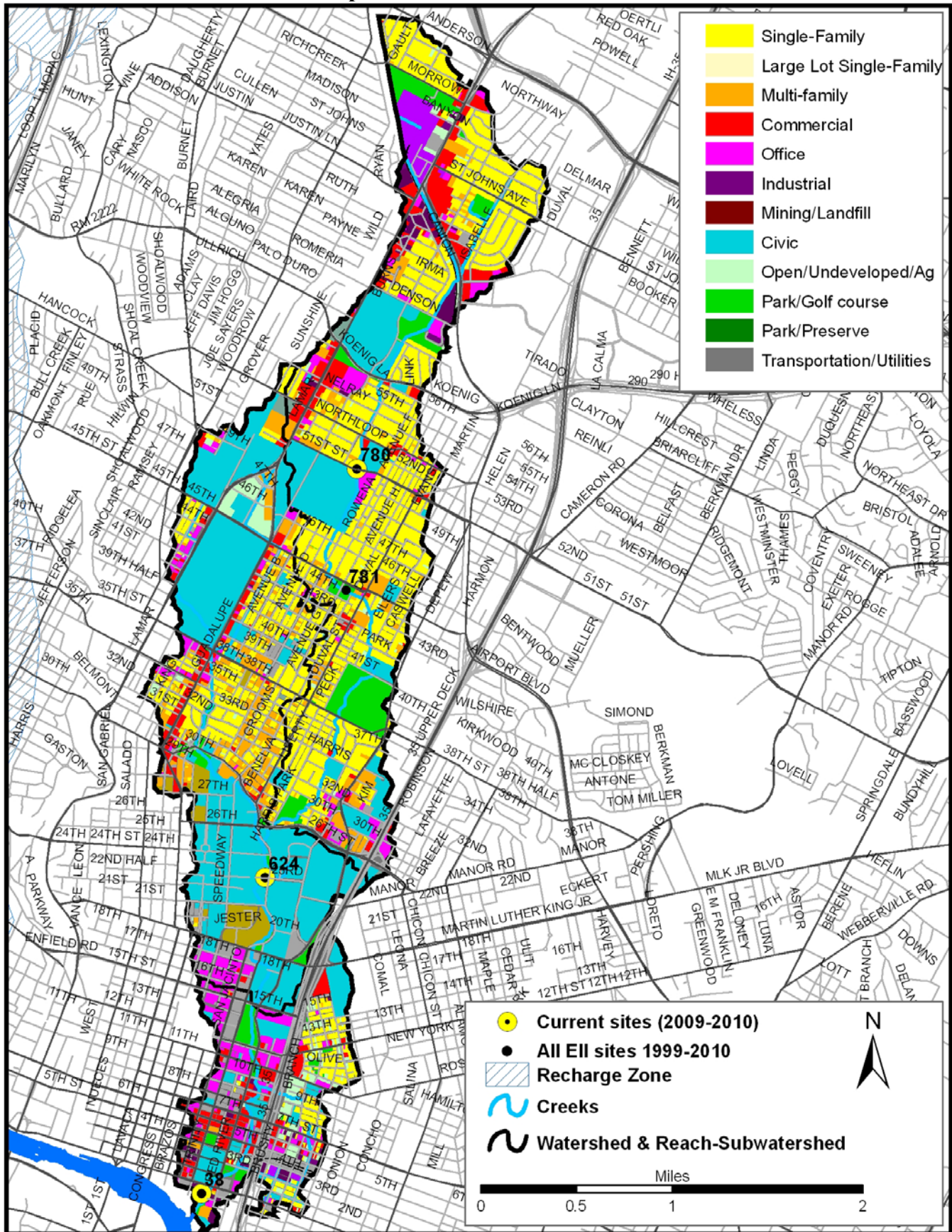
\* blank cells indicate parameter was not collected, blank row indicate site was dropped

\*\*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

# Waller Creek Watershed

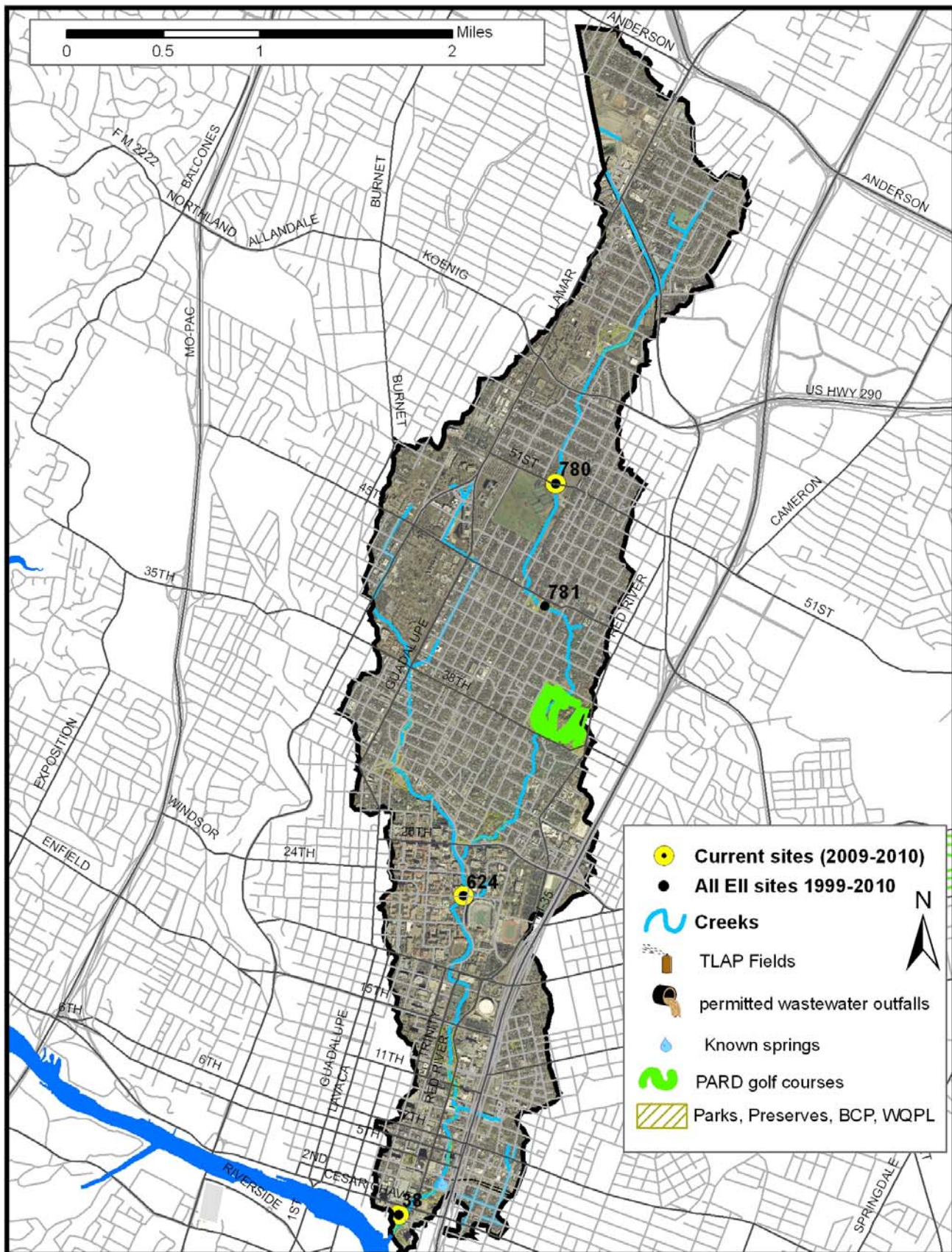
## Land Use Map





# Waller Creek Watershed

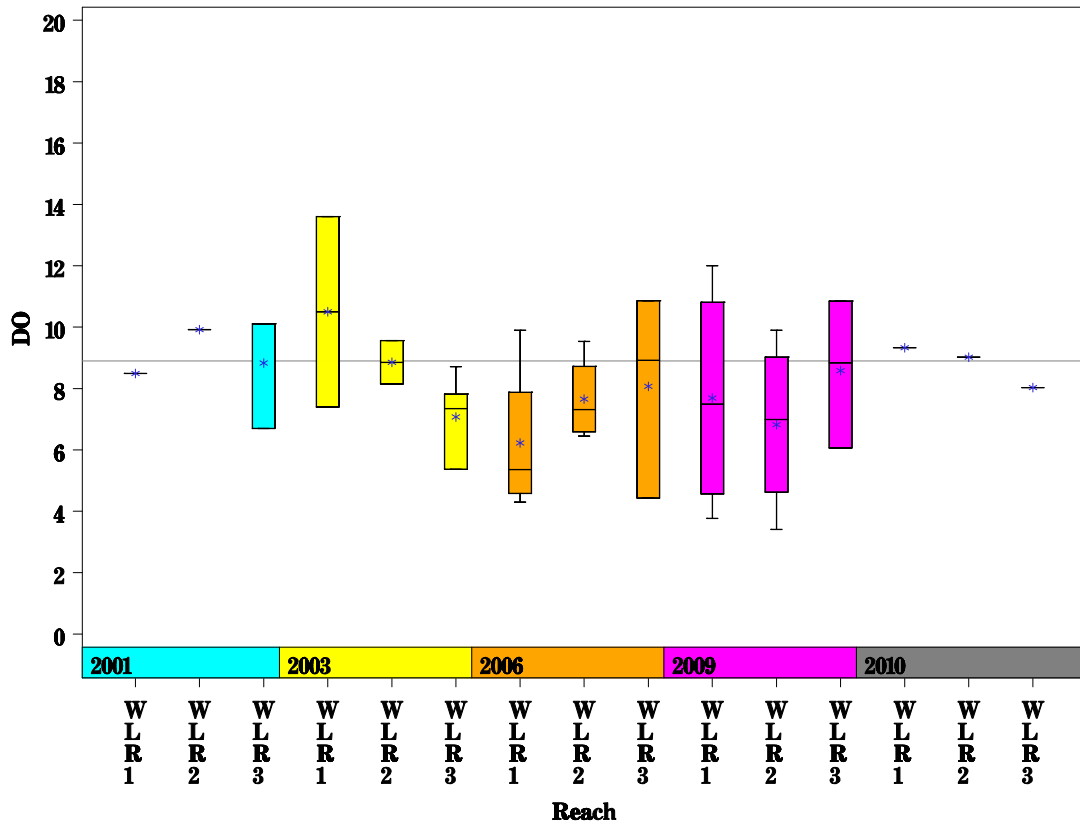
## Aerial Map



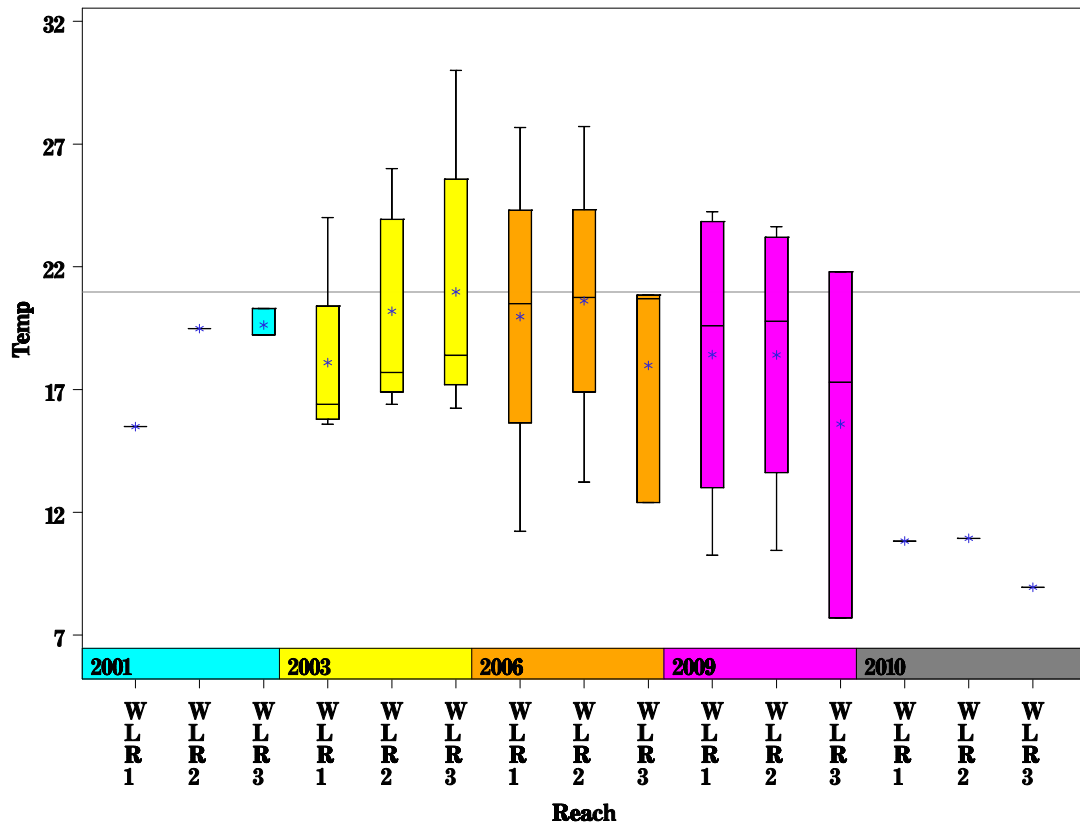
# Waller Creek Watershed

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

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

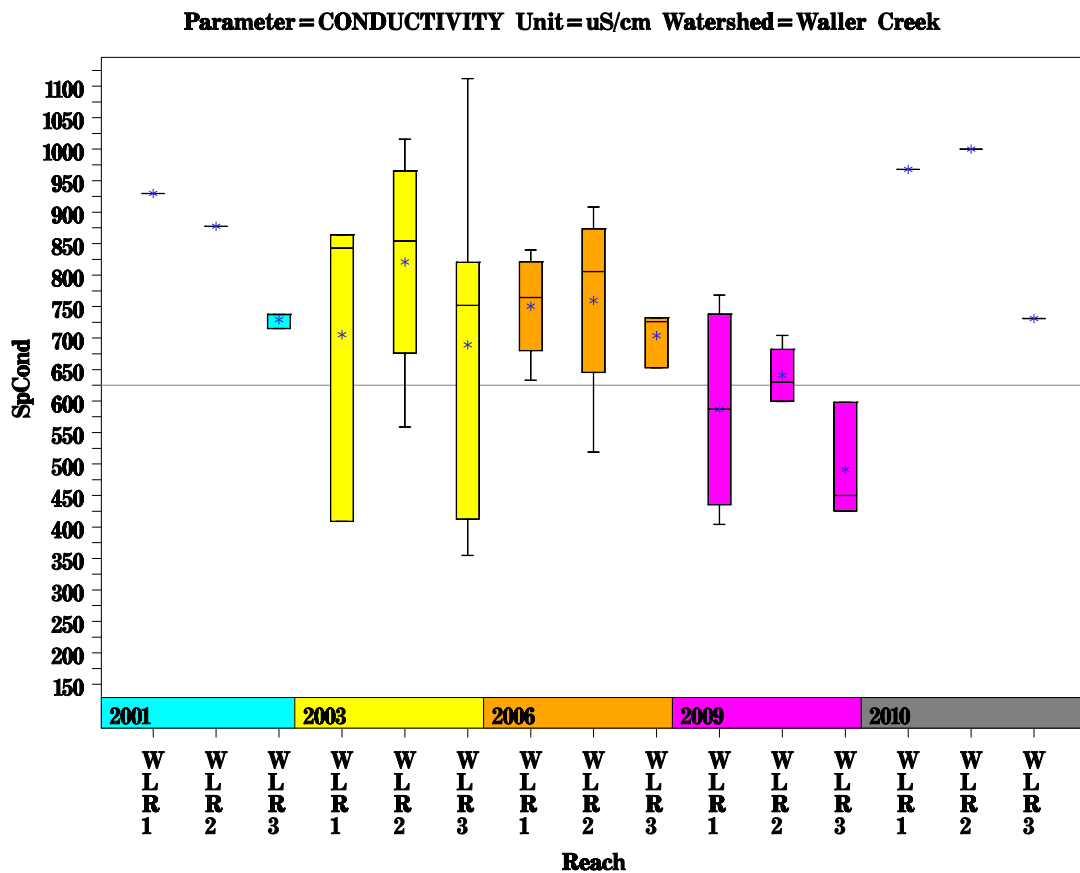
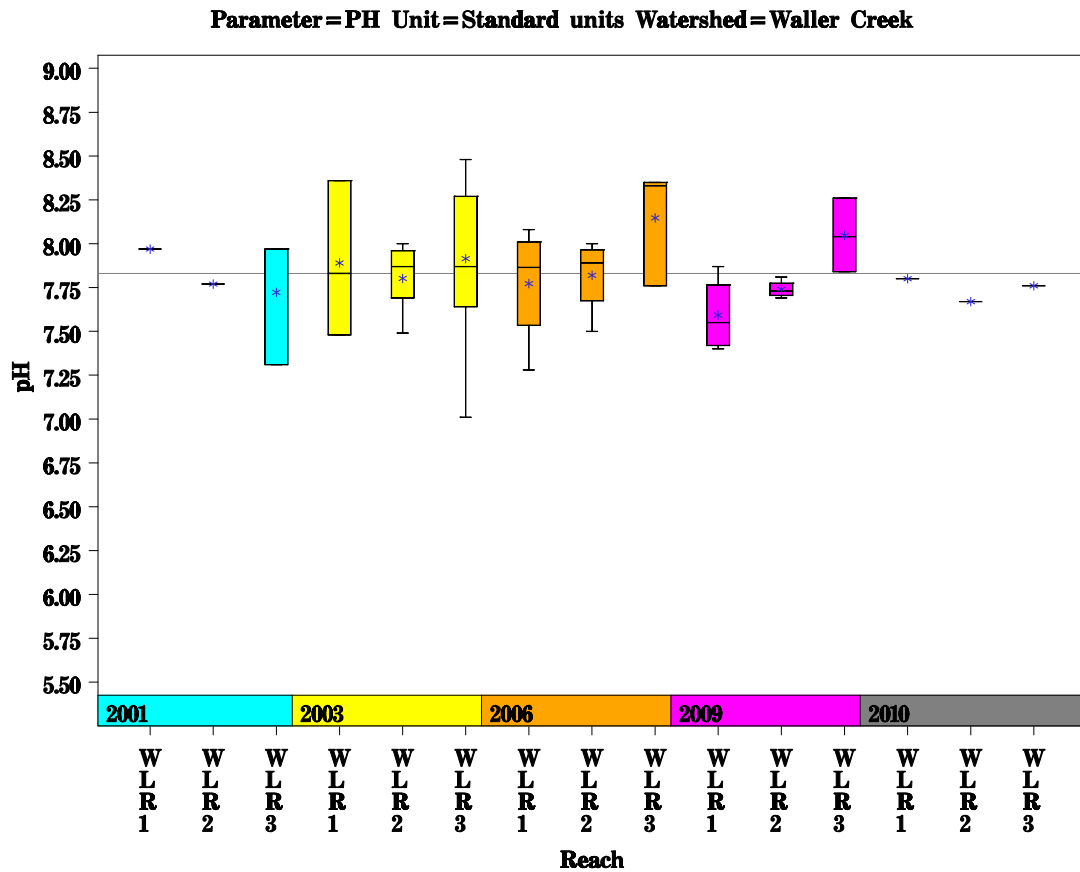


Parameter = WATER TEMPERATURE Unit = Deg C Watershed = Waller Creek



# Waller Creek Watershed

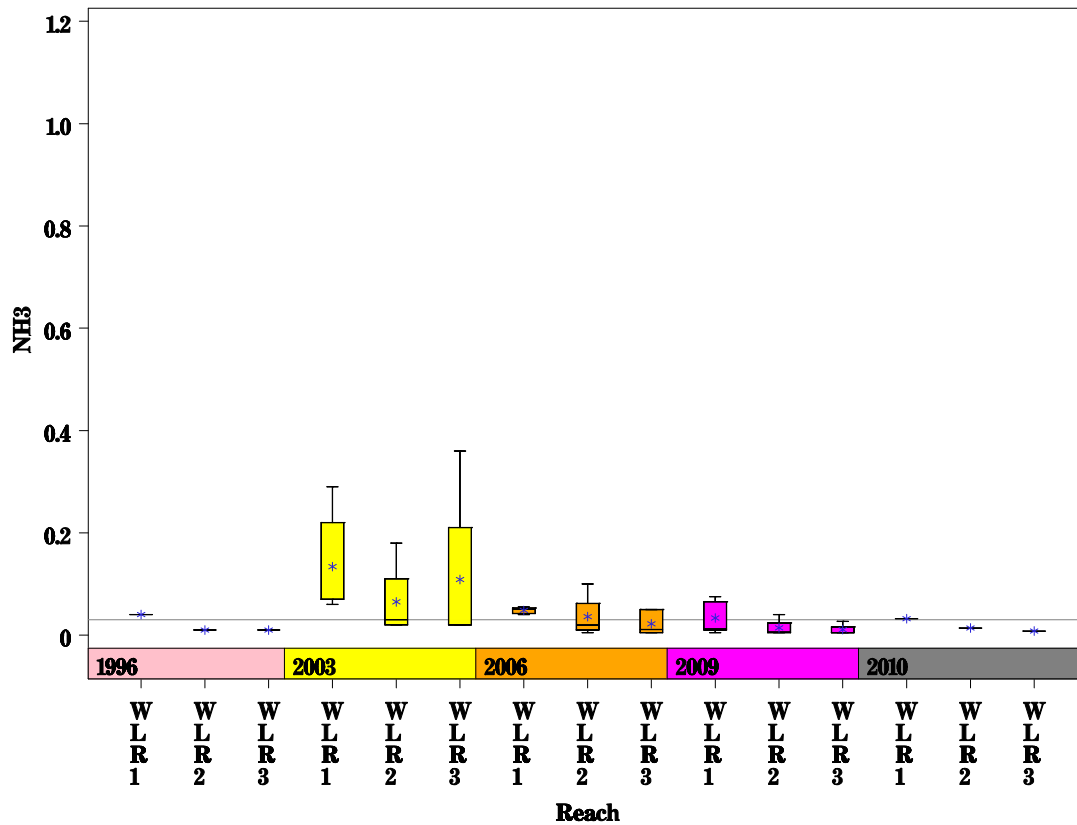
Data Summary Graphs – pH and Conductivity (Downstream to Upstream by Year)



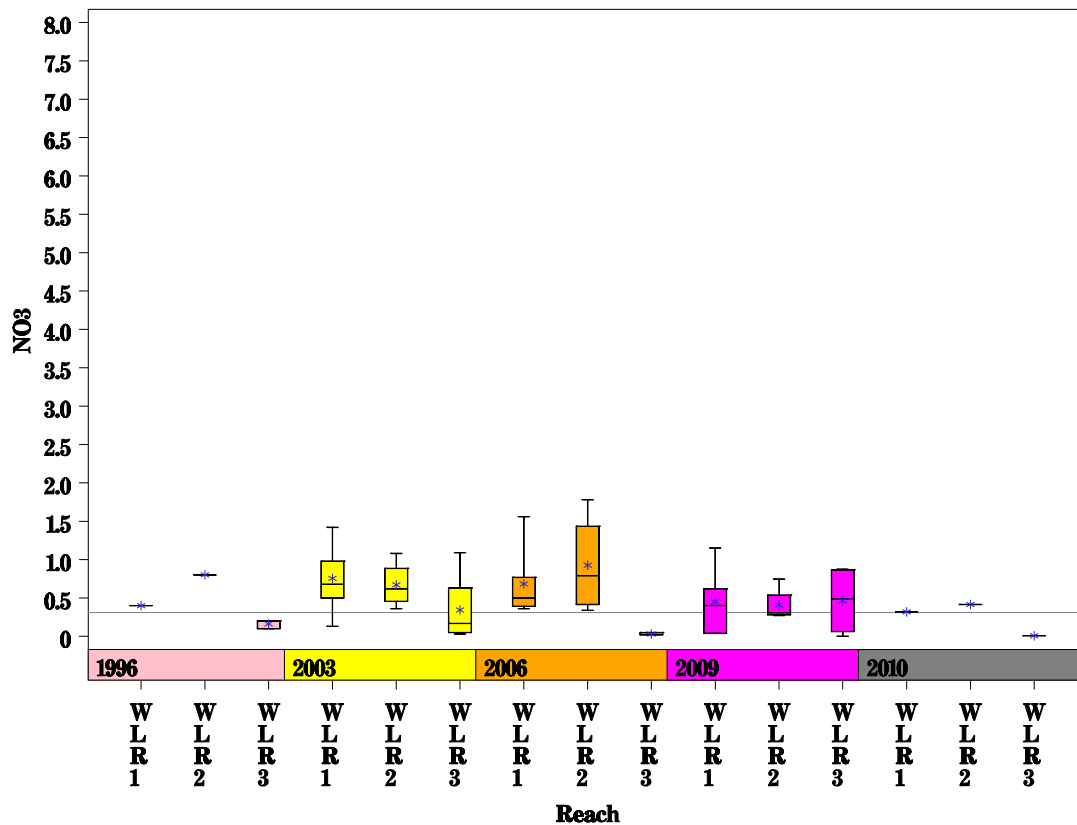
# Waller Creek Watershed

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

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



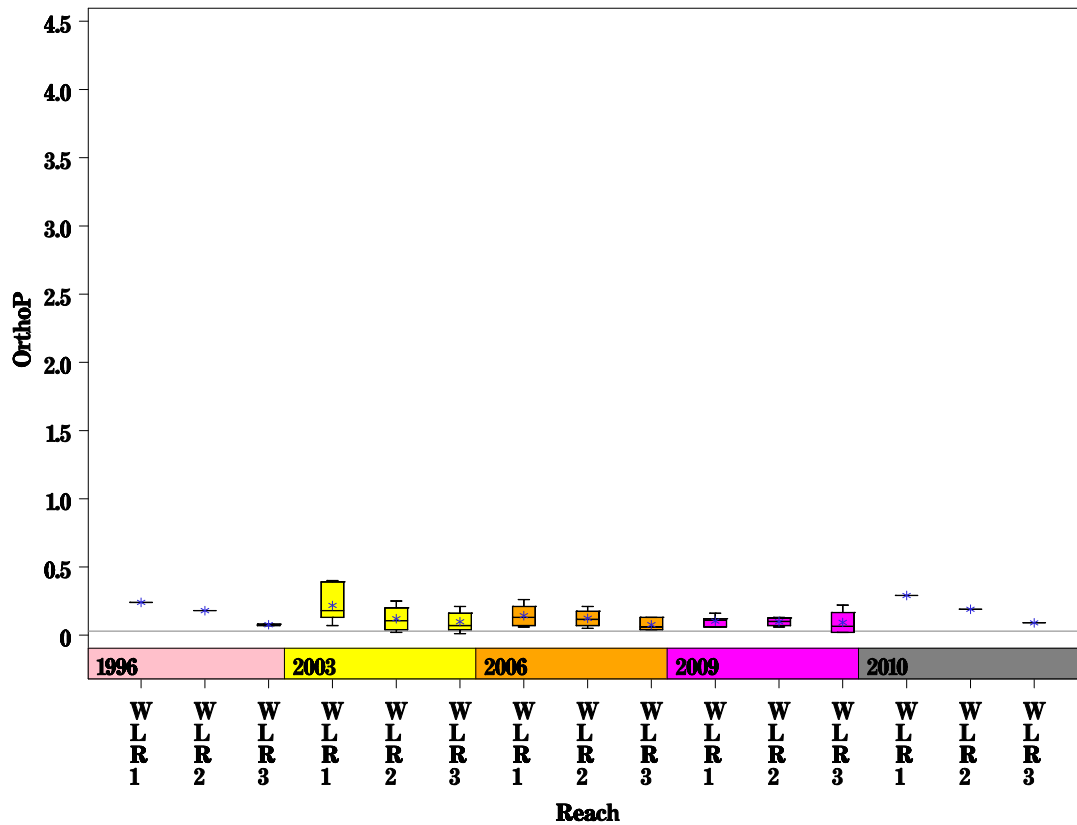
Parameter = NITRATE AS N Unit = MG/L Watershed = Waller Creek



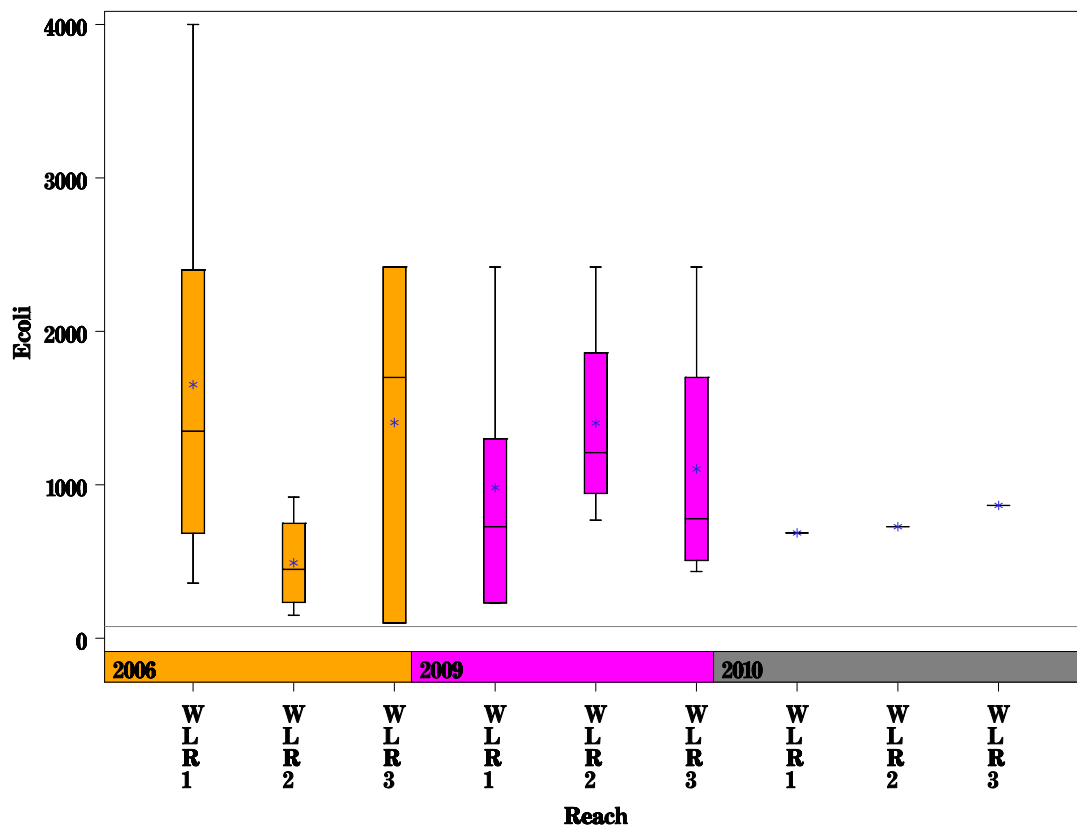
# Waller Creek Watershed

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

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



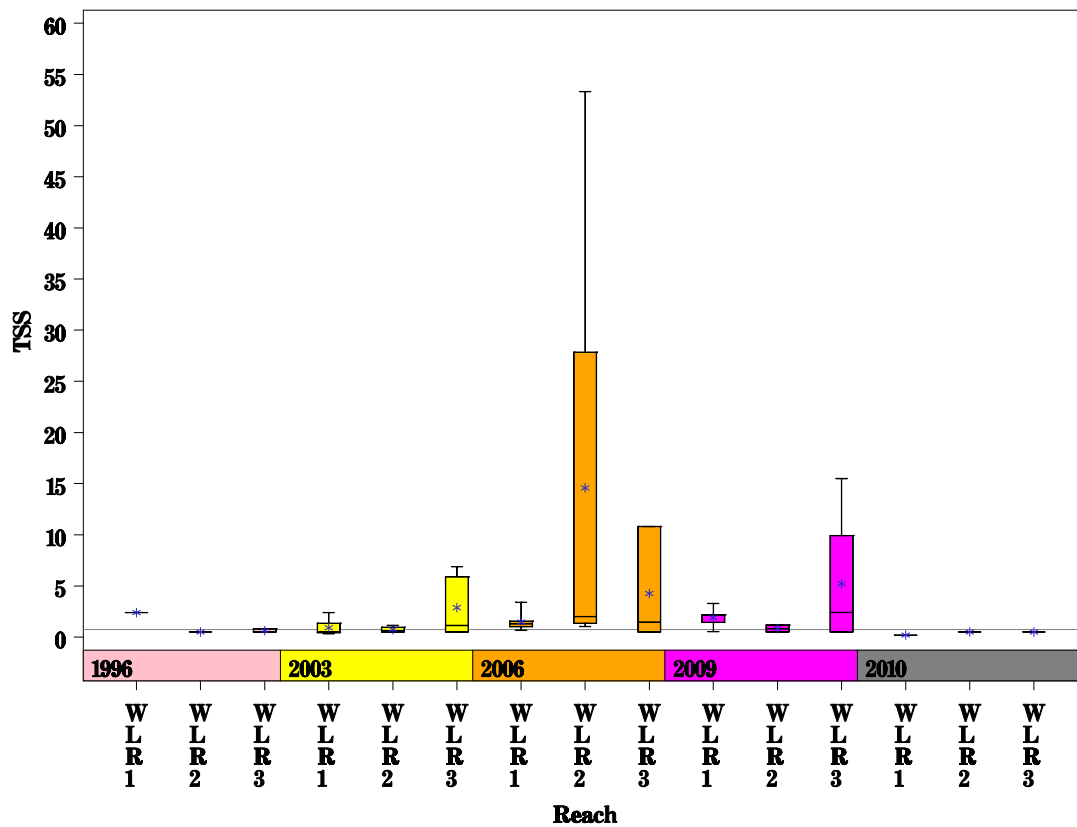
Parameter = E COLI BACTERIA Unit = MPN/dL Watershed = Waller Creek



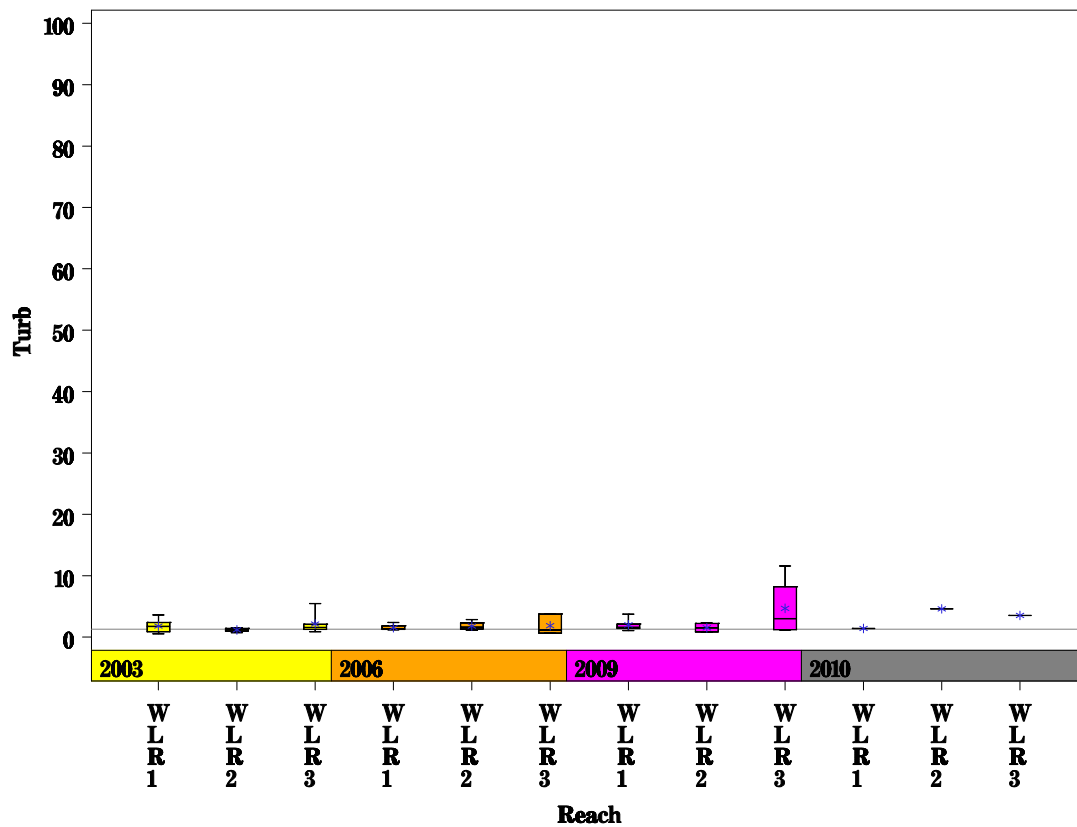
# Waller Creek Watershed

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

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



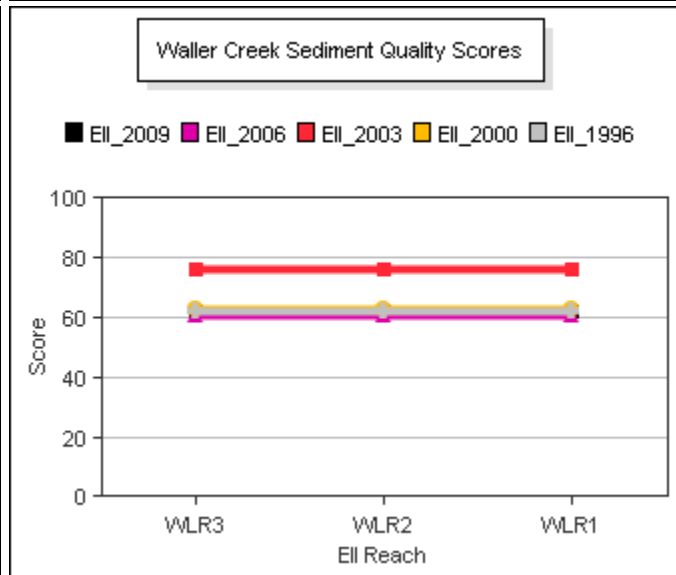
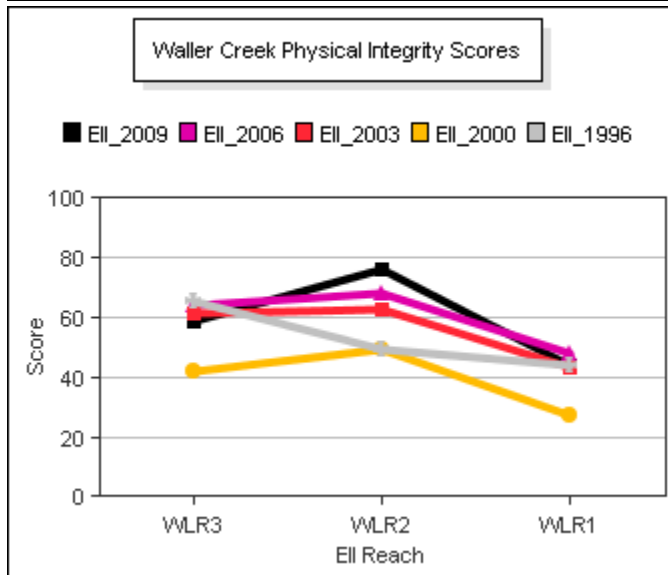
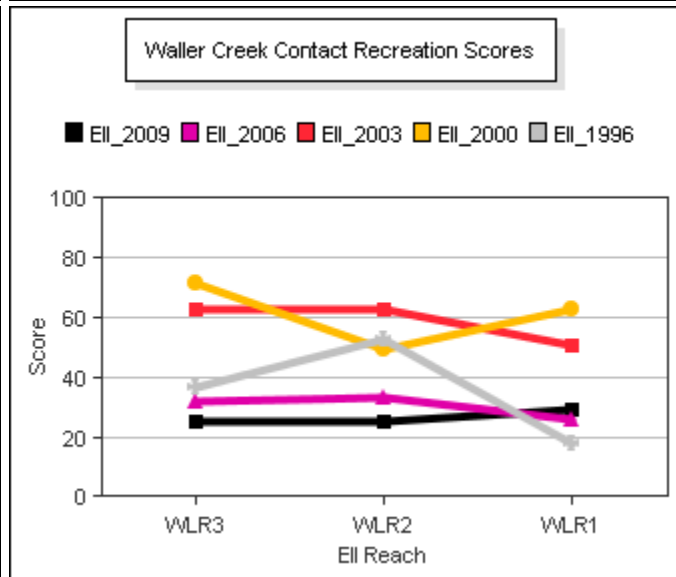
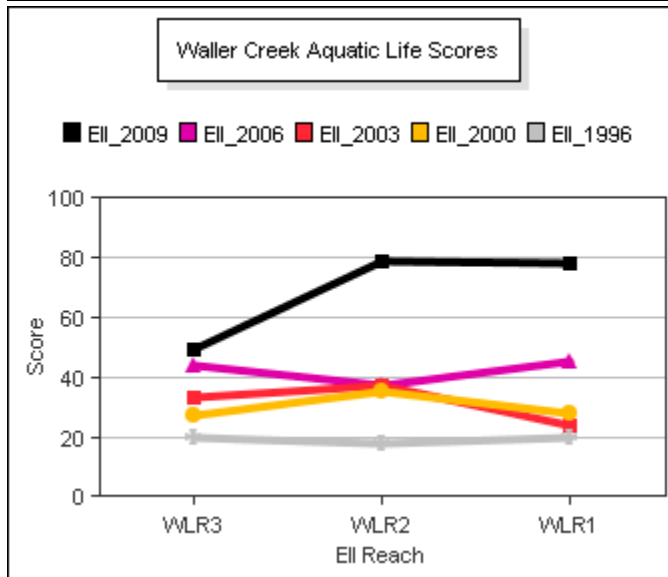
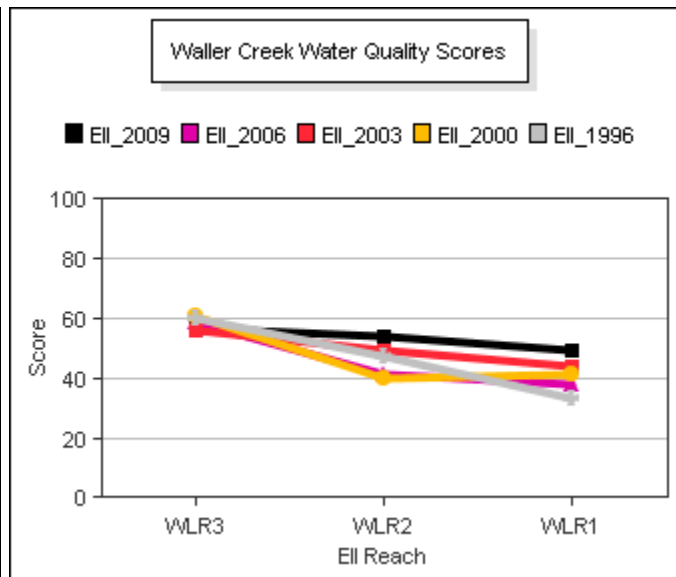
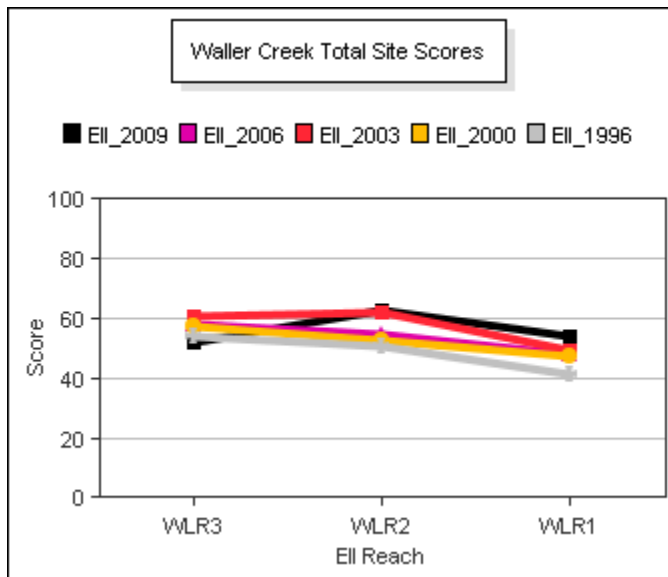
Parameter = TURBIDITY Unit = NTU Watershed = Waller Creek





# Waller Creek Watershed

## Score Summary – Reach scores for each sample year



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# Waller Creek Watershed

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## Site Photographs



780\_t00-ds-02\_21\_2001



780\_t00-ur-02\_21\_2001



780-t00-us-06-03-2009



780-t00-ds-06-03-2009



781\_t00-ur-02\_21\_2001



781\_t00-us1-02\_21\_2001



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# Waller Creek Watershed

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## Site Photographs



624\_t00-ds1-02\_21\_2001



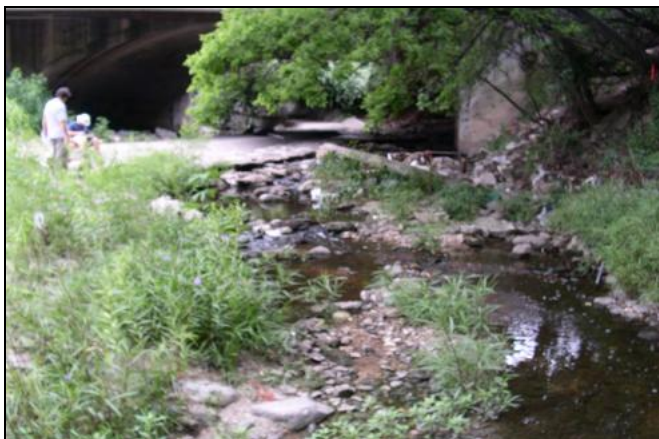
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624\_t00-us1-07\_05\_2006



624-t00-ds-05-28-2009



38-t00-us-05-29-2009



38-t00-ds-05-29-2009

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