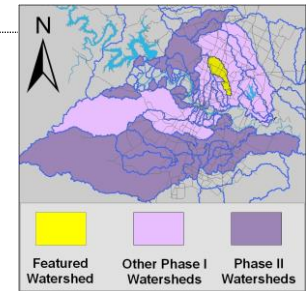


Little Walnut Creek Watershed

Summary Sheet

Catchment	Total area	11 square miles			
	Area in recharge	none			
	Creek length	9 miles			
	Receiving water	Walnut Creek			
Demographics	2000 population	63,827			
	2030 projected population	69,571			
	30 year projected % increase	9 %			
Land Use	Impervious cover (2003 estimate)	43.97 %			
Overall EII Scores	2000	2003	2006	2009	2011
	70	63	67	65	63



Flow Regime* for Sample Sites on Little Walnut Creek Upstream to Downstream

Site #	Site Name	2003						2006					2009						2010	2011			
		Feb	Mar	Mar	May	Sep	Dec	Feb	May	Jul	Aug	Nov	Feb	May	May	Jun	Oct	Dec	Dec	Mar	Jun	Jun	Sep
		WQ	WQ	Bio	WQ	WQ	WQ	WQ	WQ	Bio	WQ	WQ	WQ	WQ	Bio	Bio	WQ	WQ	WQ	WQ	WQ	Bio	WQ
838	Golden Meadow	B	B	B	B	B	B	B	B	B	n	B	B	B	B		B	B	B	B	n	B	n
3860	Georgian							B	B	B	B	B	B	B			B	B	B	B	B	B	n
839	Hermitage	B	B	B	B	B	B																
3857	Cameron							B	B	B	B	B	B	B			B	B	B	B	B	B	B
634	US183	B	B	B	B	B	B	B	B	B	B	B	B	B		B	B	B	B	B	B	B	B
840	US290	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 2011 Data for Little Walnut Creek

Summary	Parameter	Mean	Max	Min	Discussion
Physicochemical	D.O. mg/l	10.3	13.2	7.3	Above average to high readings at all sites.
	pH st.units	8.09	8.8	7.8	Some high values throughout watershed.
	Cond uS/cm	571	708	408	Generally below average readings.
Nutrients	NH ₃ mg/l	0.018	0.040	0.008	Within normal range.
	NO ₃ mg/l	0.184	0.750	0.008	Within normal range.
	Ortho P mg/l	0.057	0.120	0.030	Within normal range.
Sediment Load	TSS mg/l	2.8	9.5	0.2	Some above average values, but within normal range.
	Turbidity ntu	3.49	12.54	0.94	Mostly within normal range, some elevated values at mouth site.
Biology	E.Coli /100ml	311	1300	17	Mostly within normal range, some high values at site 838.
Benthic Macroinvertebrates and Diatoms: evaluations are provided in the introduction of this report					

Index Scores* for Little Walnut Creek Sites by Year

Reach	Site	Site Name	Year	Water Quality	Sediment t**	Contact Rec.	Non-Contact Rec.	Physical Integrity	Aquatic Life	Benthic subindex	Diatom subindex	Total EII Score
LWA1	634	Little Walnut Crk @ US183	1996	68	82	76	64	34	68	63	72	65
LWA1	840	Little Walnut Crk @ US290	1996	60	82	17	80	77	66	51	80	64
LWA2	839	Little Walnut @ Hermitage Drive	1996	68	82	55	65	71	66	63	69	68
LWA4	838	Little Walnut @ Golden Meadow Rd	1996	56	82	11	68	61	29	29	28	51
LWA1	634	Little Walnut Crk @ US183	2000	75	92	89	84	35	54	49	58	72
LWA1	840	Little Walnut Crk @ US290	2000	70	92	90	83	55	67	64	69	76
LWA2	839	Little Walnut @ Hermitage Drive	2000	67	92	91	64	31	68	64	71	69
LWA4	838	Little Walnut @ Golden Meadow Rd	2000	54	92	71	62	31	75	91	59	64
LWA1	634	Little Walnut Crk @ US183	2003	55	75	79	60	58	71	75	67	66
LWA1	840	Little Walnut Crk @ US290	2003	58	75	72	77	67	48	50	46	66
LWA2	839	Little Walnut @ Hermitage Drive	2003	57	75	78	73	53	59	66	52	66
LWA4	838	Little Walnut @ Golden Meadow Rd	2003	54	75	33	58	48	54	61	46	54
LWA1	634	Little Walnut Crk @ US183	2006	67	80	63	73	45	91	91		70
LWA2	3857	Little Walnut @ Cameron Rd	2006	67	80	68	73	49	82	81	82	70
LWA3	3860	Little Walnut @ Georgian Dr	2006	63	80	55	72	53	83	82	84	68
LWA4	838	Little Walnut @ Golden Meadow Rd	2006	51	80	25	72	55	71	61	80	59
LWA1	634	Little Walnut Crk @ US183	2009	73	78	54	78	49	95	90	99	71
LWA2	3857	Little Walnut @ Cameron Rd	2009	69	78	44	70	58	79	75	82	66
LWA3	3860	Little Walnut C @ Georgian Dr	2009	65	78	32	67	52	91	82	99	64
LWA4	838	Little Walnut @ Golden Meadow Rd	2009	59	78	27	70	54	71	64	77	60
LWA1	634	Little Walnut Crk @ US183	2011	71	80	74	33	47	50	50		59
LWA2	3857	Little Walnut @ Cameron Rd	2011	57	80	61	73	72	91	99	82	72
LWA3	3860	Little Walnut @ Georgian Dr	2011	74	80	50	54	49	77	71	83	64
LWA4	838	Little Walnut @ Golden Meadow Rd	2011	68	80	25	48	50	58	41	74	55

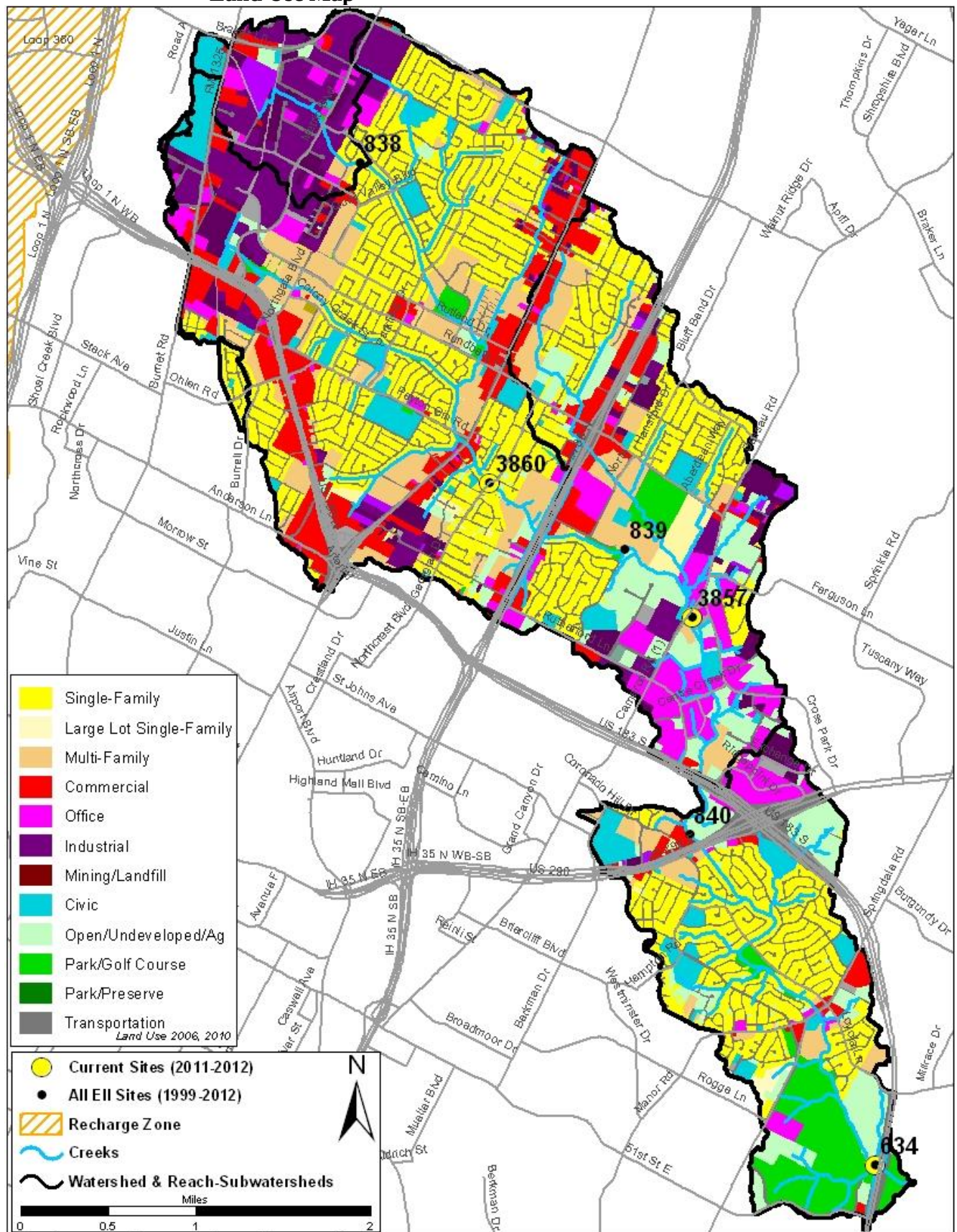
* blank cells indicate parameter was not collected, blank row indicate site was dropped

**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 Walnut Creek Watershed

Land Use Map

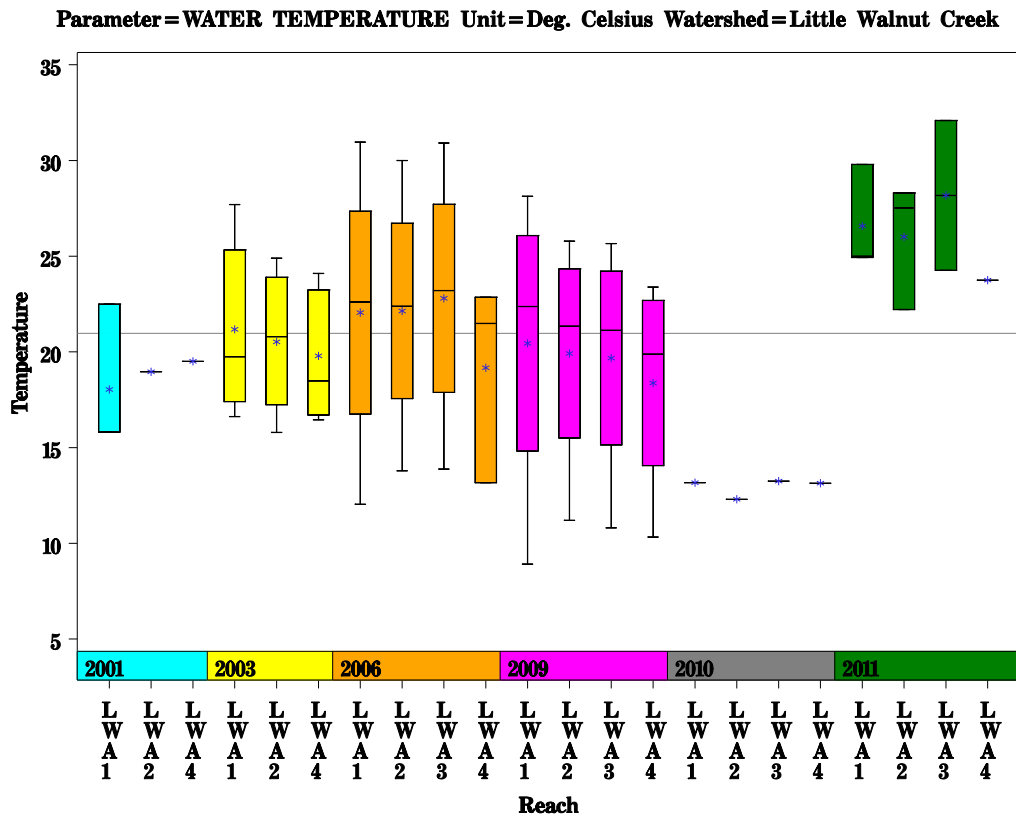
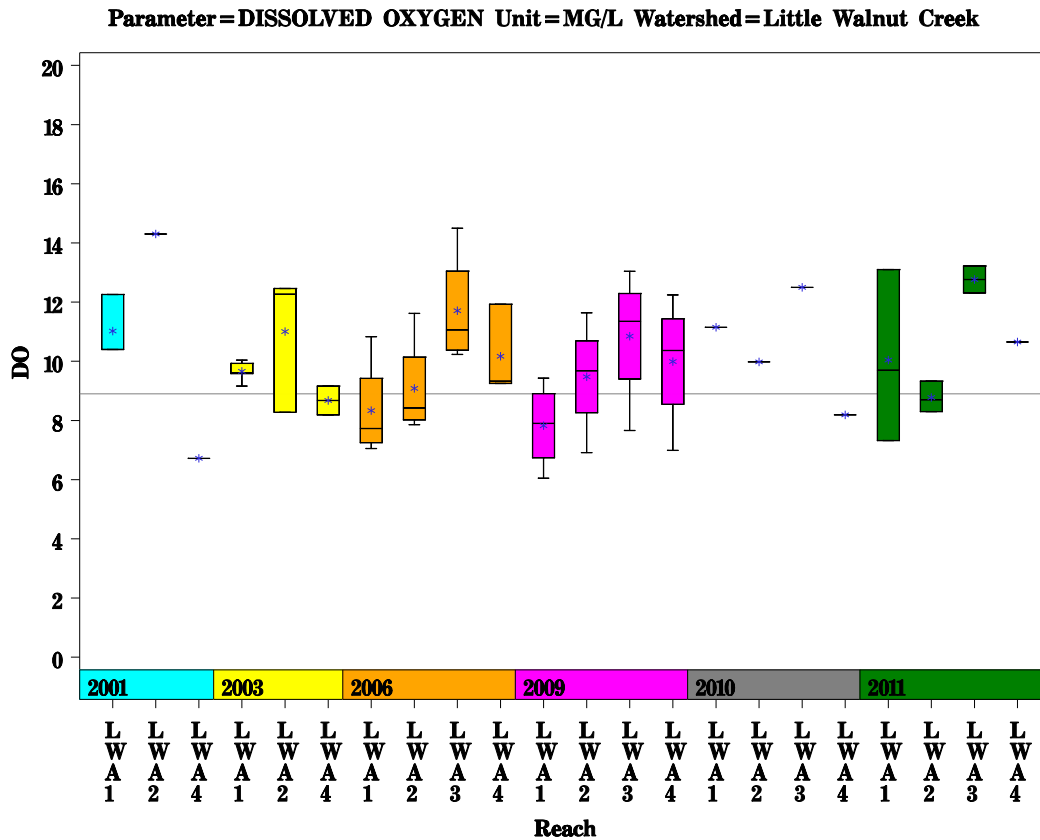


Aerial Map



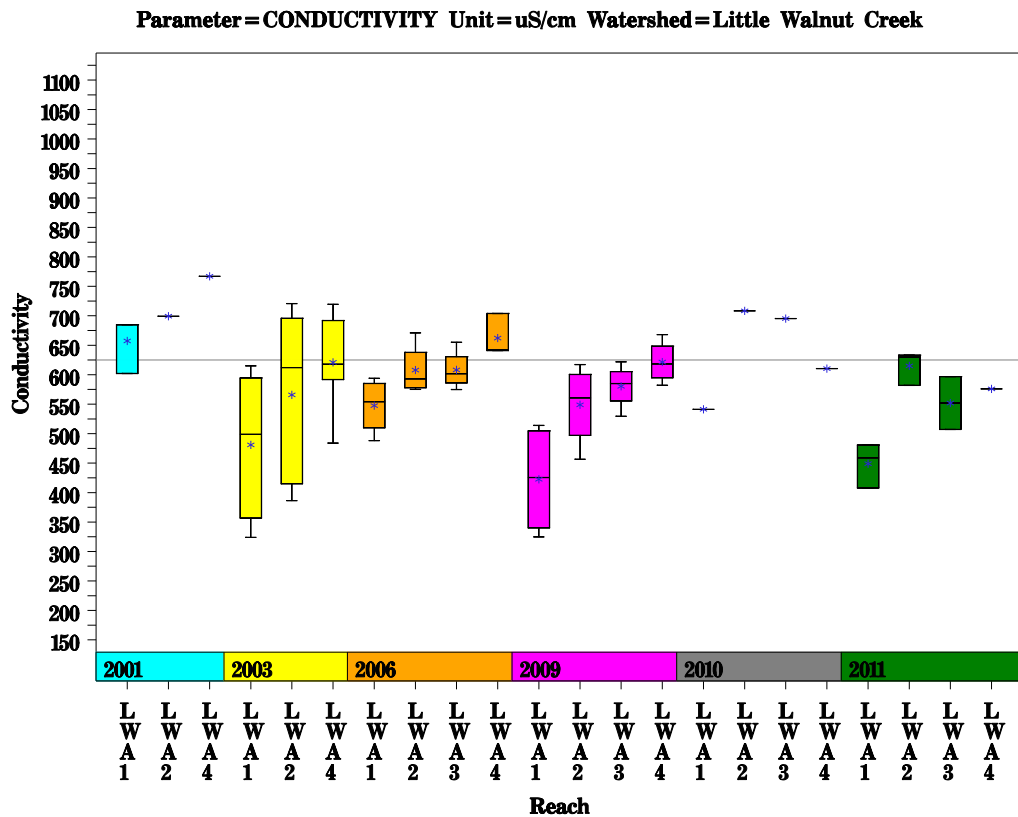
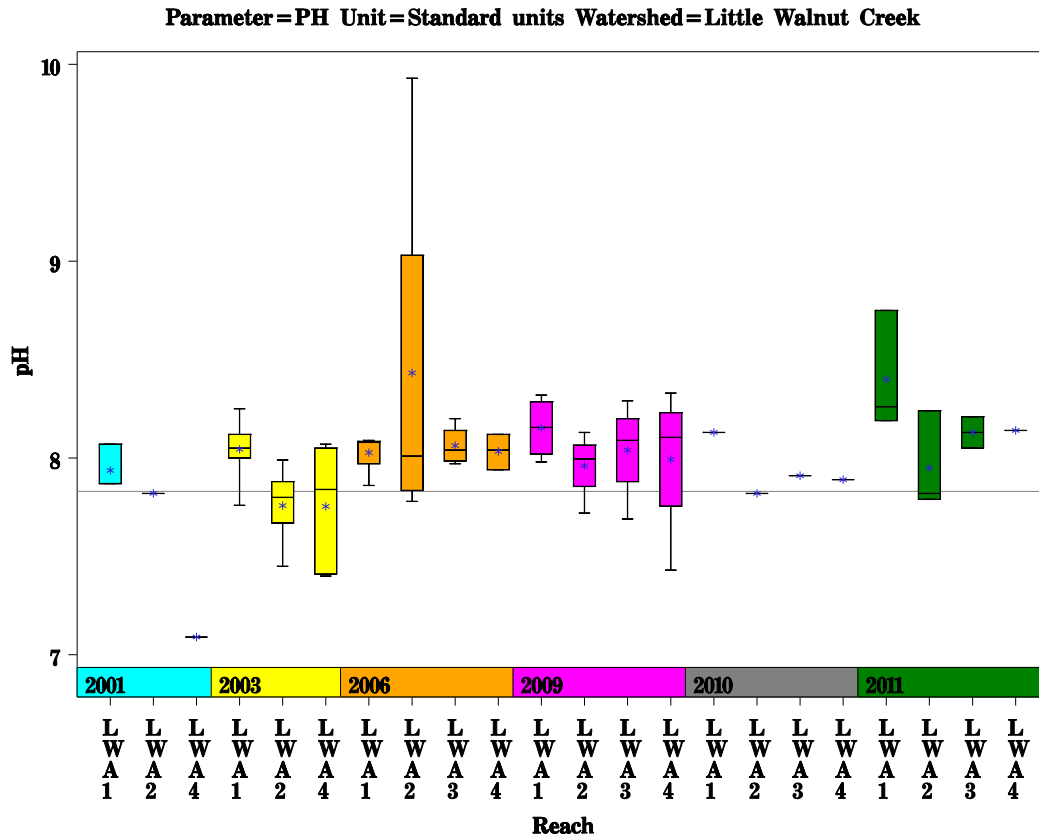
Little Walnut Creek Watershed

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



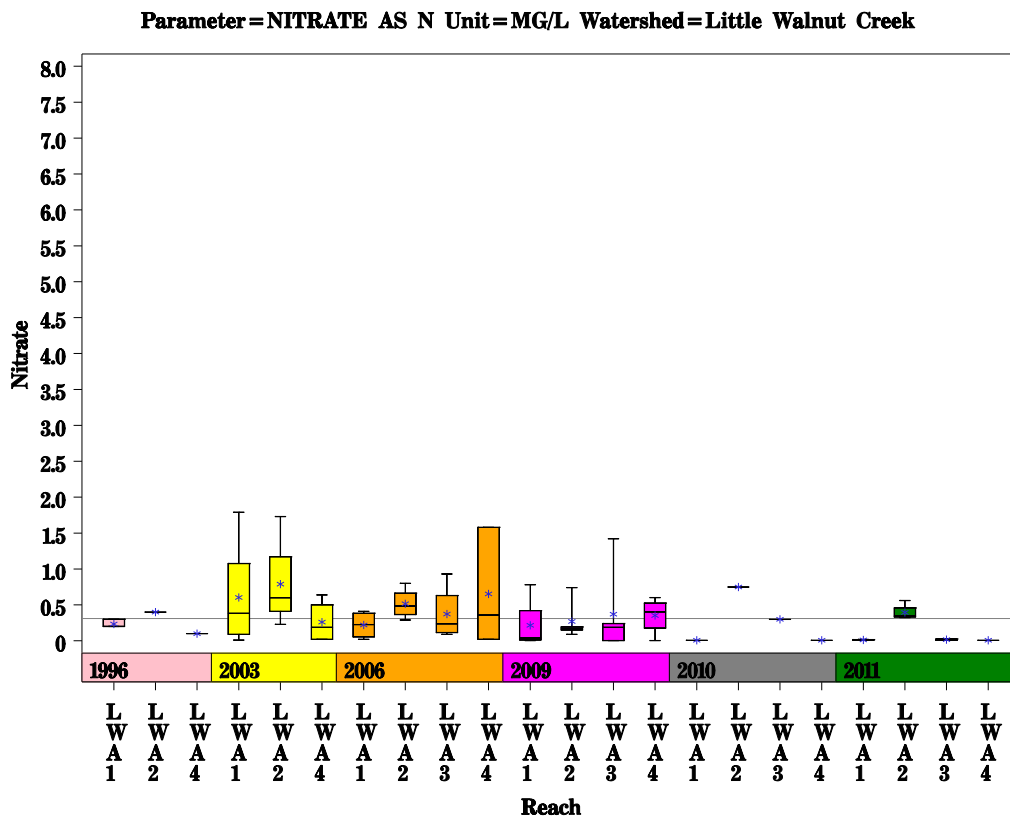
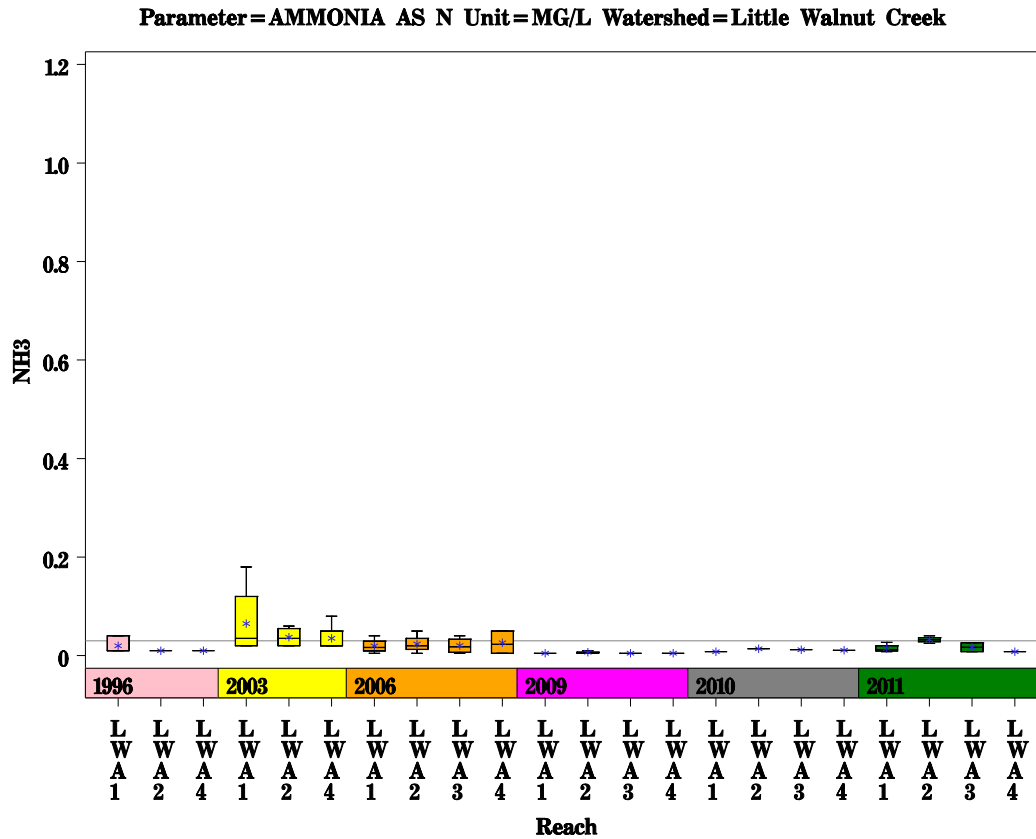
Little Walnut Creek Watershed

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



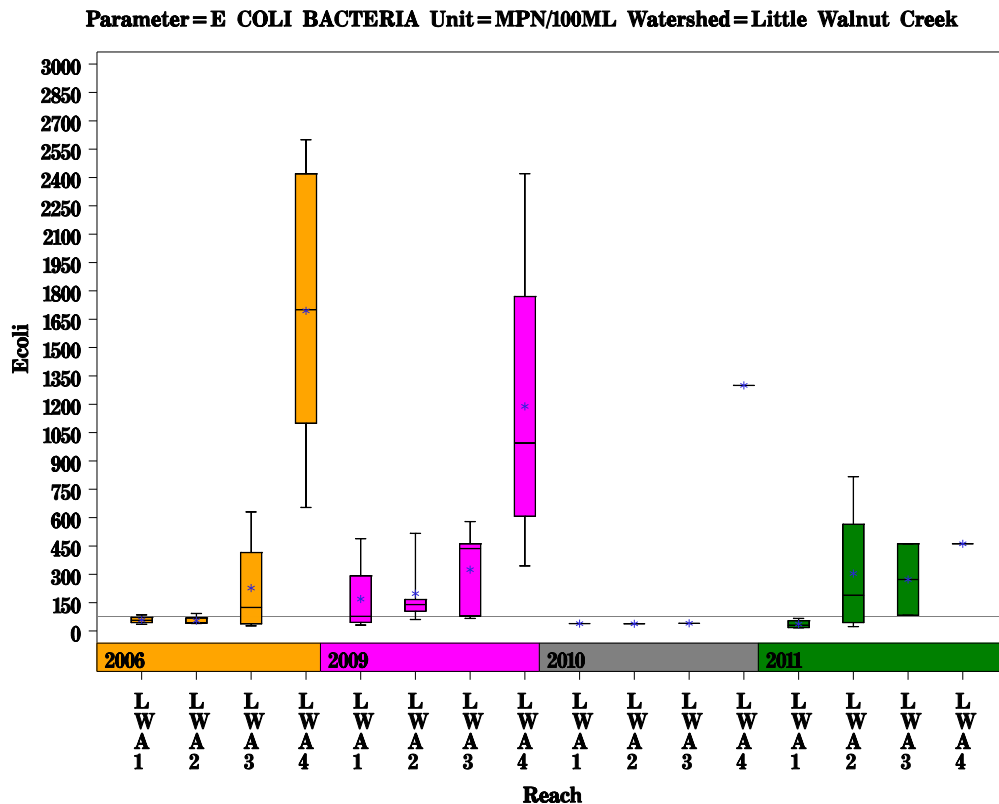
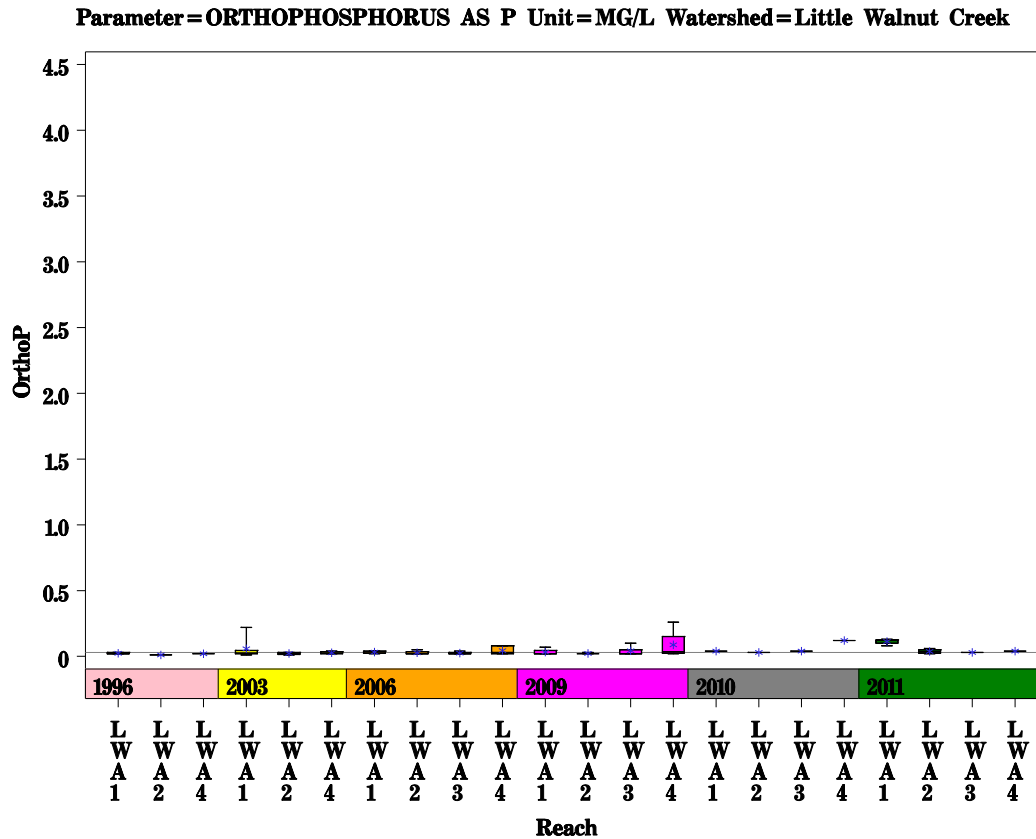
Little Walnut Creek Watershed

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



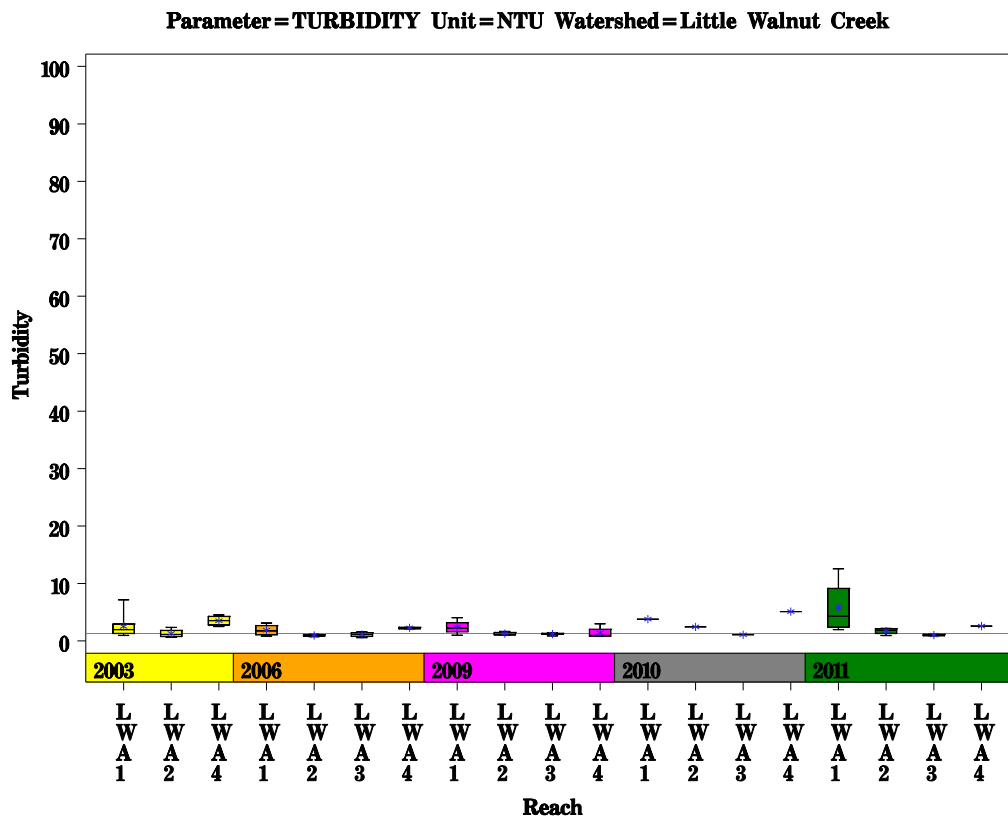
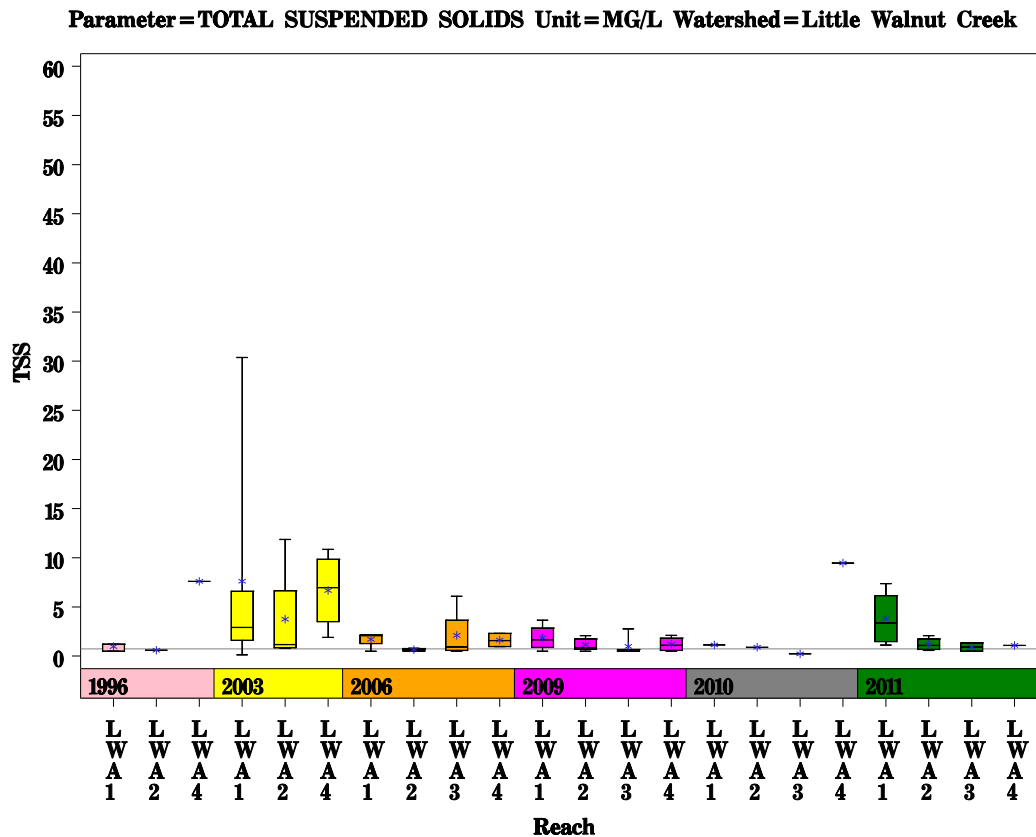
Little Walnut Creek Watershed

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



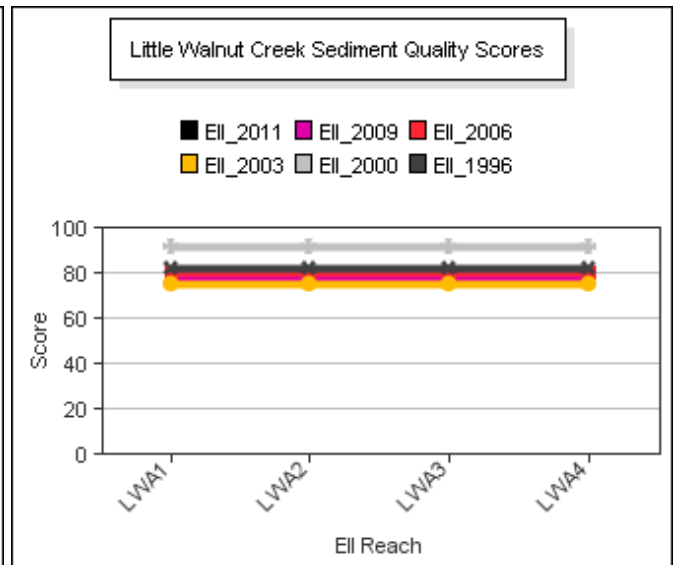
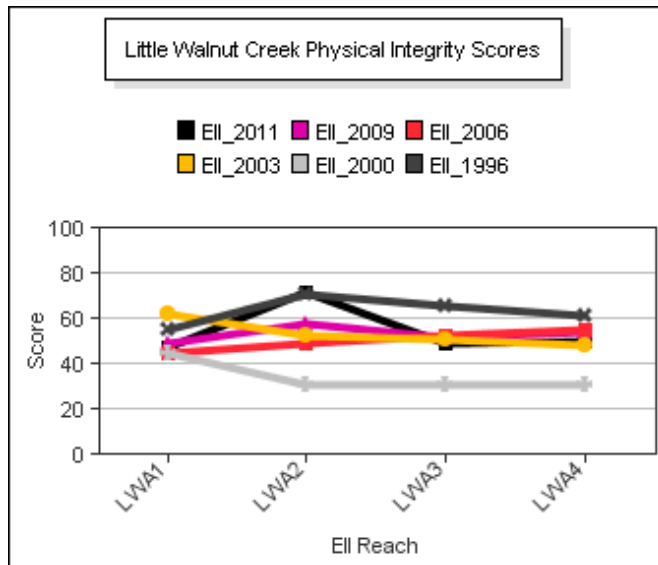
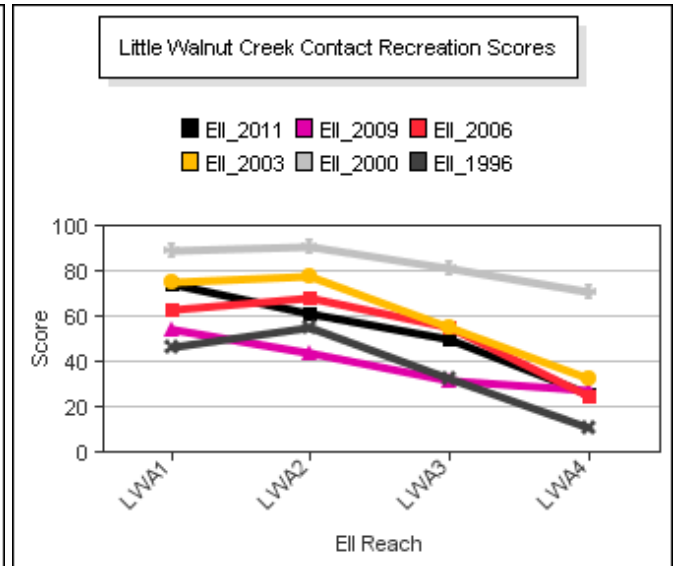
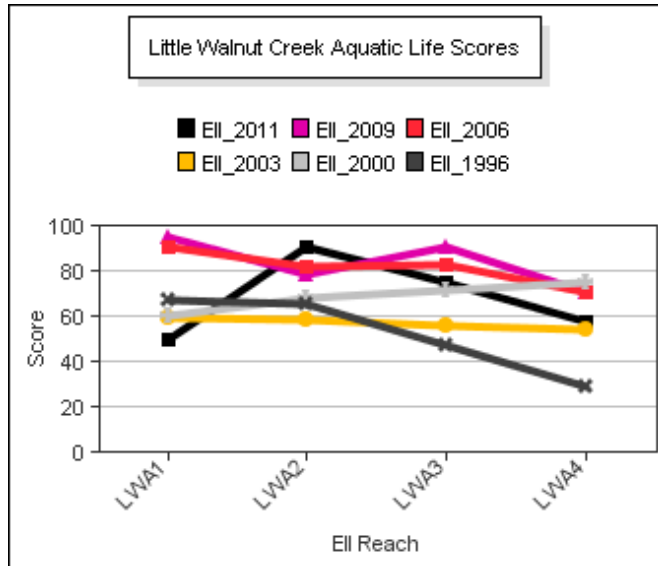
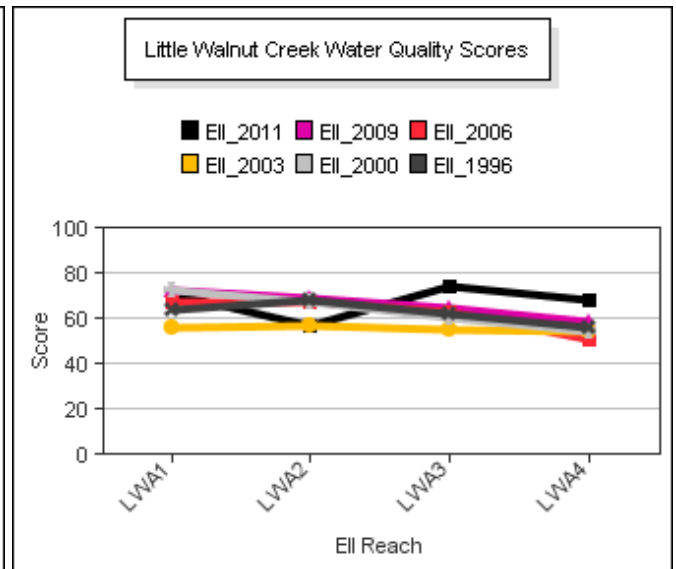
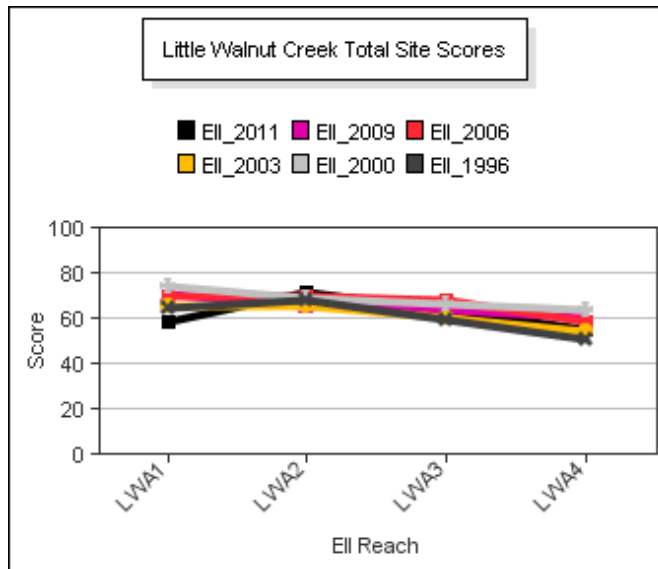
Little Walnut Creek Watershed

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



Little Walnut Creek Watershed

Score Summary – Reach scores for each sample year



Little Walnut Creek Watershed

Site Photographs



838_t00-us-07_10_2006



838_t00-ds-07_10_2006



3860_t00-us-05-27-2009



3860_t00-ds-05-27-2009



839_t00-us-02_20_2001



839_t00-na-02_19_2003

Little Walnut Creek Watershed

Site Photographs



3857_t00-us1-07_11_2006



3857_t00-us-07_11_2006



840_t00-us-02_19_2003



840_t00-ds-02_20_2001



634_t00-us-07_06_2006



634_t00-ds-07_06_2006

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