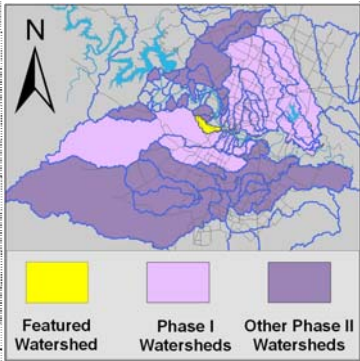


# Eanes Creek Watershed

## Watershed Overview

Catchment	Total area	3.7 sq. miles					
	Area in recharge	2.28 sq. miles					
	Creek length	6 miles					
	Receiving water	Town Lake					
Demographics	2000 population	5,951					
	2030 projected population	9,357					
	30 year projected % increase	57 %					
Land Use	Impervious cover (2003 estimate)	25.7 %					
	Impervious cover (2013 estimate)	35.7 %					
Overall EII Scores	2001	2004	2007	2010	2012	2014	2016
	61	68	60	66	67	43	68



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

Site	1999		2001				2004					2007				2010				2011		2012				2014				2016							
	Jan	Jan	Mar	Mar	Jun	Sep	Dec	Mar	May	May	Jun	Oct	Dec	Feb	May	Jun	Sep	Dec	Mar	May	May	Oct	Dec	Mar	May	Jul	Sep	Jan	Apr	May	Jul	Sep	Jan	Apr	Jun	Jul	Sep
1106	B	B	B	B	n	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	n	n	n	B	B	n	B	n	B	B	B	n	B
182	n	n	n		n	n	n																														

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

## Index scores\* for Eanes Creek 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
EAN1	182	Eanes Creek @ Rollingwood	1998		58		52	62				43
EAN2	1106	Eanes Creek @ Camp Craft Road	1998	51	58	76	88	74	70	65	75	70
EAN1	182	Eanes Creek @ Rollingwood	2001		73		55	36				41
EAN2	1106	Eanes Creek @ Camp Craft Road	2001	51	73	74	76	74	49	31	66	63
EAN2	1106	Eanes Creek @ Camp Craft Road	2004	58	69	43	83	75	78	69	87	68
EAN2	1106	Eanes Creek @ Camp Craft Road	2007	54	57	42	77	66	65	59	70	60
EAN2	1106	Eanes Creek @ Camp Craft Road	2010	53	63	45	93	73	67	59	74	66
EAN2	1106	Eanes Creek @ Camp Craft Road	2012	55	74	50	62	75	85	83	86	67
EAN2	1106	Eanes Creek @ Camp Craft Road	2014	58		32	58	67				43
EAN2	1106	Eanes Creek @ Camp Craft Road	2016	53		35	94	85	72	76	68	68

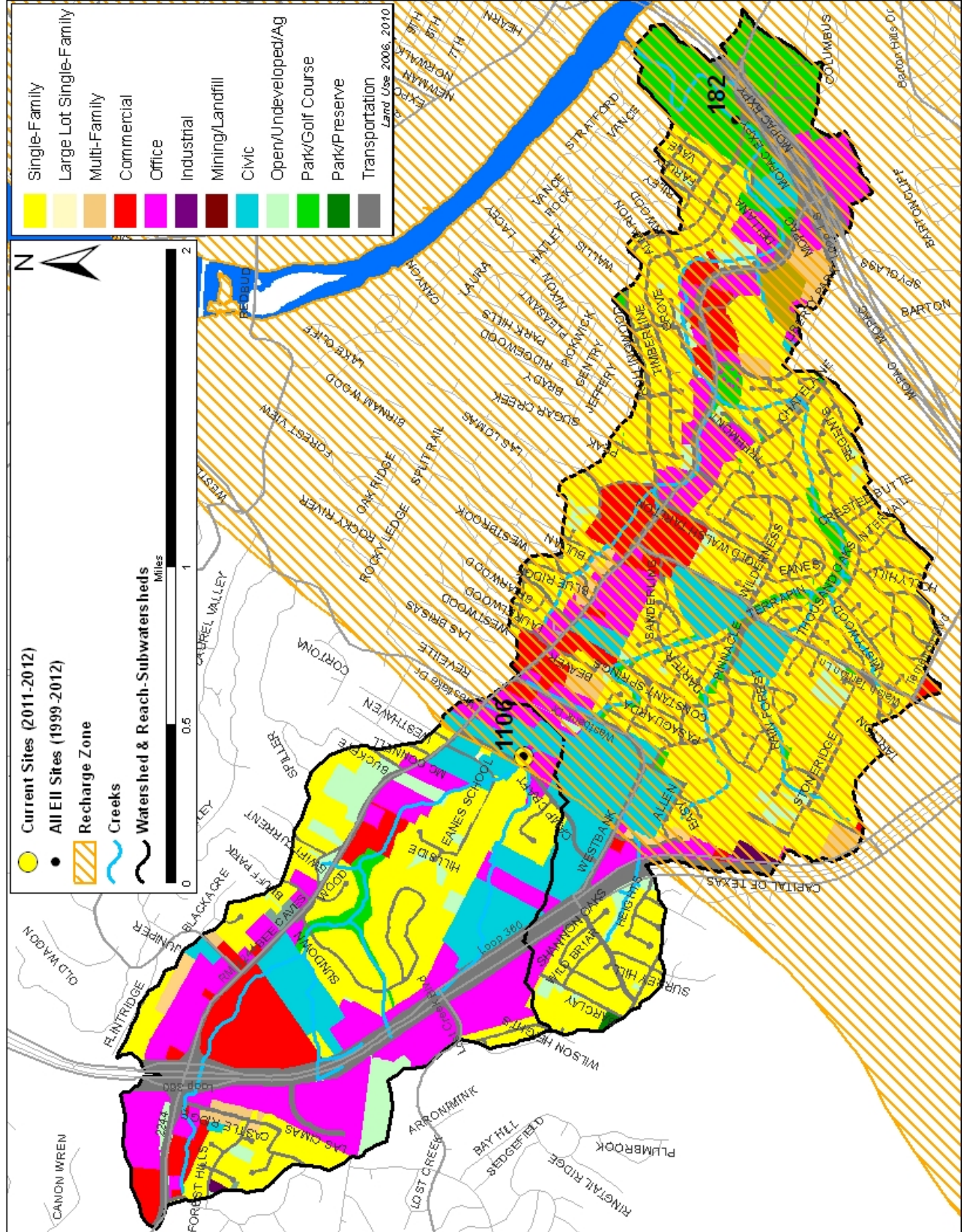
\* blank cells indicate parameter was not collected, blank row indicate site was dropped

\*\*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

# Eanes Creek Watershed

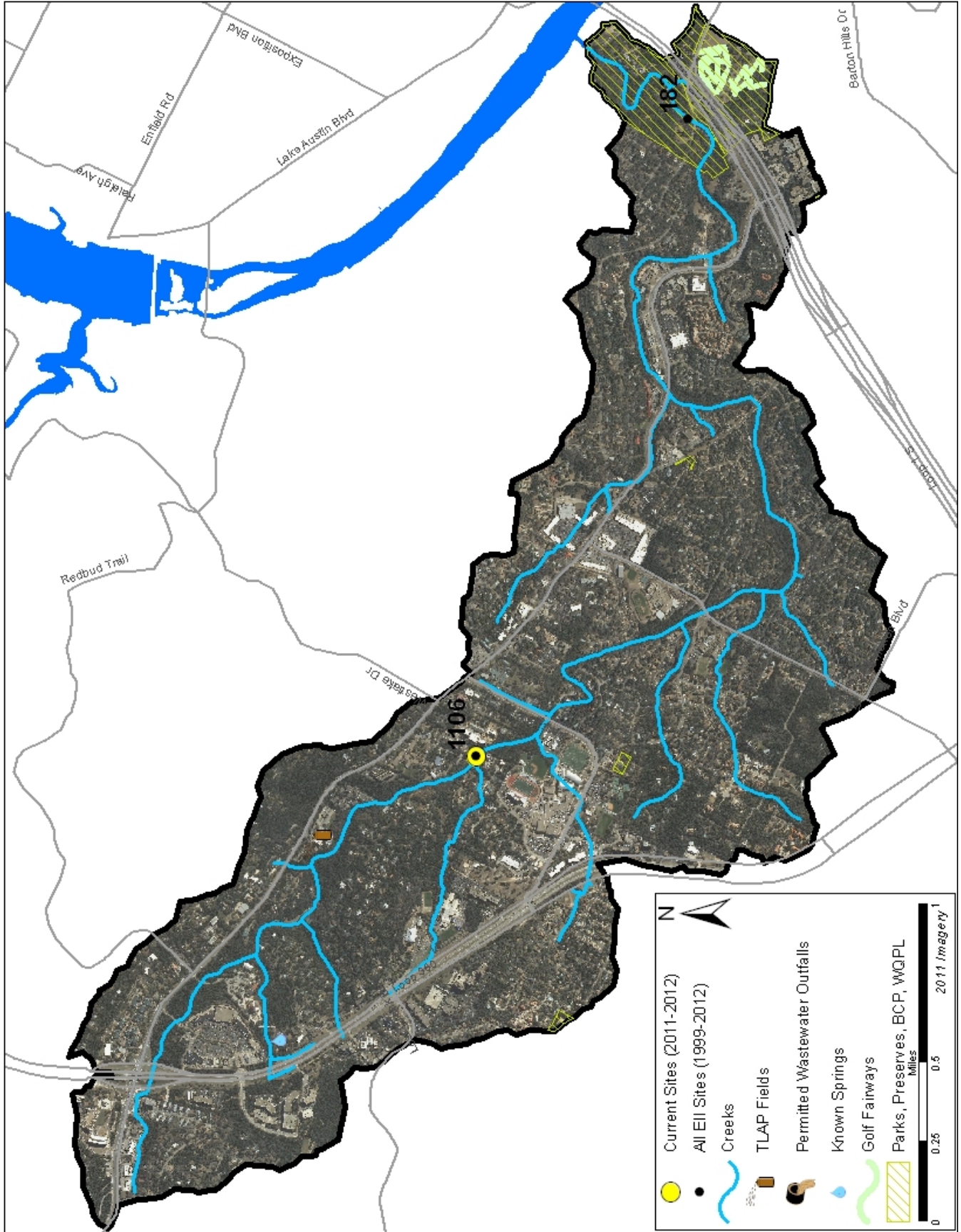
## Land Use Map





# Eanes Creek Watershed

## Aerial Map



# Eanes Creek Watershed

## Water Quality Data – Temperature, Conductivity, pH, Dissolved Oxygen & E. coli for 2016 Sample Sites (Downstream to Upstream)

Qualifiers to the left of the value	>	Greater than	Qualifiers to the right of the value	(blank)	Useable
	<	Less than		S	Exceeds standard range
	<J	Less than detected limit		R	Rejected, failed QC
	J	Estimated			

Watershed	Site	EII Reach	Date	<> Temp. flag	<> Cond. flag	<> pH flag	<> D.O. flag	< E. Coli flag
Eanes	1106	EAN2	01/12/2016	10.1	902	7.73	9.2	122.3
Eanes	1106	EAN2	04/12/2016	18.5	853	7.78	7.2	325.5
Eanes	1106	EAN2	06/21/2016	23.9	797	7.75	6.7	
Eanes	1106	EAN2	09/13/2016	23.8	854	7.79	6.8	1203.3
EAN2 Mean				19.1	852	7.76	7.5	550.4
Eanes Mean				19.1	852	7.76	7.5	550.4

Gray highlighting indicates that the value exceeds one standard deviation from the mean of all E.I.I. sites combined.

Summary Statistics for all 2015-2016 E.I.I. Sites Combined					
Parameter	2015-2016 Average	2015-2016 Minimum	2015-2016 Maximum	1 Standard Deviation Above	1 Standard Deviation Below
Temperature (C°)	20.7	5.8	34.2	27.5	
Conductivity (uS/cm)	722	160	3549	955	
pH (Standard units)	7.86	5.85	10.25	8.24	7.47
D.O. (mg/l)	7.9	0.1	18.7	10.4	5.5
E. Coli (col/100ml)	316.1	1.0	2420.0	883.7	

# Eanes Creek Watershed

## Water Quality Data – Ammonia, Nitrate / Nitrite, Ortho-Phosphorus, Total Suspended Solids & Turbidity for 2016 Sample Sites (Downstream to Upstream)

<b>Qualifiers to the left of the value</b>	>	Greater than	<b>Qualifiers to the right of the value</b>	(blank)	Useable
	<	Less than		S	Exceeds standard range
	<J	Less than detected limit		R	Rejected, failed QC
	J	Estimated			

Watershed	Site	EII Reach	Date	NH3-N		NO3/NO2		Ortho-P		T.S.S		Turb.		
				<>	flag	<>	flag	<>	flag	<>	flag	<>	flag	
Eanes	1106	EAN2	01/12/2016	<J	0.008		0.88	<J	0.004		1.2		1.8	R
Eanes	1106	EAN2	04/12/2016	<J	0.008		0.40	<J	0.004		3.1		1.8	
Eanes	1106	EAN2	06/21/2016											
Eanes	1106	EAN2	09/13/2016		0.021		0.04	<J	0.004		4.2		3.1	
<b>EAN2 Mean</b>					<b>0.012</b>		<b>0.44</b>		<b>0.004</b>		<b>2.8</b>		<b>2.2</b>	
<b>Eanes Mean</b>					<b>0.012</b>		<b>0.44</b>		<b>0.004</b>		<b>2.8</b>		<b>2.2</b>	

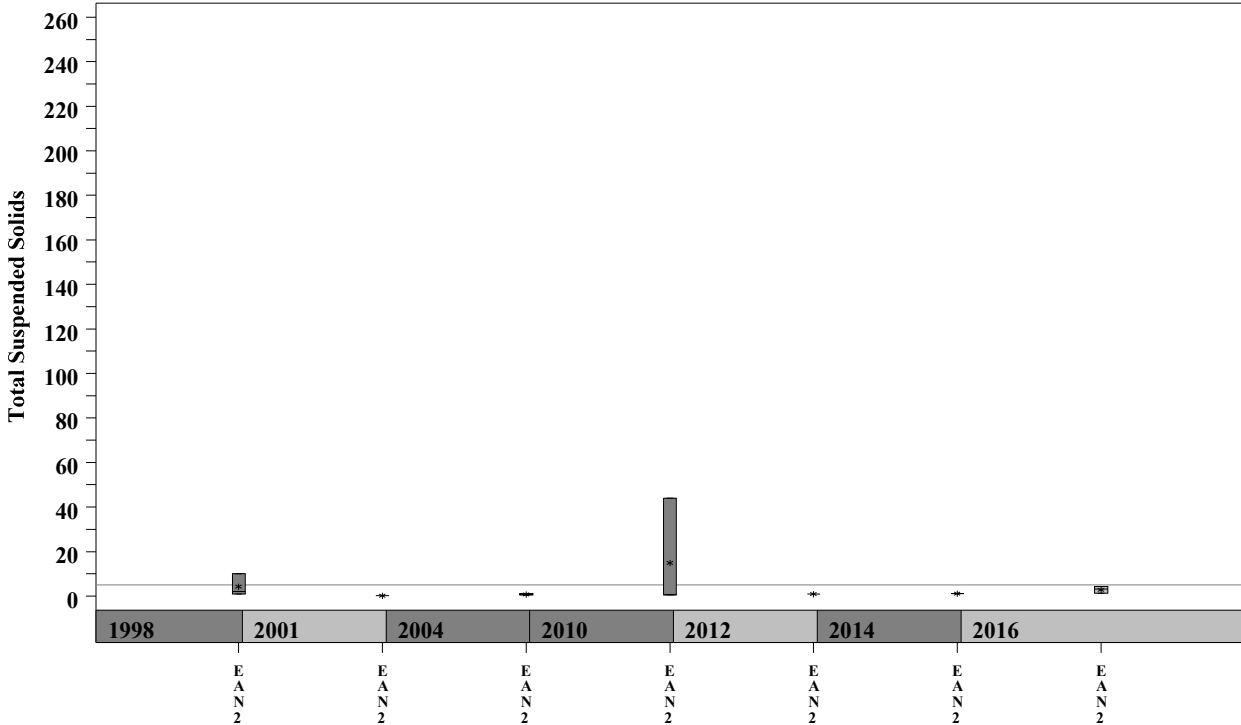
Gray highlighting indicates that the value exceeds one standard deviation from the mean of all E.I.I. sites combined.

Summary Statistics for all 2015-2016 E.I.I. Sites Combined				
Parameter	2015-2016 Average	2015-2016 Minimum	2015-2016 Maximum	1 Standard Deviation Above
NH3-N (mg/l)	0.018	0.008	0.881	0.085
NO3-N (mg/l)	1.14	0.01	12.0	3.16
Ortho-P (mg/l)	0.016	0.004	0.661	0.08
T.S.S. (mg/l)	3.7	1.0	58.2	9.7
Turbidity (NTU)	4.4	0.2	98.6	11.7

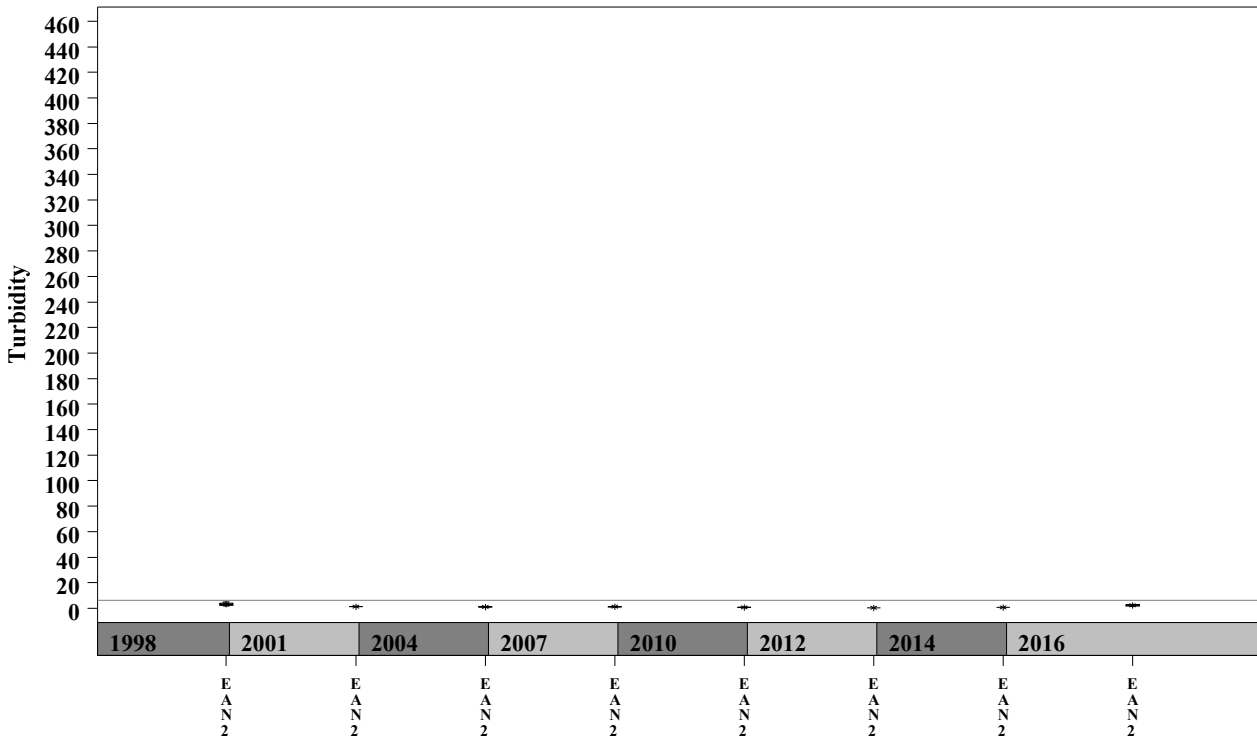
# Eanes Creek Watershed

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

Parameter = TOTAL SUSPENDED SOLIDS Unit = mg/L Watershed = Eanes



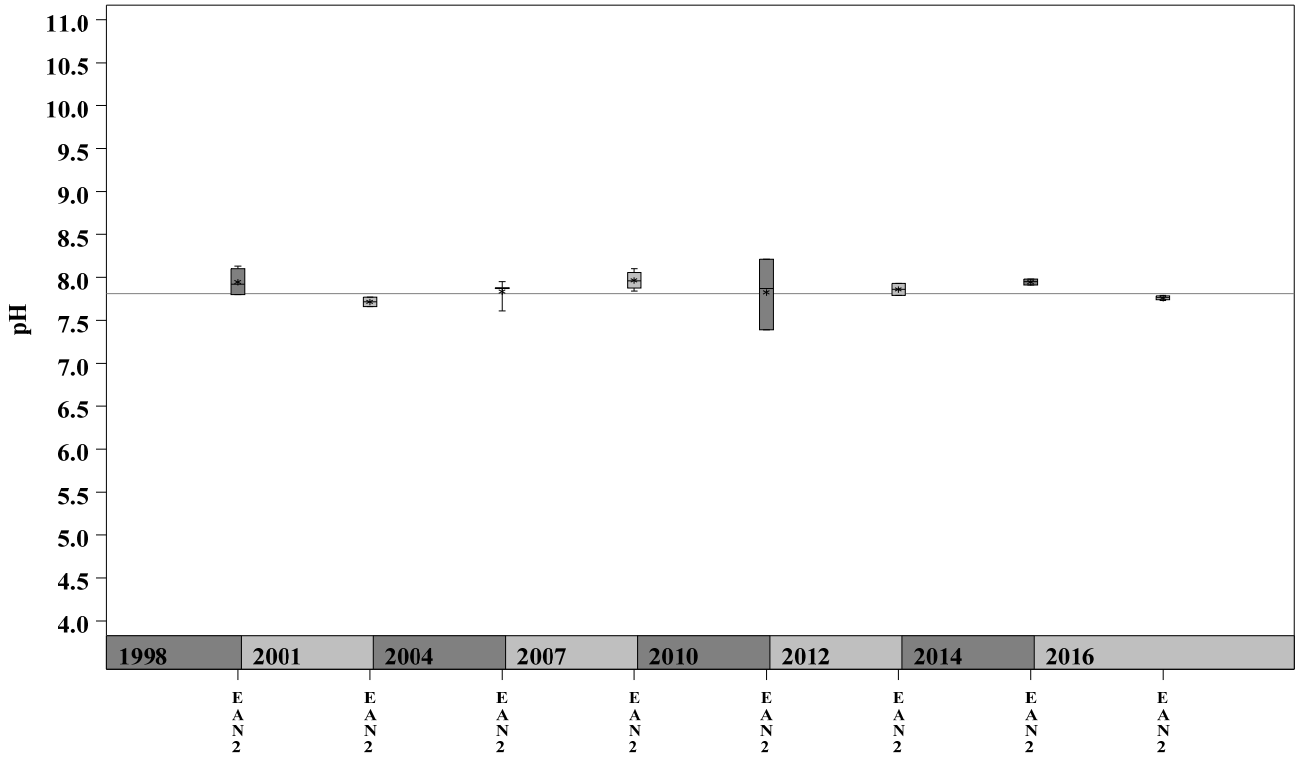
Parameter = TURBIDITY Unit = NTU Watershed = Eanes



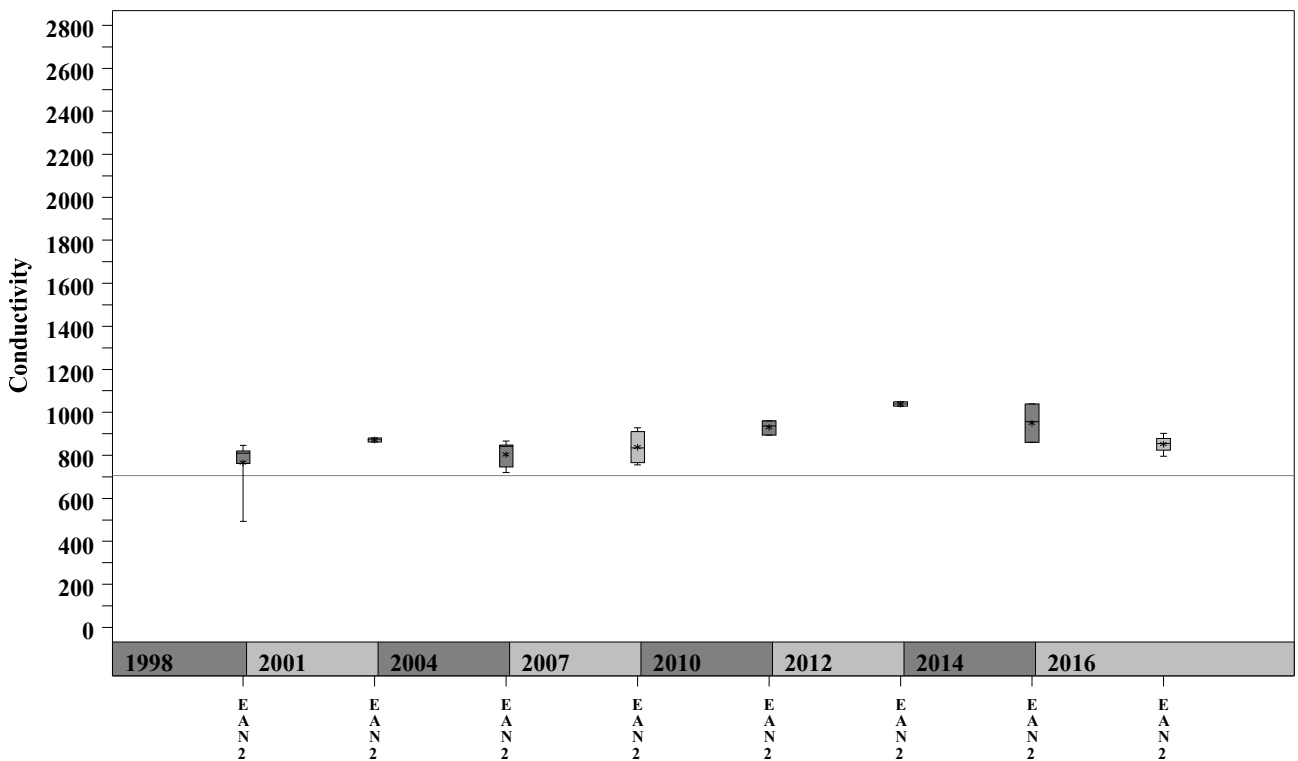
# Eanes Creek Watershed

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

Parameter = pH Unit = Standard Units Watershed = Eanes



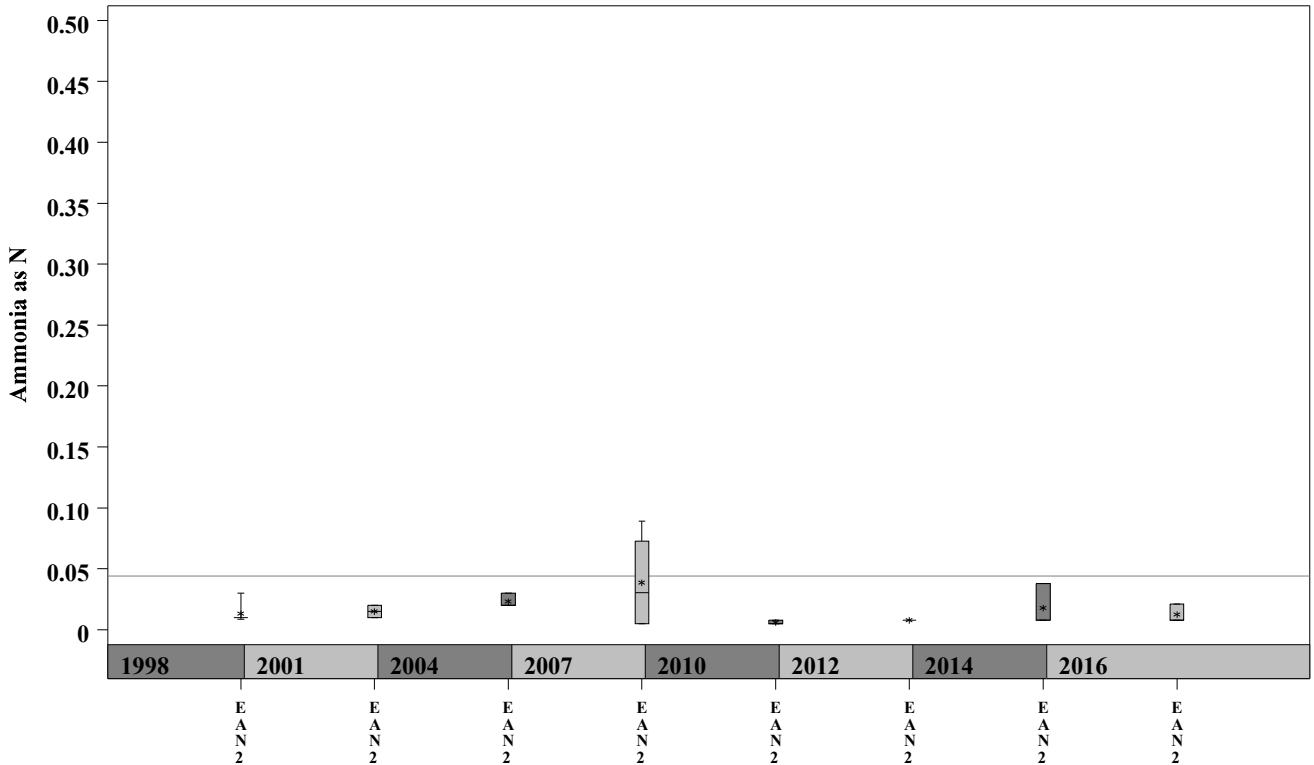
Parameter = CONDUCTIVITY Unit = uS/cm Watershed = Eanes



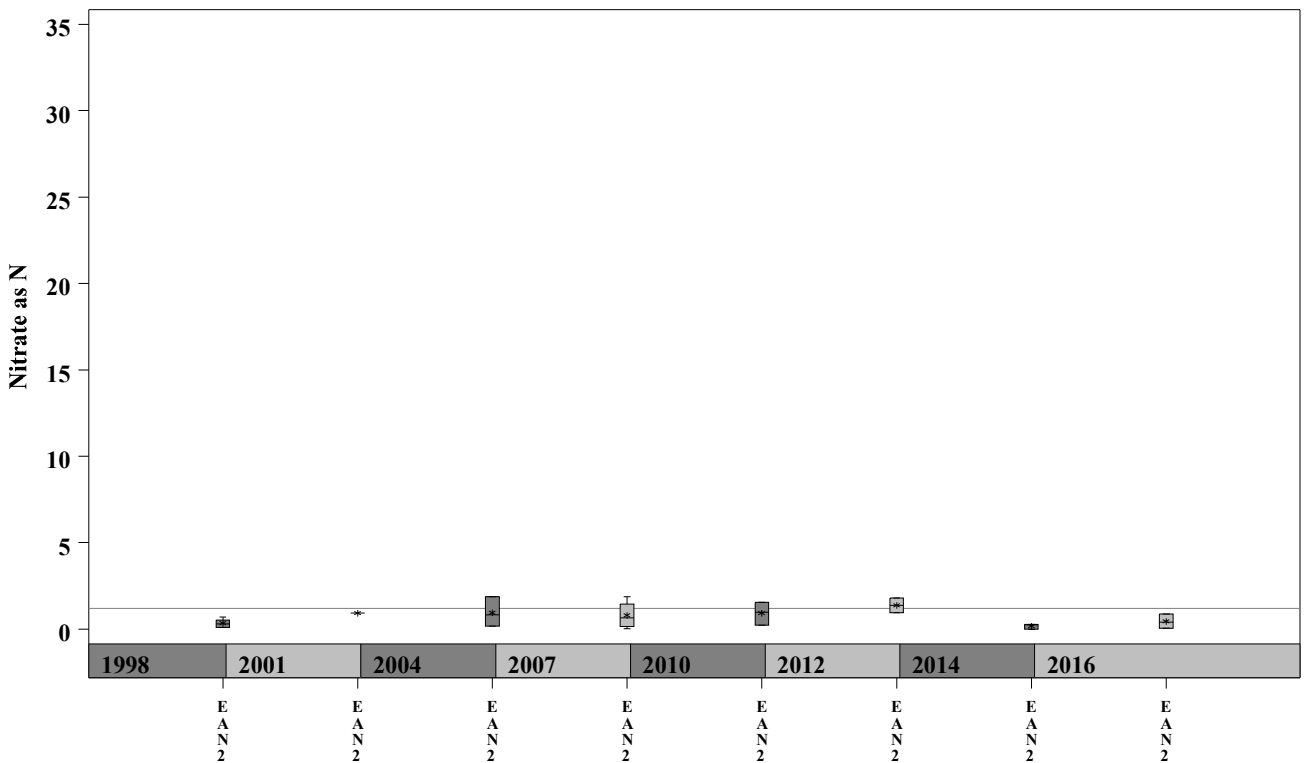
# Eanes Creek Watershed

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

Parameter = AMMONIA AS N Unit = mg/L Watershed = Eanes



Parameter = NITRATE AS N Unit = mg/L Watershed = Eanes

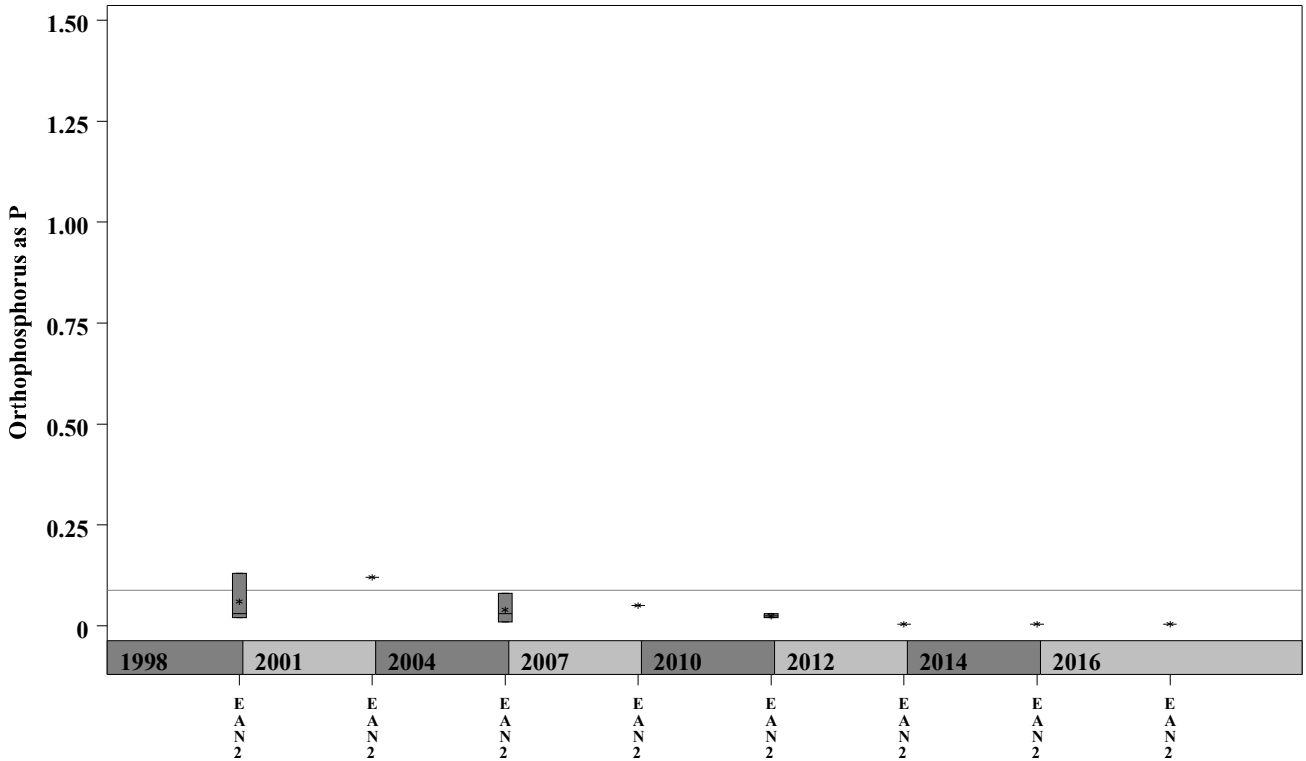




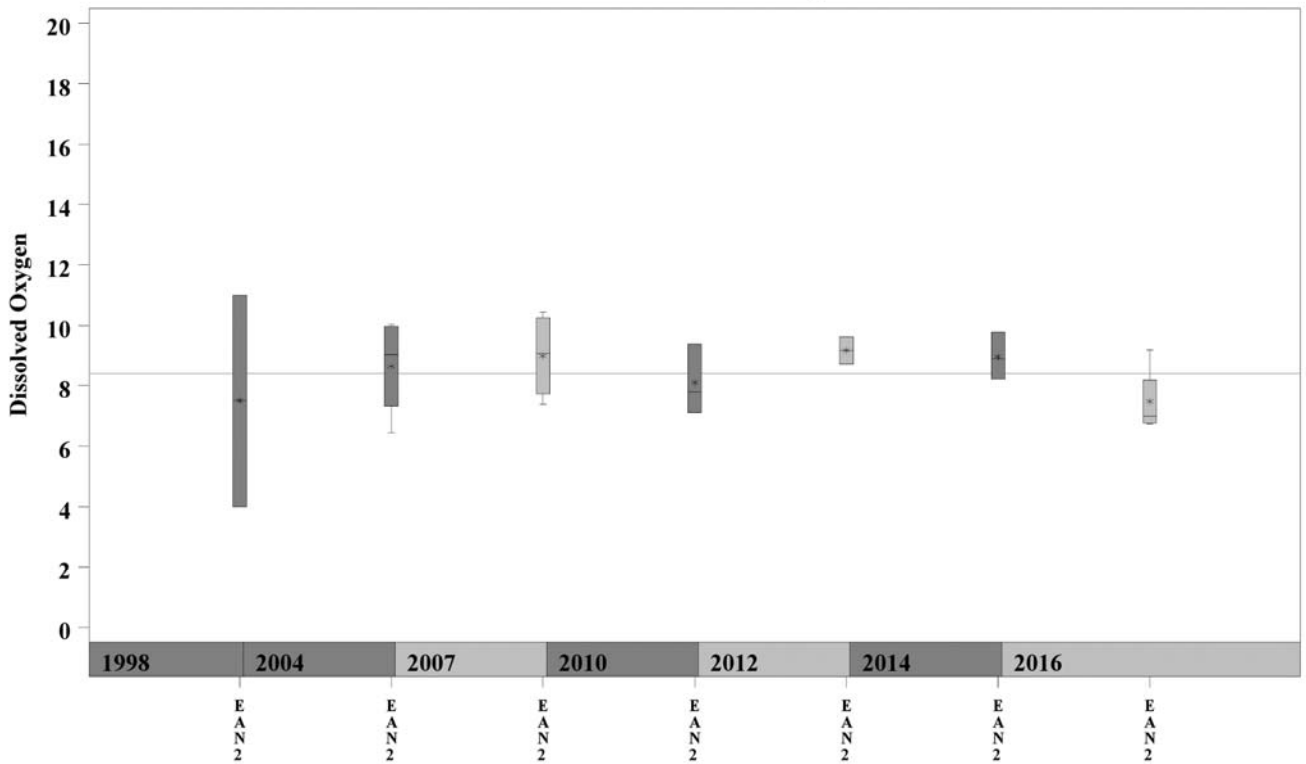
# Eanes Creek Watershed

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

Parameter = ORTHOPHOSPHORUS AS P Unit = mg/L Watershed = Eanes



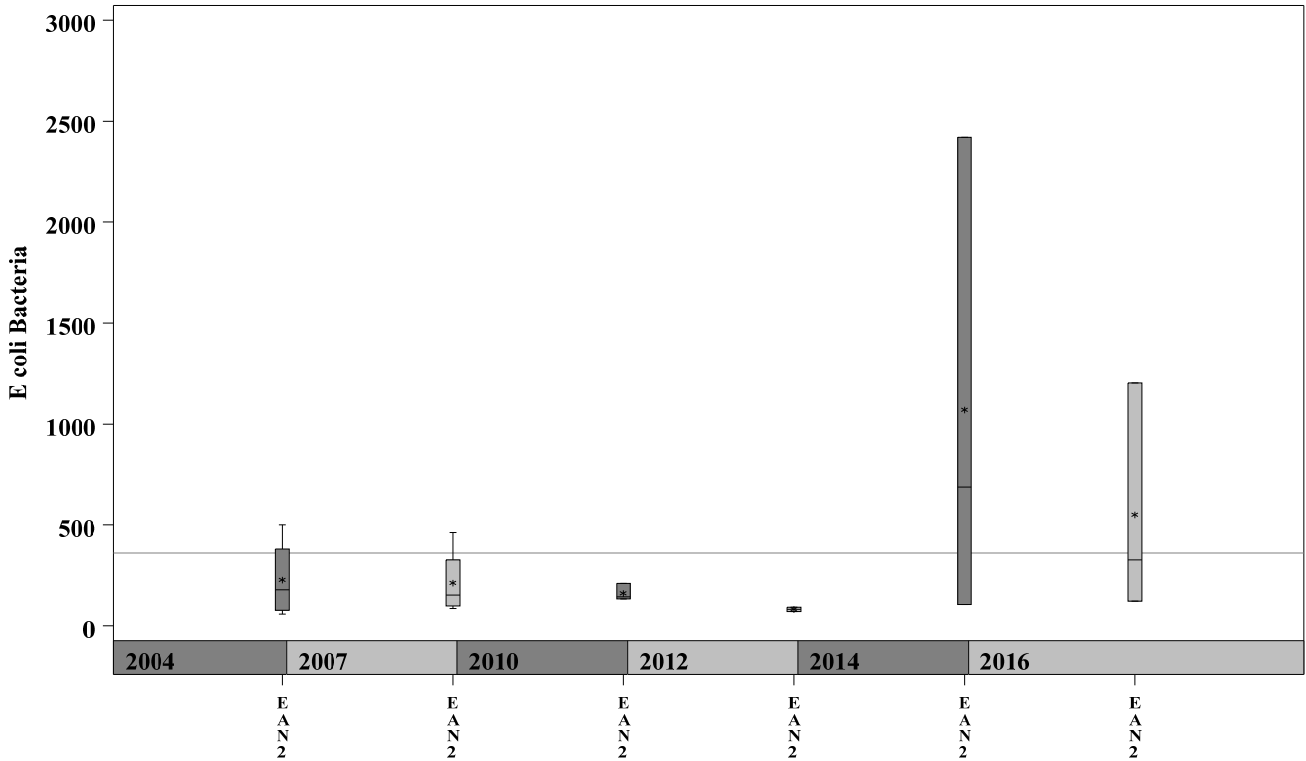
Parameter = DISSOLVED OXYGEN Unit = mg/L Watershed = Eanes



# Eanes Creek Watershed

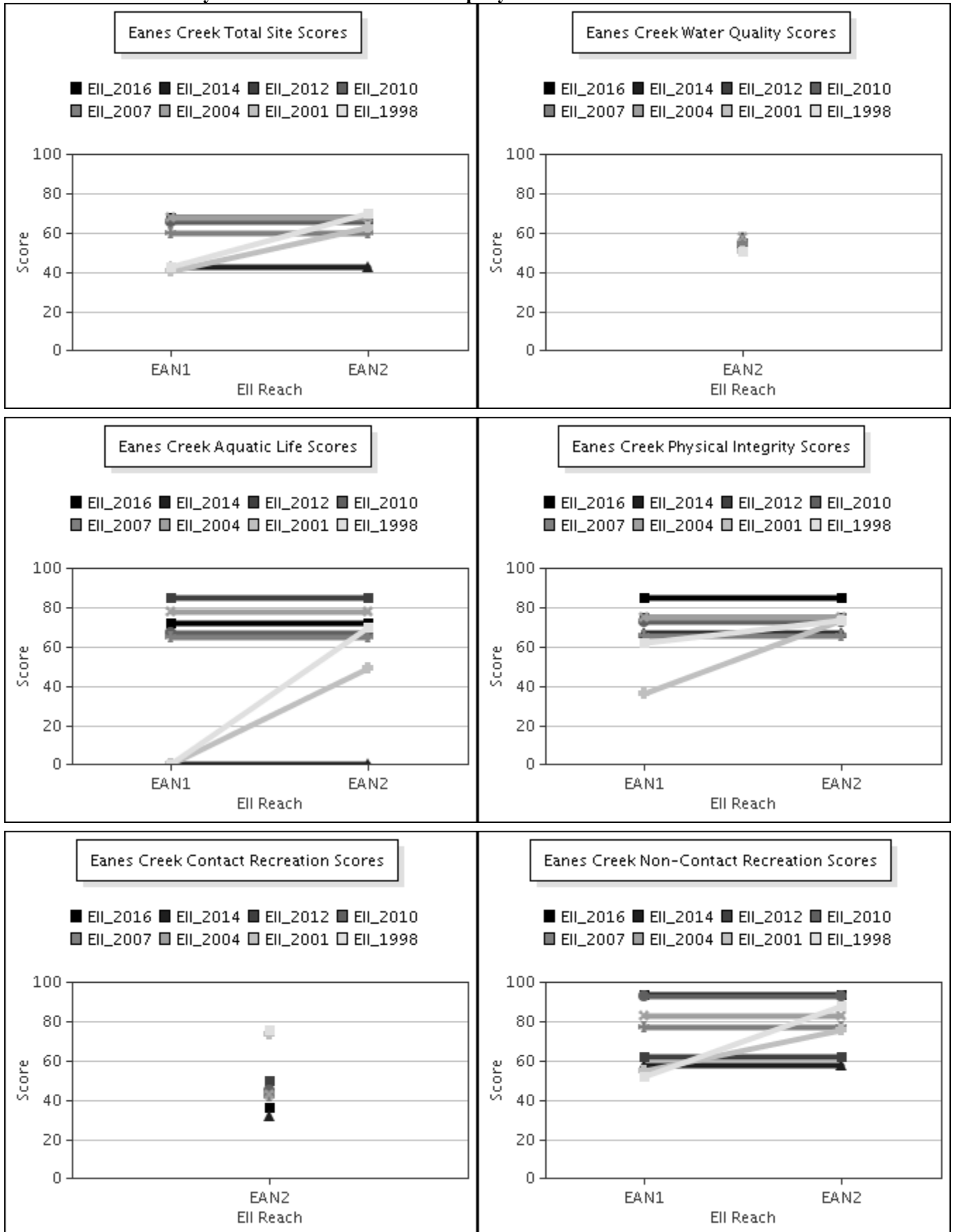
Data Summary Graphs – *E.coli* (Downstream to Upstream by Year)

Parameter = E COLI BACTERIA Unit = MPN/100mL Watershed = Eanes



# Eanes Creek Watershed

Score Summary – Reach scores for each sample year



# Eanes Creek Watershed

## Benthic Macroinvertebrates – Taxa List, Pollution Tolerance Index & Functional Feeding Group for 2016 Sample Sites (Downstream to Upstream)

Benthic Macroinvertebrates - Eanes Creek			EAN @ Camp Craft (1106) 06/21/2016 (WRE)
Benthic Macroinvertebrate ID	PTI	FFG	
Chimarra	2	FC	36
Microcylloepus Pusillus	2	CG,SC	2
Polycentropus / Cernotina	3	FC,P	1
Fallceon	4	CG,SC	15
Simulium	4	FC	36
Argia	6	P	9
Cheumatopsyche	6	FC	93
Chironomidae	6	FC,P	10
Hemerodromia	6	CG,P	1
Hydracarina	6		2
Tanypodinae	6	P	1
Physella	9	SC	1



# Eanes Creek Watershed

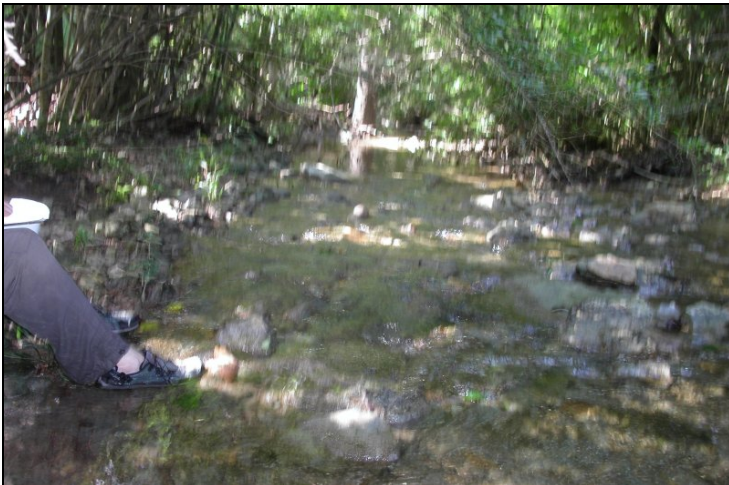
## Site Photographs



1106\_us\_06\_19\_2007



1106\_ur\_06\_19\_2007



1106\_ds\_06\_19\_2007



1106\_00-us-05\_17\_2010



1106\_00-ur-05\_17\_2010



1106\_00-ds-05\_17\_2010