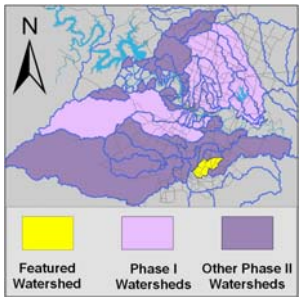


# South Fork Dry Creek Watershed

## Watershed Overview

Catchment	Total area	9 sq. miles						
	Area in recharge	0						
	Creek length	10 miles						
Demographics	Receiving water	Dry Creek						
	2000 population	1,276						
	2030 projected population	8,011						
Land Use	30 year projected % increase	628 %						
	Impervious cover (2003 estimate)	5.5 %						
	Impervious cover (2013 estimate)	4.1 %						
Overall EII Scores	1999	2002	2005	2008	2010	2012	2014	2016
	51	59	50	58	66	59	63	75



## Flow Regime\* for Sample Sites on South Fork Dry Creek

Site	2002				2005					2008					2010				2011				2012				2014				2016			
	Feb	Feb	May	Aug	Nov	Mar	Jun	Jun	Sep	Dec	Feb	May	Jun	Sep	Dec	Mar	May	May	Oct	Dec	Mar	May	Jul	Sep	Jan	Apr	May	Jul	Sep	Jan	Apr	May	Jul	Sep
	WQ	Bio	WQ	WQ	WQ	WQ	WQ	Bio	WQ	WQ	WQ	WQ	Bio	WQ	WQ	WQ	WQ	Bio	WQ	WQ	WQ	Bio	WQ	WQ	WQ	WQ	Bio	WQ	WQ	WQ	WQ	WQ	WQ	WQ
1214	B	B	n	n	B																													
1215	B	B	n	n	B	B	n	n	n	n	n	n	n	n	B	n	n	n	n	n	B	n	n	n	B	B	n	B	n	B	B	B	B	B
1216	B	B	n		B	B	B	n	n	B	B	B	n	B	B	B	S	B	B	B	B	B	B	n	B	B	B	B	n	B	B	B	n	B

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

## Index Scores\* for South Fork Dry 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
SFD1	1216	South Fork Dry Creek @ FM812	1999	38	68	57	49	48				43
SFD2	1214	South Fork Dry Creek @ Rodriguez Rd	1999	69	68	98	43	55				56
SFD2	1215	South Fork Dry Creek @ US183	1999	60	68	96	54	45				54
SFD1	1216	South Fork Dry Creek @ FM812	2002	33	82	72	74	33	31	33	28	54
SFD2	1214	South Fork Dry Creek @ Rodriguez Rd	2002	64	82	96	73	29	19	37		60
SFD2	1215	South Fork Dry Creek @ US183	2002	61	82	86	67	23	53	49	57	63
SFD1	1216	South Fork Dry Creek @ FM812	2005	40	85	55	49	47				46
SFD2	1215	South Fork Dry Creek @ US183	2005	61	85	82	62	24				52
SFD1	1216	South Fork Dry Creek @ FM812	2008	53	78	53	49	53	63	63		58
SFD2	1215	South Fork Dry Creek @ US183	2008		78		48	55	57	57		60
SFD1	1216	South Fork Dry Creek @ FM812	2010	61	79	70	66	53	69	69		66
SFD2	1215	South Fork Dry Creek @ US183	2010	70	79	68	66	52	57	43	71	65
SFD1	1216	South Fork Dry Creek @ FM812	2012	56	79	49	51	44	73	85	60	59
SFD2	1215	South Fork Dry Creek @ US183	2012	66	79	24	58	51	76	65	86	59
SFD1	1216	South Fork Dry Creek @ FM812	2014	44	79	44	79	51	65	66	63	60
SFD2	1215	South Fork Dry Creek @ US183	2014	64	79	82	68	35	64	47	81	65
SFD1	1216	South Fork Dry Creek @ FM812	2016	73	80	81	81	66	80	77	83	77
SFD2	1215	South Fork Dry Creek @ US183	2016	76	80	93	67	48	76	72	79	73

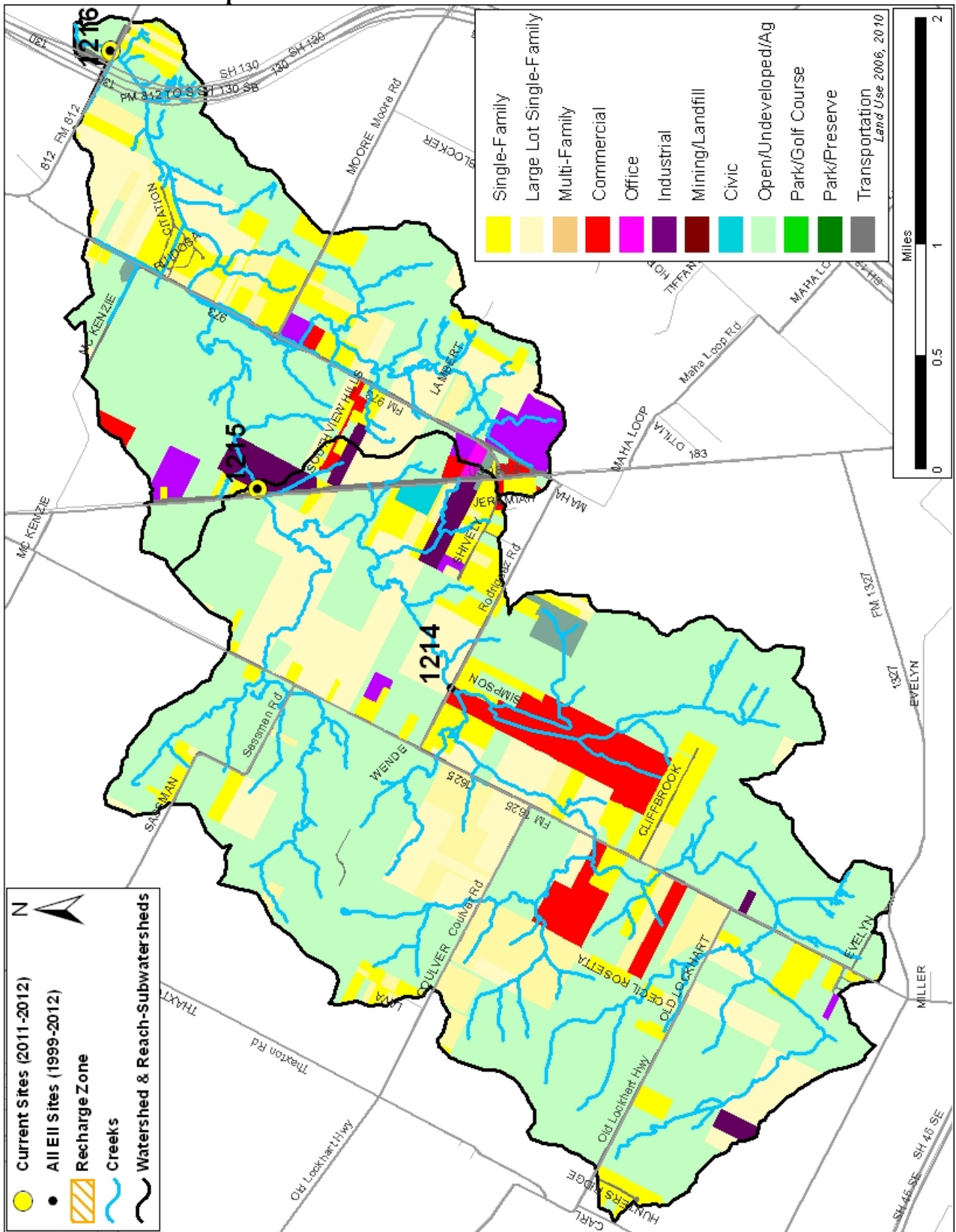
\* blank cells indicate parameter was not collected, blank row indicate site was dropped

\*\*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

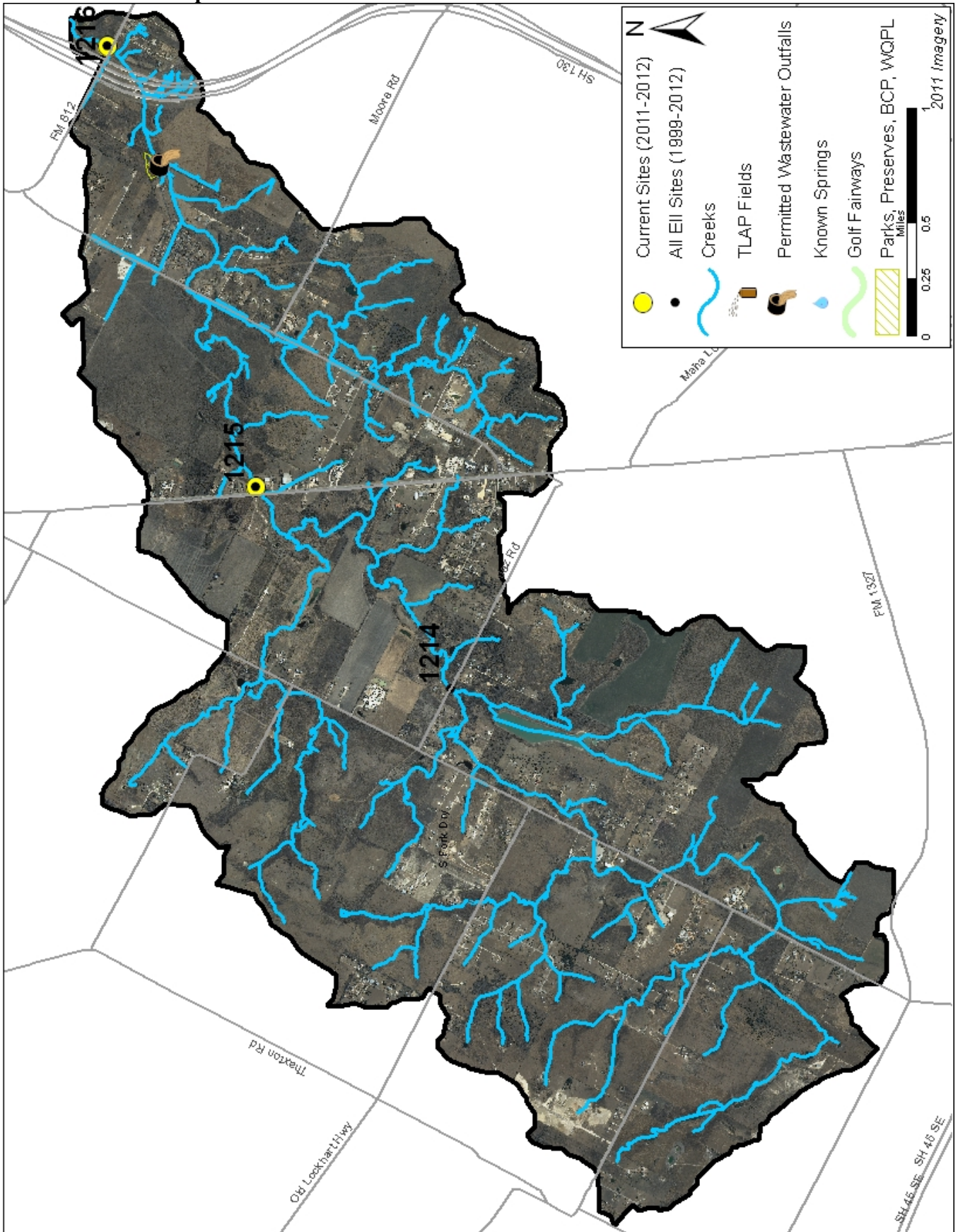
# South Fork Dry Creek Watershed

## Land Use Map



# South Fork Dry Creek Watershed

## Aerial Map



# South Fork Dry 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
South Fork Dry	1216	SFD1	01/12/2016	9.2	452	7.91	8.0 R	26.9
South Fork Dry	1216	SFD1	04/12/2016	19.5	712	7.91	7.8	42.0
South Fork Dry	1216	SFD1	05/12/2016	25.0	500	7.66	4.6	
South Fork Dry	1216	SFD1	09/13/2016	26.5	633	7.53	3.6	26.6
SFD1 Mean				20.0	574	7.75	6.0	31.8
South Fork Dry	1215	SFD2	01/12/2016	8.8	410	8.18	10.4	38.3
South Fork Dry	1215	SFD2	04/12/2016	21.2	488	8.58	13.2	2.0
South Fork Dry	1215	SFD2	05/13/2016	25.4	543	8.18	8.6	
South Fork Dry	1215	SFD2	07/12/2016	29.7	878	8.10	5.6 R	1.0
South Fork Dry	1215	SFD2	09/13/2016	29.4	705	7.98	6.3	5.2
SFD2 Mean				22.9	605	8.20	8.8	11.6
South Fork Dry Mean				21.6	591	8.00	7.6	20.3

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
<i>E. Coli</i> (col/100ml)	316.1	1.0	2420.0	883.7	

# South Fork Dry Creek Watershed

## Water Quality Data – Ammonia, Nitrate / Nitrite, Ortho-Phosphorus, Total Suspended Solids & Turbidity 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	NH3-N		NO3/NO2		Ortho-P		T.S.S		Turb.	
				<>	flag	<>	flag	<>	flag	<>	flag		
South Fork Dry	1216	SFD1	01/12/2016	<J	0.008	<J	0.01	<J	0.004	<>	8.1	<>	23.2 R
South Fork Dry	1216	SFD1	04/12/2016	<J	0.008	<J	0.01	<J	0.004		8.4		8.5
South Fork Dry	1216	SFD1	05/12/2016										
South Fork Dry	1216	SFD1	09/13/2016	<J	0.008	<J	0.01	<J	0.004		5.1		7.8
SFD1 Mean					0.008		0.01		0.004		7.2		13.2
South Fork Dry	1215	SFD2	01/12/2016	<J	0.008	<J	0.01	<J	0.004		21.5		30.8 R
South Fork Dry	1215	SFD2	04/12/2016	<J	0.008	<J	0.01	<J	0.004		26.1		32.4
South Fork Dry	1215	SFD2	05/13/2016										
South Fork Dry	1215	SFD2	07/12/2016	<J	0.008	<J	0.01	<J	0.004		3.6		5.4 R
South Fork Dry	1215	SFD2	09/13/2016	<J	0.008	<J	0.01	<J	0.004		35.0		8.1
SFD2 Mean					0.008		0.01		0.004		21.6		19.2
South Fork Dry Mean					0.008		0.01		0.004		15.4		16.6

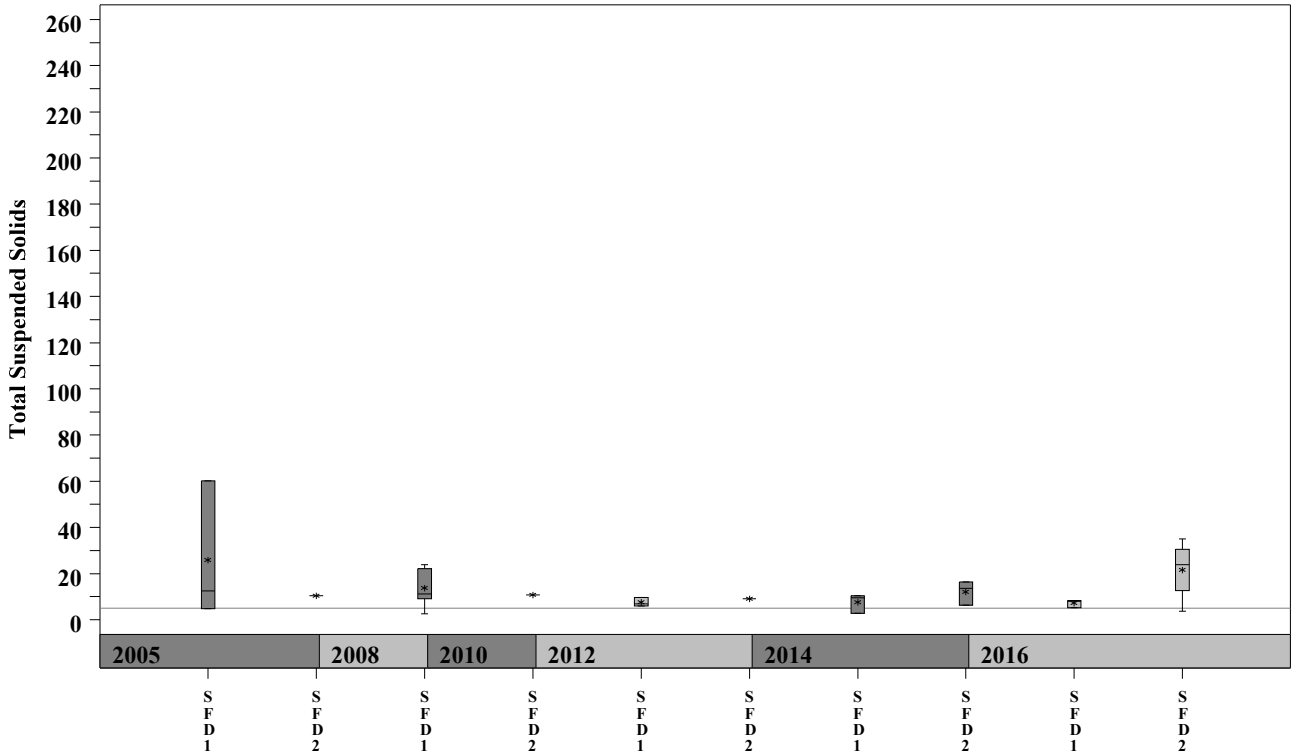
Gray highlighting indicates that the value exceeds one standard deviation from the mean of all E.I.I. sites combined.

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

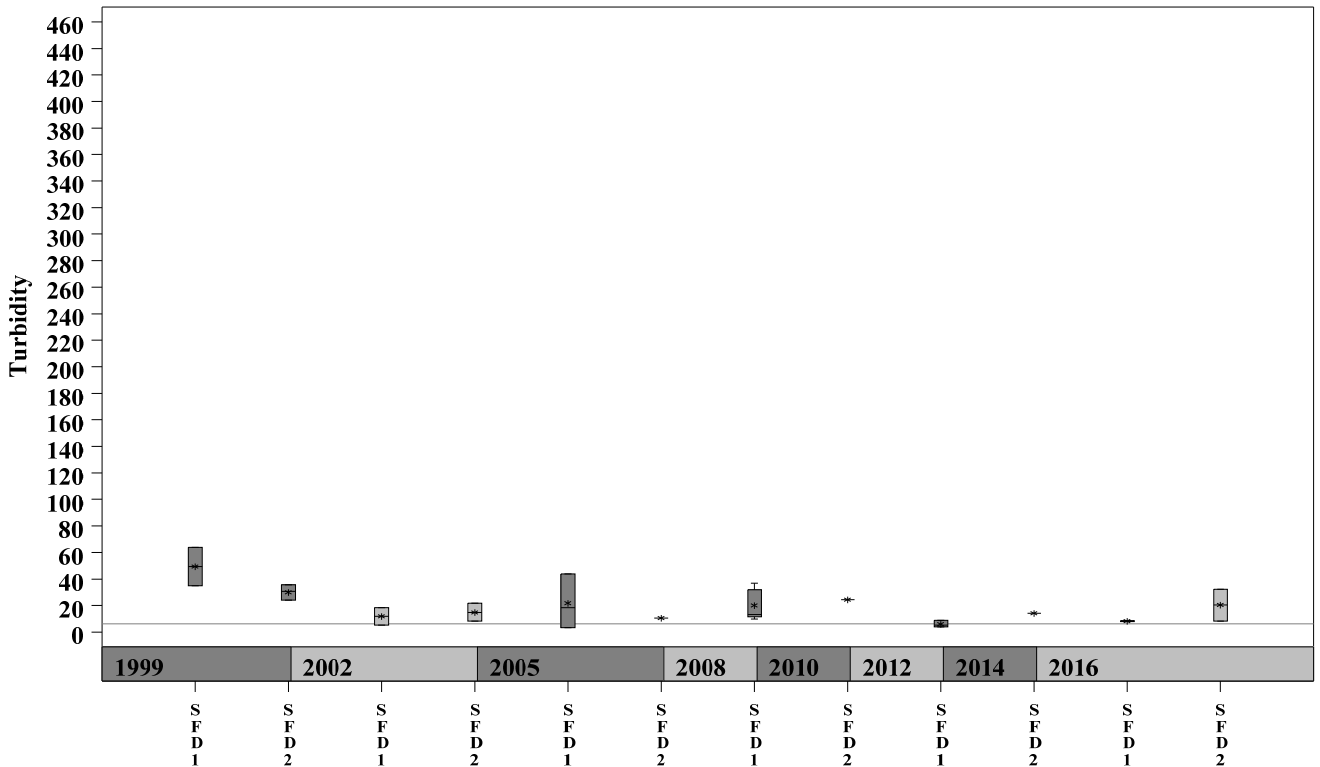
# South Fork Dry Creek Watershed

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

Parameter = TOTAL SUSPENDED SOLIDS Unit = mg/L Watershed = South Fork Dry



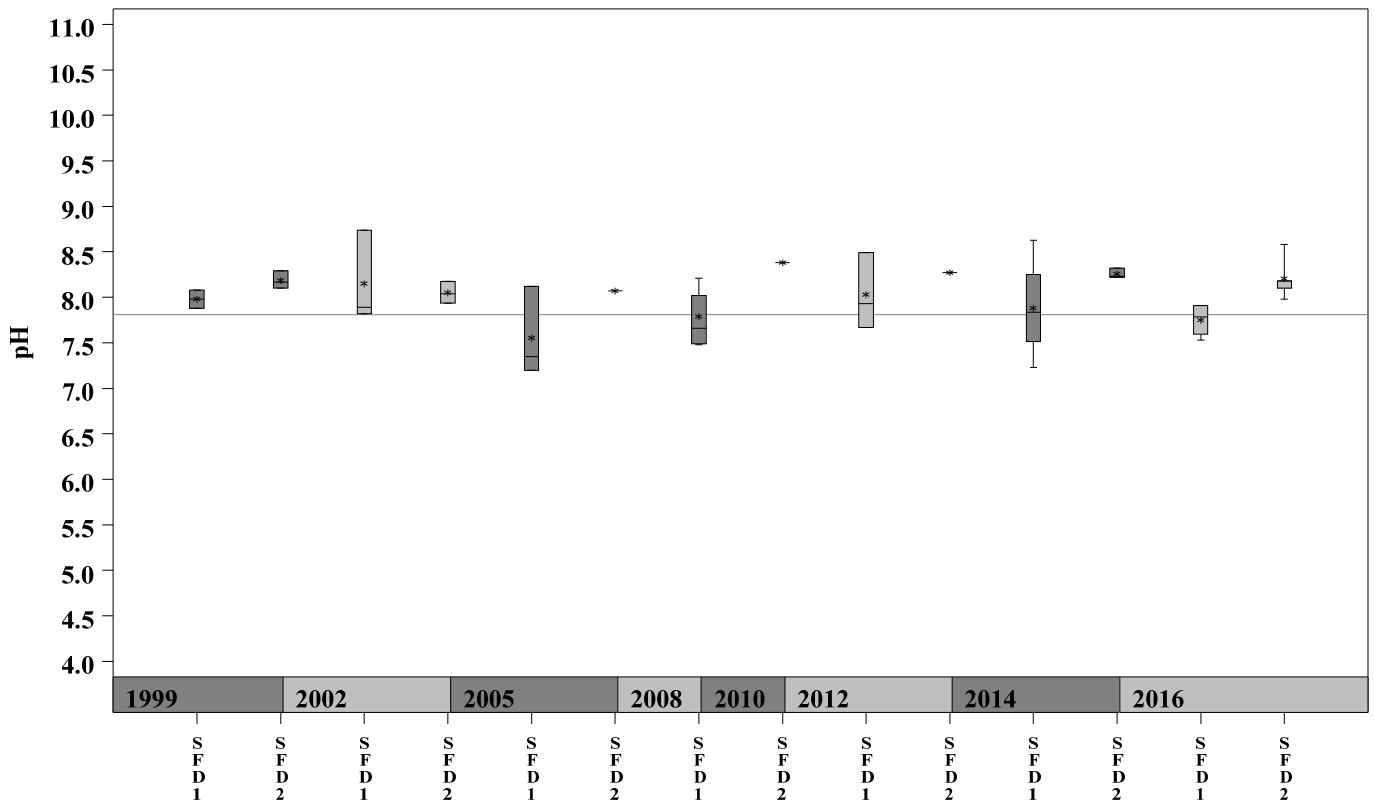
Parameter = TURBIDITY Unit = NTU Watershed = South Fork Dry



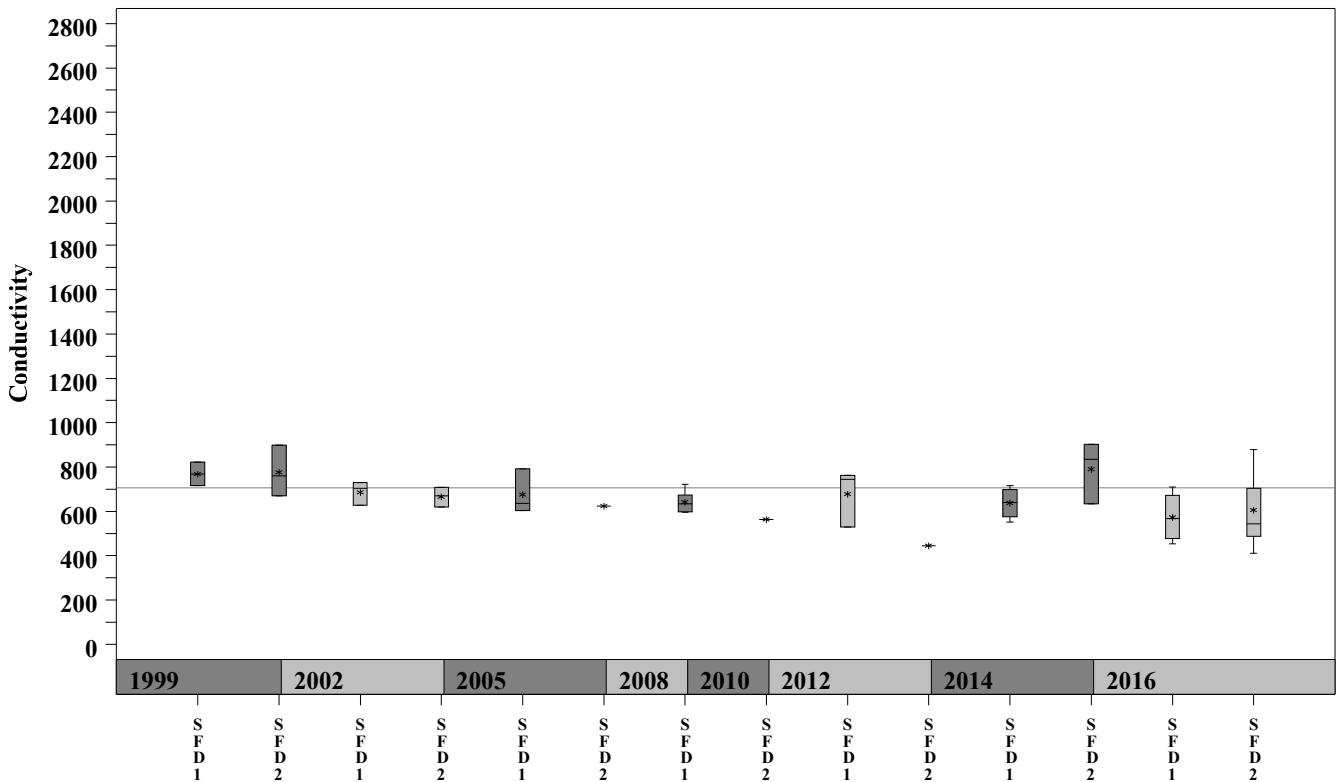
# South Fork Dry Creek Watershed

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

Parameter = pH Unit = Standard Units Watershed = South Fork Dry



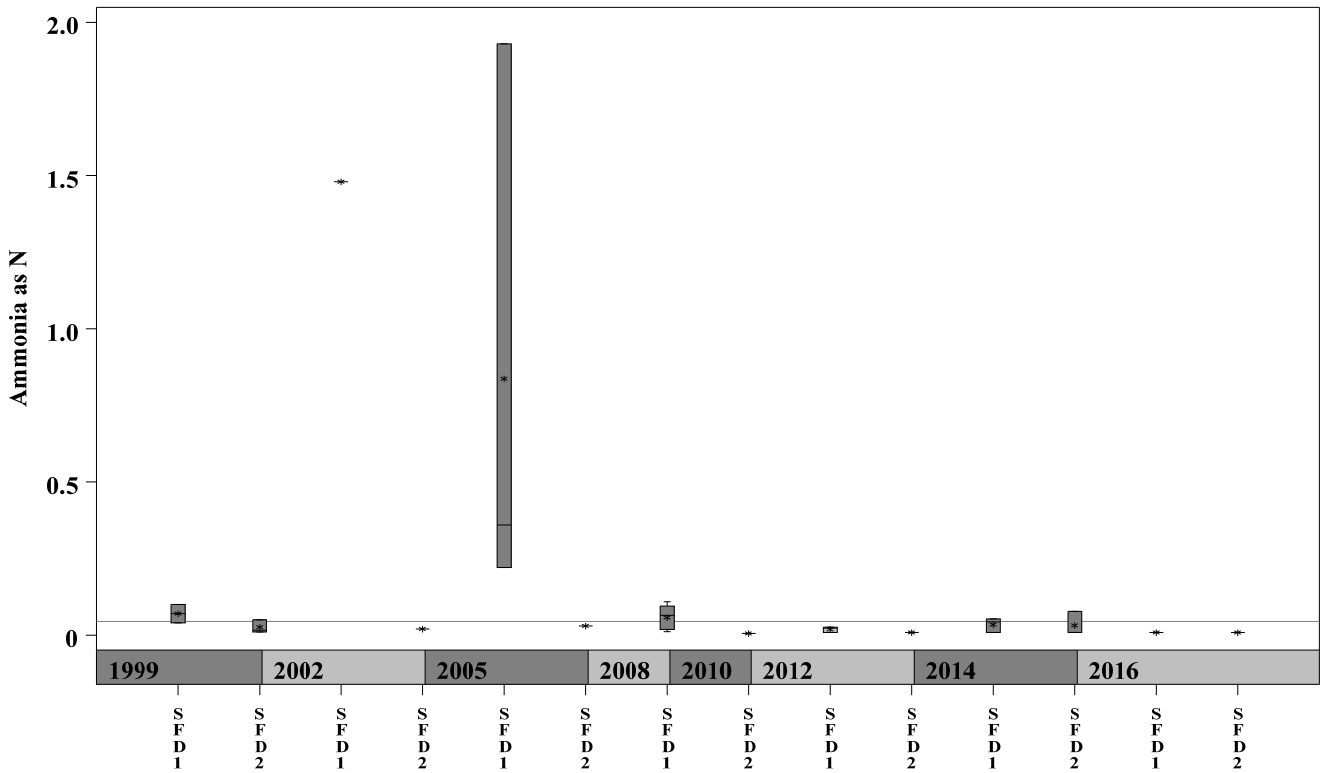
Parameter = CONDUCTIVITY Unit = uS/cm Watershed = South Fork Dry



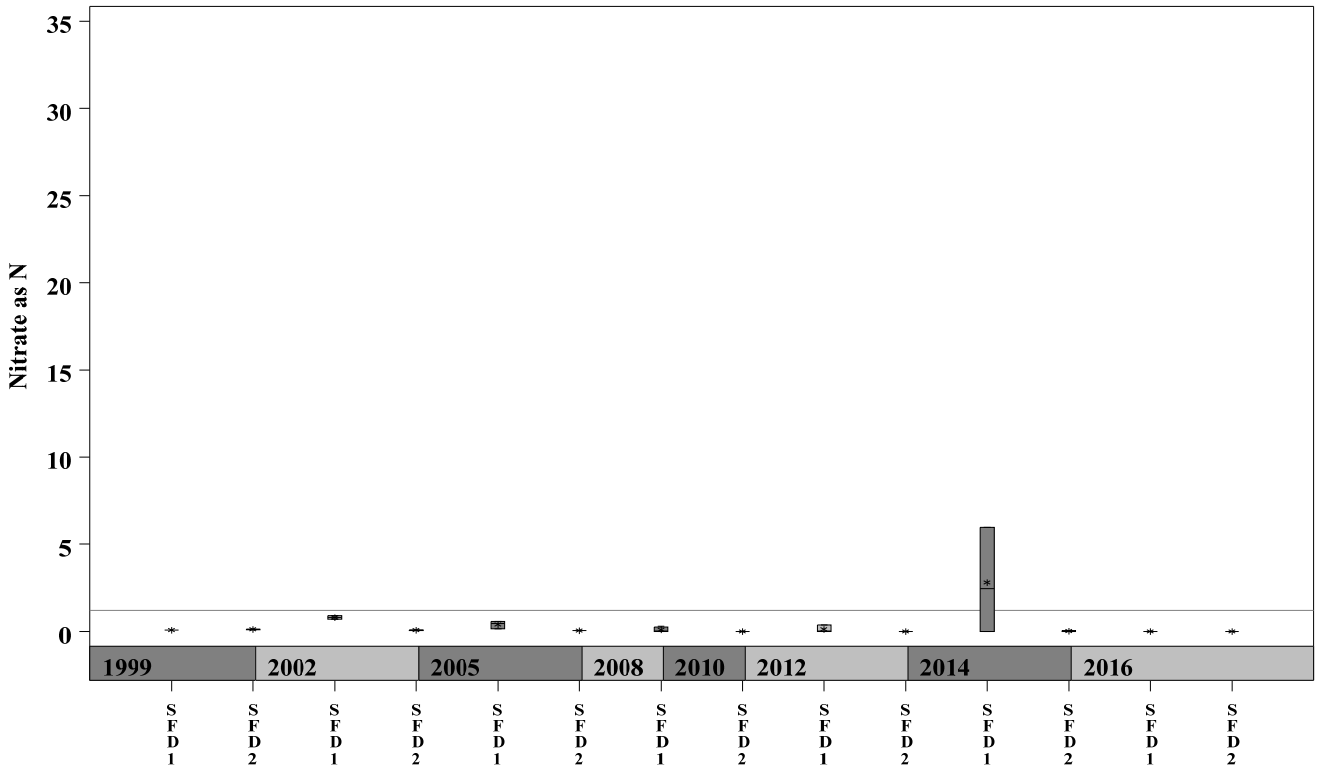
# South Fork Dry Creek Watershed

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

Parameter = AMMONIA AS N Unit = mg/L Watershed = South Fork Dry



Parameter = NITRATE AS N Unit = mg/L Watershed = South Fork Dry

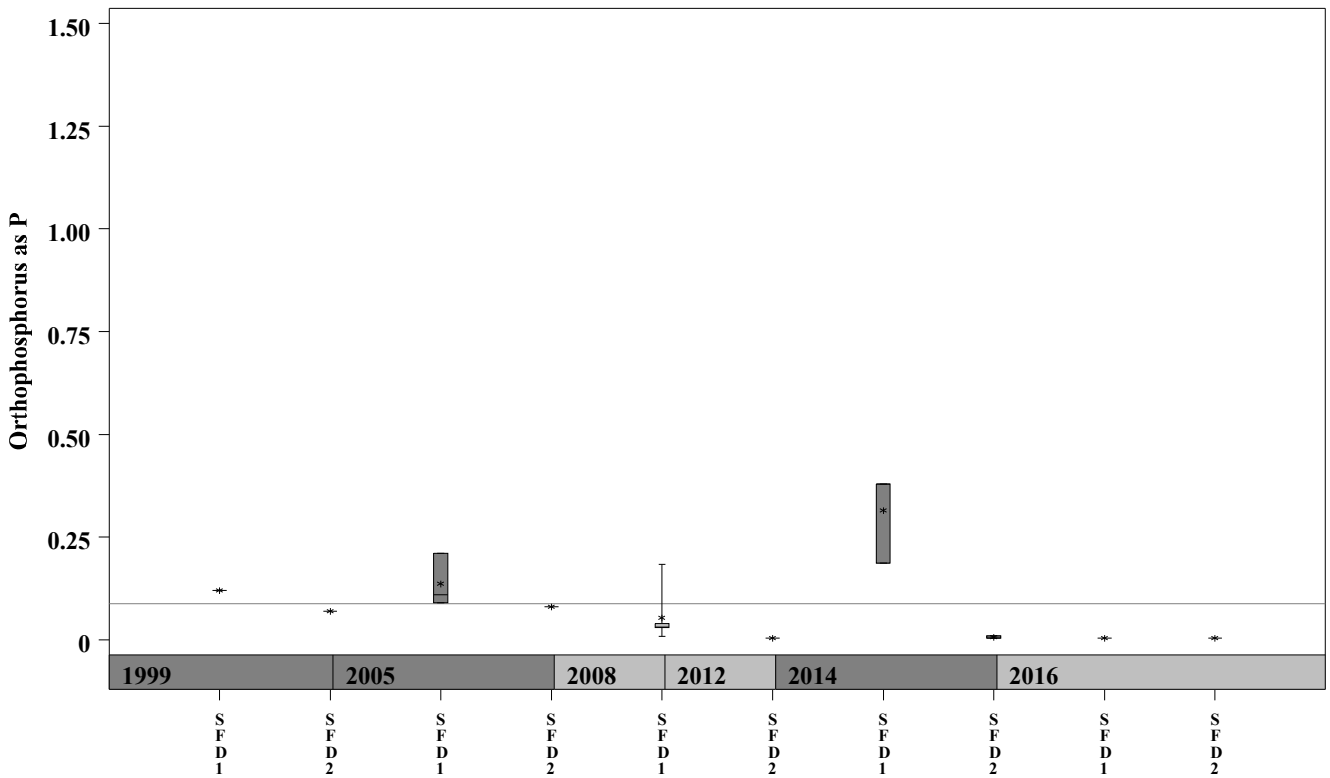




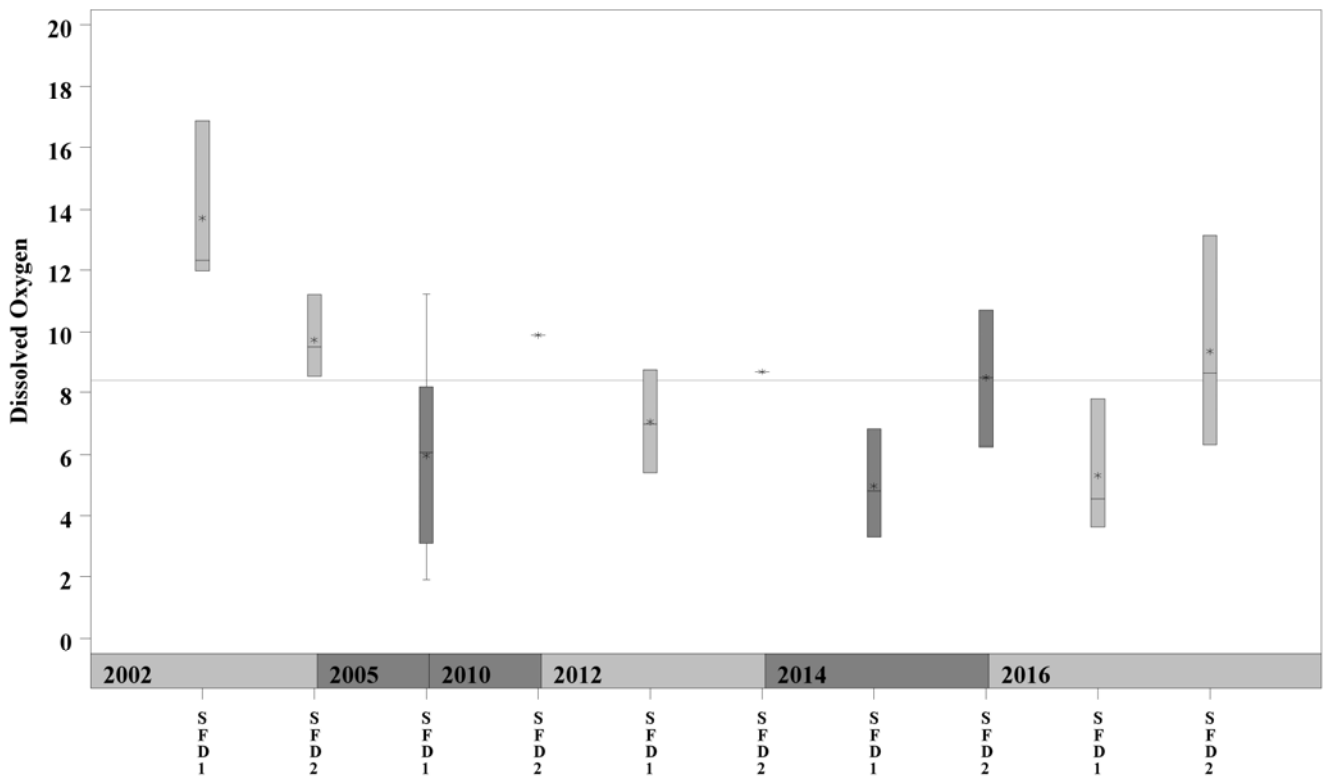
# South Fork Dry Creek Watershed

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

Parameter = ORTHOPHOSPHORUS AS P Unit = mg/L Watershed = South Fork Dry



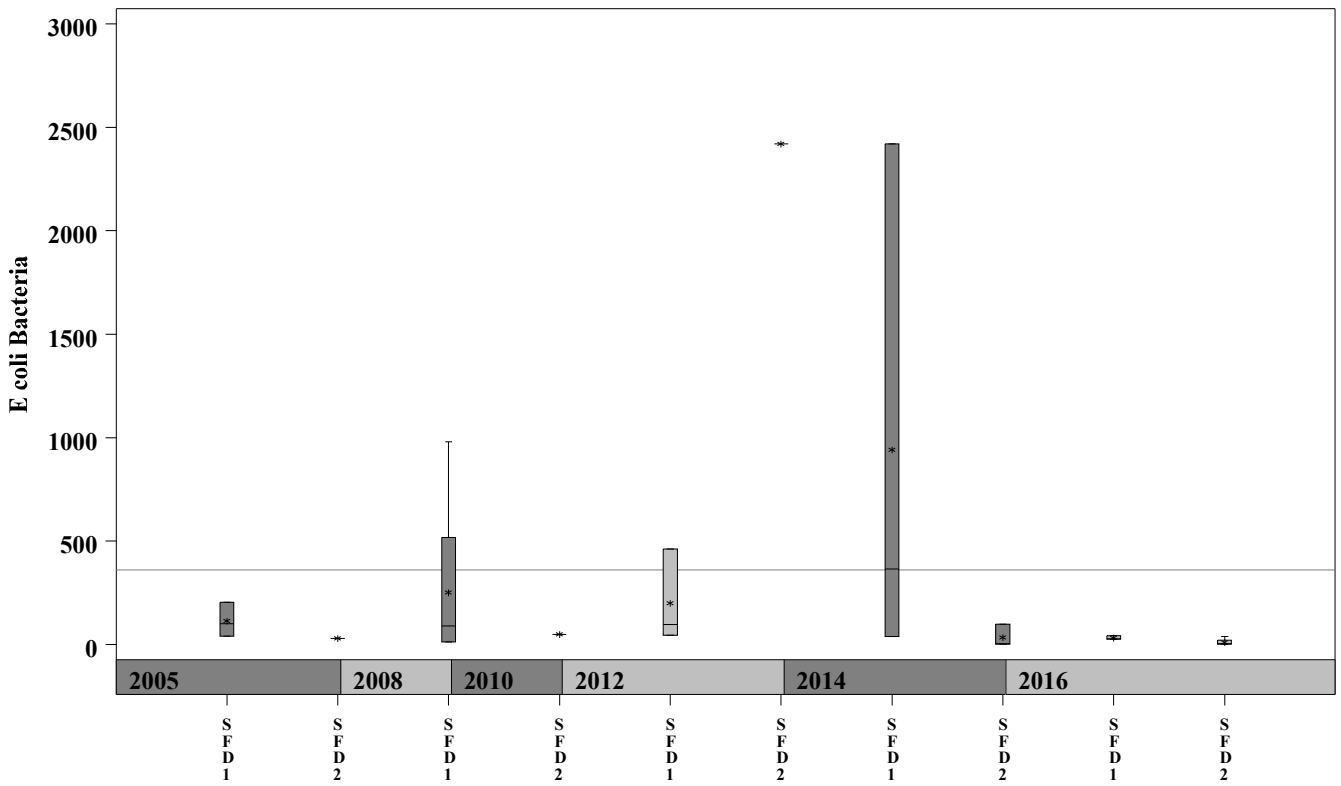
Parameter = DISSOLVED OXYGEN Unit = mg/L Watershed = South Fork Dry



# South Fork Dry Creek Watershed

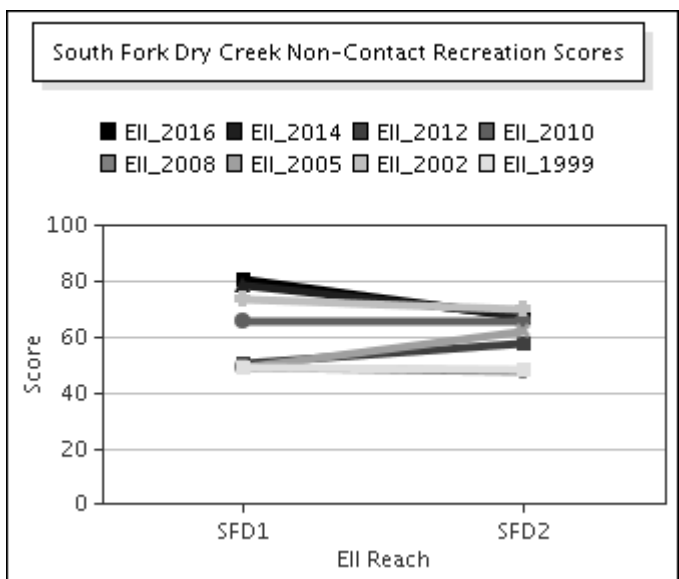
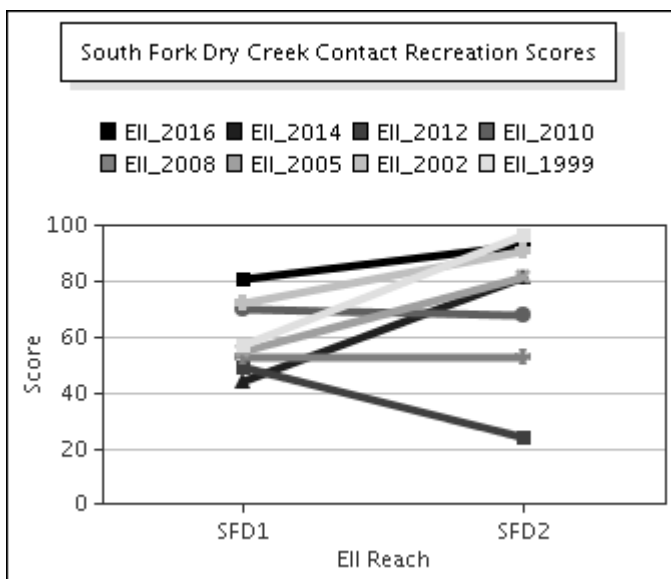
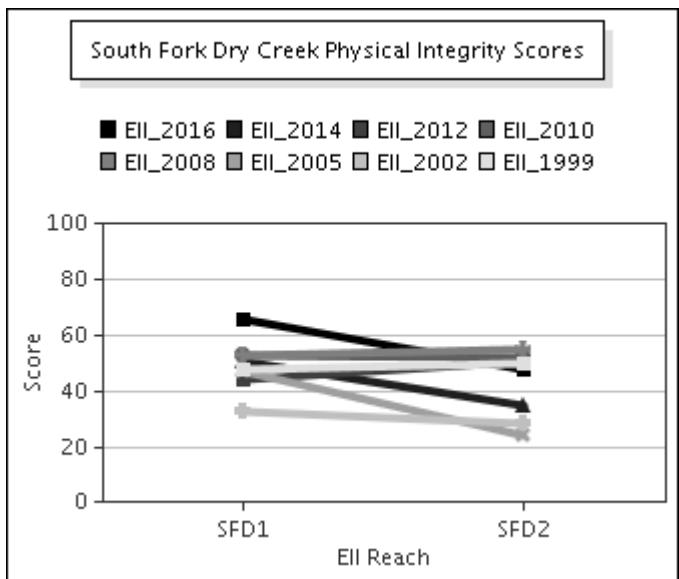
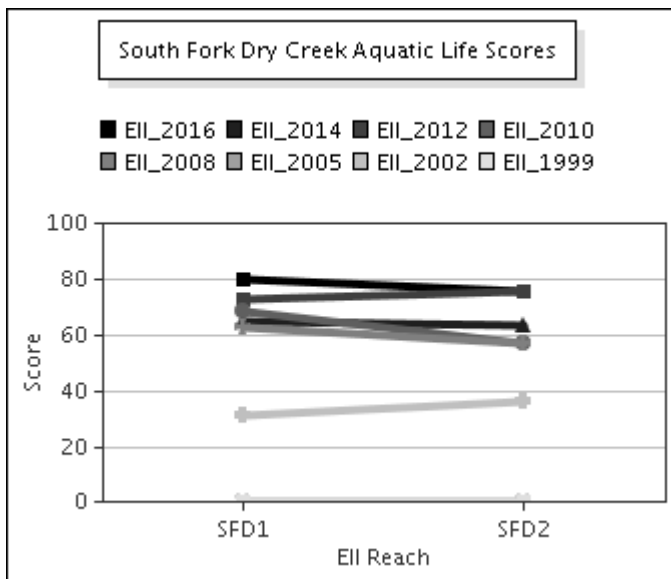
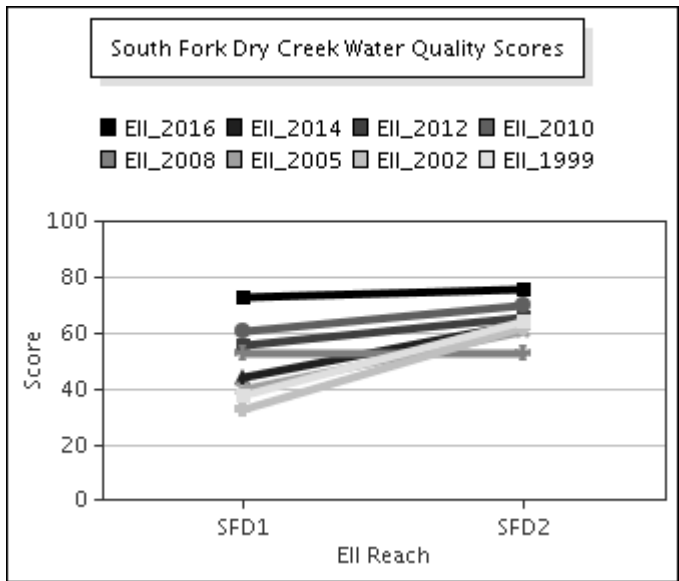
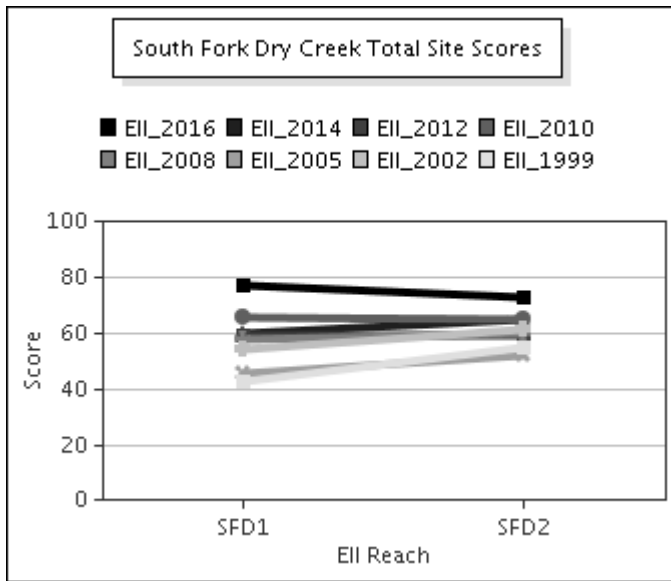
Data Summary Graphs – *E.coli* (Downstream to Upstream by Year)

Parameter = E COLI BACTERIA Unit = MPN/100mL Watershed = South Fork Dry



# South Fork Dry Creek Watershed

## Score Summary – Reach scores for each sample year



# South Fork Dry Creek Watershed

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

Benthic Macroinvertebrates - South Fork Dry Creek			SFD @ US183 (1215) 05/13/2016 (WRE)	SFD @ FM 812 (1216) 05/12/2016 (WRE)
Benthic Macroinvertebrate ID	PTI	FFG		
Chimarra	2	FC	2	
Fallceon	4	CG,SC	19	17
Neochoroterpes	4	CG	4	6
Mesovelia	5	P		2
Rheumatobates	5	P		1
Sphaerium (Clam)	5	FC		33
Corbicula Fluminea	6	FC		10
Argia	6	P	1	1
Cheumatopsyche	6	FC	46	12
Chironomidae	6	FC,P	3	5
Enallagma	6	P	1	
Microvelia	6	P	2	
Bezzia / Palpomyia	7	CG,P	1	2
Caenis	7	CG,SC		14
Scirtidae	7	CG,SC,SH	1	
Hirudinea	8	P		1
Hyaella	8	CG,SH		6

# South Fork Dry Creek Watershed

## Site Photographs



1214\_t00-us1-06\_21\_2000



1214\_t00-us-02\_27\_2002



1215\_t00-ur-02\_27\_2002



1215\_t00-ur-06\_15\_2005



1215\_t00-ds-06\_15\_2005



1215\_00-ur-05\_19\_2010

# South Fork Dry Creek Watershed

## Site Photographs



1216\_t00-ur-02\_27\_2002



1216\_t00-us-02\_27\_2002



1216\_t00-ds-06\_16\_2005



1216\_t0-na-06\_17\_2008



1216\_00-ds-05\_18\_2010



1216\_00-us-05\_18\_2010