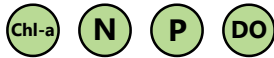


Phillippi Creek Condition Report for 2013



PASS



4 out of 4
indicators
were rated as
PASS.

All four indicators must pass for the creek to be rated as
PASS.

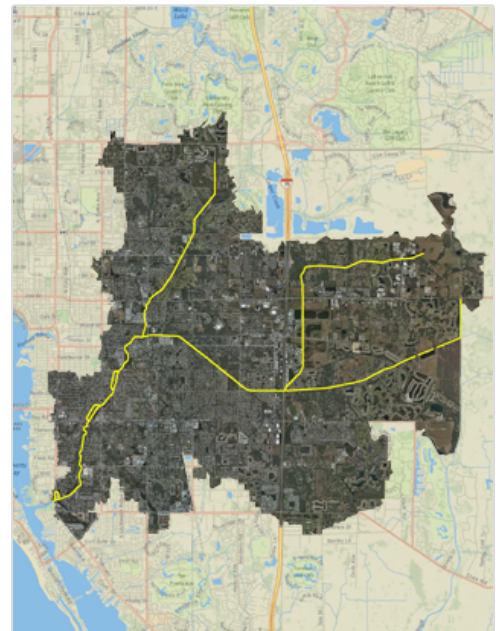
Size: 35,771 acres

Location: North Sarasota County, south Manatee County

Discharges into: Sarasota Bay

Phillippi Creek Basin consists primarily of residential properties west of Interstate 75, with commercial properties situated along the major arterial transportation routes. The area east of Interstate 75 is primarily rural with scattered low density residential area. Much of the area east of Interstate 75 is in agriculture use. Phillippi Creek drains from the north and northeast to south and southwest. The major conveyance system in the watershed consists of approximately 47 miles of open channels, most of which have been dredged in the past. The soils in the Phillippi Creek Watershed are primarily Myakka with the upland soils containing poorly to very poorly drained sands and the stream-side soils consisting of sands that are better drained. *For basin details see: **Phillippi Creek Flood Study Update (2001)***

Phillippi Creek



Water Chemistry Ratings | Freshwater Portion of the Creek

Creek Conditions Ratings are based on comparing nitrogen, phosphorus, chlorophyll and dissolved oxygen to water quality guidelines or regulations. Florida law defines a maximum allowable concentration of nitrogen, phosphorus, and chlorophyll *a*, and a minimum allowable concentration of dissolved oxygen in these streams.

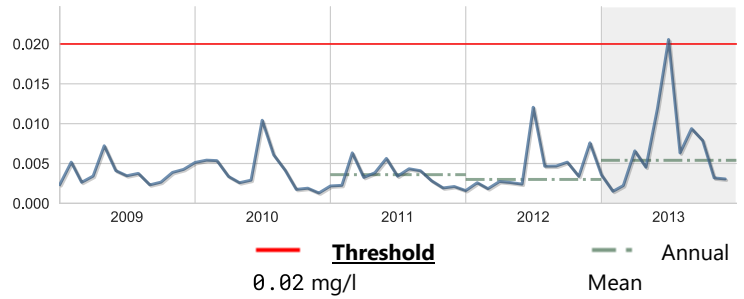


Chlorophyll a

Score: Pass

Units: mg/l	Year 2013	Historical period of record
High	0.039	0.115
Mean	0.0054	0.0037
Low	0.0005	0.00
No. of Samples	121	1,647

Five-year Rolling Average

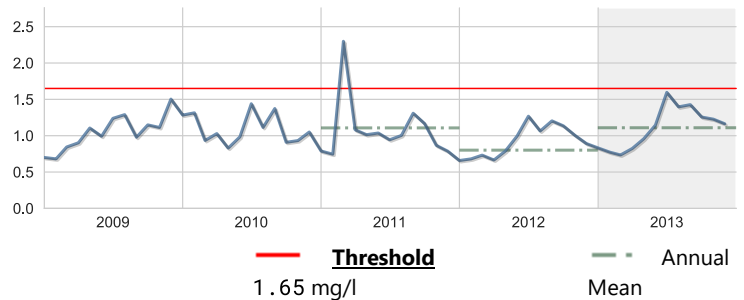


Nitrogen, Total

Score: Pass

Units: mg/l	Year 2013	Historical period of record
High	2.63	19.23
Mean	1.1093	1.2006
Low	0.622	0.144
No. of Samples	39	1,486

Five-year Rolling Average



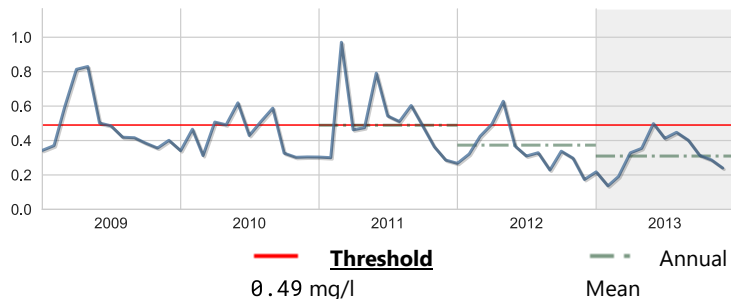


Phosphorus, Total

Score: Pass

Units: mg/l	Year 2013	Historical period of record
High	0.936	7.36
Mean	0.3098	0.4345
Low	0.082	0.034
No. of Samples	101	2,098

Five-year Rolling Average



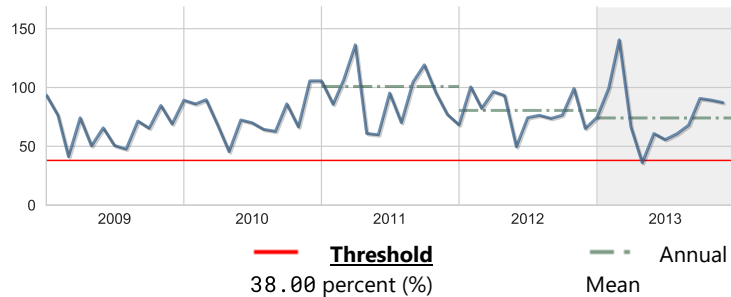
Dissolved Oxygen Saturation

Note: Low DO saturation also may be naturally influenced by inflows from nearby wetlands or groundwater sources.

Score: Pass

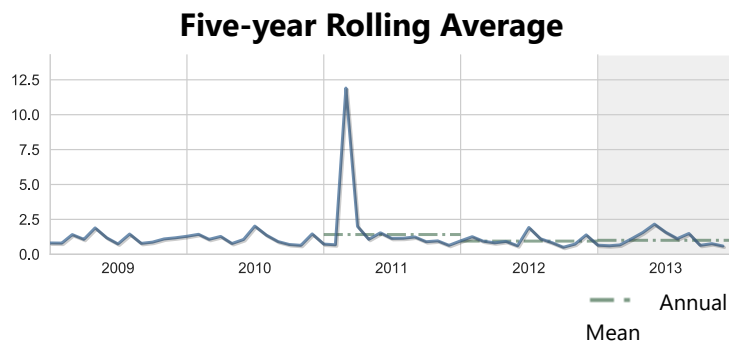
Units: percent (%)	Year 2013	Historical period of record
High	262.40	262.40
Mean	74.08	68.79
Low	12.20	0.00
No. of Samples	167	2,707

Five-year Rolling Average



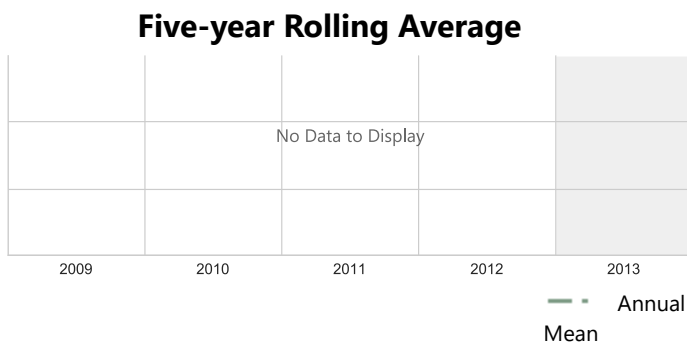
BOD, Biochemical oxygen demand

Units: mg/l	Year 2013	Historical period of record
High	3.92	21.30
Mean	1.0	1.27
Low	0.50	0.071
No. of Samples	88	1,445



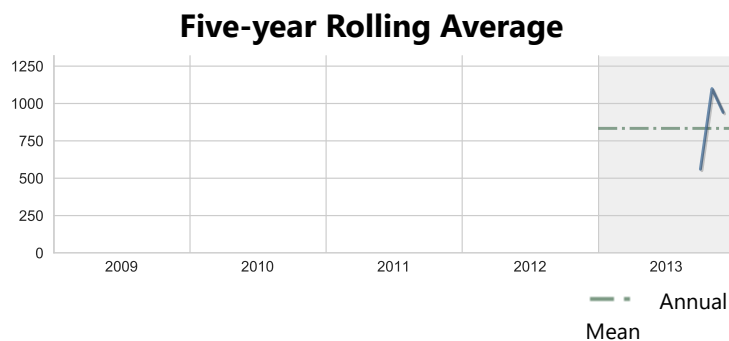
Color

Units: PCU	Year 2013	Historical period of record
High		350.00
Mean		64.28
Low		0.00
No. of Samples	0	990



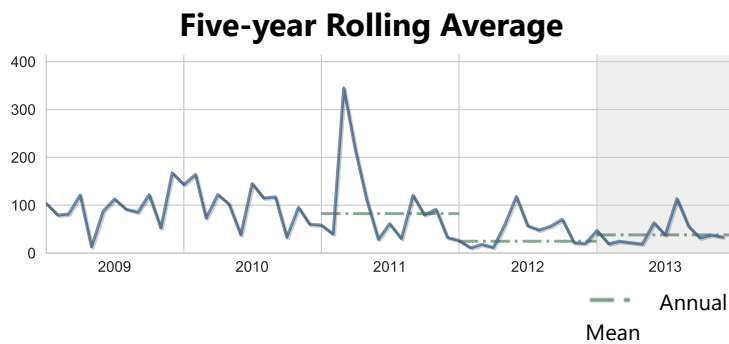
Escherichia coli

Units: cfu/100ml	Year 2013	Historical period of record
High	1100.00	3400.00
Mean	833.49	279.16
Low	560.00	26.00
No. of Samples	3	22



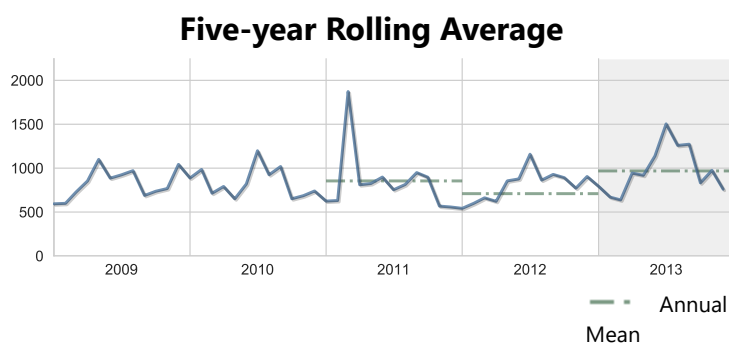
Nitrogen, Ammonia + Ammonium as N

Units: ug/l	Year 2013	Historical period of record
High	560.00	6696.00
Mean	38.1	23.6
Low	8.00	0.00
No. of Samples	101	2,406



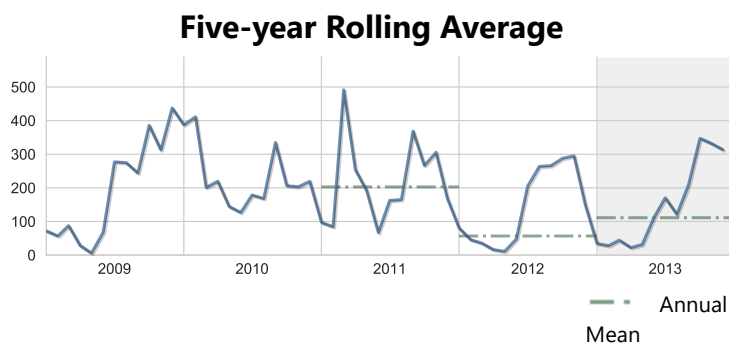
Nitrogen, Kjeldahl

Units: ug/l	Year 2013	Historical period of record
High	1810.00	17560.00
Mean	968.29	886.51
Low	519.00	2.00
No. of Samples	101	2,448



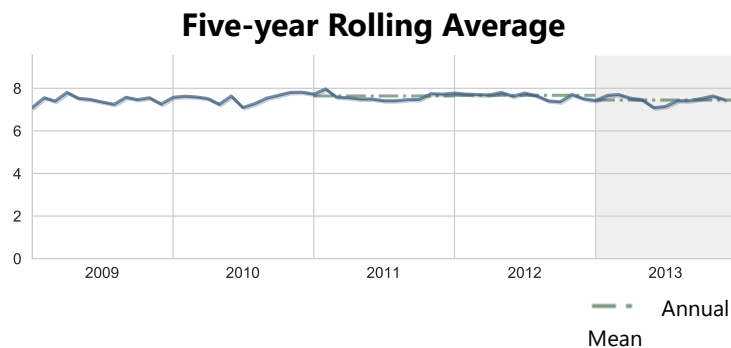
Nitrogen, Nitrite + Nitrate as N

Units: ug/l	Year 2013	Historical period of record
High	930.00	7556.00
Mean	111.2	156.12
Low	4.00	0.00
No. of Samples	101	2,075



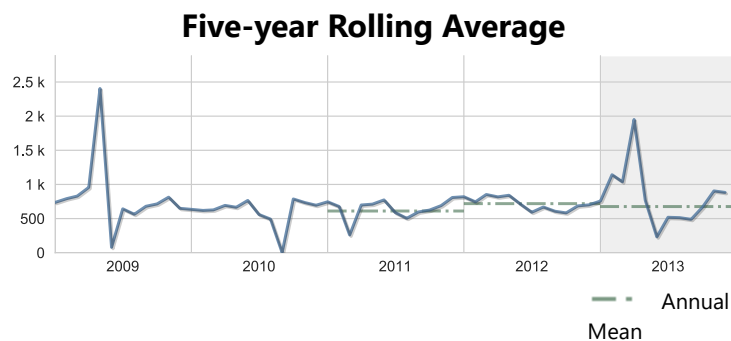
pH

Units: None	Year 2013	Historical period of record
High	12.00	12.00
Mean	7.45	7.44
Low	6.80	3.90
No. of Samples	139	2,962



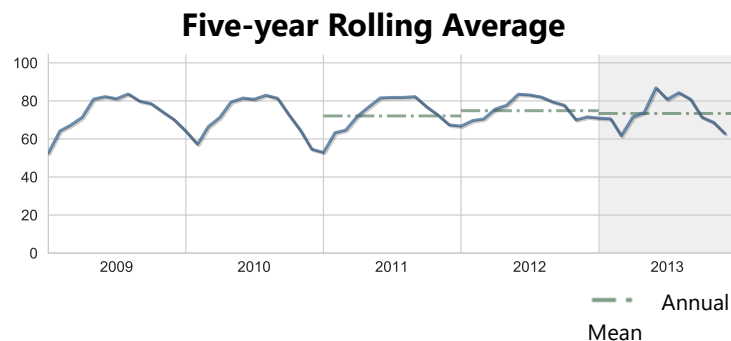
Specific conductance

Units: umho	Year 2013	Historical period of record
High	39877.00	51500.00
Mean	676.03	585.92
Low	4.65	0.369
No. of Samples	153	3,635



Temperature, water

Units: deg F	Year 2013	Historical period of record
High	139.46	139.46
Mean	73.4	72.28
Low	56.30	46.40
No. of Samples	111	2,463



Water Chemistry Ratings | Tidal Portion of the Creek

Creek Conditions Ratings are based on comparing nitrogen, phosphorus, chlorophyll and dissolved oxygen to water quality guidelines or regulations. Florida law defines a maximum allowable concentration of chlorophyll *a* and a minimum allowable concentration of dissolved oxygen in these streams. Florida has no regulatory thresholds for nitrogen or phosphorus in tidal creeks so trends are used to rate the creeks.

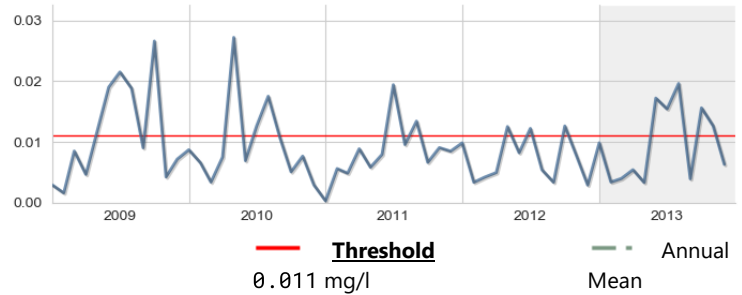


Chlorophyll a

Score: Pass

Units: mg/l	Year 2013	Historical period of record
High	0.1	0.1
Mean	0.0078	0.0076
Low	0.0013	0.0003
No. of Samples	82	279

Five-year Rolling Average

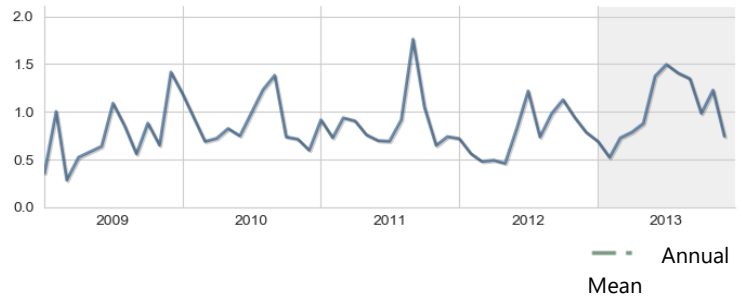


Nitrogen, Total

Score: Pass

Units: mg/l	Year 2013	Historical period of record
High	1.7	8.9
Mean	0.9958	1.0233
Low	0.366	0.131
No. of Samples	27	211

Five-year Rolling Average



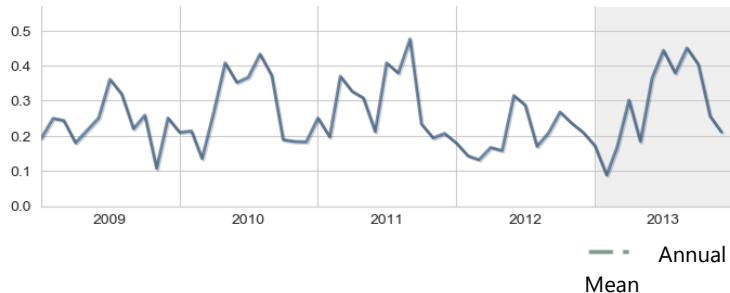
P

Phosphorus, Total

Score: Pass

Units: mg/l	Year 2013	Historical period of record
High	0.8	2.2
Mean	0.2729	0.2987
Low	0.088	0.084
No. of Samples	61	327

Five-year Rolling Average



DO

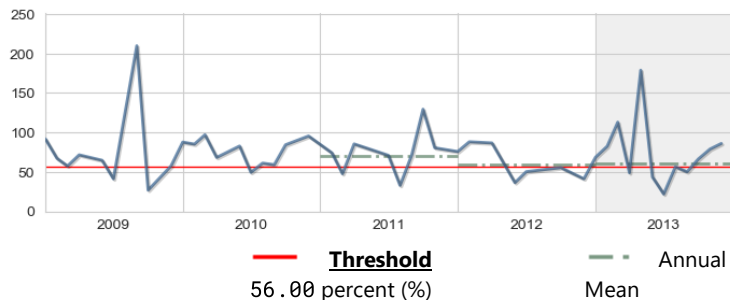
Dissolved Oxygen Saturation

Note: Low DO saturation also may be naturally influenced by inflows from nearby wetlands or groundwater sources

Score: Pass

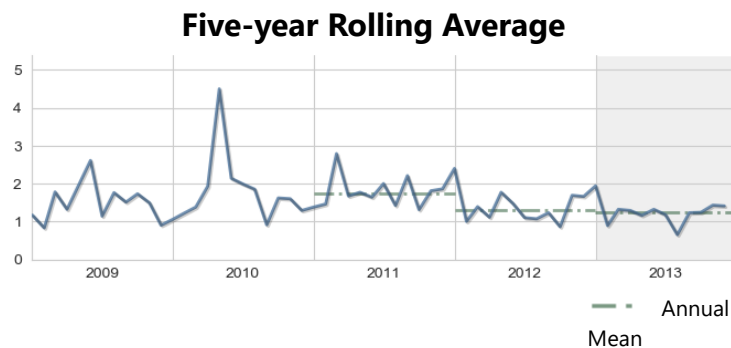
Units: percent (%)	Year 2013	Historical period of record
High	179.0	210.0
Mean	60.12	65.37
Low	8.6027	8.6027
No. of Samples	75	353

Five-year Rolling Average



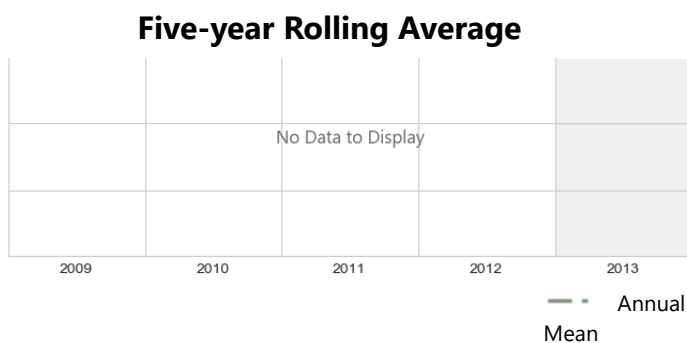
BOD, Biochemical oxygen demand

Units: mg/l	Year 2013	Historical period of record
High	4.4	7.5
Mean	1.24	1.51
Low	0.649	0.50
No. of Samples	61	236



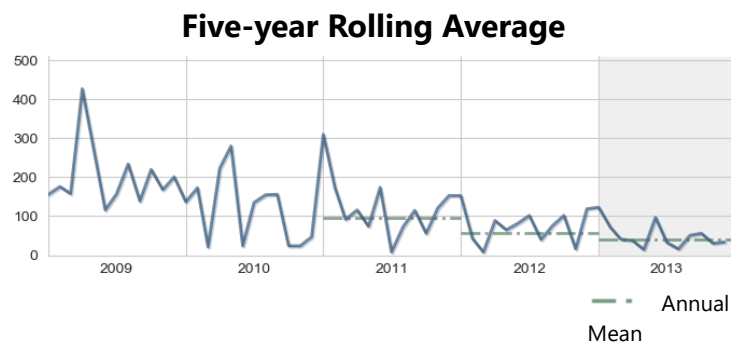
Color

Units: PCU	Year 2013	Historical period of record
High		280.0
Mean		52.1
Low		15.00
No. of Samples	0	118



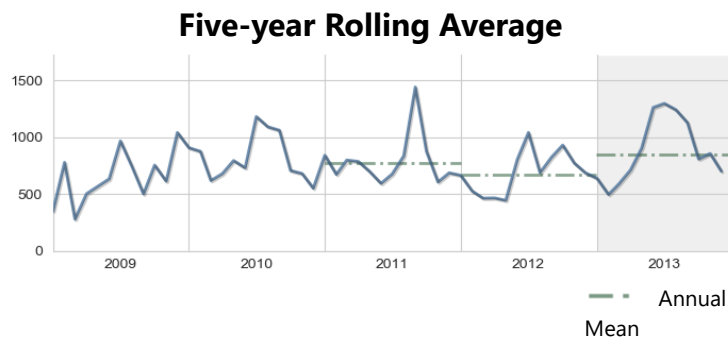
Nitrogen, Ammonia + Ammonium as N

Units: ug/l	Year 2013	Historical period of record
High	160.0	945.0
Mean	39.94	29.23
Low	8.00	0.00
No. of Samples	66	369



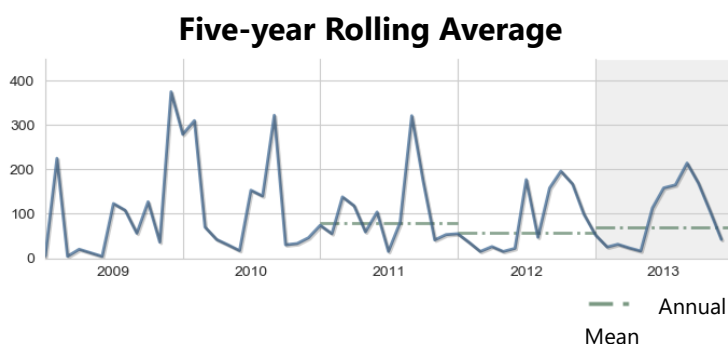
Nitrogen, Kjeldahl

Units: ug/l	Year 2013	Historical period of record
High	1,490.0	3,092.0
Mean	844.28	793.12
Low	344.00	70.00
No. of Samples	61	372



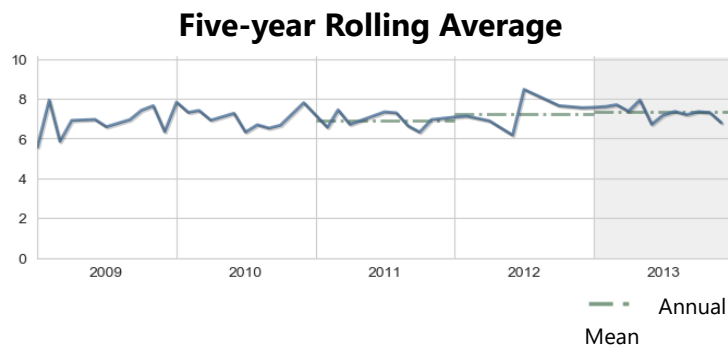
Nitrogen, Nitrite + Nitrate as N

Units: ug/l	Year 2013	Historical period of record
High	299.0	1,140.0
Mean	69.1	71.77
Low	7.00	0.00
No. of Samples	65	325



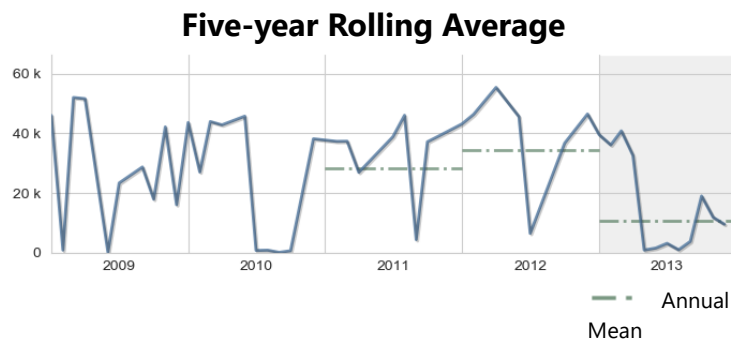
pH

Units: None	Year 2013	Historical period of record
High	7.9	8.5
Mean	7.32	7.68
Low	6.14	5.58
No. of Samples	61	1,895



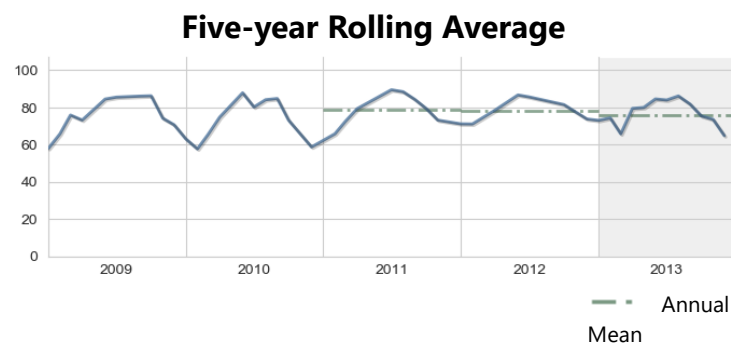
Specific conductance

Units: umho	Year 2013	Historical period of record
High	49,369.0	55,333.0
Mean	10471.53	19623.52
Low	342.00	8.083
No. of Samples	61	1,972



Temperature, water

Units: deg F	Year 2013	Historical period of record
High	86.5	91.4
Mean	75.5	75.37
Low	62.942	49.10
No. of Samples	47	1,855



Impervious Features

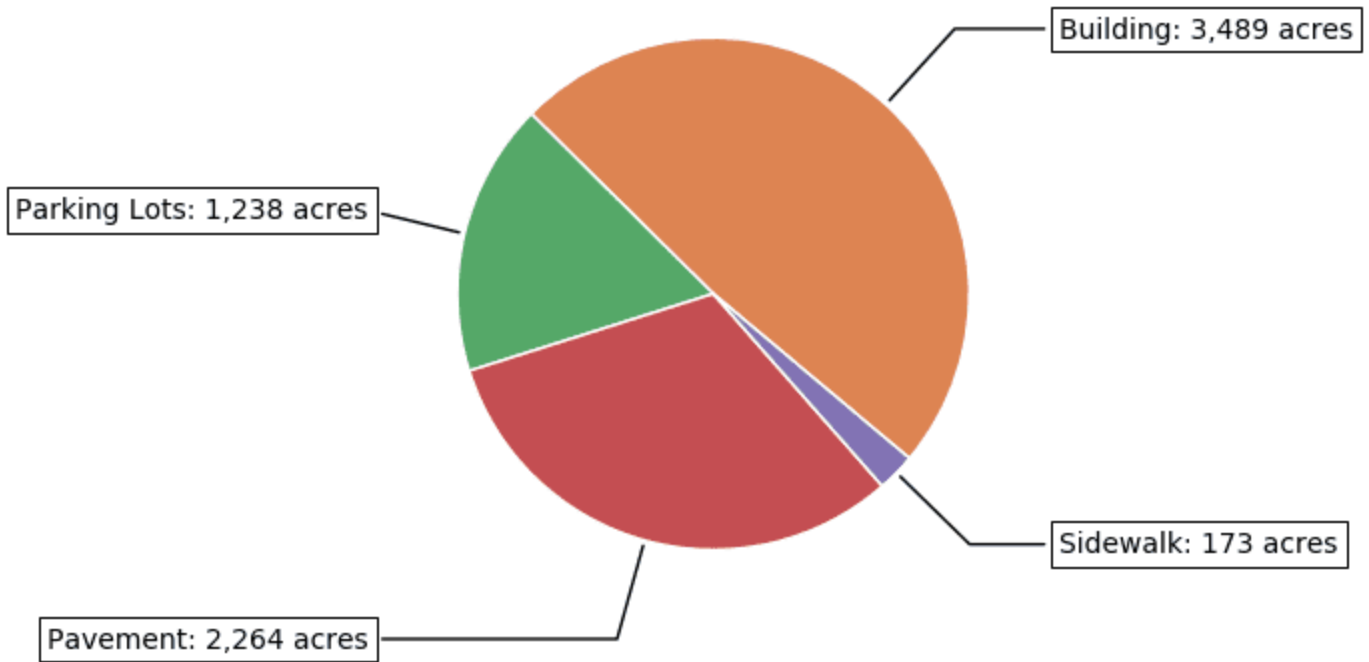
Rain that falls on land that is in a natural state is absorbed and filtered by soils and vegetation as it makes its way into underground aquifers. However, in developed areas, "impervious surfaces" impede this process and contribute to polluted urban runoff entering surface waters. These surfaces include human infrastructure like roads, sidewalks, driveways and parking lots that are covered by impenetrable materials such as asphalt, concrete, brick and stone, as well as buildings and other permanent structures. Soils that have been disturbed and compacted by urban development are often impervious as well.



20% of the land area within the **Phillippi Creek Basin** is covered by impervious

surfaces

2014 Impervious Surface Coverage by Type
in acres, within the Phillippi Creek Basin



Land Use / Land Cover

Land use within a creek's watershed has a major effect on its water quality. In general, less development means better water quality. Land Cover/Land Use classifications categorize land in terms of its observed physical surface characteristics (e.g. upland or wetland), and also reflect the types of activity that are taking place on it (agriculture, urban/built-up, utilities, etc.). Florida uses as its standard a set of statewide classifications which were developed by the Florida Department of Transportation.

Acreeage and Percentage within each Land Use / Land Cover Category for Phillippi Creek Basin

2013 Creek Conditions Report for Phillippi Creek

Land Use Classification	1990	1995	1999	2005	2011	2014	2017	Trend
Urban & Built-up	20,773 58.1%	22,109 61.8%	23,051 64.4%	25,700 71.8%	26,066 72.9%	25,768 72%	26,460 74%	
Agriculture	6,398 17.9%	6,018 16.8%	4,657 13%	2,498 7%	2,216 6.2%	2,309 6.5%	1,822 5.1%	
Rangeland	523 1.5%	308 0.9%	262 0.7%	142 0.4%	147 0.4%	330 0.9%	129 0.4%	
Upland Forests	3,372 9.4%	2,619 7.3%	2,363 6.6%	1,905 5.3%	1,724 4.8%	1,771 5%	1,618 4.5%	
Water	1,171 3.3%	1,367 3.8%	1,606 4.5%	1,858 5.2%	2,027 5.7%	1,883 5.3%	1,997 5.6%	
Wetlands	2,273 6.4%	1,762 4.9%	1,735 4.8%	1,715 4.8%	1,727 4.8%	1,860 5.2%	1,819 5.1%	
Barren Land	19 0.1%	106 0.3%	634 1.8%	9 0%	99 0.3%	95 0.3%	100 0.3%	
Transportation and Utilities	1,244 3.5%	1,481 4.1%	1,464 4.1%	1,943 5.4%	1,767 4.9%	1,755 4.9%	1,826 5.1%	

2017 Land Use / Land Cover for Phillippi Creek Basin

