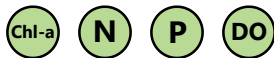


Phillippi Creek Condition Report for 2011



PASS



4 out of 4
indicators
were rated as
PASS.

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

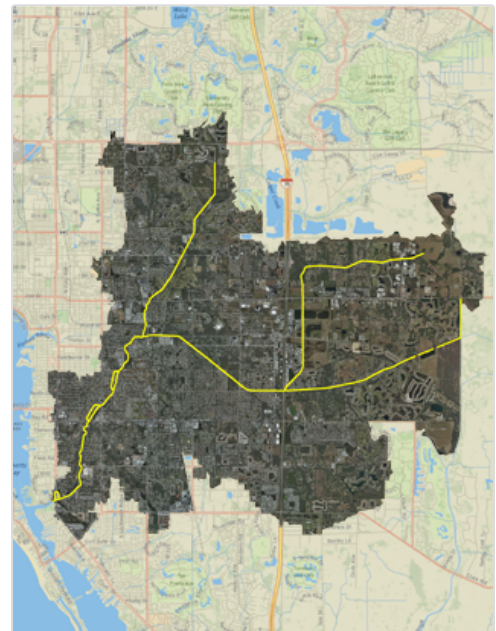
Size: 35,771 acres

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.

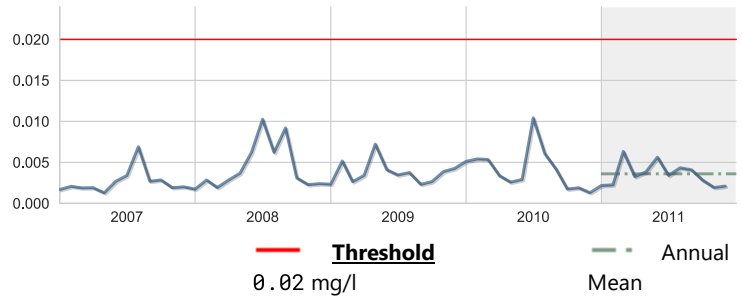


Chlorophyll a

Score: Pass

Units: mg/l	Year 2011	Historical period of record
High	0.0414	0.115
Mean	0.0036	0.0037
Low	0.0005	0.00
No. of Samples	336	1,345

Five-year Rolling Average

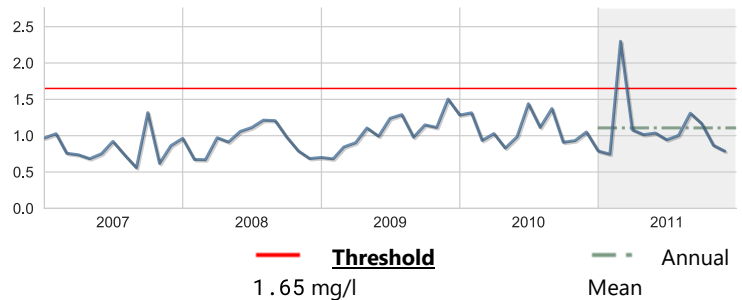


Nitrogen, Total

Score: Pass

Units: mg/l	Year 2011	Historical period of record
High	3.74	19.23
Mean	1.1073	1.223
Low	0.383	0.144
No. of Samples	108	1,391

Five-year Rolling Average



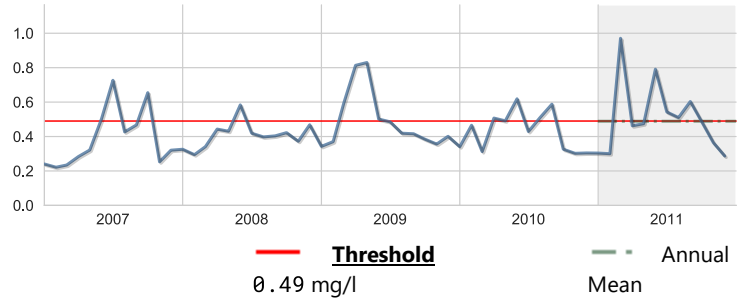


Phosphorus, Total

Score: Pass

Units: mg/l	Year 2011	Historical period of record
High	2.00	7.36
Mean	0.4888	0.449
Low	0.089	0.034
No. of Samples	324	1,827

Five-year Rolling Average



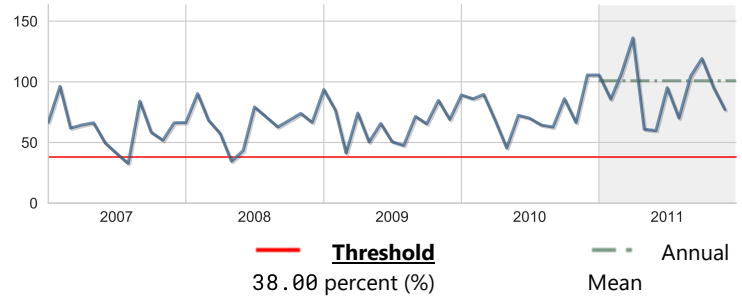
Dissolved Oxygen Saturation

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

Score: Pass

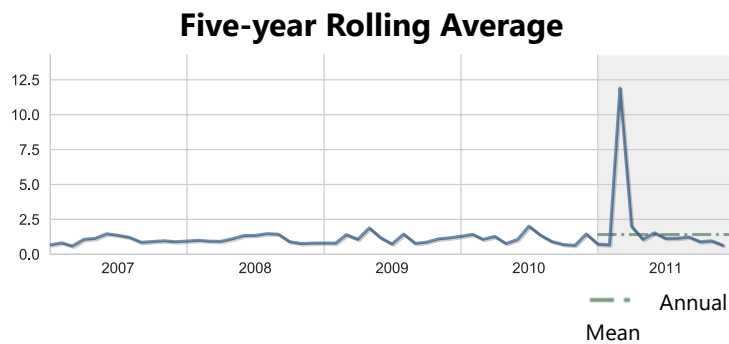
Units: percent (%)	Year 2011	Historical period of record
High	247.50	247.50
Mean	100.88	67.3
Low	38.657	0.00
No. of Samples	428	2,298

Five-year Rolling Average



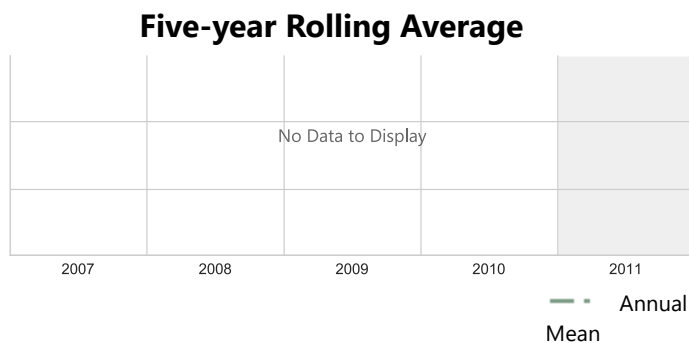
BOD, Biochemical oxygen demand

Units: mg/l	Year 2011	Historical period of record
High	16.40	21.30
Mean	1.41	1.34
Low	0.50	0.071
No. of Samples	311	1,215



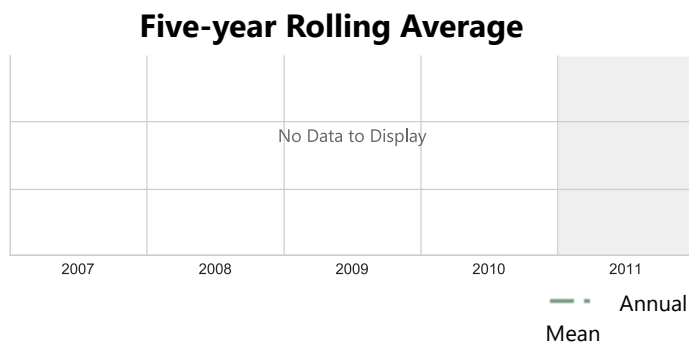
Color

Units: PCU	Year 2011	Historical period of record
High		350.00
Mean		64.28
Low		0.00
No. of Samples	0	990



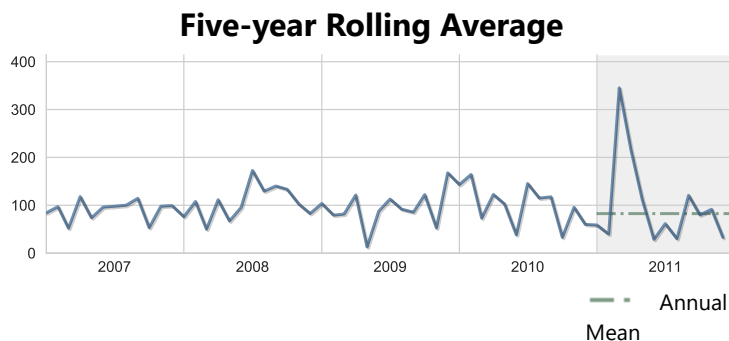
Escherichia coli

Units: cfu/100ml	Year 2011	Historical period of record
High		3400.00
Mean		234.88
Low		26.00
No. of Samples	0	19



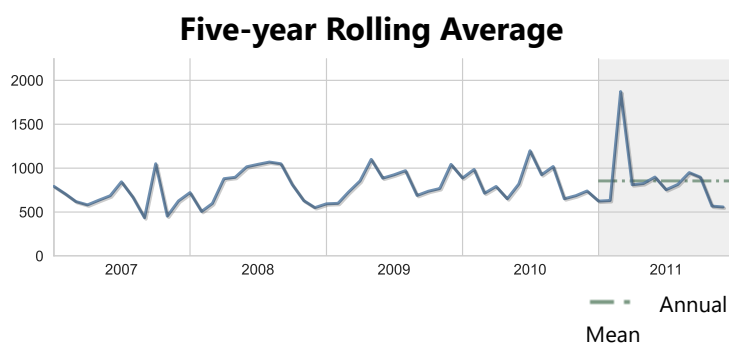
Nitrogen, Ammonia + Ammonium as N

Units: ug/l	Year 2011	Historical period of record
High	1640.00	6696.00
Mean	82.52	22.98
Low	5.00	0.00
No. of Samples	324	2,135



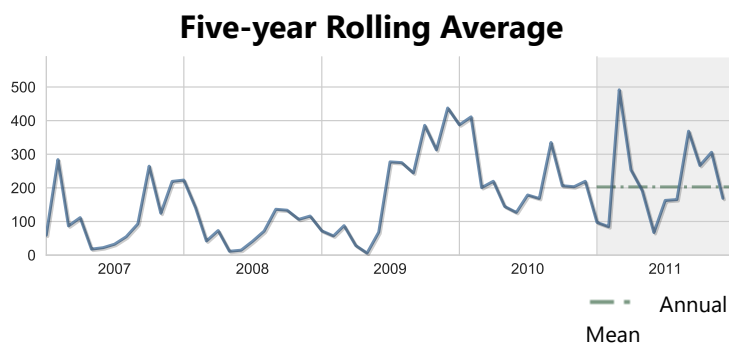
Nitrogen, Kjeldahl

Units: ug/l	Year 2011	Historical period of record
High	2590.00	17560.00
Mean	854.49	898.37
Low	341.00	2.00
No. of Samples	324	2,177



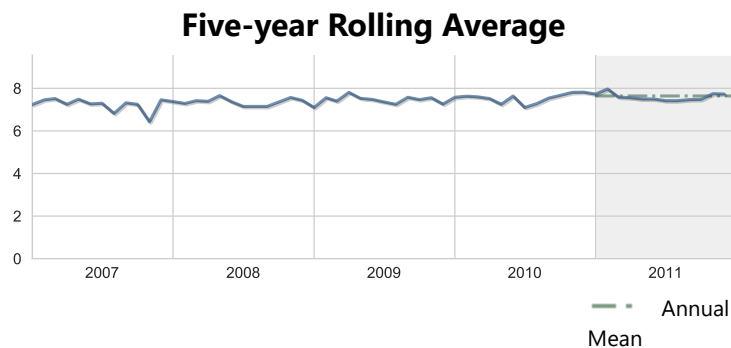
Nitrogen, Nitrite + Nitrate as N

Units: ug/l	Year 2011	Historical period of record
High	1300.00	7556.00
Mean	202.91	175.16
Low	4.00	0.00
No. of Samples	324	1,804



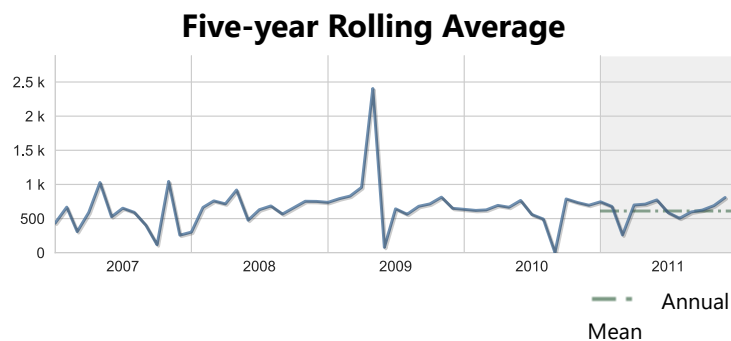
pH

Units: None	Year 2011	Historical period of record
High	8.60	9.61
Mean	7.64	7.42
Low	7.00	3.90
No. of Samples	275	2,627



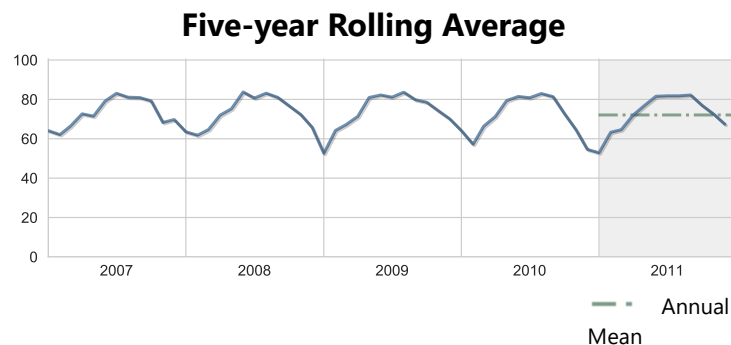
Specific conductance

Units: umho	Year 2011	Historical period of record
High	1013.00	51500.00
Mean	610.78	574.54
Low	109.00	0.369
No. of Samples	287	3,275



Temperature, water

Units: deg F	Year 2011	Historical period of record
High	86.864	94.82
Mean	72.1	72.06
Low	46.958	46.40
No. of Samples	198	2,207



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.

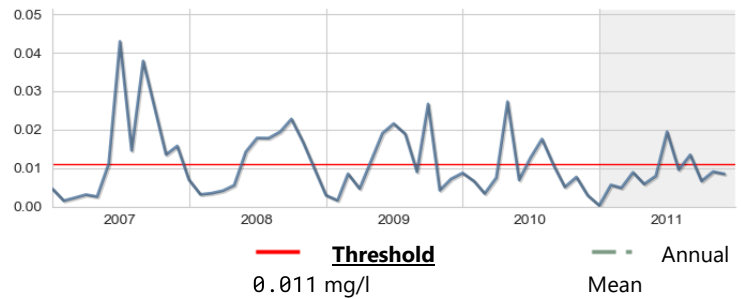


Chlorophyll a

Score: Pass

Units: mg/l	Year 2011	Historical period of record
High	0.0	0.1
Mean	0.0062	0.0077
Low	0.0003	0.0003
No. of Samples	36	161

Five-year Rolling Average

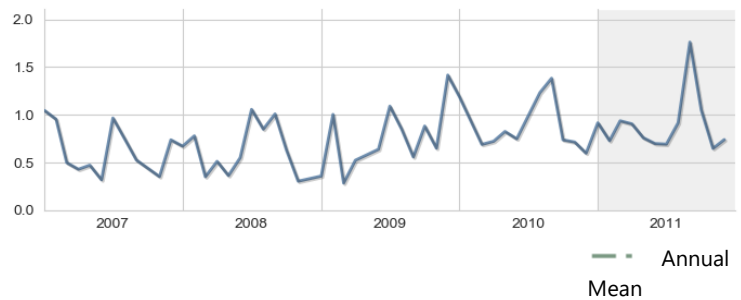


Nitrogen, Total

Score: Pass

Units: mg/l	Year 2011	Historical period of record
High	1.8	8.9
Mean	0.86	1.0515
Low	0.645	0.131
No. of Samples	12	172

Five-year Rolling Average



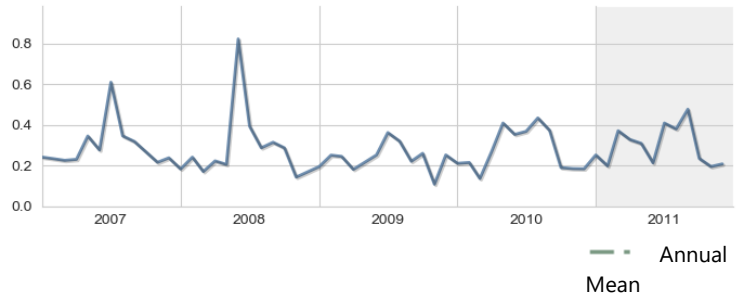
P

Phosphorus, Total

Score: Pass

Units: mg/l	Year 2011	Historical period of record
High	0.5	2.2
Mean	0.2836	0.326
Low	0.194	0.084
No. of Samples	36	230

Five-year Rolling Average



DO

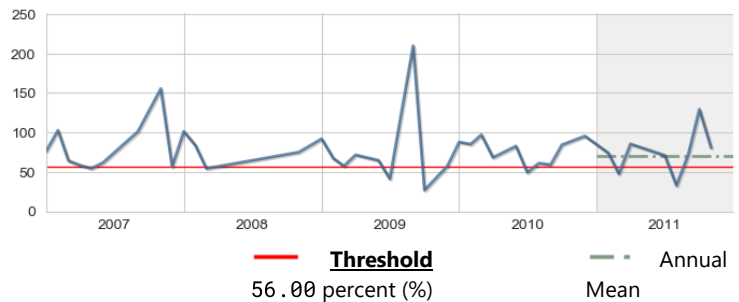
Dissolved Oxygen Saturation

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

Score: Pass

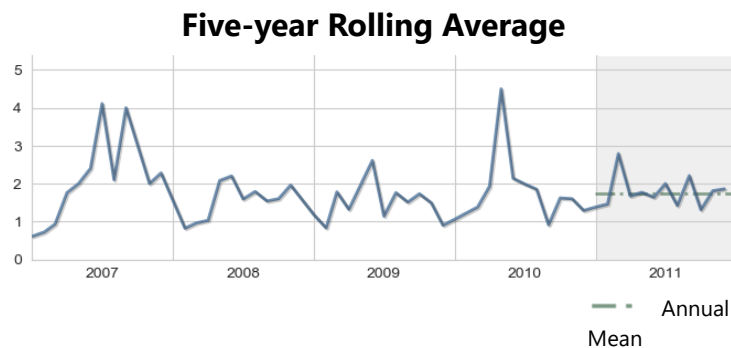
Units: percent (%)	Year 2011	Historical period of record
High	130.4	210.0
Mean	69.84	67.84
Low	32.7582	26.80
No. of Samples	37	250

Five-year Rolling Average



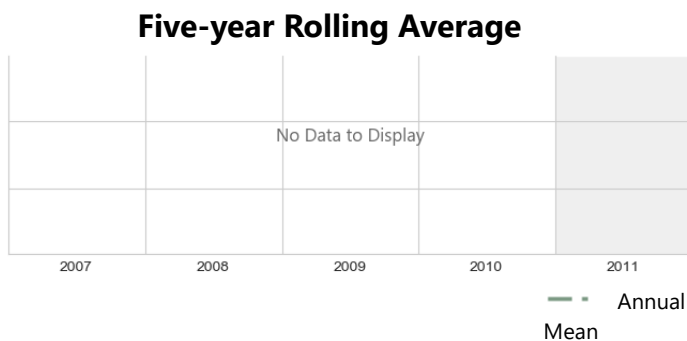
BOD, Biochemical oxygen demand

Units: mg/l	Year 2011	Historical period of record
High	2.8	7.5
Mean	1.74	1.71
Low	1.31	0.50
No. of Samples	34	141



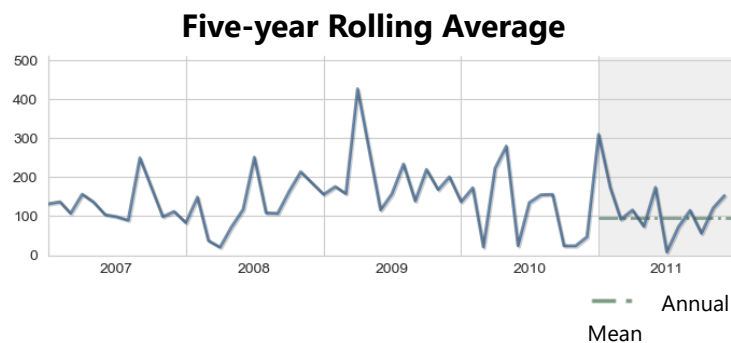
Color

Units: PCU	Year 2011	Historical period of record
High		280.0
Mean		52.1
Low		15.00
No. of Samples	0	118



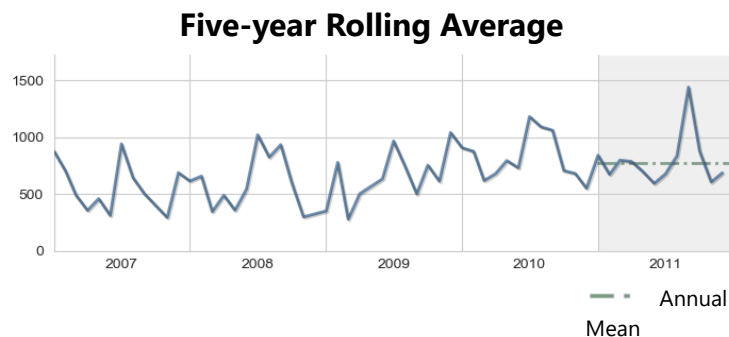
Nitrogen, Ammonia + Ammonium as N

Units: ug/l	Year 2011	Historical period of record
High	310.0	945.0
Mean	94.59	24.65
Low	8.00	0.00
No. of Samples	36	267



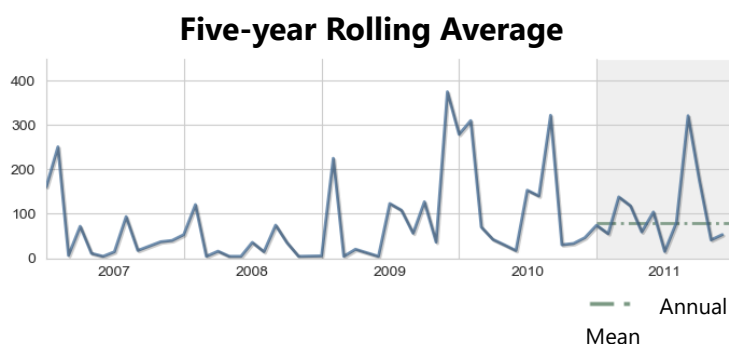
Nitrogen, Kjeldahl

Units: ug/l	Year 2011	Historical period of record
High	1,440.0	3,092.0
Mean	768.92	800.27
Low	592.00	70.00
No. of Samples	36	275



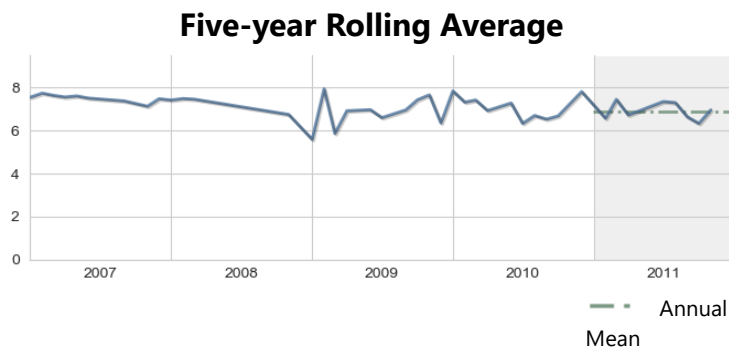
Nitrogen, Nitrite + Nitrate as N

Units: ug/l	Year 2011	Historical period of record
High	321.0	1,140.0
Mean	79.05	75.43
Low	15.00	0.00
No. of Samples	36	224



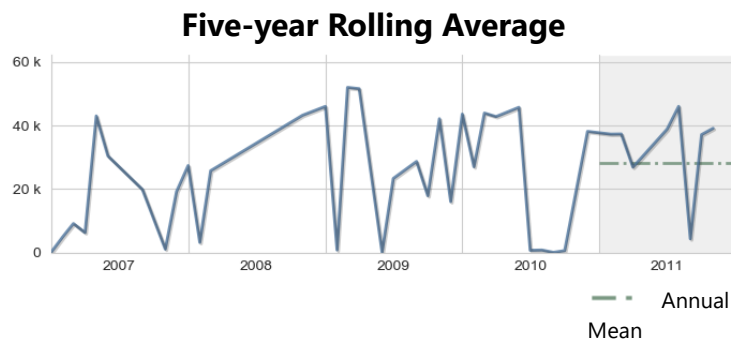
pH

Units: None	Year 2011	Historical period of record
High	7.4	8.2
Mean	6.89	7.7
Low	6.32	5.58
No. of Samples	24	1,813



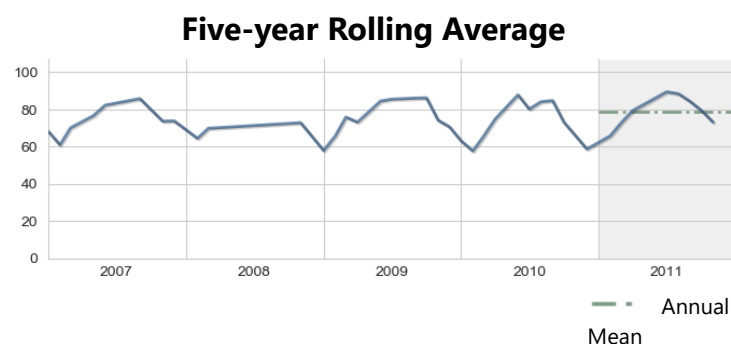
Specific conductance

Units: umho	Year 2011	Historical period of record
High	45,985.0	53,490.0
Mean	28298.29	19902.29
Low	4269.00	8.083
No. of Samples	24	1,890



Temperature, water

Units: deg F	Year 2011	Historical period of record
High	89.4	91.4
Mean	78.62	75.34
Low	65.75	49.10
No. of Samples	16	1,794



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.

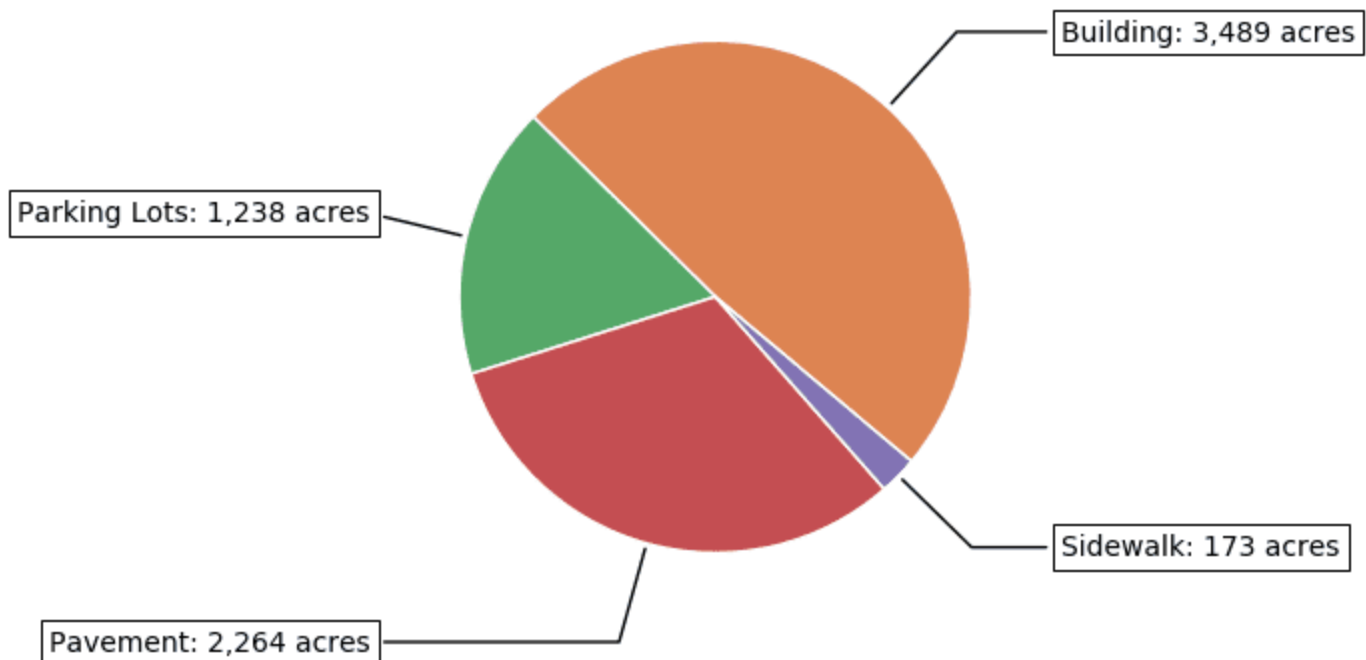


20% of the land area within the **Phillippi Creek Basin** is covered by impervious

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.

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

2011 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

