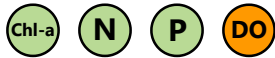


Phillippi Creek Condition Report for 2019



CAUTION



3 out of 4
indicators
were rated as
PASS.

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

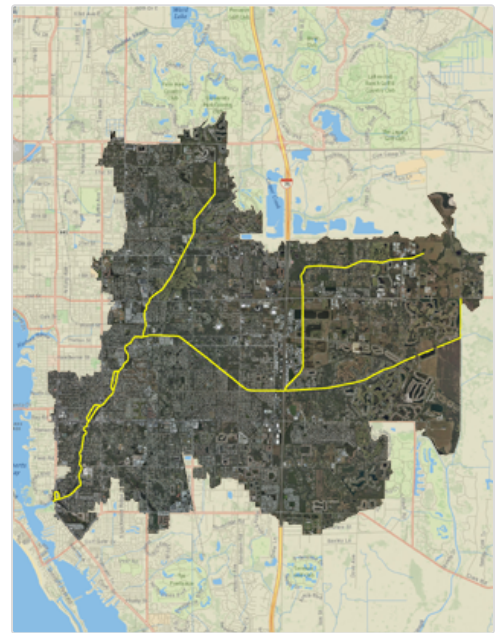
Size: 35,771 acres

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.

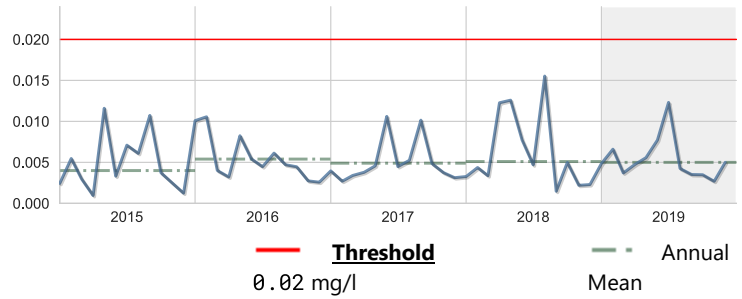


Chlorophyll a

Score: Pass

Units: mg/l	Year 2019	Historical period of record
High	0.902	0.902
Mean	0.005	0.0043
Low	0.0003	0.00
No. of Samples	326	3,799

Five-year Rolling Average

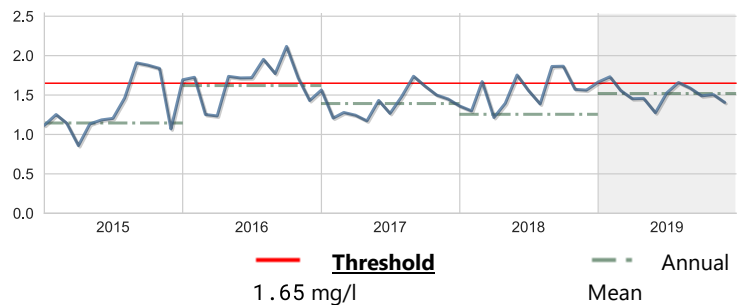


Nitrogen, Total

Score: Pass

Units: mg/l	Year 2019	Historical period of record
High	21.845	21.845
Mean	1.5192	1.3609
Low	0.542	0.124
No. of Samples	307	3,193

Five-year Rolling Average



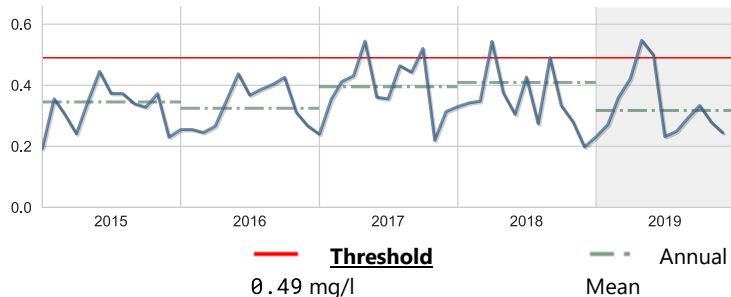


Phosphorus, Total

Score: Pass

Units: mg/l	Year 2019	Historical period of record
High	3.53	7.36
Mean	0.3175	0.386
Low	0.032	0.032
No. of Samples	307	4,178

Five-year Rolling Average



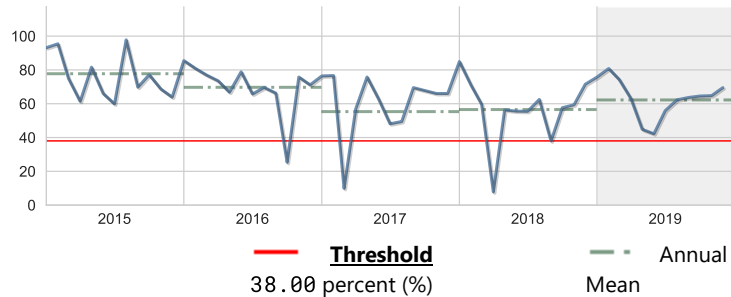
Dissolved Oxygen Saturation

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

Score: Pass

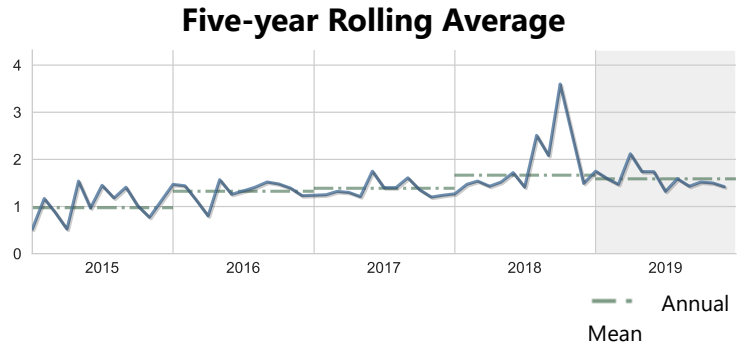
Units: percent (%)	Year 2019	Historical period of record
High	134.208	262.40
Mean	62.23	66.43
Low	0.4785	0.00
No. of Samples	164	4,021

Five-year Rolling Average



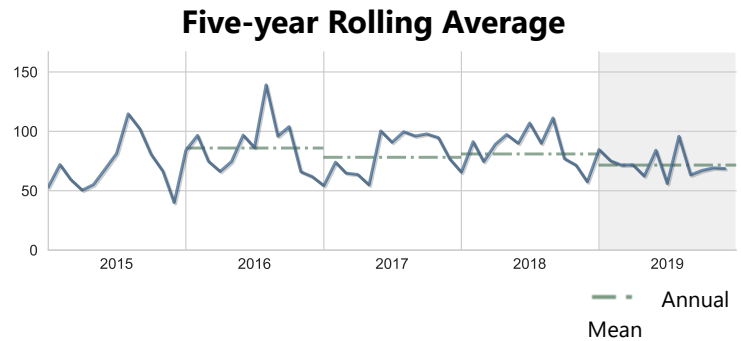
BOD, Biochemical oxygen demand

Units: mg/l	Year 2019	Historical period of record
High	17.50	21.30
Mean	1.59	1.31
Low	1.00	0.071
No. of Samples	286	3,364



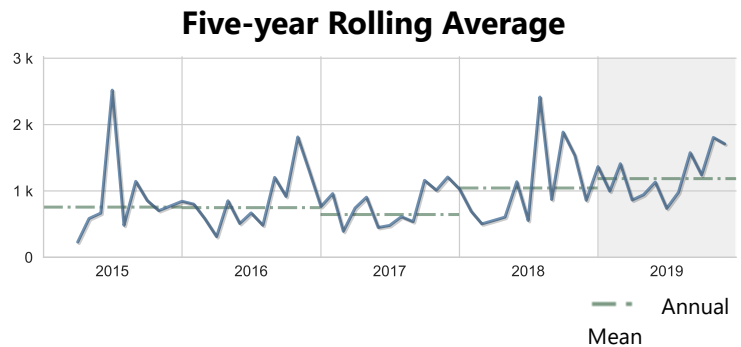
Color

Units: PCU	Year 2019	Historical period of record
High	600.00	600.00
Mean	71.58	71.96
Low	2.50	0.00
No. of Samples	307	4,977



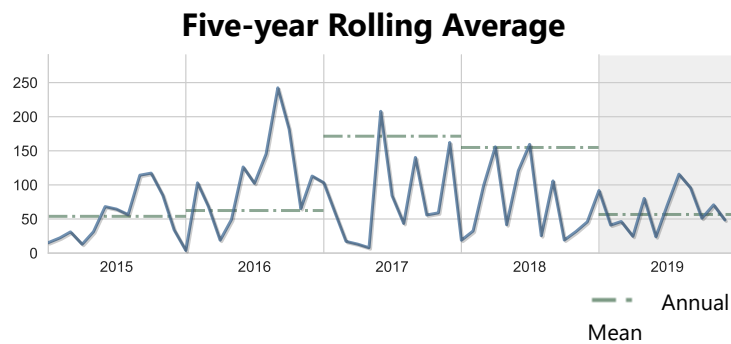
Escherichia coli

Units: cfu/100ml	Year 2019	Historical period of record
High	11199.00	24196.00
Mean	1185.61	795.22
Low	31.00	10.00
No. of Samples	281	1,749



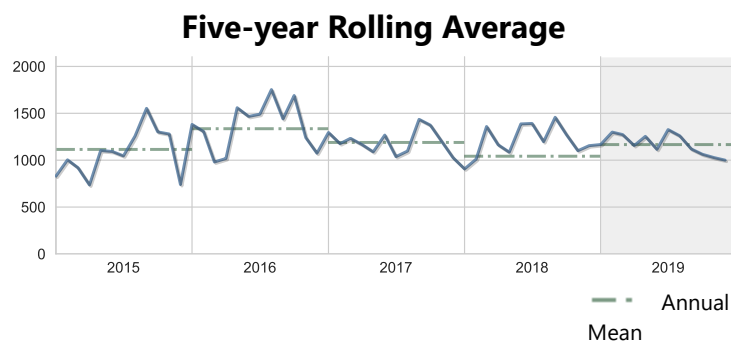
Nitrogen, Ammonia + Ammonium as N

Units: ug/l	Year 2019	Historical period of record
High	19600.00	19600.00
Mean	56.66	32.68
Low	6.00	0.00
No. of Samples	307	4,462



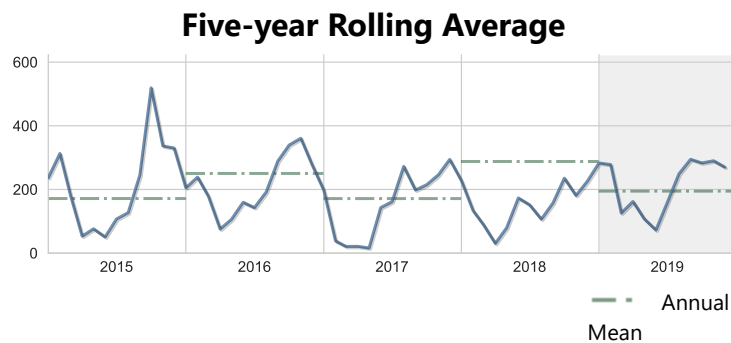
Nitrogen, Kjeldahl

Units: ug/l	Year 2019	Historical period of record
High	21700.00	21700.00
Mean	1166.43	1022.85
Low	460.00	2.00
No. of Samples	307	4,519



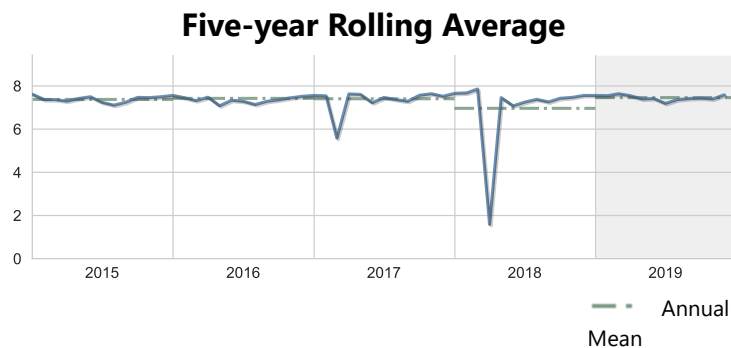
Nitrogen, Nitrite + Nitrate as N

Units: ug/l	Year 2019	Historical period of record
High	3700.00	7556.00
Mean	194.68	154.59
Low	4.00	0.00
No. of Samples	307	4,107



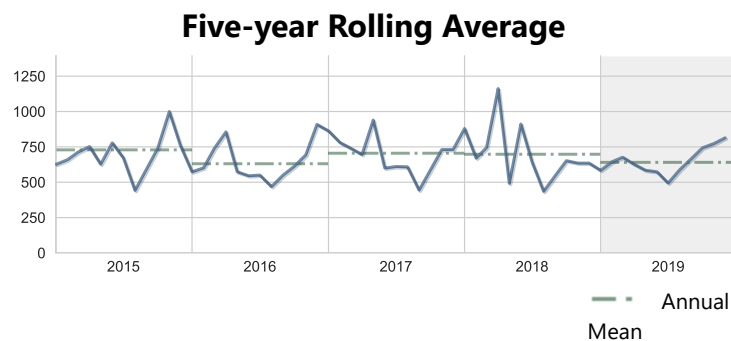
pH

Units: None	Year 2019	Historical period of record
High	9.90	12.00
Mean	7.46	7.33
Low	6.38	0.078
No. of Samples	164	5,050



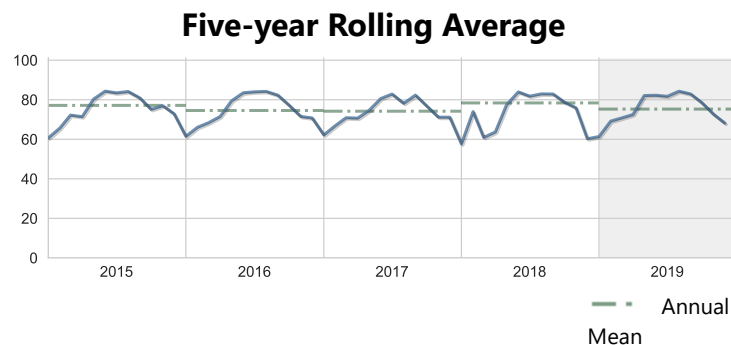
Specific conductance

Units: umho	Year 2019	Historical period of record
High	4184.30	51500.00
Mean	640.59	644.25
Low	169.242	0.369
No. of Samples	173	6,449



Temperature, water

Units: deg F	Year 2019	Historical period of record
High	88.1649	211.586
Mean	75.27	74.02
Low	57.2623	32.00
No. of Samples	164	5,071



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.

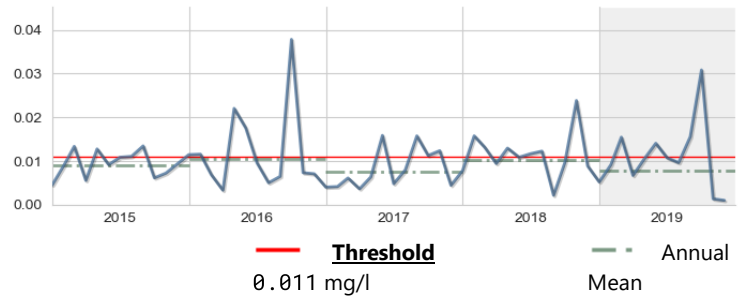


Chlorophyll a

Score: Pass

Units: mg/l	Year 2019	Historical period of record
High	0.0	0.1
Mean	0.0077	0.0079
Low	0.0009	0.0003
No. of Samples	24	460

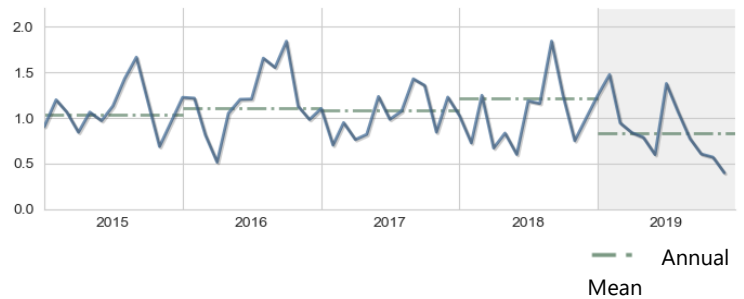
Five-year Rolling Average



Nitrogen, Total

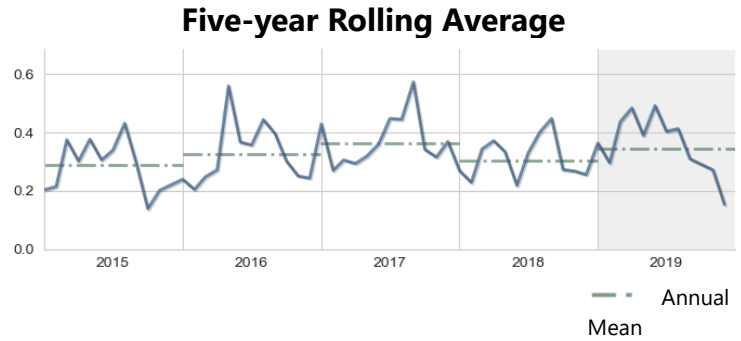
Units: mg/l	Year 2019	Historical period of record
High	1.5	8.9
Mean	0.8272	1.0122
Low	0.395	0.131
No. of Samples	24	333

Five-year Rolling Average



Phosphorus, Total

Units: mg/l	Year 2019	Historical period of record
High	0.5	2.2
Mean	0.3431	0.3055
Low	0.153	0.084
No. of Samples	24	505

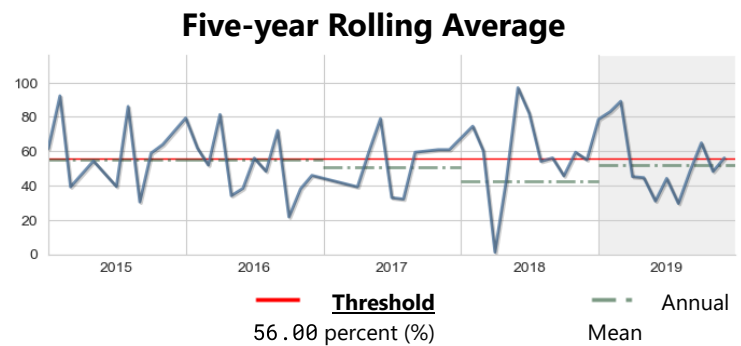


Dissolved Oxygen Saturation

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

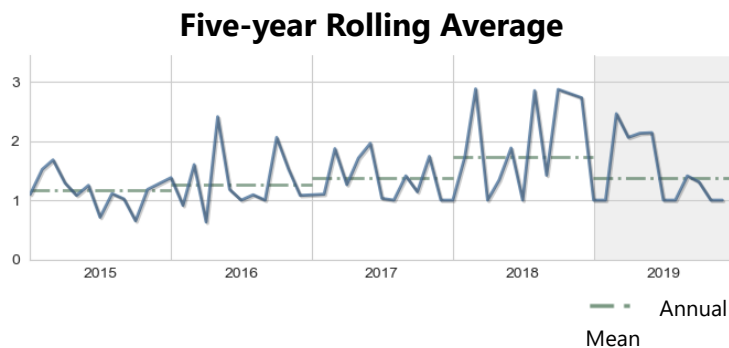
Score: Caution

Units: percent (%)	Year 2019	Historical period of record
High	89.1	210.0
Mean	52.12	61.74
Low	29.5161	1.10
No. of Samples	12	432



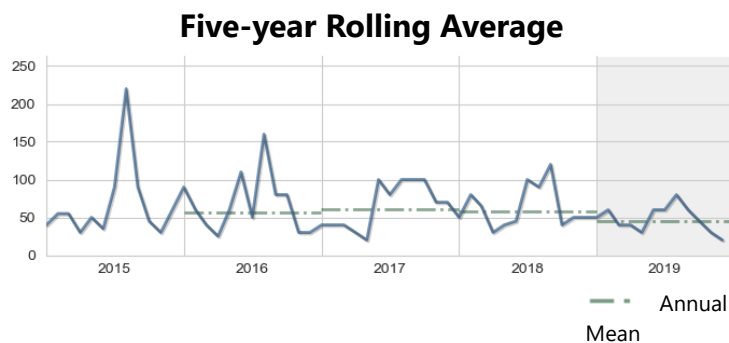
BOD, Biochemical oxygen demand

Units: mg/l	Year 2019	Historical period of record
High	2.5	7.5
Mean	1.37	1.39
Low	1.00	0.50
No. of Samples	24	408



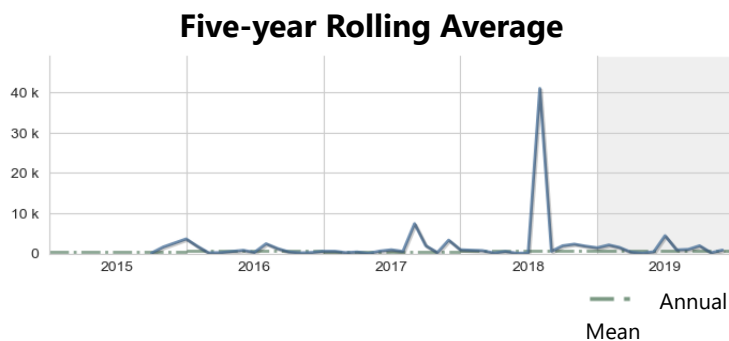
Color

Units: PCU	Year 2019	Historical period of record
High	80.0	280.0
Mean	44.9	50.63
Low	20.00	7.00
No. of Samples	24	534



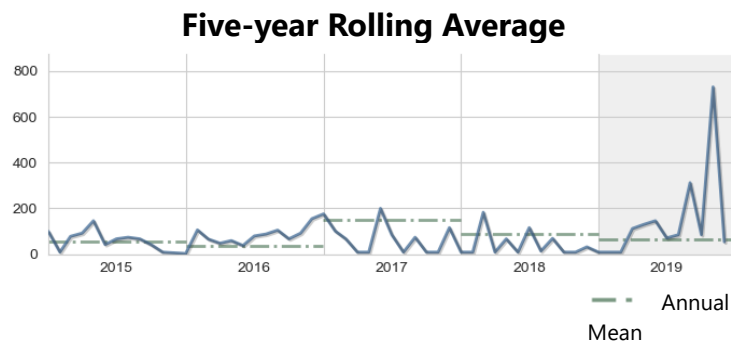
Enterococcus Group Bacteria

Units: cfu/100ml	Year 2019	Historical period of record
High	4,400.0	41,000.0
Mean	758.96	559.13
Low	70.00	10.00
No. of Samples	24	102



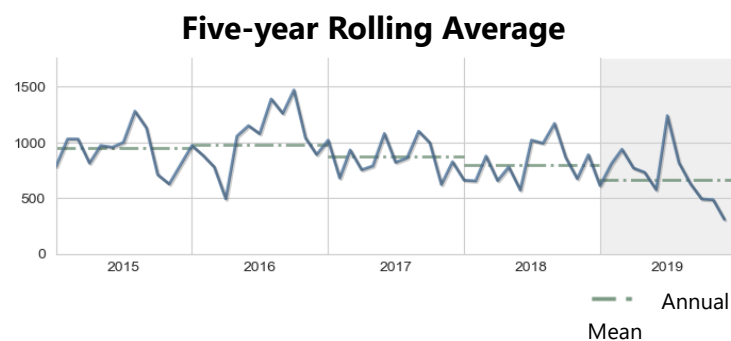
Nitrogen, Ammonia + Ammonium as N

Units: ug/l	Year 2019	Historical period of record
High	729.0	945.0
Mean	65.56	29.81
Low	8.00	0.00
No. of Samples	24	557



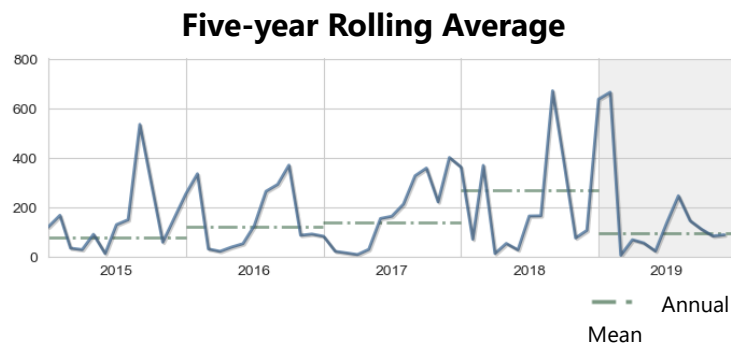
Nitrogen, Kjeldahl

Units: ug/l	Year 2019	Historical period of record
High	1,240.0	3,092.0
Mean	661.3	816.75
Low	308.00	70.00
No. of Samples	24	550



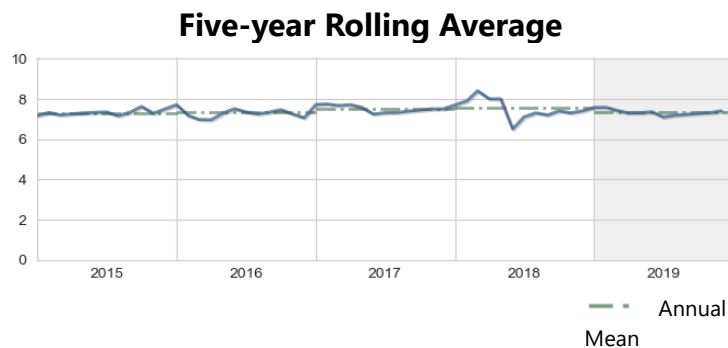
Nitrogen, Nitrite + Nitrate as N

Units: ug/l	Year 2019	Historical period of record
High	664.0	1,140.0
Mean	94.06	78.71
Low	4.00	0.00
No. of Samples	24	501



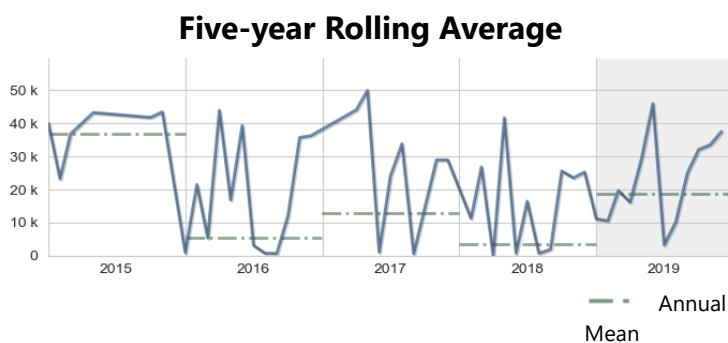
pH

Units: None	Year 2019	Historical period of record
High	7.6	8.5
Mean	7.34	7.66
Low	7.10	5.58
No. of Samples	12	2,035



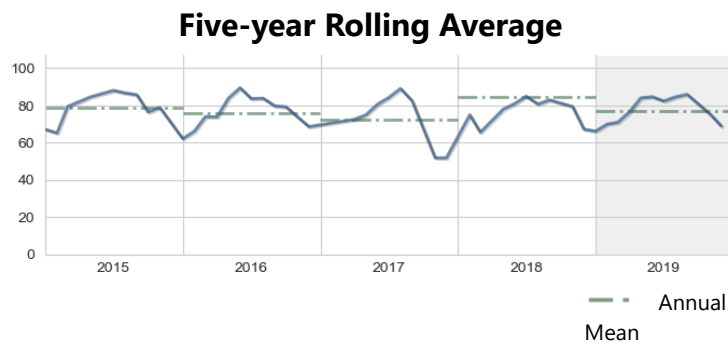
Specific conductance

Units: umho	Year 2019	Historical period of record
High	45,913.4	55,333.0
Mean	18472.94	19248.96
Low	3206.41	0.30
No. of Samples	12	2,084



Temperature, water

Units: deg F	Year 2019	Historical period of record
High	85.9	211.6
Mean	77.17	75.46
Low	66.1714	49.10
No. of Samples	12	1,955



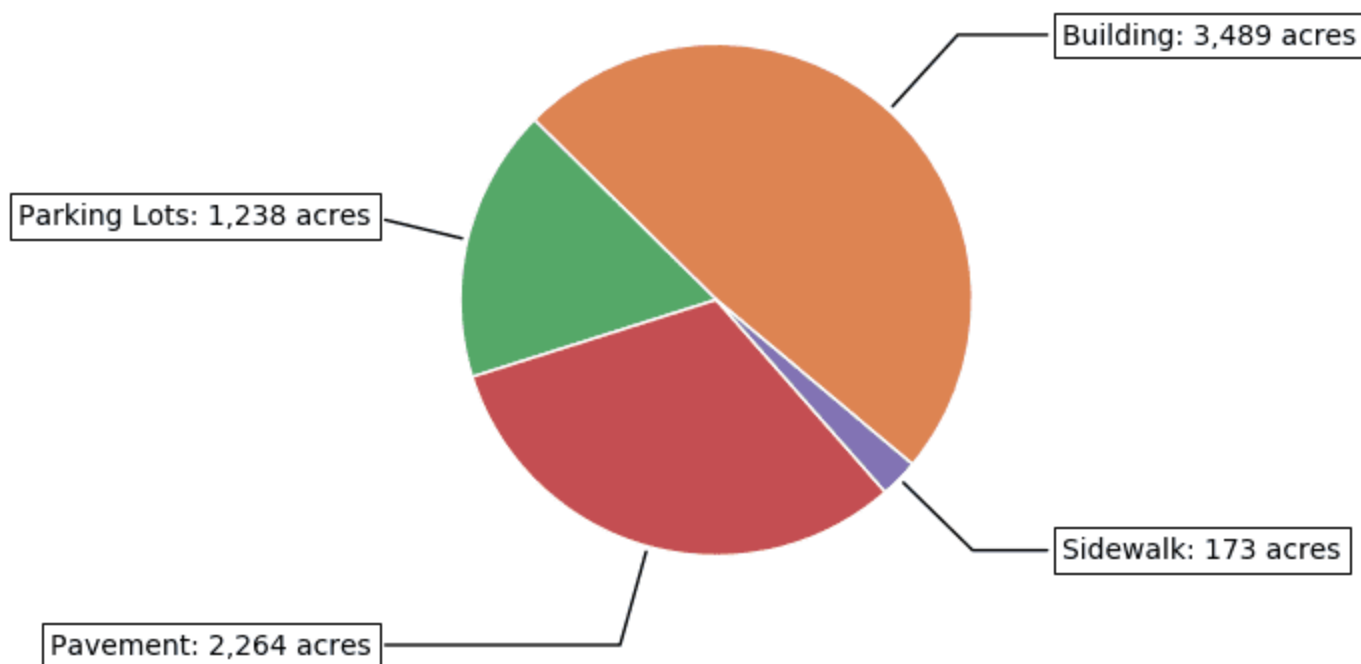
Impervious Features

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.

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

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

