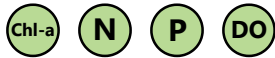


Phillippi Creek Condition Report for 2020



PASS



4 out of 4
indicators
were rated as
PASS.

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

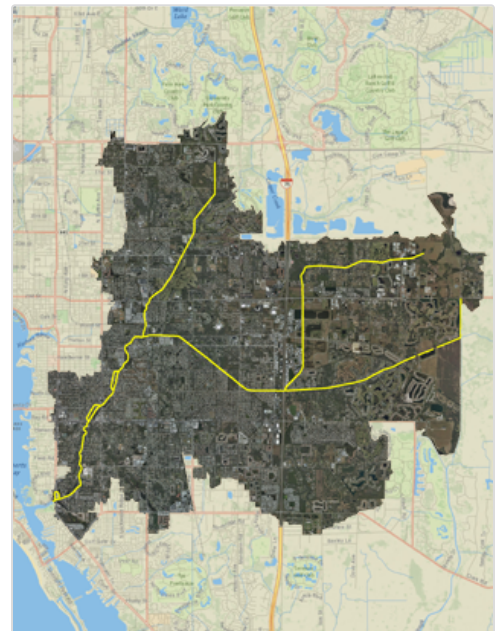
Size: 35,771 acres

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.

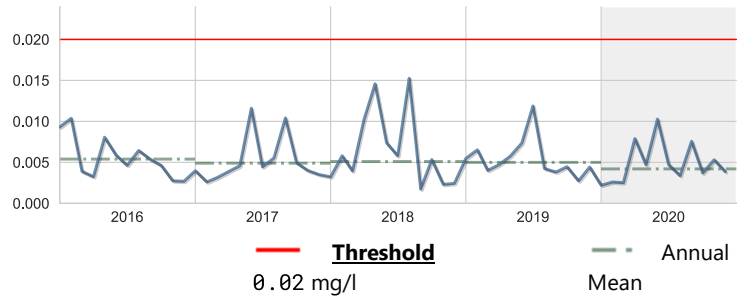


Chlorophyll a

Score: Pass

Units: mg/l	Year 2020	Historical period of record
High	0.51	0.902
Mean	0.0042	0.0044
Low	0.0004	0.00
No. of Samples	158	3,374

Five-year Rolling Average

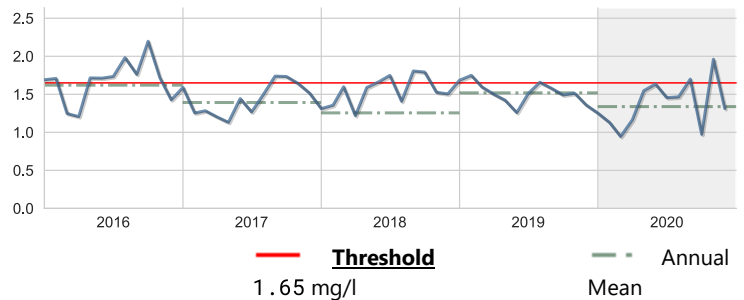


Nitrogen, Total

Score: Pass

Units: mg/l	Year 2020	Historical period of record
High	18.264	21.845
Mean	1.3381	1.3089
Low	0.529	0.124
No. of Samples	152	3,355

Five-year Rolling Average



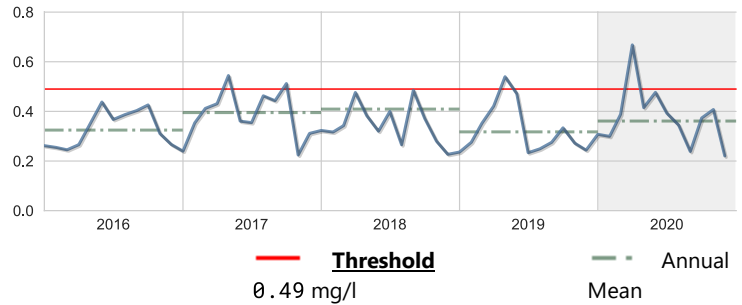


Phosphorus, Total

Score: Pass

Units: mg/l	Year 2020	Historical period of record
High	1.80	7.36
Mean	0.3611	0.3846
Low	0.008	0.008
No. of Samples	152	3,870

Five-year Rolling Average



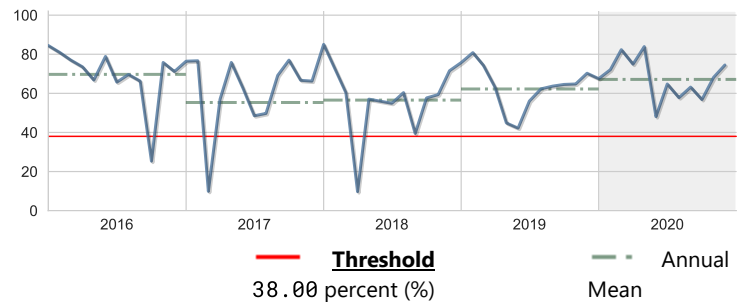
Dissolved Oxygen Saturation

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

Score: Pass

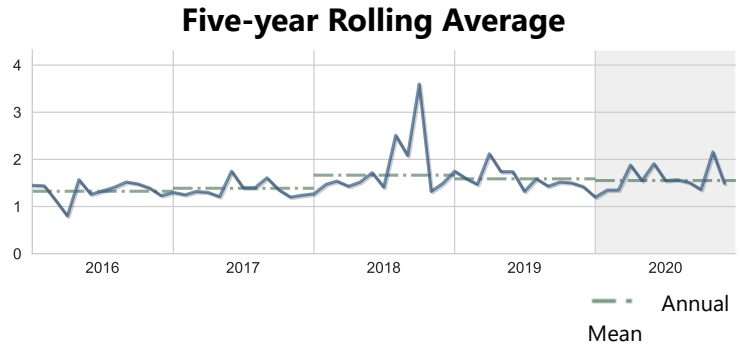
Units: percent (%)	Year 2020	Historical period of record
High	161.791	876.00
Mean	67.14	64.46
Low	3.20	0.00
No. of Samples	158	3,780

Five-year Rolling Average



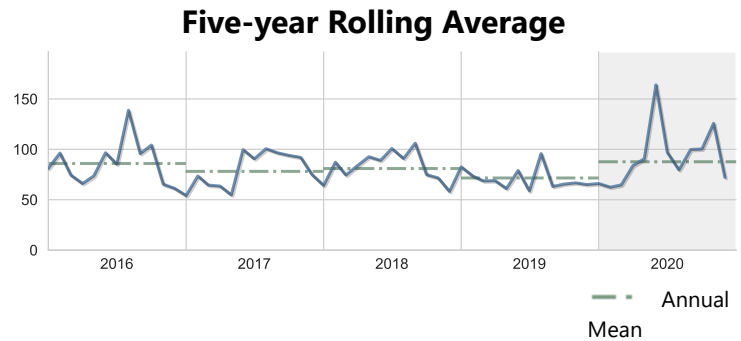
BOD, Biochemical oxygen demand

Units: mg/l	Year 2020	Historical period of record
High	17.30	21.30
Mean	1.55	1.32
Low	1.00	0.071
No. of Samples	144	3,141



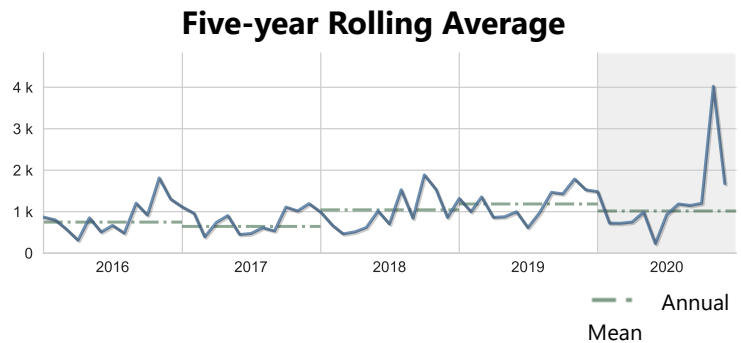
Color

Units: PCU	Year 2020	Historical period of record
High	550.00	600.00
Mean	87.68	71.26
Low	20.00	0.00
No. of Samples	151	4,133



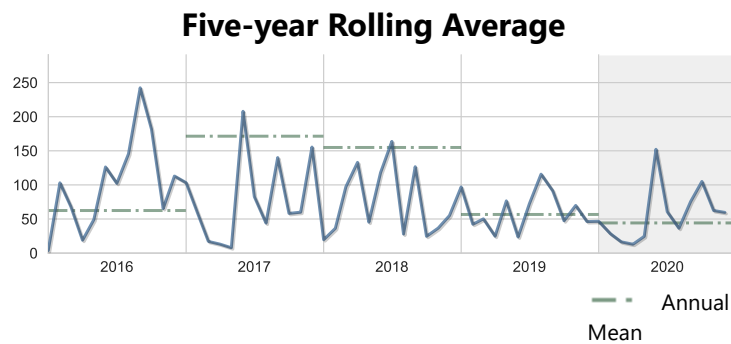
Escherichia coli

Units: cfu/100ml	Year 2020	Historical period of record
High	24196.00	24196.00
Mean	1016.52	792.57
Low	10.00	10.00
No. of Samples	146	1,784



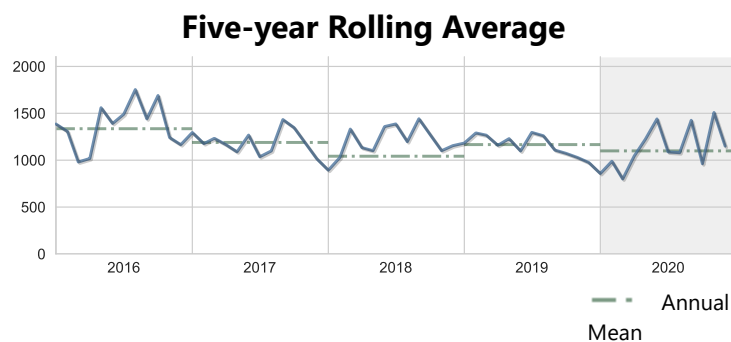
Nitrogen, Ammonia + Ammonium as N

Units: ug/l	Year 2020	Historical period of record
High	13600.00	19600.00
Mean	44.23	31.65
Low	8.00	0.00
No. of Samples	152	4,141



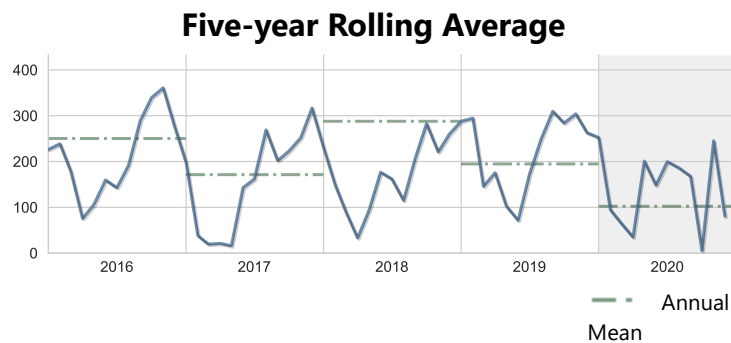
Nitrogen, Kjeldahl

Units: ug/l	Year 2020	Historical period of record
High	17900.00	21700.00
Mean	1099.23	1035.18
Low	407.00	2.00
No. of Samples	152	4,220



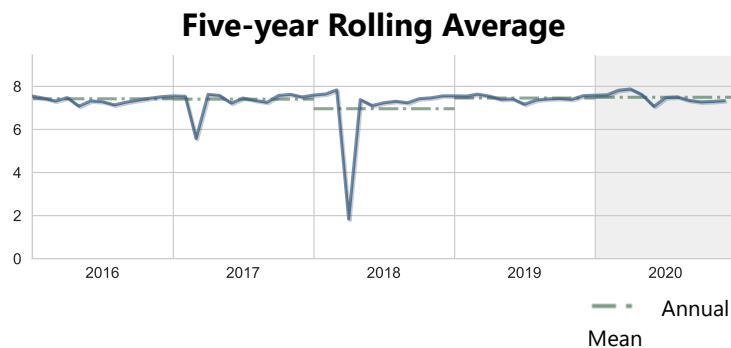
Nitrogen, Nitrite + Nitrate as N

Units: ug/l	Year 2020	Historical period of record
High	3120.00	9700.00
Mean	102.27	153.18
Low	4.00	0.00
No. of Samples	152	3,810



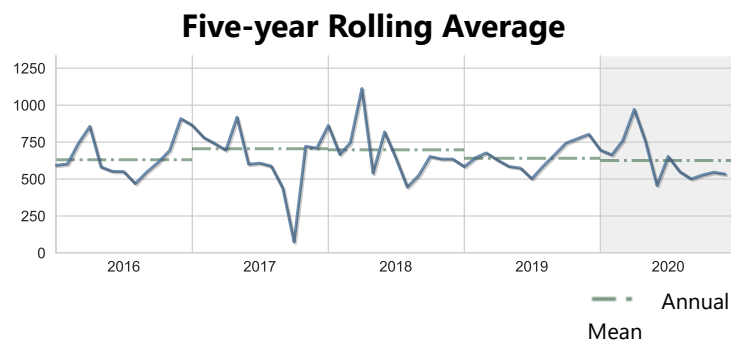
pH

Units: None	Year 2020	Historical period of record
High	10.05	12.00
Mean	7.49	7.35
Low	6.65	0.40
No. of Samples	158	4,934



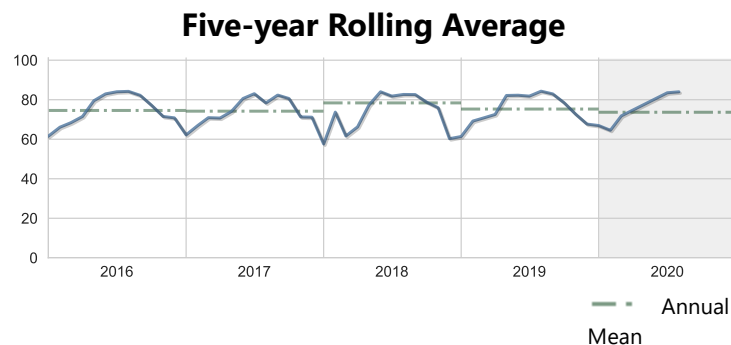
Specific conductance

Units: umho	Year 2020	Historical period of record
High	20256.00	51500.00
Mean	625.76	647.17
Low	330.402	0.369
No. of Samples	163	6,336



Temperature, water

Units: deg F	Year 2020	Historical period of record
High	86.18	139.46
Mean	73.65	73.9
Low	58.64	32.00
No. of Samples	14	5,077



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.

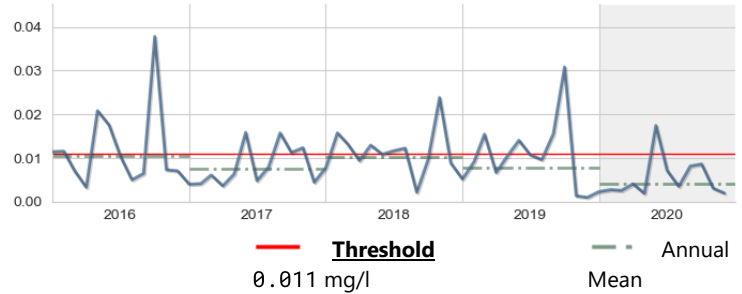


Chlorophyll a

Score: Pass

Units: mg/l	Year 2020	Historical period of record
High	0.0	0.1
Mean	0.004	0.0079
Low	0.0019	0.0003
No. of Samples	12	375

Five-year Rolling Average

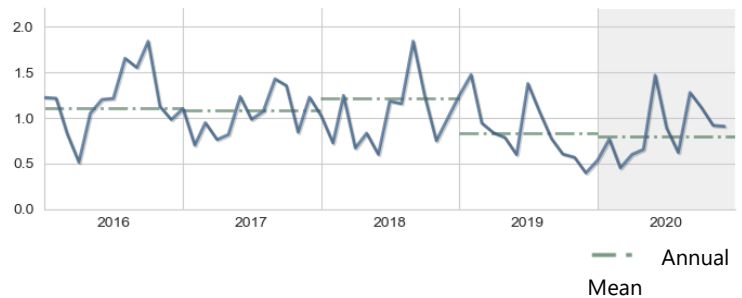


Nitrogen, Total

Score: Pass

Units: mg/l	Year 2020	Historical period of record
High	1.5	8.9
Mean	0.8001	0.9878
Low	0.45	0.131
No. of Samples	12	394

Five-year Rolling Average



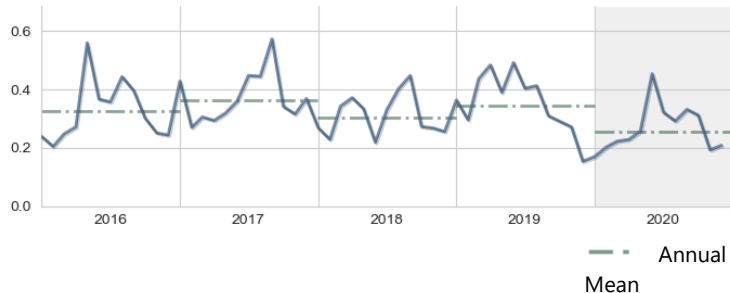


Phosphorus, Total

Score: Pass

Units: mg/l	Year 2020	Historical period of record
High	0.5	2.2
Mean	0.2555	0.3117
Low	0.169	0.084
No. of Samples	12	426

Five-year Rolling Average



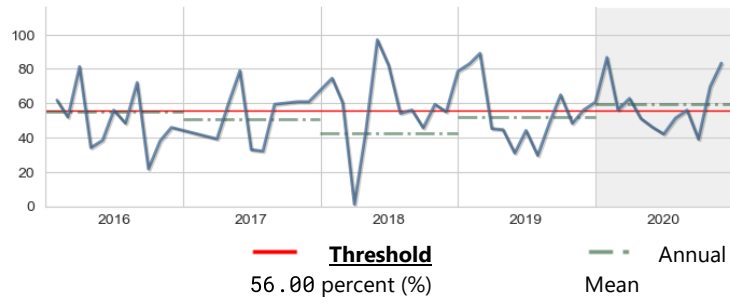
Dissolved Oxygen Saturation

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

Score: Pass

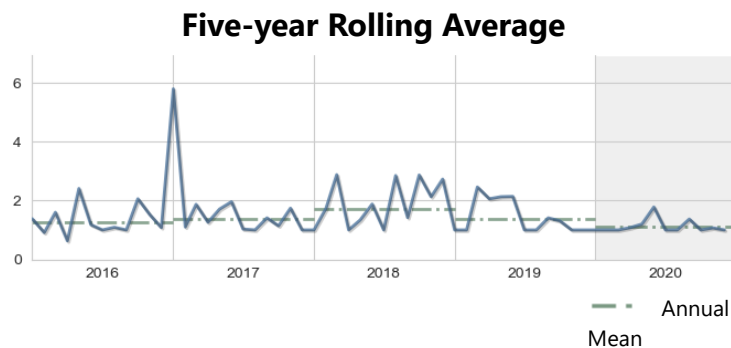
Units: percent (%)	Year 2020	Historical period of record
High	126.6	530.0
Mean	59.32	61.86
Low	39.0383	1.10
No. of Samples	16	373

Five-year Rolling Average



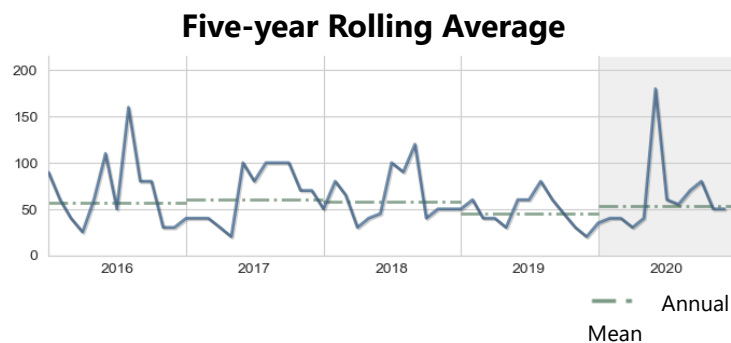
BOD, Biochemical oxygen demand

Units: mg/l	Year 2020	Historical period of record
High	1.8	7.5
Mean	1.11	1.43
Low	1.00	0.50
No. of Samples	12	339



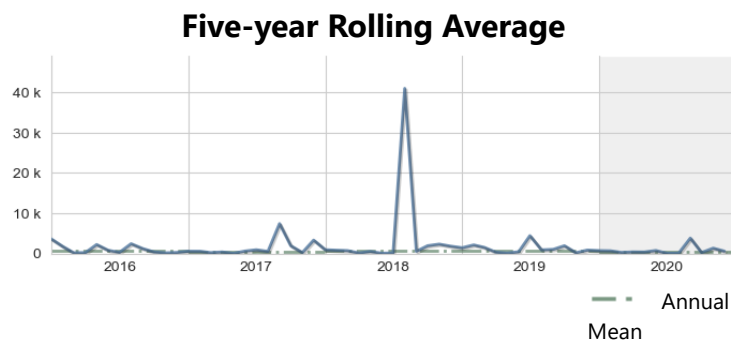
Color

Units: PCU	Year 2020	Historical period of record
High	180.0	280.0
Mean	53.57	51.0
Low	30.00	7.00
No. of Samples	12	430



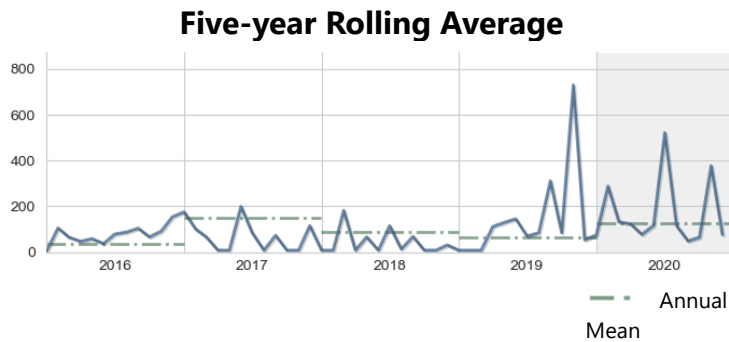
Enterococcus Group Bacteria

Units: cfu/100ml	Year 2020	Historical period of record
High	3,800.0	41,000.0
Mean	368.92	518.86
Low	10.00	10.00
No. of Samples	16	108



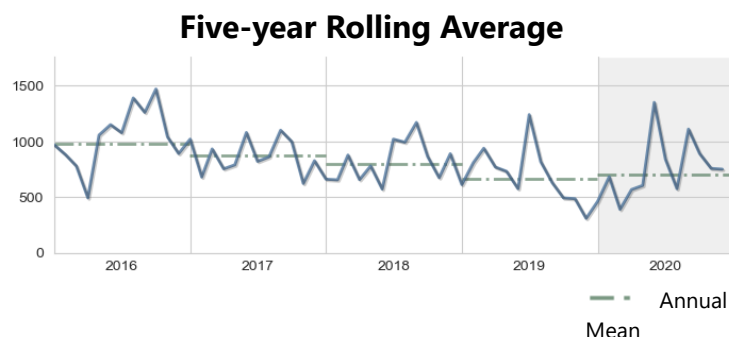
Nitrogen, Ammonia + Ammonium as N

Units: ug/l	Year 2020	Historical period of record
High	521.0	945.0
Mean	126.49	27.46
Low	48.00	0.00
No. of Samples	12	478



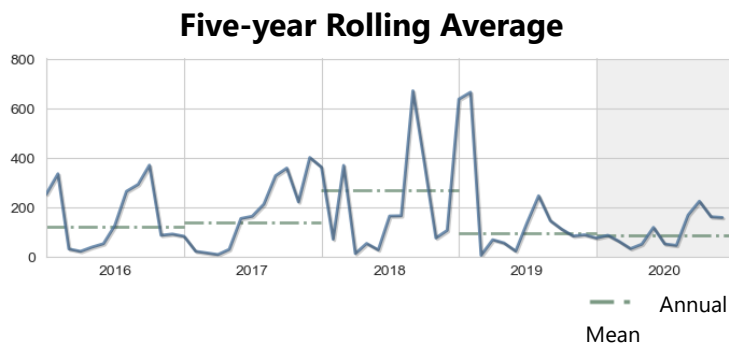
Nitrogen, Kjeldahl

Units: ug/l	Year 2020	Historical period of record
High	1,350.0	3,092.0
Mean	705.84	821.32
Low	389.00	70.00
No. of Samples	12	471



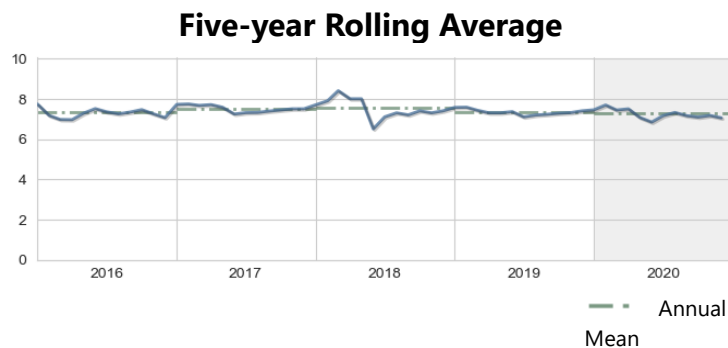
Nitrogen, Nitrite + Nitrate as N

Units: ug/l	Year 2020	Historical period of record
High	223.0	5,670.0
Mean	84.9	79.56
Low	31.00	0.00
No. of Samples	12	422



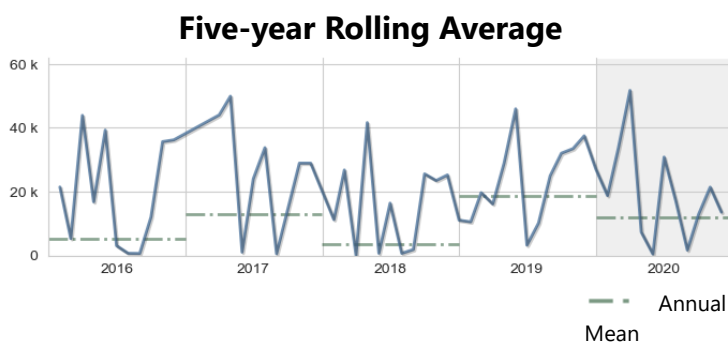
pH

Units: None	Year 2020	Historical period of record
High	8.0	8.5
Mean	7.27	7.67
Low	6.82	5.58
No. of Samples	16	1,989



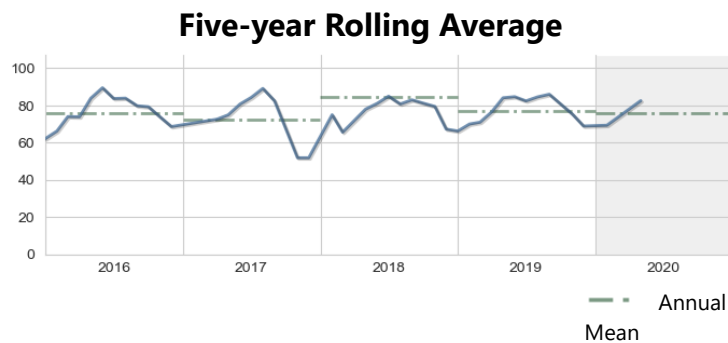
Specific conductance

Units: umho	Year 2020	Historical period of record
High	51,691.4	55,333.0
Mean	11899.52	19354.72
Low	413.805	0.30
No. of Samples	16	2,032



Temperature, water

Units: deg F	Year 2020	Historical period of record
High	82.6	91.4
Mean	75.59	75.41
Low	69.26	49.10
No. of Samples	4	1,947



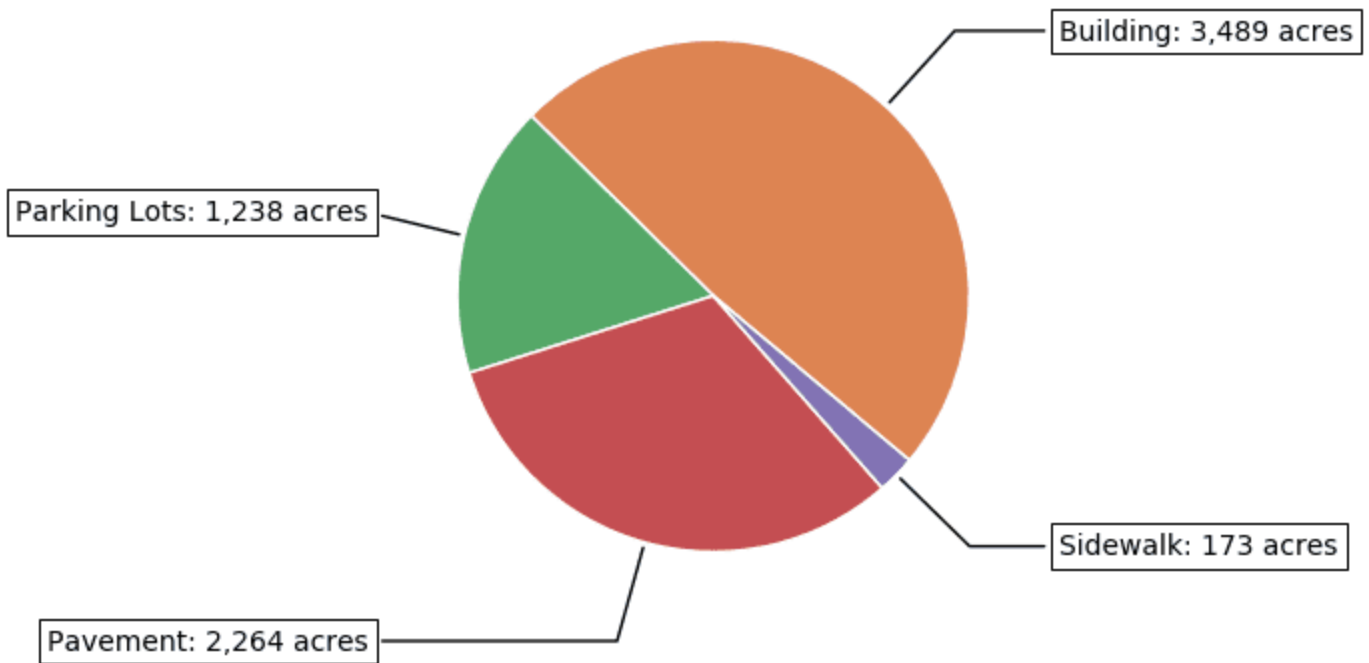
Impervious Features

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

2020 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

