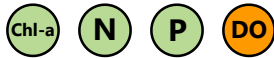


Phillippi Creek Condition Report for 2021



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

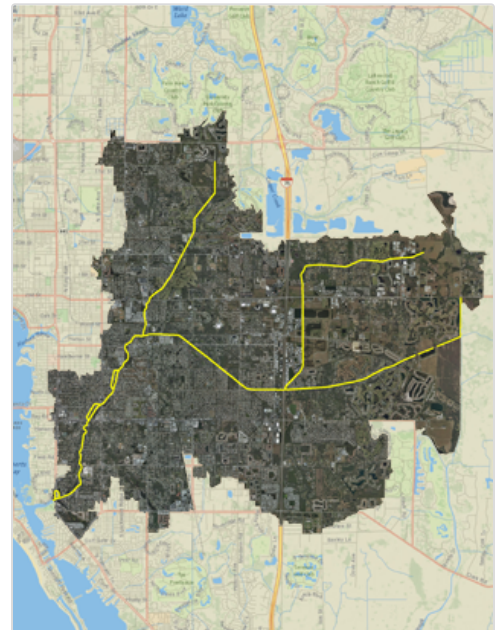
Location: North Sarasota County, south Manatee County

Discharges into: Sarasota Bay

For more information, please see: [Phillippi Creek Flood Study Update \(2001\)](#).

[View county-wide water quality trends »](#)

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.

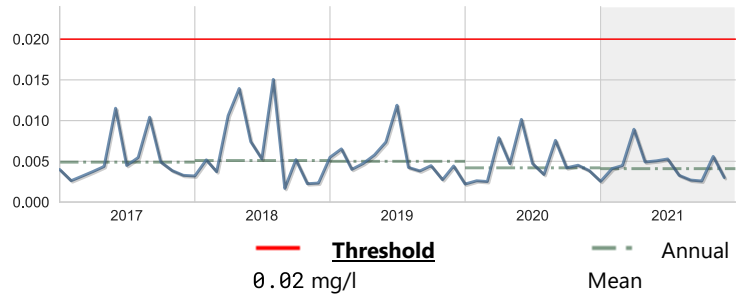


Chlorophyll a

Score: Pass

Units: mg/l	Year 2021	Historical period of record
High	0.33	0.902
Mean	0.0041	0.0044
Low	0.0003	0.00
No. of Samples	148	3,621

Five-year Rolling Average

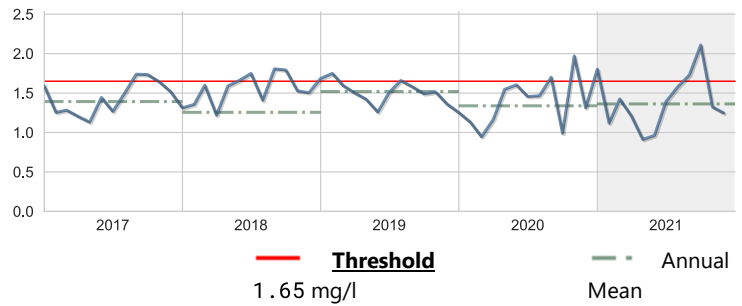


Nitrogen, Total

Score: Pass

Units: mg/l	Year 2021	Historical period of record
High	13.51	21.845
Mean	1.3621	1.3353
Low	0.244	0.124
No. of Samples	146	3,110

Five-year Rolling Average



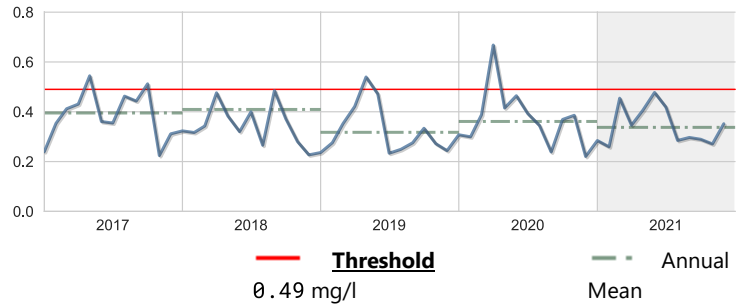


Phosphorus, Total

Score: Pass

Units: mg/l	Year 2021	Historical period of record
High	2.11	7.36
Mean	0.3374	0.3804
Low	0.063	0.008
No. of Samples	146	3,624

Five-year Rolling Average



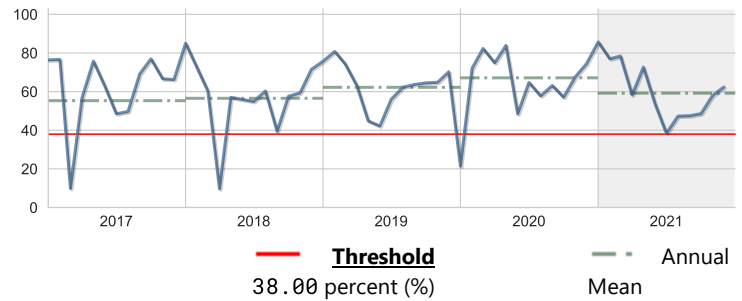
Dissolved Oxygen Saturation

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

Score: Pass

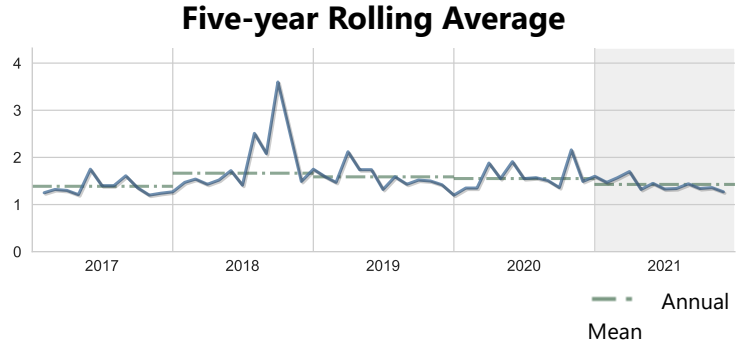
Units: percent (%)	Year 2021	Historical period of record
High	149.13	262.40
Mean	59.19	61.72
Low	0.40	0.00
No. of Samples	146	3,575

Five-year Rolling Average



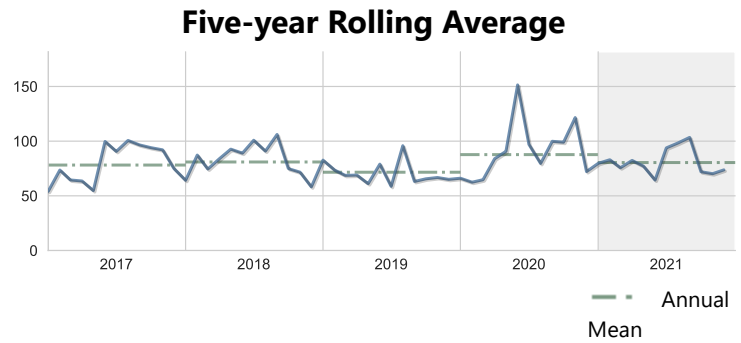
BOD, Biochemical oxygen demand

Units: mg/l	Year 2021	Historical period of record
High	12.70	21.30
Mean	1.43	1.36
Low	1.00	0.071
No. of Samples	144	2,795



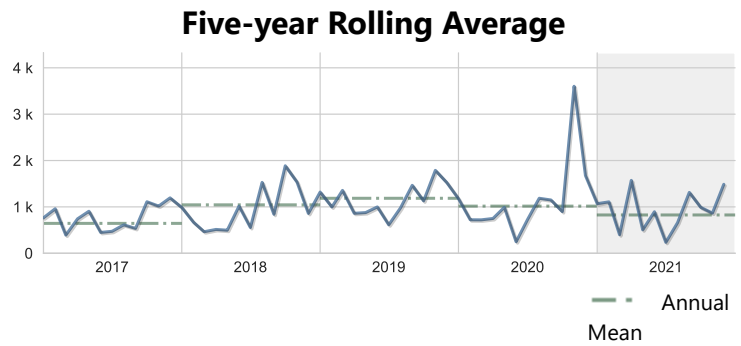
Color

Units: PCU	Year 2021	Historical period of record
High	400.00	600.00
Mean	80.43	72.74
Low	30.00	0.00
No. of Samples	146	4,375



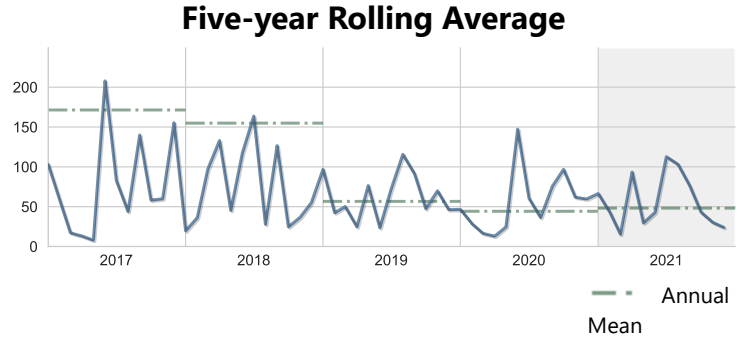
Escherichia coli

Units: cfu/100ml	Year 2021	Historical period of record
High	19863.00	24196.00
Mean	825.71	776.91
Low	10.00	10.00
No. of Samples	130	1,886



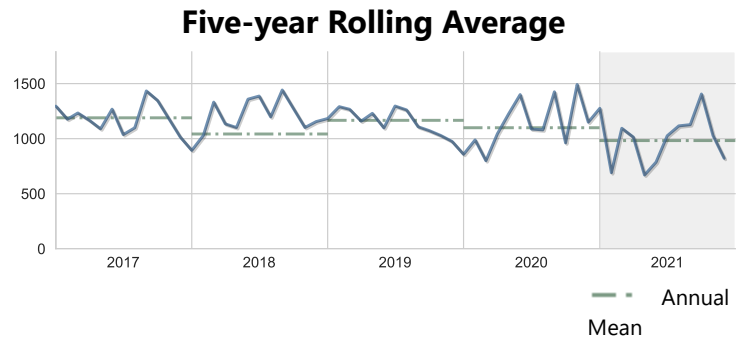
Nitrogen, Ammonia + Ammonium as N

Units: ug/l	Year 2021	Historical period of record
High	7770.00	19600.00
Mean	48.21	30.19
Low	8.00	0.00
No. of Samples	146	3,895



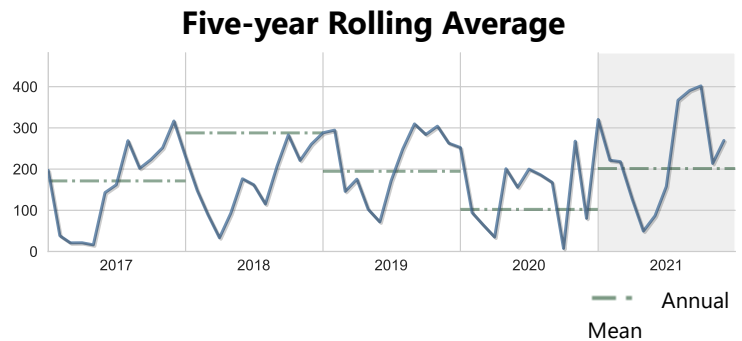
Nitrogen, Kjeldahl

Units: ug/l	Year 2021	Historical period of record
High	12100.00	21700.00
Mean	982.52	1048.45
Low	50.00	2.00
No. of Samples	146	3,968



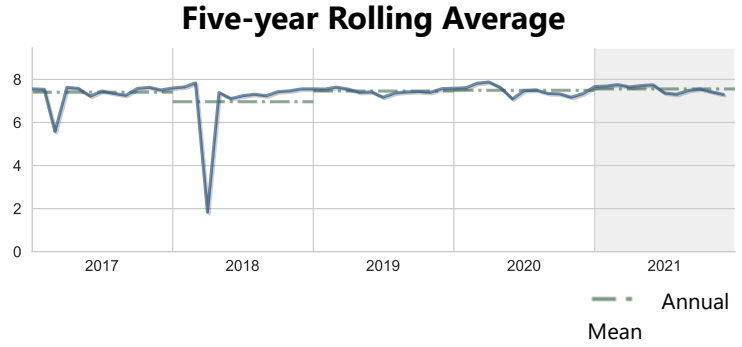
Nitrogen, Nitrite + Nitrate as N

Units: ug/l	Year 2021	Historical period of record
High	3960.00	9700.00
Mean	201.41	152.15
Low	4.00	0.00
No. of Samples	146	3,552



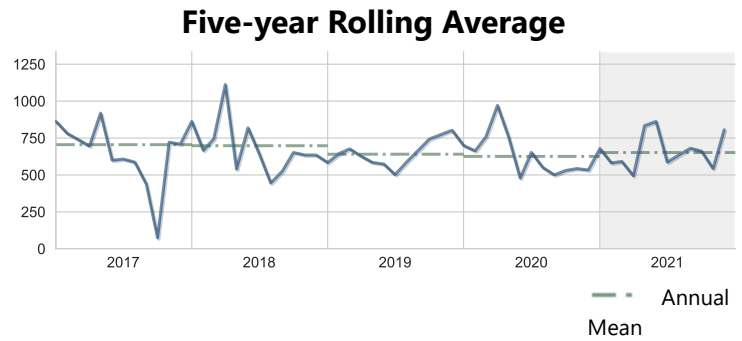
pH

Units: None	Year 2021	Historical period of record
High	9.88	10.70
Mean	7.56	7.31
Low	6.7906	0.078
No. of Samples	146	4,761



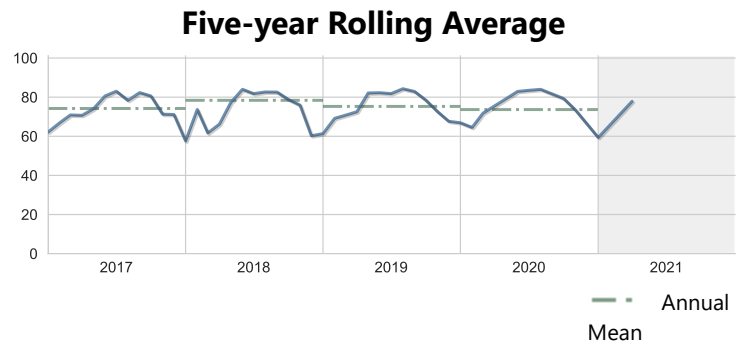
Specific conductance

Units: umho	Year 2021	Historical period of record
High	23958.00	51500.00
Mean	651.8	652.71
Low	282.412	0.369
No. of Samples	148	6,162



Temperature, water

Units: deg F	Year 2021	Historical period of record
High	196.4089	211.586
Mean	164.55	77.86
Low	59.36	32.00
No. of Samples	146	5,055



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.

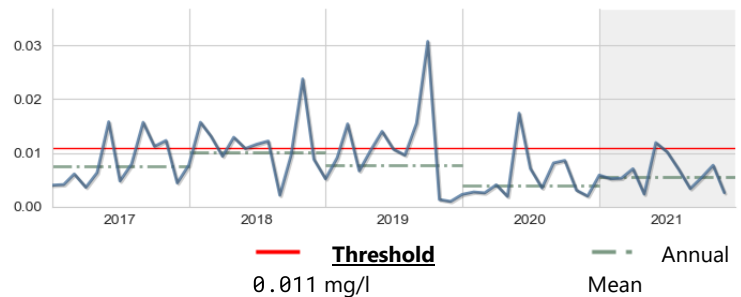


Chlorophyll a

Score: Pass

Units: mg/l	Year 2021	Historical period of record
High	0.0	0.1
Mean	0.0055	0.008
Low	0.0023	0.0003
No. of Samples	12	334

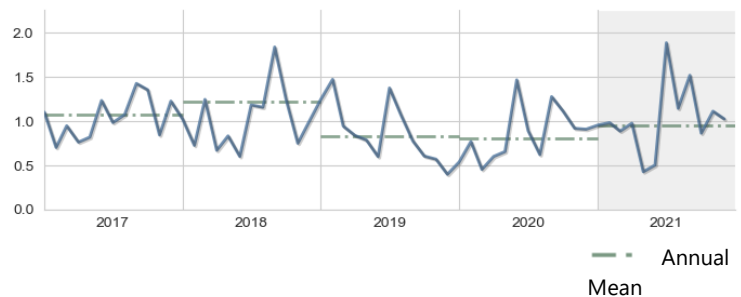
Five-year Rolling Average



Nitrogen, Total

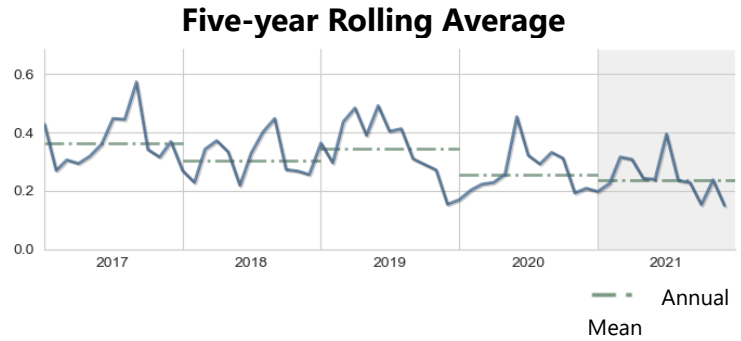
Units: mg/l	Year 2021	Historical period of record
High	1.9	8.9
Mean	0.9514	1.0078
Low	0.424	0.131
No. of Samples	12	332

Five-year Rolling Average



Phosphorus, Total

Units: mg/l	Year 2021	Historical period of record
High	0.4	2.2
Mean	0.2348	0.3203
Low	0.149	0.084
No. of Samples	12	364

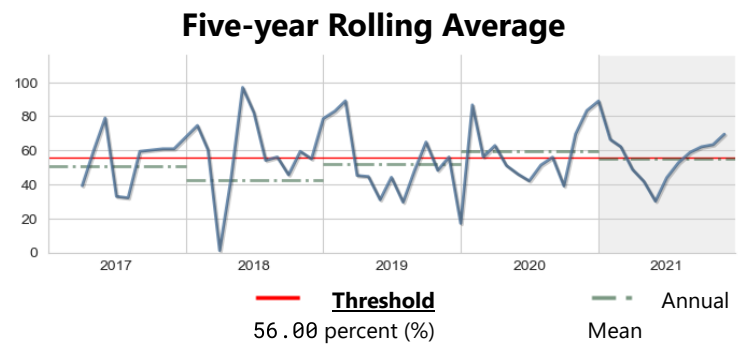


Dissolved Oxygen Saturation

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

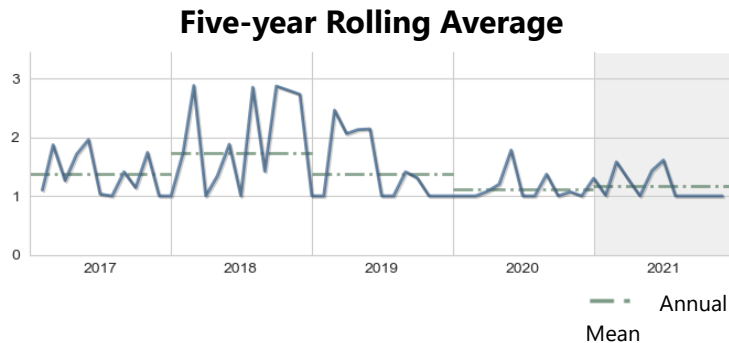
Score: Caution

Units: percent (%)	Year 2021	Historical period of record
High	89.0	210.0
Mean	55.42	60.62
Low	30.10	1.10
No. of Samples	12	328



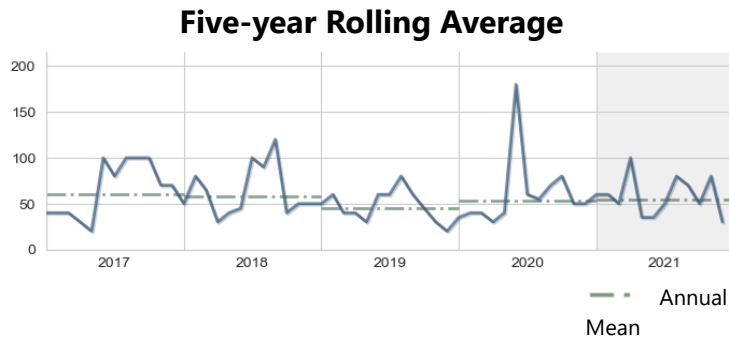
BOD, Biochemical oxygen demand

Units: mg/l	Year 2021	Historical period of record
High	1.6	7.5
Mean	1.16	1.43
Low	1.00	0.50
No. of Samples	12	269



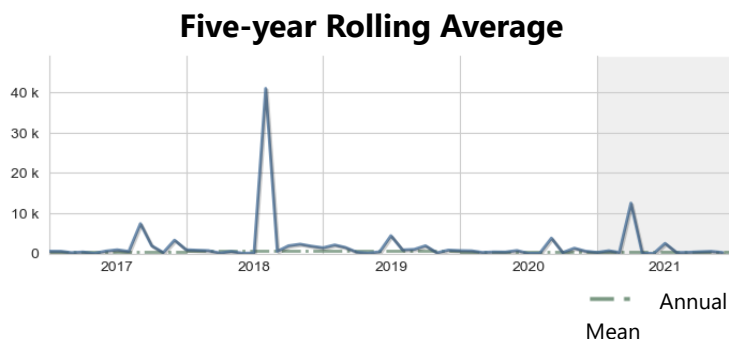
Color

Units: PCU	Year 2021	Historical period of record
High	100.0	280.0
Mean	54.85	51.76
Low	30.00	7.00
No. of Samples	12	389



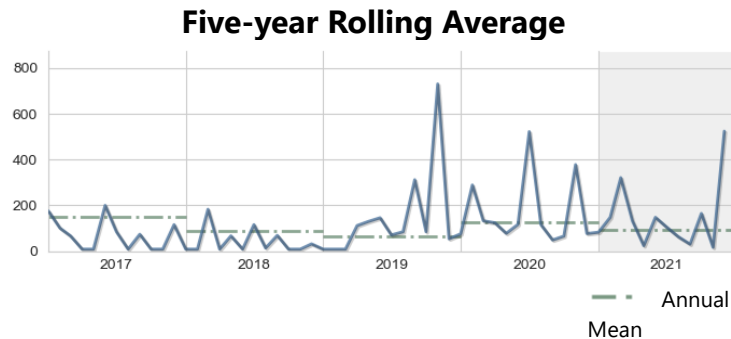
Enterococcus Group Bacteria

Units: cfu/100ml	Year 2021	Historical period of record
High	12,500.0	41,000.0
Mean	335.84	478.18
Low	10.00	10.00
No. of Samples	12	117



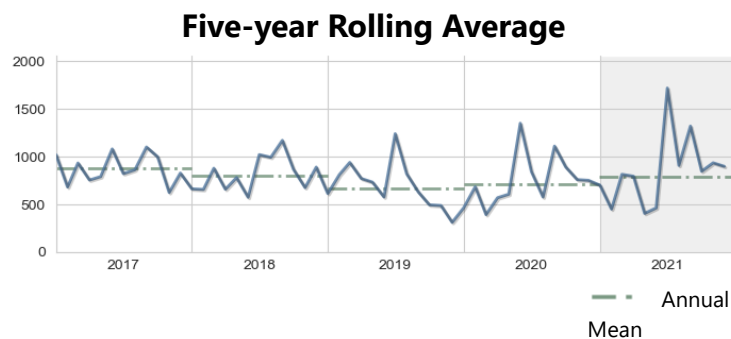
Nitrogen, Ammonia + Ammonium as N

Units: ug/l	Year 2021	Historical period of record
High	523.0	945.0
Mean	93.62	24.82
Low	16.00	0.00
No. of Samples	12	416



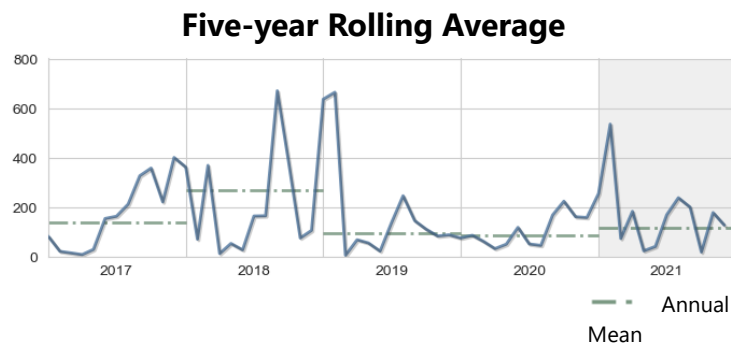
Nitrogen, Kjeldahl

Units: ug/l	Year 2021	Historical period of record
High	1,720.0	3,092.0
Mean	784.39	824.09
Low	402.00	70.00
No. of Samples	12	409



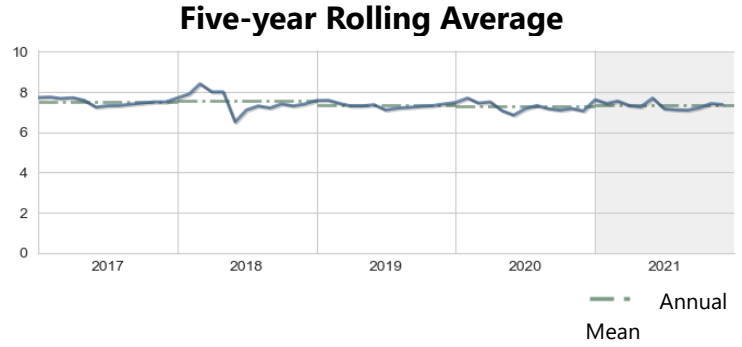
Nitrogen, Nitrite + Nitrate as N

Units: ug/l	Year 2021	Historical period of record
High	535.0	1,140.0
Mean	113.78	80.26
Low	17.00	0.00
No. of Samples	12	359



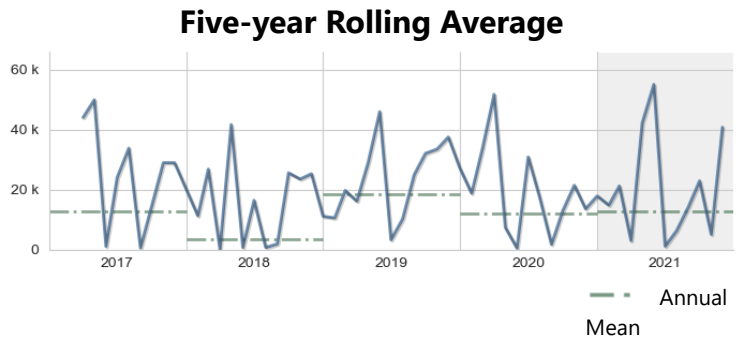
pH

Units: None	Year 2021	Historical period of record
High	7.7	8.5
Mean	7.35	7.68
Low	7.0881	5.58
No. of Samples	12	1,947



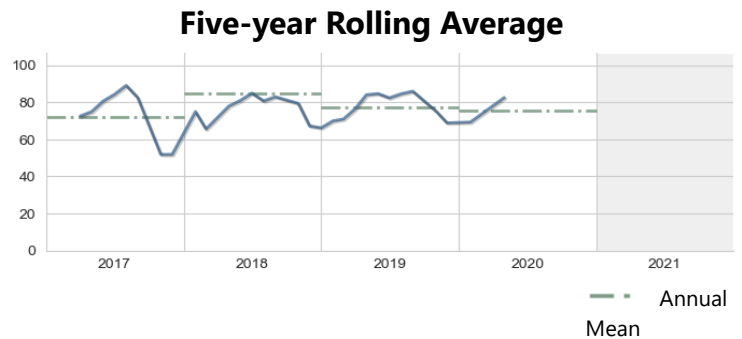
Specific conductance

Units: umho	Year 2021	Historical period of record
High	55,002.0	55,333.0
Mean	12645.92	19391.75
Low	1056.00	0.30
No. of Samples	12	1,989



Temperature, water

Units: deg F	Year 2021	Historical period of record
High	187.7	211.6
Mean	169.1	76.23
Low	142.4781	49.10
No. of Samples	12	1,917

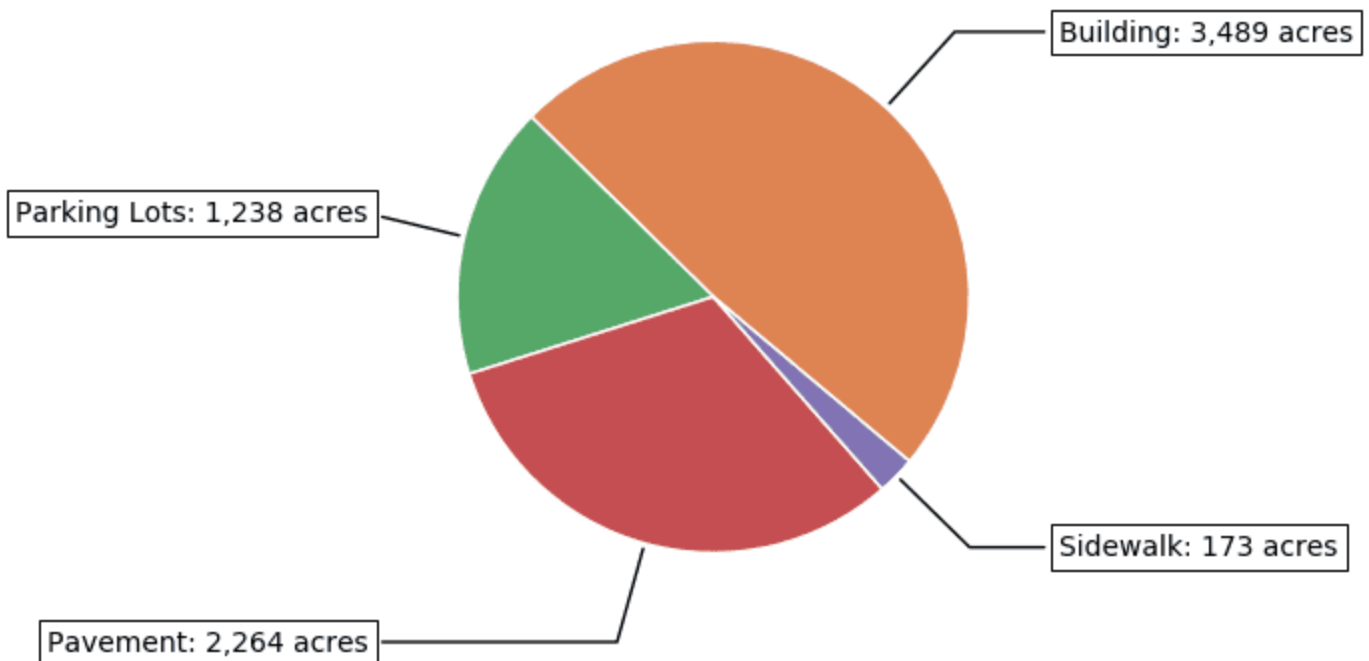


Impervious Features

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	2020	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%	27,124 75.8%	
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%	1,318 3.7%	
Rangeland	523 1.5%	308 0.9%	262 0.7%	142 0.4%	147 0.4%	330 0.9%	129 0.4%	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%	1,439 4%	
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%	2,063 5.8%	
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%	1,810 5.1%	
Barren Land	19 0.1%	106 0.3%	634 1.8%	9 0%	99 0.3%	95 0.3%	100 0.3%	65 0.2%	
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%	1,823 5.1%	

2020 Land Use / Land Cover for Phillippi Creek Basin

