Forked Creek Condition Report for 2023

CAUTION

Chl-a N P DO

3 out of 4 indicators were rated as **PASS**.

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

Size: 5,863 acres
Location: South Sarasota County
Discharges into: Lemon Bay

For more information, please see: **Forked Creek Drainage Improvements, Preliminary Report Phase I (2000)**

View county-wide water quality trends »

Forked 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.

Water quality data are not available for the freshwater portion of this creek.

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

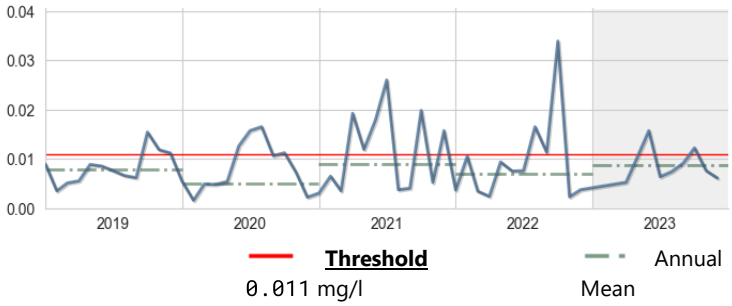
concentration of dissolved oxygen in these streams. Florida has no regulatory thresholds for nitrogen or phosphorus in tidal creeks so trends are used to rate the creeks.

Chlorophyll a

Score: Pass

Units: mg/l	Year 2023	Historical period of record
High	0.0	0.2
Mean	0.0086	0.0115
Low	0.0052	0.0003
No. of Samples	16	560

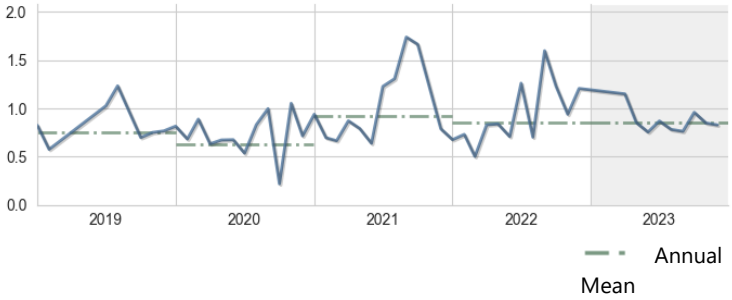
Five-year Rolling Average



Nitrogen, Total

Units: mg/l	Year 2023	Historical period of record
High	1.1	8.1
Mean	0.8513	1.0421
Low	0.656	0.00
No. of Samples	12	791

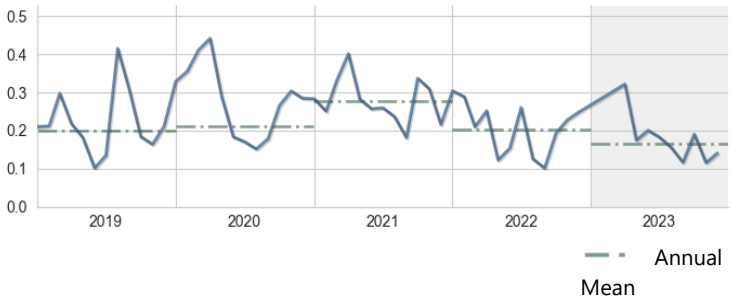
Five-year Rolling Average



Phosphorus, Total

Units: mg/l	Year 2023	Historical period of record
High	0.3	3.8
Mean	0.1641	0.3123
Low	0.11	0.004
No. of Samples	12	593

Five-year Rolling Average



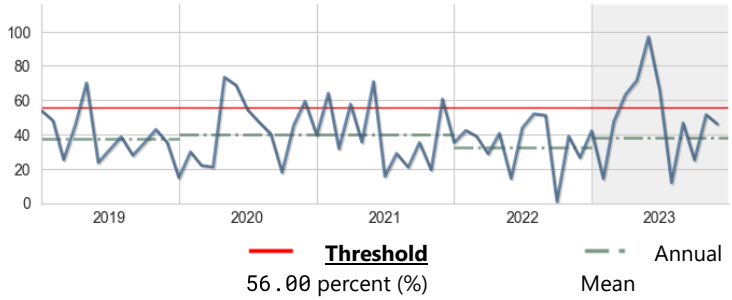
DO Dissolved Oxygen Saturation

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

Score: Caution

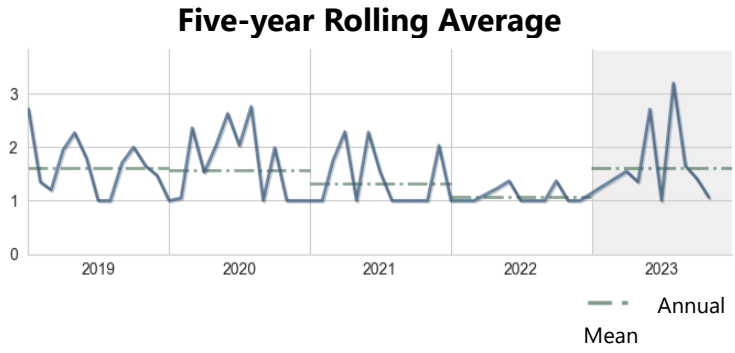
Units: percent (%)	Year 2023	Historical period of record
High	97.0	169.7
Mean	37.8	60.09
Low	4.0907	0.70
No. of Samples	16	845

Five-year Rolling Average



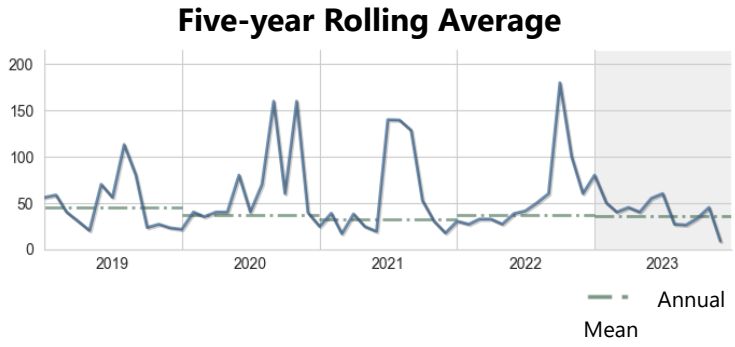
BOD, Biochemical oxygen demand

Units: mg/l	Year 2023	Historical period of record
High	3.2	16.7
Mean	1.61	2.19
Low	1.00	0.50
No. of Samples	8	340



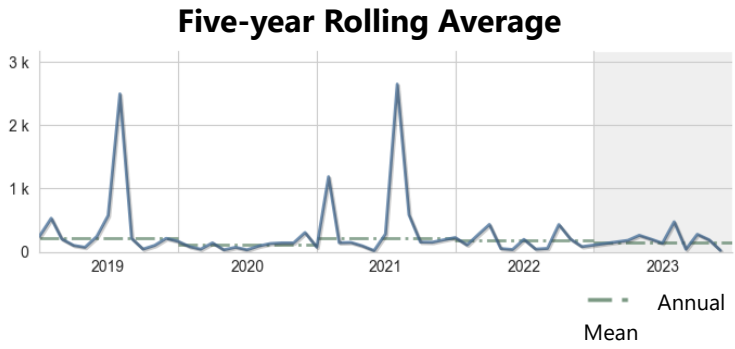
Color

Units: PCU	Year 2023	Historical period of record
High	80.0	350.0
Mean	35.72	47.02
Low	8.40	5.00
No. of Samples	15	727



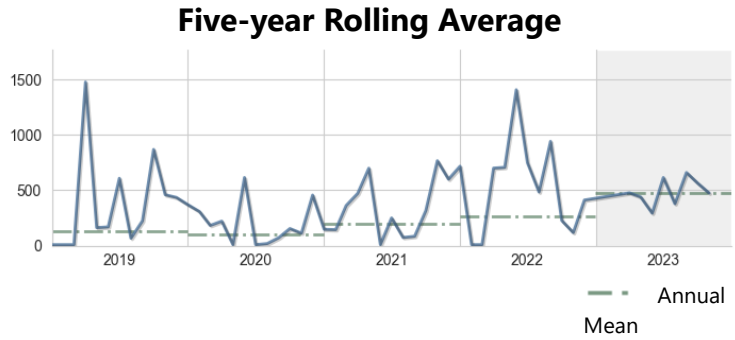
Enterococcus Group Bacteria

Units: cfu/100ml	Year 2023	Historical period of record
High	697.0	17,300.0
Mean	149.16	144.73
Low	20.00	10.00
No. of Samples	12	170



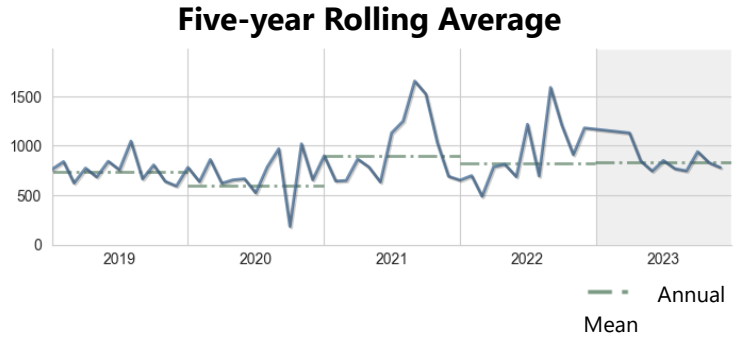
Nitrogen, Ammonia + Ammonium as N

Units: ug/l	Year 2023	Historical period of record
High	661.0	1,480.0
Mean	473.81	17.45
Low	293.00	0.00
No. of Samples	8	515



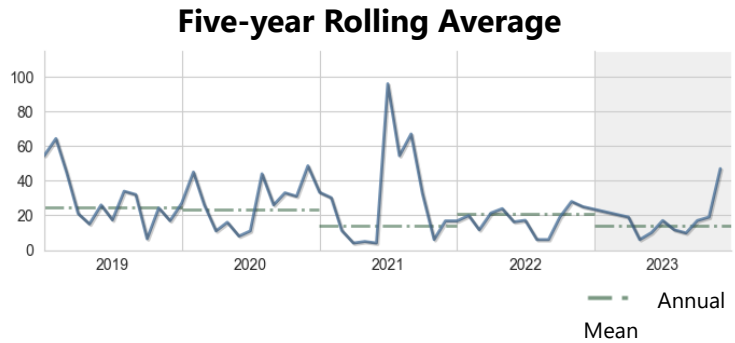
Nitrogen, Kjeldahl

Units: ug/l	Year 2023	Historical period of record
High	1,130.0	4,340.0
Mean	833.96	960.12
Low	641.00	50.00
No. of Samples	12	658



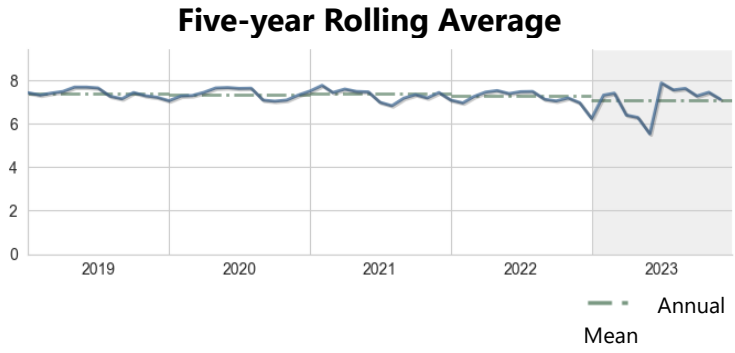
Nitrogen, Nitrite + Nitrate as N

Units: ug/l	Year 2023	Historical period of record
High	47.0	882.0
Mean	14.16	15.74
Low	4.00	0.00
No. of Samples	12	584



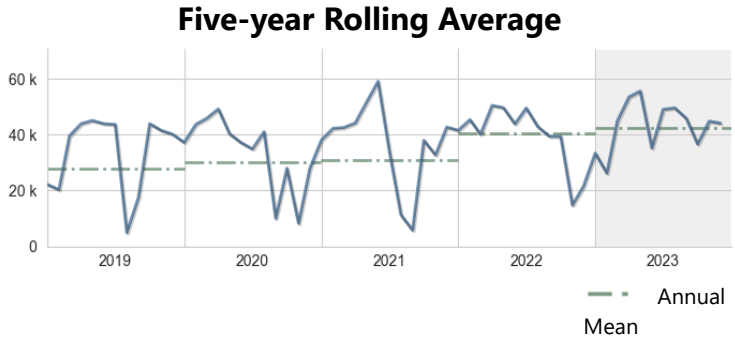
pH

Units: None	Year 2023	Historical period of record
High	7.9	9.3
Mean	7.09	7.79
Low	5.54	4.90
No. of Samples	16	1,150



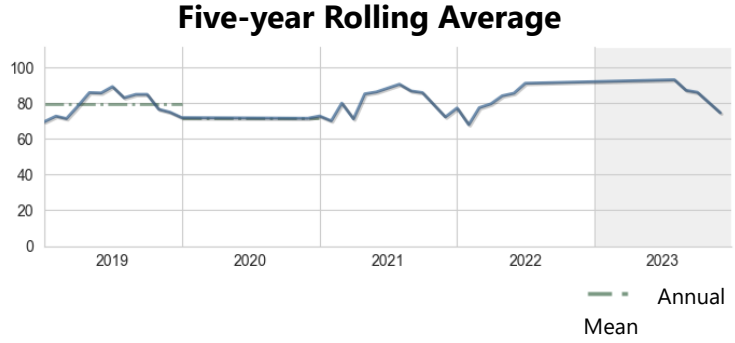
Specific conductance

Units: umho	Year 2023	Historical period of record
High	55,621.3	63,471.0
Mean	42336.31	20522.86
Low	26178.00	0.941
No. of Samples	12	769



Temperature, water

Units: deg F	Year 2023	Historical period of record
High	195.8	197.9
Mean	144.8	78.45
Low	74.66	50.00
No. of Samples	16	1,513

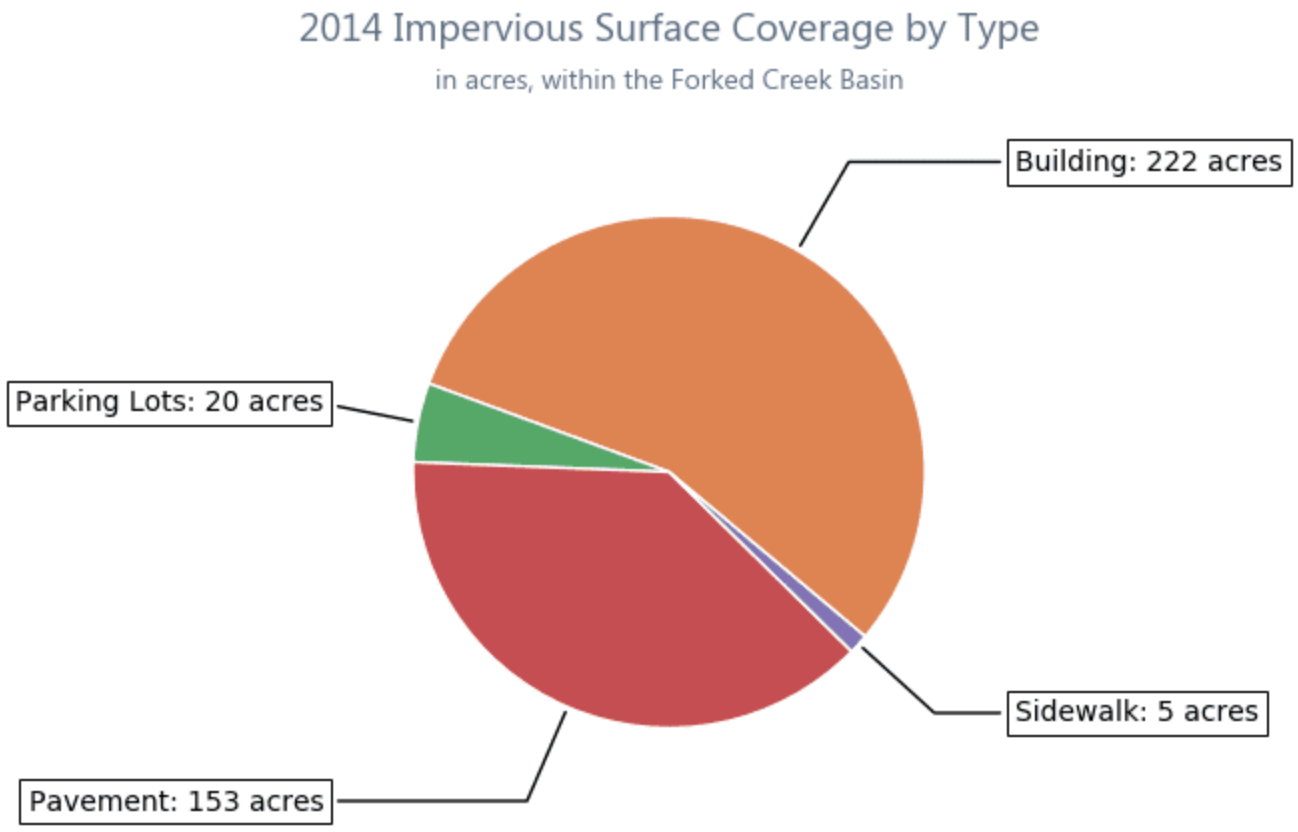


Impervious Features

Rain that falls on land that is in a natural state is absorbed and filtered by soils and vegetation as it makes it 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.



7% of the land area within the **Forked Creek Basin** is covered by impervious surfaces

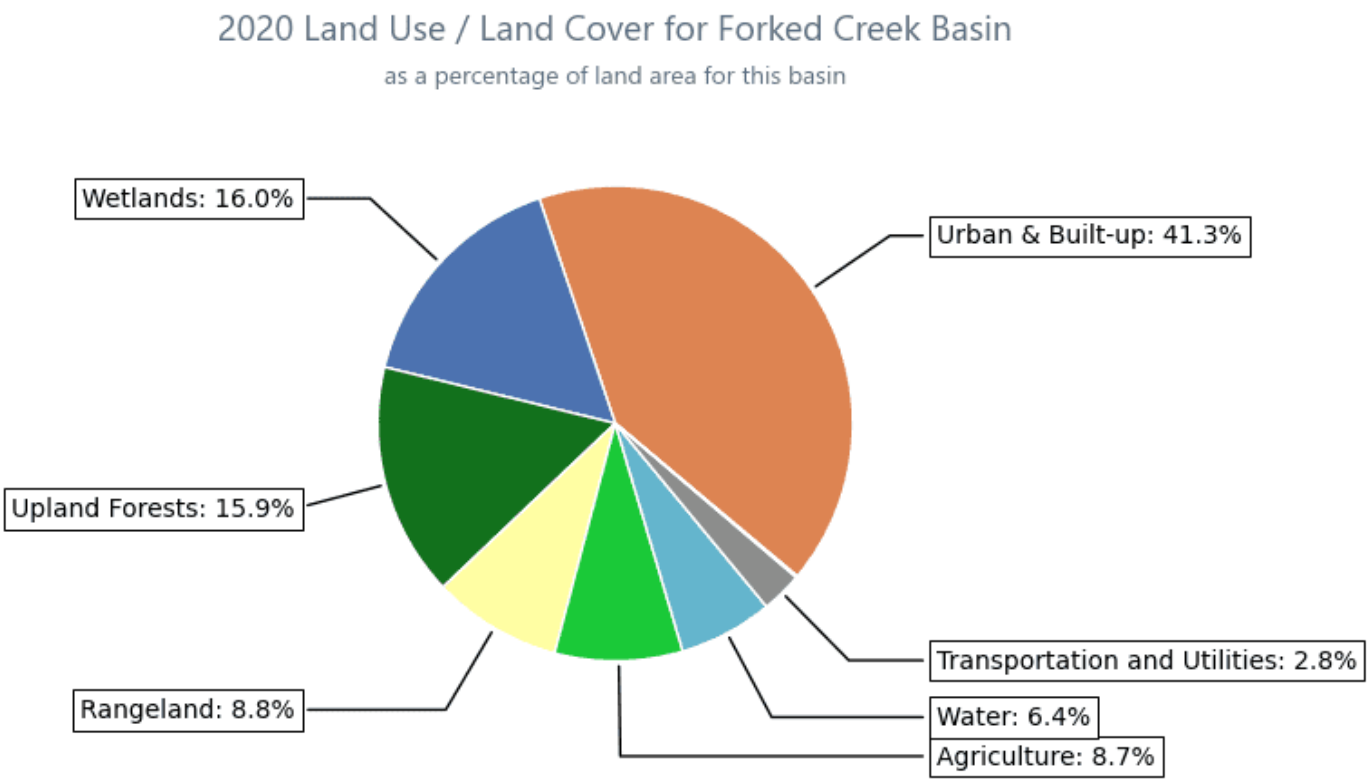


Land Use / Land Cover

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 Forked Creek Basin

Land Use Classification	1990	1995	1999	2005	2011	2014	2017	2020	Trend
Urban & Built-up	1,394 **23.8%**	1,570 **26.8%**	1,888 **32.2%**	1,859 **31.7%**	2,154 **36.7%**	2,154 **36.7%**	2,393 **40.8%**	2,418 **41.3%**	
Agriculture	1,055 **18%**	1,081 **18.4%**	1,064 **18.2%**	988 **16.8%**	619 **10.6%**	619 **10.6%**	533 **9.1%**	513 **8.7%**	
Rangeland	232 **4%**	688 **11.7%**	395 **6.7%**	552 **9.4%**	726 **12.4%**	726 **12.4%**	587 **10%**	515 **8.8%**	
Upland Forests	2,059 **35.1%**	1,322 **22.5%**	1,313 **22.4%**	1,187 **20.3%**	1,031 **17.6%**	1,031 **17.6%**	982 **16.7%**	935 **15.9%**	
Water	139 **2.4%**	390 **6.7%**	237 **4%**	229 **3.9%**	276 **4.7%**	276 **4.7%**	318 **5.4%**	375 **6.4%**	
Wetlands	905 **15.4%**	743 **12.7%**	904 **15.4%**	944 **16.1%**	948 **16.2%**	948 **16.2%**	943 **16.1%**	939 **16%**	
Barren Land	1 **0%**	0 **0%**	0 **0%**	0 **0%**	0 **0%**	0 **0%**	0 **0%**	6 **0.1%**	
Transportation and Utilities	78 **1.3%**	68 **1.2%**	61 **1%**	103 **1.8%**	107 **1.8%**	107 **1.8%**	108 **1.8%**	161 **2.8%**	


2020 Land Use / Land Cover for Forked Creek Basin
as a percentage of land area for this basin
Wetlands: 16.0%
Urban & Built-up: 41.3%
Upland Forests: 15.9%
Transportation and Utilities: 2.8%
Rangeland: 8.8%
Water: 6.4%
Agriculture: 8.7%