Forked Creek Condition Report for 2017

CAUTION

Chl-a N P DO

2 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

Historically, the Forked Creek Basin consisted of a series of contiguous wetlands and mesic hammocks that extended from the creek's headwaters to its outfall. The entirety of Forked Creek is predominantly marine. There are three branches within this basin: the eastern, main branch which extends from State Road 776 north and east to the headwaters; the central branch which extends from the main confluence at SR776 north into the Dale Lakes area; and the western branch which extends north of Overbrook Road to Manasota Beach Road. The eastern branch traverses mainly undeveloped range land and sparsely populated land, while the central branch traverses through two urban subdivisions and one sparsely populated section. The flow characteristics of the creek have been greatly diminished because of the invasion of a variety of exotics, debris and storm-damaged trees. Sarasota County has designated the Forked Creek basin as a regional stormwater facility requiring immediate attention. *For basin details see:* ***Forked Creek Drainage Improvements, Preliminary Report Phase I (2000)***

Water Chemistry Ratings - Freshwater Portion of the Creek

Total nitrogen, total phosphorus, chlorophyll *a*, and dissolved oxygen levels are monitored carefully by water resource managers and used by regulatory authorities to determine whether a creek meets the water quality standards mandated by the Clean Water Act. Shown below are water quality data for each freshwater stream segment. Florida law defines a threshold for the maximum allowable concentration of nitrogen, phosphorus, and chlorophyll *a*, and the minimum required 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

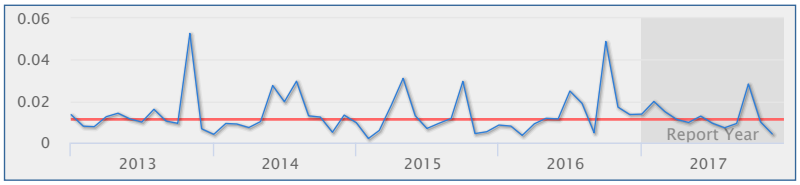
As is the case for predominantly freshwater streams, total nitrogen, total phosphorus, and chlorophyll *a* levels are monitored carefully by water resource managers and used by regulatory authorities to determine whether a tidally-influenced stream meets the water quality standards mandated by the Clean Water Act. Shown below are water quality data for each saltwater water body within this basin. Florida law defines a threshold for the maximum allowable concentration of chlorophyll *a* and the minimum required concentration of dissolved oxygen in these streams. No thresholds have been established for the allowable concentration of nitrogen or phosphorus; trend information is provided for these nutrients, to determine whether a statistically significant trend exists and if so, whether levels are rising (bad) or falling (good).

Chlorophyll a

Score: Caution

Units: mg/l	Year 2017	Historical period of record
High	0.0	0.2
Mean	0.0126	0.0146
Low	0.0015	0.0003
No. of Samples	47	1,087

Five-year Trend Graph



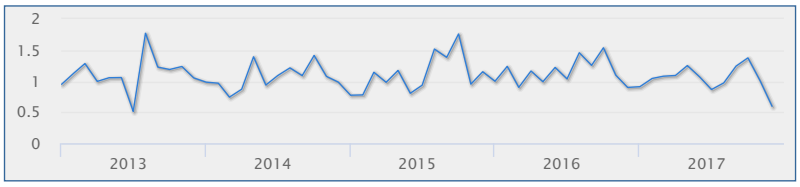
Threshold 0.011 mg/l

Method Detection Limit 0.0005 mg/l

Nitrogen, Total

Units: mg/l	Year 2017	Historical period of record
High	1.8	8.1
Mean	1.0517	1.082
Low	0.594	0.00
No. of Samples	33	660

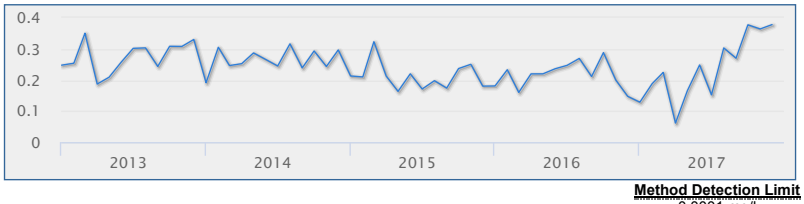
Five-year Trend Graph



Phosphorus, Total

Units: mg/l	Year 2017	Historical period of record
High	0.5	3.8
Mean	0.1822	0.2954
Low	0.004	0.004
No. of Samples	41	1,190

Five-year Trend Graph



Method Detection Limit
0.0001 mg/l

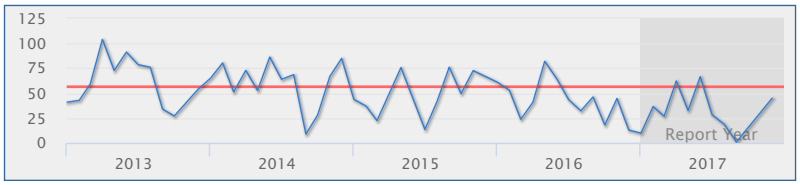
Dissolved Oxygen Saturation

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

Score: Caution

Units: percent (%)	Year 2017	Historical period of record
High	66.4	169.7
Mean	21.7	65.06
Low	0.78	0.78
No. of Samples	10	948

Five-year Trend Graph



Threshold
56.00 percent (%)

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.

6% 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.

2011 Land Use / Land Cover within Forked Creek Basin