



Matheny Creek Condition Report for 2021

✓

PASS

Chl-a

N

P

DO

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

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

Matheny Creek



Size: 1,724 acres

Location: Central Sarasota County

Discharges into: Little Sarasota Bay

For more information, please see: [Matheny Creek Basin Master Plan \(1994\)](#)

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

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.

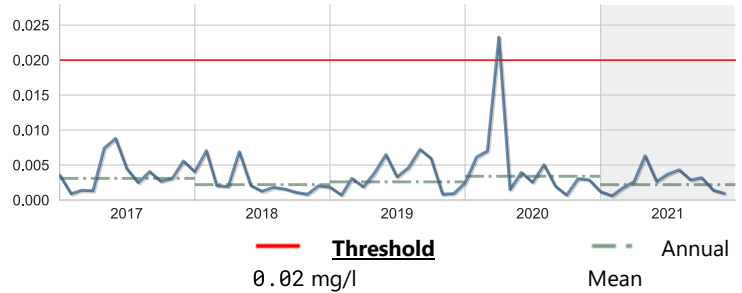


Chlorophyll a

Score: Pass

Units: mg/l	Year 2021	Historical period of record
High	0.0117	0.10
Mean	0.0022	0.0028
Low	0.0006	0.0005
No. of Samples	24	570

Five-year Rolling Average

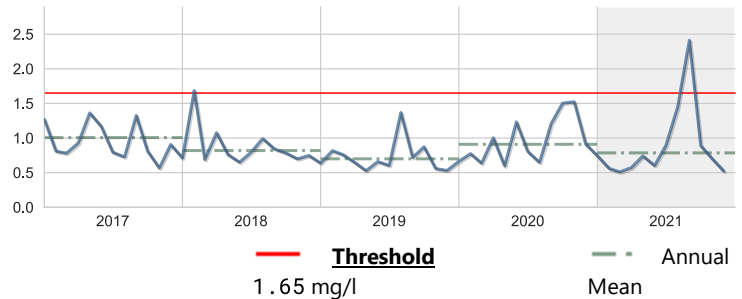


Nitrogen, Total

Score: Pass

Units: mg/l	Year 2021	Historical period of record
High	2.493	3.154
Mean	0.7852	0.7427
Low	0.448	0.0017
No. of Samples	24	413

Five-year Rolling Average



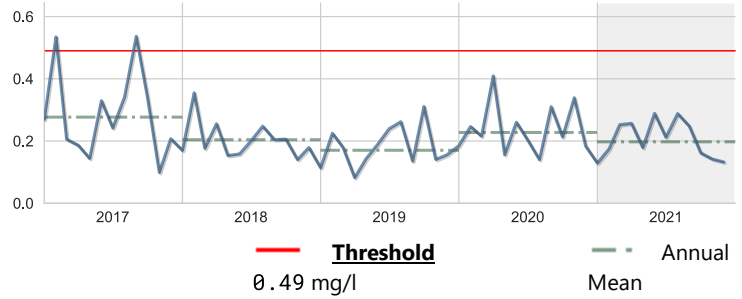


Phosphorus, Total

Score: Pass

Units: mg/l	Year 2021	Historical period of record
High	0.389	1.78
Mean	0.1974	0.2105
Low	0.083	0.041
No. of Samples	24	476

Five-year Rolling Average



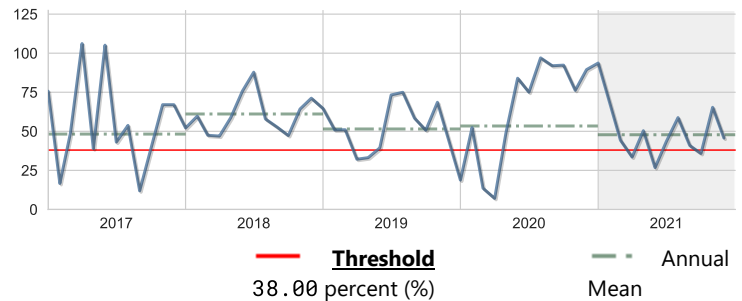
Dissolved Oxygen Saturation

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

Score: Pass

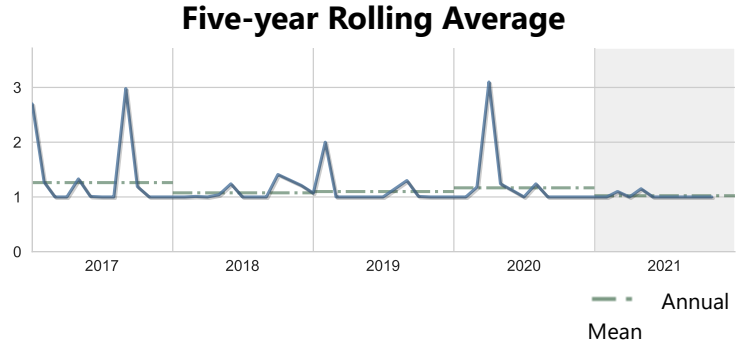
Units: percent (%)	Year 2021	Historical period of record
High	98.8439	213.70
Mean	47.81	59.25
Low	13.30	2.5837
No. of Samples	24	458

Five-year Rolling Average



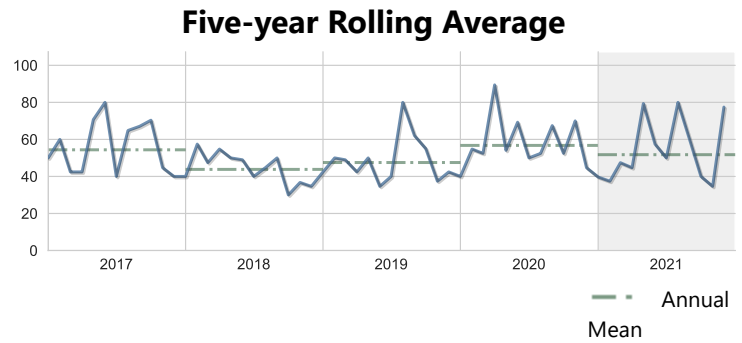
BOD, Biochemical oxygen demand

Units: mg/l	Year 2021	Historical period of record
High	1.33	10.30
Mean	1.02	0.99
Low	1.00	0.50
No. of Samples	22	444



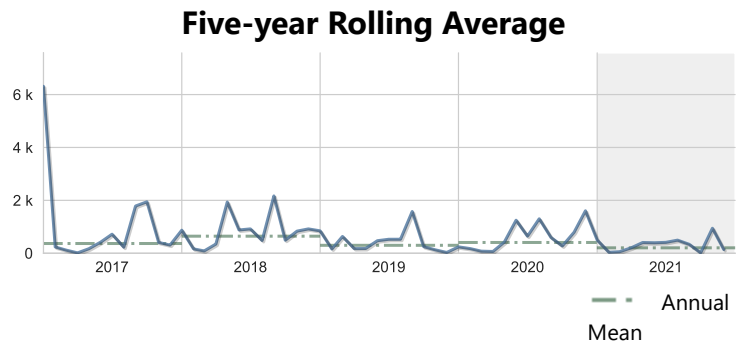
Color

Units: PCU	Year 2021	Historical period of record
High	100.00	120.00
Mean	51.75	50.45
Low	30.00	20.00
No. of Samples	24	548



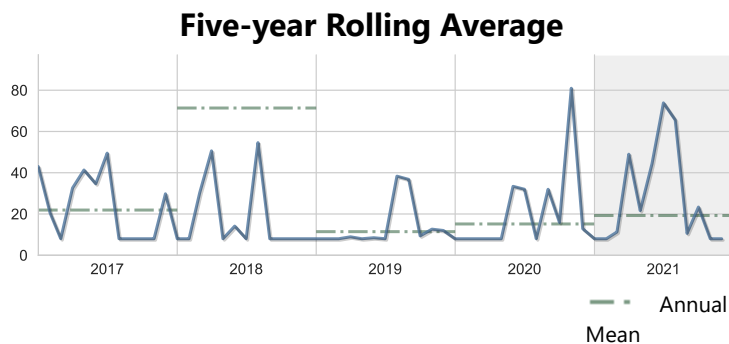
Escherichia coli

Units: cfu/100ml	Year 2021	Historical period of record
High	1086.00	8164.00
Mean	204.56	384.65
Low	10.00	10.00
No. of Samples	24	236



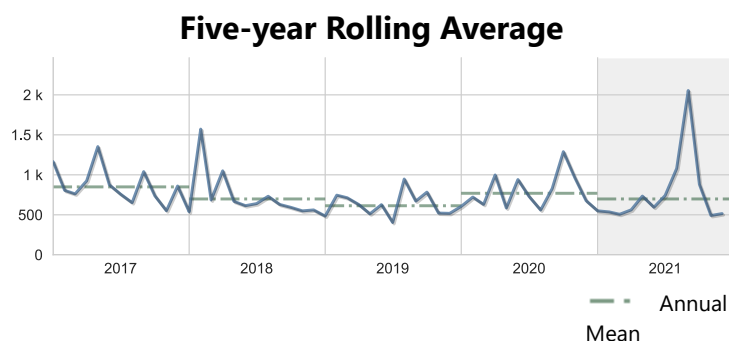
Nitrogen, Ammonia + Ammonium as N

Units: ug/l	Year 2021	Historical period of record
High	107.00	988.00
Mean	19.26	16.93
Low	8.00	0.008
No. of Samples	24	507



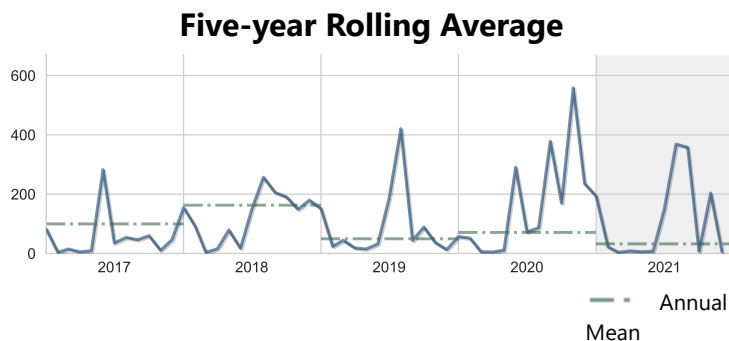
Nitrogen, Kjeldahl

Units: ug/l	Year 2021	Historical period of record
High	2110.00	2970.00
Mean	698.12	705.65
Low	444.00	207.00
No. of Samples	24	476



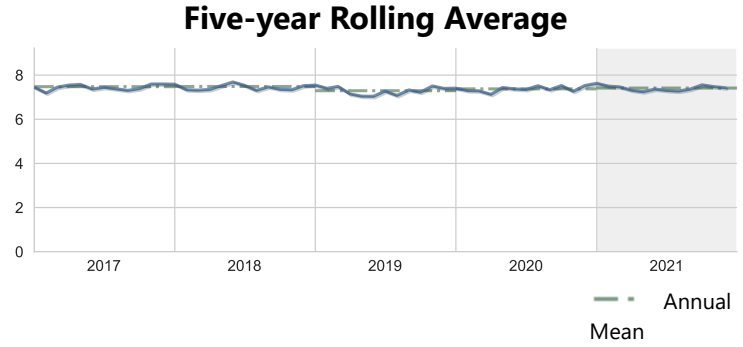
Nitrogen, Nitrite + Nitrate as N

Units: ug/l	Year 2021	Historical period of record
High	383.00	947.00
Mean	32.46	41.26
Low	4.00	4.00
No. of Samples	24	480



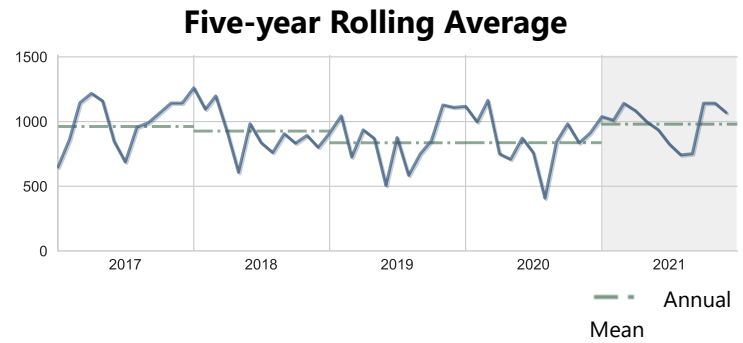
pH

Units: None	Year 2021	Historical period of record
High	7.7575	8.82
Mean	7.41	7.47
Low	7.14	6.46
No. of Samples	24	525



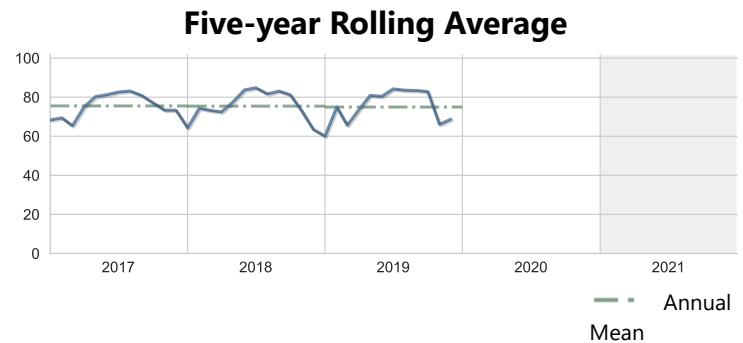
Specific conductance

Units: umho	Year 2021	Historical period of record
High	1264.00	19300.00
Mean	980.09	854.38
Low	695.074	0.667
No. of Samples	24	452



Temperature, water

Units: deg F	Year 2021	Historical period of record
High	185.2772	188.1984
Mean	168.15	80.81
Low	145.848	36.05
No. of Samples	24	452



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.

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

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.

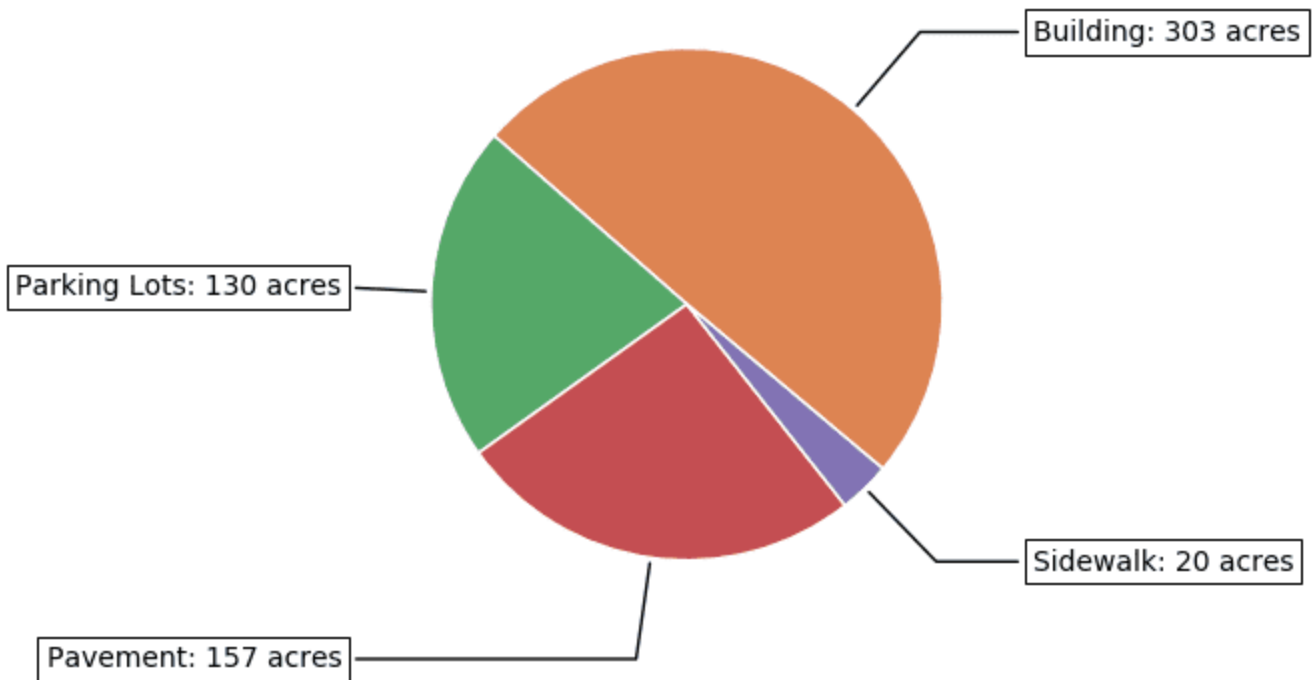


35% of the land area within the **Matheny Creek Basin** is covered by impervious

surfaces

2014 Impervious Surface Coverage by Type

in acres, within the Matheny 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 Matheny Creek Basin

2021 Creek Conditions Report for Matheny Creek

Land Use Classification	1990	1995	1999	2005	2011	2014	2017	2020	Trend
Urban & Built-up	1,566 90.9%	1,569 91.1%	1,555 90.2%	1,587 92%	1,588 92.1%	1,573 91.2%	1,594 92.5%	1,594 92.5%	
Agriculture	0 0%	0 0%	0 0%	0 0%	0 0%	19 1.1%	0 0%	0 0%	
Rangeland	57 3.3%	34 2%	34 2%	15 0.9%	15 0.9%	11 0.6%	9 0.5%	9 0.5%	
Upland Forests	15 0.9%	18 1.1%	24 1.4%	3 0.2%	3 0.2%	3 0.2%	3 0.2%	3 0.2%	
Water	36 2.1%	53 3.1%	61 3.5%	56 3.3%	55 3.2%	55 3.2%	57 3.3%	57 3.3%	
Wetlands	16 0.9%	13 0.8%	10 0.6%	14 0.8%	14 0.8%	14 0.8%	14 0.8%	14 0.8%	
Transportation and Utilities	33 1.9%	36 2.1%	40 2.3%	49 2.9%	49 2.9%	49 2.9%	46 2.7%	46 2.7%	

2020 Land Use / Land Cover for Matheny Creek Basin
as a percentage of land area for this basin

