Whitaker Bayou Condition Report for 2025

CAUTION

CHL N P DO

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

"Primary" are nutrient related (Chl, N, P) and bacteria (B) parameters.

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

Greyed out values indicate no data for the report year.

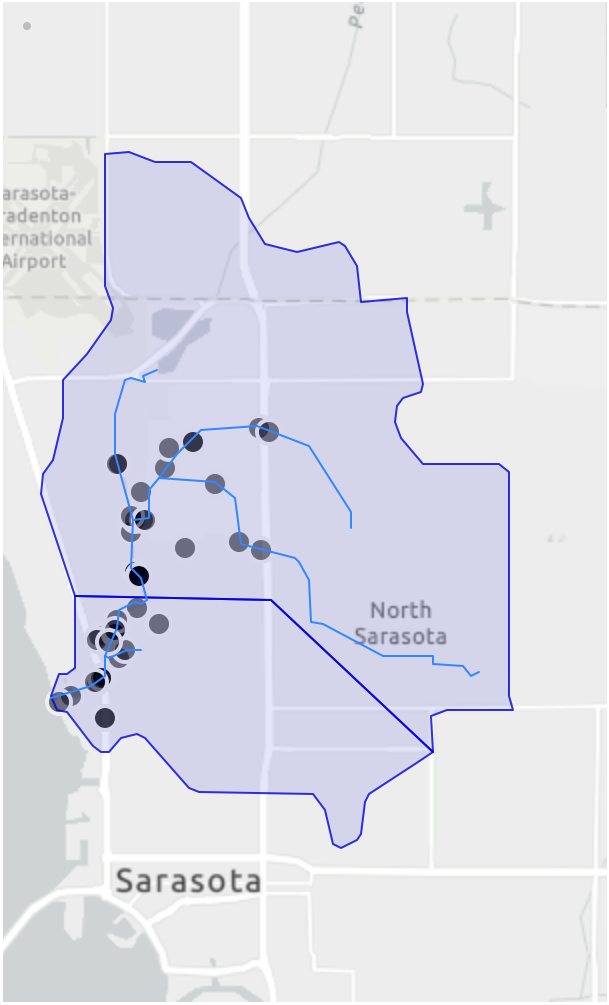
Size: 4,967 acres
Location: North Sarasota County, south Manatee County
Discharges into: Sarasota Bay

For more information, please see:

Sarasota Bay Water Quality Management Plan (2012)

View county-wide water quality trends »

Whitaker Bayou



Water Chemistry Ratings

Monitoring data is analyzed to determine stream health based on State water quality standards. Official determination of impairment or attainment of the water quality standards is performed by FDEP and is based on at least three years and up to seven and a half years of data. Information on approximately 17 different parameters are collected at stream sites, but only total nitrogen, total phosphorus, chlorophyll *a*, dissolved oxygen (percent saturation), and bacteria are assessed according to established water quality criteria mandated by the Clean Water Act. Additionally, the floral and faunal communities (SCI) are assessed at some sites to determine whether waters support a healthy aquatic community.

The "pass/fail" conditions presented here do not indicate impairment as determined by the official **Florida Department of Environmental Protection** Impaired Waters Rule assessment but, rather, give an indication of stream condition in a particular year in relation to the set regulatory numeric limits. Streams receive an annual "PASS" rating for each parameter if the mean value is below the regulatory value and a "FAIL" rating if the mean value exceeds the regulatory value. Not all water quality parameters have an established numeric criterion, so only some of the graphs below show the regulatory limit, represented by a horizontal red line.

The graphs here illustrate results over the past five years. Data from sites monitored within a single waterbody identification basin (WBID) are combined to determine water quality status for each WBID, and the annual geometric mean of sample results is indicated on the graph for the most recent year. The table to the left of the graph gives the annual and historic range of values for the indicator.

Chart Legend

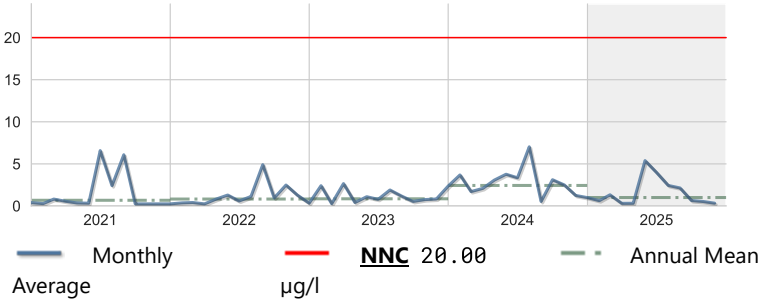
- **Monthly Average**
- **Threshold**
- **Annual Mean**

Click the graph to view a larger image and to download the full dataset.

Freshwater Portion of the Creek

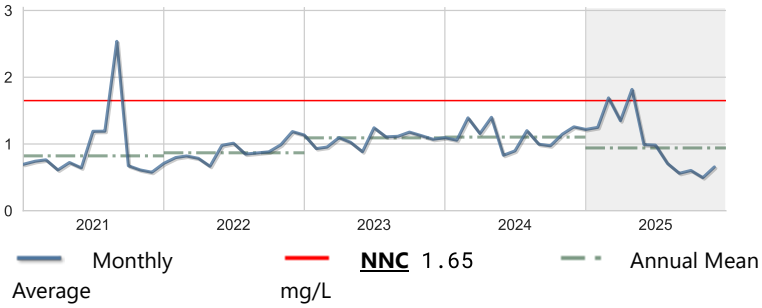
Chlorophyll a

Units: µg/l	Year 2025	Historical period of record
High	5.39	59.50
Mean	1.0027	1.529
Low	0.306	0.00
No. of Samples	12	574



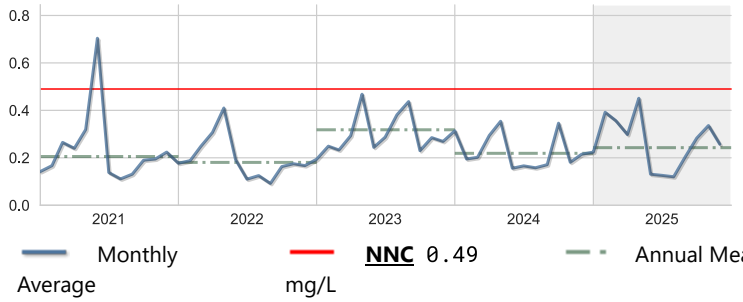
Nitrogen, Total

Units: mg/L	Year 2025	Historical period of record
High	1.818	15.76
Mean	0.9408	0.9136
Low	0.496	0.0019
No. of Samples	12	435



Phosphorus, Total

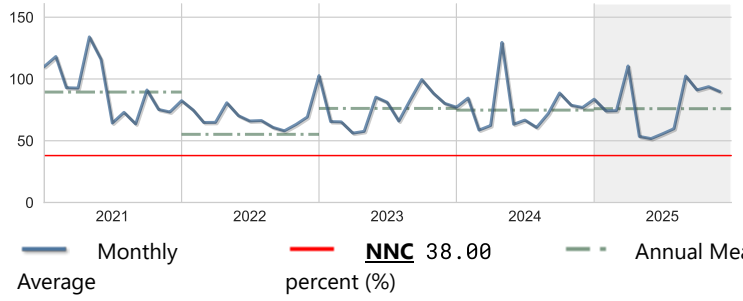
Units: mg/L	Year 2025	Historical period of record
High	0.451	2.38
Mean	0.2427	0.2882
Low	0.12	0.082
No. of Samples	12	552



Dissolved Oxygen Saturation

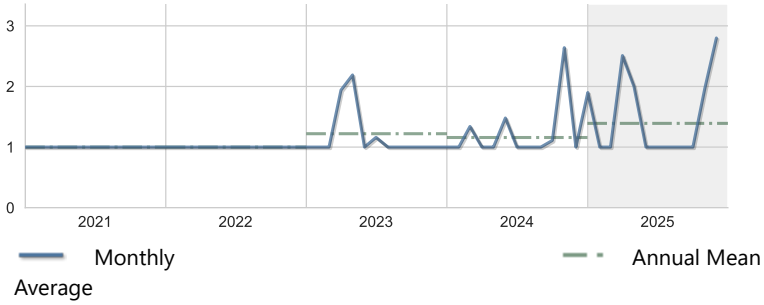
Note: Dissolved oxygen saturation percentages above the regulatory threshold meet established water quality targets.

Units: percent (%)	Year 2025	Historical period of record
High	110.55	262.30
Mean	75.94	72.41
Low	51.73	2.20
No. of Samples	12	586



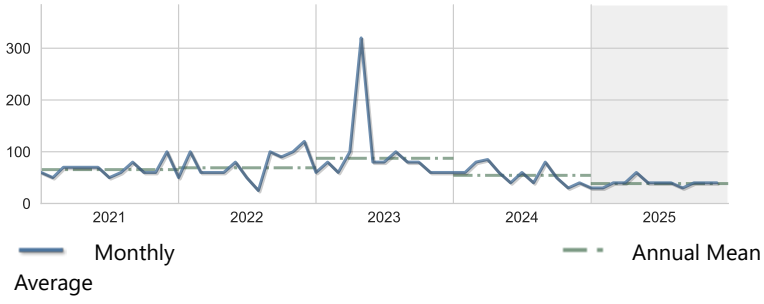
BOD, Biochemical oxygen demand

Units: mg/l	Year 2025	Historical period of record
High	2.80	175.00
Mean	1.55	0.94
Low	1.00	0.50
No. of Samples	9	497



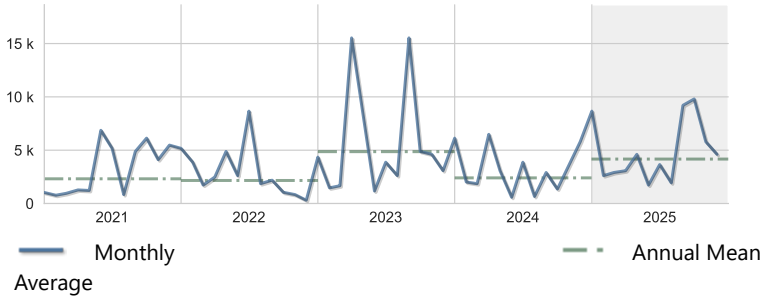
Color

Units: PCU	Year 2025	Historical period of record
High	60.00	330.00
Mean	38.5	69.73
Low	30.00	25.00
No. of Samples	12	613



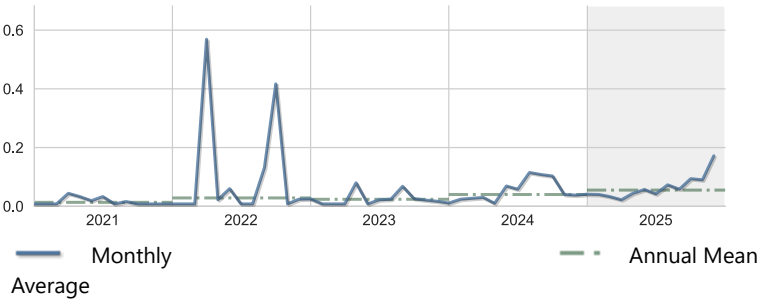
Escherichia coli

Units: MPN/100ml	Year 2025	Historical period of record
High	9804.00	15531.00
Mean	4167.46	2562.62
Low	1723.00	97.00
No. of Samples	12	137



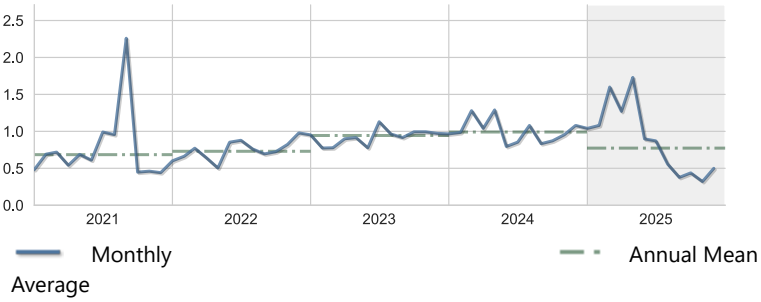
Nitrogen, Ammonia + Ammonium as N

Units: mg/L	Year 2025	Historical period of record
High	0.172	30.06
Mean	0.06	0.02
Low	0.022	0.00
No. of Samples	12	639



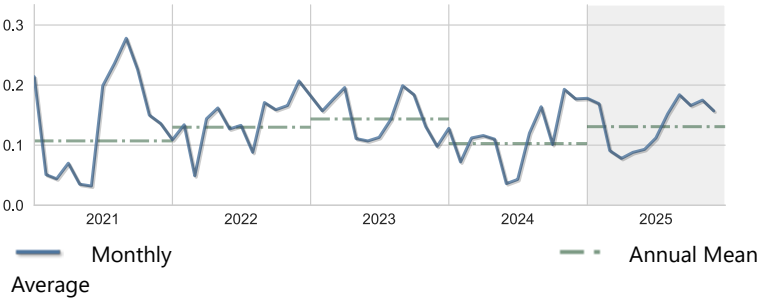
Nitrogen, Kjeldahl

Units: mg/L	Year 2025	Historical period of record
High	1.73	15.36
Mean	0.77	0.79
Low	0.321	0.20
No. of Samples	12	600



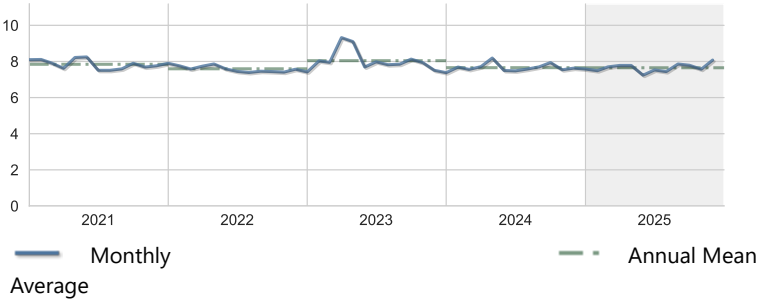
Nitrogen, Nitrite + Nitrate as N

Units: mg/L	Year 2025	Historical period of record
High	0.184	1.02
Mean	0.13	0.08
Low	0.078	0.00
No. of Samples	12	555



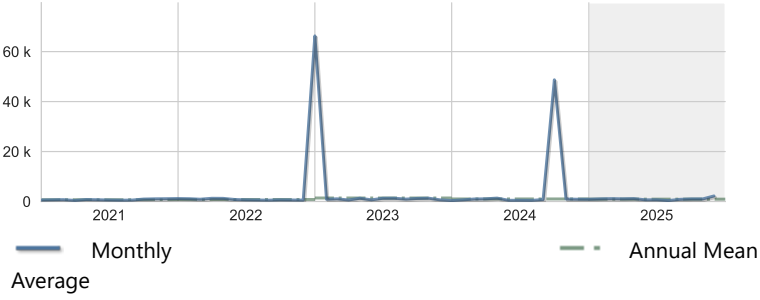
pH

Units: None	Year 2025	Historical period of record
High	8.08	11.77
Mean	7.65	7.66
Low	7.24	6.10
No. of Samples	12	885



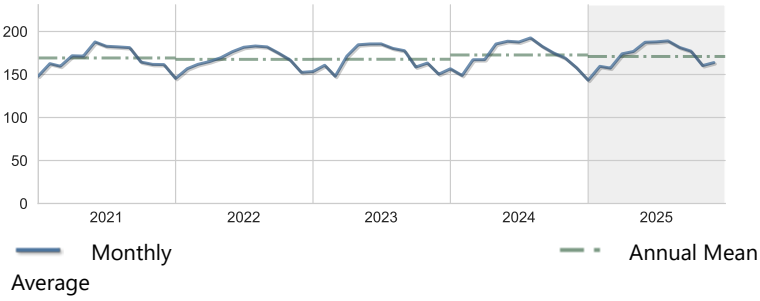
Specific conductance

Units: µmho	Year 2025	Historical period of record
High	2232.77	66296.20
Mean	945.5	718.68
Low	376.37	0.524
No. of Samples	12	911



Temperature, water

Units: °F	Year 2025	Historical period of record
High	189.068	192.5672
Mean	170.94	75.23
Low	143.3192	46.40
No. of Samples	12	804

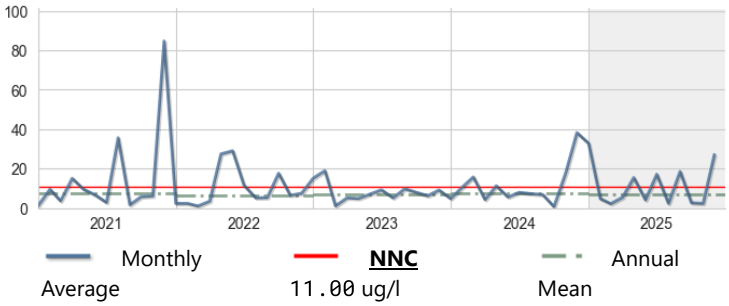


Tidal Portion of the Creek

Chlorophyll a

Score: Pass

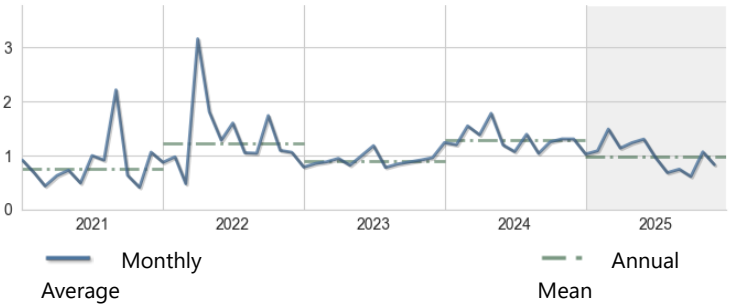
Units: µg/l	Year 2025	Historical period of record
High	32.8	196.0
Mean	6.9538	10.3471
Low	2.15	0.38
No. of Samples	12	268



Nitrogen, Total

Score: Caution

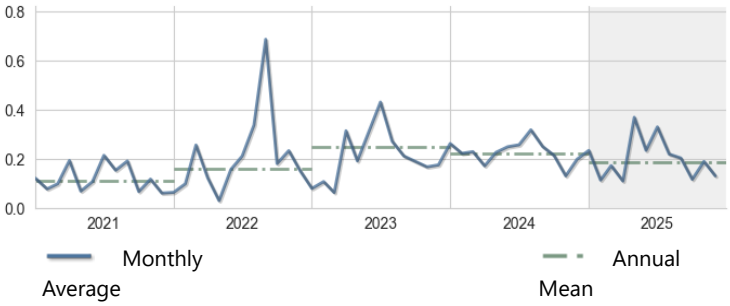
Units: mg/L	Year 2025	Historical period of record
High	1.5	7.0
Mean	0.9776	1.0198
Low	0.606	0.0018
No. of Samples	12	240



Phosphorus, Total

Score: Pass

Units: mg/L	Year 2025	Historical period of record
High	0.4	2.0
Mean	0.1856	0.2173
Low	0.108	0.008
No. of Samples	12	289

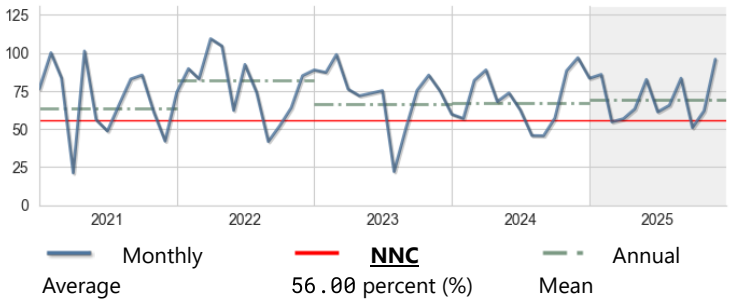


Dissolved Oxygen Saturation

Note: Dissolved oxygen saturation percentages above the regulatory threshold meet established water quality targets.

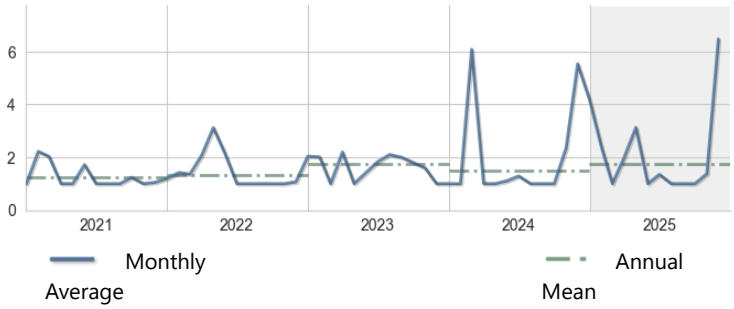
Score: Pass

Units: percent (%)	Year 2025	Historical period of record
High	95.8	381.3
Mean	68.97	64.06
Low	50.79	0.00
No. of Samples	12	684



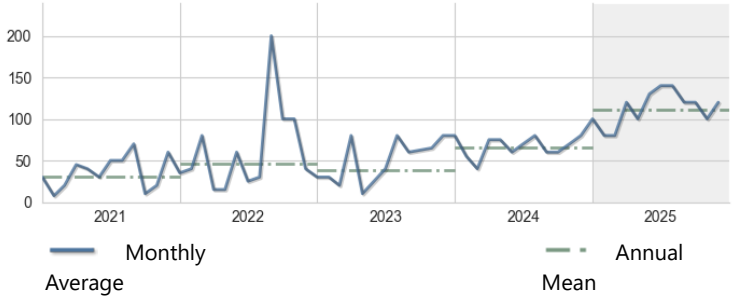
BOD, Biochemical oxygen demand

Units: mg/l	Year 2025	Historical period of record
High	6.5	13.7
Mean	1.89	2.24
Low	1.00	0.543
No. of Samples	9	225



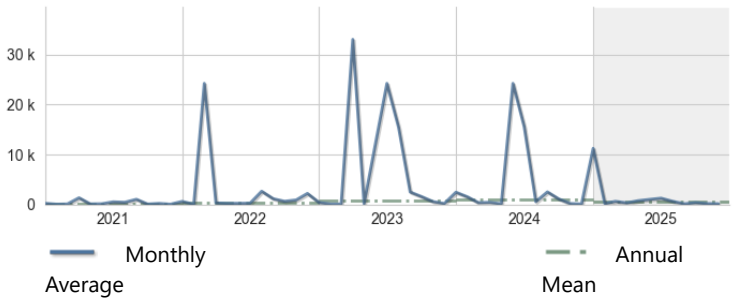
Color

Units: PCU	Year 2025	Historical period of record
High	140.0	200.0
Mean	110.69	43.27
Low	80.00	5.00
No. of Samples	12	325



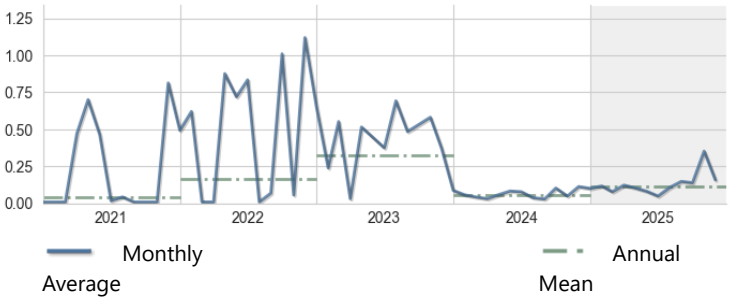
Enterococcus Group Bacteria

Units: MPN/100ml	Year 2025	Historical period of record
High	11,199.0	33,000.0
Mean	440.2	357.69
Low	86.00	10.00
No. of Samples	12	161



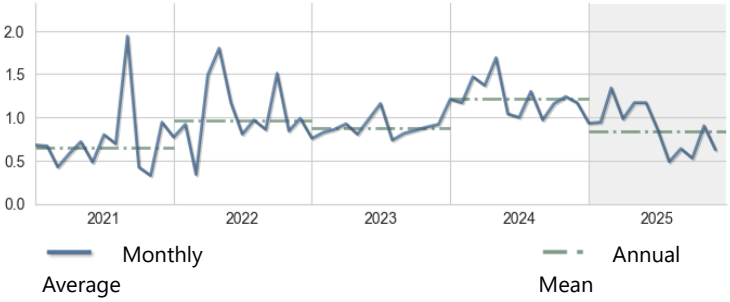
Nitrogen, Ammonia + Ammonium as N

Units: mg/L	Year 2025	Historical period of record
High	0.4	1.9
Mean	0.11	0.02
Low	0.048	0.00
No. of Samples	12	353



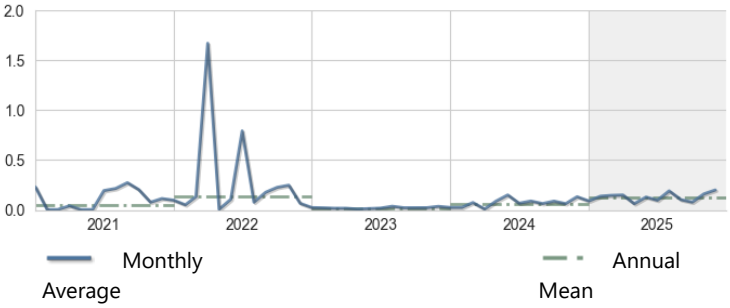
Nitrogen, Kjeldahl

Units: mg/L	Year 2025	Historical period of record
High	1.3	6.3
Mean	0.84	0.9
Low	0.486	0.05
No. of Samples	12	330



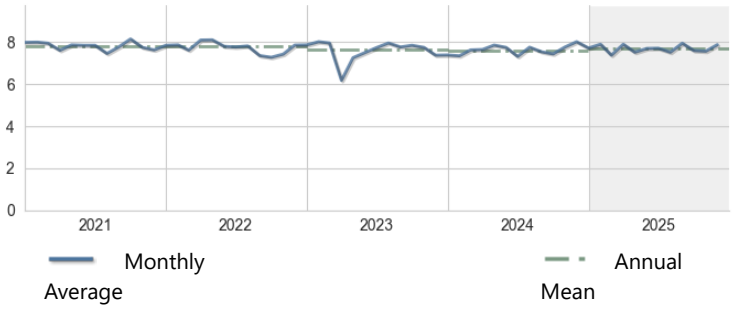
Nitrogen, Nitrite + Nitrate as N

Units: mg/L	Year 2025	Historical period of record
High	0.2	3.3
Mean	0.12	0.06
Low	0.062	0.004
No. of Samples	12	274



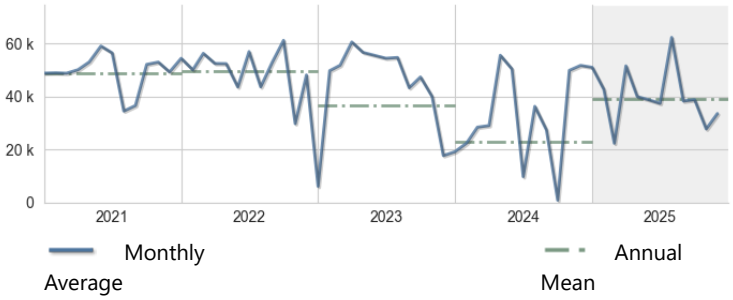
pH

Units: None	Year 2025	Historical period of record
High	7.9	9.6
Mean	7.67	7.62
Low	7.36	4.90
No. of Samples	12	2,962



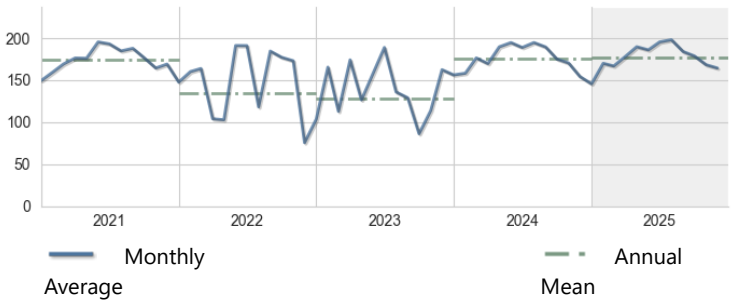
Specific conductance

Units: µmho	Year 2025	Historical period of record
High	62,256.0	62,256.0
Mean	38974.12	7723.71
Low	22263.40	320.00
No. of Samples	12	2,799



Temperature, water

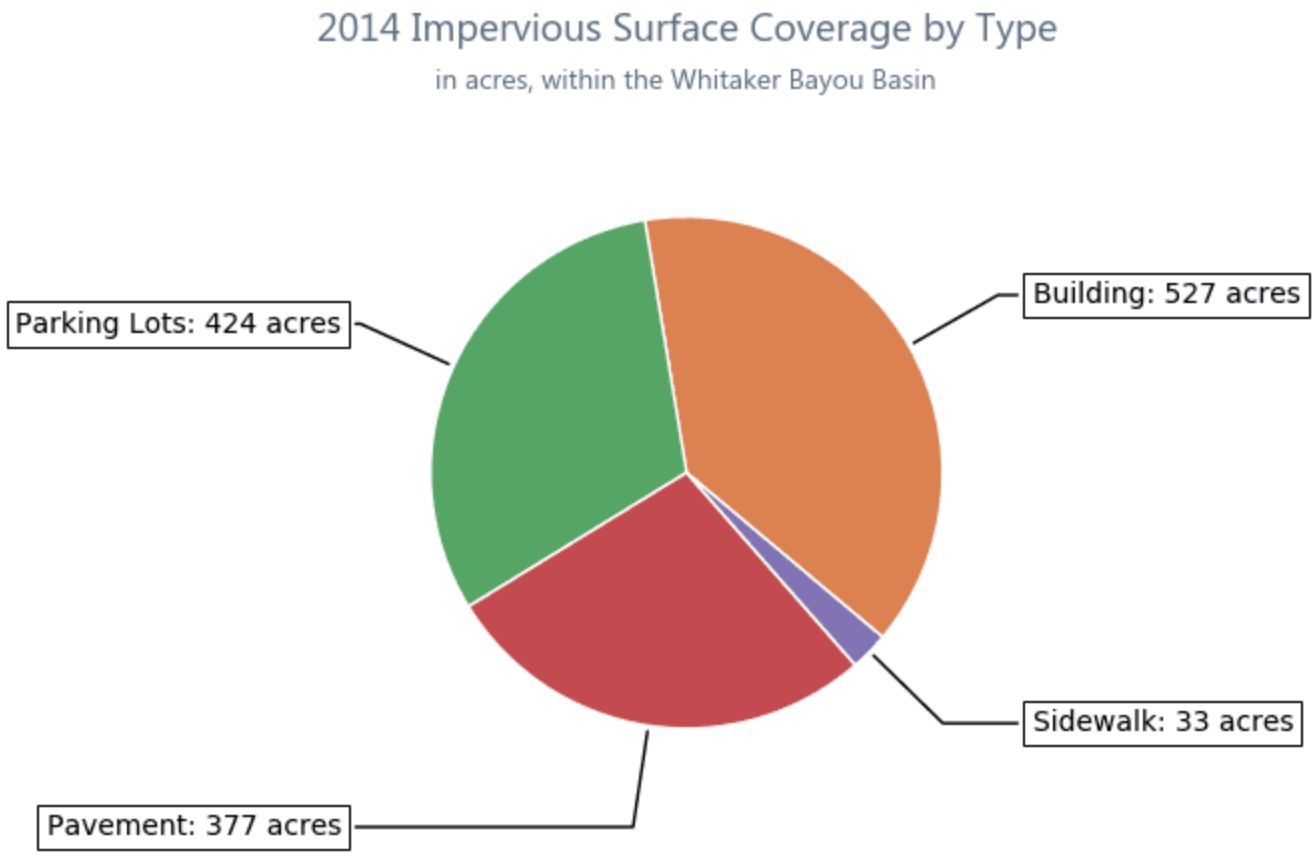
Units: °F	Year 2025	Historical period of record
High	197.7	199.3
Mean	176.17	76.05
Low	145.2308	49.10
No. of Samples	12	3,109



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.

27% of the land area within the **Whitaker Bayou Basin** is covered by impervious surfaces



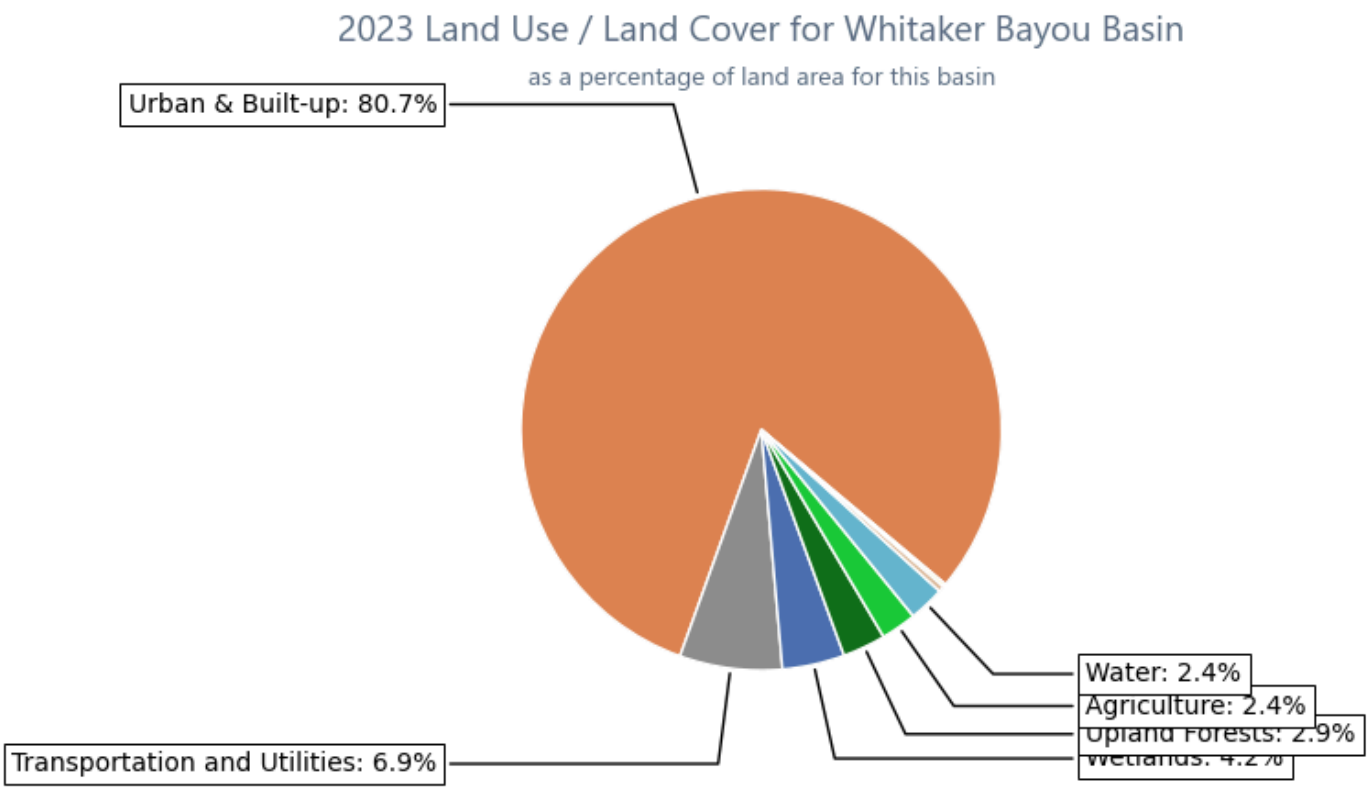
Land Use / Land Cover

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 Whitaker Bayou Basin

Land Use Classification	1990	1995	1999	2005	2011	2014	2017	2020	2023	Trend
Urban & Built-up	3,830 77.1%	3,834 77.2%	3,831 77.1%	3,903 78.6%	3,952 79.6%	3,921 79%	3,951 79.6%	3,970 79.9%	4,006 80.7%	
Agriculture	214 4.3%	182 3.7%	188 3.8%	181 3.6%	181 3.6%	181 3.6%	178 3.6%	168 3.4%	120 2.4%	
Rangeland	4 0.1%	4 0.1%	4 0.1%	4 0.1%	4 0.1%	4 0.1%	4 0.1%	4 0.1%	12 0.2%	
Upland Forests	235 4.7%	249 5%	249 5%	195 3.9%	164 3.3%	195 3.9%	164 3.3%	158 3.2%	143 2.9%	
Water	130 2.6%	137 2.7%	140 2.8%	126 2.5%	88 1.8%	88 1.8%	89 1.8%	91 1.8%	117 2.4%	
Wetlands	315 6.4%	232 4.7%	227 4.6%	229 4.6%	222 4.5%	222 4.5%	222 4.5%	221 4.4%	207 4.2%	
Barren Land	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 0.1%	0 0%	19 0.4%	
Transportation and Utilities	238 4.8%	329 6.6%	329 6.6%	328 6.6%	356 7.2%	356 7.2%	355 7.2%	356 7.2%	343 6.9%	


2023 Land Use / Land Cover for Whitaker Bayou Basin
as a percentage of land area for this basin
Urban & Built-up: 80.7%
Water: 2.4%
Agriculture: 2.4%
Upland Forests: 2.9%
Transportation and Utilities: 6.9%