Woodmere Creek Condition Report for 2013

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: 1,475 acres
Location: South Sarasota County
Discharges into: Lemon Bay

Woodmere Creek consists of a network of man-made canals and lakes that discharge to the Intracoastal Waterway at the northern limits of Lemon Bay. The entirety of Woodmere Creek is predominantly marine. Most of the area in the Woodmere Creek Basin has been developed. It includes the Hourglass Lake Estates and Circlewood Condominiums, as well a large portion of the Gulfview Estates residential communities. The creek's discharge point is located just south of the Lemon Bay Drive and Palmetto Road intersection. *For basin details see:* ***Woodmere Creek Basin Master Plan (1999)***

Woodmere 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 Chemistry Ratings | Tidal Portion of the Creek

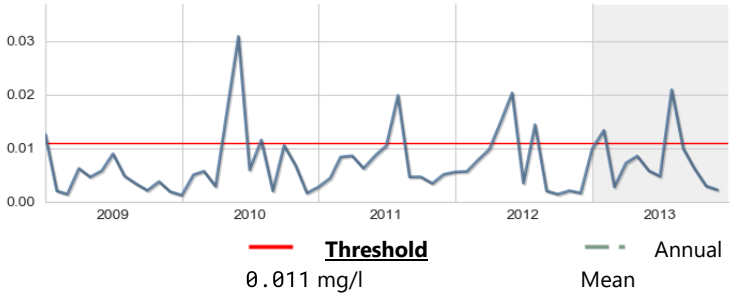
Creek Conditions Ratings are based on comparing nitrogen, phosphorus, chlorophyll and dissolved oxygen to water quality guidelines or regulations. Florida law defines a maximum allowable concentration of chlorophyll *a* and a minimum allowable concentration of dissolved oxygen in these streams. Florida has no regulatory thresholds for nitrogen or phosphorus in tidal creeks so trends are used to rate the creeks.

Chl-a Chlorophyll a

Score: Pass

Units: mg/l	Year 2013	Historical period of record
High	0.1	0.1
Mean	0.0064	0.0054
Low	0.0007	0.0003
No. of Samples	110	402

Five-year Rolling Average

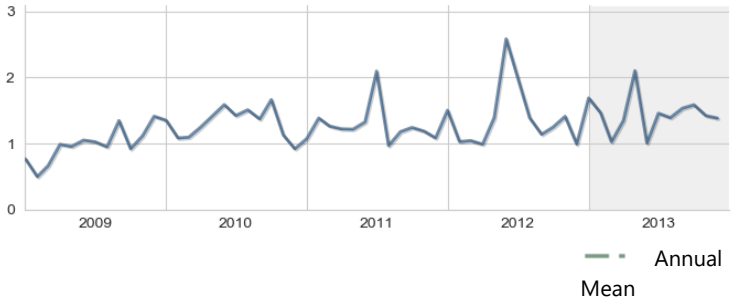


Nitrogen, Total

Score:

Units: mg/l	Year 2013	Historical period of record
High	3.4	7.4
Mean	1.4257	1.2257
Low	0.816	0.437
No. of Samples	42	205

Five-year Rolling Average

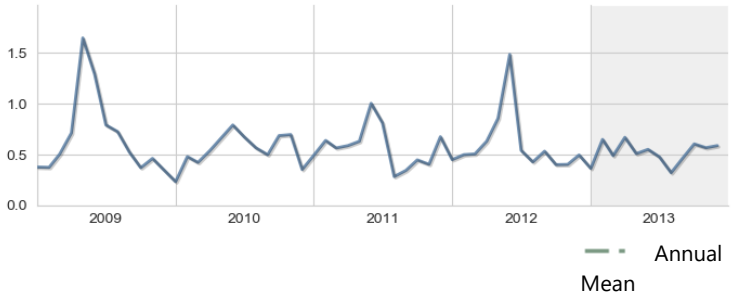


Phosphorus, Total

Score:

Units: mg/l	Year 2013	Historical period of record
High	1.2	3.4
Mean	0.4781	0.5494
Low	0.179	0.179
No. of Samples	110	411

Five-year Rolling Average



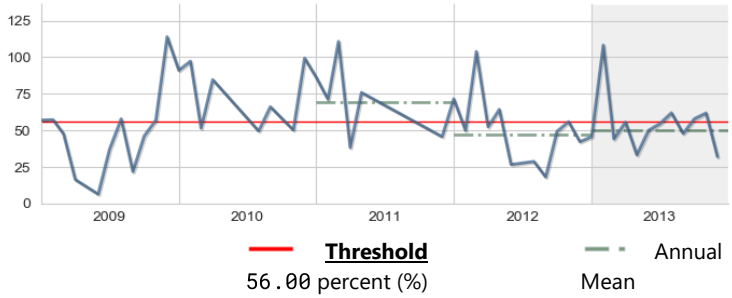
Dissolved Oxygen Saturation

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

Score: Caution

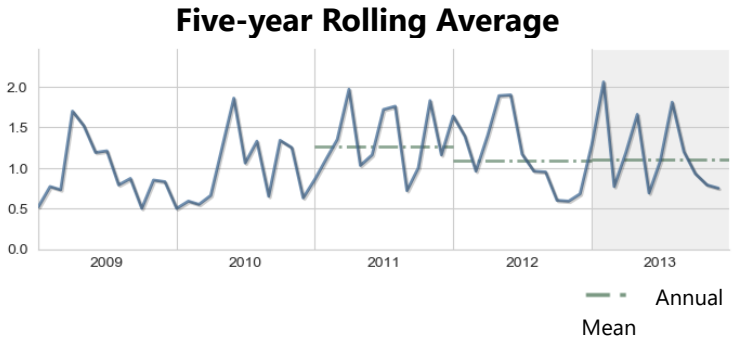
Units: percent (%)	Year 2013	Historical period of record
High	132.7	226.0
Mean	50.27	53.55
Low	12.40	4.90
No. of Samples	111	423

Five-year Rolling Average



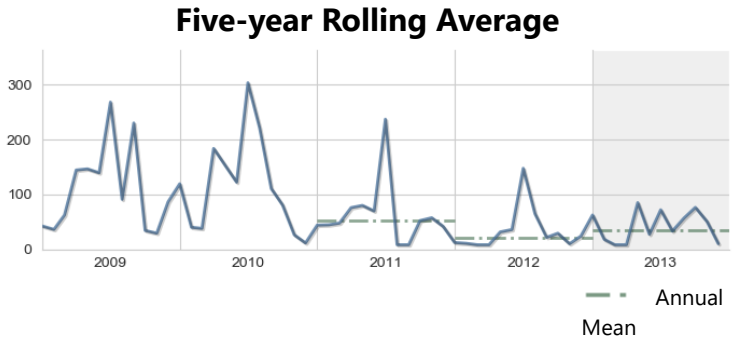
BOD, Biochemical oxygen demand

Units: mg/l	Year 2013	Historical period of record
High	6.3	19.5
Mean	1.1	1.11
Low	0.50	0.50
No. of Samples	110	411



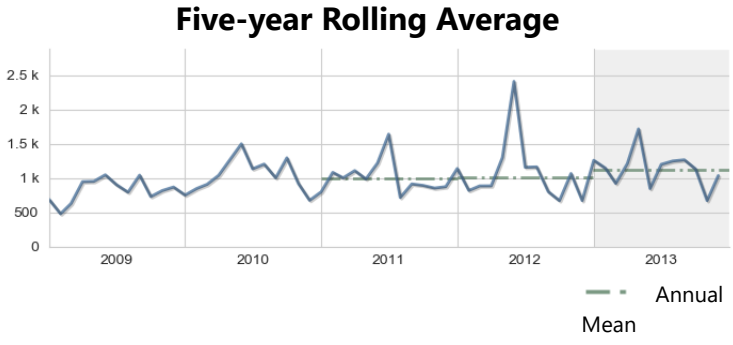
Nitrogen, Ammonia + Ammonium as N

Units: ug/l	Year 2013	Historical period of record
High	852.0	880.0
Mean	34.5	49.29
Low	8.00	8.00
No. of Samples	110	410



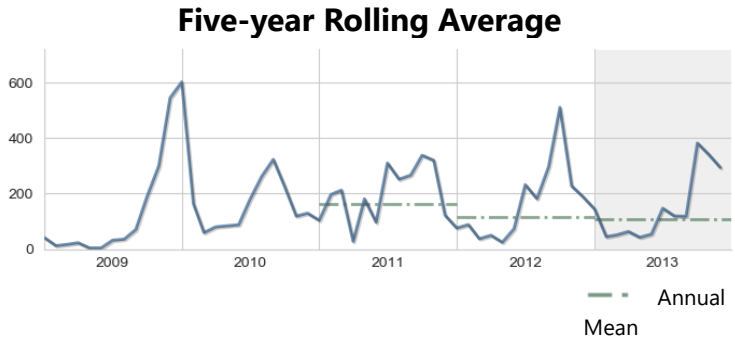
Nitrogen, Kjeldahl

Units: ug/l	Year 2013	Historical period of record
High	3,270.0	7,340.0
Mean	1113.91	1026.77
Low	50.00	50.00
No. of Samples	110	411



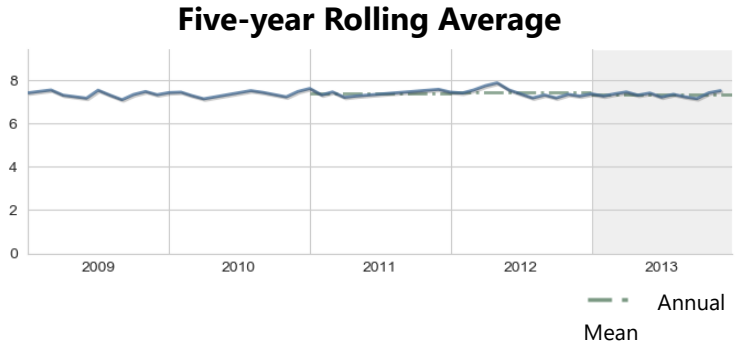
Nitrogen, Nitrite + Nitrate as N

Units: ug/l	Year 2013	Historical period of record
High	1,150.0	1,150.0
Mean	106.67	105.84
Low	4.00	4.00
No. of Samples	110	409



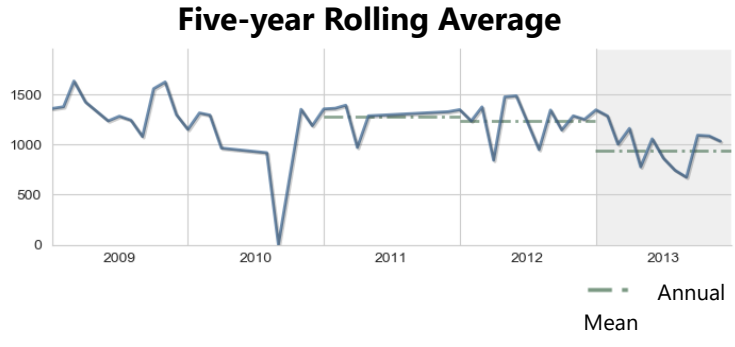
pH

Units: None	Year 2013	Historical period of record
High	7.6	8.1
Mean	7.33	7.38
Low	7.03	6.93
No. of Samples	106	345



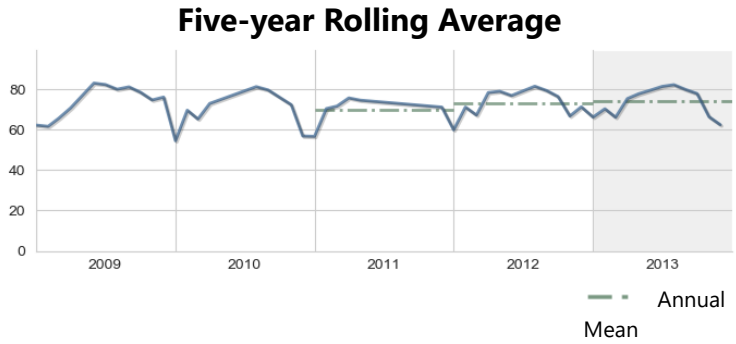
Specific conductance

Units: umho	Year 2013	Historical period of record
High	1,563.0	44,845.0
Mean	934.39	911.27
Low	474.00	0.882
No. of Samples	106	346



Temperature, water

Units: deg F	Year 2013	Historical period of record
High	82.9	86.1
Mean	74.05	72.38
Low	61.034	52.178
No. of Samples	64	254

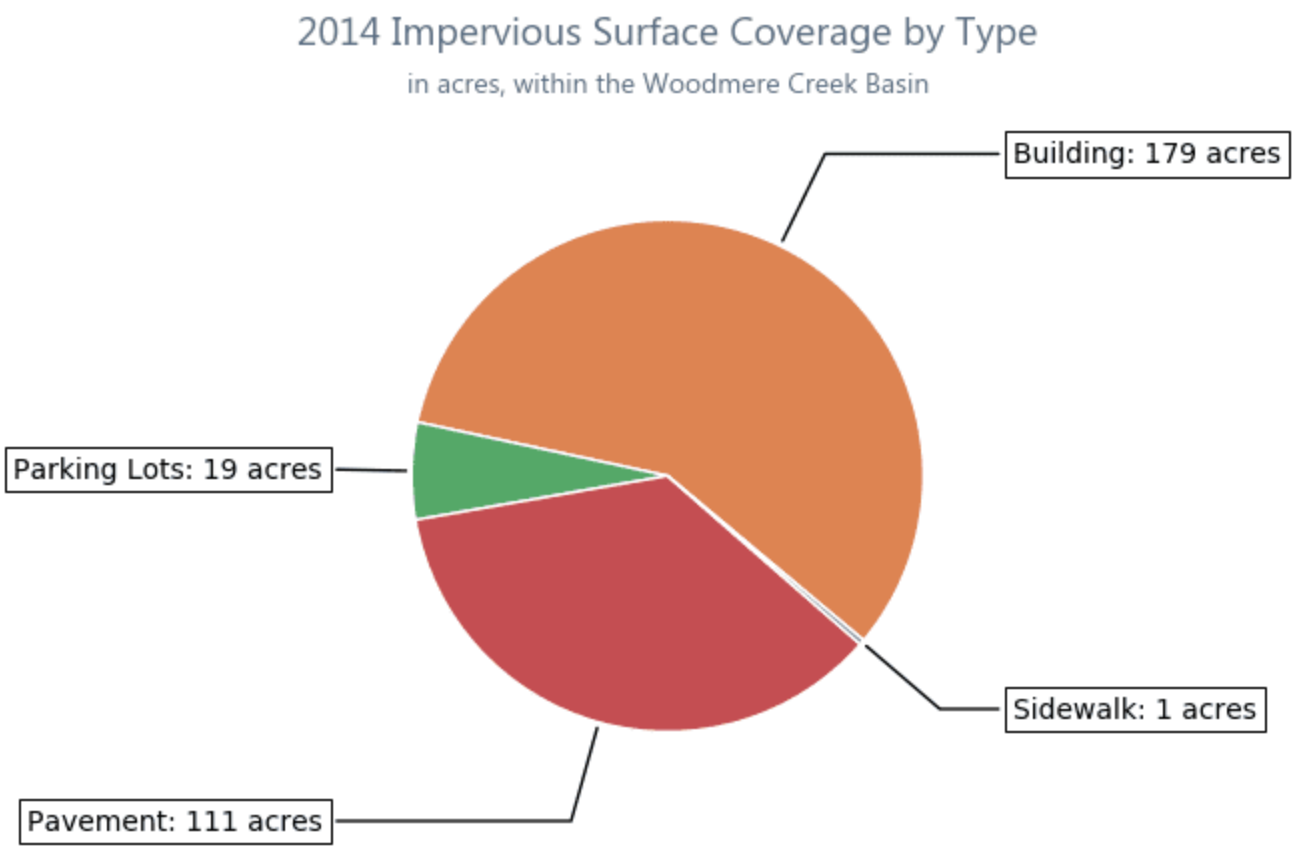


Impervious Features

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.



21% of the land area within the **Woodmere Creek Basin** is covered by impervious surfaces

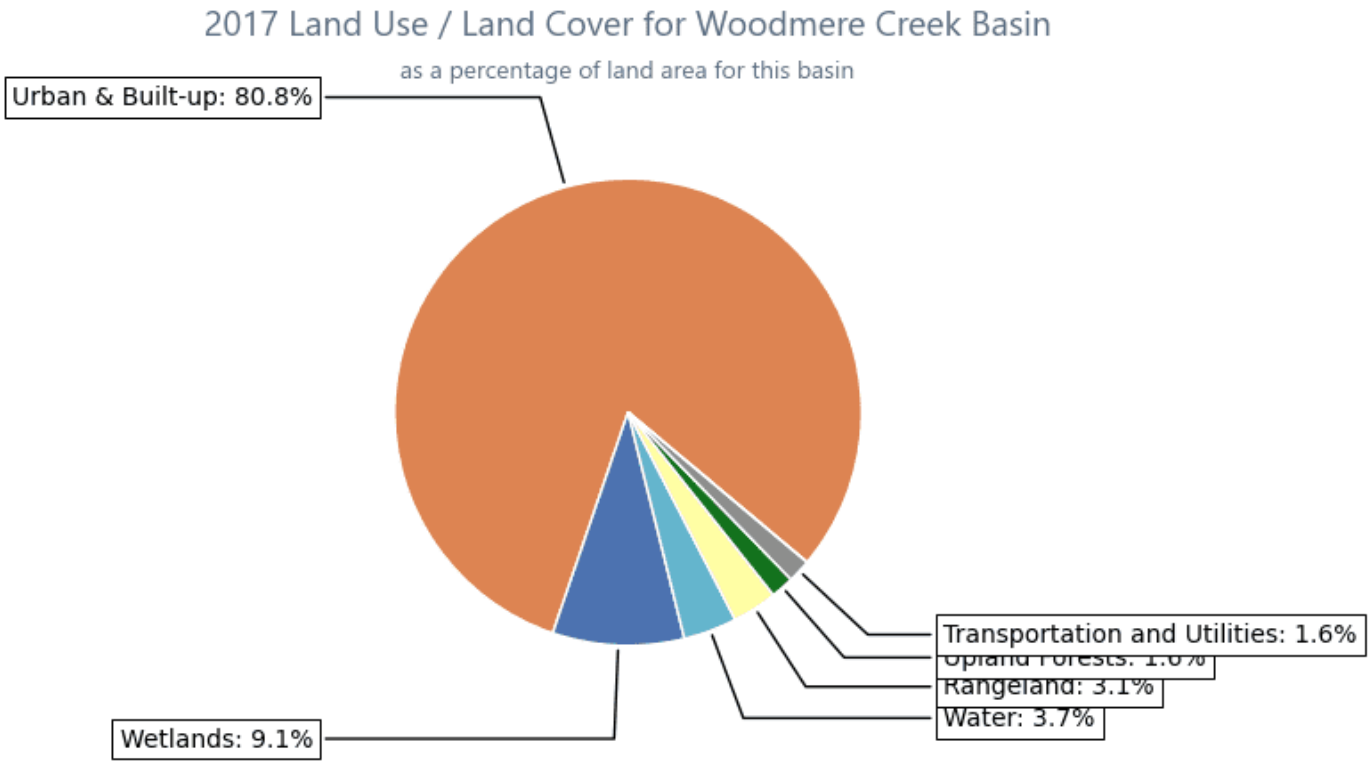


Land Use / Land Cover

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 Woodmere Creek Basin

Land Use Classification	1990	1995	1999	2005	2011	2014	2017	Trend
Urban & Built-up	986 66.8%	1,058 71.7%	1,081 73.3%	1,180 80%	1,195 81%	1,195 81%	1,192 80.8%	
Agriculture	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	
Rangeland	62 4.2%	25 1.7%	10 0.7%	33 2.2%	46 3.1%	46 3.1%	46 3.1%	
Upland Forests	207 14%	196 13.3%	183 12.4%	54 3.6%	24 1.6%	24 1.6%	24 1.6%	
Water	34 2.3%	44 3%	47 3.2%	42 2.9%	52 3.5%	52 3.5%	55 3.7%	
Wetlands	187 12.6%	151 10.3%	151 10.3%	143 9.7%	135 9.1%	135 9.1%	135 9.1%	
Transportation and Utilities	0 0%	1 0%	2 0.2%	24 1.6%	24 1.6%	24 1.6%	24 1.6%	


2017 Land Use / Land Cover for Woodmere Creek Basin
as a percentage of land area for this basin
Urban & Built-up: 80.8%
Wetlands: 9.1%
Water: 3.7%
Rangeland: 3.1%
Transportation and Utilities: 1.6%