

# South Creek Condition Report for 2011

**PASS**



4 out of 4 indicators were rated as PASS.

**Size:** 12,630 acres

**Location:** Central Sarasota County

**Discharges into:** Blackburn Bay

Although the surface water system in the South Creek Basin has undergone physical changes over the past century, it has been altered less than all of the nearby basins draining to Blackburn Bay or Little Sarasota Bay. The Sarasota County historical and mid-century surveys and aerial photographs show South Creek extending about 2½ miles into the watershed, with a shorter branch joining the south side of the creek. Although the basin was almost entirely undeveloped by the 1970s, the creek had been extended through many wetlands. Today, about 20% of the basin is developed but is isolated in the northwest and southwest portion of the basin. *For basin details see: [Little Sarasota Bay Water Quality Management Plan \(2012\)](#)*



## Water Chemistry Ratings - Freshwater Portion of the Creek

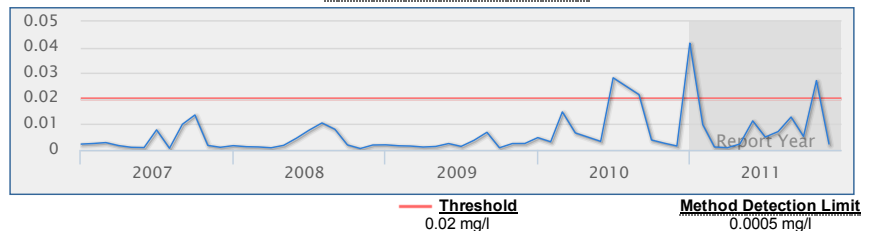
Total nitrogen, total phosphorus, chlorophyll a, and dissolved oxygen levels are monitored carefully by water resource managers and used by regulatory authorities to determine whether a creek meets the water quality standards mandated by the Clean Water Act. Shown below are water quality data for each 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.

### Chlorophyll a

Score: **Pass**

Units: mg/l	Year 2011	Historical period of record
<b>High</b>	0.0416	0.0416
<b>Mean</b>	0.0058	n/a
<b>Low</b>	0.0008	0.0005
<b>No. of Samples</b>	12	78

### Five-year Trend Graph

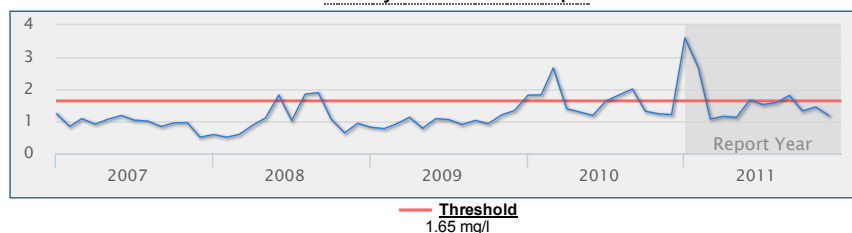


### Nitrogen, Total

Score: **Pass**

Units: mg/l	Year 2011	Historical period of record
<b>High</b>	3.60	3.60
<b>Mean</b>	1.5673	n/a
<b>Low</b>	1.072	0.25
<b>No. of Samples</b>	12	121

### Five-year Trend Graph

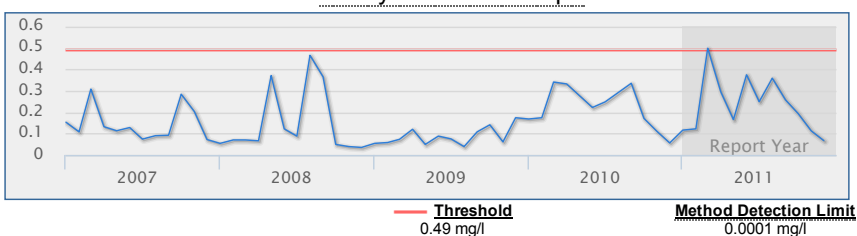


## Phosphorus, Total

Score: **Pass**

Units: mg/l	Year 2011	Historical period of record
High	0.499	1.308
Mean	0.2222	n/a
Low	0.113	0.039
No. of Samples	11	99

Five-year Trend Graph



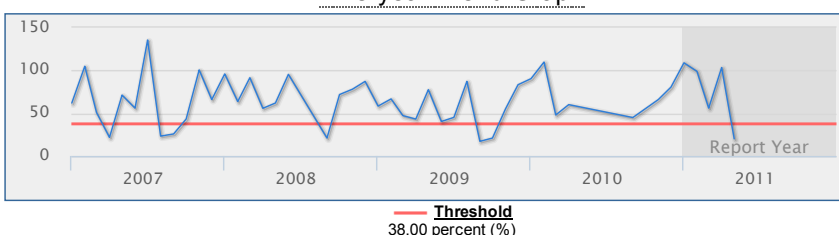
## Dissolved Oxygen Saturation

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

Score: **Pass**

Units: percent (%)	Year 2011	Historical period of record
High	108.90	7042.25
Mean	65.94	n/a
Low	20.00	1.80
No. of Samples	5	182

Five-year Trend Graph



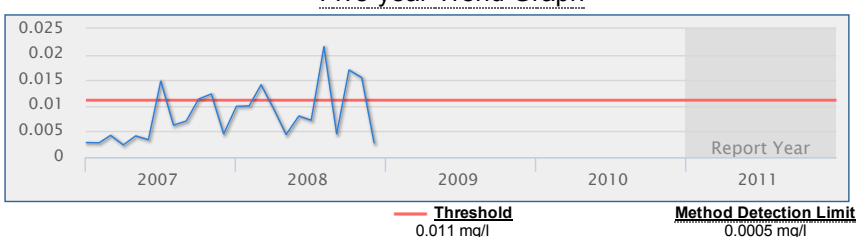
## Water Chemistry Ratings - Tidal Portion of the Creek

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

Units: mg/l	Year 2011	Historical period of record
High		
Mean		n/a
Low		
No. of Samples		

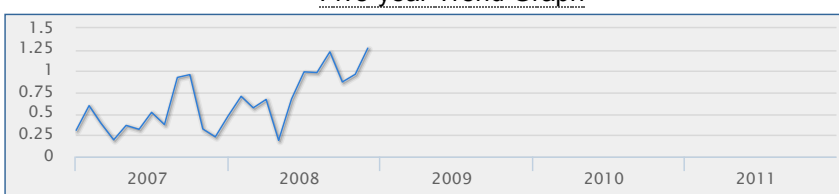
Five-year Trend Graph



## Nitrogen, Total

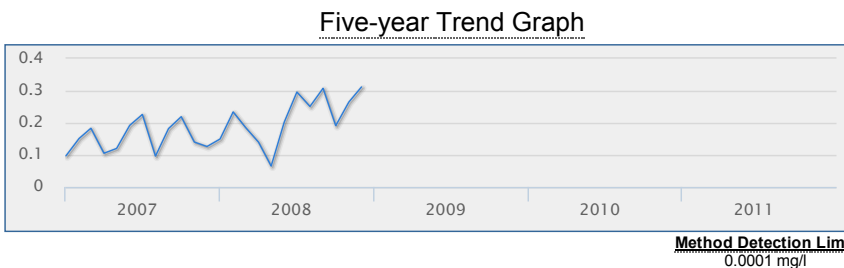
Units: mg/l	Year 2011	Historical period of record
High		
Mean		n/a
Low		
No. of Samples		

Five-year Trend Graph



## Phosphorus, Total

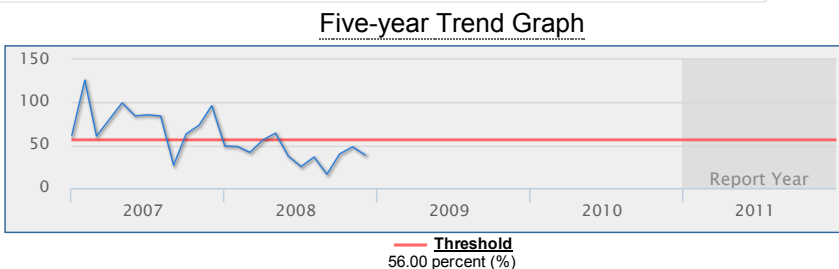
Units: mg/l	Year 2011	Historical period of record
High		
Mean		n/a
Low		
No. of Samples		



## Dissolved Oxygen Saturation

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

Units: percent (%)	Year 2011	Historical period of record
High		
Mean		n/a
Low		
No. of Samples		



## 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.



6% of the land area within the **South 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 South Creek Basin

