

LAKEWATCH Report for Forked Creek in Sarasota County
Watershed Region: West Central
Using Data Downloaded 2-12-2019

Introduction for River/Stream

This report summarizes data collected on systems that have been part of the LAKEWATCH program. Data are from the period of record for individual systems. The first part of this summary lists background data for each system, the second part lists the long-term data geometric means and ranges and the final part are the trend plots for nutrients, chlorophyll and Secchi depth. Plots were only made for systems with five or more years of data.

For decades Florida has had a narrative nutrient water quality criterion in place to protect Florida’s waters against nutrient over-enrichment. In 2009, the Florida Department of Environmental Protection (FDEP) initiated rulemaking and, by 2011, adopted what would be the first set of statewide numeric nutrient standards for Florida’s waters. By 2015, almost all the remaining waters in Florida have numeric nutrient standards (see for FDEP Regulation Nutrient Criteria’s for: Streams, spring vents:

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Figure 1. Map showing nutrient thresholds areas for streams set forth by FDEP.

Table 1. The nutrient thresholds for streams are listed in table below along with the map showing zones.

Nutrient Watershed Region	Total Phosphorus Nutrient Threshold ¹	Total Nitrogen Nutrient Threshold ¹
Panhandle West	60 µg/L	670 µg/L
Panhandle East	180 µg/L	1030 µg/L
North Central	300 µ/L	1870 µg/L
Peninsular	120 µg/L	1540 µg/L
West Central	490 µg/L	1650 µg/L
South Florida	No numeric nutrient threshold. The narrative criterion in paragraph 62-302.530(47)(b), F.A.C., applies.	No numeric nutrient threshold. The narrative criterion in paragraph 62-302.530(47)(b), F.A.C., applies.

¹These values are annual geometric mean concentrations not to be exceeded more than once in any three calendar year periods.

Base File Data for River/Streams: Definitions

- **County:** Name of county in which the system resides.
- **Name:** Stream name that LAKEWATCH uses for the system.
- **Water Body Type:** Four different types of systems; lakes, estuaries, river/streams and springs.
- **Period of Record (years):** Number of years a system has been in the LAKEWATCH program.
- **Latitude and Longitude:** Coordinates identifying the exact location of station 1 for each system.

Table 2. Base File Data.

County	Sarasota
Name	Forked Creek
Water Body Type	River/Stream
Period of Record (years, range)	2 (2004 to 2005)
Latitude	27.0850
Longitude	-82.3778

Long-Term Data for River/Streams: Definitions

- **Total Phosphorus ($\mu\text{g/L}$):** The nutrient most often limiting growth of plant/algae.
- **Total Nitrogen ($\mu\text{g/L}$):** Another nutrient needed for aquatic plant/algae growth but only limiting when nitrogen to phosphorus ratios are generally less than 10.
- **Chlorophyll-uncorrected ($\mu\text{g/L}$):** Chlorophyll concentrations are used to measure relative abundances of open water algal population.
- **Secchi (ft), Secchi (m):** Secchi measurements are estimates of water clarity.
- **Color (Pt-Co Units):** LAKEWATCH measures true color, which is the color of the water after particles have been filter out.
- **Specific Conductance ($\mu\text{S/cm@25}^\circ\text{C}$):** Measurement of the ability of water to conduct electricity and can be used to estimate the amount of dissolve materials in water.

Table 3. Long-term trophic state data collected monthly by LAKEWATCH volunteers and color and specific conductance (collected quarterly).

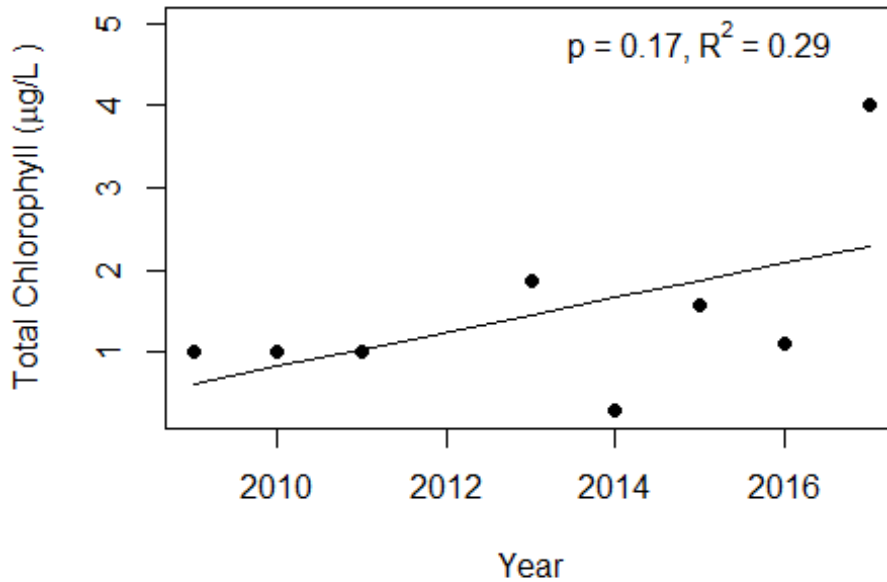
Parameter	Minimum and Maximum Annual Geometric Means	Grand Geometric Mean (Sampling years)
Total Phosphorus ($\mu\text{g/L}$)	207 - 259	232 (2)
Total Nitrogen ($\mu\text{g/L}$)	688 - 831	756 (2)
Chlorophyll- uncorrected ($\mu\text{g/L}$)	13 - 24	18 (2)
Secchi (ft)	3.0 - 3.4	3.2 (2)
Secchi (m)	0.9 - 1.0	1.0 (2)
Color (Pt-Co Units)	16 - 24	20 (2)
Specific Conductance ($\mu\text{S/cm@25 C}$)	27000 - 27000	27000 (1)

Figure 2 and Figure 3. Trend plots of annual average total phosphorus and annual average total nitrogen versus year. The R^2 value indicates the strength of the relations (ranges from 0.0 to 1.0; higher the R^2 the stronger the relation) and the p value indicates if the relation is significant ($p < 0.05$ is significant). Trend status are reported on the plots.



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Blues Creek-1 (Alachua)



Blues Creek-1 (Alachua)



LAKEWATCH Report for Saddle Creek-1 in Sarasota County
Watershed Region: West Central
Using Data Downloaded 2-12-2019

Introduction for River/Stream

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Figure 1. Map showing nutrient thresholds areas for streams set forth by FDEP.

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Nutrient Watershed Region	Total Phosphorus Nutrient Threshold ¹	Total Nitrogen Nutrient Threshold ¹
Panhandle West	60 µg/L	670 µg/L
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Base File Data for River/Streams: Definitions

- **County:** Name of county in which the system resides.
- **Name:** Stream name that LAKEWATCH uses for the system.
- **Water Body Type:** Four different types of systems; lakes, estuaries, river/streams and springs.
- **Period of Record (years):** Number of years a system has been in the LAKEWATCH program.
- **Latitude and Longitude:** Coordinates identifying the exact location of station 1 for each system.

Table 2. Base File Data.

County	Sarasota
Name	Saddle Creek-1
Water Body Type	River/Stream
Period of Record (years, range)	1 (2007 to 2007)
Latitude	27.2664
Longitude	-82.3857

Long-Term Data for River/Streams: Definitions

- **Total Phosphorus ($\mu\text{g/L}$):** The nutrient most often limiting growth of plant/algae.
- **Total Nitrogen ($\mu\text{g/L}$):** Another nutrient needed for aquatic plant/algae growth but only limiting when nitrogen to phosphorus ratios are generally less than 10.
- **Chlorophyll-uncorrected ($\mu\text{g/L}$):** Chlorophyll concentrations are used to measure relative abundances of open water algal population.
- **Secchi (ft), Secchi (m):** Secchi measurements are estimates of water clarity.
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- **Specific Conductance ($\mu\text{S/cm@25}^\circ\text{C}$):** Measurement of the ability of water to conduct electricity and can be used to estimate the amount of dissolve materials in water.

Table 3. Long-term trophic state data collected monthly by LAKEWATCH volunteers and color and specific conductance (collected quarterly).

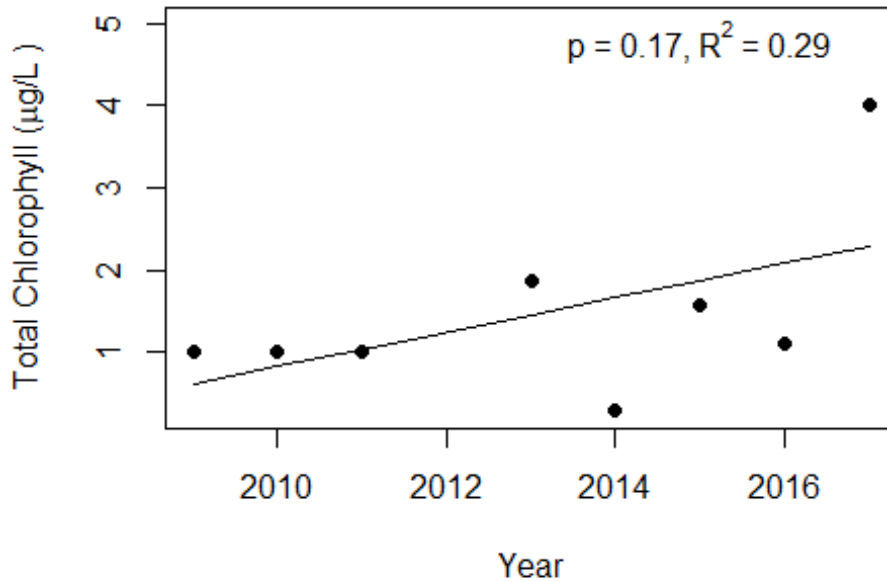
Parameter	Minimum and Maximum Annual Geometric Means	Grand Geometric Mean (Sampling years)
Total Phosphorus ($\mu\text{g/L}$)	1297 - 1297	1297 (1)
Total Nitrogen ($\mu\text{g/L}$)	3570 - 3570	3570 (1)
Chlorophyll- uncorrected ($\mu\text{g/L}$)	23 - 23	23 (1)
Secchi (ft)	3.0 - 3.0	3.0 (1)
Secchi (m)	0.9 - 0.9	0.9 (1)
Color (Pt-Co Units)	-	()
Specific Conductance ($\mu\text{S/cm@25 C}$)	-	()

Figure 2 and Figure 3. Trend plots of annual average total phosphorus and annual average total nitrogen versus year. The R^2 value indicates the strength of the relations (ranges from 0.0 to 1.0; higher the R^2 the stronger the relation) and the p value indicates if the relation is significant ($p < 0.05$ is significant). Trend status are reported on the plots.

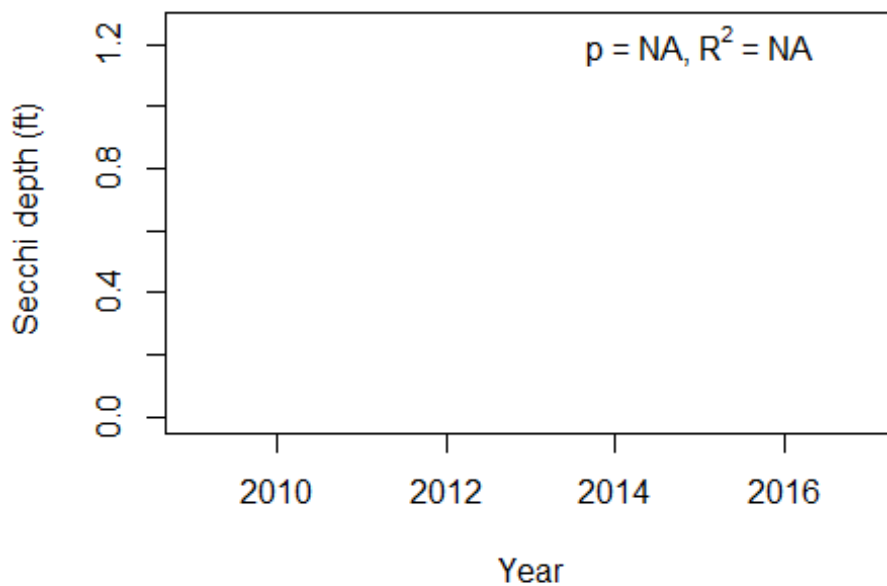


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Blues Creek-1 (Alachua)



Blues Creek-1 (Alachua)



LAKEWATCH Report for Saddle Creek-2 in Sarasota County
Watershed Region: West Central
Using Data Downloaded 2-12-2019

Introduction for River/Stream

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Base File Data for River/Streams: Definitions

- **County:** Name of county in which the system resides.
- **Name:** Stream name that LAKEWATCH uses for the system.
- **Water Body Type:** Four different types of systems; lakes, estuaries, river/streams and springs.
- **Period of Record (years):** Number of years a system has been in the LAKEWATCH program.
- **Latitude and Longitude:** Coordinates identifying the exact location of station 1 for each system.

Table 2. Base File Data.

County	Sarasota
Name	Saddle Creek-2
Water Body Type	River/Stream
Period of Record (years, range)	1 (2007 to 2007)
Latitude	27.2615
Longitude	-82.3857

Long-Term Data for River/Streams: Definitions

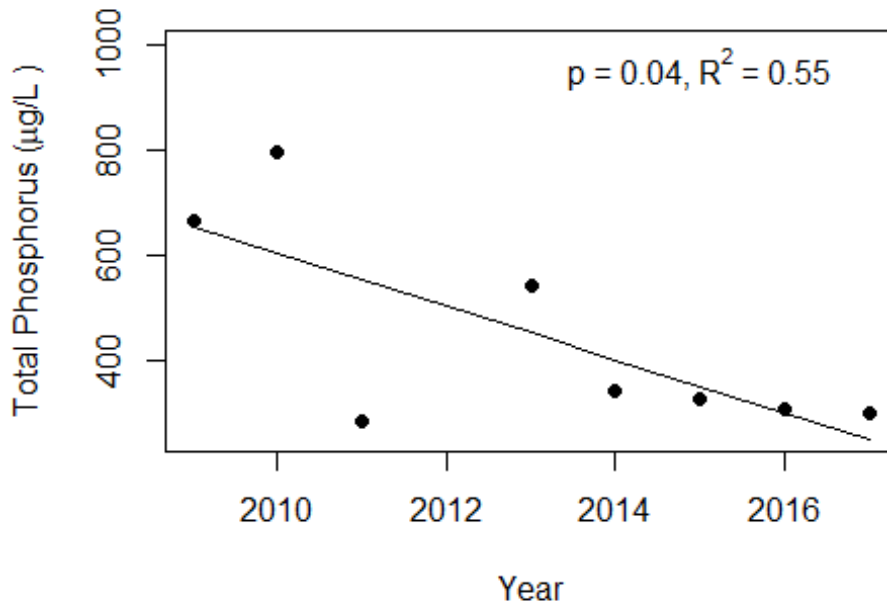
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Table 3. Long-term trophic state data collected monthly by LAKEWATCH volunteers and color and specific conductance (collected quarterly).

Parameter	Minimum and Maximum Annual Geometric Means	Grand Geometric Mean (Sampling years)
Total Phosphorus ($\mu\text{g/L}$)	1353 - 1353	1353 (1)
Total Nitrogen ($\mu\text{g/L}$)	3670 - 3670	3670 (1)
Chlorophyll- uncorrected ($\mu\text{g/L}$)	21 - 21	21 (1)
Secchi (ft)	3.0 - 3.0	3.0 (1)
Secchi (m)	0.9 - 0.9	0.9 (1)
Color (Pt-Co Units)	-	()
Specific Conductance ($\mu\text{S/cm@25 C}$)	-	()

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Blues Creek-1 (Alachua)



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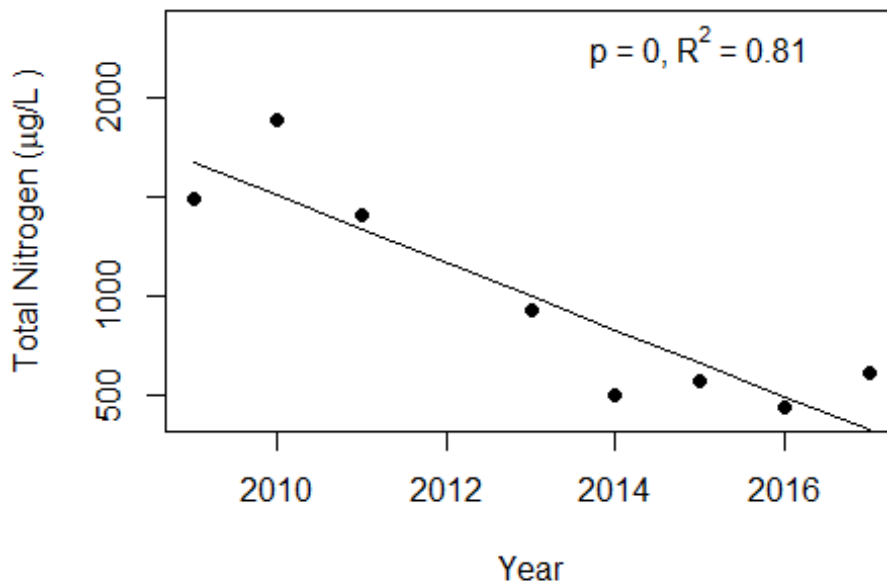
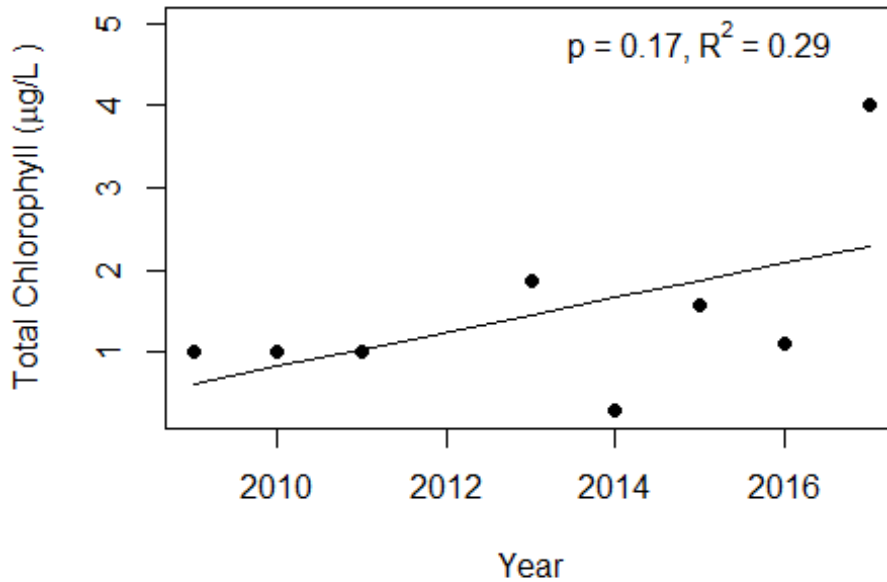
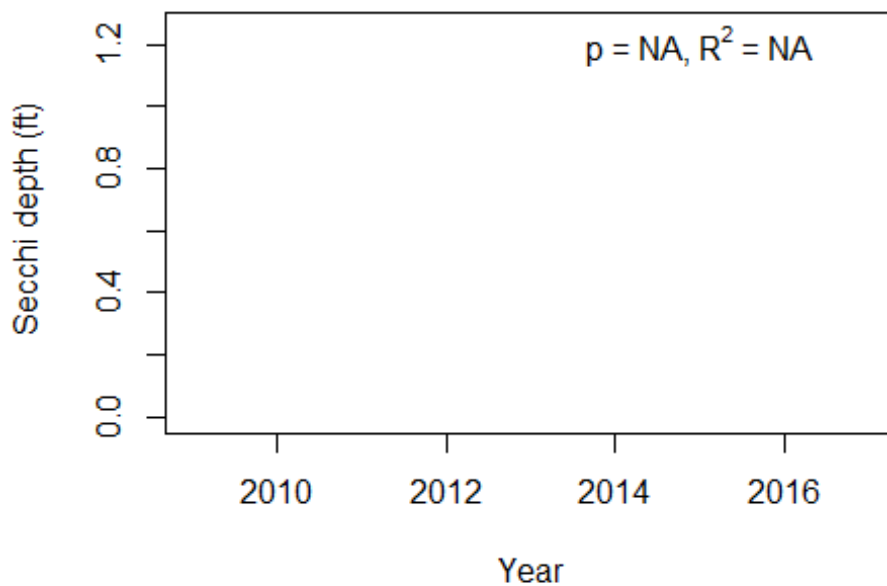


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Blues Creek-1 (Alachua)



Blues Creek-1 (Alachua)



LAKEWATCH Report for Saddle Creek-3 in Sarasota County
Watershed Region: West Central
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Table 2. Base File Data.

County	Sarasota
Name	Saddle Creek-3
Water Body Type	River/Stream
Period of Record (years, range)	1 (2007 to 2007)
Latitude	27.2565
Longitude	-82.3844

Long-Term Data for River/Streams: Definitions

- **Total Phosphorus ($\mu\text{g/L}$):** The nutrient most often limiting growth of plant/algae.
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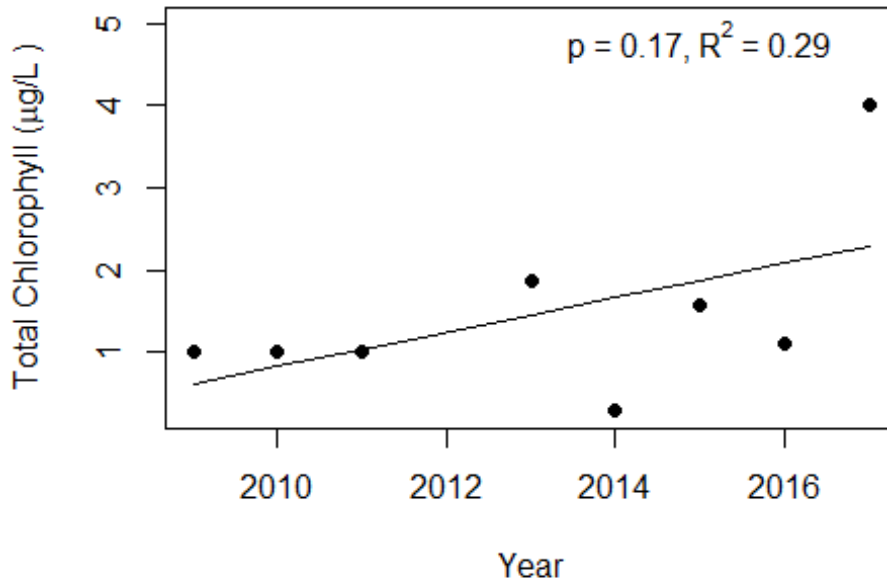
Parameter	Minimum and Maximum Annual Geometric Means	Grand Geometric Mean (Sampling years)
Total Phosphorus ($\mu\text{g/L}$)	1308 - 1308	1308 (1)
Total Nitrogen ($\mu\text{g/L}$)	4730 - 4730	4730 (1)
Chlorophyll- uncorrected ($\mu\text{g/L}$)	22 - 22	22 (1)
Secchi (ft)	-	()
Secchi (m)	-	()
Color (Pt-Co Units)	-	()
Specific Conductance ($\mu\text{S/cm@25 C}$)	-	()

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