

Dear Friend of LAKEWATCH,

April 2, 2007

Florida LAKEWATCH records show that **Wilson in Hillsborough County has been sampled by LAKEWATCH volunteers for a total of 82 months.** The raw data are enclosed in this Data Report as tables and graphs. As you look through the Data Report, you may ask “What do these numbers mean?” or “How can this information be useful to me?” We’ve provided you with the following summaries that describe two common ways in which your LAKEWATCH data can be used.

The first summary, the Trophic State Summary describes how and why Wilson is classified into one of four categories called Trophic States. The second summary, Florida Lake Regions Summary, places Wilson into one of forty-seven Florida Lake Regions.

In addition to these summaries we’ve also provided the following handouts to assist you:

- *Explanation of the Florida LAKEWATCH Data Packet* — leads you through the tables and graphs and shows you how to spot trends and patterns;
- *Trophic State: A Waterbody’s Ability to Support Plants, Fish, and Wildlife*— explains the four trophic states used by the Florida LAKEWATCH program and discusses why **Wilson is classified as eutrophic.**
- *Florida Lake Regions: A Classification System* — explains the development of 47 Florida Lake Regions and discusses why it’s important for you to know which Lake Region **Wilson** is in.

We realize that this is a lot of reading material. However, being familiar with this information can help you become more effective in the water management arena. For example, you can communicate more effectively with water management professionals; develop management goals for your water body; establish a baseline of water chemistry for future reference; or document changes that might be occurring.

We encourage you to share information from your data packet with others so they can become better informed. We can provide data in printed form, on computer disk, or via e-mail. Please don’t hesitate to call us with your questions or comments.

Sincerely,

Eric Schulz
Florida LAKEWATCH Regional Coordinator

Enclosures

Trophic State* Summary

Wilson has been sampled in the Florida LAKEWATCH program for a total of **82** months. To determine the trophic state classification for **Wilson** we calculated averages from **February 21, 1993** to **June 11, 2006** for each of the four LAKEWATCH water chemistry parameters (total chlorophyll, total phosphorus, total nitrogen, and water clarity) and compared those averages with the four Trophic State ranges*. The results are as follows:

- total chlorophyll for Wilson is 10 $\mu\text{g/L}$ which falls in the **eutrophic** range.
- total phosphorus for Wilson is 18 $\mu\text{g/L}$ which falls in the **mesotrophic** range.
- total nitrogen for Wilson is 797 $\mu\text{g/L}$ which falls in the **eutrophic** range.
- water clarity for Wilson is 6.7 feet which falls in the **eutrophic** range.

How LAKEWATCH Determines Your Waterbody's Trophic Classification

It's possible that one or more of the four water chemistry parameters used above fell into different trophic ranges. (For example, a waterbody may have water clarity in the *oligotrophic* range, and its total nitrogen levels may be in the *eutrophic* range.) When one or more of the four LAKEWATCH parameters falls into different trophic ranges, **LAKEWATCH uses the total chlorophyll averages to determine the overall trophic state**. Since the total chlorophyll measurement indicates how much algae is actually being produced in a waterbody, it's the most direct indicator of biological productivity. The other three parameters are more limited in that they only provide information about the *potential* for biological productivity.

Don't be alarmed if LAKEWATCH parameters for your waterbody fall into different trophic ranges. If this happens, it simply suggests that you might want to take a closer look to determine why. Feel free to talk with the LAKEWATCH staff to see if there is cause for concern or if perhaps further study is warranted.

*** These criteria were developed by two lake scientists, Forsberg and Ryding in 1980. For more information, see the Trophic State: A Waterbody's Ability to Support Plants, Fish, and Wildlife handout .**

Florida Lake Regions* Summary

Which Lake Region is Wilson in?

Wilson is located in the Land-o-Lakes Region which is described as:

This is a sandy upland region of high lake density, 30-80 feet in elevation. Natural vegetation was dominated by longleaf pine and turkey oak, mostly removed for citrus groves and residential development. The lakes are neutral to slightly alkaline, low to moderate nutrient, clear water lakes.

How does Wilson compare to other lakes in its region?

Wilson has been sampled by LAKEWATCH volunteers from **February 21, 1993** to **June 11, 2006** for a total of **82** months. An average has been calculated for each parameter sampled (total phosphorus, total nitrogen, total chlorophyll, and water clarity or "Secchi Depth" and is referred to in the table below as the "Average for Wilson". Averages were also calculated for other lakes in the Land-o-Lakes Region. These averages have been grouped into ranges from low to high and are shown in the table below. Using the table, you can see how Wilson compares to other water bodies in this region.

Land-o-Lakes Region				
	Total Phosphorus (µg/L)	Total Nitrogen (µg/L)	Total Chlorophyll (µg/L)	Secchi Depth (ft)
Average for Wilson	18	797	10	6.7
Low Range ¹	6 - 11	260 - 537	1 - 3	1.3 - 4.9
Low to Middle Range ²	11 - 14	537 - 734	3 - 6	4.9 - 7.6
Middle to High Range ³	14 - 21	734 - 921	6 - 12	7.6 - 11.2
High Range ⁴	21 - 42	921 - 1960	12 - 35	11.2 - 13.1
Number of lakes used to define each range	39	38	38	31

Keep in mind that if the number of lakes that were used to define each range (shown in the bottom row of the table) is small, the range of water chemistry conditions listed may not present an accurate picture of your Lake Region's typical characteristics. Don't be alarmed if Wilson is at one end of the spectrum (High Range or Low Range) or perhaps outside the range altogether. The existence of an extremely high or low value merely indicates there are factors you might want to take a closer look at in order to identify the cause. If you have a concern, we encourage you to talk with the LAKEWATCH staff about it.

¹Low range represents the minimum value to 25th percentile. This means that 75% of the lakes sampled in this study have values higher than Wilson.

²Low to middle range represents the 25th to 50th percentile. This means that 50% of the lakes sampled in this study have values higher than Wilson, and at least 25% of the lakes sampled have values lower.

³Middle to high range represents the 50th to 75th percentile. This means that 25% of the lakes sampled in this study have values higher than Wilson, and at least 50% of the lakes sampled have values lower.

⁴High range represents the 75th to maximum value. This means that at least 75% of the lakes sampled in this study have values lower than Wilson.

* This classification system was created by grouping lakes based on similarities in physiography, geology, soils, hydrology, water chemistry, vegetation, and climate. This project resulted in the definition of 47 regions, which are described in a final report Lake Regions of Florida (Griffith, G.E., et al. 1997), published by the U.S. EPA (EPA/R-97/127). For more information see the Florida Lake Regions Classification System handout.