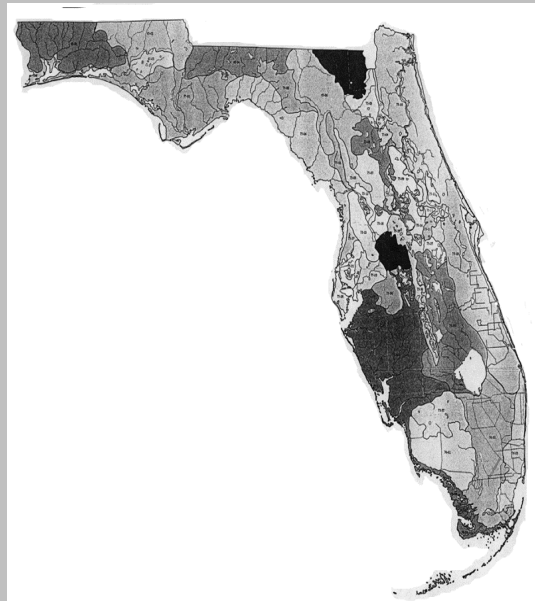


Florida Lake Regions: A Classification System Where Does Your Lake Fit In?

The Lake Region Classification System can be a useful tool for managing your lake. By reading this handout, you can learn:

- How and why the Florida Lake Regions project was developed;
- How to compare your lake with other lakes in its Lake Region; and
- How the Lake Region Classification System can be useful to you.



With more than 7800 lakes in the state and a limited number of lake management professionals available, the task of creating a lake management plan for every lake is simply not feasible. The Florida Lake Region classification system was initiated to provide a framework of the different types of lakes in the state so that management plans can be developed for groups of lakes with similar characteristics.

This classification system was created by grouping lakes based on similarities in physiography,* geology,* soils, hydrology,* water chemistry, vegetation, and climate. It was a cooperative effort involving the United States Environmental Protection Agency (U.S. EPA), the Florida Department of Environmental Protection, and researchers at the University of Florida's Department of Fisheries and Aquatic Sciences.

Data used for the project were collected from hundreds of lakes in Florida, by scientists, students, and citizen volunteers. The three-year 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).

By documenting regional differences within the 47 Florida Lake Regions, reasonable and realistic goals can be developed for lakes individually or in groups. This approach also improves the ability to predict the effects of lake management practices.



The Lake Regions Classification System can also be used to assess how your lake compares with others in its region.

To compare your LAKEWATCH lake with others in its region you'll need to know the long-term average for each of the four water chemistry parameters that have been monitored for LAKEWATCH. You can obtain this information from the Florida LAKEWATCH office by requesting a Lake Region summary (be sure to include the name of the lake and the county it's located in).

****Physiography** is a science that deals with the physical aspects of the earth and its life (e.g., land, sea, air, and distribution of plant and animal life). **Geology** is a science that deals with the history of the earth and its life, especially as recorded in rocks. **Hydrology** is a science dealing with the properties, distribution and circulation of water on the surface of the land.*



You Can Use the Lake Regions Classification System to...

➤ Establish realistic goals for your lake.

For example, if a lake's water clarity is among the highest of the lakes in its Lake Region, then it might be impractical to try to make the water even more clear. You may well be up against limitations imposed by the hydrology, geology, and climate of that area.

➤ Choose effective management strategies.

Once you have set management **goals** for your lake, you will have to choose among many management **techniques**. Knowing the characteristics of lakes in your Lake Region can help you choose among them. For example, consider a lake that is located in the Lakeland / Bone Valley Upland Region. This lake region has been identified as:

... an area where soils are naturally rich in phosphorus (with measured average lake total phosphorus concentrations ranging from 59 µg/L to 965 µg/L). Lakes located in this region typically have an abundance of algae, aquatic plants, and wildlife.

Imagine you want to increase the water clarity in this lake and are considering reducing the lake's total phosphorus values below 59 µg/L as an effective way to achieve this goal. The information that waterbodies in this Lake Region are "naturally rich in phosphorus" and that 59 µg/L is already at the *bottom* of the observed phosphorus range, suggests that further reducing the phosphorus level in this lake would probably be very expensive and labor intensive. Other options such as appropriate aquatic plant management strategies might have a better chance of success and should be explored.

To learn how to set goals for your lake, ask LAKEWATCH to send you the free booklet, "How To Create a Lake Management Plan" developed by Jess VanDyke of The Florida Department of Environmental Protection in cooperation with Florida LAKEWATCH.

➤ Monitor over the long term to see if your lake remains consistent with others in your Lake Region or if it becomes atypical.

For example, consider a lake located in the Lake Wales Ridge Transition Region that has average total chlorophyll values higher than the average maximum values for other lakes in this region. The fact that this lake is atypical suggests that something may have occurred which changed the original character of the lake. It may be possible to reverse the effect, if its cause can be determined.

The Lake Region Classification System is just one way of grouping lakes. For more information or to discuss this handout, call our toll free number: 1-800-LAKEWATCH (1-800-525-3928). We always welcome your questions, comments, and suggestions.

Florida LAKEWATCH Was Essential To The Lake Regions Project

- The LAKEWATCH data "bank" was one of the primary databases used in the study. These monthly long-term data provided scientists with a clearer picture of seasonal trends and patterns in the lakes studied.
- LAKEWATCH volunteers provided access to private lakes enabling researchers to gather water chemistry samples and conduct aquatic plant surveys.
- The use of LAKEWATCH data saved tax dollars. If an agency or private company collected the same data, it would have cost thousands of dollars.



Florida LAKEWATCH

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