I love my job. I get to enjoy our wonderful natural resources while I teach others about them. This week, some of our local Houston Astros parking attendants learned about water quality and our Florida Lakewatch program as I paddled the ponds at Osceola Heritage Park. Though it was a lot of fun, I really was working.

Peter Matt, one of our Florida Lakewatch volunteers, asked me to join him as he collected routine monthly pond water samples. He is one of over 1800 trained citizens that monitor water quality on over 600 waterbodies in 40 counties around the state. Florida's Lakewatch program is one of the largest volunteer water monitoring programs in the nation. University of Florida Fisheries and Aquatic Science biologists train Lakewatch volunteers in monitoring protocol and provide testing equipment.

We paddled to designated locations on the four stormwater ponds. Without tipping the canoe, we carefully collected water samples at specific locations on the ponds. Water samples are frozen for later analysis for chlorophyll, E. coli and phosphorus, indicators of lake health and productivity.

At each of the monitoring stations, marked with white buoys, we take Secchi disk readings to check for visibility and water depth. Again, without tipping the canoe, I dropped the white weighted disk on a rope over the side and then noted how deep it was before it disappeared in cloudy water.

Monitoring on the ponds at OHP began several years ago; the facility is only about 5 years old. On the other hand, the volunteers on the Alligator Lake Chain have been collecting water samples for more than 15 years.

This long term sampling is critical to helping researchers, citizens and water managing agencies understand water quality basics specific to our Florida lakes. In addition, volunteers may record observations of bird activity, algae blooms, fishing success and more recently, the presence of invasive species such as armored catfish and the channeled apple snail.

Yes, state agencies such as the Florida Department of Environmental Protection (DEP) and the Florida Fish and Wildlife Conservation Commission (FWC) collect water quality data on some water bodies, but there are more than 800 lakes in Osceola County. More volunteers are needed to collect data that will help us all better understand what is happening to our lakes.

Florida LAKEWATCH enables the public to be involved in a cooperative teamwork approach to solving lake quality problems. The information generated from this program is made available to anyone who wants it, including the volunteers themselves, interested citizens, lake management groups, schools, as well as government and regulatory agencies. Most of the lakes that are being accepted into the program have never been monitored before.

Lakewatch data has been used to answer questions relating to the recent draw down project. In 2004, the FWC began implementing a lake enhancement project on Lake Tohopekaliga to improve sportfishing habitat. Original plans included lowering water levels in the lake during the winter and spring dry season by allowing water to flow out of the locks at the south end. The lake bottom was allowed to dry out and an accumulation of decomposing organic matter called muck was scraped away exposing the sandy bottom. The muck inhibits sports fish breeding since bream and bass deposit their eggs in sand.

Muck is rich in nutrients that are released as the organic matter decomposes. Biologists with FWC worked with local land owners to deposit the tons of organic material on upland pasture sites, but changes in land use around the lake in recent years limited disposal sites. An alternative plan was devised to build muck into 1 to 8 acre islands near the shore that could become wildlife habitat and bird islands.
When questions arose regarding nutrient release into the water from the decomposing organic muck wildlife islands, University of Florida Lakewatch was asked to monitor the results. They reported in a recent newsletter article that they have not observed significant release of nutrients from the muck islands. Using data from 58 nearby lakes, they were able to analyze the data and interpret that any increase in nutrients was related to nutrients in inflowing water following significant rainfall from the three hurricanes the summer of 2004.

If you live near or play on our local lakes, we need your help. Volunteers with canoe, kayak or boat access will receive special training and supplies for monitoring. We really need help on Ajay, Cecile, Kissimmee, East Lake Toho, the south end of Lake Toho, Hatchineha, Live Oak, Jackson and Marian. Homeowners Associations may also want to monitor their local stormwater ponds. For more information, contact Lakewatch at 1-800-LAKEWATCH (800-525-3928) or email them at fl-lakewatch@ufl.edu. Numerous publications on lake water quality are downloadable free from http://lakewatch.ifas.ufl.edu/

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