



Florida

LAKEWATCH

Volume IV

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Across the state, citizens are becoming empowered in the management of their lakes.

Lake users on Lake Istokpoga, Lake Asbury, Lake Jesup, and Lake Geneva, for example, are blazing trails that other citizens will find useful to follow.

In September, 1993, the Highlands County Lakes Association hosted a one-day workshop to identify, define, and prioritize issues related to the future management of Lake Istokpoga. Participants included representatives from environmental organizations, the Seminole Tribe of Florida, the US Army Corps of Engineers, the angling community, the business community, state management agencies, lake-shore property owners, the agricultural community, local government, and staff from the legislative offices of Representative Bert Harris, Jr. and Senator Rick Dantzler.

During the workshop, facilitated by Florida LAKEWATCH, participants identified over 50 issues which they

grouped into six major categories. Evaluations of the workshop indicated that participants were satisfied that the diverse interests listened to each other and that they worked well together to identify and prioritize important issues and concerns. Participants overwhelmingly stated they would participate in another workshop to assist in the development of a comprehensive management plan, but they need pro and con information for the issues identified.

The Highlands County Lake Association recommends that a Scientific/Professional Issues Forum be convened as the next step. In such a forum, scientists from environmental organizations, management agencies, private enterprise, and Florida's educational institutions could identify additional issues and then provide the citizens with a pro and con discussion on each issue.

Lake Asbury residents in Clay County are taking a similar approach to developing a lake management plan. Their management committee

meets regularly and is comprised of a County Commissioner, a representative from the Public Works Department and from the Water Management District, the Director of County Engineering, and representatives from two homeowner groups. To determine how the lake users want to use the lake and what their priorities are, the committee has mailed questionnaires to all lake residents. The committee has also drafted a Conceptual Management Plan.

Lake users on Lake Jesup in Volusia County have begun meeting to develop a management plan. The group includes representatives from regulatory agencies, various environmental groups, several homeowner groups, and Representative Marvin Couch.

Taking a different approach, Rodney Bamford of Lake Geneva in Clay County is dealing with a specific problem on his lake. After several frustrating years attempting to approach regulatory agencies for remediation of an improperly-placed culvert which restricted stream inflow and possibly contribut-

ed to the severely lowered water levels in the lake, Mr. Bamford organized the formation of a team to deal with the problem. The team consisted of all groups with an interest in this situation, including regulatory agencies, local government, lake users and homeowners, and mining interests.

The advantage to this approach, according to Mr. Bamford is that the homeowner's status was elevated from that of being a supplicant (sometimes perceived as being annoying and/or ignorant) to that of being a team member with status equal to all other members. The team approach also fosters a cooperative, rather than adversarial, posture that, in this case, is proving effective in resolving the problem.

These examples serve to illustrate that to preserve and protect your lake, you must be involved in its management. **Joining LAKEWATCH and gathering data is not enough.** After all, data is merely numbers, and the Florida LAKEWATCH Program, in order to remain unbiased and scientifically credible, cannot advocate any one particular view. LAKEWATCH can be your eyes; it can help you observe and document problems. You can compile long-term data which can be taken to any expert for analysis and interpretation. The data can be used to determine the normal range of fluctuation of water quality variables in your lake, and thus help alert you to potential problems at their onset when they are most easily solved. LAKE-

WATCH cannot, however, be your arms and legs. To accomplish the preservation of your lake, you have to become active.

A key to being effective is to establish communication.

Many lakes now have organized homeowner associations, usually with newsletters. LAKEWATCH can furnish you with copies of Association bylaws and newsletters.

Another key is to develop a lake management plan.

There are many agencies making decisions affecting your lake. Each different agency has different priorities. For example, the Game and Fresh Water Fish Commission is charged with maintaining fish and wildlife populations. This goal may conflict with actions taken by a Water Management District, which is concerned with maintaining certain water levels. Without a lake management plan, there is no formal holistic approach which integrates goals of all agencies along with the expectations of the lake users.

What is a lake management plan and how is it formulated? To help you with this question, Mr. Jess VanDyke, Regional Biologist for the Department of Environmental Protection who has been involved in the development of several lake management plans in the Tallahassee area, has written a booklet, "How To Create a Lake Management Plan." It can be obtained for free from LAKEWATCH or from him directly at the Bureau of Aquatic Plant

Management, 33917 Commonwealth Blvd., Tallahassee, FL 32399-3000. He can also send you copies of the lake management plans for lakes Iamonia, Miccosukee, and Munson on which he has worked.

Development of a lake management plan may seem like a Herculean task. It is. However, once the plan is in place and integrated into your Comprehensive Zoning Plan and into regulatory agency plans, the preservation of your lake will not depend on the timely intervention of individuals in response to a never-ending sequence of troublesome events.

For effective lake management, citizens have to become active instead of reactive. It is happening around the state. You can learn from others.

What better legacy could you leave?

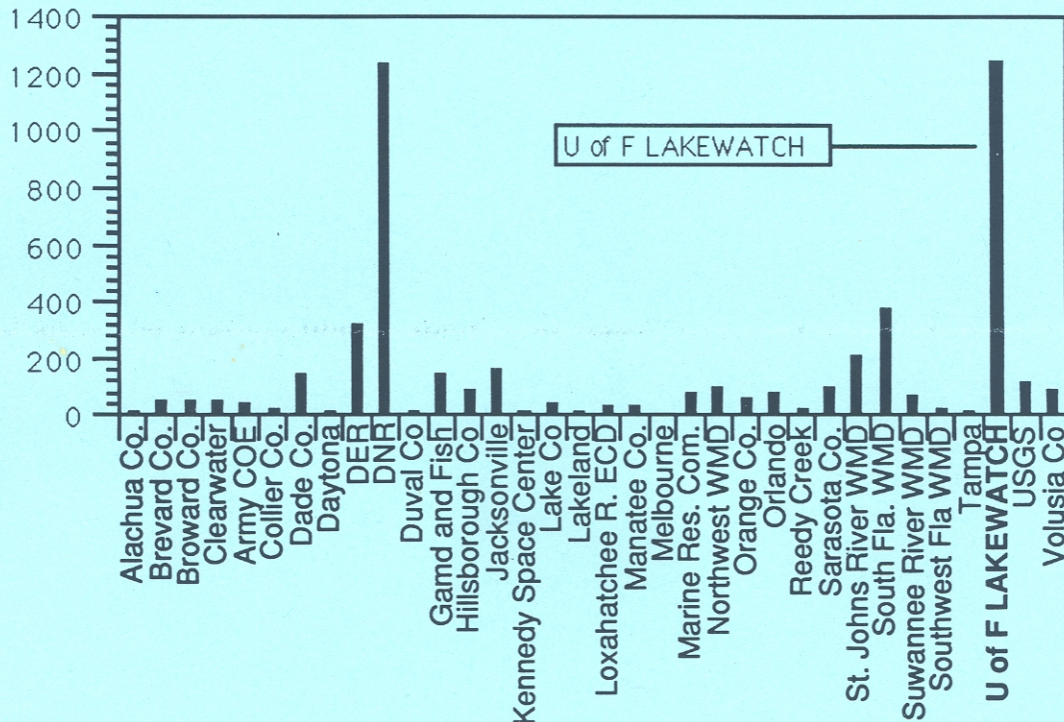
Equipment Roundup:

Please help us retrieve any LAKEWATCH equipment that is not being used. Give LAKEWATCH a call at 904-392-9617. There are many lakes on the waiting list that can put it to good use.

Please move your sampling target date to the middle of each month if possible. The reason for this request is too complicated and boring to explain, but has to do with the meshing of LAKEWATCH data with that of other agencies.

LAKEWATCH Pride: Look at Us Now

In 1993 the Department of Environmental Protection (DEP) released a report on Florida's Surface Water Ambient Monitoring Program in which the number of stations monitored by various agencies in Florida were listed (see the graph below).



The DEP reported LAKEWATCH volunteers were monitoring 415 stations; however this is incorrect. LAKEWATCHers monitored 415 lakes in Florida which translates into approximately 1245 stations (an average of three stations per lake). It should also be noted that the DNR figure of 1237 stations is composed of coastal, not freshwater, stations.

According to the DEP report, LAKEWATCH volunteers are doing a significant amount of the surface water ambient monitoring in Florida. Without the volunteer effort and diligence, the job would be too expensive to be feasible. The dedication of the LAKEWATCH volunteers is truly appreciated. Good work!

Get 'em while they're hot . . .

at your local Collection Center: the new and improved training booklet and handy plastic reference card containing a summary of the LAKEWATCH procedures are now available. When the original training booklet was written it was with the assumption that the training staff would spend a year or so learning what the volunteers needed to know and perfecting sampling techniques. Now we think we have it! The new book is the result of

input from many volunteers over several years of experience. In addition, thanks to a volunteer's suggestion, we are experimenting with a plastic reference card you can take in your boat and also keep beside your filter equipment which summarizes the entire process. Hope it is handy. Let us know how it goes in the field. (note: you may want to keep your old training booklet, because the lake ecology information in the first nineteen pages is not included in the replacement booklet.)

Opportunities for LAKEWATCH

There are two opportunities on the horizon for the Florida LAKEWATCH volunteers and for citizens who want to become part of the Florida LAKEWATCH Program. One is at the state level and involves the proposed hiring of regional LAKEWATCH personnel, and the other is at the federal level and could result in increased funding for the Program. Your input during the next few months is crucial to maximizing the capability of Florida LAKEWATCH to meet the needs of those who are concerned about lakes.

At the state level, the University of Florida is requesting the funding of five regional positions for the Florida LAKEWATCH Program. Being housed throughout the state, regional personnel would facilitate better access to expertise, feedback, education, and emergency intervention for LAKEWATCH volunteers. It would establish a local contact in each region who would be familiar with local conditions and who can respond in a timely manner to LAKEWATCHers' needs.

If you wish to support the University's request, write or phone your state legislators. If you or your legislators need more information, refer to Mr. Milt Morris, University of Florida's Director of Government Relations, at 904-392-4574.

At the federal level, Senator George Mitchell is sponsoring Bill S.1198 in the U. S. Congress as part of the reauthorization of the Clean Water Act. The entire bill is too long to summarize; however, copies are available from LAKEWATCH.

A section of the bill on "Clean Lakes Education" reads in part, "The Administrator shall develop and implement a national program to educate the public concerning lake quality and lake pollution problems and to foster public involvement in lake assessment and protection programs." It continues, "...the Administrator shall, by regulation, establish a program, to be known as the 'Lake Watch Program'..., to encourage nonprofit citizens groups to engage in lake assessment and protection activities."

While this bill is a good idea, a concern is that the funds to implement this bill will be used to develop an additional bureaucracy in Washington, rather than be used at the grassroots level to encourage, facilitate and fund ongoing, already-established programs across the country like Florida LAKEWATCH. For example, one of the proposed activities is to identify "citizens groups interested in participating in the Program." Florida LAKEWATCH has already identified more groups in Florida than can be accommodated due to present funding limitations. Additionally, the bill requires the establishment of "minimum conditions to be met by a citizens group that participates in...minimum monitoring of lake quality." This task has already been accomplished by Florida LAKEWATCH in a way that is tailored to the needs of the citizens of our state.

In brief, Florida LAKEWATCH, like many similar citizen monitoring programs around the country, needs funding to continue and expand ongoing programs. Pumping monies into establishing "an Administration" in Washington, D.C. that essentially undertakes that which is

Don McEwen, the "wrangler" for the Lake Tallavana LAKEWATCH group, has found a method of managing his group that keeps everyone participating and enjoying it. Here are his secrets . . .

Keeping Everyone Involved By Don McEwen

When Lake Tallavana in Gadsden County was first accepted into the Florida LAKEWATCH Program, eight residents were trained as volunteer samplers. The Tallavana Homeowners Association made a long-term commitment to LAKEWATCH to maintain a continuous record of data. But, we were concerned that over time, our volunteers would lose interest, and the burden of monthly sampling would fall upon only one or two people.

We knew that to be successful, we needed enough volunteers to ensure that samples would be taken in good weather and bad, during vacations, and when people got sick, moved away, or just lost interest. On the other hand, experience suggests that too many volunteers can result in diluting individual commitment, which may lead to confusion, lack of resolve, and missed samples.

To avoid these problems, we devised a scheme that has worked well for us over the past year and we thought that it might be useful to others. Its success depends on the following components:

ROTATION OF RESPONSIBILITY. We began by assigning a different volunteer to be in charge of each monthly sampling. (To my amazement, people cheerfully volunteered even for the cold winter months!) The leader's job is to set the time and

Opportunities, continued.

already being done locally, will not help and may even hinder proven citizen monitoring and preservation efforts already underway. At best it seems an unnecessary diversion of much-needed funds.

If you wish to express your views on Bill S.1198, contact Senator Bob Graham, 325 John Knox Road, Bldg 600, Tallahassee, FL 32303 (904/681-7726) and Senator Connie Mack, 1342 Colonial Blvd., Ste. 27, Fort Myers, FL 33907 (813/275-6252) and your U.S. District Representative.

If you are on the waiting list to become part of Florida LAKEWATCH, if you would like a faster response time from Florida LAKEWATCH, or if you would like an increased level of service from Florida LAKEWATCH, **now is the time to make your needs and concerns known to those who will be making the decisions about what services will be available to you in the future.**



Now you have an opportunity to make your input productive which may not come again . . . **if the citizens lead, the leaders will follow.**

|| Outstanding Citizen Monitors Awarded ||

The St. Andrew Bay Resource Management Association's LAKEWATCH/Baywatch Program received a Take Pride in America Award. Sponsored by the U. S. Fish and Wildlife Service it recognizes programs and organizations throughout the country that are making a substantial contribution to environmental preservation. The St. Andrew Bay group has done an impressive job since 1990, monitoring 61 Bay Stations, two lakes, and a creek.



Ms. Barbara Maxwell, a LAKEWATCHer on South Twin in Lake County, reports her surprise at seeing a television program on Florida LAKEWATCH on the CNN Network while she was traveling in China. It has been reported this program was also seen in Munich, and an airline is running a short film on Florida LAKEWATCH during their transcontinental flights.

~ LAKEWATCH News ~

Edgewater High School students, under the supervision of science teacher Mike Lopatka, have become LAKEWATCHers on several lakes in Orlando. They became weary of describing LAKEWATCH every time they were asked by curious on-lookers what they were doing. So with straight faces they would explain they were the Edgewater High School Ski

Keeping Everyone Involved, continued.

place of departure, notify all volunteer samplers, and do everything necessary to make it happen. By rotating the responsibility, almost everyone has managed to stay involved and feel a sense of "proprietorship" and duty.

A REFRESHER FOR THE NEXT LEADER. Further, we try to schedule the leader of each expedition to be the "first mate" on the preceding expedition so that their memory of the procedures and sampling techniques is refreshed. This also serves as a good opportunity for the next sampling leader to pick up the sampling kit and supplies, if needed.

FULL CREW. Our initial sampling trips were so much fun, that each volunteer asked to be notified about every sampling. As a result, we have three to five people on each outing. Duties are distributed so that everyone has something to do. Our most efficient configuration is four people: one to operate the boat and hold us on station, one to record the data, one to handle the Secchi disk readings, and one to take the water samples. We prefer sampling from a pontoon boat because it provides a more stable platform and carries more people.

QUALITY CONTROL JABS. Since we sample only once a month, we have found that our collective memory is very useful. We each delight in keeping everyone else's sampling and lab techniques in top form. Everyone enjoys the mutual good-natured harassment, and we all look forward to seeing each other every month. Enough interest has been shown by other residents that LAKEWATCH has agreed to train a new batch of volunteers to join us. Now if only we can get our homeowners association to supply the beer . . .



Team -- as they were putting their canoe in the water!

Dr. Joe Branham, a LAKEWATCHer on Bugg Springs in Lake County was strolling along Alligator Point on the Gulf. What should wash ashore at his feet? A LAKEWATCH hat.

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Thanks to the Southwest Florida Water Management District for supplying a grant to provide the LAKEWATCH volunteers in the Winter Haven area free books containing all the LAKEWATCH data for all the lakes in their area. The Water Management District also funded the equipment, training, and lab expenses for the group.

Hugh Harshman a LAKEWATCH volunteer on Lake Hardesty in Putnam County calculated that when one inch of rain falls on his 100-acre lake, it contributes 2,715,240 gallons of water to the lake.

Thank you to Mr. William Haney on LaGrange Lake in Orange County for making special Secchi disks for the Program. Mr. Haney cut disks from 1/4-inch steel (and even painted them). These super-heavy disks have been invaluable for use in springs where the uprushing water is a problem and also in very deep waters in which the disk has to sink quickly.

Ms. Janet Fales, Chair of Withlacoochee Area Residents, Inc. (WAR) and LAKEWATCH volunteer on the Withlacoochee River reports she has used her LAKEWATCH data in several ways. She sent it to the Army Corps of Engineers and the Southwest Florida Water Management District to try to get increased water flow in the river, and to the University Planning Team for the Barge Canal Lands to show a need for their help.

Ms. Fales writes, "People believe graphs; they can see what is going on."

Mr. Walt Whitehouse on Lake Grandin in Putnam County kept a cool head when his boat capsized -- he saved his Secchi disk.



Information Available

The following **video tapes** are available for purchase or free checkout (call 904-392-1764):

Florida's Aquatic Plant Story
What Makes a Quality Lake?
Florida LAKEWATCH
The Aquatic Plant Identification Series (seven tapes)
Istokpoga -- Lake of Legends

Two new **weed alerts**, providing information on the ecology and management of waterhyacinth and hydrilla, are available from the Technical Services Section of the Department of Environmental Protection at 904-487-2600.

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Community Lake Management Planning

By Curtis Watkins

Mr. Curtis Watkins is a Limnologist with the City of Tallahassee's Stormwater Management Division. He is also the Chairman of the Killearn Lakes Fish and Wildlife Committee.

The beautiful lakes that occur throughout Florida represent the focus of many a Florida community. For Killearn Lakes Plantation, a community located north of Tallahassee, the lakes personify the heart of the community. Six attractive lakes, that average about twenty-five acres in size, provide aesthetic as well as recreational benefits for the residents.

Earlier this year, concerned citizens interested in the lakes initiated a couple of major activities that are intended to protect and enhance the lakes. One of these activities entailed becoming involved in the LAKEWATCH Program. Having been interested for quite some time in becoming included in this program, volunteers have been enthusiastic about their responsibilities. Among the many beneficial aspects of LAKEWATCH is the benefit of obtaining lake data that can be used to manage the lakes.

Another activity has been the development of a lake management plan for the community. Impetus for the plan stemmed from citizen concerns of protecting and conserving the lakes. The purpose of the plan is to provide residents, as well as the homeowners association, guidance when making decisions that affect the lakes and their watersheds. The plan will address issues such as identifying precautionary measures that are needed to protect the lakes as well as issues pertaining directly to the use of LAKEWATCH data in making lake management decisions. When completely implemented, this plan will help the community be

Community ..., continued.

come more proactive in protecting as well as managing its lakes.

This plan is being developed following the guidelines provided in the document titled "How to Create a Lake Management Plan," which is published by the Florida Department of Natural Resources (which is now known as the Florida Department of Environmental Protection). This ten page document identifies fifteen basic steps that are helpful in developing a lake management plan. The essence of the plan is its method of bringing people together to identify problems and to agree on solutions. This planning approach provides a means for concerned citizens to identify their needs, while simultaneously allowing them to discuss individual values associated with their needs.

With regards to the planning process, the development of a lake management plan begins with organizing a committee of interested citizens. The use of a community newsletter or local newspaper provides an excellent means to attract citizen involvement. When a plan is developed for a private lake(s) or for a private community, membership on the committee usually includes the lakeside residents and the citizens of the community. When a plan is developed for a public lake, then it is important to include members of local, regional, and state government, along with residents, interested citizens, and any known user groups (such as a sport fishing club).

If the committee is to meet just once per month, allow for six months to a year to complete the plan. While working on a committee is difficult for some people, it takes a group of people to think of all of the possible concerns. It should also be remembered that a draft of the plan needs to be made available to the community, in order to assure that citizens are aware of it and have the opportunity to provide their comments. Finally, while a lake management plan is a useful instrument, it is ultimately the actions of committee members as well as concerned citizens that make the plan a success.

The lakes of Killearn Lakes Plantation as well as other communities in Florida represent an

Information Available, continued.



All active, trained LAKEWATCH volunteers who were monitoring lakes in 1992 received a book containing a **compilation of lake data on all LAKEWATCH lakes** for that year. We could only afford to print and mail out one book per lake. If you would like a copy, call 1-800-226-1764 and ask for SP 137. Copies cost \$7.00. If we get funding, we will mail out similar books for 1993.

From LAKEWATCH(call 904-392-9617):

1. **How to Create a Lake Management Plan** by Jess M. VanDyke, Northwest Florida Regional Biologist of Department of Environmental Protection.
2. Info sheet on **what to do if you have a fish kill**.
3. Back issues of **The Volunteer Monitor** on the following topics: (a) Biological Monitoring, (b) School-based Monitoring, (c) Building Credibility, and (d) Monitoring for Advocacy. You can subscribe for free by writing Eleanor Ely at 1318 Masonic Avenue, San Francisco, CA 94117 or phone 415-255-8049. (The next issue is on "Staying Afloat Financially" and will cover how to draw up a budget, raise money from grassroots supporters, write proposals, market your services, get EPA funding via the Clean Water Act, form partnerships, attract corporate sponsors, and more to keep your organization in good economic health.)
4. **FACTSHEETS** on: (a) The Ameoba -- Nagleria Fowleri, (b) Effects of Boating on Lakes, and (c) Mercury in Lakes.
5. Alligator Lake Chain Homeowners Association, Inc. Bylaws.
6. North American Lake Management brochure describing Directors' and Officers' **Liability Insurance Programs for Lake Communities**.
7. DER, HRS, and GFC List of Health Advisories Limiting Freshwater Fish Consumption As a Result of Mercury Contamination.

Community ..., continued.

asset that is recognized by many people. Fortunately, the LAKEWATCH program and community lake management planning provide additional recognition of the importance of Florida's lakes.

LAKEWATCHer's Question: What are the effects of nutrients in the lake?

Nutrients are chemical substances which fertilize the growth of aquatic plants, including algae. In Florida's lakes, the nutrients of concern are nitrogen and phosphorus compounds. Even though aquatic scientists do not yet fully understand how nutrients cycle in lakes, there are some lake characteristics that will usually change in predictable ways as a typical lake has nutrients added to it. Three of them -- water clarity, lake bottom characteristics, and fish populations -- will be briefly described.

Water Clarity: Some nutrients entering a lake will nourish algae. So as a lake becomes more nutrient enriched, it may become less transparent and more green. The water in a nutrient-rich lake will not be "crystal clear" like the water in a nutrient-poor lake.

An exception to the tendency towards decreased water clarity as a lake becomes fertilized occurs in a lake in which there is an abundance (over 60% coverage of the bottom) of aquatic plants (excluding algae). Many forms of algae will cling to plant surfaces rather than float freely in the water column, leaving the water clear. In addition, aquatic plants may block sunlight that algae need or out-compete algae for available nutrients. All the mechanism are not fully understood, however, when aquatic plants are removed from large areas of a lake, it is not unusual for the lake water to become less clear.

Lake Bottom Characteristics: Nutrient enrichment can cause a lake to become more shallow and make the lake bottom mucky. When algae and other aquatic plants die, they sink to the bottom and, along with sand and silt, become sediment. Layers of sediment accumulate over the years making the lake shallower. Eventually, lakes can fill with sediments and become wetlands. It should be noted that other sources of sediments, like shoreline erosion, are more significant contributors to shallowness than decayed plants.

Fish Populations: Lakes are complicated, and the fish populations in one lake may not respond to the addition of nutrients in the same way as they do in another lake. In most lakes, the types, sizes, and numbers of fish in the lake will change. As the nutrient inflow increases, there will be more fish that are considered by the public to be "rough" fish (like gizzard shad and gar). But at the same time, there will be more "sport" fish (like largemouth bass and speckled perch [black crappie]). Besides changes in types of fish, a nutrient-rich lake usually has more fish and larger fish than a lake that is less enriched. Within certain limits, the enrichment process usually improves sports fisheries. Even though some highly-enriched lakes develop severe problems in which sports fisheries are lost, many of Florida's "greenest" lakes are known for their excellent sport fishing.

LAKEWATCH Gatherings

At 6:00 pm on October 29th:

Bruce Fallon of The City of Orlando Stormwater Utility Bureau,
Dr. Daniel Canfield, Professor of Limnology at the University of Florida and the Director of Florida LAKEWATCH, and
Jay Hebert of The Orange County Agricultural Extension Service

jointly invite LAKEWATCH volunteers and lake users to eat BBQ and talk informally about lakes and lake management at the third annual "Central Florida LAKEWATCH Volunteer Appreciation Shindig."

The free event will be held at the Extension Office at 2350 East Michigan (near Bumby). Bring beverages and a side dish or snack to share. If you want BBQ, RSVP before October 27th to Ms. Boward

at 407-836-7570. We will "nutrient enrich" our minds, bodies, and spirits. Hope you get this Newsletter in time to come.

At 5:30 pm on November 5th:

Mr. Austin Tilton, Director of the Putnam County Extension Service is hosting a get-together of lake enthusiasts. Dr. Canfield and biologists from the Game and Fresh Water Fish Commission and the Department of Environmental Protection will be there to meet you and discuss your lake. Bring beverages and a side dish or snack to share. RSVP to 904-329-0318 before November 2nd if you want free BBQ and directions to the Palatka location.

At 1:00 pm on November 21st:

Sandy Fisher will be meeting with the St. Andrew Bay group for retraining the veterans and training newcomers to the Baywatch/LAKEWATCH Program.