

POSITION PAPER
Friends of Lake Apopka
Harris Chain of Lakes Restoration Council
2009 Report to the Florida Legislature

The Friends of Lake Apopka (FOLA) was founded in 1991 with the expressed goal of promoting the restoration of Lake Apopka. This citizen advocacy group has spent a great deal of time and money in continued efforts to understand the pros and cons of proposed restoration projects and strategies and to propose new projects which will add to the value of a restored Lake Apopka.

Recognizing that Lake Apopka is the headwaters of the Oklawaha Basin and, that the condition of this lake will have major impacts on the Harris Chain of Lakes and other downstream ecosystems, gives the group great interest in the Harris Chain of Lakes Restoration Council 2009 Report to the Florida Legislature, especially since a large portion of the report is critical of the on-going restoration strategies on Lake Apopka.

The Harris Chain of Lakes Restoration Council was established in 2001 and charged with the powers and duties to review and audit data related to lake restoration and sport fish population recovery, evaluate the need for additional studies and establish a Harris Chain of Lakes Restoration Program.

For the second year now, the required Report to the Legislature submitted by the Council has focused on existing restoration projects on Lake Apopka with repeated criticism and calls for elimination of many of these projects. Most of the data and opinions presented in support of these recommendations are generally based on misinterpretation (or outright ignoring) of existing studies and data done by competent scientists. A list of technical presentations to the Council and their associated Technical Advisory Group (TAG) in 2009 does not show any background materials or data to support the final recommendations.

Review and refutation of these on-going attacks without backup data have resulted in a great deal of time spent by many people, including the scientific staff of SJRWMD and other agencies!

The goal of all groups involved, Friends of Lake Apopka, Putman County Environmental Council, Harris Chain of Lakes Restoration Council, Lake County Water Authority, St. Johns River Water Management District and others, include the restoration of the entire basin in a cost effective and timely fashion. It is important that all understand, as much as possible, the positions of each group as well as the scientific analysis of each proposal that affects our long-term goals. With this in mind, FOLA presents the following comments on this 2009 report to the Florida Legislature by the Harris Chain Restoration Council in the hopes they will consider this information to revise their report before it is submitted:

1. FOLA has always supported hydraulic dredging of bottom sediments as a major project that would speed up the restoration of the lake. The group, over the years, has reviewed a number of studies and proposals on this subject and has understood that costs are prohibitive. Therefore, we disagree that this is a cost-effective measure. We would support a dredging project if funding can be found and the overall costs can be justified. However, until we are shown it would be cost effective, we feel the funds proposed in the Harris Council report are not a valid use of public funds.
2. FOLA does not support or agree with the portion of the report which states that there are no major improvements in lake water quality that can be directly attributed to the restoration efforts of SJRWMD. The report seems to have conflicting opinions on data relating to phosphorus concentrations, chlorophyll a and water clarity. Looking at the data for a longer period of time, before closing of the farms, shows a significant decrease in average concentrations of phosphorus and an increase in water clarity. Obviously there will be spikes of P during severe drought or following sudden record rainfall, but the average from over 200 ppb to below 100 ppb is significant. Since 1987 the annual phosphorous concentration in Lake Apopka shows a pattern of low peaks and lower bottoms. The two recent peaks near 200 ppb follow the extreme droughts of 2002 and 2008. When average lake levels returned in 2004 through 2006 the minimum phosphorous concentrations were well below 100 ppb and on several occasions approach the 55 ppb target specified by the Florida Legislature. The water quality of the lake has improved, as indicated by collected data.

3. FOLA believes the phosphorous criteria of 55 ppb is attainable long term. This opinion is based on data from a number of long term studies that have been peer reviewed. Data shows that low rain fall and droughts increase the concentration of sediment and phosphorous in Lake Apopka. Low water levels also reduce the recreational usage of boating and fishing. Lake Apopka and the Harris Chain would benefit from higher water levels in Lake Apopka.

Water stored in and taken from the North Shore Restoration (NSRA) could keep the average level of Lake Apopka higher. However, such water inputs from the NSRA need to have low phosphorous levels to be a benefit to Lake Apopka. Measurements have shown that soil in the NSRA transfer large amounts of Phosphorous into water stored on the NSRA. The District is currently adding alum to water which is discharged into Lake Apopka. The alum creates a floc which ties-up the dissolved phosphorous and prevents it from increasing algae growth in the lake.

FOLA supports using holding ponds which now exist in the NSRA (Duda) to permit alum floc to settle out before the water is discharged into Lake Apopka. Periodically these ponds should be dried out and the floc removed. Redirecting NSRA canal flows for all such alum discharges could be a cost effective way to help reach the goal of 55 ppb.

4. FOLA agrees with the proposal to dredge portions of Lake Beauclair and the Apopka Beauclair Canal but expresses concern about the proposed use of Cells E, F, and G of the marsh flow-way project for the sediment disposal. We have seen no studies or opinions regarding whether this reduces the effectiveness of the flow-way project or concerns about potential hazardous waste materials deposited in a restoration area.
5. While FOLA agrees with the proposal to dredge portions of Lake Beauclair and the A-B Canal, the proposal to dredge access canals raises some concerns. Are these canals that provide access to the public at large to navigate between water bodies or are they canals supporting access for private properties to the lakes? The detrimental effects of dead-end canals are well documented, clearly preventing the future construction of these types of canals. If they allow private access only, the question should arise about public support for private use. Study of these issues should at least show how many people are affected and include some interest in requiring a fee or assessment structure or MSBU type proposal to help fund these projects.
6. FOLA disagrees strongly with the Council statement that restoration of the north shore can no longer be supported unless there is a plan to reconnect the wetlands to the lake. The proposals to restore these former farms (which destroyed the original marshes) strongly supported the goal of restoring the entire area back to marshes. Soil subsidence that occurred in vast areas would prevent marsh restoration due to increased depth and would become more lake bottom if reconnected. The NSRA is approximately five feet below Lake Apopka's average water level. If the dike was removed it is unlikely that sufficient dredged material from the lake bottom would be available to form a shallow marsh on the NSRA. The lake bottom flocculant material undergoes a large reduction in volume when dried. In addition the water removed from the dredged material may not be permitted back into the lake. These areas can function as marshes without connection, providing habitat and other associated ecologic values.
7. FOLA agrees that the establishment of Minimum Flows and Levels (MFL) for the entire basin is essential but raises some concerns about the defined protocol for these determinations. Apparently there is some flexibility in the term "irreversible damage" and care must be taken to ensure the parameters established are realistic. The values of lake level fluctuations are well documented and a realistic program should be initiated as soon as possible and should not be affected by parochial interests. FOLA also agrees that surface water withdrawals for Lake Apopka or any other lake should not be approved without prior establishment of MFL's.
8. Over the past 15 years shad harvesting has proven to be one of the most effective and cost-efficient tools in lake restoration. It is our understanding that one of the real problems associated with the shad is their ability to convert particulate phosphorus to more active soluble phosphorous, increasing

availability for algal growth. Observations in smaller lakes did show decreases in P levels with removal of adult shad. The hatchling shad are a major source of food for sport fish such as crappie and bass, but these sport fish do not eat adult shad. The removal of 1.6 million pounds in one season is significant and the program should continue as long as the catch of mature fish is significant enough to justify the costs.

9. FOLA agrees with the support of on-going invasive plant management efforts and urges the Council to encourage the various agencies involved to increase funding for the programs. FOLA also agrees with the District decision not to support plans that include “management” of hydrilla populations but accept only those plans aimed at eradication of this plant. Native submerged species such as pondweed could serve the same purpose without the risk.
10. FOLA has concerns about proposals to create artificial fish habitats using foreign materials such as limestone and concrete. Fishery biologists have long promoted littoral plantings of emergent species such as bulrush, spikerush, pickerelweed and other native species for excellent fish habitat as well as brush-pile attractors.
11. FOLA agrees with the Council in supporting ongoing research efforts to ascertain the viability of stocking advanced-fingerling bass into the chain of lakes. A successful stocking of larger fingerling should also help control gizzard shad populations since most of the larger population has been removed, leaving the fingerling shad for food.
12. Opinions by FOLA are withheld on the decision to support the stocking of adult largemouth bass populations. Our studies of fish stocking programs all indicate that the programs must include stocking of smaller food fish and gradual addition of larger fish. Starting at the top of the food chain seems counter-productive to the program to stock fingerlings. Costs of the program should be seriously evaluated as well as the population dynamics of the fishery.

The Friends of Lake Apopka continue to support the on-going restoration strategies being designed and implemented by St. Johns River Water Management District. We continue to be impressed by the credentials and abilities of the SJRWMD scientific staff and have confidence in their projects. We must remember that a restoration effort of this magnitude is unprecedented and many parts of it are necessarily experimental in the implementation and data collection.

While we applaud any efforts by any organization to further restoration of this great resource, we must also insist on reliance on the scientific data available. Any reliable criticism must ensure the scientific evaluation of available data and must be peer-reviewed by scientists with the credentials to interpret this data. With diminished funding, it is even more critical that organizations concerned with restoration work together in supporting on-going projects with established techniques rather than developing new proposals with unproven results.

In spite of our impatience to see a restored system we must also remember that it took more than 50 years of excessive abuse to create pollution of this magnitude and it is not going to improve in rapid fashion. Those of us who have observed the lake for many years and who see it on a regular basis see visual improvements. The lake color was fluorescent green in the mid nineties and now it is much less green than it was and clarity has improved. More fishermen on the lake tell us the catches of large crappie have improved. Bird species and populations utilizing the lake and adjacent marshes have increased. Plans for more recreational opportunities, such as the proposed loop trail around the lake and the proposed Clay Island Trailhead and Overlook off the Scenic Byway are being implemented. Ecotourism opportunities are becoming more and more evident. The development of the Oakland Nature Preserve enables on-going interpretation of the restoration process for the public.

It is our firm opinion that, if any changes are made in the existing restoration program, it should be in the form of increased funding and implementation of new innovative projects.