

DRAFT - to be considered at the Council's January 2013 meeting

**MINUTES OF THE MEETING
of the
HARRIS CHAIN OF LAKES RESTORATION COUNCIL**

September 7, 2012

The regular meeting of the Harris Chain of Lakes Restoration Council was held at 9:00 a.m. on September 7, 2012, at the Lake County Board of County Commission Chambers, 315 West Main Street, Tavares, Florida

Members Present

Hugh (Dave) Davis II, Chairman
Skip Goerner, Vice Chairman
Robert (Bob) Johnson
Don Nicholson
Lloyd Woosley
Keith Truenow

Members Absent

Richard (Rick) Powers P.G., Secretary
Edward Schlein, M.D
Sid Grow

1. CALL TO ORDER

Chairman Davis called the meeting to order at 9:07 a.m.

2. INVOCATION AND PLEDGE OF ALLEGIANCE

Chairman Davis gave an invocation. The Pledge of Allegiance followed.

3. COUNCIL ROLL CALL; REMINDER FOR OTHERS TO SIGN IN

Chairman Davis called the roll. Councilman Powers, Councilman Schlein, Councilman Truenow and Councilman Grow were absent.

4. APPROVAL OF MINUTES

- Vice Chair Goerner requested that the minutes for June 2012 and July 2012 be reviewed and corrected to reflect the motion of the amended scenario of the Upper Ocklawaha River Basin Interim Lake Levels.

Mr. Truenow joined the meeting.

5. PUBLIC COMMENTS

- Ms. Ann Griffin, citizen, stated that she does not approve of the designation of the 20,000-acre bird habitat as a National Wildlife Refuge that the Coalition of Environmental groups propose to do. She feels that the restoration area is still polluted and SJRWMD has not solved the pollution problem. Vice Chair Goerner stated that the Council is not in favor of changing the designation of the North Shore Restoration Area.

6. PRESENTATIONS / ACTIONS

- Dave Walker, SJRWMD, offered to take any Council members on a tour of the North Shore Restoration Area. Mr. Walker reviewed the Apopka Marsh Flow-Way, he provided pictures of the Apopka-Beauclair Canal, West Marsh looking north along the Canal, West Marsh D and E cells looking toward Lake Apopka, West Marsh F and G cells looking south to Lake Apopka and the Lake County Water Authority's Nutrient Reduction Facility. Mr. Walker discussed the plowing efforts and

stated that it provided a reduction of up to 65 percent of pesticides in the soils. He provided a map showing pre- and post-level pesticide removal. Mr. Walker stated that the soil concentrations were tested before flooding and seeking flooding approval from U.S. Fish and Wildlife Services. U. S. Fish and Wildlife Service agreed in late spring that the remaining North Shore phases may be re-flooded. He continued and stated that pesticides are more available in sandy zones and putting organic material in these zones help reduce the availability of pesticides. Based on the ongoing review of safe levels being applied to the North Shore, there are parts of the North Shore and West Marsh that are potentially ok to allow deeper flooding and maintain safe levels of pesticides for birds and wildlife. He stated that possible reconnection was still some years out because pesticide levels in fish did not meet safe levels for human health.

Vice Chair Goerner does not understand why after all the money that has been spent that there is still concern for human consumption.

Councilman Woosley stated that maybe to understand what Mr. Walker is stating about human risk consumption the Council could get risk modelers to present and simplify the information.

Mr. Walker told the Council that the District is in the process of developing a Land Management Plan for the Lake Apopka Restoration Area that should be available for review in November or December. The City of Apopka is in the process over the next 16 months to contract, design and permit the reuse water ~~from~~ Lake Apopka. The city plans a 24-month construction phase. Based on a memorandum of agreement (MOA) with the SJRWMD, the City has several limitations on when water could be available for reuse. Mr. Walker said he would provide the Council with that section of the MOA.

Deleted: o

- Nathalie Visscher discussed the Invasive Plant Management Plan for the Harris Chain. The management plan is evaluated every spring for the fiscal year starting July 1. This plan includes predicting cost of managing invasive plants and acreage that will need to be treated in the fiscal year. The factors that influence where, when and how quickly the type of plants are growing are lake conditions, management tools and other activities occurring with the lake's watershed. Lake Apopka vegetation management plan was determined using a tiered approach. Lake Apopka hydrilla is estimated for 200 acres of treatment and floating plants are estimated for 100 acres of treatment. Lake Eustis hydrilla is estimated for 500 acres of treatment and floating plants are estimated for 35 acres of treatment. Lake Harris is estimated for 1000 acres of treatment and floating plants are estimated for over 60 acres of treatment. Lake Griffin hydrilla is estimated for 300 acres of treatment. Lake Dora hydrilla and floating plants are estimated at 10 acres of treatment. Lake Beauclair hydrilla is estimated for one acre of treatment.

Vice Chair Goerner asked Ms. Visscher to support the Council to get funding to purchase a newer harvester.

Councilman Nicholson asked ~~about eradication~~ of hydrilla? ~~Are~~ beneficial plants growing in the clear water?

Deleted: if the management plan is the ratification

Deleted: Is there

Nathalie Visscher stated that diminished algal bloom does promote native plants, but it grows hydrilla. She continued and stated that hydrilla will help the native/beneficial plants as long as it is controlled. Vice Chair Goerner stated that the beneficial plants need to be broken down in the report for the Council to be able to see what is growing.

Dan Canfield, UF, stated that the funding to control the invasive plants is out of Aquatic Plant Management Trust Fund which has \$20 million. DEP had control of the fund until it recently moved to

FWC. There is money available to use if the Council contacts the Legislature and presents a valuable case.

Councilman Woosley stated that the Council can put recommendations in the Annual Report for aquatic plant management and harvesting. He continued and stated that a contingency amount of money can be budgeted in a reactive fashion to assist during an over population of aquatic plants.

Councilman Woosley made a motion that the State Legislature establish a contingency component to the appropriation to the fish and wildlife agency for aquatic plant management up to \$1 million to enable the state agency to react to excessive growth of nuisance plants statewide. He added that the Councils report to the legislature should reflect this motion.

Vice Chair Goerner stated that he doesn't think that the Council should request statewide funding. He continued and stated that the Council is responsible to make recommendations for the Harris Chain.

Dan Canfield, UF, stated that the motion should be stated as a pilot program.

Mr. Woosley amended the motion to limit to a pilot within the Harris Chain to create a contingency fund to allow FWC to act on the growth of exotic plants in the amount of \$1 million.

Deleted: s

Dale Jones, Freshwater Fish Management, stated that the Council might be confining instead of expanding the funds with the motion.

Councilman Woosley stated that it should be stated that the Council wants an increase in restoring funding levels to the Aquatic Plant Management Program.

Chairman Davis asked Mr. Canfield if he is recommending that the Council ask for the \$1 million from the Trust Fund. If the department wants money from the general funds for weed control, does the legislature say it will come from the trust fund?

Dale Jones said the money is allocated and limiting the money will cause the money to be given to the Harris Chain that may have been allocated elsewhere. Mr. Jones suggested that a FWC budget staff member come and present to the Council funding trends and answer questions. He continued and stated that he is not against proposal, but the presentation will be beneficial for the Council.

Councilman Woosley withdrew the motion. He also requested that FWC provide a presentation of its agency's budget.

Deleted: ie

Vice Chair Goerner said that if FWC is not for the motion it will not work.

Dan Canfield, UF, stated that the legislature states that it wants to see how money of the Trust Fund are being used.

- Brandon Thompson, FWC, provided an update on the agency's study of stocking Phase II largemouth bass, which are advanced fingerlings approximately 4 inches in length, in the Harris Chain of Lakes. The study was conducted during 2009-2010 on Lake Carlton, which was selected because of its small size and because the lake characteristics, including its vegetation, was similar to the other lakes in the Harris Chain. The FWC tagged both hatchery fish and wild bass, which were transported from a different lake, and tracked the fish daily over a period of 30 days. The wild bass had significantly higher survival and growth rates than the hatchery bass. This difference

was attributed to the conditions in which the hatchery fish were raised; therefore, the FWC further investigated the effect of conditioning the hatchery-raised bass in predator free nets within the lake prior to being released in order to determine if a greater survival and growth rates could be achieved.

- The FWC created research ponds to compare the success of stocking hatchery-raised fish that had been conditioned for 10 days prior to release to the success of hatchery-raised fish that were released directly from the hatchery. It was determined that conditioning hatchery-raised fish resulted in almost double the survival rate and faster growth. To further test the success of stocking conditioned largemouth bass, the FWC is conducting a follow-up study where 11 small lakes were stocked in the spring of 2012 and will evaluate the success in 2013 and 2014. The survival rates and growth rates of the conditioned fish will be evaluated over two years with the results used to improve future stocking efforts.
- Mr. Thompson also reported on largemouth bass population data collected by the FWC for the Harris Chain of Lakes since 2007. Lakes Eustis, Harris, and Dora have had consistently higher populations of bass as compared to the other lakes in the chain. The lowest bass populations are found in Lake Apopka. In recent years, there has been an increase in the number of bass observed in Lakes Griffin and Beauclair. The FWC will continue collecting comparable data during the upcoming years in order to track fish populations.

Vice Chair Goerner asked if the increase had anything to do with the Council's stocking program?

Mr. Thompson stated no, the stocking program with juveniles or adults could give a pulse but would not be a lasting impact. The contribution is small enough that there would not be an observable effect or a detectable effect.

Vice Chair Goerner stated that he was referring to adult bass stocking.

Mr. Thompson stated that not even with adult bass stocking with contributions of up to 10 percent which has been seen in Lake Griffin for a year or two - the data would not have shown changes in magnitude.

Vice Chair Goerner stated that the survival rate of the bass, which were stocked were ready to spawn and were stocked in spawning season, were absolutely ready to go. He continued and asked if Mr. Thompson was stating that we had no recruitment there?

Mr. Thompson stated that personally he would state absolutely not. These lakes are driven not by the abundance of fish, they are driven by the bottom up - you are looking from the top down, and assuming that you are putting more fish in. If these bass we have are not producing enough eggs to replenish themselves or increase, the abundance of the fish, then that would be a different issue. If the biologist thought there was an egg problem in the lake then a management technique like stocking would be viable, but that is not what is going on. The bass are over producing the eggs and there is plenty of spawning going on. No matter how many eggs are produced, we see the bottleneck because of habitat. By July or August, they are all gone.

Vice Chair Goerner stated that there was a twenty percent bass increase in bass population after we stocked Lake Dora.

Deleted: <#>Brandon Thompson, FWC, reviewed bass research on phase II stocking and sampling. He stated that there has been extensive stocking of bass in the Harris Chain. Florida Bass Conservation Center is a hatchery to stock fingerlings in order to help the fishery recover and rebound. The Harris Chain can be used to stock phase II fish. Advanced fingerling is a 4-inch fish and there is higher survival rate with new culture techniques. The research project was chosen in the Ocklawaha and to stock Lake Griffin for three years, but was only done for one year. Radio telemetry was going to be used with radio tag selection. The surgical technique was to make sure there was no harm to the fingerlings. Lake Carlton was stocked in 2009 and 2010. The hatchery fish showed low survival, but that was expected and 16 of the 50 died. The wild fish had 14 to 30 day survival. The fish that were stocked in Lake Carlton moved into Beauclair. The hatchery fish had more dispersal than the wild fish. The growth of the hatchery fish was 0.2 millimeters a day. Small lakes stocking study provided survival of phase II bass with high replicates. Comparison survival between raceway fish and those conditioned in predator free nets are for managers to make informed stocking decisions in lakes. Monitoring bass populations on small lakes mark recapture population estimates and large lakes relative abundance and catch per unit of effort. Total vegetation in Griffin has increased quite significantly and the stocking of fish did not observably attribute to this. ¶

Vice Chair Goerner asked if the stocking of large bass attributed to the submerged vegetation? ¶

Mr. Thompson stated that the increase in abundance and contribution of bass in catch rates contribution was 20 percent, but it does not tell us if there was an increase in abundance of fish in stocking. The goal of stocking is to augment the fish for catching. Lake Dora with the highest stocking had the lowest success rates of catching per hour. Economically, it was not worthy. Lake Griffin had an impressive survey of bass catching with submerged vegetation. Lake Apopka has not changed much. Harris has had an increase in submerged vegetation. Dora had declining fish catch until this year and it spiked. Beauclair and Eustis had a significant increase in fishery catching over the past year. The Griffin exploitation study was of 300 fish tagged in lake and canals. In this one year study, 20 percent were caught and 2.7 percent were removed. Fishing mortality is of little concern for population. There have been positive trends due to restoration, but the problem is habitat degradation. There has been 27 percent vegetation in Lake Griffin, but some of that will be lost as water levels rise. The study needs to be used to replicate the submersed vegetation and water fluctuations and the reconnection of the marshes. Sampling for the next year will be fall community sampling, spring bass sampling, fall trawling for crappie, angler surveys and study to assess the effects of fish nesting bass. ¶

Deleted: s

Deleted: ,

Deleted: even

Deleted: which is not a contribution of 10 percent

Deleted: that

Deleted: and the hens

Mr. Thompson stated that there was a contribution of fish, but not an abundance.

Vice Chair Goerner stated that he personally knew that fish that were stocked in Lake Griffin and were found four days later in Hanes Creek were tagged fish. They had moved four miles.

Mr. Thompson stated that scientifically you can not say that you increased the abundance by 20 percent and when the abundance of bass has not increased. Your contribution to the fishery was 20 percent but in some of the systems you don't know whether you are adding even when stocking or even when we have a contribution to the fishery. There is no way to know if the fish are adding or replacing, because bass have such a high natural mortality.

Vice Chair Goerner stated that after electro shock there was a 20 percent increase of fish. Mr. Thompson stated that there was not a 20 percent increase. It showed that your fish composed a 20 percent of the population. It was not shown that that the 20 percent was an increase from your fish. Vice Chair Goerner stated that his canal was electro shocked and before we stocked had only two. After stocking, there was a population of about 40 fish and half were stocked fish. Mr. Thompson said that was not seen. The goal of stocking is to catch more fish and more angler effort. The stocking did not increase the efforts. The independent data shows a catch increase and the dependent data shows a success rate of 0.6 bass rate an hour.

Vice Chair Goerner stated that he disagrees with the information presented because the bass fishing out of Hickory Point went from zero tournaments to many bass tournaments. The stocking of bass fishing has shown the improvements of bass. When bass were stocked, people got excited about it. Yes, it is public relations a lot of people come from all parts of the country and see the free advertising of the tournaments. In the beginning, they were not successful, but they became successful and more fisherman developed from those stocking programs. Mr. Thompson disagreed with Vice Chair Goerner and stated that in order to prove that statement one would need to evaluate and do a survey.

Mr. Goerner stated that free advertising from bass tournaments was what provided the large number of anglers to the tournaments. Vice Chair Goerner stated that the professionals were coming because of stocked fish and showed improvements of catching. He stated that the perception of the public is the successfulness of the stocking. Mr. Thompson stated that he does not think that the small stocking of bass fishing contributed to successful bass tournaments.

Dale Jones, FWC stated that he wants to intercede and does not want the enthusiasm of each point of view to diminish what was being discussed. We appreciate the questions and there are different perspectives. There should not be challenges of each other's point of view. Brandon's presentation is what it is and sitting down and thoroughly look at the data could help. I want to let Mr. Thompson know that we are not in an argumentative mode.

Vice Chair Goerner feels that the Council thinks the best part of the restoration effort is to reconnect the marshes and also the habitat in Lake Apopka is important by restoring the marshes. Mr. Thompson stated that stocking fish in small lakes is good, but getting the habitat back in the lakes is the most important to get the fish spawning in the lakes.

Council member Woosley asked how the FWC was involved in the water level management of the lakes? Dale Jones stated that FWC is working with the District on the minimum flows and levels for the lakes.

Deleted: s

Deleted: is

Deleted: o

- Marcy Policastro, Wildwood Consulting, reviewed the draft of the Harris Chain of Lakes Restoration Council 2012 report to the Florida Legislature. She stated that this is the first draft of the report, which is seven pages long, and the final report will be no more than 12 pages long, to include activities from November 2011 to October 2012. The draft reports are produced and discussed for revisions in September, October and the final report will be voted on in November. The September and October meetings will be incorporated in the report. The final report will include CDs with electronic copies of the report and the appendices. Marcy reviewed the report development schedule with the Council.

Chairman Davis stated that the Council can vote on the cover of the report. He continued and stated that the Council can submit more images to Kraig to replace the cover.

Marcy Policastro reviewed the table of contents, list of tables, list of appendices, list of acronyms, executive summary, Sections 1 and 2, tables, summaries of the discussions of meetings, the interim lake level schedule options, and the minimum flows and levels.

Dave Walker stated that he would recommend the MFL and lake levels be combined into one effort.

Chairman Davis stated that the District keep the Council informed of the fluctuations of the

Councilman Woosley recommended managing water level fluctuations to facilitate spawning.

Marcy continued and reviewed section 3.

Councilman Johnson stated that establishing vegetation is very important to state in the report.

Councilman Woosley stated that there should be a section on marshes and recommended that state agencies develop management strategies to achieve healthy natural marshes.

Marcy continued and stated she would add Dave Walkers presentation from today and she will add the updates about the dredging and geo tubes.

Councilman Johnson stated that the word herbicides should be reviewed to replace pesticides in Section 3.3.1.

Marcy reviewed 3.4, 3.5 to make recommendation of appropriation for harvester, and 3.6 to add Mr. Thompson's presentation from today's meeting.

Councilman Johnson recommends that discontinuing shad harvesting in Lake Apopka needs to be put in the report based on a study by Dr. Mike Allen that found it not beneficial.

Vice Chairman Goerner stated that it has been in previous reports to recommend to discontinue shad harvesting. The only place the shad harvesting is occurring in is Lake Apopka and the money doesn't come from any legislation appropriation. St. Johns (SJRWMD) is paying for the shad harvesting in Lake Apopka.

7. COUNCIL & AGENCY QUESTIONS & ANSWERS

- Dan Canfield, UF, stated that the Legislature did not recommend using clean to green in Magnolia Park. Mr. Canfield stated that he recommended using Magnolia Park as an example. The company used in Florida was the Clean to Green Company. This is a demonstration project not a dredging project. Dan Canfield went to Legislature and stated that the District is failing at restoring the Lake. The legislature has spent millions of dollars for restoration of Lake Apopka. Senator Hayes had \$4.8 million appropriated to the restoration efforts of restoring Lake Apopka. The Tiger team that was developed to come up with different ideas to restore the lake have come up with two different ideas

Deleted: with the Council wanting periodic updates on their MFL work.¶

Deleted: L

Deleted: L

Deleted: lakes with the MFLs

Deleted:

Deleted: s

Deleted: to

Deleted: combined the

Deleted: s

Deleted: f

Deleted: M

Deleted: .

Deleted: R

Deleted: management

Deleted: to

Deleted: on

that include the pumping of dredged sediment from Winter Garden to the North Shore and to test Geo-Tubes to see if it is effective.

Deleted: water

8. **COUNCIL MEMBER COMMENTS**

A. Comments

B. Discussion of Next Scheduled Meeting: October 5, 2012

Kraig McLane stated that he would ask FWC to provide a presentation on FWC's budget. Mr. McLane will try to have someone present the Land Management Plan. He also stated that the Council will review the annual report again.

9. **ADJOURNMENT**

The meeting was adjourned at 1:29 pm