

FINAL

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

January 7, 2011

The regular meeting of the Harris Chain of Lakes Restoration Council was held at 9:00am on January 7, 2011 at the Lake County Board of County Commissioner Chambers, 315 West Main Street, Tavares, Florida

Members Present

Skip Goerner, Chairman
Hugh (Dave) Davis II, Vice Chairman
Richard (Rick) Powers P.G., Secretary
Richard Royal
Edward Schlein, M.D
Lloyd Woosley
Jon VanderLey

Members Absent

Don Nicholson
Keith Farner

1. CALL TO ORDER

Chairman Skip Goerner called the meeting to order at 9:06am.

2. INVOCATION AND PLEDGE OF ALLEGIANCE

Councilman VanderLey gave an invocation. The Pledge of Allegiance followed.

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

Chairman Goerner called the roll. Councilman Farner and Councilman Nicholson, were absent. Chairman Goerner welcomed the newest Council Member, Mr. Lloyd Woosley. He was appointed to the Council on January 5, 2011.

4. APPROVAL OF MINUTES

- Nancy Christman, St. Johns River Water Management District (SJRWMD), stated that the November 5, 2010 meeting minutes have a typo on the adjournment time. The November 5, 2010 meeting minutes were approved by unanimous vote with the correction.

5. PRESENTATIONS / ACTION ITEMS

- 1) Chairman Goerner called for a presentation by Jim Gross, SJRWMD, on water storage considerations for the North Shore Restoration Area (NSRA).
- Jim Gross, SJRWMD, provided information on the water storage considerations as a water supply source at the NSRA. The presentation slides are viewable on the website at <http://sfrc.ifas.ufl.edu/harrischaincouncil/Minutes.htm>. The presentation and discussion by the Council, Mr. Gross and other SJRWMD staff included: 1) water management strategies for a reservoir; 2) discussion with David Walker, SJRWMD, explaining the inversion of soil in the NSRA; 3) discussion with Walt Godwin, SJRWMD, explaining open water and marsh areas and the food chain in the NSRA; and, 4) evaluation of the feasibility and cost of storing water at the NSRA as a water supply source. Mr. Gross commented that the district began to look at the potential of creating a reservoir on the NSRA about 5 to 6 years ago. The District 2005 Water Supply Plan is being updated and is close to being completed. He mentioned that the public has been involved in the last 2 years with the development of the assessment and developing some of the alternatives. There was a lot of effort taken to involve the stakeholders on the development of the draft plan. Mr. Gross stated that the plan was going to be presented to the SJRWMD Governing Board in January for Board and public comment, but that will now be done at a later date. Mr. Gross briefly explained the intent and purpose of a regional water supply plan in Florida. He explained how Florida law directs the water management districts to look at future water demands for the next 20-year period. Studies are done on water

usage related to population growth, recreational uses, utilities, and commercial and industrial uses. His presentation included information from various reports. He discussed a report on hydrologic modeling and an evaluation of alternative management studies completed in 2007 for Lake Apopka which looked at configurations of the NSRA that included wetland (shallow water), a reservoir, and lake reconnection (deep water). There were 15,284 acres of the NSRA evaluated, and the findings were: 1) there are seven million gallons per day (mgd) of runoff from the NSRA; 2) alternative 6 configuration of (87.5% wetland/12.5% reservoir/0% reconnection) is least costly for water supply; and 3) alternative 6 results are: 4.5 mgd at 100% reliability with no minimum flow required for Apopka Beauclair Canal (AB Canal), 4.5 mgd at 83% reliability with 10 cubic feet per second (cfs) minimum flow on AB Canal. There would be no significant yield with 23 cfs minimum flow on AB Canal. Mr. Gross also discussed information from a 2005 feasibility study on the NSRA, which concluded: 1) using best estimate target levels of 22% of area (units 1 & 2) would require remediation prior to reflooding; and 2) using conservative target levels of 70% of area would require remediation prior to reflooding. He concluded his presentation with information on an evaluation of conceptual alternatives for a non-potable water storage reservoir. The District identified a portion of the NSRA that would be most suitable for a reservoir in the northwest corner of Unit 1. The findings for construction and remediation costs were \$22,050 per acre for the least costly option and \$183,474 per acre is the most costly option. When applied to a 1,910-acre reservoir, the cost would be \$42 million to \$350 million for 4.5 mgd at 83% reliability. He mentioned the district did a lot of work on how to avoid bioaccumulation of pesticides and they found that with residual amounts of pesticide materials there is a very significant risk of pesticides re-emerging in deep water.

- David Walker, SJRWMD, explained the 2009 soil inversion work in the NSRA with reduced pesticide levels in the soil by an average of 65%, which is more than enough to reach safe levels to restore emergent wetlands (1½ to 2 feet water depth). Open water conditions (deeper water) would need to have the pesticide level reduced by a factor of four or five. Therefore, to get the same protection for the food web in open water, you would have to go below the level of soils in the soil inversion project. He commented that the City of Apopka was issued a permit to use water from the North Shore but the project has not been constructed yet. The water would only be available seasonally and the District determines when they can withdraw it. If the lake falls below a certain level they could not withdraw any water.
- Walt Godwin, SJRWMD, explained the difference in the food chain in open water and marsh areas. He explained that open water with no vegetation is utilized by fish that eat bottom sediments, which puts them in direct contact with pesticides whereas marshes have a lot of vegetation for fish to find food rather than using the lake bottom sediments.
- Chairman Goerner commented he would like to see SJRWMD have a bigger campaign informing the public of their water supply plans and the impacts involved.
- Nancy Christman, SJRWMD, commented that much work had been done to involve stakeholders and the public and at a future date, a local hearing will be held to give the public an opportunity to comment.

- 2) Chairman Goerner called on David Walker, SJRWMD, for his presentation on the temporary changes to the Lake Apopka and Burrell Dam Discharge Schedule.
- David Walker, SJRWMD, provided the Council with information on the temporary changes to the Lake Apopka and Burrell Dam Discharge Schedule. His presentation can be viewed on the website at <http://sfrc.ifas.ufl.edu/harrischaincouncil/Minutes.htm>. The presentation and discussion by the Council and Mr. Walker included: 1) temporarily setting the Apopka and Burrell Lock & Dams discharge rate to zero to protect the lake levels in the southern section of the Harris Chain of Lakes (HCOL); 2) information on the projected weather forecast and drought conditions; 3) discharges and rainfall information from November 2009 to November 2010; and 4) historic water levels for Lake Apopka and the Harris Chain of Lakes. Mr. Walker explained that the temporary reduction of discharges from Lake Apopka and Burrell Lock and Dam is based on the prediction of La Nina weather conditions in the Pacific Ocean that will adversely affect weather in Florida, creating very dry conditions in north central Florida this winter and early spring. According to the predictions, normal weather patterns return in May 2011. Dave had presented this information to the Lake County Water Authority (LCWA) at their November 2010 meeting. Dave reported that the LCWA Board said

they did not object to the schedule changes. John Benton, Florida Fish and Wildlife Conservation Commission (FWC), also attended and did not object. He said they would keep an eye on conditions. An email was sent to the Harris Council members regarding the schedule since there was no December meeting. The proposed schedule change was presented to the SJRWMD Governing Board at their December 2010 meeting. Dave commented that in the past most complaints that come in about low lake levels have been for the superpond (Lake Dora, Lake Harris, Lake Eustis, Little Lake Harris and Lake Beauclair). The goal of the schedule change is to improve water quality at Lake Apopka and to keep the water levels up enough to allow access to the superpond. Lake Griffin has had the canals dredged for better access in low water conditions whereas the other lakes have not. Mr. Walker commented that it is only a temporary reduction in discharge and might not continue for the full timeframe if rainfall comes.

- Councilman Schlein questioned Mr. Walker as to why Lake Apopka, the deadest lake on the HCOL, is being protected while allowing Lake Griffin, the liveliest and cleanest lake on the chain to die. He commented that he lives on Lake Griffin and 60% of the eelgrass on his property is exposed and dry. Eelgrass produces the oxygen to sustain the fish population, especially during the spawning season.
 - Mr. Walker stated Lake Apopka is improving substantially. If the water level is kept higher in Lake Apopka, it helps protect the water quality improvement that has occurred. Lake Griffin is currently at a higher average stage due to Moss Bluff than it was historically.
- Chairman Goerner questioned Mr. Walker on the decision to enhance fluctuations on Lake Griffin. He stated that an agreement was made between the Council and the District before lake level fluctuations were completed and that there were precursors set on when lake levels could be lowered. These included the time of the year, how much rainfall there was, and water storage in the upper lakes (Lake Harris Bayou project) to help enhance fluctuations and re-flood Lake Griffin. He wanted to know why the lake level is deliberately being lowered at a great degree when it is now below the minimum desirable. After speaking with FWC and looking at other material Chairman Goerner commented that he came up with his own figures that show Lake Griffin could potentially be lowered by the discharge schedule change by more than 30 inches by April 30, 2011. He commented that this is the time of year that the fish spawn and people come to Florida to fish. The lowering of Lake Griffin is a major negative economic impact on the area and on the health of the 2011 spawning season. He is not against intentional fluctuation of lake levels, but the timing is bad, and he stated this is the wrong time of the year to lower the lake level. The Burrell lock and dam is the only water supply source Lake Griffin receives other than rainfall. He commented that Lake Griffin would now be supplying the entire navigational water down the Oklawaha River to the Silver River, with no other lake in the chain helping to supply those rivers.
 - Mr. Walker commented that the District can look at reducing the flow out of Moss Bluff to 15 cfs, but the problem is the potential for fish kills downstream between Moss Bluff and the Silver River if there is no flow. He mentioned if there is zero rainfall and with evaporation, there could possibly be a water level loss of 30 inches in Lake Griffin. Mr. Walker will try to figure out a way to adjust Moss Bluff to reduce the discharge to protect Lake Griffin.
- Mike Perry, Lake County Water Authority (LCWA), stated the water level taken on January 3, 2011 for Lake Griffin was 57.6 National Geodetic Vertical Datum of 1929 (NGVD 29), which is 4/10 foot (ft.) below minimum desirable; Lake Apopka is at 66.25 NGVD 29 (a little below minimum desirable); and the Superpond is at 62.1 NGVD 29 (1/10 ft. above minimum desirable). Mr. Perry mentioned that Lake Griffin's water level, since Dec. 14, 2010, has gone down about 1/10 ft.
- Councilman Davis questioned Mr. Walker about what the lake level changes have been since the zero-flow started (Dec. 14, 2010) Mr. Walker commented that the water levels since December 14, 2010, in Lake Apopka, Lake Harris, Lake Dora, Lake Eustis and Lake Beauclair have remained neutral but normally would drop at this time of year.
- Former Senator Baker commented that the Harris Chain of Lakes Restoration Council is valuable to the local delegation and it is wonderful to see the effect this Council has had on the Harris Chain of

Lakes. With the commitment of the LCWA, there has been incredible positive direction and improvement. Mr. Baker stated that the Council was put in place to give an independent evaluation of the lakes, and not that the local delegation doesn't appreciate what the water management districts do, but they are confident in the Council's opinions and recommendations. He mentioned that Senator Hays strongly supports the Council too. He thanked Dan Canfield, University of Florida, (UF) for his advice and help throughout the years.

- Chairman Goerner thanked Carey Baker for all the service he provided for Lake County and his effort to create the Harris Chain of Lake Restoration Council (HCOLRC).

3) Chairman Goerner called on Walt Godwin, SJRWMD, for his presentation on the use of alum in restoration projects.

- Walt Godwin, SJRWMD, gave a presentation on the use of alum in restoration projects and it may be viewed on the website at <http://sfrc.ifas.ufl.edu/harrischaincouncil/Minutes.htm>. His presentation and discussion by the Council included: 1) the pros, cons and application issues of alum injection; 2) alum chemistry; and 3) the use of alum at the Nutrient Reduction Facility (NuRF). Mr. Godwin stated that SJRWMD uses alum injection at some of their restoration project sites, as it is a good way to treat nutrient discharges. Some of the main advantages are that only the water that is discharged has to be treated rather than the entire lake, which reduces alum cost. Alum produces a very high efficiency rating of more than 90% and the dosage can be varied according to the water quality being treated. One of the disadvantages is that an adequate retention area to settle the floc is needed. In addition, there is a high maintenance requirement and a substantial infrastructure is needed. The environmental impact of alum treatment, under certain circumstances, can chemically form some dissolved forms of aluminum that are toxic to fish, but it takes an extremely high or low PH, which we don't have that in this case.

- Mike Perry, LCWA, commented to the Council, that on average the incoming total phosphorous (TP) at the NuRF project is 82 parts per billion (ppb) and the outgoing level is 32 ppb. The secchi disk shows that the water leaving the NuRF is very clear.

4) Chairman Goerner called on Mike Perry, LCWA, for his presentation on the continuing costs of alum.

- Mike Perry, LCWA, spoke with the Council about the continuing costs of alum. Mr. Perry stated that based on historic flows and conditions, he anticipates spending about \$1.5 million on alum and \$60 to \$70 thousand on other materials needed for dewatering. The LCWA board is going to set aside a reserve fund for times of high water flow.
 - Chairman Goerner suggests the Council talk to the legislature more on the costs of the NuRF during high water flow events.

6. COUNCIL & AGENCY QUESTIONS & ANSWERS

- Dan Canfield, UF, provided updates to the Council on: 1) the mechanical harvester is still being used and will be in higher demand with low water conditions; 2) the bass stocking program was completed last year and the stocked fish are doing well; there is an economic benefit from the project although the bass population is still down in the lakes; 3) the demonstration dredging project at Lake Apopka by Florida LAKEWATCH (contracted by FWC) has not been permitted yet from the Department of Environmental Protection (DEP) because of some issues. The first issue involved a fee (per cubic yard) to remove the bottom soils of the lake, but they were able to receive a waiver. The next issue was that the lake bottom of Lake Apopka needed to be sampled and after the samples were tested, they found chemicals such as arsenic that were above DEP's criteria for safe use. Dr. Canfield stated that the bottom of Lake Apopka was classified by DEP as toxic waste and the sediments that are removed would need to be stored in a Class 1 waste facility. Another issue was the polymer that is planned to be used by Genesis Fluid Solutions for dewatering. It also was classified as toxic. DEP will test and analyze the polymer, but the dredging is on hold for now until further notice; 4) Next, Dr. Canfield explained to the Council why the Environmental Protection Agency (EPA) is being sued by the State of Florida for its numeric nutrient criteria. He said that the EPA's new criteria would falsely classify most of Florida lakes as impaired. Mr. Canfield mentioned that there is more information about this subject on Florida LAKEWATCH's website at <http://lakewatch.ifas.ufl.edu/>; and 5) He stated that there were 44 reefs

built for HCOLRC. FWC wants to show their locations on their website. The location report is viewable on the Harris Council Chain of Lakes Website at <http://sfrc.ifas.ufl.edu/harrischaincouncil/Minutes.htm>.

- Mike Perry, LCWA, gave an update on LCWA's dredging project at Lake Beauclair. He stated that the LCWA board rejected all bids. They established a sub-committee made up of board members, staff and the public to revise the bid document to make it less complicated, and it will allow for alternative disposal methods. The sub-committee met in November 2010 and the document has been revised. If approved, it could be released by the end of this month. It will then go to the LCWA board by this spring and they will award it as quickly as possible.
- Dennis Renfro, FWC, informed the Council that FWC staff would give presentations in February and March on FWC activities. He also commented that this Monday (January 10, 2011) two of their habitat staff would be taking him out on Lake Griffin. He gave updates to the Council on: 1) putting together a document on the best management practices for large mouth bass in the State of Florida; and 2) there is a new sub-committee on hydrilla management and he will give more information in the future.
- Jim Gross, SJRWMD, informed the Council that Hersey "Herky" Huffman (former SJRWMD Governing Board Member) recently passed away.
- David Herbster, DEP, commented on the demonstration dredging project at Lake Apopka by Florida LAKEWATCH. He wants everyone to know that DEP wants Lake Apopka to become a better place. He stated that since this project is close to the old muck farms, they are taking an abundance of caution. They cannot authorize the project until there is a reasonable assurance of the protection of human health and the environment. Mr. Herbster stated that he wants to correct something for the record. DEP has not made any blanket classification of the lake based on what they found in one spot on the lake. In addition, in the testing of the sediment, there was also evidence of derivatives of DDT. For the sake of caution, they need to make sure that the water that goes back into the lake and the soil that Genesis Fluid Solutions is going to sell are safe. Once the requirements have been met, they will issue an Environmental Resource Permit (ERP).
- Dan Canfield, UF, wanted to state for the record that they will not be using alum on the Lake Apopka dredging project, as stated by David Herbster; they are using a polymer. David agreed that he mis-spoke.

7. PUBLIC COMMENTS

No Public comments

8. COUNCIL MEMBER COMMENTS

A. Comments

No Council Member comments

B. Motions

- Councilman VanderLey made a motion to approve putting the locations of the fish attractors on the FWC website and with HCOLRC's name on it as a sponsor. Councilman Royal seconded the motion. Councilman Schlein left the meeting early, but all remaining Council Members approved the motion unanimously.

C. Discussion of Next Scheduled Meeting: February 4, 2011

- Chairman Goerner called on Nancy Christman, SJRWMD, to include on the agenda for February the presentation by FWC. Chairman Goerner will e-mail Ms. Christman if there is anything else he wants on next month's agenda.

9. ADJOURNMENT

The meeting was adjourned at 12:22 pm