

FINAL

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

July 11, 2003

The regular meeting of the Harris Chain of Lakes Restoration Council (Council) was held at 9:00 AM on July 11, 2003 at the Lake County Board of County Commissioners' Chambers, 315 West Main Street, Tavares, Florida.

Members Present

Skip Goerner, Chairman
Hugh Davis II, Secretary
Charles C. Clark
Thomas A. Cook, MD
Keith Farner
Don Nicholson

Members Absent

W. Thomas Brooks, Vice Chairman
Rick Powers

1. CALL TO ORDER

Chairman Goerner called the meeting to order at 9:12 AM.

2. INVOCATION AND PLEDGE OF ALLEGIANCE

The Invocation was given by Mr. Robert Kaiser (Ex-Officio), followed by the Pledge of Allegiance.

3. ROLL CALL

Chairman Goerner called roll. All members were present except for Thomas Brooks and Rick Powers.

4. WELCOME AND OPENING REMARKS

Chairman Goerner welcomed all Council members and members of the audience. He specifically welcomed several members of the audience including Susan Ryan, Nancy Fullerton and Ann Griffin of the Lake County Water Authority (LCWA); Bob McKee, the Lake County Tax Collector; Linda Carlton, an environmental reporter; and Dave McDaniels, a television reporter for an Orlando station. He then briefly discussed the recent commitment of \$1,250,000 by the LCWA for the access dredging projects in the

Harris Chain of Lakes. Chairman Goerner also discussed his trip to Washington, D.C. last month to attend an award ceremony for Dr. Dan Canfield of the Technical Advisory Group (TAG). Dr. Canfield was presented an award by the U.S Department of Agriculture for his work with the Florida Lakewatch organization and his book “Fishing for Success”. Chairman Goerner then welcomed Dr. Ritchie Shoemaker, a medical expert in biotoxic and neurotoxic diseases in humans. Dr. Shoemaker was invited to give a presentation to the Council. Additionally, he was sponsored by the Council to give a presentation to the general public which was scheduled to be held later that evening at Lake-Sumter Community College.

5. APPROVAL OF MINUTES

Due to problems with various email addresses, the Meeting Minutes from May 2, 2003 had not been received by all Council members, therefore the discussion of those minutes was held during the July 2003 meeting. Councilman Clark noted that the expression of the chemical 2-4-D would need to be changed to 2,4-D. No other changes were discussed and the May 2003 minutes were approved with the changes. Various Council members also did not receive the June 2003 Meeting Minutes and the discussion of those minutes was postponed until the August 2003 meeting.

6. DISCUSSION ITEMS

Status of the Council web site

Chairman Goerner informed the Council that the purchase order from the St. Johns River Water Management District (SJRWMD) for the Council web site had not yet been approved by the University of Florida (UF). It was anticipated that the invoice will be signed in the near future.

As a general discussion item Chairman Goerner discussed the upcoming “28th Annual Conference on Water Management” in Tampa. The event is being held September 3 – 5 which would cause a conflict with the September Council meeting for those wishing to attend. Chairman encouraged the Council members to attend and after a brief discussion, a motion was made and passed to move the September Council Meeting to September 12th. Chairman Goerner also mentioned that election of Council officers will be held during the September 2003 Council meeting.

Resolution No. 2003-1, Re: Transfer of Dredging Funds from the SJRWMD to the LCWA

Chairman Goerner then briefly discussed the Harris Chain of Lakes Restoration Council Resolution No. 2003-1; “A RESOLUTION OF THE HARRIS CHAIN OF LAKES RESTORATION COUNCIL REQUESTING THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT TO TRANSFER \$500,000 IN 2002 STATE APPROPRIATIONS TO THE LAKE COUNTY WATER AUTHORITY FOR THE PURPOSE OF CANAL ACCESS DREDGING EFFORTS ON LAKE GRIFFIN.” After reviewing the resolution, Councilman Clark expressed his concern for the use of the word

“completing” in the last line of the resolution. He felt that this implied that this would be all the money that would be required to finish the Lake Griffin dredging projects. Gene Caputo (SJRWMD) said that he would make that correction and provide copies of the resolution later in the meeting.

Chairman Goerner then requested that any additional discussion items be held until after Dr. Shoemaker gave his presentation. Council members agreed and Dr. Shoemaker was introduced.

After Dr. Shoemaker’s presentation, Mr. Caputo provided the Council with corrected copies of Resolution No. 2003-1, as was previously discussed. After brief discussion, a motion to approve Resolution No. 2003-1 was made and passed. Mr. Caputo also confirmed the availability of the meeting chambers for rescheduling the September meeting to September 12th so that Council members may attend the conference in Tampa. The Council members agreed and the meeting was rescheduled.

Due to the length of Dr. Shoemaker’s presentation, Chairman Goerner asked that the discussion on Operational Limitations on Flow-ways be postponed until the August Council meeting. The Council agreed to postpone that discussion.

7. PRESENTATIONS

Health Concerns and Water Quality, Dr. Ritchie Shoemaker

Dr. Ritchie Shoemaker, M.D., a medical expert in the field of biotoxic and neurotoxic diseases, gave a presentation of his work with the toxic algae *Pfiesteria* and other biotoxins. After his opening comments, Dr. Shoemaker discussed prospective studies and mechanisms of determining human illness. Three of the biotoxins of concern in the Harris Chain of Lakes are *Pfiesteria* - a dinoflagellate, and *Cylindrospermopsis* and *Microcystis* – cyanobacteria or blue-green algae. He then discussed the abundance of blue-green algae in area lakes in terms of “Predator / Prey” relationships and how these relationships appear to be out of balance due to inputs of compounds to the lakes other than phosphorus (P) and nitrogen (N). Dr. Shoemaker explained that inputs of metals, especially copper (Cu), have upset the food chain and have allowed the propagation of the biotoxins. When Cu is introduced into the water, it kills the organisms that the *Pfiesteria* lives on (consumes) and forces it back into the water column in search of food, thus causing a “bloom.” He also said that a fungicide benomyl introduced to the water column has similar effects. Dr. Shoemaker explained that through the food chain process, the biotoxins can be taken in by small fish because of their proximity to algae that the small fish are eating. Then the larger fish eat the smaller fish and eventually game fish can become infected with the biotoxins, which may then be eaten by humans.

Dr. Shoemaker said that whether or not someone is susceptible to biotoxins is determined by their genotype. Symptoms of exposure to these biotoxins can include numbness and tingling, nausea, vomiting, headache, weakness, irregular heartbeat, prolonged difficulty with short term memory, muscle aches, diarrhea, abdominal pain, shortness of breath, and

skin problems. In the past, these symptoms have been misdiagnosed as depression, Chronic Fatigue Syndrome, Fibromyalgia, Irritable Bowel Syndrome, Multiple Sclerosis, Sick Building Syndrome, endometriosis, and learning disabilities to name a few. The issue that most concerned Dr. Shoemaker was that many times the collection of symptoms are often misdiagnosed and patients have suffered from many of these symptoms for ten years or longer. He said that a simple Visual Contrast Sensitivity (VSC) Test is one of the best tools for screening patients for exposure to neurotoxins, which is followed by additional testing if a positive result is obtained from the VSC. Treatment for exposure primarily includes the use of cholestyramine, a cholesterol-lowering drug.

Dr. Shoemaker went on to say that he believed that the flow-ways from Lake Apopka could cause a disaster and he felt that that water should not be discharged into other area lakes including the Harris Chain of Lakes. He also believed that Lake County has the potential to discharge biotoxins from their lakes and several biotoxins have been found in lake and river water. His research also suggested that *Cylindrospermopsis* growth is not directly affected by the availability of P in the area lakes and that permanganate is effective in controlling blue-green algae. He did support the proposed dredging of the lakes and cautioned that the “pore water” from the dredge material should be analyzed for water chemistry and metals.

Dr. Shoemaker then took questions from the Council and audience.

Councilman Nicholson asked for his suggestions on how they could set-up a medical team or list of doctors which could be used in diagnosing neurotoxic exposure.

Dr. Shoemaker suggested looking for volunteers from around the lake to answer questionnaires and/or take the VCS Test as a screening tool. He also suggested soliciting area doctors to determine if they have patients who suffer from the range of symptoms, but have not been properly diagnosed or cured. Dr. Shoemaker felt that private physicians should “take the lead” on this issue.

Councilman Clark asked if Dr. Shoemaker believed that it would be advantageous to compile a list of patients who suffer from the ill effects of exposure to lake water and neurotoxins.

Dr. Shoemaker suggested that a central committee of doctors should maintain contact with treating physicians to coordinate proper testing and evaluation the information gathered from the patients.

Councilman Cook asked what panel or group should be assembled to properly diagnose the symptoms as discussed.

Dr. Shoemaker felt that the panel should consist of private physicians who receive information from their patients and are willing to respond to those patients with options for proper diagnosis.

Chairman Goerner asked if Dr. Shoemaker could make recommendations to the Council as to what they should be testing for with respect to the lakes and the sediments.

Dr. Shoemaker explained that it would be important to look at chemical influences and changes in microbial populations that might affect people who are exposed to the lake or sediments.

Councilman Farner asked Dr. Shoemaker if an individual's genetic make-up is a factor in being susceptible to the biotoxins after exposure.

Dr. Shoemaker explained that there are specific genotypes that are susceptible and that there must be a "priming cytokine event" that allows or "activates" immune response gene expression. [Cytokines are any of several regulatory proteins, such as the interleukins and lymphokines that are released by cells of the immune system and act as intercellular mediators in the generation of an immune response.] Therefore, an individual could be exposed to mold or other biotoxins and not be affected by that exposure, however, if the individual is re-exposed several years later and may become affected because they had experienced a cytokine event which made them susceptible to the biotoxins.

Councilman Nicholson asked if the dredging of the lakes needs to include the muck and the pore water.

Dr. Shoemaker explained that a simple analysis to extract pore water from the sediments can be performed which will determine a baseline depth for the dredging. He felt that it would be important for dredging projects to include the soft sediments.

Chairman Goerner then called for comments from the TAG and the audience.

Dr. Canfield asked if Dr. Shoemaker could provide the name(s) of other professionals who would provide an opposite point of view as to the one presented at the meeting.

Dr. Shoemaker mentioned that a Dr. Fleming does not fully endorse his viewpoints but did not elaborate on how to contact her. He also said that Dr. Douglas Trent with the Center for Disease Control (CDC) would have an opinion once he had reviewed the paper currently being completed. Dr. Shoemaker went on to suggest that Dr. Canfield wait until there has been peer review of the material being presented in his paper. He felt there may be some rebuttal provided via the peer review.

Mr. Kaiser, speaking as an advisor to the Council, asked if there is exposure to humans because of the contact between the air and the surface of the water.

Dr. Shoemaker explained that through transpiration, nutrients and other constituents can be relocated and deposited elsewhere, thus suggesting that there is the possibility of exposure.

Susan Ryan, Vice Chairman of the LCWA asked what recommendations Dr. Shoemaker would have to setup studies to determine ways to “fix” the local lakes. Dr. Shoemaker said that initially he would screen as many people who have had exposure to the lakes that are willing to come forward, using the VSC Test. If he were to find people with visual defects and symptoms, he would order the full range of lab tests. When Ms. Ryan asked if there were a list of the tests that he would recommend, Dr. Shoemaker said yes and that the list could be downloaded from his website.

Dr. Shoemaker went on to explain that due to the limited amount of time available for the presentation during the Council meeting, much of the material was not covered. He said that he would be providing additional and more specific information at the general public presentation that was scheduled for later that evening.

Mike Perry, Executive Director of the LCWA expressed his concern that the information provided during the presentation to the Council be presented to the general public in a manner that could cause unwarranted alarm or concern. Dr. Shoemaker agreed whole-heartedly.

With the questions having been answered, Chairman Goerner called for a short break.

Chairman Goerner called the meeting to order.

Leesburg Wastewater Treatment

Mr. Kaiser provided a handout and brief update on the City of Leesburg wastewater projects. Mr. Kaiser expressed his confidence in Ray Sharp the newly appointed Director of Environmental Services for the City of Leesburg. He also said that the projects to replace the underground piping and lift stations in the City of Leesburg are moving along well. Chairman Goerner stated that he would like Mr. Kaiser to keep him updated on the progress of the Cutrale project. Mr. Kaiser said that he may have additional information available at the August meeting.

Agency Updates

Bill Johnson of the Florida Fish and Wildlife Conservation Commission (FWCC) provided a handout to the Council and discussed the largemouth bass breeding and stocking efforts. He explained that on the average, bass grow approximately one pound per year and are able to spawn after the first year. The best spawning age is three to four years. Mr. Johnson also explained that efforts to increase vegetation, which serves as habitat and cover for the fish, would help increase the bass yield.

Mike Perry (LCWA) then provided an update on the Lake Griffin canal dredging project. He told the Council that to date, 417 “releases” (to grant permission for dredging) had been sent out by the LCWA and 186 have been signed and returned. He felt that many of those which have not been returned may be seasonal residents and also several had inaccurate address information. Mr. Perry said that the LCWA will send out a 2nd set of releases in

August which will include a self-addressed, stamped envelope. These releases will only be sent to those who have not responded previously and the final due date is in September.

Dave Walker (SJRWMD) discussed efforts performed by the District for completing the dredging project. He explained that earlier this year the Long Lake muck farm had been treated with alum which lowered the P content of the muck runoff from 5,000 parts per billion (ppb) to below 200 ppb. Mr. Walker said that the SJRWMD plans to treat the Lake Eustis muck farms later this year with alum. He said that this muck farm has P concentrations of up to 2,000 ppb. He also said that during the dredging of Lake Griffin canals, the dredge material or “spoils” will be treated with alum prior to discharge to the Lake Eustis muck farms. As of the date of this meeting, the Lake Eustis muck farm had not been permitted for this discharge. As a back-up location, the Knight-North muck farm has already been permitted to receive this material. Because of the wildlife habitat involved at the Knight-North location and the lower site preparation costs, the Lake Eustis site is preferable.

Councilman Clark requested that Mr. Walker provide a copy of an aerial photograph to the Council at the August meeting. Mr. Walker agreed. Mr. Walker said the District continues to look at lake level fluctuations and how to balance the lakes with the volume of water released. Councilman Clark expressed his concern that water released from Lake Apopka will not receive sufficient P treatment prior to entering Lake Beauclair.

8. COUNCIL MEMBER COMMENTS

Councilman Clark handed out two versions of a draft resolution; “REPORTING OF TOXIC ALGAE RELATED ILLNESSES TO COUNTY HEALTH OFFICIALS” for review by the Council and discussion at the August meeting. Mr. Caputo said that he would have them re-written into the proper format prior to the next meeting.

Mr. Caputo then briefly discussed next month’s agenda and also offered his appreciation to Dr. Shoemaker and his staff for participating with the Council and giving his presentation.

Chairman Goerner again offered his appreciation to Dr. Shoemaker.

Chairman Goerner then called for any additional comments from the Council members. There were none.

9. PUBLIC COMMENTS

Chairman Goerner called for public comments.

No additional comments were made.

10. ADJOURNMENT

Chairman Goerner called for meeting adjournment. A motion to adjourn was made, seconded, and passed. The meeting was adjourned at 2:10 PM.

Respectfully submitted by:

Skip Goerner, Chairman

Hugh Davis II, Secretary