

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

The regular meeting of the Harris Chain of Lakes Restoration Council (Council) was held at 9:12 a.m. on October 4, 2019, at the Lake County Board of County Commissioner Chambers, 315 West Main Street, Tavares, Florida.

1. CALL TO ORDER

Chairman Truenow called the meeting to order at 9:12 a.m.

2. INVOCATION AND PLEDGE OF ALLEGIANCE

Chairman Truenow called for a moment of silence. The Pledge of Allegiance followed.

3. COUNCIL ROLL CALL

Chairman Truenow called the roll.

Council Members present

Keith Truenow, Chairman
Stephanie Bishop Vice-Chairman
Joe Dunn
John Stump

Council Members absent

Skip Goerner
Don Nicholson
Wade Boyette
Sid Grow

Technical Advisory Group (TAG) Members present

Jason Danaher, Lake County Water Authority (LCWA)
Scott Bisping, Florida Fish and Wildlife Conservation Commission (FWC)

TAG Members absent

St. Johns River Water Management District (SJRWMD)
Mark Hoyer, UF
Kevin Coyne, Florida Department of Environmental Protection (FDEP)
Vacant, Florida Department of Transportation (FDOT)
Vacant, Army Corps of Engineers (ACOE)

4. APPROVAL OF MINUTES

Approval of the September Council minutes was tabled to the next meeting as there was no quorum.

5. FOR INFORMATION

Update on FWC Fisheries Surveys and Creel Sampling, Scott Bisping, FWC.

Mr. Bisping introduced his presentation, noting that FWC currently has a number of efforts underway way within the Harris Chain of Lakes, including management of fisheries, habitat

enhancements, aquatic plant control/management, and research. The focus of this presentation is on fisheries trends and agency activities at each lake on the chain.

Lake Apopka reports the lowest catch rates, but south shoreline has good habitat and catch rates, with numerous fish over 16 inches being caught. Lake Dora has generally good catch rates, including the highest rates of bass over 16 inches. Catch rates of small juvenile fish are up, likely related to expansion of aquatic vegetation.

Mr. Bisping reported that Lake Griffin was heavily vegetated at the time of sampling, with the adult population relatively level. The catch rates of juveniles were also level. In 2009 there were an estimated 30,000 bass in the lake with nearly 200,000 bass in the lake now.

A review of angler surveys using game cameras showed Lake Apopka with relatively low fishing effort on the lake. Lake Griffin, with a peak fishing season running from November to May, totaled 49,000 fishing hours. This was primarily a largemouth bass effort. Mr. Bisping noted in the early 2000's Lake Griffin was mostly a black crappie fishing lake, whereas now it is primarily a largemouth bass fishing lake.

Lake Harris totaled 92,000 hours of fishing effort, with 80% of that effort aimed at bass. Over the last 5 years there has been an increase in bass fishing effort, with some reduction in crappie fishing, likely because of increased vegetation. The angler success rate is currently at 1 fish per hour.

Mr. Bisping reported 35 bass tournaments last year, with 222 days of tournament fishing on Lake Griffin. Some tournaments averaged 10 fish with a 5.7 lb average.

Mr. Bisping also updated Council on aquatic vegetation monitoring. FWC sampled 6 lakes and found improved water quality from reduced nutrient loading and reconnection of marshes. Improved clarity of the water has allowed for the expansion of submerged aquatic vegetation (SAV). Lake Griffin SAV increased from 4% in 2006 to over 30% in 2018.

Studies have shown that hydrilla can significantly improve the bass population where submerged vegetation is lacking. However, Lake Griffin is an example of a lake that has dramatically improved primarily from native submersed vegetation. Of the submersed vegetation encountered by FWC plant surveyors this past summer, 75% of the submersed plants were native with only 25% hydrilla. This is compared to the fishery at Lake Harris where 70% of the submersed plants were hydrilla. The data shows that native plants can produce an amazing bass fishery without the necessary control needed with exotic plants.

Mr. Bisping discussed increased native vegetation on Lake Beauclair, and an expansion of eel grass on Lake Dora. Surveys of Lakes Yale, and Eustis showed some offshore vegetation that is hydrilla, but it has not topped out. Lake Griffin has some hydrilla, but on the northwest side there is mostly native vegetation with some topped out hydrilla in marsh areas. Lake Harris has seen the biggest change as most hydrilla has been eliminated. There are no reported navigation issues.

6. FOR INFORMATION

Alternative Conveyance from Lake Apopka, Amy Wright, St. Johns River Water Management District.

Lisa Kelley, Assistant Executive Director, SJRWMD, noted the reason for the presentation was in response to a request by Council Member Goerner that SJRWMD consider alternative conveyance from Lake Apopka through Double Run Swamp. Ms. Kelley introduced the presenter Amy Wright, P.E., the SJRWMD flood control operations manager.

Ms. Wright provided background on the Upper Ocklawaha River Basin (UORB) flood control screening analysis. Ms. Wright noted the existing conveyance systems in the UORB can accommodate a 10-year flood event, and the UORB system functions well under typical Florida rainfall events. Ms. Wright reported that Hurricane Irma was between a 50-year and 100-year rainfall event, and due to the amount of rain and wind from the storm, the Perimeter Lake Levee was compromised and the northeastern portion of the Lake Apopka North Shore (LANS) was flooded. A decision was subsequently made to investigate the flood protection level of service.

Three potential options were considered in the review of level of service; a new conveyance between Lake Apopka and Little Lake Harris, a new conveyance between Lake Dora and Lake Harris (Double Run Swamp), and additional storage in Lake Apopka and the Lake Apopka North Shores (LANS).

The Lake Dora to Lake Harris option was determined not feasible for many reasons, including that a large elevation change would require large pump station, and the conveyance would require crossing railroad tracks & SR 19. There would also be access issues for properties to be crossed including existing stormwater facilities, high value commercially zoned properties, and the existing dock/boardwalk at City of Tavares Nature Park

The Lake Apopka to Little Lake Harris (Double Run) option would use the existing marsh flow way plus a new canal, with a flow path along a possible historic drainage route from Lake Apopka. Given a 10-foot elevation difference, no pump station would be needed. The potential issues for this scenario include construction of a water quality treatment facility, installation of two large box culverts, significant wetland impacts and associated permitting issues, costly real estate acquisition, and local resident concerns. Moving through wetland areas, would produce permitting issues. Right angle canals to address property boundaries

The preliminary cost estimate for the Double Run Swamp scenario, based on 1,000 cubic feet per second of flow, including modeling, design, construction, public outreach, wetland impacts, land acquisition, and contingency was nearly \$70 million. There would also be additional costs for ongoing treatment, estimated at \$51/acre-feet (ac-ft).

The third option proposes both raising the max desirable elevation on Lake Apopka from 66.4 feet to 67 feet and increasing storage in the LANS. The elevation increase is proposed since during Hurricane Irma Lake Apopka reached 67 feet with apparently no flooding of adjacent properties. Raising the max desirable elevation to 67 feet would add approximately 32,500 ac-ft in storage to Lake Apopka (not including LANS). Ms. Wright noted the advantages for raising max desirable elevation were greater flexibility in flood control operations, less high-volume discharges would benefit Nutrient Reduction Facility (NuRF) operation, and water quality benefits. Ms. Wright indicated expanded storage within the LANS is about 8,500 ac-ft of

available storage in a wet year, equivalent to 3-inches of elevation on Lake Apopka. Water can be moved through ten existing inlet structures, with the LANS additional storage only used in emergencies. The costs for option three were minimal. The costs for raising the max desirable elevation in Lake Apopka included modeling and public outreach, and for storing floodwater on the LANS. There were also costs associated with pumping water off the north shore.

In summarizing her presentation, Ms. Wright advised the District is interested in exploring option three, increasing the maximum desirable elevation in Lake Apopka and emergency storage on the LANS, and requested Council support for this endeavor.

Chairman Truenow noted there is still the issue that the NuRF can only treat so much water. The advantage of higher levels allows for more water through the NuRF. Vice-Chairman Bishop inquired whether the NuRF was operational during the storm. Dr. Danaher reported it was operational from just before the storm all the way through constantly for the following 6 months at a sustained rate of 300cfs.

Council Member Stump inquired whether the levee improvements hold will be able to contain new max desirable levels with wind. that with wind. He suggested maybe modeling should consider that levees can contain the wind as well as water load.

Ms. Kelley indicated SJRWMD wanted to build on the information available to improve operations. SJRWMD is not trying to protect against all events, but they do want tools to manage water better. More consistent flow to the NuRF would be better.

Mike Perry, LCWA, discussed some previous issues with the Dora Canal from 2009 in which LCWA investigated a number of options. Dredging the canal deeper was considered but it would compromise the shoreline. Making the canal wider would have required removing numbers of cypress, which was not public acceptable. LCWA did work with local governments to de-snag the canal, removing large amounts of fallen trees.

In 2012 the LCWA completed a possible design with the railroad and DOT, to change the design of the railroad trestle. It was determined that a re-design was still not going to gain that much in conveyance.

Ms. Kelley reiterated the SJRWMD summary that SJRWMD supports increasing the max desirable elevation in Lake Apopka and managing excess water in the LANS.

Council Member Dunn agreed that SJRWMD should move forward with modeling. Ms. Kelley noted the new SJRWMD fiscal year is here and staff are now developing next year's budget and would start to evaluate what funds are available.

At the conclusion of the presentation, when it was clear the Double Run Swamp conveyance was not being considered by SJRWMD, almost the entire large public crowd left the meeting.

7. **FOR INFORMATION**

Harris Chain of Lakes Restoration Council Second Draft of 2019 Annual Report, Denis Frazel, Harris Council Administrative Support.

Denis Frazel, Harris Council Administrative Support, presented the second draft of the 2019 annual report, including Council activities from November 2018 through October 2019. Mr. Frazel reviewed the comments provided by Council on the second draft.

Council Members present supported cover art consisting of three photos from Lake Harris. Mr. Frazel noted the final draft of the report would be presented at the November 1st Council meeting. Any comments or edits received by Mr. Frazel by October 29th would be included as tracked changes in the document for final approval on Nov. 1.

8. AGENCY UPDATES

a. LCWA

Jason Danaher, Ph.D., LCWA, updated Council on Harris Chain water levels noting September was dry with only 2.4 inches of rain recorded. The area is currently four inches below normal. Lake levels responded accordingly, with Lake Apopka two inches below regulation, and about 10 cfs of flow coming through the Apopka Beauclair Canal. Lakes Eustis, Harris, Dora, and Griffin were also decreasing. Dr. Danaher noted further discussions planned with SJRWMD in the upcoming year to get most sustained flow.

Dr. Danaher updated Council on the Lake Yale nutrient project in response to request by Council Member Bishop. Dr. Danaher noted a presentation by Mike Perry in 2018 in which a nutrient budget study showed total phosphorus was an issue, as resuspension could cause algal blooms. Chemical deactivation was considered the most viable solution. LCWA sent out a request for proposals for chemical inactivation or other options and received two responses for alum treatment. The project could be a two-year project consisting of four separate treatments. Dissolved oxygen and pH levels would be tested daily each morning prior to treatment.

Mr. Mike Perry, LCWA provided a map of easements associated with the Double Run Swamp, as well as an evaluation of the area by Robert Freeman. **Vice-Chairman Bishop requested a copy of the Robert Freeman paper.**

Mr. Perry noted the legislative delegation meeting is scheduled for the next month. Lake County priorities relevant to the Council included hydrilla treatment, advanced septic treatment systems, and a water quality partnership project with Sun Eden. Mr. Perry noted the County also included money for canal dredging, with all money going through Commissioner Parks.

b. SJRWMD

Mr. Lovejoy updated Council on SJRWMD activities, reporting Harris Council related expenses for the previous month, including Florida Administrative Register notification, and administrative support payments.

Mr. Lovejoy updated Council on the SJRWMD sump dredging project, noting the June post-dredging survey indicated only 5% of the material was remaining. The remaining material should be removed by the end of the month. Levee improvements have been completed along

the North Shore. Mr. Lovejoy provided data to Council Member Stump on the pre- and post-Irma flows as requested at the previous meeting. The complete SJRWMD update is included as backup material to the minutes.

c. FWC

Scott Bisping, FWC, discussed proposed hydrilla treatments on Lakes Griffin, Dora, and Beauclair, referring to maps of the treatment areas. The Lake Beauclair treatments were planned by residential areas on west shore, with limited Lake Dora treatments on southwest shoreline. Mr. Bisping also announced at public meeting at 6:30pm on Oct. 14th in the Tavares civic center 630 pm to discuss hydrilla treatment, provide updates on monitoring and receive public input.

9. PUBLIC COMMENTS

1. Mr. Peter Tuite, private citizen, expressed his pleasure with not considering Double Run Swamp as a conveyance. Mt Tuite noted the source of Double Run Swamp source is a spring that could have been impacted.
2. Mr. Kirby Smith reported he was at the meeting to oppose the Double Run spring. He expressed concern that it was even considered. Mr. Smith requested SJRWMD to keep working on cleaning Lake Apopka.
3. Mr. Joseph Lyon, United Water Fowlers, indicated opposition to moving any water through Mr. Lyon discussed dredging from Lake Apopka to Lake Beauclair. Mr. Lyon indicated his support for leaving hydrilla to support waterfowl.
4. Ms. Bernie Hower, living near Little Lake Harris, requested SJRWMD look into how much water in Lake Apopka is coming from springs. Ms. Hower was also interested in the age of the levees and the NuRF facility.
5. Mr. Roger Schrock thanked the Council for their efforts. Mr. Schrock indicated he would have been 100% against running untreated water through Double Run Swamp.

10. COUNCIL MEMBER COMMENTS

d. Chairman Truenow

No comments.

e. Vice-Chairwoman Bishop

No comments.

f. Council Member Dunn

No comments.

g. Council Member Stump

No comments.

11. REVIEW OF ACTION ITEMS* REQUESTED DURING MEETING

*New Action Items are highlighted in bold in the text

Vice-Chairman Bishop requested a copy of the Robert Freeman paper.

Chairman Truenow reiterated a request for an update on the total maximum daily load water quality data for the Harris Chain of Lakes.

Vice-Chairwoman Bishop suggested advertising the vacancy for the biologist position vacated by Robert Johnson.

12. DISCUSSION OF NEXT SCHEDULED MEETING.

Denis Frazel, Harris Council Administrative Support is scheduled to present the final draft of the 2019 Annual Report.

18. ADJOURNMENT

Meeting adjourned at 11:25 a.m.