

**FINAL**

**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 9:00 a.m. on June 7, 2019, at the Lake County Board of County Commissioner Chambers, 315 West Main Street, Tavares, Florida.

**1. CALL TO ORDER**

Chairman Grow called the meeting to order at 9:00 a.m.

**2. INVOCATION AND PLEDGE OF ALLEGIANCE**

Chairman Grow called for a moment of silence in remembrance of D-Day. The Pledge of Allegiance followed.

**3. COUNCIL ROLL CALL**

Chairman Grow called the roll.

**Council Members present**

Sid Grow, Chairman  
Robert Johnson, Secretary  
Joe Dunn  
Skip Goerner  
Don Nicholson

**Council Members absent**

Keith Truenow, Vice-Chairman  
Wade Boyette  
Stephanie Bishop  
John Stump

**Technical Advisory Group (TAG) Members present**

Mike Perry, Lake County Water Authority (LCWA)  
Scott Bisping, Florida Fish and Wildlife Conservation Commission (FWC)  
Mary Paulic (for Kevin Coyne), Florida Department of Environmental Protection (FDEP)

**TAG Members absent**

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

4. **APPROVAL OF MINUTES**

A motion to approve the April 5, 2019, minutes was introduced by Council Member Don Nicholson, seconded by Council Member Joe Dunn. **THE APRIL 2019 COUNCIL MINUTES WERE UNANIMOUSLY APPROVED. With a change removing Rob Zammataro as the TAG representative for the SJRWMD,** a motion to approve the May 3, 2019, minutes was introduced by Secretary Robert Johnson, seconded by Council Member Joe Dunn. **THE MAY 2019 COUNCIL MINUTES WERE UNANIMOUSLY APPROVED**

5. **FOR INFORMATION**

Discussion of Onsite Sewage Treatment and Disposal Systems and Phosphorus Removal, by Roxanne Groover, Executive Director, Florida Onsite Wastewater Association (FOWA)

Roxanne Groover introduced herself, provided an overview of her presentation, and described the functions of FOWA, which provides training to Department of Health employees, septic contractors, engineers and plumbers about different onsite wastewater technologies and rules. Ms. Groover noted that in Florida, the fate of nutrients and fecal matter are currently major wastewater issues. Ms. Groover reported the primary device is a conventional (septic) treatment system consisting of a tank and drainfield. There are approximately 2.5 million conventional systems in Florida, and they are to treat fecal and biological oxygen demand (BOD), not nitrogen and phosphorus.

The focus of Ms. Groover's presentation was on a variety of non-conventional systems that focus on nutrient (nitrogen and phosphorus) reduction in addition to conventional treatment. These systems include aerobic treatment units (ATU), Performance Based Treatment Systems (PBTS), and both proprietary and non-proprietary nitrogen reducing systems.

ATUs lower BOD and total suspended solids (TSS), facilitating the construction of larger houses on smaller property. Ms. Groover noted in the Florida Keys nutrients are also removed. Nitrogen is removed through a recirculation system that adds air, converting ammonia to nitrite, to nitrate. The solution is then denitrified into air, ultimately as nitrogen gas. Phosphorus is removed by passing effluent through a material that traps the phosphorus. The trapping material is replaced over time.

Chairman Grow inquired if these systems can be retrofitted to existing systems. Mr. Groover noted many systems can be retrofitted.

Council Member Goerner inquired about the status of failing systems. Ms. Groover reported most homeowners will not repair failing systems until they can no longer flush the toilet. However, as basis management action plans (BMAPs) move forward there will be requirements to upgrade systems within BMAP areas. Currently homeowners can replace failing systems with the same conventional system. Upgraded systems are generally two times the cost of conventional systems. DOH currently has no authority to preemptively inspect septic systems. The only reason DOH can encroach on private property is when they have received a nuisance call.

Ms. Groover reviewed inground nitrogen reducing biofilters, a layer cake system of wood chips. The system gives homeowners the option to have nonproprietary treatment equipment that does

not require an operating permit. These systems reduce nitrogen by 65%. Other versions have a liner with an underdrain that helps with the denitrifying zone. Various layering materials include, lignocellulosic material (mulch), and 50/50 blend of material. Ms. Groover described and showed photographs of other systems including the HOOT systems, the Fujiclean system, FAST system in-home onsite systems, the Norweco system of suspended aeration, and the Jet aeration system. All of these systems are available for review at the FOWA facility. Most are applicable to single family homes or as group systems.

Council Member Goerner inquired as to the makeup of final discharges. Ms. Groover reported concentrations of TSS are dependent on the level of treatment. The NSF40 is 25, though most systems are generally below 3.

**6. FOR INFORMATION**

Review of FDEP and FDOH OSTDS Coordination in Lake County, by Kevin Coyne, FDEP

Mary Paulic, representing Kevin Coyne, FDEP, provided a review of Upper Ocklawaha septic systems to Council. Ms. Paulic noted she would not be discussing Silver Springs or Wekiva as the BMAPs in these areas are currently being challenged in the court system.

Council Member Goerner inquired about the status of local springs, including Bug Springs. Ms. Paulic provided updated verified impaired waters lists that included Blue Springs and Holiday Springs (impaired for nitrate) and Bug Springs (for algal mat).

Ms. Paulic reviewed the data collection for septic systems, noting data from the DOH web site was used along with maps linking parcels with drinking water source and wastewater treatment method. <http://www.floridahealth.gov/environmental-health/onsite-sewage/research/flwmi/index.html>, The data was completed by county, and for Lake Apopka and the Harris Chain of Lakes, data was collected in 2017. The data represent known septic and likely septic (high confidence that property has septic system) parcels. Ms. Paulic presented a map of Upper Ocklawaha septic systems, comprising approximately 66,000 systems basin wide. Within the Harris Chain of Lakes there are an estimated 23,357 septic systems, and 10,854 septic systems in the Lake Apopka Basin (Lake County 7,199 and Orange County 3,655).

Chairman Grow noted the residential community in which he resides is listed as septic, but is actually on central sewer. Ms. Paulic noted there are likely still some errors in the data as many utilities had not yet provided updated data.

Ms. Paulic discussed the development of septic systems and phosphorus (P) BMAP maps, noting FDEP only considered septic systems located 200 meters or less from lakes. The rationale for this delineation was because P does not migrate that far from drainfields. Ms. Paulic showed a final map of septic system locations within 200 meters of waterbodies in the Harris Chain, indicating relatively few septic systems within 200 meters from the lake or contributing waterbodies. A map of Lake Apopka with the same 200-meter buffer delineated, showed 235 septic systems within the 200-meter zone.

Council Member Goerner inquired if there is an estimate on how much P loading occurs from septic systems. Ms. Paulic noted P loadings are listed in the total maximum daily load (TMDL)

allocations. An example spreadsheet for Lake Harris showed an insignificant amount of 1,500 lbs. of P loading out of an aggregate of 15,000 lbs. of annual P loading,

**Council Member Goerner requested copies of the TMDL spreadsheets from Ms. Paulic**

Council Member Nicholson expressed concern about the migration of nutrients from aquifers, noting eel and turtle grass seem to have much more filamentous algae. Scott Bisping, FWC, noted large algal blooms may affect eel grass, but he did not think it was the springs causing the growth. Mr. Bisping did report that FWC is continuing to monitor the springs.

**7. FOR INFORMATION**

Update on Winter Garden Reuse, Council Member Joe Dunn

Council Member Dunn briefed Council on his meeting with Jon Williams, Assistant City Manager - Public Services for the City of Winter Garden. The purpose of the meeting was to ascertain why Winter Garden was only reusing 66% of its wastewater. Mr. Williams provided Council Member Dunn the most current city data, noting that the city currently reuses 66% of its wastewater, but it sends another 24% to neighboring Ocoee, where it is utilized for Forest Lake Golf Course irrigation. The remaining 10% is sent to a Rapid Infiltration Basin (RIB). Mr. Williams noted the city has several multi-million-gallon Reuse Storage Tank projects underway that will further reduce discharge to the RIB.

Mr. Williams anticipated that as major renovations occur on Plant and Dillard Streets, wastewater reuse pipes will be installed to increase reuse as well as retrofitting existing communities that use potable water for irrigation (i.e. Stonybrook). The city's goal is to reach 100% reuse.

**8. AGENCY UPDATES**

a. LCWA

Mike Perry, LCWA, introduced Jason Danaher, PhD, from Auburn University, who has joined the LCWA to work with the Nutrient Reduction Facility (NuRF). Dr. Danaher has an interest in Council activities.

Mr. Perry reported the repair date for the NuRF was pushed back until late July. There is currently about 15 cubic feet per second of water moving through the NuRF and being treated with alum. It is assumed that flows will increase with summer rains. Mr. Perry noted there is still some material left in east pond that is being moved into the wet ponds for storage.

Mr. Perry reported the Lake Yale request for proposals for alum treatment was soon to be released by the LCWA.

Mr. Perry updated Council on lake levels, noting Lake Apopka near minimum desirable level so some rain would be welcome. Lakes Eustis, Dora and Griffin were below regulatory schedule, though Mr. Perry expected the lakes to respond to anticipated rainfall.

Secretary Johnson inquired whether LCWA received additional funding for aquatic weed control. Mr. Perry noted the legislature provided \$33 million statewide. Scott Bisping, FWC, noted funding allocations should be completed and available by the next Harris Council meeting.

b. SJRWMD

Jim Troiano, SJRWMD, updated Council on SJRWMD activities, reporting Harris Council related expenses for the previous month, including Florida Administrative Register notification, and administrative support payments. Mr. Troiano discussed the upcoming SJRWMD Governing Board meeting, noting it was to be held June 11, 2019, at District headquarters. Mr. Troiano reported the time had changed for the meeting from 11 to 10. He advised the Council they could watch the meetings live or could review at their convenience in recorded format.

Mr. Troiano updated Council on SJRWMD projects, reporting the Lake Apopka Marsh Flow Way has been shut down for the summer to allow for maintenance. As noted previously, SJRWMD is undertaking levee improvements along the North Shore. The project is approximately 45% complete and on track to finish by August 16<sup>th</sup>.

Mr. Troiano reviewed plans for Council to take a tour of the North Shore on July 12<sup>th</sup> using the SJRWMD 25-person tour buggy. The tour is expected to take a full 3 hours. Mr. Troiano discussed a series of eight sites to be visited, as suggested by Dr. Eric Marzolf. The tour is planned to end the Apopka Field Station by noon. Maps of the Lake Apopka North Shore listing major improvement projects will be made available to all Council members

Council Member Goerner inquired whether the maps will display elevations. Mr. Troiano was not sure at that time if the maps would display elevations but that the visual elevation differences to be observed during the tour will be useful.

Mr. Troiano noted the SJRWMD had also provided five emails to Council on SJRWMD news releases. The complete SJRWMD update is included as backup material to the minutes.

c. FWC

Scott Bisping, FWC, noted spring hydrilla treatments in the Harris Chain were finished, with re-mapping of most lakes to be completed this summer and fall.

Mr. Bisping also updated Council on the mechanical harvesting project on Lake Yale. Mr. Bisping reported 10 of 14 acres of tussocks had so far been removed, with completion scheduled for the end of June.

Secretary Johnson inquired as to how many acres of hydrilla had been treated. Mr. Bisping reported LCWA had treated 800 acres on Lake Harris, 150 acres on Lake Eustis, 235 acres on Lake Dora, 500 acres on Lake Yale, 100 acres on Lake Beauclair, 50 acres on Lake

Griffin, and 4 acres on the Dead River. FWC treated an additional 590 acres on Lake Harris and 3 acres on the Dead River.

d. DEP

Mary Paulic, DEP, responded to a previous question from Council Member Goerner regarding impaired springs in the Harris Chain. Ms. Paulic noted the recently released verified impaired waters list included Blue Springs for algal mat, nitrite and nitrate, Holiday Springs for nitrate, and Bug Springs for algal mat. The next step would be to establish TMDLs for those waterbodies, though no timeframe has been set.

**Ms. Paulic provided the latest verified impaired springs list to Council Administrative Support for dissemination to Council.**

9. **PUBLIC COMMENTS**

Linda Moss, private citizen affiliated with the Lake Gem Clean Water Project, discussed interactions she had with SJRWMD regarding muck flow. Ms. Moss wanted to make sure more muck would not flow into her canal. Ms. Moss noted the installation of jetties had been suggested as an alternative but SJRWMD engineers decided jetties were not a viable option. Ms. Moss inquired as to what is the next plan for the area.

Chairman Grow reiterated that the Harris Council has no authority over the issue, noting other counties have approached legislature, or gone to go to the Department of Agriculture for assistance. Ms. Moss discussed alternate or secondary conveyances to keep muck out of homes.

Council Member Goerner noted there should be a secondary conveyance and the Double Run Swamp should be studied as an alternative since the County owns much of the easements.

Michael Messina, Messina & Associates, addressed Council on down-sizing treatment systems, in particular the FujiClean USA systems, which provide up to 70% nitrogen reduction. Council Member Goerner noted the problem with the systems is that they are expensive. Mr. Messina noted that while they are expensive, they are a solution to the problem. **Mr. Messina provided an overview document of the FujiClean treatment systems for dissemination to Council.**

10. **COUNCIL MEMBER COMMENTS**

a. **Chairman Grow**

No comments

b. **Secretary Johnson**

No Comments

c. **Council Member Dunn**

No comments

**d. Council Member Goerner**

Council Member Goerner noted that in April, the Council discussed going to the Florida Attorney General's Office (AGO) to obtain clear directives on the Harris Council legislation. Council Member Dunn noted Council Member Boyette would check on it. Council Member Goerner noted that action was in reference to the Sunshine Law.

Council Member Goerner reiterated his request for a legislative directive from the AGO. Chairman Grow suggested Council Member Goerner make an initial contact to see if the Council has standing. Council Member Goerner suggested perhaps SJRWMD could assist as he indicated they were the Council's General Counsel. Lisa Kelley, Assistant Executive Director, SJRWMD, asked specifically what was requested. Council Member Goerner requested an opinion on the Technical Advisory Group (TAG) attending meetings as designated. Ms. Kelley noted the SJRWMD General Counsel represents SJRWMD, not the Council. Chairman Grow suggested an item be placed on the agenda for August to invite the AGO to discuss TAG attendance.

Secretary Johnson indicated issues with the Sunshine Law were addressed at the SJRWMD meeting in Maitland the previous year. Council Member Goerner was under the impression Council Members could not talk privately to TAG members, although the Council had been provided guidance recently to the contrary by the SJRWMD. Ms. Kelley noted the SJRWMD can meet individually with Council, or, if two or more Council Members want to meet with TAG, it is possible, SJRWMD just has to notice the meeting. Ms. Kelley noted SJRWMD General Counsel provided Sunshine Law information to Council two years ago. Council Member Goerner requested someone not from SJRWMD discuss what is legal with the Sunshine Law.

**Council requested Council Administrative Support invite the Lake County Attorney to appear at the August or September Council meeting to discuss the Sunshine Law as it applies to Harris Chain of Lakes Restoration Council members.**

Council Member Goerner made a motion that Council meetings be held every other month, rather than monthly. Council Members Nicholson, Dunn, and Johnson indicated support for the motion. Chairman Grow suggested if the Council meets every other month there would be insufficient time to complete Council activities. Council Member Johnson suggested there should be more Council members present before voting on the motion. Chairman Grow also suggested a vote should be delayed until more Council Members were in attendance. The motion was withdrawn for later consideration.

Council Member Goerner noted Council Member Boyette was not in attendance for the third meeting in a row. Council Administrative Support reported Mr. Boyette had missed five out of the eight previous meetings, with three being the last three meetings.

**Chairman Grow requested Council Administrative Support to send a letter to Council Member Boyette to verify his continued participation on the Council or to submit his resignation.**

**e. Council Member Nicholson**

No comments

**11. REVIEW OF ACTION ITEMS\* REQUESTED DURING MEETING**

\*New Action Items are highlighted in bold in the text

Mr. Troiano reported that seven action items from the previous month were completed. Mr. Troiano noted only Item 139 regarding the July 12 tour is pending, with completion due at the tour. **Council Member Goerner noted he did not receive electronic information sent to Council Members by Mr. Troiano on levee repairs from the previous meeting and asked that it be resent to him. This appears to be an issue with Council Members Goerner's email system as others received the information.**

**Council Member Goerner requested copies of the TMDL spreadsheets from Ms. Paulic.**

**Ms. Paulic provided the latest verified impaired springs list to Council Administrative Support for dissemination to Council.**

**Mr. Messina provided an overview document of the FujiClean USA treatment systems for dissemination to Council.**

**Council requested Council Administrative Support invite the Lake County Attorney to appear at the August or September Council meeting to discuss the Sunshine Law as it applies to Harris Chain of Lakes Restoration Council members.**

**Chairman Grow requested Council Administrative Support to send a letter to Council Member Boyette to verify his continued participation on the Council or to submit his resignation.**

**12. DISCUSSION OF NEXT SCHEDULED MEETING.**

Chairman Grow noted an SJRWMD work order to Four Waters Engineering for an interconnect pumping system, and suggested including that item on the North Shore tour. Mr. Troiano noted Ron Zammataro, SJRWMD, had discussed that topic with Council. Chairman Grow withdrew his request.

Chairman Grow requested Council Members review minutes from the past year and prepare recommendations for inclusion in the Annual Report. Recommendations should be sent to Council Administrative Support for discussion at the August Council meeting

**12. ADJOURNMENT**

Meeting adjourned at 11:52 a.m.