

**FINAL**

**Summary of the Tour of the Nutrient Reduction Facility (NuRF)  
by the  
HARRIS CHAIN OF LAKES RESTORATION COUNCIL  
May 7, 2010**

The Harris Chain of Lakes Restoration Council attended a tour of the Lake County Water Authority (LCWA) - Nutrient Reduction Facility, 16100 CR 48 in Mount Dora, FL 32757 at 9:00 a.m. on May 7, 2010

**Members Present**

Skip Goerner, Chairman  
Richard (Rick) Powers P.G., Secretary  
Richard Royal

**Members Absent**

Hugh (Dave) Davis II, Vice Chairman  
Edward Schlein, M.D  
Keith Farner  
Jon VanderLey  
Don Nicholson

- Mike Perry, LCWA Executive Director and Lance Lumbard, LCWA Water Resources Program Manager, conducted the tour. For a full report on the NuRF project, you can visit the LCWA website at <http://www.lcwa.org/index.asp?page=113>. Highlights of the tour consisted of 1) the inflow station; 2) the outflow station; 3) the alum and pump station and 4) the centrifuge station. Pictures of the tour can be viewed on the Harris Chain of Lakes Restoration Council website at <http://sfrc.ifas.ufl.edu/harrischaincouncil/index.htm>.
- Mr. Perry provided information regarding the significant reduction of phosphorous and improvement to the water clarity, vegetation, and the return of the fish and wildlife in the Apopka-Beauclair Canal (A-B Canal) and Lake Beauclair. He explained that when the NuRF is operating at base flow conditions of 24 cubic feet per second (cfs), there is an efficiency rate of 70% reduction in Total Phosphorous (TP). When it is operating at peak flow conditions of 300 cfs, the NuRF has a 90% reduction rate of TP. The water entering the system has a clarity of 2 feet, and the TP is about 90 parts per billion (ppb). After treatment and exiting the system, the water has a maximum clarity of 7 feet and the TP is 33 ppb. Since it became operational in March 2009, the NuRF has treated over 600 billion gallons of water from Lake Apopka.
- Mr. Lumbard discussed the dredging operation and the centrifuge unit. The floc sediment collected goes into a 200,000-gallon holding tank. The centrifuge unit processes the floc sediment from the holding tank. It removes 90% of the water from the material that was dredged out of the settling ponds and reduces 300-acre feet of wet solids into 3-acre feet of dry solids per year. Distribution of the dewatered solids is then spread over a 20-acre containment area where it continues to dry out and becomes alum residual.
- Mr. Perry commented that the cost of alum is .50 cents per gallon and when running at peak flow the NuRF uses 24 gallons of alum per minute. The NuRF costs approximately 1.5 million dollars a year to operate. Chairman Goerner suggested a meeting with the LCWA Board and the Harris Chain of Lakes Restoration Council to discuss ways to obtain additional funds to help support the NuRF project.

The tour ended at 11:00am

Respectfully submitted by:

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Chairman Skip Goerner

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Secretary Rick Powers, P.G.