

**Lake Gaston Technical Advisory Group (TAG)**

**Meeting Minutes**

**February 28<sup>th</sup>, 2013**

**Prepared by: Brett M. Hartis**

**Meeting Introductions (9:34AM)**

**Attendance:**

Rob Richardson (NCSU)

Justin Nawrocki (NCSU)

Brett Hartis (NCSU)

Steve Hoyle (NCSU)

Casey Seelig (Dominion)

Kirk Rundle (NCWRC)

Brian McRae (NCWRC)

Mark Fowlkes (NCWRC)

Michael Grodowitz (USACOE)

Lynde Dodd (USACOE)

Mike Smart (USACOE)

Rich Noble (NCSU)

Rob Emens (NCDENR)

Pete Deschenes (LGSB)

Wally Sayko (LGWCC)

**Summary of Recommendation/ Passed Motions (See script for context)**

**1.) Grass Carp Stocking Rate**

\***Michael Smart** – Motion to accept 18.5 fish/acre for 2013.

\***Rich Noble** – Seconded the motion to accept 18.5 fish/acre for 2013.

\***All Voting Members took vote on motion. Unanimous that Motion Passed (12:15PM)**

**2.) Use of Bioacoustic Survey**

\***Mike Smart** – Motion for LGWCC to use bioacoustics survey again.

\***Michael Grodowitz** – Second to the above motion

\***All voting members voted – Motion Passed (12:31PM)**

**3.) Investigation of other survey methods**

\***Michael Grodowitz** – Investigate different survey methods on the lake to determine accuracy of each.

\***Kirk Rundle** – Second to above motion

\***All voting members vote – Motion Passes (12:42PM)**

**4.) Activity Slate for 2013**

\***Mike Grodowitz** – Motion to approve the slate of activities for 2013.

\***Rob Emens** – Second to the above motion.

\***All voting members voted – Motion Carries (12:57PM)**

## **5.) TAG Selected criteria selection for LTMP**

**\*Mike Smart** – Motion to TAG to make expert driven criteria selection.

**\*Mike Grodowitz** – Second to the above motion

**\*All voting members vote - 4 for, 2 against, motion passes (1:13PM).**

## **6.) Carp Stocking 2013 locations**

**\*Kirk Rundle** – Motion to use previous years carp stocking locations.

**\*Rob Emens** – Second to above motion

**\*All Voting members vote - motion passes (1:40PM)**

**\*Motion on the floor**

**\*Motion Passed**

### **1.) Funding History**

**Brett Hartis** – Reviewed previous history of funding in 2012 and proposed budget for 2013. Noted that Brunswick County contribution is hoped to increase but nothing concrete yet.

**Rob Emens** – Presenting work plan to LGWCC for \$50,000, which is \$50,000 less than previous years funding from North Carolina (2012-\$100,000). This is only preliminary as number could remain at \$100,000.

**Rob Richardson** – Commented on the stressed NC weed program budget due to new infestations of Hydrilla in other water bodies (Waccamaw, Kerr, etc..)

**Rob Richardson**- Brought up ReMetrix Survey and costs associated with that survey. Number is now at \$45,000. Can this amount be reduced by only sticking to “needed” data?

**Pete Deschenes** – Stressed that more emphasis be placed on volunteer survey to support Remetrix survey and reduce costs.

**Rob Richardson** – Any action for or against ReMetrix survey methodology?

**Mike Smart** – Brought up issue of how dependent carp stocking is to exact acreage of hydrilla. If estimations are half of what they were years before, are these accurate numbers to be stocking carp on?

**Rob Emens** – We need consistency in methodology so comparisons can be made throughout the years. If we continue to switch methodology, then we will never achieve accuracy in defining the problem: hydrilla acreage.

**Michael Grodowitz** – We need accuracy and precision in the surveys.

**Brett Hartis** – In an aquatic environment, precision and accuracy are subjective to the methodology being used and there is no “universal” methodology accepted for calculating acreage. There are a variety of techniques, all of which vary widely.

**Rob Richardson** – What about attempting to reduce cost by volunteers or NCSU doing on lake portion of survey and sending data to remetrix for processing?

**Lynde Dodd** – Expressed the possibility of “wandering” survey technique used in survey of native plants/ a type of delineation.

**Brett Hartis** – Delineation would be near impossible on such a large system with such a large amount of hydrilla.

**Wally Sayko** – Even rake tosses take twenty plus days for volunteers so delineation would have to take much more time.

**Rich Noble** – Noted remetrix claim that volunteer survey was congruent with Remetrix survey. Doesn't this mean volunteer survey can be used?

**Brett Hartis** – Not exactly. Acreage calculations would differ wildly due to difference in interpolation method. Volunteer survey provides data on species while SONAR data provides data on plant biovolume and cover. You really can't use just one, you need both for estimation.

**Brian McCrae** – Questions the difference between NCSU Kerr Lake method, Remetrix Method and volunteer survey.

**Rob Richardson** – Not much difference in NCSU and Remetrix survey using SONAR. Remetrix processes their own data whereas NCSU sends to a third party of processing. Volunteer survey is presence/ absence point sampling alone.

**Rob Emens** – Can we recommend to Council that ReMetrix meet with them and discuss costs and value of product?

**Rob Richardson** – Proposes we recommend that Remetrix meet with the Council to discuss costs and value associated to annual survey.

## **2.) Grass Carp Stocking 2013**

**Brian McRae** – Past years have been stocked at 15 fish/acre. We have only been at high rate for a few years so impact of increased stocking should begin showing soon.

**Kirk Rundle** – Last year (2012) 18.5 fish per acre stocked October 2<sup>nd</sup> due to a lack of available fish from the hatchery in spring. Suggested fish be stocked at the same rate in 2013. Also noted that fish stocked in 2012 were larger than average. Current fish/acre estimated at 13.1 so one more year needed at 18.5 fish/acre.

**Mike Grodowitz** – Suggested that carp rate be increased to 25-30 fish per acre. Suggested taking aggressive approach then revegetating. Suggested large scale revegetation as an alternative.

**Brian McCrae** – NCWRC not comfortable with that stocking rate given the implication of removing existing vegetation. Excess nutrients will still be in lake and have to go somewhere – Lyngbya and other problem algae.

**Mike Smart** – Suggested that we aren't being aggressive enough with carp stocking and should increase the rate because we aren't seeing a noticeable change.

**Rob Richardson** – Crash in hydrilla isn't all good. It can cause collapse of other species and affect fishery (Reference Tillery)

**Rich Noble** – Noted that carp stocking is all dependent on hydrilla acreage calculation, and thus, survey methodology.

**Steve Hoyle** – Based on volunteer survey with each volunteer point representing approximately 0.5 acre, current points containing hydrilla and acreage estimation are actually very close to ReMetrix estimation (+/- 10 acres)

### **Break (11:05), Resumed at 11:10**

**Rob Richardson** – Brought discussion back to carp model

**Brian McCrae** – Stressed that neither VADGIF or NCWRC would raise stocking rate above 20 fish/acre.

**Pete Deschenes** – Stressed the need of representation by VDGIF in Vic Diczenzo replacement.

**Brian McCrae** – Grass carp going in fall 2012 means rate only been at 18.5 fish/acre for a few months or less than a year. Noted lag time as fish grow over years and consume more biomass.

**\*Michael Smart** – Motion to accept 18.5 fish/acre for 2013.

**\*Rich Noble** – Seconded the motion to accept 18.5 fish/acre for 2013.

**\*Mike Grodowitz** – Discussion that we should move to 20 fish/acre

**\*Rich Noble** – We are basing estimates on science and rematrix estimation is the science.

**\*All Voting Members took vote on motion. Unanimous that Motion Passed (12:15PM)**

**Rob Richardson** – Any comments on future stockings after 2013?

**Rich Noble** – If hydrilla acreage was actually double (approx.. 3,000 ac), what would 18.5 fish/acre be?

**Brian McCrae** – Approximately 36,000 fish. Before a decision like this is made we have to come to consensus on survey method.

**Rob Richardson** – Discussion brought back to survey methodology. Rematrix is the only repeatable method that has been used thus far. Even numbers pre-rematrix were not derived from the same methodology so not repeatable data.

**Rob Emens** – Referencing minutes of 2007 meeting, the major needs stated for any survey is consistency.

**Rob Richardson** – The only means to determine “best” methodology would be to do a study comparison of all survey methods with simultaneous estimation. This would be extremely difficult, if not impossible to do.

**Brett Hartis** – We can’t even compare survey methodologies not using the same basic technique. Cannot compare non-Sonar to sonar, etc.

**Brian McCrae** – We should continue to utilize Rematrix or other SONAR based survey methodology to retain similarity among technique and thus, comparative ability.

**\*Rob Emens** – Motion to suggest that LGWCC negotiate with Rematrix to reduce price and supplement existing survey with volunteer data.

**\*Rich Noble** – Second to the above motion.

**\*All Members voted - 3 affirmative, 3 negative – Motion does NOT carry**

**Rob Richardson** – Any motion to continue survey as is?

**\*Mike Smart** – Motion for LGWCC to use bioacoustics survey again.

**\*Michael Grodowitz** – Second to the above motion

**\*All voting members voted – Motion Passed (12:31PM)**

**\*Michael Grodowitz** – Investigate different survey methods on the lake to determine accuracy of each.

**\*Kirk Rundle** – Second to above motion

**\*Brian McCrae** – Need to use contour methods vs. Remetrix

**\*Justin Nawrocki** – Also need to investigate economics behind each method. Some methods much cheaper than others.

**\*All voting members vote – Motion Passes (12:42PM)**

### **3.) Revegetation Activities for 2013**

**Lynde Dodd**- Plan, implement, survey, report on demo site (\$25K). LGWCC materials for revegetation (\$2.5K includes plants). Continued herbicide cooperative with United Phosphorus and NCSU. Evaluate 2006 and 2008 USACE restoration sites (\$7.5 K)

**Mike Smart** – Noted that we are still in demo and not ready to take to operational level.

**Rob Richardson** – Recommended a slate of activities including survey comparisons, revegetation from demo to implementation in 2014 and a continuation in tuber monitoring.

**Lynde Dodd** – Noted a \$5K increase for looking at implementation.

**Pete Deschenes** – Questioned is \$5K was standalone value?

**Lynde Dodd** – Yes, the value is stand alone.

**Rob Richardson** – Is there any motion to approve the slate of recommendations?

**\*Mike Grodowitz** – Motion to approve the slate of activities for 2013.

**\*Rob Emens** – Second to the above motion.

**\*All voting members voted – Motion Carries (12:57PM)**

### **4.) Introduction of the Long Term Lake Management Plan**

**Brett Hartis** – Noted the ineffectiveness of current treatment and treatment site selection. Hopscotch treatments from year to year and the regenerative capacity of different sites tuber bank is inhibiting effective management on the long term. Introduced the idea of adopting a modified lake management plan for 2013 and beyond. The plan would incorporate the continuous treatment of various areas over a 5+ year period to address tuber bank issue and deplete tuber bank to manageable levels. Half of acreage would be designated for long term treatment areas and half to annual priority treatment areas that would be decided upon annually.

The final product of this plan would be to reduce the tuber bank, and thus hydrilla biomass to manageable levels over time.

**Rob Richardson** – Any interest in adopting the LTMP for 2013?

**Mike Smart** – What about turions in the system? Wouldn't they be an issue?

**Brett Hartis** – Based on Richardson and Nawrocki data, turions make up less than 1% of all propagules found in the lake.

**Mike Smart** – In reference to Lyons creek, the tuber number is at 7. Is this not a small number?

**Justin Nawrocki** – Despite how it looks, this is still an extremely large number as this number denotes a per sample estimate.

**Mike Smart** – Wouldn't it take years to accomplish?

**Brett Hartis** – This is not a short term plan by any means but is designed to address the issues with the current methods of site selection and control.

**Rob Emens** – Noted that strong criteria for selection need to be decided upon.

**Mike Grodowitz** – Suggested the use of decision analysis to develop criteria. This would cost money. Need experts for this.

**Brett Hartis** – Are we not the experts? This is the entire purpose of TAG is to utilize the experts to make such decisions.

**Rob Richardson** – There are three options in regard to the LTMP. 1.) Implementation in 2013, 2.) revision in 2013, 3.) rejection of the plan.

**\*Brian McCrae** – Made a motion to present this plan at the 2013 LGSB meeting and then the LGWCC.

**\*No Second - Motion dead**

**\*Mike Smart** – Motion to TAG to make expert driven criteria selection.

**\*Mike Grodowitz** – Second to the above motion

**\*All voting members vote - 4 for, 2 against, motion passes (1:13PM).**

## **5.) Meeting Wrap Up**

**Rob Richardson** – Need to think about more participation from other groups.

**Pete Deschenes** – Need to gain more involvement from VGIF.



**Rob Richardson** – NCWRC and Brett Hartis will contact VDGIF for further contact.

**\*Kirk Rundle** – Motion to use previous years carp stocking locations.

**\*Rob Emens** – Second to above motion

**\*All Voting members vote - motion passes (1:40PM)**

**Meeting Adjourned (1:43 PM)**