

Lake Gaston Technical Advisory Group (TAG)

Conference Call Meeting Minutes

February 12th, 2013

Prepared by: Brett M. Hartis

Meeting Introductions (1:03 PM)

Attendance:

Rob Richardson (NCSU)

Justin Nawrocki (NCSU)

Brett Hartis (NCSU)

Dan Michaelson (VDGIF)

Casey Seelig (Dominion)

Kirk Rundle (NCWRC)

Brian McRae (NCWRC)

Mark Fowlkes (NCWRC)

Michael Grodowitz (USACOE)

Lynde Dodd (USACOE)

Michael Smart (USACOE)

Rich Noble (NCSU)

Rob Emens (NCDENR)

Pete Deschenes (LGSB)

Jeff Myers (ReMetrix)

Jt Gravelie (ReMetrix)

Sarah Miller (SePro)

Doug Henderson (ReMetrix)

1.) Grass Carp Stocking Model (1:11 PM)

Discussion of stocking activities to date

Kirk Rundle – Last year (2012) 18.5 fish per acre stocked October 2nd 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.

Rob Richardson – Requested the actual number of carp suggested to be stocked for 2013 based on 18.5 fish/acre estimate.

Kirk Rundle – At 18.5 fish/acre estimated 8,238 carp be stocked in 2013. If no fish were stocked in 2013, estimated 13.1 fish/acre already in lake.

Rich Noble – Supported notion to stock at same high rate (18.5 fish/acre) considering the late stocking in 2012 and lag time from only one year of stocking at new rate.

Rob Emens – Questioned if grass carp using VT biomass model had been abandoned.

Kirk Rundle and Brian McRae – NCWRC found flaws in the VT model due to pre-rematrix and post-rematrix surveys. All estimates of hydrilla > 800 ha were prior to rematrix surveys being done and all estimates < 800 ha were after rematrix began surveying. VT model relies highly on the survey methods. NCWRC cohort analysis to be used for 2013.

Rich Noble – Question of NCWRC doing any work with grass carp biomass estimates.

Brian McRae – Stated that this sampling can be done in the near future if it is requested by TAG and appropriate funding is available.

Michael Smart – Concerned that currently there is a lack of data to start such an endeavor.

2.) Revegetation Activities (1:38 PM)

Discussion of revegetation activities currently being completed by Lynde Dodd and Michael Smart.

Lynde Dodd – Gave an overview of all revegetation efforts in recent years. Demonstration planting began in 2009 and was surveyed extensively from 2009-2011. Fall of 2009 saw impressive spread of newly planted native species. In recent years they have had problems with turtles. A number of improvements were completed in 2012. They connected many of the initial pens, installed turtle ramps, replanted any empty cages and put tops on many to prevent turtle entry. September survey showed that natives had spread considerably since 2009 (1600-2400m² expansion). Species included Illinois pondweed, wild celery, American waterlily, spatterdock and cattails.

Proposed further research to see how treatment of hydrilla within vegetated areas aids in the spread of native species. Some of this work has already been completed with low rate of endothall from United Phosphorus. Other proposed research includes tuber bank estimate within and outside of exclosures as well as continued maintenance of sites.

Pete Deschenes – Asked if there are any plans for planting in 2013.

Lynde Dodd – Plans to replant empty cages and extend current fencing to shoreline to aid in spread.

Pete Deschenes – Any growing by prison?

Lynde Dodd – Only plants that were left from last year. Would warrant some future investigation. She plans to have a proposal for future planting by next meeting (Feb 28th).

Rob Richardson – Looks forward to seeing proposal for how low dose herbicide might aid in native species establishment and spread.

3.) Remetrix Report (1:52PM)

Discussion of Remetrix survey report and management implications

Doug Hughes – Gave overview of sampling that took place Oct. 15th – 23rd. 888 Physical sample points collected as well as continuous hydroacoustic logging. Lake wide SAV numbers at 1,713 acres (+96 acres from 2011) and covered 33% of total lake littoral zone. 89% of all SAV was hydrilla at 1,527 acres (+78 acres from 2011). 57% of all sample points had hydrilla present (+7% from 2011). Noted that this year is not an aberration compared to the last 5 years.

Michael Smart – Noted an overall decrease in the flats area and wondered what could be attributed to this. Could it be attributed to treatments in 2010-2011?

Brett Hartis – Confirmed treatment in 2010 and 2011 but not in 2012. Sent out image of all treated areas to those attending.

Doug Hughes – Omission/ Commission Error significantly low this year for sampling yielding a high correlation (~96%). Volunteer results correlated nicely in terms of hydrilla presence absence to what remetrix had found. Volunteer data was used in overall model implementation.

JT Gravelle – Noted that using solely point data with no hydroacoustics yielded almost double hydrilla acreage. This may account for discrepancy in previous years surveys using solely point data and not actual hydroacoustics.

Doug Henderson – Began discussion on new species of algae found this year in lake Gaston flats area. ID'd by West Bishop at SePro based on a photo of the plant taken from the lake. Noted discrepancy with ID given by NCSU as *Compsopogon*. Grass kelp as ID'd by remetrix is a non-

native species whereas compsoogon is a native species. Agreed with NCSU that ID of plant would be reported as “unknown” until further samples can be taken and properly ID’d in the lab. Still wanted to note that this is first time the unknown has been found in the lake by remetrix.

Doug Henderson – Change in topic to request that cubic meters (volume) be utilized for grass carp modeling. Remetrix stated that this would take much more effort on their part to generate appropriate bathymetry.

Rich Noble – Concerned that volume estimate is season dependant and would provide no real value to carp stocking model.

Michael Smart – Agreed with Rich Noble that this type of work might not be applicable for grass carp stocking model.

Rich Noble – Noted a big increase in the number of sites that had no vegetation as compared to years past which Doug Henderson confirmed. Began discussion on what areas had been treated in 2012 as well as where grass carp had been stocked in years past.

Justin Nawrocki – Clarified treatment areas and Brett Hartis sent map of treatment polygons for 2012.

Rob Richardson – Suggested that we discuss grass carp stocking location in relation to non-vegetated sites. Noted that most areas with no vegetation were in treatment areas from 2012 but also that the flats area could have been impacted by grass carp. Further discussion needed.

4.) Tuber Research (2:10PM)

Discussion of tuber research conducted by NCSU.

Justin Nawrocki – Conducting tuber research in various areas of the lake. Reported low tuber numbers in the flats area. Found that some areas (Smith Creek example) have seen depleted tuber numbers and density since 2007 even years after treatment. Also found that some areas, particularly Hubquarter and Lyons creek have a very high regenerative capacity for tuber production. Noted that each site saw consecutive years of treatment, but one year lapse in treatment led to severe increase in tuber numbers. Recommended that this factor (regenerative capacity of sites) be included in treatment site selection in both the short and long term.

Also noted that dry hydrants were sampled (those treated twice annually with contacts) and tubers were sampled but no apparent trend in tuber numbers/density.

Rob Richardson – Want to discuss mean tuber numbers and density in detail during the next meeting (February 28th).

Rob Emens – Expressed interest in how actual metrics (tuber # and density) were calculated.

Justin Nawrocki – Tuber density is number of tubers per core sample per site whereas tuber numbers is total # at site.

5.) Habitat Restoration Efforts (2:21 PM)

Discussion of Aquatic Habitat Restoration being conducted by NCSU

Justin Nawrocki – Attempting to establish water willow, vallisneria and water shield in pens at several sites throughout the lake. Has had success with water willow, some success with watershield but little success with vallisneria. The goal of the project is to determine if these species can be established but also the importance of these species to sport fish habitat. Nawrocki also doing invertebrate sampling and fish shocking to identify associations to plant species. Recently discovered coconut fiber netting as an alternative planting substrate from Lyn Gettys. Will attempt to use this fiber for planting of vallisneria in the following year.

Michael Smart – Questioned the capability of c. fiber to suppress hydrilla growth.

Justin Nawrocki – not sure but believes that Gettys work has shown some suppression of hydrilla growth in the past.

6.) Reevaluation of Long Term Management Goals/ Plan (2:32PM)

Brett Hartis – Stressing a need for reevaluation of long term management plan to include some long term, measureable goals. Noted need inclusion of tuber research into a long term management plan. Also discussed the “hop-scotch” nature of current treatment. Very few sites have been treated in consecutive years in the past five years, therefore tuber bank regeneration occurring and no real reduction of hydrilla to manageable levels is being achieved. Noted concerns of funding sources that we “are not getting anywhere” with hydrilla management. Also noted the need to remove bias of applicator selection of sites based on existing private contracts annually. Made a motion to create a sub-committee of TAG and LGSB to determine treatment sites and reevaluate the long term management plan. The following members of TAG spoke up to be included on the committee – Sarah Miller, Justin nawrocki, Kirk Rundle, Mark Fowlkes, and Rob Richardson. Committee will meet face to face or via phone conference to develop a plan by next meeting (February 28th)

7.) Nuisance Native Aquatic Plant Discussion (2:40PM)

Discussion of problem areas with excessive native plant growth.

Brett Hartis – It has come to his attention and the attention of others that two primary species are causing problems for homeowners, particularly in the Great creek and Lizard Creek areas. Species of concern are American Lotus and Watershield. Homeowners dock areas being inundated with rapid growth of these species. Currently, dominion plan only allows for removal

of 10 foot area without mitigation and extensive fines/ permitting. Materials to be dispersed amongst members and to be discussed at February 28th meeting.

Meetin Ajourned (2:43 PM)