

117th Aquatic Plant Management Council Meeting

Attendance:

Board Members: Chris Page, Larry McCord, Stan Hutto, Bob Perry, and Jeannie Eidson.

Guests: Michael Hook, Daniel Hood, Casey Moorner, Chip Davis, and John Morrison, Scott Lamprecht

Location:

Old Santee Canal Park, Moncks Corner, SC

Call to Order:

1:22pm 12/9/14

Minutes:

Chairman Page outlined the purpose of this preliminary meeting. He said it is to give a brief summary of what we have done in the previous year, as well as what the plan for next year will look like. Mr. Page stated that no official meeting with SCDNR has taken place to discuss plans for the upcoming year, nor have any inter-agency meetings taken place.

Chris Page submitted the 116th APMC meeting minutes for review. Larry McCord would like to correct section 4, last sentence on page. Mr. McCord requested to strike "kill" and replace with "moved". He stated that water would not have killed the hyacinth. Bob moves the minutes as corrected be approved, Jeannie seconds, no discussion, unanimously passed.

Mr. Page went on to an overview of DNR's activities. SCDNR staff received many calls concerning Black River and Mingo Creek hyacinth problems in October. Mr. Page said hyacinth problems were reported from the "narrows" down to the Black River, Waccamaw River confluence. SCDNR staff believed that hyacinth in the Black River worked back up the Mingo Creek to Hwy 41 Bridge on flood tides. SCDNR staff treated a total of three times in November for a total of 87 acres. Mike Hook stated there was a primrose mat problem until the end of August in the Pinetree Landing Cover, but no noticeable hyacinth problems. Mike Hook reiterated that past populations of hyacinth have been seen on the Black River and Mingo Creek closer to SC Hwy 51, but that this year was the first to see hyacinth in such large populations so much farther upstream of SC Hwy 51 Bridge.

Chris Page treated The Wedge Plantation for *Phragmites* totaling 6 acres. The US Naval Weapons Station was in the plan for 2013, however, funding was not appropriated for treatments of *Phragmites* until the 2014 season. Mr. Page informed the council that the US Naval Weapons Station is now a joint base,

shared by US Air Force and US Naval, and that has complicated the paperwork process. Mr. Page stated that SCDNR staff appreciated the opportunity to treat problem areas of Phragmites on the edge of Charleston Harbor within the US Naval Weapons Station utilizing their allocated funding.

Wood stork rookeries. Mr. Page gave Mike Hook the floor to discuss treatments within Wood Stork rookeries. Mr. Hook stated for the last 3 years wood stork ponds have been treated in order to improve habitat. Mr. Hook and SCDNR's wading bird biologist, Christy Hand, developed strategies to improve habitat using aquatic herbicides within the rookeries. Mr. Hook outlines difficulties with timing for treatment of ponds due to wading bird nesting, and the need to treat vegetation mats to prevent predation of wading bird eggs. Mr. Hook stated that, slowly, over the last 3 years SCDNR staff has seen water opening up and an overall reduction of the target species. Mike outlines difficulties with timing of treatment, especially with floating mats in the early season. Mr. Hook also discussed the reduction of efficacy seen using herbicides, due to treatment timing. Mr. Hook outlined SCDNR's thoughts on future experimental treatments of rookeries to increase efficacy. Mr. Hook and Miss Hand have received positive reviews and have been asked to outline how they are accomplishing their goals by other wading bird biologists outside of SCDNR. Mr. Page outlined how the nature conservancy has assisted with funding on the wood stork projects. Mr. McCord asked whether SCDNR staff has used the aquatic herbicide Habitat^R. Mr. Page answered Mr. McCord stating we have used it and seen good results, but that timing is the issue with the use of most of the herbicides used to treat the rookeries. Mr. Hook stated that some type of slow release pellet containing Imazapyr could be a valuable tool for early treatment of weed mats, but no such product exists. Mr. McCord questioned how wading birds respond when heavily vegetated rookeries which were abandoned are reopened using herbicide treatments. Mr. Page stated that even if the birds leave, SCDNR staff has evidence to show they will come back if the habitat is opened back up. Mr. Page stated that as SCDNR staff gains more experience with the rookeries, they have begun to see better results. Mrs. Eidson questioned if we hit our 30 percent mark for efficacy. Mr. Hook answered "yes", but it can be difficult to quantify. Mr. McCord and Mr. Hook discussed why 30 percent efficacy can be considered effective when it comes to seeing an increase in wood storks.

Mr. Page discussed that Carp released into Monticello Recreation Lake seem to have controlled the *Hydrilla* issue that was present. Mr. Page stated, SCDNR will continue to monitor the hydrilla.

Chris discussed the reoccurrence of Giant Salvinia on a golf course in Bluffton, SC. The golf course and home owners association provided treatment for the infestation, and DNR also provided one Galleon treatment. Mr. Page stated that no known nursery was found. Mr. Page discussed that this is the third occurrence of *Salvinia molesta* in SC. The first two occurrences were eradicated. Mr. Page discussed the importance of eradicating this population of *Salvinia molesta*. Mr. Page stated that SCDNR staff will continue to revisit the site to insure that the contractor follows through with the eradication. Mr. McCord restates the importance of eradication of this population due to the ease of transport of the plant by many human and natural carriers. Mrs. Eidson asked about first two occurrences of *Salvinia* in South Carolina. Chris stated the first occurred in Colleton County in 1995, and came in with decorative fish in the spore form. This was the first occurrence of *Salvinia* in the U.S. Mr. Page stated that it was treated with Diquat and Sonar^R. Mr. Page discussed the second occurrence was in Hampton County at Delta Plantation around 2005. In the second instance the land owner flushed the system with salt water while the upper end was treated with herbicides. Mr. Page discussed the benefits of new herbicides for treating Giant Salvinia. New time released products, smaller or diluted products with less total cost per container.

Mr. Page: SCDNR also treated Goose Creek Reservoir, Back River Reservoir, and several SCDNR owned WMA's. Mr. Page stated SCDNR plant management funding is still good, and still provided by a small percentage of gas tax funds. Mr. Page discussed the fact that the Trust Fund was not used at all during 2014. Mr. Page is attempting to place money into the Trust Fund in order to have a backup plan in case Water Recreation funds faultier. Mr. Perry asked about payment schedule for The Wedge Plantation treatment. Mr. Page stated that he had not sent invoice as of yet. The total work on The Wedge Plantation came to \$705. Mr. Perry mentioned positive feedback received concerning The Wedge Plantation. Mr. Page discussed 500 acres of aerial herbicide treatment was carried out at Santee Coastal, 80 acres of aerial treatment at Yawkee WMA, and 10 acres of aerial treatment at Bonneau Ferry WMA. Mr. Perry mentions seeing *Phragmites* on The Cape

and The Main Land at Santee Coastal. Mr. Page discussed need for Santee Coastal to use their Marsh Master or Argo to spray smaller patches in addition to our aerial treatments. Mr. Perry and Mr. McCord discussed draining the Santee Coastal impoundments to allow salt flats to oxidize in the spring and allow for treatment of plants within the footprint of the Marsh Master or Argo.

Mr. Page mentioned that SCDNR is waiting to see if Thurmond will take action on *Hydrilla*. Mr. McCord discusses a new push from the Eagle Protection Act to force Corp. of Engineer action on *Hydrilla* or face fines. A manager from Florida was brought in to suggest treatment measures for *Hydrilla* with Corp. of Engineer staff. Mr. McCord discussed that Thurmond seems to be isolated and unique in terms of Corp. of Engineer owned Lakes that have not treated *Hydrilla*. Mr. Page discussed a public survey amongst different usage groups on Lake Thurmond which showed an overwhelming want for treatment of *Hydrilla*. Mr. Page discussed how the survey indicated that joint efforts to educate the public on invasive species are showing a positive effect. Mrs. Eidson asked if the Corp. is still trying to determine what action to take regarding the *Hydrilla*. Mr. Perry answered, stating he believes there is a break in action between managers and the engineers. Mr. McCord stated his belief that a *Hydrilla* issue on any of the other Lakes in South Carolina would have resulted in much more negative press than Lake Thurmond has received. Mrs. Eidson suggested that Legislators should be made aware of the situation to encourage action on Lake Thurmond. Mr. Page suggested that not only South Carolina Legislators but also Federal Legislators should be given information on the situation at Lake Thurmond.

Mr. Page brought the Lake Hartwell fish kill, which occurred in 2014, to the table. In 2014 a treatment of herbicide by a private applicator, under recommendations by Dr. John Rodgers at Clemson University, caused a fish kill. Mr. Page discussed that the treatment was applied to address algae, which were causing taste and odor issues with a drinking water supply. SCDNR was not involved in the treatment. Dr. John Rodgers contacted a consulting firm in GA for recommendations on treatment of the algae. An applicator out of Alabama applied a lower water column treatment of herbicide to treat an upper water column dwelling algae under Dr. Rodger's recommendations. Mr. Page stated the applicator showed reservation to applying the

herbicides by Dr. Rodger's suggested rate and methods, but proceeded with the treatment as instructed. Mr. Page concluded the fish kill was a minor incident, but still attracted bad publicity.

Santee Cooper:

Chip Davis reported that a total of 5,485 acres were treated on Santee Cooper Lakes. The total treatment costs amounted to approximately \$1,850,000. Mr. Davis stated that the majority of the treatment acreage was dedicated to Crest Floating Heart (CFH) and Water Hyacinth. Santee Cooper did not have as large of a problem as in 2013 with Hyacinth. Hyacinth became an issue later in the season. 2090 acres in the last month for Hyacinth and CFH. Mr. Davis reported that most of the treatments were located near subdivisions or other "high use" areas of the Lakes. There was no noticeable growth of *Hydrilla* to warrant herbicide treatment. Mr. Davis asked Mr. Page if Potato Creek WMA was treated. Mr. Page replied that Potato Creek WMA was treated for *Hydrilla*. Mr. Davis reported that trees still making treatment of CFH and Hyacinth difficult. The use of Clearcast^R and Glyphosate^R in spring and summer, and Clearcast^R+Clipper^R in the fall for CFH. Mr. Davis reports that Santee Cooper staff saw good results with the Clearcast^R+Clipper^R treatments and will check back in the spring to survey long term efficacy. Mr. McCord told of how the CFH continues to move into the upper swamp, which will create a problem for treatment within the trees by helicopter or airboat. Mr. McCord discusses the importance of systemic action for long term control of CFH. Mr. Davis noted good application results from airboat applications using Endothal, but despite North Carolina State Universities' success treating test plots with Hydrothol 191^R, Santee Cooper views the potential for fish kills and others issues too high for large scale foliar application. Mr. McCord reiterates Mr. Davis' comment that handling of Hydrothol 191^R can be very dangerous.

Mr. McCord stated that large scale aerial surveys were not done in the last 2 years, but boat surveys have shown a tremendous reduction in *Hydrilla* populations. Mr. McCord attributes the noticed reduction in *Hydrilla* to Grass Carp as well as high turbidity levels in recent years. Mr. McCord notes that *Hydrilla* is still present in areas where is historically flourished, but that its re-growth is sparse. Mr. McCord state he believes that grass carp are continuing to control *Hydrilla*. Santee Cooper staff have noticed populations of *Vallisneria*

making resurgence, but that population acreage numbers are not as large as they would like achieve. Mr. McCord mentioned that he believes turbidity levels in previous years also effected *Vallisneria* population acreages. Mr. McCord mentioned that the acreages of *Vallisneria* would most likely enter the discussion concerning grass carp stocking on the Santee Cooper Lakes. Mr. Page mentioned that SCDNR staff treated Potato Creek, Santee Cooper WMA's (Orangeburg), and Sandy Beach WMA. Mr. Page asked Santee Cooper Staff about flows effecting efficacy of treatment for CFH. Mr. McCord discussed that several herbicides have been used on CFH, and that several different parameters can affect efficacy. A brief discussion of aquatic herbicide use, as well as, new product combinations was carried out by Mr. Page, Mr. McCord, and Mr. Davis.

Mr. Page called for questions on the 2014 year summary. No questions were brought before the board. Mr. McCord discussed SePro Corporations' experimental work on CFH, and his hopes that continued research will result in an herbicide combination with high efficacy. Chris discusses that he has passed along SCDNR's list of recommended species to be added to the South Carolina Illegal Plants List. These included CFH, Giant Salvinia, and other "high profile" species.

Mr. Page: 2015 proposals.

Mr. Page stated that SCDNR's chemical recommendations have stayed the same for 2015, and that total numbers will be represented in the 2015 annual plan. Mr. Lamprecht asked Mr. McCord what amount of acreage the Santee Cooper surveys showed. Mr. McCord responded that a boat survey conducted by Santee Cooper staff will be used to compile a map showing areas where *Hydrilla* is present, but that they do not know what total acreage exists. Mr. McCord stated that he believed there is very little *Hydrilla* in the Santee Cooper Lakes in terms of acreage, but that there is still *Hydrilla* in areas where it has been seen historically. Mr. McCord emphasized that *Hydrilla* must be monitored and maintained to ensure that there are no increases in the population. Mr. McCord stated Santee Cooper would like to make recommendations for stocking of grass carp. 2011 and 2012 were the large stocking years, due to a significant increase in the Santee Cooper *Hydrilla* population. 2014 had no stocking, and based on a 32 percent mortality rate, Santee Cooper staff estimates a

population of 92,000 grass carp in the system. Mr. McCord recommended that maintenance stocking protocol be implemented for the 2015 season, both for *Hydrilla* control as well as year class maintenance. Mr. McCord suggested that 1 fish per 8 surface acres or approximately 20k fish be stocked in the 2015 year. Grass carp will be stocked to slow the reduction of grass carp population, as well as, control current *Hydrilla* populations and allow for continued increase in the native vegetation populations. Mr. McCord indicated that *Hydrilla* is not flourishing but is still present throughout the Santee Cooper Lakes. Mr. McCord reiterated the importance of maintaining consistent year classes in the grass carp population so that a sudden decline in the grass carp population does not result in the need to stock large numbers of grass carp as in past years. Mr. McCord reminded the board that Santee Cooper will have no cost share for purchasing grass carp and would not like to find themselves in need of a large scale stocking once again. Mr. McCord mentioned that Santee Cooper plans to continually reduce the number of grass carp stocked each year, as long as *Hydrilla* populations remain contained, but does not wish to skip stocking of another year class. Mr. Page explained to the board that even the 20,000 proposed grass carp for 2015 will reduce the total population by approximately 10,000 fish based on a 32 percent mortality rate. Mr. McCord stated that 32% mortality rate will also affect the 20,000 fish that are stocked in 2015, so the actual population in 2016 will most likely be lower than 82,000 carp. Mr. McCord stated that within 4 years, approximately 20,000 fish per year will maintain the population Santee Cooper wishes to see for *Hydrilla* control. Mr. Page informed the board that the proposed 2015 stocking will return population levels back to levels seen in 1999-2000. Mr. Page stated that when the estimated grass carp population dropped to around 10,000, *Hydrilla* re-growth in the Santee Cooper Lakes was noted. This occurred around 2005-2006. Mr. Page makes the point that older carp do not consume as much biomass, which is another reason to maintain younger year classes.

Mrs. Eidson asked about the status of native vegetation populations. Mr. McCord stated that native plants, in terms of submersed native plant populations, have been reduced significantly in recent years. Mr. McCord attributes this population reduction to high water levels and turbidity. Mr. McCord pointed out that *Vallisneria* in particular is very susceptible to high turbidity. Mr. McCord stated that some herbivory could

have affected *Vallisneria*, but that he believes this effect negligible based on past experience and observation. Mr. McCord commented on the difficulty to accurately survey submersed vegetation populations due to water surface cover by CFH. Weed rake surveys were also negatively affected by CFH biomass. Mr. McCord stated that CFH is probably the largest treat to native submersed vegetation, due to its propensity to cover the water surface, obstructing light from penetrating the water column. Mr. Davis discussed the impacts of CFH on dissolved oxygen levels, stating that areas with CFH surface covered often showed dissolved oxygen levels near zero. Mr. Page mentioned that some areas where *Vallisneria* populations were outcompeted by *Hydrilla* had reverted back to a biome dominated by *Vallisneria*. Mr. McCord stated that Santee Cooper Staff plans to transplant *Vallisneria*, as they have in the past, in order to assist its spread throughout the Lakes. Mr. McCord stated he expects to also see a natural rebound of *Vallisneria*, based on their surveys of juvenile rooted plants and floating plants with the ability to re-root.

Mr. Page discussed the dynamics of a grass carp population curve, and the importance of maintenance stocking with regards to maintaining a gradual, controlled reduction of the total population. Mr. Page and Mr. McCord also discussed the cost effectiveness of a gradual population decrease through maintenance stocking. Mrs. Eidson addressed the board to state that she did not feel that anyone on the board was opposed to the idea of maintenance stocking of grass carp, but that past stocking protocol was ceased because the *Hydrilla* in the Santee Cooper Lakes was eliminated, "we stopped because we cleared the place out." Mr. McCord stated that at no point in time after the initial stocking of grass carp in the Santee Cooper Lakes was there zero *Hydrilla* present. Mr. McCord offered Santee Cooper's data in order to reinforce his statement. Mr. McCord stressed that the *Hydrilla* population was significantly reduced, but not eliminated. Mrs. Eidson stated that she believed the historical cessation of stocking was a mistake and that the board should not make such a mistake again. Mr. McCord also attributed the close of the Santee Cooper fish hatchery, which could have reduced stocking costs, to the past cessation of stocking. He stated that past stocking cessation was based on "internal and public pressure" as well as the presumed elimination of *Hydrilla* in the Santee Cooper Lakes. Mrs. Eidson stated that she "begs to differ" in regards to the reasons for cessation of grass carp stocking. Mrs. Eidson

reiterated that the board was most certainly in favor of maintenance stocking at the point in time. Mr. Page stated that knowledge is gained from past experiences, and that several unpredictable environmental factors, such as turbidity, can also play a part in the total number of recommended grass carp. Mrs. Eidson expressed her condolences to Santee Cooper for feeling the need to close their hatchery, but that she did not believe that decision should be blamed on the public. Mr. McCord shared that he did not blame the decision to close the hatchery on the public but rather on the Aquatic Plant Management Council for making the decision to cease grass carp stocking. Mrs. Eidson expressed that she did not believe blame should be placed on the Council. Mr. McCord expressed that the reason the hatchery was built was to follow maintenance stocking protocol, which the Council then disbanded, so therefore the Council was directly responsible for the closure of the Santee Cooper hatchery. Mrs. Eidson stated that the council had made decisions to "over stock" and that Mr. McCord was a party to that decision. Mr. McCord disagreed with Mrs. Eidson's statement. Mr. Page interjected into the conversation so that current business could proceed.

Mr. Perry made the call for resource considerations. Mr. Perry called on Mr. Lamprecht to address the board on fish population status and recruitment status on the Santee Cooper Lakes.

Mr. Lamprecht stated that constituents he has contact with have expressed their approval of the status of the largemouth bass populations in the Santee Cooper Lakes. Mr. Lamprecht stated that he would like to share his opinion towards grass carp stocking on the Santee Cooper Lakes. He stated that he was an advocate for maintenance stocking, even if it means erring on the high side of maintenance levels, but that he believes no negative effects would come from not stocking in 2015. Mr. Lamprecht expressed that he would like to suggest a lower stocking rate for 2015, based on his "artistic opinion, not a calculated scientific approach." Mr. Lamprecht stated that he understands the importance of year class maintenance, but that he sees an excess of herbivory on the Santee Cooper Lakes based on locations where grass carp have been gill netted. Mr. Lamprecht expressed that he would like to have SCDNR staff assess the condition of grass carp in the Santee Cooper Lakes and use the information as an indication of submersed vegetation availability. Mr. Lamprecht acknowledged that he would be in favor of allowing a potential of 20,000 grass carp to be stocked, but that he

would like to assess carp condition before a final stock number is decided upon. Mr. McCord asked Mr. Lamprecht exactly what he means by "excess herbivory" and how he would qualify his statement. Mr. Lamprecht replied that the maintenance level of grass carp is one carp per eight acres, but that our current projected population is five times that level. Mr. McCord expressed that Mr. Lamprecht's statement of the presence of too many carp was only grounds for potential excess herbivory. Mr. McCord requested that Mr. Lamprecht develop a means of classifying and quantifying "excess herbivory" so that assumptions can be eliminated. Mr. McCord states that he has no data to show that there is no excess herbivory occurring, but that statements that excess herbivory is occurring should not be made on assumption alone. Mr. Perry asked Mr. Lamprecht and Mr. McCord how difficult it would be to trap some grass carp and have them examined. Mr. McCord answered that capturing and examining grass carp is most definitely feasible. Mr. McCord requested Mr. Morrison's input on the status and potential for study of Santee Cooper grass carp. Mr. Morrison stated that turbidity in recent years has had a huge impact on the submersed aquatic vegetation (SAV) populations, and that reductions in SAV cannot be blamed on grass carp alone. Mr. Lamprecht agrees that without the turbid conditions seen in the past two years, populations of SAV could have been more than enough to increase or maintain the fitness of grass carp in the Santee Cooper Lakes. Mr. Lamprecht stated that with the current population of *Hydrilla* at the level it is, he does not believe that stocking may be necessary for 2015 or 2016. Mr. McCord responded that he was not nearly as confident that stocking is not necessary as Mr. Lamprecht. Mr. McCord reminded the board that Santee Cooper cannot afford to stock a huge amount of grass carp again if *Hydrilla* does rebound as a result of not stocking carp in 2015-2016. Mr. McCord informed the board that all fiscal responsibility for *Hydrilla* control on the Santee Cooper lakes falls upon Santee Cooper alone. Mr. McCord stated that all current data indicates the fish populations and native SAV are doing well. Mr. McCord suggested that current decisions should be based on current data rather than opinion. Mr. McCord reiterated that he would like to not skip several consecutive stocking year classes. Mr. McCord stated that due to the growth rate of *Hydrilla*, once the carp population drops below control numbers *Hydrilla* can quickly take over the SAV ecosystem. Mrs. Eidson stated that if the board decides to commit to

stocking carp every year, there should be a plan for reduction of stocking over time. Mr. McCord clarified that he did not recommend that we stock every single year, but rather that we not miss stocking multiple consecutive year classes. Mr. McCord stressed that yearly evaluation of the *Hydrilla* population is needed in order to make informed decisions each year. Mrs. Eidson stated that she would like to clarify that Santee Coopers does not want to miss "multiple consecutive year classes." Mr. McCord agrees with Mrs. Eidson's statement. Mr. Page states that he agrees with Mr. McCord on the statement that missing multiple year classes would not be a good idea in terms of management. Mr. McCord stated that he feels it is important for the board to remember that the focus of grass carp stocking is on control of *Hydrilla*, not necessary maintenance of year classes.

Mr. McCord requested that Mr. Lamprecht not mention the opinion that CFH attributed to good bass fishing on the Santee Cooper lakes due to the fact that it may encourage the public to transplant CFH to other water bodies intentionally. Mr. Perry requested Mr. Lamprecht's overall recreation fishery assessment and his analysis of contributing factors. Mr. Lamprecht indicated that there are many variables within the fishery to consider, but overall he believes that the state wide fishery is in good shape. Mr. Perry requested that Mr. Lamprecht present information on the condition of a sample of Santee Cooper grass carp at the next meeting. Mr. Perry stated that he did not know if carp condition was the best indices for grass carp herbivory but that it could certainly be a good indication. Mr. Perry stated that he is disconnected with the waterfowl resource constituents. Mr. Perry called for anyone with information on the waterfowl resources status in terms of waterfowl hunter comments or statements from refuge managers. Mr. McCord stated that he recently spoke with the Refuge manager, who reported that the 2014-2015 waterfowl year was going well. Mr. McCord also stated that a Santee Cooper hunter spoke with him and commented that "the ducks on the lake this year are the best they have seen in decades." Mr. Lamprecht commented that the Hatchery WMA is "just a shadow of what it used to be." He concluded that there is "not enough protected water in there (Hatchery WMA) to hold vegetation like it used to." Mr. Lamprecht stated that comments he received from waterfowl hunters indicated that more quality ducks have been seen this year than in years past. Mr. McCord requested that

member of the board also not make the comment that good duck hunting on the Santee Cooper Lakes is due to the CFH. Mr. Perry, Mr. McCord, Mr. Page, and Mrs. Eidson discussed many factors affecting duck populations and migrations, including but certainly not limited to aquatic vegetation.

Mr. Page brought his recommendations for the 2015 year before the board. Mr. Page recommended that Lake Murray continue with maintenance stocking in 2015. Lake Greenwood has reached the point where maintenance stocking can begin. Mr. Page reminded the board that Piedmont lakes are based on a 23 percent mortality rate, and a 1 fish per 10 acres rate. Greenwood population estimates are at 1140 fish total. Mr. Page stated that a maintenance level of grass carp is modeled for perpetuity at a stocking rate of 250 fish per year. Mr. Page stated that Lake Murray is currently at the maintenance level of stocking and that SCDNR plans to stock another 1100 carp this year. Mr. Page briefly discussed the factors that result in a lower mortality rate for Piedmont lake ecosystems compared to lakes in the Coastal Plain. Mr. Page states that the Greenwood plan is tentative and that based on a 23% mortality rate, it may take one additional year to reach the maintenance population. Mrs. Eidson suggested SCDNR staff attend the watershed management plan on the 15th to present management suggestions. Mrs. Eidson and Mr. Page discussed the correlation between DNR's state water management plan and SCDHEC's watershed management plan, as well as their function.

Mr. Page called for new business and none was brought before the board. Jan 15th is the preliminary date for the next meeting of the South Carolina Aquatic Plant Management Council. Mr. McCord suggested as the potential meeting site if necessary. Mr. Page called for any further business and none was brought before the board.

Mr. McCord moved to adjourn the 117th APMC meeting. Mrs. Eidson seconded Mr. McCord's motion.

The 117th APMC meeting was adjourned at 3:29pm.