

Summary of Public Comments, Responses, and Plan Modifications to the Draft 2015 South Carolina Aquatic Plant Management Plan

Santee Cooper Lakes

Comments, 134 Opposed(37 done in petition letter format), 46 Supported

Comments

Opposed:

I am a resident of South Carolina and I utilize the Santee Cooper lakes. Over the last 4 years, nearly 17k acres of native, beneficial vegetation have been destroyed by over stocking grass carp and over use of herbicidal treatment. That is unacceptable to me. I cannot support the 2015 draft plan nor any further stocking of carp until the 17k acres of SAV have been restored. A diverse SAV ecosystem is needed for all fish and wildlife.

The people of South Carolina have suffered through your mismanagement for quite long enough and it's time you start managing these lakes to the best of your ability to improve wildlife habitat on the largest, most diverse reservoirs in the state.

Please for the sake of our residents, sportsmen, and natural resources carefully consider allowing some habitat to be restored in the Santee Cooper lakes to benefit us all.

Doug Sass, Brian Hatch, Miles Altman, Jacob Wallace, Will Godwin, Hunter Hardwick, Kelly Godbolt, Gene Gabrielli, Drew Postal, James Killian, Dusty Springs, Davis Lee, Tyler Odum, David Felkel, B.K. Bonge Jr., Robbie Johnson, Mike Rice, David Strickland, Aaron Clossman, Brad Taylor, Wes Thompson, John Cooper, William Kalutz, Mark Haselden, Chad Wofford, Baylis Macinnis, Russell Boykin, Josh Newsom, Wilson Smith, Randy Garvin, Joseph D'Amico, Travis Swanda, Coy Myers, Jeffrey Williams, Adam Barr, Trey Morris, Conner Stone, Garrett Bedenbaugh, Brandon Wagner, Justin Richardson, Alex Stone IV, Matthew Parrott, Keith Campbell, Jeffrey Sawyer, Cameron Ludendorff, Anderson Coleman, Bill Crawford, Tyler Bagwell, Katherine Goodwin, Warren Boyd, Philip Messina, Kenny Norton, Logan Barnes, Marvin Morgan, Jeff Rybak, Jesse Williams III, Cody Harper, Daniel Hutto, Alex Lanter, Rion DeMars, John Marscher, Rick Marscher, Eddie Taylor, Ian Cundiff, Anthony Wade, Kyle Gillepsie, Wes Drummond, Peyton Stilp,

I strongly oppose the stocking of additional carp. Please stop the stocking of carp and overuse of herbicides at Santee Cooper. If the lakes are properly managed they can be a premiere fishing and waterfowl destination. That is not the case today.

Stephen Wilcher

The idea that this is even a thought bothers me. The damage that these fish have done to the eco system in the santee cooper lakes is utterly disturbing and sad. No natural vegetation or even helpful invasive. Now you want to add more invasive species. The bait fish and small game fish have know where to hide. I think this is directly correlated to the increase in cormorant wintering in the santee cooper system. We see what has happened with that. Please think about all this and how this is going to effect the lakes for the next 20 plus years.

Anderson Coleman

Please discontinue stocking of carp and spraying of vegetation. I fish and hunt on Santee cooper and I have not seen any hydrilla so there is no reason to take action to remove something that does not exist. I would still oppose removal of hydrilla even if it was prevalent in the lakes because it enriches the wildlife habitat. Ever since the hydrilla has been eradicated I have personally seen the fishing and hunting opportunities fall dramatically! There is also research that has been conducted that proves this! In turn, the local economy suffers, the campgrounds that used to host many sc residents and out of state residents are now closing or struggling to stay afloat. Please don't mismanagement

this great resource we have (just like what was done at the nwr for duck and goose habitat), or we will continue to tell stories of how great these lakes used to be, not how great they ARE.

Matt

The Santee Cooper lake system was stocked with over 700,000 grass carp from 1989 to 1996 by the SCDNR. The purpose was for the grass carp to control an aquatic weed called hydrilla that is NATIVE to the lakes. After spending millions of dollars, you proved that these fish could in fact fight off the hydrilla. The problem is that it has continuously been OVERstocked and the wildlife populations are very low because of it. Lake Marion has 13,000 acres of National Wildlife Refuge that is now being occupied by nothing other than thousands of Double Crested Cormorants. Back in the late 80s and early 90s this lake system was full of hydrilla and other natural vegetation that made its game fishing the best in the state. Since the stocking of the grass carp the population of game fish has dramatically decreased. This is because they have no vegetation to hide by or under for cover and they are being eaten by predator fish and birds like the cormorant. One of the main purposes of the refuge is to provide a safe haven for local and migratory birds. When the hydrilla existed, the lake was filled with ducks and various types of migratory birds and since the grass carp that population is next to none. As a home owner and a person that has grown up on the lake and has witnessed all the problems that came from the stocking of these grass carp, it is evident that it needs to stop. The ecosystem in its natural state is the healthiest for all kinds of wildlife. Please STOP stocking the lake with the Triploid Grass Carp.

After all the efforts of stocking the santee cooper lakes with grass carp over the years, it has done nothing but hurt the wildlife population. Continuously stocking the lakes with these fish to control a weed problem is simply not natural for the ecosystem. It has wiped out the gamefish populations as well as waterfowl.

Drake Lowe

You ruined the lakes with carp. What happened to your promise of aquatics?

Since you cannot eradicate hydrilla, why not get some benefit from it?

Life is not about hydro production for the majority of the people using the lakes.

Why can't you count. You have well surpassed your carp stocking goal and ruined naive and non-native aquatics, AGAIN.

Once again you have overstocked grass carp. You can't deny it was purposeful the second time...

Phillip Lowe

I am strongly against the stocking of any more grass carp into the Santee Cooper lake system.

Chris Bradham

I am a resident of Manning, South Carolina and I utilize the Santee Cooper lakes for Hunting, Fishing, and Recreational purposes.

The loss of Native vegetation, especially Eel Grass, over the past 4-5 years is extremely disturbing given the proposal put forth for another 6,400 carp to be stocked in the lake systems. I am 100% opposed to this proposal and urge the APMC and Santee Cooper to reconsider.

Hydrilla is nearly non-existent in the lake system, and saying there is 100 acres of coverage is not even accurate.

The past 5 years eradication of the Eel grass that Santee Cooper even helped transplant is beyond SAD. Please take the time and truly work together to try create a healthy ecosystem in the wonderful treasure we have so grossly mis-managed when it comes to aquatic vegetation.

Alex Brammer

Pintail Partners is a coalition of waterfowl organizations whose members use the Santee Cooper lake system for hunting, fishing and recreational boating. The Coalition is made up of Ducks Unlimited of SC, SC Waterfowl Association and Delta Waterfowl Foundation.

Pintail Partners submit the following comments to the 2015 SC Draft Aquatic Management Plan: Approximately 4000 acres of the lake system is impacted by water hyacinth. Another 4000 acres are impacted by crested floating heart; 400 acres are impacted by giant cut grass; only 100 acres are impacted by hydrilla and 100 acres impacted by other target species. (Draft plan pg. 98) These species can be controlled by many different control measures.

Selected control measures for all these species include herbicides. Grass carp as a control measure is only recommended (along with other measures) for hydrilla. (Draft Plan pg. 97). Furthermore, results from grass carp MAY NOT BE EVIDENT FOR TWO OR MORE YEARS. (Draft Plan pg. 99 emphasis in the original)

According to SCDNR there are more than 90,000 grass carp in the lake system at the current time. The long-term goal for the lake system is only 20,000 fish. (Draft Plan pg. 99). According to the Plan Santee Cooper intends to add 6400 grass carp in 2015.

We understand that SCDNR collected a limited sample of grass carp from the system that were in very poor condition, indicating limited food resources. This situation was probably due to the limited acreage of submerged aquatics in the system relative to the population of grass carp.

Based upon this information, Pintail Partners recommends that additional grass carp not be stocked into the system this year and that additional analysis be done before stocking these fish into the system in the future. Pintail Partners also recommends that funds set aside for stocking grass carp be re-directed to herbicides which can be used for other nuisance species including hydrilla.

Aquatic vegetation is healthy in a freshwater lake system. It provides food and cover for many fish and food for waterfowl. The lake system has never been devoid of aquatic vegetation nor should it be. Pintail Partners supports the management goal of stabilizing the system for beneficial aquatic growth and reducing nuisance vegetation such as water hyacinth and giant cut grass especially in the WMA areas and the upper Lake Marion area. However, rather than add more fish to an already overstocked system utilizing the funds saved for herbicide would be a more efficient use of resources.

Buford Mabry, Pintail Partners

Since a stable and adequate coverage of submerged aquatic vegetation is necessary for a healthy freshwater ecosystem, the WFF Advisory Committee recommends a minimum of 12,000 acres of beneficial submerged aquatic vegetation be maintained in Lakes Marion and Moultrie as spawning substrate for anadromous species, nursery habitat for larval and fingerling game fish, cover for small non-game species, and as food and forage for waterfowl.

As part of such, the WFF Advisory Committee recommends the following changes to the Santee Cooper Lakes sections (Sections 29 and 30) of the 2015 Draft Aquatic Plant Management Plan: Recommendations: (1) Eliminate the 2015 planned stocking of 6,400 Triploid Grass Carp, (2) repurpose 2015 funds intended for the stocking of grass carp to control invasive plant species, not controllable by grass carp, that remain at or above 2014 levels, and (3) work with SCDNR Wildlife and Freshwater Fisheries staff during 2015 to better quantify the population of grass carp on Lakes Marion and Moultrie including total population, overall health of the population and herbivory potential.

Reasoning: (1) Based on the 2014 Aquatic Plant Coverage survey provided by Santee Cooper the current population of grass carp is 931 fish per acre of hydrilla. This is the highest total grass carp per acre of hydrilla ever recorded on the system and this comes at a time when there is less than

700 acres of beneficial submerged vegetation remaining on the lakes. As stated in the draft plan, the bulk of the system's existing grass carp, from stockings in 2012 and 2013, approximately 90,000 fish, are still in the high consumption size range. For 2015, this existing population of grass carp will provide more than sufficient herbivory to prevent any significant regrowth of hydrilla. The WFF Advisory Committee agrees with the draft plan's goal for a stable population of 20,000 grass carp. Eliminating the 2015 stocking will provide time for a better evaluation of all available data that will indicate when stockings should resume -see Table 1. (2) With a planned \$500,000 decrease in expenditures from 2014, the savings from elimination of the 2015 stocking will provide additional funds for herbicide applications on nuisance species that remain at or above 2014 levels including hyacinth, crested floating heart, and giant cutgrass. Using these additional revenues to attack these floating leaf and emergent species will help open or keep open boating lanes used by fishermen, hunters, landowners and recreational boaters. (3) Evidence presented in February 18th Aquatic Plant Management Council meeting indicates that the lakes' current population of grass carp are in poor condition (Figure 1 and 2) and because of slower growth, may provide a longer period of high herbivory rate than expected based solely on the age classes of the population. A study including statistically significant sampling of the population will help WFF staff better determine the herbivory potential of the population and better support the Aquatic Plant Management Council in its annual decision making process.

We agree that grass carp need to be part of the long term management of hydrilla in Santee Cooper; however, we do not need to negatively impact valuable fishery and waterfowl resources or alienate our resource constituencies by prematurely adding grass carp. It appears that the current population of grass carp (>90,000) greatly exceeds the goal of 20,000, and the current acreage of beneficial aquatic weeds is significantly less than the agreed upon 10% goal. An additional stocking of grass carp at this time is not indicated.

Michael Hutchins Chairman, Wildlife and Freshwater Fisheries Advisory Committee South Carolina

As a resident of SC I have utilized the Santee Lake system my entire life. Over the last few years the beneficial aquatic vegetation has been destroyed by grass carp stocked by DNR and herbicide applications. I do not support the 2015 draft plan nor any further stocking of carp until the lakes return to the previous levels of vegetation.

The vegetation is important to the ecosystem of the lake and is beneficial for the fish, wildlife and waterfowl. South Carolinians are blessed with one of the most beautiful areas in the country, Congaree Swamp, Sparkleberry Swamp and the Santee Lakes.

Jim Young

I am a small business owner of a sporting goods store. The decline in the natural underwater vegetation has affected business and fishing traffic. Stop the overstocking of the lake so the natural vegetation can come back which makes the best fish habitat. Lake Gunterville is a power generation much like Santee Cooper and is full of natural vegetation; eel grass, hydrilla, etc.

Jeff Fralick

I am strongly opposed to the stocking of additional triploid carp in the Lake Marion or Lake Moultrie. Please allow the native vegetation to return to the lake. The eel grass that began to grow has vanished from the lake. Thank you for your consideration on this matter.

Thomas A. "Bubba" Johnston III

I am opposed to release of grass carp on santee cooper lakes. I live on , hunt and fish these lakes on do not agree with grass carp being released. The grass carp destroy native vegetation .

Rusty Bair

Why did you kill it all with herbicides after paying good money to plant it all over the lake? Two years ago it was abundant and the lake looked very well from a vegetation stand point. Now it's a desert again and the lake looks terrible.

Bunn Tyson

My name is Jimmy Lee I grew up in Manning, South Carolina. Attended Clemson university, graduated from Southern Illinois with a wildlife management degree. The mismanagement of one of the finest fresh water lake system in this country is a disgrace. The addition of more trifold grass carp is not only devastating for the fisheries it is also removing any beneficial aquatics for wintering waterfowl. Bad management practices are not fixed by poor management.

Jimmy Lee

PLEASE STOP LETTING YANKEES & THE ALMIGHTY DOLLAR RUIN WHAT HAS BEEN A TRADITION ON THESE FINE LAKES FOR MANY, MANY YEARS.

Conner Stone

I mainly spend my time on Marion, from the Diversion Canal to Stumphole Woods. As an avid sportsman I enjoy the coves, and flats that most people avoid. Unfortunately over the last few years I have noticed a huge decline in the vegetation, as well as the wildlife using these out of the way places.

As I understand, nearly 17k acres of native, beneficial vegetation have been destroyed by over stocking grass carp and over use of herbicidal treatment.

That is unacceptable to me. I do NOT support the 2015 draft plan nor any further stocking of carp until the 17k acres of SAV have been restored.

A diverse SAV ecosystem is needed for all fish and wildlife.

Thank you for taking the time to read my comment.

I hope the opinion of the state's sportsmen will be taken into consideration before we lose anymore habitat.

Chris Billings

I am writing this email to voice my opposition to additional grass carp, and herbicides being sprayed in the Santee river system.

Year after year, the entire area is turned into a mudhole by aggressive herbicide use, and over stocking of the triploid carp. This leaves no shelter for fingerlings, and no forage for migratory waterfowl.

In just the most recent years, legislators have introduced cormorant depredation seasons to help reduce the pressure on our fisheries, and other legislators introduce restrictions on an introduced species of catfish who is designed to flourish in any water system. Our fisheries department also continues to stock striped bass, as well as other "native" fish.

We need to stop the scorched earth policy on aquatics management. The results are of course, decreased levels of hydrilla, but increased legislation to correct the effects of having the world's largest mudhole.

Justin Stroud

I am a life time resident of South Carolina. I have used the Santee Lakes for recreation for over 30 years, hunting and fishing.

The use of carp and spraying to control vegetation has been detrimental to the ecosystem of the lakes.

I understand the home owners around the lake want to keep their docks weed free. If so, they need to deal with their area.

I also understand the utility has had issues with weeds in the intakes. This is a simple issue to control. Why destroy a wonderful system!!!

Why can't the back ponds and the out of the way areas be left to nature.

Please, NO MORE GRASS CARP AND VERY LIMITED SPRAYING!!!!

Mitchell Frye

I am a native of South Carolina and have lived near Santee Cooper Lakes all of my life. From my point of view, as an avid outdoorsman, the lakes are in the worst shape I have seen in many years. The overstocking of grass carp and herbicides used have destroyed native vegetation all over the lakes. The plan to control invasive weeds has devastated beneficial vegetation. There has to be a balance to improve wildlife habitat and meet the needs that support Santee Cooper's operations. The 2015 draft plan, along with any further restocking of carp, needs to be abandoned and create a plan that will allow the recovery of our lake's natural vegetation.

Jeff Bilton

I have used the Santee Cooper lake system for 30 years. The fact that the majority of the native vegetation has been, and continues to be destroyed is very disturbing to me. I in no way support adding ANY carp to the lakes until some of the native vegetation is restored, and the utilization of the lakes returns to what it once was. I believe the knowledge and resources are in place to manage this system much more effectively than it is currently being managed.

Chris Price

Please stop and let the native grass come back!!!!

Frank Holloway

I use the lakes and know the effect the carp have had on native vegetation. I do not support the stocking of carp or the broad spectrum aquatic vegetation spraying. This has been a train wreck from the start. Please do not stock or spray.

Clent Harlin

I do not support the stocking of grass carp in the Santee Cooper Lake system. (or Lake Murray, if that is part of the management plan too).

Paul Taylor

As a life long resident of clarendon county and a steward of our Santee Cooper lake system, I do not support the stocking of grass carp. I feel that near future stockings as well as herbicide applications will be detrimental to our native vegetation. Thank you for your consecration.

Parker Coulliette

I utilize the santee cooper lakes. There is NO HYDRILLA in the lakes right now absolutely DO NOT stock any damn carp on the lake.

Kenan Sakarcan

I am a hunter, fisherman, and a resident of Santee, SC who regularly uses Marion and Moultrie.

Over the last 5 years I've educated myself and become involved in aquatic vegetation management on the S-C lakes.

I've attended APMC meetings and know the lakes better than anyone that sits on the council with the exception of Larry McCord.

I can say with utmost certainty that the S-C lakes are poorly and inadequately managed. The hard-nosed, all or nothing stance against hydrilla has caused fish and wildlife, and in turn, local economies in the tri-county area to suffer for nearly 15 years.

The people of South Carolina are tired of having what could be the top fishing reservoirs in the southeast, be mediocre at best.

How long do we have to continue to sit back and watch as thousands upon thousands of fish consume all SAV in the system.

From 2011 to 2014 nearly 17k acres of native beneficial vegetation was eradicated by overuse of herbicides and overstocking of grass carp. I'm educated enough that the "wind and wave" and the "high water and turbidity" arguments don't cut it for me. There are areas of Marion and Moultrie that hosted vallisneria that NEVER see effects from any of the aforementioned factors, yet the vegetation is gone. If that were to happen in the Chesapeake Bay, or the marshes of LA, it would make the front page of the papers.

I cannot support the 2015 APMC plan of any additional carp stockings and urge the council to abolish the carp stocking program entirely. It does not work. Triploid carp have proven they will eat any and all SAV in the system, and clearly the APMC cannot manage the numbers correctly. Site spray herbicidal treatments for hydrilla, CFH, and hyacinth.

Santee Cooper and SCDNR are bound by an agreement, signed by John Frampton to maintain 17k acres of beneficial vegetation, and have failed to do so time and again. I hope to see a turn around for the S-C lakes in the future. Because I know what they can be, if those in charge, take a stance for fish and wildlife.

Clark McCrary

This plan is still unacceptable. Truthfully, any plan that includes ANY introduction of more grass carp to our SC waterways is UNACCEPTABLE. We've tried carp. Let's hold off for 5 yrs or so and see what happens. The blanket herbicide treatment and grass carp introduction has destroyed SC's once unrivaled SAV diversity in the Santee system. Now, we have invasives that the grass carp won't touch and nearly none of the natives. This plan needs to be scrapped. Period.

Matt Motes

The undersigned are concerned about the lack of aquatic vegetation helpful to wildlife in the Santee Cooper Lakes.

The aquatic management plans call for 16,000 acres of aquatic vegetation in Lake Marion and Lake Moultrie for a balanced ecosystem. According to the latest data there are only 2750 acres. It appears overstocked grass carp have once again destroyed aquatic vegetation important to migratory waterfowl and the fisheries.

An unbalanced plan negatively affects the hunting and fishing economy of the five counties around the lake. We believe the management plan should consider the wildlife value of a plant regardless of its origin.

Water hyacinth and crested heart are two invasive plant species taking over our shallow areas that do not provide much value for wildlife. Grass carp do not eat these plant species. These plants are serious threats to the access of our lakes and require herbicides to manage.

Please consider redirecting the funds from grass carp to herbicides and attack the most prevalent noxious weeds that offer little food or habitat for wildlife.

Thank you for your attention to this matter. Please advise me of the Council's decision.
National Assembly of Sportsmen's Caucuses, South Carolina, Phillip Lowe + 37 others

Supported:

I live on Lake Marion East and support all of your efforts to keep our lake in balance. I certainly support the stocking of sterile grass carp to keep hydrilla from overtaking our lake. Also appreciated is your effort to control the crested floating heart. I have spent many days in my paddle boat trying to dig it out of our area. I couldn't make a dent in it.

Kris Blesie

I am in favor of the 2015 Aquatic Plant Management Plan which includes the maintenance stocking of sterile carp which hopefully will keep hydrilla from over-growing and choking off marinas, businesses and homeowners property along the shores of Lake Marion. It would be a huge economic disaster for our lake system if hydrilla is allowed a resurgence.

Ann Kelley

Please continue to support and provide resources to control invasive weeds in the Lake Marion System. My husband and I use the lake for boating and fishing, both are difficult to do when areas are choked out by hydrilla and crested floating heart. I ask that you continue to evaluate the needs of our lake and not merely extrapolate data gathered from other lake systems.

And while I have your attention, please develop a plan to regulate the speed and age of use for jet skis. Thanks for all that you do to keep the lake safe and accessible!!

Wanda Johnson

I am in favor of the Aquatic Plant Management Plan for 2015.

Jeanette Gilmetti

As property owners on Church Branch impoundment we encourage the continuation of the plant control program. Over the past five years great progress has been made in weed control in the Church Branch impoundment. 2014 was the most enjoyable year that we have had at our property in the last 10 years due to the efforts of Chip Davis and his department.

Alan R. Hubbard, E.B. Hubbard Jr.

I support the plan.

Key Thrasher

I support the DNR plan to control the invasive weeds Hydrilla, Alligatorweed, Fanwort, Water willow, Water hyacinth, Slender naiad, Water primrose, Giant cutgrass, Coontail, Filamentous algae (Lyngbya), Slender pondweed, Crested floating heart, Fragrant waterlily, Watermilfoil on Lake Marion and Lake Moultrie. I support the plan to control these and all other invasive species on all waterways and lakes throughout South Carolina.

Dianne Munkittrick

To whom it my concern, Taw caw hatchery is being choked off by weeds. I have lived at the far upper end for 16 years. When we moved here I was able to park my boat at waters edge. seance that time we have lost about ten acres to weeds. Please take this matter into consideration when you set forth the weed control process.

Anthony Cholewa

As a resident of Lake Marion, I am definitely in favor of the plan to stock sterile carp to combat the spread of invasive weeds. We cannot afford to allow these non-native invasive plants to choke the life out of our lake system. And they will if allowed.

Jerry Hatcher

Please do not let invasive weeds back into the areas where people live on the lake. It is truly a nuisance to our area for water activities like swimming, skiing and it bogs down the motor on our pontoon and also the jetski sucks up the plant and shuts it down. If the fishermen want this for fishing, please keep it in a secured area.

Marlene Hinds

Dear Sirs: I have read the Procedural Plan and the Annual Management Plan for my area (Lake Marion) and as a homeowner with lakefront access through the use of marginal lease property in a small cove I am very concerned with the spread of invasive weeds which could impact the ingress and egress to my property by boat. I have witnessed the application of chemicals in my cove in the past and noted the effectiveness of the treatment. I am fully in favor of the implementation of the Plan for chemical treatment and introduction of additional sterile grass carp to combat the further spread of these noxious weeds. I thank you for your work on this much needed endeavor and appreciate the solicitation of comments from the public.

Allen Mark Knechtel

please continue to treat weeds in lake marion.when treatment is not done on an regular basis the weeds get unbearable.

M. Evans

I am a homeowner on lake Marion and want to continue the spraying and placing sterile carp in the lake

Edward Padgett

I support your efforts in controlling the invasive weeds in Lake Marion. Please let us know how we can help support these efforts.

Stacey Pigate

I support SC DNR efforts to control weeds in Lake Marion!

Frankie Mcelveen

My husband and I own a home on Taw Caw Creek on Lake Marion in Summerton S.C. The invasive weeds are continually a growing and huge problem. Spraying the weeds definitely help and we support this practice 100%! Without spraying, Taw Caw Creek would become an abundant home for several species of the invasive weeds that would take over and ruin the "Lake Life" as we know it. This would affect homeowners, tourism and also revenue for the State if Lake Marion is no longer a recreation or fishing tournament destination.

Roger Edwards, Christine Edwards

I support your effort to control invasive weeds in your lakes

gudplant@yahoo.com

A hard-nosed stance against hydrilla has proven to be the only way to deal with an invasive plant species that has such a capacity for prolific growth. Hydrilla can thrive in water depths exceeding 20 feet which makes it nearly impossible and extremely costly to control with herbicides in large open lake areas with a lot of water movement. Grass carp are the only effective control measure and this has been proven in countless cases from numbers of lakes across the southern United States. If uncontrolled, hydrilla acreage will progressively expand to crowd out all native submersed and emergent vegetation. High growth rate and low sunlight requirements allow hydrilla to use existing stands of native submersed aquatic vegetation (SAV) as substrate to take hold and establish its own stands. Just a few hydrilla fragments, once infiltrated inside beds of desirable plants can rapidly overwhelm and completely shade them out within a single growing season. Such an aggressive competitor cannot be effectively managed to a predetermined acreage. Additionally, hydrilla stands will fill the entire water column and literally eliminate dissolved oxygen making large areas of water inhabitable by fish and other aquatic life forms.

Santee Cooper and SCDNR have an agreement to manage the lakes to maintain a minimum 10% level of cover by native vegetation (or approximately 16,000 acres) within the Santee Cooper Lake system. This is only possible by keeping invasive plants to a minimum. Hydrilla, crested floating heart, and water hyacinth are the largest threats to the lakes not just because of the funds necessary for their control but for the native aquatic plants they displace.

In 1999, the APMC decided on a plan to carry out regular stockings of grass carp in order to maintain a stable population of fish representing multiple age classes thus less susceptible to the high natural mortality commonly seen in an aging population. This helps insure that hydrilla will always have control measures in place against it rebounding. Low acreage of aquatic vegetation in the late 1990's and early 2000's prompted council members to discontinue such maintenance level triploid grass carp stockings from 1997 until 2007. During this 10 year period, the estimated grass carp population declined to 5,600 fish system wide. By 2007, regrowth of hydrilla was being observed and continued to increase each year. Between 2007 and 2010 40,120 triploid grass carp were stocked during which time hydrilla acreage grew to 1249 acres.

Hydrilla continued to spread, making it necessary to increase the grass carp population to 20,000 fish (now considered to be the minimum standing stock of grass carp needed to maintain a lake system of this size which equates to a stocking density of 1 fish/8 acres) in 2010 and then to a control level of 30,000 in 2011. During 2011 hydrilla increased to 3,244 acres which led to approval of a 109,000 fish stocking in 2012. In 2012, hydrilla more than doubled to 7,179 acres and the decision was made to stock an additional 114,000 grass carp in 2013. In 2013, hydrilla declined to 1,046 acres then further to 100 acres in 2014. . No grass carp were added in 2014 and the present plan calls for a maintenance/ year - class stocking of 6,400 in 2015.

Clearly grass carp played a major role in this reduction but it is remiss to disregard other contributing factors. Lake levels from 2012 to present have remained well above the 15 -year average levels, especially during the heart of the growing season (April through October). Conditions of low light penetration will permit grass carp to graze down hydrilla in less time than would be possible in more optimal growing conditions, i.e., clear water. High water levels in combination with increased turbidity due to elevated incoming flows have a significant impact on the growth of all SAV especially eel grass (vallisneria) which requires a high level of light transmittance to grow even in shallow water. In the annual cycle of eel grass, long blades of mature plants may grow to several feet long before flowering in late summer. In late fall, storms will break off the grass blades near the bottom along with seed pods and these will be seen washed up in windrows in shallow waters on the lake shores where new beds of young eel grass often begin. Only a short stubble of eel grass remains through the winter and will stay that way until conditions of temperature and sunlight penetration are suitable for regrowth. If light penetration to the bottom is limited, growth can be

reduced, delayed or eliminated. Similarly, stands of other SAV species will wane during the winter months and regrowth is largely dependent on available light in the spring.

As acreage of topped-out hydrilla is reduced, it becomes increasingly more difficult to positively locate on the lake bottom. Santee Cooper uses a combination of sonar scanning with confirmation by weed rake throws to locate and estimate SAV acreages. Hydrilla and other SAV are still found in the same principal locations which previously held substantial growth and while not visible on sonar can be collected by repeated rake throws. Locations are mapped and resurveyed each year to estimate individual plant acreages. Consistency dictates that the same method and classification system be used to quantify acreage from one year to the next. For this reason, only areas of continuous coverage as verified by sampling gears are included in acreage results reported.

When more typical water quality returns, control measures need to be in place to prevent a rapid regrowth of hydrilla. At the present stage in this grass carp program we need to assure that the population will remain effective by continuing annual maintenance stockings which will keep the grass carp numbers from ever falling below 20,000 again. The past has already shown us what we can expect by postponing this action.

John Morrison

We have a weed problem in our cove and the DNR Aquatic Management has done a good job of helping us. We get weeds every year and they come in and spray.

It is much appreciated.

These weeds grow all in the water and started going on our boat lift and getting very thick. We also had some type of lily pad looking thing in here and they came and sprayed and got rid of them.

What we would like to know is how we can get rid of the small trees that are growing at the edge of the water and by our boat lift? We would love to have a clear view of the lake with no weeds and small trees like other's in our cove.

We Thank You!

Charmin A. Atkinson

I want to add my support for your program to control ALL invasive plants and weeds in lakes Marion and Moultrie, as well as surrounding waters. Thank you for all you do for our waters.

Paul Lowrance

I am in support of your efforts to continue to control invasive weeds in Lake Marion and Lake Moultrie.

Jeanee Outen

As a full time resident in the Potato Creek area of Lake Marion, I am in favor of the continuing efforts of Santee Cooper to control all of the invasive weed growth, both presently and in the future.

Michael Outen

As the director of this commission since 1985, I remember vividly the negative impact hydrilla had on tourism, fishing, recreation and living on the lakes in Santee Cooper Country. Marinas and campgrounds lost business because they were not accessible from the water, visitors could not use ramps to get to the big water, fish from docks or swim because the lake in front of their property was covered with this non-native, aggressive, invasive plant. Lakefront property owners were also landlocked and could not enjoy the beautiful waters that they lived on, which hurt their property value.

This commission was a strong supporter of the first stockings of the sterile grass carp, which, began to control the plant. After the initial stockings we continued to support Santee Cooper and DNR's efforts to keep the hydrilla in check. As we all know, we will never rid the system of this plaque, but with spraying and the sterile grass carp we have been able to keep it in check.

There are other ways to create habitat for fish. Our habitat enhancement project is one example. This commission, Santee Cooper PSA and DNR are working together and in the process of placing concrete culverts and catch basins on the 33 attractors located on lakes Marion and Moultrie. To date, over 1,000 tons of materials have been placed at eight sites. Good reports are coming in saying the sites are working.

Please continue the stocking program so that boaters, fishermen, residents and visitors can enjoy this wonderful resource.

Mary Shriner, Executive Director Santee Cooper Country

Please do all you can to stop or control the invasive weeds in our lake.....for me it would be Lake Marion..... The Crested White Floating Heart is still a big problem, and is getting worse. Clemson has not put it on the invasive weed list yet!!!Keep pushing!!!! It's time for more Carp to continue the fight against HydrillaThank you

Betty Cozart

I want to express my support for the 2105 Aquatic Plant Management Plan. I never want to see Lake Marion covered with hydrilla again. I know some fishermen and duck hunters are calling for a regrowth of hydrilla and what they call "native vegetation" and I don't claim to be a professional but I do know that it only takes a few weeks for hydrilla to over -grow in an area and that it spreads easily. I am all for native vegetation and i believe it is important to control hydrilla with maintenance stocking of sterile carp. Some point to economic impact of plant management on Lake Marion...obviously they do not know the impact of hydrilla! When the only way to get a boat out into the lake is through a channel broken up by previous boats is not beneficial to anyone. Not businesses, not home owners, not lakeside restaurants or marinas and certainly not the production of power.

Debra Gleaton

I'm writing to thank you for the work you have done on the aquatic nuisance species program. I remember when the hydrilla was so bad our children could not swim in front of our home. Now we have water hyacinth and floating crested heart but I have confidence in you and Larry McCord that you will do a good job controlling this problem. Again thank you for the work that has been done and if we can be of help to you or Larry McCord at Santee Cooper please let me know.

Carl Cagle

Restock the lake system add more if need be. Just keep the Hydrilla out of Santee.

I am a home owner, and fisherman on Santee. I see no need for that wild weed to propagate in our lakes!

Devlin Curl

Regarding controlling the hydrilla in Lake Marion, I am in favor of the 2015 Aquatic Plant Management Plan. Thank you.

John Buchko, Kathy Buchko

I would like to go on record as supporting the use of grass carp as part of the plan to control invasive weeds in Lake Marion and aquatic management. History has shown that when grass carp has not been added to the lake as part of the plan, the plants end up winning and hurting the Lake. Please make this part of the plan for Lake Marion. Thank you.

Doug Blesie

I am in favor of the 2015 aquatic plant management plan. Thank you.

Angela Williams

I am in favor of the 2015 Aquatic Plant Management Plan. Thank you.

Charley Schmidt

I am IN FAVOR of the 2015 Aquatic Plant Management Plan.

Lesley Dykes

As a homeowner on the shores of Lake Marion and an avid boater, I fully support the 2015 Aquatic Plant Management Plan in its entirety. My boating and water quality focus is primarily Lakes Marion and Moultrie. Regardless, I am confident those who've put the current plan together have taken the necessary steps to protect native plants as well as animal and fish natural resources as they seek to meet their objectives and rid our state waters of invasive weeds.

I've seen firsthand the effects of hydrilla out of control. Currently, it seems well managed and not a major problem in Lake Marion. Annual stocking of sterile grass carp is a necessity to keep it that way. When you consider it can take up to two years to see any noticeable effect of the introduction of grass carp, it's important to have that regular release to prevent hydrilla from spreading and gaining an advantage. Keep stocking our lakes with grass carp!

Crested Floating Heart and Water Hyacinth seem to be the next most serious noxious weeds we have. Their growth over the past few years has been very noticeable. The Crested Floating Heart takes over beaches and other shallow water areas close to shore preventing the use of the lake for many recreational activities. The Water Hyacinth can consume swimming areas, boat ramps, marinas and residential shorelines. Lack of pristine waters in which to swim, boat and fish keeps tourists away and their dollars from the coffers of local businesses. I fully support the application of herbicides to control these invasive weeds. SCDNR and the SC Aquatic Plant Management Council have my confidence and full support of their 2015 Aquatic Plant Management Plan. Keep up the good work.

Dale F. Cozart

I am in favor of the 2015 Aquatic Management Plan.

Robin Rolland

I have the honor of being president of the Goat island boat club this year. We as a club have been supportive of the plan for some time. As in past years I stand in full support of this year's plan. We would like to thank the SCDNR, Santee Cooper and all others involved in keeping our Lake system healthy.

Bob Miller

I have reviewed the plan and I am fully in support of it. Thank you for the time and effort put into keeping our Lake system healthy.

Jennifer Miller

As a fifteen (15) year resident of the Lake Marion area and a member of the Goat Island Boat Club, I feel I must express my appreciation to you, the SCDNR, and Mr. Larry McCord of Santee Cooper for your continued efforts to control the spread of invasive and nuisance weeds that reside in our beautiful lake. Having said that, please count me as a supporter of the DNR 2015 SC Aquatic Plant Management Plan. I firmly believe the plan always has and continues to strike a balance between the needs of both fisherman and recreational boaters.

Hal White

As a property owner and frequent user of the Santee Cooper lakes I am in full support of the 2015 S.C. Aquatic Plant Management Plan as outlined in the draft. I have personally experienced the results of not controlling these types of plants when Lake Marion was rendered essentially unusable because of hydrilla in years past. Currently we are under attack from Crested Floating Heart, which appears to be more aggressive and harder to control. Respectfully submitted,

E. V. Gleaton

Dear sirs: I agree with your 2015 plan for controlling the weeds in Lake Marion, and appreciate the past years service you have provided, The hydrilla, and floating heart seem to be under control now, not completely gone but manageable . Thank you.

Michael Palladino

Please continue your efforts in controlling invasive weeds in our lake systems here in South Carolina. I am in complete agreement with the proposed 2015 management plan.

Jeannette Palladino

I think a vigorous effort should be made to control or eradicate invasive plant species. Since this lake produces a LOT OF ELECTRICITY, the utilities who use this water to generate power should bear the greatest financial burden of this effort. Requiring local communities to pay a fixed percentage is VERY unfair to residents of very poor counties such as Clarendon. If local areas must be taxed, base the tax on the per capita income as reported by the US Census bureau.

John McCarthy

Yes, I am in favor of managing the Aquatic plant growing in our lakes. I hope this will be resolved soon, for summer is just around the corner and I want my family and friends to be able to enjoy our beautiful lake.

Tina Swetnam

The Santee National Wildlife Refuge (NWR) would like to express support for the 2015 South Carolina Aquatic Plant Management Plan developed by the SC Aquatic Plant Management Council and SCDNR. The plan is consistent with U. S. Fish and Wildlife Service (Service) policy on control and removal of exotic invasive organisms that have harmful impacts on aquatic natural resources and on the human use of these resources. Additionally, the plan is consistent with the Santee NWR Comprehensive Conservation Plan goals and objectives. The occurrence and spread of exotic, invasive, and nuisance plant and animal species has been identified by Service staff and intergovernmental partners as one of the priority management issues facing Santee NWR. We support approval of the 2015 SC Aquatic Plant Management Plan to enhance the biological integrity, desirable native vegetation, compatible public uses and control of undesirable, aquatic

invasive species on the refuge and contiguous ecosystems.

Sarah Dawsey, Wildlife Refuge Manager, Cape Romain National Wildlife Refuge

Summary of Public Comments, Responses, and Plan Modifications to the Draft 2014 South Carolina Aquatic Plant Management Plan

Santee Cooper Lakes

14 Comments

Comments

Opposed:

Supported:

As a member of the Goat Island boat Club, I am very interested in health of our lake system. I am in favor of the plan as written. Thank you for your time and commitment. Sincerely, Jennifer Conlin
Miller H. Robert Miller
Jennifer Miller [jconmil@gmail.com]

I am in total support of DNR's actions to control the invasive weeds choking out the shoreline of our lake. I remember the terrible Hydrilla problem many years ago and now we have it and Floating Crested Heart choking out many of the coves on the lake. As a sportsman that has enjoyed hunting and fishing on both lakes I hope that DNR can find a solution to control the invasive weeds as well as support the fishing and wildlife habitat. Jerry McCown
McCown, William J (Jerry) [William.McCown@workflowone.com]

First off, thanks to the Aquatic Plant Management Council for the outstanding work you do trying to rid our lakes of invasive weeds. My one comment on the Aquatic Plan Management Plan as posted on your web site is that I prefer that you develop a more robust annual maintenance stocking plan for triploid grass carp in the Santee Cooper Lakes to eliminate the spikes in hydrilla growth when the grass carp numbers in the lakes decline. Suspending the stocking of grass carp because the current level of hydrilla has declined will only put the lakes in another period of hydrilla growth the Council will have to face in the future.

Looking at Appendix G, Summary of Plant Control Expenditures:

1989 - stocked 100,000 grass carp in Lake Marion

1990 - stocked 100,000 grass carp in Lake Marion

1991 - third stocking of grass carp

1992 - reported widespread control of hydrillia in Lake Marion

1993 - reported control over 9000 acres of hydrillia in Lake Marion

1994 - stocked 150,000 grass carp in Lake Moultrie

1995 - stocked 91,000 grass carp in Santee Cooper Lakes

1996 - reported hydrillia declined by 80%

1997 - 2005 reported widespread control of hydrillia, no mention of additional stocking, assume there was none

2006 - growth of hydrilla indicates additional stocking of grass carp would be required

2007 - maintenance stocking of 2620 grass carp in Santee Cooper Lakes

2008 - reported hydrilla rebounded across the state and maintenance restocking of grass carp would be reconsidered

2009 - maintenance stocking of grass carp in Santee Cooper Lakes

2010 - maintenance stocking of grass carp in Santee Cooper Lakes

2011 - reported hydrilla growth increased by 160%, forced to forego maintenance stocking of grass carp for an adaptive management strategy, 109,000 grass carp to be stocked

2012 - reported hydrilla increased to 7210 acres

2013 - reported hydrilla acreage down to 1100 acres

Clearly this shows the positive effects of stocking large numbers of grass carp to effectively control hydrilla. Just as apparent is the rapid growth of hydrilla once there are insufficient grass carp in the lakes to maintain control of the invasive weed. I believe a robust annual maintenance stocking plan is the correct path to follow, but there must be sufficient fish added each year to keep the numbers in the lakes at a level to control or eradicate the hydrilla altogether. Not adding any fish or an insufficient number is surely a recipe for aggressive hydrilla growth.

Thanks for allowing me to comment on your plan. Other than my one concern over suspending the grass carp stocking plan for the Santee Cooper Lakes, you have my full support.

Dale Cozart

306 Broad River Drive

Santee, SC 29142

843 697-2103

Dale Cozart [cozartd@gmail.com]

I am submitting this comment to ask that you pay particular attention to the coves and inlets south of the I-95 Bridge. In the DRAFT 2014 SOUTH CAROLINA AQUATIC PLANT MANAGEMENT PLAN regarding Lake Marion (Calhoun, Clarendon, Orangeburg, Berkeley, and Sumter Counties), Water Hyacinth is identified as a problem plant species. The stated goal in the plan is to "Reduce water hyacinth populations throughout the lakes to enhance boating, fishing, hunting, public access and prevent spread to other areas of the lake."

Unfortunately, the plan states that there are approximately 4000 acres of Water Hyacinth throughout the lake, but "*mostly in the upper lake area above I-95 Bridge.*" There may be a lot of Water Hyacinth north of the I-95 Bridge, but there is also a great deal below the Bridge in coves and inlets that are choking the ability of residents and visitors alike from access to Lake Marion.

The plan states that Water Hyacinth treatments will be considered a *high priority to minimize spread to other areas of the lake system.* I would especially like to emphasize this point – Water Hyacinth does travel by wind and currents to infest coves and inlets south of the I-95 Bridge and must be vigorously treated and to prevent its continuing expansion.

Thank you for soliciting comments – please listen! Mike Kirk Santee, S.C.

Michael Kirk [mkk@att.net]

I, Sandra J. Rolland, President of the Goat Island Boat Club, am in total support of this program, I want what's best for our waters, and safety for our boats, swimmers etc, please, please keep up what you are, and have been doing, in the past!!

I'am in total Support!! Thank You, for hearing me out! Sandra J. Rolland
Robin Rolland [rjroll@bellsouth.net]

Thank you to everyone involved in the making of the Aquatic Plant Management Plan for 2014. All of your hard work is greatly appreciated. My one concern is the decision to temporarily suspend the stocking of triploid carp in Santee Cooper Lakes. I have witnessed the rapid growth of hydrilla in the past and I do not want to see that happen again. I'm concerned that we may find ourselves in a position of playing 'catch up'. With that being said, I have faith that the very knowledgeable staff of SCDNR and Santee Cooper will diligently monitor for a resurgence of hydrilla and will respond with herbicides and a restocking of triploid carp. Again, thank you all for all your hard work.

Debra Gleaton
1043 Autumn Lane
Summerton, SC 29148
Debra Gleaton [dgleaton@ftc-i.net]

As a home owner living on lake Marion, I have always supported the control of non-native weeds in our lake and always will. I am 66 years old and since I can remember the highlight of my earlier years was looking forward to getting away and going fishing for bream on lake Marion. Just the thought of fishing for these fighters (and other species), and the over all beauty of this lake was the main reason I retired here. In 1998 when I did retire here, I started to realize the problems of home owners living on the lake concerning these unwelcomed non-native weeds. For such a long time, you could not even pull your boat (or recreational vehicle) up to your on dock. Boat landings were closed because of the weed hydrilla. As I have stated, I very much support the efforts of DNR in controlling these aquatic plants that do not belong on our lake.

Winston Hinds
Proud member of Goat Island Boat Club
MarleHin@aol.com

I'm writing to thank you for the work you have done on the invasive weed program and pledge my support for the future. Please do not hesitate to call on me or the Goat Island Boat Club for support. Thank you again for the work you have done.

Carl Cagle
1321 Holland Rd.
Summerton, SC 29148
carlmcagle@FTC-I.NET

I fully support the 2014 S.C. Aquatic Plant Management Plan.

Eddie V. Gleaton, Jr.
1043 Autumn Lane

Summerton, SC 29148

Eddie Gleaton [manningit@cityofmanning.org]

As residents who live on the lake and enjoy all recreational activities the lake has to offer, we support all efforts to control the invasive weeds. The weeds often severely detract from the recreational value of the lake. It is disturbing that in recent years, new species have appeared that require constant and expensive defensive measures. We think the cost is necessary to preserve this valuable resource.

Thank you for your assistance in this matter,

William and Wanda Johnson

wanda@whjohnsonlaw.com

Re: 2014 South Carolina Aquatic Plant Management Plan

The Santee National Wildlife Refuge (NWR) would like to express support for the 2014 South Carolina Aquatic Plant Management Plan developed by the SC Aquatic Plant Management Council and SCDNR. The plan is consistent with U. S. Fish and Wildlife Service (Service) policy on control and removal of exotic, invasive organisms that have harmful impacts on aquatic natural resources and on the human use of these resources. Additionally, the plan is consistent with the Santee NWR Comprehensive Conservation Plan goals and objectives. The occurrence and spread of exotic, invasive, and nuisance plant and animal species has been identified by Service staff and intergovernmental partners as one of the priority management issues facing Santee NWR.

We support your efforts to enhance the biological integrity, desirable native vegetation, compatible public uses, and control of aquatic invasive species on the refuge and contiguous ecosystems.

Thank you for the opportunity to comment.

Sincerely,

Marc Epstein, Refuge Manager

U. S. Fish and Wildlife Service

Santee National Wildlife Refuge

2125 Fort Watson Road

Summerton, SC 29148

<http://www.fws.gov/santee/> - marc_epstein@fws.gov

As a fourteen (14) year resident of the Lake Marion area and a member of the Goat Island Boat Club, I feel I must express my appreciation to you, the SCDNR, and Mr. Larry McCord of Santee Cooper for your continued efforts to control the spread of invasive and nuisance weeds that reside in our beautiful lake. Having said that, please count me as a supporter of the DNR 2014 SC Aquatic Plant Management Plan. I firmly believe the plan always has and continues to strike a balance between the needs of both fisherman and recreational boaters.

Hal White

1021 Carving Trace

Manning S.C. 29102

The purpose of this letter is to express my support for your Draft 2014 Aquatic Plant Management Plan. I believe that your current plan for control of nuisance weeds is geared to minimizing the impact the weed control will have on fishing while insuring that recreational activities on the lake will not be impacted.

Michael T. Young
1061 Carving Trace
Manning S.C. 29102

I have reviewed the DNR's Draft 2014 Aquatic Plant Management Plan and support the plan as it is written. As a recreational bass fisherman I frequently visit the many piers and sloughs around Wyboo Creek and can attest to both the quantity and quality of the fish that populate this area of our lake. I appreciated that the SC DNR has an invasive weed control program that allows excellent fishing opportunities and, at the same time, is compatible with recreational boating.

John V. Hall
1042 Carving Trace
Manning S.C. 29102

Comments and Revisions:

Response:

Most of the problems that were commented on are solely contributed to the problematic water hyacinth that got pushed out of the upper lake's swamps in 2014 by extremely high flows. That was an unusual situation as heavy rainfall dominated the areas climate last year. That rainfall also led to poor growing conditions for submersed plants and made it extremely difficult to survey for said plants. With the absence of the large acreage in 2013 surveys we find it problematic to continue stocking at the same rate as in 2013. As the season progresses and we can further analyze the acreage and composition of the submersed species we have the option available to stock additional triploid carp if conditions warrant. Our goal through adaptive management techniques is to return to a maintenance mode for the stocking of grass carp.

Plan Modifications:

None at present time.