127th Meeting of the South Carolina Aquatic Plant Management Council

Attendance:

Council Members: Chris Page, Willie Simmons, Larry McCord, Bill Marshall, Tammy Lognion, David Wannamaker, Chad Altman

Guests: Julie Holling, Matt Puckhaber, Carl Cagle, Debra Gleaton, James Owens, Buford Mabry, Marvin Davant, Scott Lamprecht, John Morrison, Clark McCrary, Mary Shriner, Jane Powell, Mabel Williams, Casey Moorer, Jennifer Robinson

Location: Santee State Park, The Village Round, 251 State Park Rd., Santee, SC 29142

Call to Order: 10:14 am 03/27/18

Minutes:

Chairman Chris Page called to order the 127th Meeting of the South Carolina (SC) Aquatic Plant Management Council (APMC or Council). He thanked everyone for being here. He asked the Council members to introduce themselves. Once the introductions were made, Mr. Page noted that Sarah Reed is still on maternity leave. She is the representative from the SC Department of Health and Environmental Control's (DHEC) Office of Coastal Resource Management (OCRM). She expressed interest in being here, but is on maternity leave. She will probably be at the next meeting. That has been one of the sore points of the meeting that OCRM has not attended very well, but Mr. Page has been assured that Ms. Reed will be around. Ms. Reed has shown lots of interest and called and made queries about everything that is going on. Mr. Page moved on to the minutes of the November 13, 2017 Council meeting, which he passed out before the meeting. He gave the Council a couple minutes to go over them and come up with changes or no changes.

Mr. McCord said he looked through the minutes pretty carefully. He did not see any major issues. He did see some things that if he were in charge he may or may not have excluded, but we generally include every word everyone says, so from that standpoint, he did not see anything that needed changing at this point.

Ms. Holling noted that those were reduced a little bit from 33 pages to 25.

Mr. Page thanked the two new members of the Council for being here with us. He pointed out to them that our minutes are not bullet point minutes. The minutes try to express what actually happened at the meeting. He noted that if you ever lose track of your minutes, we try to keep them posted online. They are usually up to date, but sometimes it takes a while for us to get back in the office and do what is needed to get them posted. They are on the DNR website on the Council page.

Mr. McCord noted that the good, the bad, and most importantly, the ugly is included in the minutes.

Mr. Page asked if anyone sees anything in there that jumped out at them and needs correction. There being no response, he asked for a motion.

Mr. Wannamaker made a motion to accept the minutes. Mr. McCord seconded the motion. Mr. Page said he has a motion and a second on the floor to accept the minutes as written. He asked if there was any discussion on the minutes before we proceed. There being none, he called the motion to a vote and the minutes carried as written.

Mr. Page moved on to the public comments section of the agenda. He noted there were a few people present. Normally, this time is reserved for people that make the time to show up. Although Mr. Page prefers that people send him an email requesting to speak at the meeting, we have never held anyone back from speaking if they have not done so. Your presence and opinions are valued. He asked if there were any public comments from the floor.

Mr. Buford Mabry introduced himself and noted he is retired from the SC Department of Natural Resources (DNR), but he came here because he is a waterfowl hunter. He hoped that sometime during this discussion, we would hear from Mr. McCord about the spraying that has been done on the Santee Cooper (S-C) lakes and what progress has been made.

Mr. Page noted that was why he took the paperwork back from Mr. Mabry. He forgot to print two copies of the information. He will return it at the end of the meeting.

Mr. McCord said we would be discussing that in some depth, including the results and what we plan on doing in the future.

Mr. Page said he was going to put that in new items, but could go ahead and make that report. For those of you that did not know, part of the DNR and S-C plan in Lake Marion and Moultrie is to significantly reduce cutgrass. The plan lists 500 acres, but that gives us a little leeway to do some work. We have worked the past couple years in conjunction with the Waterfowl Association, Pintail Partners, S-C and DNR to do some significant aerial spraying of giant cutgrass or wild rice, which is *Zizaniopsis*. It forms dense stands that choke out fish spawning areas and waterfowl areas. When there is thick cutgrass, there is no other vegetation or open water. It just fills in an area or cove flat. He noted there is one hunter here that has been out there and says it looks pretty good. We also work with the US Fish and Wildlife Service (FWS) on the refuge. Last year, we treated about 491 acres. We presented that information to the Waterfowl Association earlier this year. They were thankful and asked us to expand that in the future years. They even offered up some money, which we gratefully accept at any time, to help with doing the work. This past year, we did 685 acres from S-C's perspective in mostly open lake areas and DNR did 300 acres, so we did roughly 985 acres total out there this year. Some of those areas were not new. Some of those were re-treats of the previous year's treatment areas to open them up more. Mr. Page noted the treatments included the Wildlife Management Areas (WMAs), Hickory Top and some of the other areas. He thanked Ms. Moorer, as she was the ground reference person that got the helicopters to where they were supposed to go every single time. She did a lot of the upfront leg work with the mapping of the S-C lakes, to look at and find those areas. Then she made sure they were spraying the right areas

Mr. McCord noted that Ms. Moorer is the supervisor of S-C's Biological Services group, which is responsible for aquatic plant control and other lake management issues. He noted, for the people who have read the plans over the years, that the majority of what we, as a Council, S-C and DNR deal with, is invasive vegetation, most of which is not native. Although giant cutgrass is native, it can be problematic, as many of you that have been out on the lake know. It can take over areas of native vegetation that are more beneficial to waterfowl and fisheries. Although it does provide some nesting habitat for some songbirds, the number of acres treated is by no means all the giant cutgrass that is out there. There is plenty of it out there and there are lots of other habitat for those birds to nest in. This allows us to cut back on some of these large monocultures of giant cutgrass that really do not provide beneficial habitat for anything. He has been out and looked at a lot of the areas that have been treated over the last couple years and they really look good. A lot of native vegetation is coming back in those areas and it should be considerably more beneficial habitat than before this cooperative work was started.

Mr. Page asked Mr. Lamprecht if he could speak to the potential fish habitat in those treated areas. Mr. Lamprecht said giant cutgrass is good habitat when it rings the shoreline, but those monotypic stands just take acres and acres out of production. These openings, in time, will be really great improvements. You need water flow. Some of those areas get stagnant as a result of those monotypic stands and it just does not support fish. That is strictly from my perspective as a fisheries biologist and does not have anything to do with waterfowl.

Mr. Page said that these treatments are done for both waterfowl and fisheries purposes from the DNR's and S-C's perspective. It increases habitat. There are approximately 4000-6000 acres of cutgrass on the lakes. He thinks our plan says 4300 acres, but that may be a little conservative. He thinks of cutgrass as Mother Nature's way of taking something back from you. If you dig a pond and you start to get cutgrass, it is going to get a lot of sedimentation around it and it starts filling it back up. So, she is trying to fill it back up and we are trying hard not to let her fill it back up. That is a habitat issue in itself. No water versus having water. He asked if there were any questions.

Mr. Marshall asked what depth of water *Zizaniopsis* could inhabit. Mr. Page stated, in his experience, *Zizaniopsis* comes in about 3-4 feet max. Some established plants may be found in some deeper water. It's all according to how much fluctuation you have in the water.

Ms. Moorer said there are sediment issues, too. Mr. McCord noted that is the key to the S-C system. It has constant water level fluctuations and the plants tend to move out into a little bit deeper water. If the lake or pond level stays constant, you can actually control cutgrass with water level manipulation. That opportunity is not available in the S-C system. For a shoreline plant, it really can move into some areas that are reasonably deep based on water level fluctuations that allow it to move.

Mr. Page said we have done some other work in areas like Samworth, where they had some impoundments that have basically filled in some over the years and they are starting to get a lot of cutgrass in those areas. Those areas have been sprayed aerially. He said the Wildlife Division is paying the bill but running it through our program because we have the connections with the helicopters and the herbicide people to get everything right.

Mr. McCrary asked if the Hickory Top spraying is it going to be an annual schedule and if it will be done at the same time every year.

Mr. Page said it would be treated as needed. We think we have done roughly about 25 percent of what is out there in some important areas. We going to continue to monitor that and you are going to see touchup treatments to prevent it from reestablishing itself. We have done Hickory Top twice already. We will probably wait this year. We may go in at the end of the year and see what it looks like. We may have to treat some more or a different problem species. What happens a lot of times is when you eliminate cutgrass, the next thing that moves in may be primrose or alligator weed. Then you have the same problem all over again, although not quite as difficult. The ideal situation would be to get water back on those flats and have some of the native species move back in that are good for waterfowl and fisheries, but do not really restrict water flow.

Mr. McCrary discussed the area of Hickory Top and the area that was sprayed, giving its local name. He noted the water flow access in there would be just downstream of the Hickory Top boat ramp. He said there is a little slough that takes you back in there that is completely blocked off and even the mud boats cannot get in there. He thought the water flows back down towards the back side of Jack's Creek and asked if there was much of a flow in there now. Mr. Simmons said there is some, but not a lot.

Mr. McCord said those are some of the issues we are looking at with this overall program. We are trying to open up some of those areas. He noted that Mr. Lamprecht has an area in Hickory Top that used to be

a good area for collecting fish for their studies. It has grown all up and there is very little water flow in there now. That is where we are hoping to go with some of this. We want to open up some open areas, but also to increase water flow though some of these areas so they will remain open. The area you are talking about is just an area we will continue looking at and see what we can do to try to open it up.

Mr. McCrary said he has flown a drone over that area. If you look at that area, it is almost shaped like an egg. It is oval shaped and thicker down towards the Jack's Creek side. All that cutgrass is really, really thick on the Jack's Creek side. It is not very thick on the perimeter of the bank and back up towards Hickory Top, but if you look at it like an egg, at the bottom of the egg is real thick in cutgrass that would prevent flow.

Mr. Page asked Mr. McCrary if he could send us some photographs and indicate the area on a map when you fly over those areas. That will be highly beneficial to both S-C and us. Ms. Moorer noted that the SC Waterfowl Association (SCWA) gave us a list of areas of concern and we went to those areas and surveyed by airboat, but with airboats, you can only get so far.

Mr. McCrary said that does not provide a good perspective. You cannot see what you are looking at. With the drone, like I said, you can see that it is thin along the edges and up toward the Hickory Top dirt road, but towards the Jack's Creek side, it's hundreds of acres.

Ms. Moorer asked that Mr. McCrary share that information with us. We could GPS it. If we have the opportunity to fly it for a survey this year, that will allow us see even more. But to his question about timing, we are usually treating cutgrass in the fall. That is because of the biology of the plant. Whenever it starts cooling down, the chemicals will move down to the roots. That is why we schedule in the fall and not early spring. This year, we did bump up against one of the hunting openings, I believe youth day of duck season. We schedule that the best we can by looking at the regulations, but weather does play a big role in getting the helicopter here and on the ground and mobilizing everything for a week. It took us about a week to spray. We try to move those areas around and go to areas where we know people are not hunting.

Mr. Page said the simple answer to Mr. McCrary's question is yes, we are going to continue to monitor and do more work. We did that main slough into Hickory Top, but the process is going to include some of those little side channels in the future. Mr. Simmons noted that they are watching that area constantly. What we have already sprayed, we have already seen some good response and it is going to be something that is going to be dynamic, so it will change as time goes on.

Mr. McCrary asked if you could burn that sawgrass and then spray it if the lake dropped out four feet. Mr. Page said he had it reversed. You want to spray it first, then burn it later to get rid of the detritus. You always spray before you burn. You spray and give the herbicide long enough time to absorb into the roots, then you come back to get rid of it faster, you can eliminate it by burning those areas. I do not know how much burning you can do on Hickory Top in some of those areas.

Mr. McCord said that individuals have tried burning cutgrass for years and years. The Low Falls area is a good example. The big issue with trying to burn cutgrass, even in the coastal areas where they are trying to manage it, is that cutgrass takes up a lot of water and even though it looks like completely dead and brown, it has a lot of water in the tissue. It will burn the tops off it, but it does not really take out what is blocking your access to those areas, so herbicide treatment is the most effective thing. As Mr. Page just said, that does not remove the vegetation. It still has to have time to decompose and fall apart. In certain areas, burning is a good idea after that. The difficulty in trying to burn areas up around Hickory Top is that you have no way of keeping the fire from potentially getting out of control and getting on the islands and burning vegetation you do not want to burn. You cannot go out and plow a firebreak like you can on high ground. Burning is generally not a good idea. Isolated areas, like on the Santee WMA, they have areas where they can burn. It is all self-contained and

surrounded by water. But they have issues trying to burn that area a lot of times, too. Hickory Top is just a little bit different area for trying to burn. Burning on its own is not an effective control for cut grass.

Mr. Page said the biggest impediment to cutgrass and cutgrass expansion is deep water. During years of drought or low water, cutgrass will expand more rapidly than if there is good, steady high water. It is that fluctuation that kills you. That is the problem Samworth has, because some of the old dikes are not high enough. They cannot keep a high enough level of water on it.

Mr. Page asked if there were any other public comments or questions about the cutgrass work. He told Mr. Mabry that he would return this packet of maps. If anyone wants to look at this after the meeting, they can see Mr. Mabry, if he doesn't get out of here too fast.

Mr. Page noted that Mr. Lamprecht was up first on the agenda to discuss triploid grass carp health. He said for those new Council members, grass carp health is one of the issues we have looked at for decision making. We need to know how they are responding to environmental conditions. Are they eating too much? Are they fat and happy? Are they starving to death? We are also looking for age class information, because grass carp are very specific in the sense that they eat the most when they are ages two to eight. When they are fifteen years old, they are not eating much and they cannot get up in the shallow waters and flats to eat. One of the main concerns of grass carp stocking has been determined to be the age classes as well as numbers.

Mr. Lamprecht said he appreciates the time to speak and he appreciated the funding of the collection this year by the Aquatic Nuisance Species (ANS) program. Grass carp are very difficult to age. We developed some expertise last year. Of course we changed personnel this year, so we had to redevelop it again this year. It was not the easiest process. To refresh your memory, we have had a big gap in stocking from 2014 to 2016. That was in response to the hydrilla.

Mr. Lamprecht noted in 2017, we collected 93 fish that we could age. This slide shows the whole collection, regardless of the age of the fish. We are seeing a rather low condition factor. The condition factor of one is supposed to be ideal. It was developed during the hydrilla years, so it is a little on the high side, as those fish were growing aggressively. So, somewhere between nine and one would really be really healthy fish. We can see that the entire population is not really high. He noted that this group to the left of the graph is this year's stocking and they tend to be in better condition than the older fish. You can see, in general, that the younger, smaller fish are in better condition than the older, larger fish. This may be an effect of their ability to exploit the *Hydrilla* and other good eating plants that are hiding amongst other vegetation. By mere size, some of these bigger fish just cannot get in there. We are seeing *Hydrilla* all over the system. It does not take long to look and see a sprig of *Hydrilla* hiding in a dense stand of other vegetation, so he believes these small fish have an advantage in exploiting that. Of the smaller fish, the biggest one was six pounds. So, you are taking a stocked fish weighing ¾ to 1 pound, and in one growing season they are getting up to six pounds. You see the potential for these fish to grow.

Mr. Lamprecht compared that to the 2016 collection, and it would appear that the population condition has declined. The entire collection last year happened to be 93 also. The scale on the bottom changed because we did not have any young fish in the sample last year. The scale is a little different, but he tried to keep everything comparable. But, we aged the fish. We had a very easy time differentiating out the older fish, greater than 20 years old. These are the legacy fish that are left over from the 90s. Of those 93 fish, we had 25 fish that were less than 20 years of age. It looks like our sample is somewhat biased in terms of collecting older, geriatric type fish. We were collecting with bow-hunting equipment. They are slower and it looks like we have an age bias. They are also a bigger target. Note that the condition factor after we took out those older fish jumped quite a bit to 0.86. If we look at the results for 2017 collection, when we took out the older fish, it is virtually right on top of it. Statistically, there's no difference at all. One difference is that last year, about

23% of the fish were these legacy fish. This year, they were about 30% of the collection. Again, we see that the young, small fish tend to be in better condition than these older ones.

Mr. Lamprecht said it is a general concept that as they age, grass carp become less aggressive in their eating habits. We consider fish about 9 years old to be in their mid-life time period. They are not teenagers any more that eat everything in sight. They tend to slow down in their growth and their ability to control vegetation. Long term grass carp studies in the Southeast consider 10 year old fish to be ineffective. We are trying to maintain a decent population of fish less than 8-10 years old. He pointed out that we have a three year gap where we may have lack of herbivory in the future as those fish age out.

Mr. Lamprecht noted that he did not have the age classes out there because it is very easy to eliminate the older fish. Those are very easy to see. When he started plotting the age distribution of those younger fish, he was not comfortable with our process and we will probably invest a little bit more time in order to generate mortality rates from 2016 to 2017, but the way the data lined up, we have obviously done something wrong. We are going to have to go back and re-scrutinize some of those younger fish. These are tiny little otoliths and it does take an artistic approach and some experience and we tried to work through that this year and have yet to completely solve that riddle.

Mr. Page asked if there were any questions for Mr. Lamprecht. Mr. McCord wanted to point out something while we are on the subject, for most of the Council members that have been here for a while, the new, and anyone in the audience. We use this information that Mr. Lamprecht has continued to gather for our recommendations every year along with our aquatic plant survey information, specifically the *Hydrilla* population and distribution information. It is an extremely important part. Funding is always an issue for the fish collection and the subsequent workup in the lab. He hopes that will continue to be funded in some form or fashion. He cannot make any specific offers at this point, as it is a little late in my career to be promising anything. He thinks it is a very important part of the overall process. It gives us very good biological information, from both the plant survey information and the grass carp condition. Any information we can get to try to estimate numbers more effectively is very important moving forward, with all the issues we have to deal with every year as we discuss the issue of grass carp stocking in the system.

Mr. Lamprecht noted that in an effort to be brief, he left out a lot of our collection methods, but we have to collect these with bow-hunting and we are not geared up. We do not have a $60,000 boat to go out and collect grass carp. It is not an easy process and it takes some skill. We had to pay a fellow that does it regularly and has a boat set up for it. Fortunately, ANS was able to fund that this year. We appreciate that.

Mr. McCrary asked if this has to be done under contract, because he can get you people to shoot carp. Mr. Page said we contract it out. Mr. Lamprecht noted that it has to be done in a controlled fashion. Mr. McCrary said it could be done under Mr. Lamprecht's supervision and that money was not an issue.

Mr. Lamprecht said that sitting here, we hear this enthusiasm for doing it, but when it comes down to executing, we have had people volunteer in the past and they never executed. Mr. McCord said that was how it was originally done with volunteer people and that went away quickly. When it turns into something that is not fun, but an effort to collect information, people tend to drop off of that pretty quickly. They are very enthusiastic up front. That is why we ended up going to paying the best of the best bow fishermen to try to collect fish. You have a limited amount of time you can go out there and collect fish. You need to make sure you have people that can hit what is out there. You do not want them to just hit the big fish, which is what everyone targets when they are enthusiastically going out there harvesting fish for free, which is a violation of the law. They are protected except when there is a permit to go out and collect them when DNR goes out. Nobody else should be collecting them.

Mr. McCrary said there are guys that will help. There is a bow fishing tournament circuit that those guys are crazy about and they shoot fish at 40 yards. He would not want to do it. Mr. Lamprecht said this is a messy business. He had to burn a pair of pants and shoes once because he was in the bottom of the boat taking fish off the arrows. The first year, we had a guy volunteer to do it, but we did have enough money to replace a broken bow and buy him another one as a thank you. When we are paying someone, we can say we need to go during this time frame and he is willing to do it. It works out well and it's not that expensive.

Mr. Page said one of the biggest issues is that Scott's staff has to be there. Mr. Lamprecht noted that we cannot just turn people loose to do this, because they have to be permitted and that is a complicated thing. In the past, the Army Corps of Engineers paid some permitted people to do it and they paid them a lot of money. They were told to shoot them in a certain area and deliver them to the Dennis Center to be worked up. The carp were brought in a cooler and we did not have to get knee deep in dead carp.

Mr. Page asked if there were any more questions for Mr. Lamprecht. There were none. He thanked Mr. Lamprecht and moved on to the next thing on the agenda, the S-C mapping results.

Ms. Moorer offered a quick overview of what we sprayed on the system this year. We have already touched on the cutgrass work we have done. This year we treated about 4500 acres. Compared to last year, that is about 1400 acres less. However, we sprayed a lot more water hyacinth, about 2600 acres. A lot of that was in response to when we discovered giant salvinia on the system in June of 2017. Giant salvinia was on the system and we started seeing it hitch hiking along with water hyacinth. We diverted all our resources to targeting those areas where giant salvina was to try to keep the distribution localized to upper Lake Marion and to avoid it spreading further down the system. Overall, about 2600 acres of water hyacinth were treated. Crested floating heart (CFH) was down this year. Last year, in comparison to the 2016 season, we treated about 2500 acres of CFH. It was not because we did not target it, it was just that the plant was not there for us to treat. We had high water and high turbidity levels, so that suppressed the growth of CFH this year. We will see that switch from year to year. We might treat a lot of acreage on water hyacinth one year and the next year it might be CFH. Water quality conditions play a big role is the S-C system when it comes to aquatic plant management. If we have high water and high turbidity conditions, that suppresses the floating leaf plants, such as CFH, and submersed vegetation. Water hyacinth is a free floating plant, so it is not impacted as much by water quality as CFH or submersed vegetation might be. That is where we are at. Our costs this year were a lot different. We are down about $230,000 from what we spent last year. We saved some money this year, but that is because of CFH. We did not treat as much. CFH is very expensive to treat. The chemical we use, imazamox, is not available in a generic form and is patented. So it is expensive. When you see us treat a lot of CFH, our budget takes a harder hit. She asked if anyone had any questions on what we treated this year on the system.

Mr. Page noted that hyacinth sometimes can prevent CFH. If you get an area infested with water hyacinth so much that it dominates the whole top of the water column, CFH is not going to be able to grow through that and establish itself or regrow. So, you see those fluctuations in aquatic weeds all the time. One may dominate where you had another problem weed before and another new one may come in. The biggest problem we have right now is those numbers are going to change significantly because *Salvinia* is probably listed as the world's worst invasive species. It is a spore producing fern that doubles its biomass in as little as four days. It grows exponentially, basically.

Mr. McCord said to add to that thought process, we did not spend much money or treat very many acres of *Salvinia* at all this past year, but that is not an indication of how much is likely to be out there when spring time decides to really come. This year, we have locations where we have found the plant, and that goes from almost a mile above Rimini railroad trestle down to Jacks Creek area. That is where we have found it. As Ms. Moorer mentioned, it is a free-floating plant. It hitches a ride on water hyacinth a lot of times. We have tried to

treat it everywhere we have found it. Obviously, we have not gotten all of it. We have still got our fingers crossed that the below average cold spells we had this winter that actually froze some areas in the upper lake. I think Ms. Moorer has the distinction of the only S-C employee that has ever driven an airboat on ice. That was right above Little Falls landing in open lake water. We got significant freezing. The problem always is with these aquatic plants is a portion of the plant is under water and even if the ice freezes across that area, that ice is 32 degrees and the water below that is close to 32 degrees. Whether that kills giant salvinia we do not know. If it did not kill giant salvinia, we will have our hands extremely full. We will have to locate giant salvinia and then trying to treat it everywhere we find it.

Ms. Moorer pointed out the second row in the table of water hyacinth is targeting areas where there is giant salvinia present. We did not have the biomass of giant salvinia, but it was an area of giant salvinia mixed in with water hyacinth. So, we were targeting those areas.

Mr. McCord wanted to make clear, by no means are we underestimating the potential impact giant salvinia will likely have on the S-C system. It has gotten into other cypress swamp areas. It is significantly difficult to find and treat. We will have even more problems trying to find and treat it, because we are dealing with a significantly larger system. We have put out a lot of information to the public, so they can identify it and notify S-C or SCDNR and we can pinpoint where this plant is a lot better. I know Clemson is working on invasive plant mapping, which will also be helpful. We are doing a lot, so we can send that information to Clemson Extension to get that stuff out there. This is going to be a collective issue for all of us to work on and trying to not let that plant become a major problem on the S-C system moving forward. With all the discussion we are having about *Hydrilla*, cutgrass, water hyacinth, and CFH, this plant has the potential impact to be worse than all of them. If you do not believe me, then go online and search giant salvinia. You will find issues from all over the world, but particularly in the United States, especially in Louisiana and southeast Texas. Entire impoundments are being covered by this plant to where it looks like dirt. Some of you will remember when *Hydrilla* looked like that mixed in with primrose around Elliot's Landing. *Salvinia* grows on top of itself and it is exceptionally difficult to control once this plant gets out of control. We, and when I say we, I am talking about S-C, SCDNR and anyone who are out on the water, will be looking for this plant constantly. If we find it, we will get chemical applications on it to try and get it under control. Eradication is the target for giant salvinia, but it will be really difficult to eradicate it and completely get it out of the system.

Ms. Moorer said we are trying to do some educational outreach stuff. We went to the Goat Island Boat Club, and some schools to talk about it. We want to come to you and talk about it because surrounding ponds and private areas. This plant can travel by wildlife very easily and it is the size of my pinky nail. All it takes is a leaf or a frond of that fern to reproduce. It can easily stick to a boat or a crane's leg or anything and move. So, the areas surrounding SC's lakes is a concern for us.

Mr. McCrary asked if there is any herbivory or wildlife benefit from this plant.

Ms. Moorer noted there is a weevil that LSU has been working on, but it cannot overwinter here. We had the US Army Corps of Engineers (CORPS) come and talk to us about looking for a biological control for this plant. The problem with the weevil is that we would need a certain amount of biomass for it to continue eating and survive. Louisiana will grow out pounds full of giant salvinia so they can grow this weevil. We do not want to do that, because we want to catch it before it gets to that point. We are looking at anything we add into an integrated aquatic pest management program with herbicide and biological control.

Mr. McCord said our first target will be herbicide control as Ms. Moorer said. Biological control agents have to be able to live out their lifestyle on that plant. You have to leave them there to do that, the whole time the plant is still producing. The weevil works extremely well in laboratory conditions where there is some control, but in the field not nearly as well. The big issue is the plant seems to survive colder conditions better

than the weevil. It has become an issue in northern and central Louisiana with the weather conditions similar to ours in SC. At this point, we do not think biological control plays a big part, but as with the weevil for alligatorweed and grass carp for *Hydrilla*, it is always better to apply biological control than chemicals. That is not possible in some cases. We will continue to keep looking at all those different options. If new options become available, we will definitely look at those as well.

Mr. Page said Texas has built hatcheries beside some major reservoirs that are heated and cooled, mostly heated, to overwinter a stock of weevils. The problem there is when you create that hatchery, you have to put giant salvinia in there, because it will not grow on the regular *Salvinia*. It is kind of weird. They have had some major problems with it. Giant salvinia was introduced in the 1980s in a SC pond. The first time ever recorded in the US. Thank God is it was in a pond and it took two years to eradicate it from that four acre pond.

Mr. McCord said the next place was in a cypress swamp in North Carolina and it took 10 years to eradicate that one. Mr. Page said it was ten years and they did that by foot. They went into the swamp with backpack sprayers. Mr. McCord asked if anyone would you like to volunteer themselves or some interested parties you know of. Mr. McCrary said not a chance. He would have to be hired full time to do that.

Mr. McCord said we will continue to ask people to be on the lookout for this plant and Mr. McCrary, you would be a good person to help with that, since you know a lot of people. So, please urge everyone to be on the lookout for this plant, particularly on their boat because it is so small and difficult to see. My biggest nightmare is that plant getting loose in Sparkleberry Swamp and getting started in areas we cannot just access. It can render that area useless for all the things the people use that swamp for.

Ms. Shriner asked if there were pictures of this plant around the boat landings. Mr. McCord confirm there were. Ms. Moorer said we put out some literature with SCDNR and S-C's contact information to each commercial facility, public boat landing, and State Park. We also did mail outs to each address on our lease properties for management managers, as well as each lease holder and commercial lease holder. A lot of the rounds we were doing already had that flyer out and posted in their restaurant or business. If you need any, she will happily send some to you. We also did some door hangers as well.

Mr. McCrary asked where you have seen giant salvinia on the S-C system. Ms. Moorer said just below Sparkleberry Lake and above Packs Landing. Mr. McCord told Ms. Shriner that we should have sent already some information to you, but we are expanding the areas where we distribute these pamphlets at, including any restaurants and business where the public is likely going to see them. It is important for everyone to recognize the plant when they see it and then contact SCDNR or S-C. Ms. Moorer noted the pamphlet has an identification guide to identifying this plant and who to contact. We have gotten some calls already.

Mr. McCord said there are two different types of *Salvinia* plants. There is *Salvinia minima*, which is a much less problematic plant and *Salvinia molesta*, which is the giant salvinia. These two plants are a lot alike. We are not really concerned if anybody sees either one of them, just assume it is the worst. We do not want people to meticulously look to figure out which one is which. We are going to control the *Salvinia minima* just as well, because it can be problematic, too. Where we have found one, we have found the other. Chances are if you find either one of them, the more problematic plant is going to be there as well.

Mr. Page said you have to have magnification on the inner part of the plant. The leaves fold together kind of like Velcro effect. What happens on those hairs determines which *Salvinia* plant you have. Mr. McCord noted you can zoom in on your camera phone and see the shape of the hairs which can help you identify the plant. He is fine if you just identity it as *Salvinia* and we will deal with the rest. Mr. Page said if you think you have it, tell someone and someone will be there to identify it.

Ms. Moorer promised Ms. Shriner she would get some information to her before continuing her presentation. This is just going to be a quick review of *Hydrilla* in the S-C system in 2016 and 2017. In 2016, this is the aerial photography flown after Hurricane Matthew. We had some clarity issues due to our water quality, so you could not see as deep. These are just points where we found *Hydrilla* in our 2016 survey. We found around 250 or so acres in 2016. This does not include any impoundments. The next slide is just a zoom in area of Lake Moultrie that shows all the areas where we found *Hydrilla* in the 2016 survey. These are the 2017 results and if you go back to the 2016 results, you can see the difference in the distribution. You see the Taw Caw and Potato Creek areas and we did not find that much *Hydrilla* in this area in 2016. As you can see in 2017, this is Potato Creek, which is an impoundment where we did stock grass carp and did some herbicide treatments. We have picked up a lot more areas of *Hydrilla* in 2017. It is the same thing on Lake Moultrie in 2017, where we are picking up *Hydrilla* on the south side of the lake, where we did not see that previously in 2016.

Mr. McCord added that one thing you will notice on the 2016 and the 2017 surveys is the vast majority of the *Hydrilla* we are finding is on the northern side of the reservoirs. The reason for that is because of water quality issues Ms. Moorer was talking about earlier. The south side tends to be more turbid than the north side, because of general wind conditions and the flow patterns through the system. You can see it on this aerial shot of Lake Moultrie in the lower section, where all that greyish color is located. All that greyish section is the actual turbidity that is down in that area. That is caused by rainfall upstream that comes down and through Lake Marion and into Lake Moultrie and then it is aggravated by wind conditions and stuff across that 12 by 18-mile bowl of water. Likewise, that is the same issue on Lake Marion. The next slide will show you the distribution on Lake Marion. The vast majority of what we are finding are areas above the I-95 Bridge. The big concern is the acreage is similar, but the distribution between the two years is considerably wider than it was in 2016. That is what has been driving our discussion on maintenance stocking. The Potato Creek impoundment is included on the maps, but not included in the acreage calculations. That is because the Potato Creek impoundment had gotten to a point where it was completely covered with *Hydrilla*. We talked about it in the Council maybe a couple years ago and we agreed to stock grass carp but for one reason or another did not get it done. In inspecting that area late last year, we collected some *Hydrilla* samples to be tested for the *Aetokthonos hydrillicola*, which is a fancy way of identifying a blue-green algae that produces toxins that kills birds and eagles. It is the same organism that is co-responsible for the killing over 100 bald eagles, and numerous waterfowl that feed on *Hydrilla* in Lake Thurmond. I say co-responsible because the other responsible party is the lake managers in that area that refuse to control *Hydrilla*. He did not get into that. We are not bound with the same fictitious whatever it is they are bound by. That area was found to be highly positive for this organism. Ms. Moorer said she brought that report if anyone wants to see it.

Mr. McCord said that there is a danger to any ducks and coots that are in there, and any eagles that may eat those birds, once those birds are impaired by this toxin. The capability is there on Potato Creek. He knows that is one of the DNR WMAs. So, it is fairly highly used for waterfowl hunting, but under the circumstances S-C and SCDNR had discussions about it. We targeted that quickly, treated multiple times with herbicide to knock the *Hydrilla* down, and then subsequently stocked it with grass carp. We will be following it very carefully. We will be also collecting *Hydrilla* samples anywhere else we find it in the system. He said as long as he lives in this area, it is going to be very difficult for anybody who takes over lake management of the S-C system to allow the same thing that happen on Lake Thurmond to happen here. He will do everything he possibly can to see that will not happen. There are all kinds of issues there and it is illegal among other things. We will not allow *Hydrilla* to continue to take over areas when there is a high possibility that it can end up causing major issues to not only waterfowl but other species. The same group that found the organism on Lake Thurmond is saying its impacting turtles, snakes, fish, and basically anything that feeds on the vegetation or feeds on something that feeds on the vegetation. It may end up being an extremely major issue before it is all said and done. We need, very strongly, to continue maintaining control on *Hydrilla* and allow native vegetation to grow in areas in which it can. To my knowledge, there has not been any large-scale infestation of this blue

green algae on any plant but *Hydrilla*. *Hydrilla* tends to promote the growth of this algae because of the morphology of *Hydrilla*. It has more leaf surface area for this plant and algae to grow on. Most of the native plants do not have the same type of leaf area. It was found back in 2007, in Lake Moultrie, growing on a native plant called *Bacopa*, but very sparse. Nothing eats *Bacopa*. Consequently that was not a big concern. However, we continue to watch it. But since we have seen *Hydrilla* grow back, even in impoundments. We have found it growing on *Hydrilla*. So we know organism is here and we just have to do everything we can to manage against it for becoming a problem.

Mr. Page said AVM is pretty specific to man-made lakes. Natural rivers and lakes do not normally have it. Almost every man-made lake from Virginia to Texas, especially through the middle of the states and all the way through the coastal zone, not the ones in the mountains, have experienced that problem.

Mr. McCord said it does grow on *Hydrilla* in ponds as well. A pond we use for research about five miles from Lake Thurmond is very heavy infested with *Hydrilla*. It was actually one of the places they did their studies on because it was impacted by the blue-green algae. We actually did the studies there to determine if the blue-green algae impacted grass carp, which it did. It ended up showing up the same visible symptoms in terms of lesions or vacuolar openings in the brain tissue. Nobody observed grass carp acting funny. Birds that are affected lose their ability to fly, they lose the ability to walk, they swim in circles and that is why they are easy targets for birds of prey like eagles. The eagles target coots and other waterfowl that have been eating these algae because they are easy to catch. They eat those birds and ingest that same toxin that is in the tissues of the birds. It ends up causing the same issue with the eagles. They lose the ability to fly, falling out the nest, and just end up dying. It has been around 17 years since that first started on Lake Thurmond and it continues to this day presumably. Last year, they developed a plan to treat the vegetation. In his experience, plans are not really effective. We will see if they move forward on it.

Mr. Page told anybody needing information to can call the S-C office or my office. They can get you connected to the right webpage and even in contact Dr. Susan Wilde at the Warnell School of Forest and Natural Resources at University of Georgia.

Ms. Shriner asked what was being done about the impounded area in Potato Creek. Mr. McCord said it has been treated with herbicide and stocked with grass carp to try and remove the *Hydrilla*. We will try and maintain that circumstance.

Mr. McCrary noted that is a Category 2 waterfowl area. This is not generally his concern, but a concern of public perception is that area is a designated Category 2 area waterfowl and S-C and SCDNR are going in and eliminating the only food source that draws that waterfowl to that area. *Hydrilla* is what made Potato Creek hatchery. *Hydrilla* is the reason Potato Creek ever had 3000 ring necks, and the reason they have been there since the mid-1990s. It held the *Hydrilla* after the lake system had lost the *Hydrilla* and consequently held the ducks.

Mr. Moorer said five years ago, we did not have *Hydrilla* in Potato Creek. Mr. McCord said it has been gone for quite some time in Potato Creek. Ms. Moorer said we want native vegetation in there.

Mr. McCrary said three ducks seasons ago, there were about 2500 ring necks in there and several group of hunters in there every Wednesday and Saturday pulling three man limits for the entire month.

Mr. Page stated there was no *Hydrilla* in there three years ago. It was a lot of native vegetation in there. Mr. McCord said a lot of coontail was back there, which use to be in there years ago, before your time. Let me take you back to two issues. One, the first thing you are saying is that S-C and SCDNR should allow *Hydrilla* to grow in Potato Creek.

Mr. McCrary said, "No, I did not say that."

Mr. McCord stated you said that is the only thing that is attracting ducks there. You made it sound like S-C and SCDNR have a responsibility to allow *Hydrilla* to stay in there because it is attracting ducks for duck hunters.

Mr. McCrary said, "No, I did not say that."

Mr. McCord said that was my understanding. He asked Mr. McCrary if he would propose we allow this *Hydrilla* to grow in there and this algae to grow on the *Hydrilla*. Then the ring necks, which you are talking about are coming in and people are wanting to hunt, are feeding on this algae and very likely dropping dead at some point after feeding there. The reason you are not seeing ring necks, scaup, widgeons, and all the other birds that feed on *Hydrilla* is because they do not stay in one place like coots or eagles do. They fly to other waterbodies and die there and nobody is able to track that and keep track the numbers of birds that are doing that. Those birds will die for eating that vegetation. I do not see how S-C, SCDNR, or anybody else has the responsibility to allow an invasive to grow in there even if there is no toxic blue-green algae growing on it. We have a responsibility based on our current agreement to control *Hydrilla* in the impoundment just as we do in the rest of the lake system.

Mr. Page said that Mr. McCrary and Mr. McCord can continue that discussion after the meeting. We have an agenda and we are trying to stick to it.

Ms. Moorer said this is where we stocked fish this year. In last year's plan, the Council agreed and passed that we could stock 10,000 grass carp. We targeted areas with the most *Hydrilla*. We did 5,000 on Lake Marion and 5,000 on Lake Moultrie. Here are the sites where we stocked those 10,000 grass carps in 2017. Mr. Page thanked Ms. Moorer for her presentation.

Mr. Lamprecht had one comment regarding the stocking of grass carp stocking in Lake Marion last year. There were 1,000 grass carp put into the Potato Creek sub-impoundment. It has access to the lake, but it is limited. Mr. McCord and Mr. Page said that none of the 10,000 carp went into the Potato Creek impoundment. Ms. Moorer said we closed those spillways completely. Mr. McCord said both of those water control structures in the impoundment are grated to keep fish from getting into the main lake. Those 10,000 grass carp were all done on the lake side. Ms. Moorer said the 2,000 grass carp stocked later in the fall were on the impoundment side. Mr. Lamprecht asked if they were using lake tested fish for this. Mr. McCord said no, they were completely different.

Mr. Page thanked Ms. Moorer again and moved on to the draft plan with recommendations. He walked everyone through this with the sheet provided earlier. We did not really have any major changes to the plan. The biggest change is new herbicide called ProcellaCOR. He went through and selectively put ProcellaCOR in a lot of places. He saw that he did not put it in the Ashepoo River section, but needs to. ProcellaCOR is a new product and is a systemic herbicide for different types of plants like *Hydrilla*, CFH, water hyacinth, and things like that. It is highly touted and supposed to be this magic bullet. We will see.

Ms. Lognion said it was originally for watermilfoil. Mr. Page said it works well on milfoil. The state parks people are going to be happy, because that is what they have the most in the state parks. Mr. McCord said, as in all new aquatic herbicides, it has been really well researched and scrutinized before it is finally coming out for potential use. Mr. Page said it should be licensed in the state in the next month. Ms. Lognion agreed.

Mr. Page said that is in all the sections of the plan. He did not give the Council all of them. He noted everyone should have the whole plan sent via email. He broke out what needed to be discussed. The Ashepoo River was a major problem with water hyacinth last year. We had treated it in the past a little bit and we took it out of the plan. We put it back in the plan this year. It is a water hyacinth issue. No major news on that except that it is there and is problematic. We had 18 river miles infested last year, with some of those miles completely blocked. All the way up in the upper part of Ashepoo River and Horseshoe Creek down 18 miles below the US 17 bridge.

Mr. Page moved to the next section, Lake Greenwood. As you know, Lake Greenwood and Lake Murray were both affected by the flooding. We do not know how many grass carp we lost. Lake Greenwood had about 100 acres of *Hydrilla* spring up last year. That told us that we did not have enough grass carp in that system. Most of the carp that were stocked, were done last year. We are stocking to maintain one grass carp for six surface acres, which means Lake Greenwood is going to be getting 265 more carp, for a total of 1900 fish in that system.

Mr. Page said if anyone has questions about any of this, please say so. He was just running through them. He did not think there was going to be any problems. This plan was based on the same adaptive management plan we have used before. We try and look at and try to do what we need to do. All of the data we collect is available, so we can adjust to changing situations in the middle of the season and still maintain our objectives.

Mr. Page said Lake Murray is the same way, but had a more significant number of grass carp lost from the system. Contrary to popular belief, we are not stocking grass carp for native species in Lake Murray. We are stocking for *Hydrilla* maintenance control. We tried to go back last year and do the numbers on the grass carp and estimate what we lost. If you were not here last year, during the flood of 2015 specifically, we know we lost thousands of fish because there were at least a thousand fish in the parking lot at Saluda Shoals Park just below the dam. They had to open the emergency spillway. We estimated that we lost 50% and restock for that 50%. Unfortunately, we started to see indicator or native species come back quite significantly in some places. We knew we were just one step ahead of the *Hydrilla*, which would be next. So, we modified it again and almost went back to square zero with that stocking, because we did not have any way to determine the grass carp numbers in there. Like Mr. Lamprecht said earlier, it is hard enough already to find populations of carp out there when we are looking at forty to fifty thousand grass carp out there in the S-C system. We are looking at a lot less than that in Lake Murray. What Mr. Page did, with this plan for Lake Murray, was put in 3,000 grass carp to bring it back to where it is supposed to be for the maintenance control. But, he did a twofold method. He did 1500 in the spring to see what the summer would bring. And then put 1500 grass carp in the fall if we needed to. Every year, the maintenance stocking on that system, to keep it at about 8300 fish, is to stock around 1700 fish a year. If you think about that number 1:6, it is not the magic number. A lot of the research on other lakes has shown the ideal to be 1:8. The 1:6 is a little greater density. What that is saying is that we would like to have one triploid grass carp for every 6 surface acres. That's nothing. If we had one stripper for every 6 surface acres there would be some people yelling at us. So, that is what we put in there.

Mr. Page noted the next portion of the plan was an added section. It is the Santee Coastal Reserve for *Phragmites* control and here is why we put it in there. We have almost gotten to the point where we have covered most of Santee Coastal. He thinks we are looking at 1500-2000 more acres before we treated everything. They started maintenance work this week with their airboat by going out and spraying the sprigs where there was regrowth. That is all in the impoundments there. He put the "TBD" in there for costs, because that is all based on the amount of money available to Santee Coastal. They do not know how much federal money they will have come July 1, 2018. They do have a little bit of money left to do something to do before the season starts. The best way to treat *Phragmites* most of time is during the fall, because you get the rapid root absorption of nutrients. You can treat in the spring but you seem to get better results in the fall.

Mr. Page said the S-C lakes are in here, because it is always an item to be discussed. It did not change from last year. Mr. McCord asked that giant salvinia be added as a target plant, what are management strategy is, and what chemicals we would likely be using to control this plant. He noted that Ms. Moorer can get that information to you very quickly.

Mr. Page stated with the Council's pleasure, we will put that in there before we post it in the draft status, if we approve it today. The Council will have another chance to discuss it before it is an approved plan in another month or so.

Ms. Holling asked Mr. McCord if he would like to add ProcellaCOR to the list as well. Mr. McCord answered affirmatively. Mr. Page noted that we do not have ProcellaCOR back in the index, because we do not have a label for it, yet. Ms. Lognion said it had not been submitted. There was some discussion regarding that among several Council members.

Mr. Page said the next section is Croft State Park and that was basically adding 500 more grass carp. We do that periodically. It has a flow system in it and seems to be highly effective. We have treated it in the past, but we treat it and stock it with carp. We have not done anything in about 5 to 6 years. I know we should be doing maintenance stocking on a lot of these things but sometimes you have to decide if you are going to rob Peter or pay Paul.

Mr. Page noted that the expenditures in there pretty much rounded up. He took the liberty to put 900,000 for S-C because he really did not have a number. That can be adjusted if needed. Mr. McCord said it is always a target number that never ends up being accurate.

Mr. Page said that according to the bylaws of the Council, the only thing we have to do each year, if there are no changes, is the budget, technically. But, we approve the whole plan every year. We like to get all the issues out in the open. If someone has a problem we go through the process and discuss it at a meeting. He asked if there were any questions on those things.

Mr. McCord asked if there have been any fish collections on Lake Murray in the past for condition of the fish or number of fish. Mr. Page said there had not. Mr. McCord said he knew that is an issue on the S-C's system side with cost and difficulty of collection but it would be interesting to compare those two reservoir in the conditions of the fish and such. Mr. Page said that Mr. Lamprecht has the techniques and methodology to do so. He would get with him and our new regional fisheries biologist, Jason Bettinger, and find out what might be done.

Mr. Page asked if there were any questions and if everyone was okay with what we have written. He did send out all the pages that were highlighted. There are some minor changes in there with ProcellaCOR and a few other items. We are still finding typos from stuff that were probably submitted five years ago. If you look at this thing as many times as he has, you really do not see the typos. You are just trying to get through it. Ms. Holling is good about finding those things for me.

Mr. Page asked for a motion. Mr. McCord made a motion to accept the draft plan as written. Ms. Lognion second that motion. Mr. Page said he had a motion and a second to accept the draft plan as written and post for public review and asked for discussion.

Mr. Marshall noted that the common names of plants and some of the contact information needed to be updated. Mr. Page said the contact information is not required in the plan but is just extra we put in there for information.

Mr. McCord amended his motion to accept it pending those minor changes that Mr. Marshall just suggested. Ms. Lognion seconded that amendment to the motion.

Mr. Page noted the general gist of the plan stays the same and it gives us some leeway to do things. We can always do things in emergency situations without reconvening the Council. We have done that in the past and will probably continue to do so. He likes to make a few phone calls and make people aware of those situations.

Mr. Page said he has a motion and a second. He asked if there was any more discussion. There being none, he called for a vote. The vote was passed unanimously.

Mr. Page noted what happens next for the new members and the members of the public. We will take this back, make the few changes we discussed, post it to the web, and send out another news release. It will be posted for 30 days. So you can expect to be back here. He knows it is getting late for all of those figures. That's why I put 2018-2019. It probably should be the fiscal year, starting on July 1, but it is not possible to do that. You cannot determine spring stockings. You should set your calendars aside for the last week of April and the first week of May. We do not have to post it for 30 days, but we always do. He thinks we can post it for as little as 10 days. Mr. McCord said 30 days should be fine, just do not try and drag it out any further that.

Mr. Page said once it is posted and there is a firm date, he will send out a meeting schedule. We are going to have to free ourselves for a little while and hopefully do a short and sweet meeting, since there does not seem to be much opposition. Then we can get this done and be legal while we are treating. He guarantees we will be treating before May. Mr. McCord said S-C will try and follow the plan as closely as possible during our early treatments.

Mr. Page asked if there were any other new items for Council action. There were none and he asked Ms. Moorer if she wanted to tell them about ProcellaCOR or did she want him to do it. She agreed to do so, with him adding comments as needed.

Ms. Moorer said ProcellaCOR is a newly active ingredient in the aquatics industry. It is a hormone based product that makes the plant grow substantially until the plant dies. The herbicide is systemic and can be applied foliarly or in water, which is a benefit for us, especially on the S-C system. It has an affinity for organic components, so it is attracted to leaves and stems of a plant both in water and above water. In the S-C, the flow in our system sometimes presents an issue with getting chemical on the plant and keeping it on the plant to be beneficial. This product has a really quick uptake and being a systemic herbicide that is very new to the market, it looks like it is going to be a good tool for us to use. The training that we went to and everything they showed us in the greenhouses and ponds seems to be what really happens in the field. Sometimes they do not always align, but we are hopeful that it does. It is always great to have other tools in our tool kit. We are excited about it. It is labeled for CFH, *Hydrilla*, watermilfoil, spike rush, and other aquatic plants. For us at S-C, the big ones are CFH and *Hydrilla*.

Mr. McCrary asked if the plants grow to the maximum potential or faster than normal. Mr. Page said it makes the cell burst. It is very similar to 2,4-D and Renovate. Mr. McCord said it uses all the reserve energy components very quickly and then it has nothing left. Ms. Moorer said it uses the same protein receptors as 2,4-D does. It just has a different compound makeup that fits into that receptor better, so there is a quicker uptake. Mr. McCord said that instead of a chemical that actually destroys the cell membrane and destroys the plant itself like a lot of contact herbicides do, this mimics actual chemicals that causes the plant to grow. Like 2,4-D, this product causes it to over grow. Ms. Lognion said it starves itself.

Ms. Moorer said another benefit is that only plants have this receptor. Humans and animals do not have it. It a very safe herbicide and no restrictions on the herbicide like no fishing. It is great from the applicator and for the environment standpoint. Mr. Page said it has the cleanest label that the EPA can give a product. Mr. McCord said it is or at least touted to attack the target species and not tend to adversely affect some of the native plants that are not on its target list. It is reasonably target specific, but that is something we will see.

Mr. McCrary asked if there are different receptors on target plants and non-target plants. Ms. Moorer said some plants are more susceptible or sensitive to it. A couple months ago, she was able to go to the manufacturer's research and development compound. They had huge vats where they were growing out *Hydrilla* and *Vallisneria*. We want to keep our *Vallisneria* and get rid of *Hydrilla*. They treated all that. It was amazing that the *Vallisneria* looked great and the *Hydrilla* did too until you touched it and it just fell apart and shattered like glass in your hand. Vallisneria was not as affected. Same thing with the pondweeds. They are somewhat susceptible, but not as quite as much as *Hydrilla* would be. So that is a win for us.

Mr. McCord said you can set your control levels by the amount of the chemical you use, so that it will impact those more susceptible plants rather than the ones that are not. Ms. Moorer said it has very low rates.

Mr. Page said it has very short half-life, so it is out of the system in a matter of days rather than weeks. Some herbicides have a tendency to hang around and bio accumulate in the soil. This one does not. It is brand new chemistry and never been sold in the agriculture or landscape market. It was developed specifically for the aquatic market. We have been doing this for thirty years and he knows of three products that were specifically developed for the aquatic market. This product requires minimal equipment that you use to spray most weeds. It attacks fast. It is like Sonar with its systemic properties, but with Sonar, you need 21 days of contact time. The higher density of the plants, the faster ProcellaCOR is absorbed out of the water. It has no restrictions, as Ms. Moorer said. The only restriction is for agriculture irrigation, so food crops could potentially be impacted. From the research, they do not think it will kill the food crops, but just burn them a little bit. Pretty cool stuff if it works like they said it would.

Mr. McCord reminded everyone of legislation that was introduced last year to revamp or remove some organizations from the Council and add other members. Nothing got passed last year and the legislation was out there again this year, but he is not real sure where that stands. We have discussed the original creation of the Council. The Council was created to provide oversight from a multi-agency group, all of whom have some connection to invasive species or aquatic systems in order that final decisions are basically well thought out and are in place. In his opinion, the proposal he saw would water that down significantly and add/or take away members that should be part of the Council. He does not know where that stands or where that is going to go. Personally, he would urge people to contact their legislators and suggest that the Council stay as it is. He urged and asked Mr. Page to urge the members that are already in place to send somebody to the Council meetings. It has been the biggest issue in the past. A complete overhaul of the Council is both unnecessary and potentially problematic moving forward. He feels the changes would make it more difficult to come to an appropriated decisions based on biology and science. He thinks we have an appropriated group and would hate to see that go through a major change just to satisfy an individual concern.

Ms. Holling said she has been trying to keep up with that legislation. The last time she looked, it was still in committee as of last week. It has not come up for any discussion. Mr. Page said it is still tabled from last year. Ms. Lognion said, according to the Clemson University's legislative liaisons we spoke to last week, they think it is just going to sit there. But our concerns are if they remove Department of Regulations from the Council. It is ridiculous and insane, because we are the regulatory division for regulating pesticides application, whether that is aquatic or on land. We need to be there. Our concern is for this surfacing next year. Mr. Page said it would have to be reintroduced next year. We are in the second year of the cycle, so the bill has to be

reintroduced next year and it already lost one of its four sponsors. Ms. Lognion said our Council thinks it is pretty positive that the bill is going to sit there and die right there.

Mr. Page reiterated that we have enough science, enough experience, and enough knowledge from around the table with different perspectives to sit down and hash this stuff out. This is not the only meeting we have about this. We have staff meetings internally about the plan, about what we want to do and a lot of other issues on the WMAs. We also have meetings with S-C to discuss the same issues between the agencies. So it is not like we are going behind the other Council member's backs, but when you are the ones with the feet on the ground, you kind of have to get your ducks in a row before ever presenting anything to the Council itself. The Council is well aware of those meeting. Sometimes, some of the Council members have been invited to those meetings. Some are there by default. It is a good process and it has worked since it was implemented. Attendance was a major issue and the bill was being pushed for that reason. I think we solved that problem with Sarah, as soon as she has that baby and gets back to work. She has been very proactive and is asking questions. Even when she was first out of maternity leave, she was asking those questions and wanted to be involved. We take roll and a list of that is available if you want to see it. He has had it compiled for different legislatures. It shows the majority of the people here are here 75 to 80% of the time. For new members, you need a copy of the bylaws. We have to have a quorum present and it takes a two-thirds majority of Council members to vote and pass a plan or a section of the plan. We break it up sometimes. If we do not get a two-thirds vote, the decision defers to SCDNR. The director makes the decision, but Mr. Page gives him the information.

Mr. McCord said it is very important that all the members show up for the meetings, specifically the meetings where we are voting on important issues. Whether it was SCDNR or any other agency was the head of the group, the design of the Council is for the Council to make that decision, not for that decision to be reverted to any one agency, to then make it based on whatever influence they might have or not. That is the whole point in the Council being here so no one agency or outside influence on that agency makes those final decisions. They are made as a group with scientific information to back them up and input from the public in a whole ball of whacks. We need to try avoid not having enough members to have a majority vote.

Mr. Page said if you cannot be here, we have a conference system where he can call you on his cell phone and conference you in. He can put two people on that cell phone. If he has to buy another one so we can conference others, then we will do that.

Mr. McCord asked if the bylaws allow for a proxy member. Mr. Page said they do. That is standard parliamentary procedure. For instance, if Mr. Simmons could not make it next time, he can send someone in his place for him and his vote. Mr. McCord said that was his point. It should not be that difficult to have an attendee present for all the meetings, since we do not meet that many times. Obviously, it is difficult for the same person, who could have something come up, but they could just send a proxy and have someone there to provide a vote. Mr. Page said he would send the bylaws out to all the Council members to make sure everyone has a copy.

Ms. Lognion said she just got an email from our registration person. ProcellaCOR is registered.

Mr. Page asked if there were any questions. Mr. Wannamaker asked what Mr. Page would recommend for a proxy or someone from your agency and if there were any requirements for that person. Mr. Page said not if they are just attending for you and are not your proxy every time. That would be considered a new member. A new member has to be appointed by the agency's head and he or she has to have a letter from the agency head. Mr. McCord thinks it needs to be a person from your agency.

Mr. Page said if you are going to miss a couple meetings, because you are on vacation, are sick, or have another obligation, you can send a proxy. Just let him know ahead of time, so he can walk the person through the hoops, so they know what they are doing when they get there. We try to use parliament procedures, and as you can see it is more of a forum than a true meeting. He has always been the person to say what he is going to say, and he likes for people to get that in, too. He may not agree with you. He may not implement any of your strategies, but he is going to listen to you. He might find something in there that will be very useful. It is kind of an open forum situation. Very seldom does he bang the gavel, say order, and start over. He knows some of us are more long winded and tend to preach sometimes, but you are usually preaching to the choir.

Mr. Page asked for a motion to adjourn. Mr. McCord made a motion to adjourn. Mr. Wannamaker seconded the motion. Mr. Page called for a vote, which was unanimously passed. The meeting adjourned at 11:50 pm.