



Commissioners Present: Chairman Lynn Smith (Mecklenburg County)
Vice Chairman Ed Hull (York County)
Secretary Treasurer Robert Biggerstaff (Gaston County)
Commissioner Brad Thomas (Gaston County)
Commissioner Blanche Bryant (York County)
Commissioner George Medler (York County)
Commissioner Tim Mead (Mecklenburg County)
Commissioner Peter Hegarty (Mecklenburg County)
Commissioner Neil Brennan (Gaston County)

LWMC Staff Present: Joe Stowe, Executive Director; Chris Clark, Legal Counsel;
Emily Parker, Administrator

Meeting Minutes

Closed Session

Present: Chairman Smith, Vice Chairman Hull, Commissioner Brennan, Commissioner Bryant, Commissioner Hegarty, Commissioner Mead, Commissioner Medler, Commissioner Thomas, Executive Director Stowe, Legal Counsel Clark, Emily Parker, Administrator

The purpose of the Closed Session was to discuss the discharge of water into the Catawba River from the USNWC with Legal Counsel Clark.

Item 1 – Welcome and Introductions

Chairman Smith called the meeting to order at 7:00 pm and welcomed everyone present.

Item 2 – Approval of Minutes

Chairman Smith asked if any changes need to be made to the June 27 minutes. Secretary Treasurer Biggerstaff made a motion to approve the June 27 minutes. Commissioner Brennan seconded the motion and it was approved unanimously.

Item 3 – Approval of Agenda

Chairman Smith asked if any changes need to be made to the July 25 agenda. Commissioner Thomas made a motion to approve the July 25 agenda. Commissioner Mead seconded the motion and it was approved unanimously.

Item 4 – Presentation by Rusty Rozzelle, Mecklenburg County Water Manager

Rusty Rozzelle made a presentation to the Lake Wylie Marine Commission on the draft water discharge plan for the USNWC. The following bullet points capture most of Mr. Rozzelle's comments during the meeting:

- The plan has been developed and is in the hands of NC Department of Environmental Quality (DEQ). They are reviewing the plan and local entities are awaiting approval before anything happens.
- He noted that anything talked about this evening is draft.
- He showed the group an aerial view of the USNWC (without water in the channels).
- All of the water used at the USNWC either comes from Charlotte Water or from a well, not from the river.
- The day after the incident happened, CDC staff was there to test for the amoeba. There are only a few labs in the country (the closest one is in Florida) that can run the tests for this amoeba. They collected 11 samples in the channel at the USNWC and collected 4 samples from the river. Preliminarily, they found amoeba DNA from 3 or 4 samples taken in the channel, and no positive results for the samples taken from the river.
- The USNWC was notified of the test results and they voluntarily shut the operation down.
- At that point, all of the water was put into the lower pond. All told, the system can hold 11-12 million gallons of water. There is about 7 million gallons left in the lower pond. The rest was lost to evaporation and the back wash (filter cleaning) process. The exposed surface of the channel was pressure washed.
- Another two aerial shots that showed the USNWC, Long Creek, Lake Wylie, Sadler Island, then two bridges over I-85, and the City of Belmont intake, 2.7 miles from the USNWC.
- Water discharged from the USNWC travels 400-500' before enters Long Creek, enters Long Creek, then travels 1,000' until it goes into Lake Wylie.
- The USNWC closed and the next week they received all of the test results back (USNWC and the river) from the lab. Of the samples taken in the USNWC, all 11 cultures came back positive for having the amoeba (still alive). Of the four samples taken in the river, none of water samples were positive, but the sediment samples were positive.
- He reminded the group that this amoeba occurs naturally in the environment. But, people involved admit that there's more of it in the USNWC channel than you would find naturally. That's what the concern is.
- The USNWC is still shut down, they hired water treatment companies, they have looked at the system and developed a plan, the plan has been vetted by many different parties, and now the plan is with DEQ and we're awaiting their approval.
- If and when the plan is approved by DEQ, the discharge of water will likely occur at 4 am or 5 am the next day.
- The draft plan is that they will inject 600 gallons of sodium hypochlorite solution into the lower pond in 3 or 4 different locations. The goal is to raise the total residual chlorine concentration in the 7 million gallons of water in that lower pond to between 5-10 parts per million (ppm). While they inject the chlorine solution, pumps will be running to constantly circulate the water.
- The water will be monitored every 15 minutes in four locations for total residual chlorine. They have to maintain between 5-10 ppm for two hours continuously in all four monitoring locations. If it drops below 5 ppm at any time, they have to start all over again. The CDC feels confident that this process will kill the remaining amoeba.
- After the two hours, they will inject another 600 gallons of sodium hypochlorite solution at half a gallon per minute for the two-hour timeframe, or increase or decrease as necessary so the water is continuously at 5 ppm.
- After that second two hours, they will stop injecting chlorine but will continue to pump for four more hours and will continue to monitor the water every 15 minutes at each monitoring location until the total residual chlorine level drops to zero.

- *This bullet was revised: They are starting so early in the morning because they want to start this process when it is as cool as possible outside because chlorine vaporizes. The de-chlorination process will likely start after the sun is up. The plan is to inject sodium thiosulphate into the water, which is a de-chlorination agent. They will do what is needed to reach 0 ppm chlorine. The water cannot be discharged until 0 ppm chlorine is confirmed.*
- Once 0 ppm chlorine is confirmed, the discharge process will begin. They will discharge from two locations – outfall 1 and outfall 2. The water from the two outfall points will make its way to Long Creek.
- Monitoring will happen throughout the whole discharge process. For the first two hours of the discharge, they will monitor every 15 minutes. They will monitor for pH, turbidity, conductivity, total residual chlorine, and salinity. Salinity could be a byproduct of the de-chlorination process that produces salt. They want to make sure there is no measurable salt because salt will kill fish.
- They will monitor every 15 minutes for the first two hours, then every 30 minutes for the next four hours. They will monitor at both outfalls. The plan is to discharge 3,000 gallons per minute from outfall 1 and 1,400 gallons per minute from outfall 2.
- Mecklenburg County LUESA staff will be doing the same thing – monitoring every 15 minutes for the first two hours at outfall 1 and outfall 2. They will monitor 100' upstream and 100' downstream of the discharge in Long Creek. They will also have staff in kayaks in Long Creek, as well as continuous automated monitoring. They are going to collect samples in the river when it hits the river. Mr. Rozzelle outlined their multi-faceted monitoring process.
- No one will be monitoring for the amoeba. They will be monitoring for other things such as chlorine by-products or other by-products from killing the amoeba. If they find any exceedance of any water quality standard, then the discharge process will stop immediately.
- When the USNWC came into existence around 10 years ago, NC DENR determined that no permits were required. The USNWC has been discharging into Long Creek from these two locations for 10 years with no permit.
- Commissioner Mead asked what Mr. Rozzelle's confidence level is that the chlorination plan will kill what is in the water. Mr. Rozzelle said the confidence in this plan is coming from the CDC. The CDC has given Mecklenburg County something in writing that says that approve the plan and they are confident in the plan. He added that there may be some that are not killed, but there are already some in the river. The objective is to kill as many as we can.
- Most of the amoeba is living in the biomass – the organic material – on the bottom. When the 7 million gallons of water is drained down and the biomass is left, pumper trucks will come in, get the biomass, it will be applied to the surface of the ground (land applied) away from water, in the heat of the day. The heat will kill what is in the biomass.
- Mr. Rozzelle addressed an anticipated question – Why can't the water be sent to CMUD (to the municipal waste water treatment plant)? The answer is that they cannot handle the 4,400 gallons per minute. The pipes are too small. The discharge process would take weeks, which would be unacceptable. CMUD said they would not accept the water, Mr. Rozzelle speculated, because of what it could do to their collection system. CMUD did not say why they would not take it, they just said they would not take it.
- Mr. Rozzelle reiterated that they are confident in the CDC and the chlorination plan, and that they will be focusing on potential chlorination/de-chlorination process by-products.
- Commissioner Brennan asked if any of the samples that they are going to take will be sent to that lab in Florida (mentioned earlier in Mr. Rozzelle's presentation) for testing. Mr. Rozzelle answered that no one will be testing for the amoeba. Commissioner Brennan followed up by saying, "so the CDC is 100% sure that we'll get rid of it" and Mr. Rozzelle replied, "yes." Commissioner Brennan confirmed that during the process the chlorine level will drop to 0 ppm, but asked about what the chlorine level will need to stay at once the USNWC is back up and running (0.5 ppm). Mr. Rozzelle said that no one

knows at this point. The USNWC's system is going to have to be redesigned. Commissioner Brennan asked if there has been discussion about steps to prevent this from happening in the future. Mr. Rozzelle said that no one is talking about that right now. Commissioner Brennan suggested that it would be a good idea to figure it out as soon as possible. Mr. Rozzelle clarified that the immediate focus is getting the water safely out of the facility. He adamantly concurred that the USNWC will have to have a solid plan for how to prevent this from happening again.

- Commissioner Hegarty asked if this is the plan, or if there is a Plan B. Mr. Rozzelle that he is not aware of a Plan B.

Item 5 – Presentation by Sam Perkins, Catawba Riverkeeper

Sam Perkins added to Mr. Rozzelle's presentation.

- He reiterated how many organizations are or have been involved in this process: Mecklenburg County LUESA, Mecklenburg County Public Health, NC DEQ, NC DHHS, Clemson Extension Services, Virginia Tech, Cloward H2O, Dr. Lance Reilly, and other individual consultants involved, and there are likely others. This has been a peer review process.
- There have been studies on how to deal with this issue. Mr. Perkins reminded everyone that only three people per year die from the amoeba. He said that if you've been in our lakes or other public body of water, you have more than likely had this amoeba touching your skin. What's rare is for the amoeba to make it to your brain. It's a rare infection, but not a rare amoeba.
- More than the amoeba, Mr. Perkins' concern is the dissolved oxygen parameter. He is concerned about the warm, stagnant water at the USNWC and possible implications in the river (e.g., a fish kill).
- We're talking about ~6.3 million gallons of water at the USNWC. So, imagine around ten Olympic size swimming pools. It would be around 3 pool lengths going from the USNWC to Long Creek.
- Mr. Perkins has appreciated being part of the process. He has confidence in the plan.
- Commissioner Bryant asked who is paying the people doing the studies. Mr. Perkins said there are paid consultants and there are people helping that are not being paid.
- Commissioner Brennan asked if there is going to be a swim advisory in place during this process. Mr. Perkins deferred to Mr. Rozzelle and he answered, no. Commissioner Brennan also said that one of the problems he has with the plan is about the public's perception. If we want the public to be convinced that the water is safe, it would be good to have the folks involved in this process and USNWC staff to go swim as the water is discharged.
- Commissioner Medler said that if we dump even a pint of that water in the river, Lake Wylie's reputation – which has improved greatly over the years – is going to suffer. He concurred with the idea of doing something to help potential public perception issues.
- Mr. Perkins said that he wants to make decisions based on good science. He's a bit nervous because this is an unprecedented event, but he trusts the science. He wants to help people understand the situation. For as many people die in the US annually from this amoeba (3), we had as many people die in a matter of minutes on Lake Norman yesterday. There are much bigger issues even in that stretch of the river (e.g., cancer cells, e. coli cells). His biggest concern is a fish kill and then an odd coincidence somewhere far downstream.
- For perspective, Mr. Rozzelle added that there are 92 billion gallons of water in Lake Wylie. We are talking about 6.3 million gallons of water – so doing the math, that would be 6.5 thousandths of 1% or a very tiny fraction compared to the total volume of water in the lake. CDC thought the local entities were going overboard with the chlorination process. The USNWC is doing a lot of what they are doing because of public perception.
- Mr. Perkins commented on talking with media and trying to get clear, factual messages out and effectively handle perception issues. He also reiterated that there are other much bigger issues going on related to the lake – people not wearing lifejackets, boater safety, drownings, boating while impaired, etc.

- Secretary Treasurer Biggerstaff asked if the amoeba could have come from the USNWC, after the discharging of water for ten years. Mr. Perkins said you can find the amoeba in other water bodies.
- Commissioner Bryant asked why the USNWC did not ask anyone (the LWMC or other entity) before proceeding with this plan. It sets a bad precedent for dumping in the river. Mr. Rozzelle reiterated that the State of NC says that the USNWC does not need to have a permit to discharge and therefore does not have to open public comment periods. That is why no other entities were asked for input on how to proceed or for comments.

Item 6 – Public Comment

None.

Item 7 – Stakeholder Reports

Charlotte Mecklenburg Police Department – Executive Director Stowe reported on behalf of Officer Joye. The Coast Guard will be back on Lake Wylie for three more weekends this summer. He noted that a significant number of BUI tickets are being issued. Mr. Stowe also noted that the first drowning at Snug Harbor was not a drowning, but has been ruled a homicide.

Gaston County Police Department – Commissioner Thomas reported on behalf of Officer Hamrick. Both GCPD boats are operational and in the water.

York County Sheriff’s Office – Sgt. Mabry talked about the three drownings. At least one of the incidents has been investigated heavily since the last meeting. He commented that when a drowning occurs, the coordination among agencies is amazing. All of the area law enforcement agencies that have a presence on the lake are trying to prevent drownings.

Tega Cay Police Department – No report was given.

NC Wildlife Resources Commission – Sgt. Laton reported that they investigated one near fatal accident over July 4th weekend. They did not arrest any impaired boaters over that weekend. NCWRC is actively trying to work in conjunction with other agencies to get the word out about boater safety. There were three drownings on Lake Norman yesterday. He commented that boaters and swimmers should not be over confident in their swimming ability. When you go in the water unexpectedly, you will more than likely panic at least momentarily. He added that tickets will not save lives when you are not wearing a life jacket.

SC Department of Natural Resources – No report was given.

US Coast Guard – No report was given.

US Coast Guard Auxiliary – No report was given.

Mecklenburg County Land Use and Environmental Services Agency (LUESA) – Rusty Rozzelle reported for Dave Ferguson. Mr. Ferguson will have maps to share at the August meeting.

Duke Energy – Ronnie Lawson reported that:

- Lake level: 97.2’ (target level: 97.0’)
- Low inflow protocol: Normal. He noted that we may go to Stage 0 in the next couple of weeks, depending on the amount of rain we get.
- No dredge permits have been approved.

Duke Energy submitted an application to FERC to extend their management license from 40 years to 50 years. They recently received a notice from FERC on July 5th saying that they denied the request to extend the license. Duke Energy asked for clarification from FERC and they agreed to provide clarification. Duke Energy has until early September to appeal the decision. Commissioner Thomas asked Mr. Lawson about the status of increasing the target lake level. Mr. Lawson said that this was part of what was being clarified by FERC. All filings have to be done by November 25, 2016.

Gaston County Cove Keeper – No report was given.

Lake Wylie Lakekeeper Report – Dan Mullane reported that there are no new development projects to report. Sam Perkins is giving the annual Catawba Riverkeeper Foundation State of the River presentation on July 30 at the Mount Holly Municipal Complex (400 East Central Avenue). Mr. Mullane mentioned other upcoming events and to go to the Catawba Riverkeeper Foundation website for more information and to register. Mr. Perkins recognized Mr. Mullane's diligent work. He also shared a website (to be officially unveiled on 7/30) about sewer system overflows (SSOs). The open website allows a visitor to access GIS (geographic information systems) maps and data on the different SSOs in the area and apply filters for a customized search.

Item 8 – Riversweep Update

Commissioner Brennan reported that there is no Riversweep update. It was decided to take the Riversweep Update off the agenda until further notice.

Item 9 – Treasurer's Report

Secretary Treasurer Biggerstaff provided the monthly finance update.

Item 10 – Executive Director's Report

Executive Director Stowe reported:

- Mr. and Mrs. Stowe attended the Kevin Loftin Park Opening and Dedication on Saturday. The event was well done and good for Lake Wylie and the City of Belmont.
- He attended the Water Management Group meeting on Tuesday.
- Audit Update – After engaging in a process to find the LWMC's new auditor, Mr. Stowe recommended local CPA Belinda Johnson. She is located in Charlotte on Monroe Road. Commissioner Brennan made a motion that the LWMC hire Belinda Johnson to conduct the audit for the LWMC. Commissioner Mead seconded the motion. There was no discussion. The vote was taken and approved unanimously.

Item 11 – Chairman's Report

Chairman Smith reported that the LWMC Officers and Executive Director Stowe met on July 6 to discuss possible activities for the remainder of 2016. They also reviewed the LWMC Annual Report and suggested changes. Each Marine Commissioner has a copy of the updated Annual Report at their seat this evening. Chairman Smith requested that the Annual Report be posted to the LWMC website and sent to staff at Mecklenburg, Gaston, and York counties. Ms. Parker will post the Report and send it to staff at the three counties.

Item 12 – Clerk's Report

Ms. Parker did not have a report.

Item 13 – Old/New Business and Commission Projects Reports

Old Business

- Water Quality –
 - Clean Marina/Clean Boating – Secretary Treasurer Biggerstaff reported that all marinas have been re-inspected and have their flags.

- Invasive Species – Commissioner Medler did not have a report.
- Buoy – Secretary Treasurer Biggerstaff reported that there are a couple of buoys that Mr. Johnston is supposed to fix. Officer Joye was going to take care of these.
- Safety – Commissioner Bryant noted that if anyone has suggestions for getting adults to wear life jackets, to please let her know.
- Recreation – No report was given.
- Public Information – No report was given.

New Business

- **Allen Steam Plant Coal Ash Issue**

Commissioner Brennan reported that the Dam Safety risk assessments of both the inactive and the active coal basins at the Allen Stream Plant remain at “Intermediate.” To reduce the risk to “Low,” two conditions have to be met according to the new changes to the Coal Ash laws:

1. Make all Dam Safety Repairs
2. Provide a permanent, alternate water supply to all homes within ½ mile of the plant.

Dam Safety Repairs

Plans to replace rather than repair spillway piping have been approved, and work continues to reinforce the shallow slope stability of both basins. These dam safety corrective actions could be complete by September 2016 but will be done by the end of the year.

- **Tega Cay Sewer System Refurbishment**

Work on replacing and repairing the defective piping is over 50% done and is expected to complete by the end of the year. All improvements to the waste water treatment facilities are expected to be done by the first quarter of 2017. These repairs rely on parts with long lead times, 16-17 weeks. The piping work done thus far has eliminated several rain water ingress sites which in turn has increased the efficiency of the system and prevented some overflows.

Commissioner Brennan made a motion that the Lake Wylie Marine Commission support the CDC-approved plan to discharge USNWC water to the river and that the LWMC actively participate in a public relations effort with the Catawba Riverkeeper Foundation to explain the rationale for our support. Commissioner Mead seconded the motion. Discussion: Commissioner Brennan said that what the LWMC heard tonight was based on science and that this plan is safe. He said that voting to approve the plan that Mr. Perkins and Mr. Rozzelle presented was in keeping with the LWMC’s mission statement that says we support the education and safety of the citizens that use Lake Wylie. The plan presented is a safe one and the LWMC could help educate the public as to why it is. We should acknowledge the science and support the effort. Safety is one of the goals of the LWMC. This is a two-pronged approach. He thinks we need to support the Catawba Riverkeeper Foundation and also contact our state legislators to get regulations put in place. The vote was taken and the motion failed. Commissioner Thomas clarified that this is not a critique of the work done by Mecklenburg County LUESA or the Catawba Riverkeeper Foundation. Commissioner Bryant added that she hopes this plan is good, but if it is not, it is going to come back and bite us all.

Item 14 – Adjournment

The meeting adjourned at 8:48 pm.
