

## **MINUTES OF SPECIAL JOINT MEETING**

**Albemarle County Board of Supervisors  
Albemarle County Services Authority Board of Directors  
Charlottesville City Council  
Rivanna Water & Sewer Authority Board of Directors**

**March 3, 2009**

A special joint meeting of the Albemarle County Board of Supervisors (AC BOS), the Albemarle County Service Authority Board of Directors (ACSA BOD), the Charlottesville City Council (CCC), and the Rivanna Water & Sewer Authority Board of Directors (RWSA BOD) was held on Tuesday, March 3, 2009 at 2:00 p.m. in “CitySpace” in the Charlottesville Community Design Center, 100 5<sup>th</sup> Street, N.E. (downtown mall side of the Market Street Parking Garage).

**AC BOS PRESENT:** Mr. Kenneth C. Boyd, Mr. Lindsay G. Dorrier, Jr., Ms. Ann H. Mallek – Vice-Chairman, Mr. Dennis S. Rooker, Mr. David Slutzky - Chairman, and Ms. Sally H. Thomas.

**ACSA BOD PRESENT:** Mr. Jim Colbaugh, Mr. Robert R. Humphris, Mr. John Martin, Dr. Lizbeth Palmer, Mr. Clarence Roberts – Vice Chairman, and Mr. Donald J. Wagner – Chairman.

**CCC PRESENT:** Dr. David Brown, Ms. Holly Edwards, Mr. Satyendra Huja, Mayor Dave Norris, and Vice Mayor Julian Taliaferro.

**RWSA BOD PRESENT:** Mr. Gary Fern, Mr. Michael Gaffney – Chairman, Ms. Judith Mueller, Mr. Gary O’Connell – Vice-Chairman, and Mr. Robert Tucker.

**ALSO PRESENT:** Albemarle County, ACSA, Charlottesville City, and RWSA staff; members of the public, and media representatives.

### **Call to Order**

**The special meeting of the AC BOS was called to order by Supervisor David Slutzky on Tuesday, March 3, 2009 at 2:00 p.m., and he noted that a quorum was present.**

**The special meeting of the CCC was called to order by Mayor Dave Norris on Tuesday, March 3, 2009 at 2:01 p.m., and he noted that a quorum was present.**

**The special meeting of the AC ACSA was called to order by Mr. Don Wagner on Tuesday, March 3, 2009 at 2:03 p.m., and he noted that a quorum was present.**

**The special meeting of the RWSA BOD was called to order by Mr. Michael Gaffney on Tuesday, March 3, 2009 at 2:04 p.m., and he noted that a quorum was present.**

Mr. Michael Gaffney, Chairman of the RWSA BOD, next welcomed everyone in attendance at the special meeting of the AC BOS, ACSA BOD, CCC, and the RWSA BOD. He then provided a summary of the consensus reached at previous meetings concerning the Community Water Supply Plan as follows:

“Last summer, the CCC and the AC BOS each unanimously re-endorsed the community’s permanent Water Supply Plan by resolutions. Within those resolutions, they also asked the RWSA to pursue the feasibility of dredging as a means for maintaining the South Fork Rivanna Reservoir. Rivanna’s mission is to serve the overall interest of the City and the County through its elected officials and to sustain that mission sought a better understanding as to the focus and desired outcome of the dredging study. These conversations led to a meeting of the Chairman of each of the boards present today, and in that meeting the Joint Chairmen organized what became known as the South Fork Rivanna Stewardship Task Force of dedicated citizens from our community and prepared a statement of the objectives for this Task Force.”

Mr. Gaffney then stated that “our agenda for today is simple: to hear from the Task Force regarding the recommendations and then discuss the issues in an effort to reach agreement on a clear directive for further study by the RWSA.” He felt that he spoke for all the members of the RWSA BOD in commenting that “we want the next steps to come from a broader directive that comes from this larger group of the four boards assembled today.” He further stated that today’s meeting agenda is “simple and focused solely on this issue. I want to invite all relevant discussion to get all our ideas on the table.” Mr. Gaffney also requested that the discussions “stay focused on today’s topic: What dredging and other studies do we want Rivanna to perform with respect to the South Fork Rivanna Reservoir?”

Mr. Gaffney next reported that Supervisor Sally Thomas would begin the discussion by presenting to the four boards a summary of the findings and the conclusions of the Task Force. Prior to Supervisor Thomas’s presentation, Mr. Gaffney asked the members of the Task Force in attendance at the meeting “to please stand and be recognized” and that the four boards, staff, and the public “applaud their efforts.” Mr. Gaffney further stated that he had the opportunity to serve on the Task Force, and he “was truly amazed at the dedication of the citizens who served on this Task Force. Most especially, all members of the Task Force thank [Supervisor] Sally Thomas for her guidance and leadership as Chairwoman and the tremendous personal effort she invested in organizing the meetings, keeping us all on task, helping us work through our differences, and her tireless efforts in the preparation of the final report. I believe every member of all four boards can agree that [Supervisor] Thomas put forward a tremendous effort of outstanding quality and a bargain for this community.” As Supervisor Thomas came forward to present her report, Mr. Gaffney asked that the members of the four boards “give her that special recognition.”

Supervisor Thomas then informed the four boards that she “did not intend to repeat” the entire Task Force report but would be presenting an illustrated version through a PowerPoint® presentation. She stated that because the Task Force was “charged to accept” the adopted Water Supply Plan, her discussion would focus on the Task Force’s recommendations on the best way to maintain the South Fork Rivanna Reservoir (SFRR), “given the Water Supply Plan and given all the values that we have invested in that reservoir.” The SFRR has a “role” in the adopted Water Supply Plan and is a “very important body of water,” as “96%” of this community’s drinking water comes from that reservoir.

Supervisor Thomas next referred to the slide that listed the four questions that “boiled down” the four board chairmen’s charge to the Task Force, which are as follows:

- *How the Reservoir benefits our community.*
- *Measures to maintain those benefits.*
- *What will happen if no measures taken?*
- *What “next steps” should be taken now?*

Supervisor Thomas then noted the picture of the reservoir on the slide now being viewed, which she felt illustrated the unusual contour of the reservoir, and stated that the SFRR is a “long, narrow 7 1/2-mile body of water ... that shares the characteristic with the Chesapeake Bay; it’s got a little bit of water for a large amount of watershed.” The SFRR is a “very good water supply source because it accumulates water. It takes only a small rainfall for it to fill up.” However, the large watershed also “brings along” sediment. The water quality is impacted by what has accumulated in the reservoir over the years, but with treatment, the water quality remains very “high.” Supervisor Thomas noted that one of the field trips taken by the Task Force included a tour of the South Fork Water Treatment Plant. The group learned during that tour that RWSA utilizes a panel to test the taste of its water.

Supervisor Thomas next referred to the slide that pictured some of the Task Force members during their August field trip out on the SFRR. She thanked the University of Virginia rowing team for furnishing the boats, as “they are the only people that are allowed to use gasoline-powered motor boats on the reservoir.”

Supervisor Thomas then reported that the Task Force learned the value of the SFRR for things other than supplying this community’s drinking water. There are around “75,000 recreation hours spent on the reservoir by rowers alone,” as well as the “paddling and the educational programs” that take place throughout the year. She was told that there are “30-pound catfish” in the reservoir, and officials that “oversee” the waterways and fish habitat in the Commonwealth could also “brag about ...the sustained populations of Channel Catfish” and other fish species. The fishermen that she spoke to regarded the SFRR “as the best fishing hole in the County,” and they suggested that there might be “as many as 20,000 angler trips a year taken to this reservoir.”

Supervisor Thomas next commented that the issue of accessing the SFRR was a focus of the Task Force. “The present boat access points are awkward and dangerous.” The County’s proposal for a “better access point” is not included in its plans until “sometime after 2014.” Supervisor Thomas then stated that the Task Force was asked “to draw a picture of what would become of this reservoir if it continues at the present rate, particularly of sedimentation.” The SFRR will accumulate sediment, which always occurs when a dam is placed across a river. The channel will become narrower, and as it becomes more narrow, the velocity of the water will increase and “then drop out less sediment at the head part of the upstream part of the reservoir.”

Supervisor Thomas next addressed the slides that illustrated the results of a study conducted by Mr. Greg Harper of the Albemarle County staff using aerial photographs and Geographic Information System data. The picture showed the “areas of sedimentation that have accumulated along the banks of the reservoir” and also Mr. Harper’s projections as to what would occur in the future. She noted the areas where the “river slows down” and the sediment is “dropped off,” such as the inside of curves, the outside of curves, and sometimes “even cutting away at the banks.”

Supervisor Thomas then referred to the slides that illustrated the “projected impact on the storage function of the reservoir.” Bathymetric studies have been conducted about every six or seven years. She noted all the “transects” where bathymetric studies have been done. The results of those studies present a “picture of the contour of the bottom of the reservoir” and the location of its low points. On the current slide the dam is pictured on the left, and the red line indicates the “lowest intake point for the water treatment plant.” The “decline in storage” was in part the reason to “push” for the development of a new Water Supply Plan. Although the Task Force was not “looking at the Water Supply Plan,” what was occurring to the water storage capacity at SFRR was a “fact of life.”

Supervisor Thomas next addressed the slide that pictured the SFRR in a muddy condition following a storm event. The sedimentation rate varies “tremendously,” but it appears to be occurring at a “pretty straight line of progression of losing 16 million gallons of storage a year.”

Supervisor Thomas then reported that the “fish status is very healthy and is not expected to become unhealthy, but it may change more and more to a river-like environment as the sides grow in on the reservoir.”

Supervisor Thomas next commented that the Task Force became “quite alarmed” about something already known to the citizens who utilize the SFRR but probably not to the rest of the community related to “evasive grass called hydrilla.” The hydrilla prevents the boaters from being able to move at times when the grass becomes a “very dense mat.” Hydrilla does create a “good habitat for the fish until it reaches a certain point and then it can become detrimental to even the fish habitat.”

Supervisor Thomas then stated that the red line on the currently viewed slide shows where the “edge of the reservoir used to be.” The next picture illustrates where the edge of the SFRR is currently. She noted the fairly large trees that have grown in areas that used to be water and an island that has formed. She also pointed out the logs that had “caught in a snag and then downstream from the logs the flow of water has slowed and it drops out its sediment.” The red arrows show the camera angle used for this photograph. The following picture again shows the new land at the edges of the reservoir.

Supervisor Thomas then stated that the Task Force was instructed to “lay out some next steps,” which is the topic of today’s discussion. A question to be addressed concerned whether the wetlands that were forming on either side of the SFRR, along with some trees, are “what officials would call wetlands. A layman would say, ‘Well ... it’s wet and it’s land and it used to be under water ... it’s wetlands.’ There are official definitions of wetlands, and it’s a question that an expert can answer ‘yes’ or ‘no.’” The expert could also “give a pretty good opinion about whether it’ll be possible to disturb those wetlands in the future.” If the experts respond negatively, then “is that a reason why we should dredge in order to keep those wetlands from forming. On the other hand we might be told that wetlands will be something that you could disturb in the future if you have a purpose, and a reason, and can mitigate for the [disturbed] wetlands.” The Task Force was not able to resolve those issues and recommends that RWSA be requested “to find those answers.”

Supervisor Dennis Rooker next asked if he could “expand” on her comments. Supervisor Thomas responded positively, and Supervisor Rooker stated that one of his “primary concerns” was that it was “very unlikely that the [US Army] Corps of Engineers (US ACOE) and DEQ

would approve another impoundment in this area because we have the ability to go to the James River.” During the process of obtaining approval of the Water Supply Plan, he felt it was apparent due to the way those agencies “measure environmental damage” that it would be “very unlikely” that a project such as Buck Mountain could be built – “regardless of the Spiny mussel” – “because there’s no way you could show it was the “least environmentally damaging option.” He added that “if we want to maintain the possibility of reclaiming the capacity of this reservoir for future generations, we need to make certain we’re not letting anything happen today that will prevent that potential in the future.”

Supervisor Thomas then commented that “it would be fair to say” that the Task Force was recommending that the question just raised by Supervisor Rooker be answered first before making assumptions about the future.

Supervisor Thomas continued her report by stating that during the study the Task Force became aware of “all the recreational and educational activities” occurring at the SFRR and “how they were being constricted.” There were also questions from reservoir users about such issues as not knowing whether or not to remove logs in the reservoir and “who’s in charge here.” The Task Force suggests that a meeting be held with all the various users of the reservoir to address those issues. The Planning and Coordinating Council, which “brings together the City, the County, and the University of Virginia,” might be one way to get “an initial conversation going.”

Supervisor Thomas further stated that the Task Force suggests that the efforts of community groups, as well as the County’s Water Protection Ordinances and past zoning that “have limited what takes place upstream from the reservoir,” be encouraged in order to “reduce the sediment that brings along excess nutrients with it.” She then referred to a slide that listed some of the organizations that are working on upstream and downstream issues related to the waterways in this community.

Supervisor Thomas next commented that building a “forebay” is an “intriguing way to keep excess sediment from coming into the reservoir.” She explained that a “forebay is essentially a deep or wide place that slows down the flow of the water sufficiently that the water drops out its sediment there instead of farther down into the reservoir.” This option was considered by VHB [Vanasse Hangen Brustlin, Inc.] some years ago, and VHB was “not very encouraging” about the use of a “forebay” at that time. Although uncertain about its effectiveness, the Task Force is suggesting a re-examination of the “forebay” option because if it did work, it would be a “wonderful way to keep greater sedimentation from taking place in the body of the reservoir.”

Supervisor Thomas further reported that another question “arises” related to whether the sediment should be removed from the SFRR. When “Gahagan & Bryant ...dredging consultants,” visited this area, they advised “tackling” the following question before undertaking a dredging project: “Why would you dredge?” The Task Force “gives you some nudges in that direction of things to look at but doesn’t answer that question for the community.” The Task Force also suggests that “as a community we get a very clear idea of why to dredge, particularly given that as a Task Force we were supposed to look at what to do with this reservoir when we’ve adopted the Water Supply Plan.”

Supervisor Thomas then pointed out the picture of hydrilla on the currently viewed slide. She stated that hydrilla is an “evasive species that was probably brought to this country by people who had aquariums and dumped them out in the waterways.” The plant grows “at a deeper level

at less sunshine than almost any other aquatic grass, and therefore it chases away all the other grasses.” Since hydrilla grows down to “35 meters deep”, the Task Force concurred that dredging would not remove the hydrilla and that another solution would need to be considered. For example, “grass-eating carp have actually been introduced into Mint Springs at the [Albemarle] County” in an attempt to get rid of the hydrilla.

Supervisor Thomas next commented that “for whatever reason dredging is done, it obviously will increase storage capacity also ... the amount that it creates in storage is something that is known.”

Supervisor Thomas then discussed “obstacles” that might be confronted during a dredging operation. She stated that it is not known for certain what is at the bottom of the reservoir, such as stumps and trees. The importance of identifying physical obstacles varies among dredging companies. If a decision were made to dredge and the areas identified, the Task Force’s report suggests ways to proceed with the dredging operation. “Opportunistic dredging” is a term used by the Task Force “when there is a market for the sand and gravel and it can be carried away as opposed to having to be stored.” The Task Force was “impressed” during its discussions with some “opportunistic dredgers”, who stated that if there was a market for the dredged material, “opportunistic dredging” could be the least expensive option to undertake. “Underwater video cameras” can be used to get a picture of the reservoir floor to identify potential obstacles, such as stumps, rocks, and even catfish located in those areas.

Referencing her earlier discussion concerning water quality, Supervisor Thomas stated that consideration should also be given to the possible negative impact that a dredging operation could have on the reservoir’s water quality.

Supervisor Thomas next informed the four boards that Mr. Stephen Bowler, who wrote the report entitled “South Fork Rivanna Reservoir and Watershed: Reflecting on 36 Years, Anticipating 50 Years,” was invited to a Task Force meeting as a consultant on watershed issues. She added that Mr. Bowler provided his services free to the Task Force.

Supervisor Thomas then stated that “as a Task Force, we couldn’t set a priority. We had on blinders that limited our view to this particular reservoir, but we also recognize that this reservoir is one piece of the infrastructure of our community.” She then posed the question as to whether the reservoir was the “most important piece.” She felt it was “probably the prettiest piece ... it’s going to have to fit in somewhere in the priorities of the whole community.”

Supervisor Thomas concluded her report by thanking the four board chairmen for “setting up” the Task Force with a “clear charge.” Although it took a lot of the members’ time, she felt that everyone had a “wonderfully educational trip” and hoped that this report was “useful.”

Mr. Gaffney thanked Supervisor Thomas for her report and then opened the meeting for discussion. He added that Mr. Tom Frederick, RWSA Executive Director, was also in attendance and would be available to answer any questions and provide input to the four boards as needed.

Supervisor Lindsay Dorrier next asked if hydrilla was similar to kudzu, which expands and covers whatever it is growing on. Mr. Gaffney responded that hydrilla was very similar to kudzu.

Supervisor Rooker then stated that the Task Force talked to various people about ways to address the hydrilla issue and found at present there is no “sure-fire method” to accomplish the elimination of that “aquatic grass.” Cutting the hydrilla, as well as a dredging operation, has “the effect of spreading the hydrilla unless you get all the remnants out when you do it.” Chemicals are available that can kill the hydrilla, but the Task Force felt that it was not a “wise idea to put it in the drinking water.” The “grass-eating carp” is one way that appears to be “somewhat effective” in reducing the amount of hydrilla, but he was not aware of anyone “achieving complete success” with that method. Hydrilla is “seasonal. It dies out in the winter ... comes back in the warmer weather.”

Supervisor Dorrier next stated that it appeared from previous comments that if the reservoir is dredged that the sediment would “come back.” Supervisor Rooker added that he had felt earlier that if the reservoir were dredged that the hydrilla would be eliminated, but that “doesn’t appear to be the case.”

Mr. Clarence Roberts, ACSA BOD member, then commented that he found a lot of information about hydrilla on Virginia Tech’s website, and research indicates that insecticide is the most effective way to eliminate hydrilla.

Supervisor David Slutzky, AC BOD Chairman, next stated that ‘in reading the report the sense I got was that a significant amount of sedimentation is coming from upstream ... from the watershed and the County has a very proactive policy position on managing the upstream opportunities for sedimentation, but because of financial circumstances the County is constrained in its ability to go ahead and implement some of that ... we don’t have the enforcement positions populated there ...’ He wondered if the Task Force had discussed and/or explored “the idea of the ratepayers in the water system funding the enforcement mechanism through the County that actually has an added effect of benefiting the users of water as opposed to the people in the County who are ... rural area property owners who aren’t even drawing from the water supply system.”

Supervisor Rooker responded that the Task Force did not “really explore who should pay for what,” and he did not think it was known at this time “with any reasonable measure” how much sediment could be stopped from going into the reservoir “with land use measures.” Some success could be accomplished by that means. He then asked Supervisor Thomas if she could speak about the Rivanna River Basin Commission’s work on sedimentation issues.

Supervisor Thomas stated that the Rivanna River Basin Commission (the Commission) issued a report concerning “best stormwater practices.” The Commission also has a pending grant application that “will help put some of these models into effect for each county so that people can see how you can best catch your stormwater.” The “probable source” for a lot of the sediment in this area “dates way back to the Nineteenth Century when the hillsides were denuded of trees and the erosion filled up what are now our floodplains and so every storm that scrapes away at those sides brings in sediment into the reservoir.” The Commission is exploring many ideas, one of which is whether the placement of “small forebays” throughout the watershed “could slow down the stream flow in some of those floodplains.” She added that Supervisor Rooker was right when he stated that no one knows the exact amount of sediment “that could be captured ... Even throughout the whole Chesapeake Bay they have not done a very good job of measuring the outcomes from their different methods.”

Dr. Lizbeth Palmer, ACSA BOD member, next asked Supervisor Thomas to further “explain the disconnect between the floodplain and the streams that has occurred.” Supervisor Thomas prefaced her response by commenting that this issue came to her attention from a person who owned land in the County and was “being hauled up by the nape of the neck by a County staff member saying, ‘You’ve destroyed a creek.’” The man responded, ‘That’s not a creek; it’s right on top of the land.’” Albemarle County and Piedmont residents are so used to creeks “being deeply cut into the land that we don’t even recognize a creek as a creek if it’s running right across the surface of the land.” The floodplain that use “to capture the overflow of water when there was a modest rain storm is now 8, 10, 15 feet away from being able to capture that energy or that water flow and now it just rushes down through the deeply incised creeks and adds to the problem of the receiving body of water.” The question is whether the flow of water can be slowed down and the creek level raised “so that the floodplains do what they were supposed to do.”

Mayor Dave Norris then asked Supervisor Thomas to “characterize” the public input received during the Task Force’s “deliberations”, particularly from residents who live along the reservoir. Supervisor Thomas stated that the Task Force attempted several approaches to communicate with the public. Ms. Lee Catlin was invited to a meeting to advise on the best way to receive public input in addition to holding a public hearing. A questionnaire was distributed in printed form and also posted on the website, and the Task Force received “317 responses.” The survey was not “scientific” so conclusions could not be drawn on “what percent of the public wanted us to do this and that.” The Task Force received “really good ideas from people and a sense of how people feel about the reservoir. People who live along the reservoir were ably represented [on the Task Force] by [Mr.] Tom Jones,” who was in attendance at today’s meeting. Supervisor Thomas further stated that she was initially concerned that “people who live along the reservoir might not like the idea of dredging because it’s an industrial-type operation right outside their door.” It was her understanding that out of all of his contacts Mr. Jones received only one response expressing that concern, which she felt was a reflection of the community’s desire as a whole to take “good” care of the reservoir. Supervisor Rooker next commented that as a member of the Task Force, Mr. Jones provided “a lot of input” and “supported” the final report.

Supervisor Dorrier then stated that the “Occoquan Reservoir” located in Northern Virginia experienced a problem similar to Rivanna and inquired if dredging was used as a solution. Supervisor Thomas replied that she did not believe that they dredged the Occoquan Reservoir, but they have undertaken a lot of watershed protection measures. This “body of water ... taught us the word ‘eutrophication’ back in the 1960’s when we were first learning about this reservoir.”

Mayor Norris next asked if there was “any discussion or analysis of potential disposal sites, dewatering sites, etc., for fill from a dredging operation.” Supervisor Thomas replied negatively and added that she felt all were aware that there is a quarry whose owner has expressed interest in its possible use as a disposal site. When “opportunistic dredging” was discussed, the Task Force dealt with individuals who indicated a one-acre dewatering site was needed for their operation but not a storage site. Since a buyer has already been identified, the fill is “hauled away” as soon as it has been dewatered. Supervisor Kenneth Boyd then commented that he felt “it took some time to dewater [the material.]” Ms. Thomas responded that the “opportunistic dredgers” claimed they had equipment that could handle the dewatering process on-site.

Mayor Norris then commented ... that's not necessarily the scale of dredging that you would want to have if you are dredging for storage capacity purposes – was that safe to say?"

Supervisor Thomas stated that he was correct.

Supervisor Rooker then stated that if the community decided to conduct a dredging operation, then the first step he felt would be to locate a potential dewatering site.

Councilor Satyendra Huja next commented that he felt a detailed dredging study should be undertaken as soon as possible. "It seems to me that if you're going to preserve the reservoir in some fashion, whether it is for water or for future capacity, you need to do at least the study of the dredging ..." Supervisor Thomas then stated that "it was somewhat of a "chicken and egg situation, but you could spend a lot of money studying how to dredge and then decide that really wasn't what you wanted to do. The Task Force is suggesting that you answer some of the 'why' questions ... before you do an extensive study of 'how to dredge.' If the 'why' for example has to do with recreation, that's going to end up with a very different 'how' answer also. If you decide to do something different than the water supply plan and dredge for water supply, then you would be in fact studying a different type of dredging."

Councilor Huja next commented that the community should "do a more detailed study than [what] we have so far." Vice Mayor Julian Taliaferro expressed agreement with Councilor Huja's comment, as he was interested in finding out the costs for the different options. He realized "the chicken and egg situation," but he would just like "to know what it would cost."

Supervisor Boyd further clarified Supervisor Thomas's previous comments by stating that one has to determine whether to dredge for water supply or maintenance purposes since each one requires a different type of dredging study. Vice Mayor Taliaferro responded that he understood, but he still would want to know the cost. Mr. Don Wagner, ACSA BOD Chairman, next stated that the cost would depend upon the type of dredging that would be undertaken.

Vice Mayor Taliaferro next commented that he "would like to look at the options ... but I still want to know what it will cost." Supervisor Rooker expressed agreement with Vice Mayor Taliaferro but added that a decision would be needed on what option to implement. "... You can bring in the best expert in the country to do a study, and he could give you a cost per cubic yard, which in the past the estimates that have been given on the removal cost is not very different. You're never going to know what it's going to cost for certain." Vice Mayor Taliaferro then stated that "we haven't known what it will cost all along. All I've seen is the cost continuing to escalate and escalate and that really bothers me ... for the whole project there doesn't seem to be any firm figures on anything." Supervisor Rooker next commented that he did not disagree, "but I don't think you're ever going to have a firm cost on something until you do an RFP and sign a contract ... The last few things we put out have come in 15% to 20% under the engineer's estimate. You go back three or four years ago it's the exact opposite ... a lot of it has to do with the time you go out on any capital project."

Dr. Palmer then stated that she felt the boards were moving into the question of "what do you dredge for – are we dredging for capacity and that goes to the Water Supply Plan." She further commented that dredging was "not taken off the table because of its cost. It was taken off the table because it didn't supply the water that we needed." When RWSA's original consultants, Gannett Fleming, provided Rivanna the dredging cost estimate, the "actual removal [cost] was very similar." RWSA then decided to take dredging "off the table not because of cost but because it didn't supply us with what we needed, so they didn't pay them to do a complete study

and find a place to put it and store it or dewater it ...because it wasn't the best use of public funds to go forward with that if it wasn't going to supply us the water that we needed."

Vice Mayor Taliaferro next commented that "there was some debate about that too." Dr. Palmer replied that "... there really isn't." Vice Mayor Taliaferro then reiterated that he felt there was some debate on that issue. Dr. Palmer further commented that Gannett Fleming provided a cost for a dredging operation consisting of "120 days out of the year from 9 a.m. to 5 p.m., 5 days a week," and the SFRR would be completely dredged by 2055. Gannett Fleming never identified a specific disposal site because it was not determined to be the best use of public funds. If dredging is not to be undertaken for water supply reasons, then a decision needs to be made on "why we are going to do it because 'opportunistic dredging' is considerably less expensive and much easier to do than trying to go back and redesign the water supply plan."

Supervisor Slutzky then stated that "whether we dredge the Rivanna [Reservoir] for water supply purposes or not, in my viewpoint, it's still not going to obviate the need to move forward with the larger scale water supply plan." He felt there "could be a water supply argument that dredging the Rivanna [Reservoir] would enhance the storage capacity of the already agreed upon system in any event, and it may have some strategic benefit ... that we reduce the risk of further sedimentation, creating more wetlands, and reducing the opportunities we might have later – 50, 75 years later – where we might need that extra storage capacity." He felt "there could be an argument for doing an evaluation of the [cost to] benefit of dredging for an expanded storage capacity independent of moving forward with the Water Supply Plan ... I'm convinced that we need to move forward with the Water Supply Plan as proposed, as discussed extensively in the public, and as agreed upon by the various bodies – that doesn't change in my mind the possibility that there may be an argument for nonetheless dredging the Rivanna [Reservoir], and I'd like to understand better what that would cost if we thought that made sense to do."

Dr. Palmer next commented that her "immediate reaction" to Supervisor Slutzky's comments was that "we have to prioritize what we have to do, and we have a tremendous amount of backlog aging infrastructure that we have to take care of and we have a Water Supply Plan that we have to deal with." She then asked, "When would you do that?" She felt it would be "very hard to ask people to pay for 80 years worth of water supply. We're already asking them to pay for 50 years, and we're trying to phase that plan in over the course of several years in order to deal ... with the cost of that." Dr. Palmer further stated that you "wouldn't do a study now if you were going to dredge 20 years from now ... so you'd have to decide when you wanted to do that." She did not "have a problem with [the] argument of keeping it open for post 2055 – and I think that needs to be explored and the Task Force has said that it needs to be explored – but we have limited amount of money to spend and an awful lot of infrastructure to deal with, so it has to be prioritized ...If we're thinking about water in the short term ... if we were to go through a drought, we would want to implement the Water Supply Plan that we have now faster rather than add an additional thing like dredging onto it ...I have a problem with spending that extra money."

Supervisor Slutzky then stated that it was "a fair argument. However, there's enough range of uncertainty in the cost of moving forward with the implementation of the Water Supply Plan as it exists today relative to what might be a fairly humble cost to doing a dredging study, and my instincts tell me we should clearly be racing forward to implement the Water Supply Plan – that means doing all the things necessary to make that move forward and to move it forward as quickly as possible. On a separate track, it's a much smaller amount of money to do a dredging study – concomitant with all of that other work, then you're right, we have to move forward with

it. The infrastructure is dangerously old and vulnerable and so moving forward in my view clearly makes sense ... You suggest that the additional incremental cost of doing a full dredging study for the Rivanna [Reservoir] would take away resources for the rest of it ... relatively speaking a pretty marginal increase in the overall cost of our infrastructure efforts, and it might be relevant from a timing perspective to understand while we're moving forward the urgent infrastructure process ... whether or not it makes sense to also do dredging sooner rather than later for the various other reasons that we might be doing it."

Councilor David Brown next asked Supervisor Slutzky to "elaborate on what a dredging study should contain ... what we would be doing in a dredging study." Supervisor Slutzky then stated that "if the answer to the question, 'why would you be dredging?' is because we decide that it's worth ensuring that additional capacity over and above what our current Water Supply Plan will provide ... you do dredging [study] to answer the question, 'How much would it cost and what would it be like to do such a dredging undertaking?'" Mayor Norris added ... "dredging for water supply versus 'opportunistic dredging' to clear up a channel for rowing." Supervisor Slutzky then stated that "it seems like there's kind of two realms ... Either it's a conduit and we don't need to do the extensive dredging, or we think there is value in having the additional capacity for any number of reasons. If there is an answer to the question, 'Why would we dredge?' ... is because we value that extra capacity over and above what the Water Supply Plan can provide – Then do you want to go ahead and find out what it would take? – What would be involved? – What would be the cost of doing such a dredging? If the decision is instead, we are satisfied with the Water Supply Plan's capacity as it will exist, and the only reason why we might consider dredging the Rivanna [Reservoir] is because we see some value in maintaining the recreational uses; we have concerns about some of the other community benefits other than storage capacity associated with that body of water and that to protect those community benefits we want to do an analysis of what it would take to do sufficient dredging to preserve those other community benefits – then that's a significantly different evaluation process ..."

Councilor Huja next commented that the full dredging study would cost only "a few hundred thousand dollars" compared to "the hundreds of millions of dollars" for the Water Supply Plan "... in perspective, it's nothing to protect our future ...". Dr. Palmer then responded that "what the Task Force is suggesting is a study that would answer that question of 'what do we need to do to maintain the reservoir for the future?' You don't have to do a full-blown capacity study with what the Task Force is recommending ... We're saying, what do we need to do; what studies are required in order to maintain the reservoir for future generations? That becomes the question we're trying to answer and that's the studies that we've suggested doing."

Supervisor Thomas next clarified that the study pertained to just the wetlands question. She felt it was "hardly even worth calling it a study. It's a matter of getting several legal and regulatory experts together and getting an answer ... It doesn't have the satisfaction of saying, 'Oh, we're studying it,' but in fact if we don't take that step first, we could really waste a lot of money by asking for a full dredging study ...". Mr. Frederick then commented that the only figures that RWSA has on a potential cost for a dredging study came from Gahagan & Bryant Associates during their visit to the Charlottesville area last May when they "threw out a figure of \$275,000, based on assumptions that were in their head."

Supervisor Slutzky next inquired about RWSA's cost estimate for moving forward with the Water Supply Plan and all the included elements, which he believed was a "significantly higher burden." Mr. Frederick stated that an expert panel has been selected and will be reviewing

technical issues related to the dam. When the study has been concluded and the technical issues resolved, “we’ll get a new cost estimate, which I think is the important cost estimate now as to what the dam will cost.”

Supervisor Slutzky next referred to the infrastructure element of the plan, which included seven miles of City pipeline that are “past their useful life or close to it.” I know you’re “expectation isn’t to burden the ratepayers all at once with all of it, but there still has to be some anticipated burden at some point down the road. Do you ... have some sense of what that is?” Supervisor Rooker next stated that the cost estimates “are out there,” but the question is whether the bids will “come in on measure with the estimates ...”

Supervisor Thomas then commented that “we know how much dredging will create; that’s a known figure. With bathymetric studies we know how much you can get out and what you could be left with in terms of storage, so that’s not an unknown figure ... We know that the lowest figure for a full-body dredge that we’ve gotten from local people who have never dredged but have a good location to hold the spoils is about \$30 million ... We know that with that figure, and even if the dam costs twice as much as anyone has suggested that it’s going to cost, it still costs less to have storage capacity at the top feet of the Ragged Mountain Reservoir than dredging out the SFRR. Those are known things. You don’t need a \$250,000 study to know what you could get in terms of water storage capacity in the SFRR and how much that would lower the dam at the Ragged Mountain Reservoir. If you want to look at the Water Supply Plan and whether you should change the Water Supply Plan, you’ve got that kind of information.” Supervisor Slutzky then commented that he has looked at that information and “we’ve been through a process and I don’t see the rationale for changing the Water Supply Plan myself. My concern is that in addition to moving forward with the Water Supply Plan, there are I think some meritorious arguments to suggest additional capacity has some potential value.” He felt that Supervisor Thomas was “probably right that the studies shouldn’t look actually at what’s the capacity of excess storage that you would achieve through [a] complete dredging but rather how realistic is the cost estimate of \$30 million, which is the low end, only as a piece of information for the community to have as it moves forward with the implementation of the Water Supply Plan, assuming the community at some point says ... for that extra storage capacity it may be worth spending the money now simply because over time we have an erosion of that excess storage capacity ... My only interest in funding and doing a study ... of the dredging of the Rivanna [Reservoir] is to really get a handle on the cost, not the storage capacity, because you’re right, we have a pretty good sense of that, and I don’t have any desire personally to see dredging of the Rivanna [Reservoir] done to replace anything in the Water Supply Plan. I just think that would be foolish ... to me they are separate issues.”

Supervisor Boyd then stated that he thought that “we have two things on the table ... I haven’t seen anything in your report or your study that would change the 50-year water plan to the extent that says that by doing nothing with the SFRR, we would not have enough storage capacity because we could do nothing and we’d lose the aesthetic value and the other values of it ... you’ve not determined that will change our plans of capacity in water supply ... that issue really to me “doesn’t hold any water ... because we know that we’ve got a plan we think will work. It’s been approved; it’s been through a four- or five year process, maybe six-year process, to get approved and it’s in place, and we’re ready to move forward too. “

Supervisor Boyd further commented that “put all that aside, then it comes back to two things: We’ve got the aesthetics of SFRR and we want to know how to maintain it for other interests,

and the costs and probably the most significant one now is the cost because that is what the public is bringing up. They're concerned that it's going to cost us a lot more to do the plan that what we've got in place now ... There are a whole lot of unknowns with the dredging yet. There are some theories that have been put out there and some thoughts that we could find somebody to buy the spoils from it and where we could put it. We don't really know that at this point." He thought that "this annotated list that we have all in front of us is a pretty good recommendation about how we should move forward with the Task Force recommendations. It's a logical step ... it doesn't deal with water supply now. If we want to change the discussion here today to 'let's rethink the Water Supply Plan,' then let's do that, but let's don't really mix the two ... I think they've got a very good plan for considerations that we ought to give to the SFRR not as a part of our 50-year Water Supply Plan, but simply on what we should do with that body of water ... it's not very expensive ... the first thing in here is to talk to the regulatory authorities to find out how they are going to treat it and what's going to happen. Are we creating wetlands that will eventually not be able to be touched? ... that's a leading concern, so that is something that we'd want to do ... Again, if you want to change the conversation here today to talk about 'let's rethink the 50-year water plan,' then we ought to just put that on the table and talk about that and not get bogged down with the other aspects of it. I've not seen anything in what their report says or what I've seen from the public that has sort of taken me away from the 50-year plan that we've got because there are an awful lot of unknowns in these alternatives that are being put forward ... mostly with regulatory approvals and regulatory authorities and what they will allow us to do. Those are not unknowns in the plan we have in place with Ragged Mountain and the pipeline. Now there are some cost issues that are unknown and definitely I want to get a handle on that, but we are moving forward on that. We're going to bring in a panel; they're going to look at it. If we decided we wanted to change ... it depends on what numbers we want to believe – There doesn't look to be enough capacity even if we fully dredge it [SFRR] back to its original status over the next 50 years to handle the water needs here. Now granted, I know there are people who have differences of opinions about what these capacity needs are, but based on the experts and the plan we're under now, it wouldn't be sufficient even if we totally dredged it back to its original supply to cover our plans to it ... Whereas, there is no doubt that the Ragged Mountain approach would do that."

Supervisor Boyd next stated that he was trying to make the point that "we're getting those figures ... on building the dam and getting that done. We're going to probably have some solid numbers on that within the next year, once we get our panel together and we do the final study on it. We'd have to start that process over again to get really good numbers on dredging as a water supply issue. We would have to start with these studies ... you are not going to get anyone that's just going to come and give you a price to dredge that thing [SFRR] today or the next six months without a lot more study on it."

Supervisor Slutzky then commented that there were "two additional risks of reopening, if you will, a can of worms of the Water Supply Plan. One – It's been pointed out that there is a risk we'll end up with the James River as the outcome because we find out .. the permission we got before we don't get to replicate. Second concern I have is that we can make all sorts of hypothecations about the upward bounds on demand, but one of the variables that really wasn't accounted for that I'm concerned about is right now there is an allocation between the rural areas of the County, which are not on the Water Supply Plan, and the urban areas, and if over the next two years the Board of Supervisors were to become increasingly proactive in trying to reduce the development potential in rural areas, we are going to shift that development activity into the growth areas, which will mean that they all will be water users and the actual demand on the

water supply system could go up out of the existing population that we projected in the way it's allocated between urban and rural locations ... that's one of the reasons why I'm resolved to move forward with the Water Supply [Plan], but I don't think there is a whole lot of persuasive arguments for slowing that up. Your suggestion that the recommendations of the Task Force 'make sense' as the next step, I think I agree with because what these recommendations do is they answer questions which would in turn make it possible to do an intelligent estimate of the cost of dredging, even if the dredging were to be for additional storage capacity purposes. Without these questions answered, it would be hard to come up with a meaningful estimate – so maybe the suggestion should be that we agree today to two things: One is that we are moving forward as quickly as possible with the implementation of the Water Supply Plan and all the requisite studies to make that happen ... and that number two, we choose to adopt the recommendations of the Task Force so that as Tom is also gathering necessary information so that at a future point when we get this information in – if there is a desire to move forward with any form of dredging – we'll have the raw data – the raw information – needed to make intelligent estimates of what that cost would be, which then informs a cost-benefit analysis.”

Councilor Brown then stated that he agreed with Supervisor Slutzky's comment about “the need to look at the water supply possibilities – the enhancement that could occur from dredging. However, I'm uneasy about ratepayers in the City in the urban ring paying in order to dredge so people can row or fish. I don't think water users should pay for rowing. I don't think water users should pay for fishing. I think the City and the County together can talk about what we need to do, and the University needs to be a big part of that equation ... I'm not interested particularly in a study that looks at dredging to create lanes for rowers or dredging that is 'selective' and 'opportunistic' in order to enhance the recreational uses. I think that's not something City water ratepayers need to pay for, but I do think that David's made a good case ...the more options we have when it comes to water, I think the better ... The one flaw in the system of the Water Supply Plan that I see is that it's phased over a long period of time. I think the real advantage of being able to have looked into dredging is if you suddenly realize we need more water soon, [then] that becomes an option in order to be able to do that.”

Dr. Palmer next commented that the reason the Water Supply Plan is being phased is for “financial reasons.” She further stated that “if we were going to dredge for water in the interim period while we were implementing the Water Supply Plan, it would make a lot more sense just to implement the Water Supply Plan more quickly ... When we first looked at the Water Supply Plan – when it was first developed, we thought we were going to be able to phase the dam, and then it became evident because the majority of the storage is in the upper reaches of the dam ... and because the plan as it's phased in tries to reach the amount of water you need in 2025 – When we looked at the difference in the height of the dam for the water we needed for 2025 and 2055, it was only shown that I think we could lower the dam by three feet, and it didn't make sense to go back in, so Tom Frederick suggested ... phasing the whole plan rather than phasing the dam and that would be a way to stretch out the costs over a period of time.”

Councilor Holly Edwards then stated that “at one of the City Council meetings Councilor Huja had asked that I make a statement about my experience of being on the Task Force. I did prepare something that I wanted to share with the whole group.”

“My participation on the SFRR Stewardship Task Force was what I will always believe is time well spent. It was a comprehensive approach of providing facts, dialogs, and opportunities for hands-on exploration, commonly known as field trips. It was during the field trips that I became

painfully aware of the reality that the beauty and aesthetic value of the river has been limited by class and opportunity. That reality propelled the focus on not the who of the river or the politics of the river but to focus simply on the life of the river. This created a newness to the words of Langston Hughes, and for the first time I understood with empathy his words, *I've known rivers: I've known rivers ancient as the world and older than the flow of human blood in human veins. My soul has grown deep like the rivers.* The poem written in 1922 and some 40 years later the City purchased the land for the reservoir – that was in 1962 and that's on page 5 of the report. The construction of the reservoir and the SFRR Dam was completed in 1966. Created by man, 'neither a lake or a river' – this is on page 6 of the report – and now more than 40 years later there is an opportunity to decide a responsible level of maintenance of past investment to ensure maintenance first sends a signal to all in the community that we really do believe in environmental sustainability. 'The public interest would best be served by issuance of a RFP for removal of sediment' – that's on page 23 of the report. This process should begin with dredging studies – A request for studies for real information to develop real costs. This information will provide the foundation for the feasibility of moving to the next steps. I also believe that the most sensitive time reason for this would be as outlined in the 'Next Steps' section in this report is to investigate the impact of the encroachment of wetlands. It is possible that environmental restrictions on dredging will only get more burdensome in the future – and moving on with the other 'next steps – 'Identify and collect data from high priority areas for potential dredging.' And lastly, 'support the efforts to reduce sedimentation and excessive nutrients.' This should also include – I believe what we could do now – basic maintenance of removing trees, debris, trash, and there's even graffiti on the dam.

“Our own local policies reflect the new international way that says ‘environmental sustainability is essential to both economic vitality and the quality of life in our region.’ It seems that during the 1960's clearly policy makers were looking ahead as evidenced by urban renewal and growth decisions that gave little thought to the long-term impact. This history shows we need a policy of continual stewardship at a range of all others, and I support dredging studies – and what didn't come up in the conversation about the studies, and what I was interested in for the reason why I chased the sludge material all around to find out exactly what happened to it – I also wondered what the content of the dredged material would be – with more sedimentation, comes more contaminated material. What if the reason why the water quality we have now is because we haven't dredged. Maybe we have reasons to leave things the way they are, but we won't know until we do a full analysis and that includes the dredging study – and I really appreciate the ‘egg before the chicken’ because as I struggled with what should happen next, it went from one page to the other, but I really believe that should be the logical next step.”

Dr. Palmer then asked Councilor Edwards how she would define the dredging study that she referenced in her statement. Councilor Edwards replied that she would like a study to also include an analysis of the content of the material and an “analysis of the best places to start because we also talked about the tree stumps ... cut down trees ... we don't know whether or not it's even feasible to do it for that reason.” Dr. Palmer next asked if Councilor Edwards was suggesting that “on top of the Task Force recommendations, you would like to know if there are stumps there and you would like to have additional studies of the content of the material ...” Councilor Edwards then responded that she wanted these additional studies “as a complement” to the Task Force recommendations. Supervisor Slutzky then stated that stumps were already identified in the Task Force recommendations, and Councilor Edwards replied that she wanted to “emphasize” the stumps ... keep in mind that my statement is my perception – and when we [Task Force] talked about the stumps ... the guys that actually do the dredging said, ‘that would

take a bit of work' because that is something that could be a potential barrier. Maybe there are some other potential barriers that we should be aware of." Dr. Palmer then commented that the Task Force received some "very good suggestions with respect to that. There are a lot of fishermen with cameras ... they travel around and look for fish. They can help answer that question, and I think Mr. Clarence Roberts [ACSA BOD member] had a wonderful suggestion ... getting the Police Department out there with their underwater cameras too, and they might be able to help identify how much in the way of stumps there are ..."

Supervisor Boyd next stated that the "question becomes as the report says, 'Are we going to do selective testing or are we going to do a full-blown test of the entire reservoir? - that's the real question and probably the biggest denominator in the cost."

Mayor Norris then commented that "from my perspective, the biggest value of the Task Force work – and I think the Task Force did exactly what we asked them to do and did a very good job ... the biggest lesson I learned from it is that publically-financed dredging really doesn't make a whole lot of sense outside of water supply gains because I think they very methodically showed that dredging doesn't solve the key problems faced by the reservoir in terms of maintenance of the reservoir. There may be some 'selective dredging' that we may get UVA [University of Virginia] to pay for their rowers, but for publically-financed dredging the only rationale – having read the report – that I can see for even considering it, would be for water supply. From my perspective, the questions that have been raised about the other pieces of the Water Supply Plan lead me to believe that we need to have a full range of well quantified options available to us so that when we actually start to implement the Water Supply Plan, we're making the best informed decisions on which pieces to pursue ... For me the dredging study – the main piece of information that I want to have is, 'Is there a feasible disposal site?' ... These are good questions in terms of we need to know how the stumps might affect dredging ... If we don't have a feasible disposal site of the scale that's needed for water supply – not little mom and pop dredging operations – then it's pointless to even proceed down that path, in my opinion ..."

Dr. Palmer next asked Mayor Norris if he bought the argument about "keeping the contours of the reservoir open so that we won't be restricted from dredging post 2055 – that's a Water Supply issue ... we wouldn't want to identify a storage site now if we weren't going to use it for 50 years from now, and 'opportunistic dredging' could keep the contours open to maintain that." Mayor Norris then stated that "we may well choose, depending on how these other pieces play out – how these other pieces of the puzzle come together or not – that we may well choose to dredge earlier if that proves to be a more economically responsible and environmentally responsible path."

Supervisor Slutzky next commented that "we also might choose to do 'opportunistic dredging' not exclusively for the purpose of protecting the non-water supply benefits but rather to preserve the potential water supply benefit that we might choose to indulge if we needed 50 years from now. So we still might end up doing 'opportunistic dredging' pursuant to water supply purposes." He still felt that "the recommendations of the Task Force to gather these units of information is the logical next step in parallel with proceeding as we are with the implementation of the already existing Water Supply Plan ... When we have this information as we're moving forward, it will inform future decisions and future policy makers. It will be good to have this information."

Supervisor Thomas then asked Supervisor Slutzky about the kind of information he was requesting. “There will always be a disposal site, and it will end up how much you are willing to pay for it and that is why Gannett Fleming’s price was so high. They assumed Albemarle County prices for land. Now we have someone who at least informally is suggesting that there’s a piece of land that could be used and so now we’re talking about \$30 million instead of \$120 million ... what if it’s \$32.5 million or what if its \$75 million ... at some point we are going to have to decide whether this is the move that we want to make in order to do our Water Supply Plan, and we have enough figures to make pretty good comparison now, except we don’t really know what the dam is going to cost and that’s something we won’t know until probably the end of summer at some point ... so making a comparison is difficult today. It won’t be impossible in September, but if it’s still going to be cheaper by a factor of 3 to add the full height of the Ragged Mountain Dam than were 100 million gallons of storage that you would get dredging the reservoir, how many dollars do you want to spend finding out more about dredging the reservoir at this point?”

Supervisor Slutzky next clarified his comments for Supervisor Thomas. He stated that for him “it was not an issue of let’s find out things about dredging so that we can then compare the cost of dredging to produce water supply versus the cost of building the existing Ragged Mountain Dam. I’m convinced we need to build the dam to full height, and we need to put in the pipeline, and we need to move forward with that and I would like to do this as soon as we can ... I understand that we don’t know a lot of pieces of the cost puzzle but that’s not the point. We still have this many people living here and some more coming and we’re going to need to provide them with good water. My interest in the dredging issue is a separate issue unrelated to that – not a comparison to that – is that it may well be that it is prudent for us to engage in the relative near term in some form of maintenance dredging to preserve the potential to add water capacity if our 50-year Water Supply Plan is insufficient, which is what I fear it may be.”

Supervisor Thomas next inquired if the “first step” would be to “find out what the story is with the wetlands and their legal and regulatory ...” Supervisor Slutzky replied, “that’s where these recommendations lead us to.”

Supervisor Rooker then asked if a lot of thought had been given “to the order of these recommendations ... If the answer to that first question is, ‘wetlands are being created; that you might find it difficult to ever remove in the future’ ... that says we really need to look at taking the steps necessary to preserve the ability of this area to consider it as a storage capacity in the future. If the answer is, ‘it’s not really going to be a problem,’ then the immediacy perhaps goes away.”

Mr. Wagner next questioned if “anybody around the table has any objections with the first five of these bulleted recommendations.”

Supervisor Ann Mallek then commented that this might have been discussed with the Task Force about the existing sand masses, “some of which have things sprouting in them,” but she felt it was important to have “some eyes on the site this spring to say ... ‘yes’ or ‘no’ or ‘this is trouble now’ or ‘you can do something in five years,’ rather than somebody at a desk who is going to do something hypothetical ... that seems to come before number 1, and then I think all these are fine, but I just want to make sure that somebody’s thinking about this immediacy issue. I don’t think we can wait 25 years to find out that ‘we missed the boat’ in 2009.”

Supervisor Rooker next stated that he thought that was the intent of the first bullet to get a “wetlands expert – the regulators, if we can – out there to look at our situation to advise us ... From talking to them in the past, they have a tendency not to want to be very ‘black and white’ with their answers ... so we may find that we need to retain somebody – maybe an attorney – that is well skilled and knowledgeable in this area to give us a legal opinion based upon the factual information about how our ability to reclaim the capacity there might be affected. It might be being affected now, and it might be affected in the future. One thing we’ve seen over time is that the regulations don’t get any looser; they get stricter ... If you go back 30 years ago, you might have been able to build a new impound in this area. Under the rules today, there’s no way ... When someone brought up Ragged Mountain – brought up the pipeline to the James [River] – and sitting in several meetings with regulators, it was clear that if we did not do the plan that we ultimately adopted – the favored plan from the regulators’ perspective was running a pipeline to the James [River] ... You can’t just assume that we can string together any four or five pieces of things out there and say, ‘that’s the plan.’ You’ve got to go through the process ... If you change your plan, you got to go through a process to show that the plan we have changed is ‘less environmentally damaging, practicable’ plan than the plan that we’re abandoning ... that moves you back to maybe step three or four on the twelve-step process to getting a water plan done.”

Supervisor Slutzky then commented that “you could end up at the James River as the only option and that would be frankly, I think, a disaster.”

Supervisor Mallek next stated that “one of the things that was black and white at that 19-agency meeting several years ago was that we were never going to get permission to get 9 million gallons a day out of the James [River] because there are other users who were already there. We might get some, but certainly not enough to replicate what we are trying to do locally here, so we need to keep that in mind.”

Supervisor Slutzky then commented that “the bigger problem for me with the James [River] is that fact that it is not our watershed; we don’t control the input; we don’t control upstream diversions. There are a litany of reasons why the James River was ultimately rejected through the public process as our preferred water supply system ... Assuming for the moment that there’s consensus for moving forward as we had previously agreed with implementation of the Water Supply Plan, but that with regard to the dredging the Rivanna [Reservoir] that there’s an argument for adopting the recommendations of this Task Force so that we could then make intelligent decisions about, ‘Do we want to as a separate matter dredge the Rivanna [Reservoir], and if so, would we be doing it for water supply or would we be doing it for the benefits that are not directly applicable to the ratepayers?’ That will all be information that we would gather from following the recommendations of the Task Force.”

Mayor Norris next stated that “I fully agree with the first five of the recommendations. I think they all make eminent sense. I’m not convinced at all that dredging is necessary for other public benefits, period, other than for water supply, and so I’m not really particularly interested in doing a full study of ‘selective dredging’ or ‘opportunistic dredging.’ I want some better information about a disposal site, because I think you’re right, we know how much fill we are going to get. Frankly, the people who own the quarry don’t care what’s in the fill. What we need to know – is there a feasible disposal site of the scale that would create the kind of water supply, whether it’s for enhancing the plan or supplementing the plan – we can decide that down the line ...”

Supervisor Boyd then asked Mayor Norris if he could agree with “maintaining the contours as an acceptable dredging plan as opposed to like full dredging or multi-use.” He felt that maintaining the contours “makes a lot of sense so that it could be used.”

Addressing the comments just made by Mayor Norris, Supervisor Slutzky stated that “if your interest is in looking at dredging with respect to water supply, what I’m suggesting is – gathering all this information would inform – not necessarily ‘opportunistic’ but the ‘selective dredging’ might be necessary to sort of hold the status quo in the face of the risk that the regulators might over time undermine our ability to create capacity at a later date. So, it might make sense for the community to invest in ‘selective dredging,’ not just for the purpose of those other benefits, but to actually preserve the potential for later using more whole-scale dredging of this now preserved ... level of sedimentation so it hasn’t gotten worse, so we could then use it for water supply if we needed extra water supply later ... We might end up doing ‘selective dredging’ to protect for the long run the storage capacity to potential water.”

Mayor Norris next commented that “it seems to be delaying getting ultimately the information that a lot of us are wanting to get.” Supervisor Slutzky then asked Mayor Norris about what “in particular” was being delayed. Mayor Norris replied that he appreciated what he felt Supervisor Slutzky was saying related to proceeding “incrementally with some things that may down the line allow us to look at dredging for water capacity ... My point is [that] if we’re going to spend a good amount of time, energy, and money investigating those steps that might eventually get us to a broader study, let’s just do the broader study.” Supervisor Boyd then asked Mayor Norris if “he was talking about taking us up to the point where we are ready to put out an RFP for full-blown dredging for water capacity ..?” Mayor Norris responded that “I would not be opposed to that.”

Dr. Palmer then stated that “this allows us to better define what we would want in a dredging study if we decided to do a dredging study. This gives us some basis to move forward, and when you talk about enhancing the Water Supply Plan ... we’re in no rush to enhance the Water Supply Plan as it exists, and even at the \$85 million for the dam and the \$56 million for the pipeline, adding dredging to it is still more expensive because dredging has to be done in combination with other things, so when you try to put things to those combination items together, you still end up with more expense per gallon of storage capacity that you get ... I don’t think it’s a delay tactic. I think it’s a prudent use of public funds to answer these questions first and then revisit it and say ... These are the questions. What do we want to do from here?”

Supervisor Slutzky next commented that “the first bullet is going to really have a lot do with how we move forward anyway, and if we then do move forward because of the answer we get on bullet number 1, we are going to want to have all this information in our pockets anyway. So the question – ‘Doesn’t it make sense to agree to endorse these recommendations in their entirety, and we can have the Authority move forward.’”

Mr. Wagner then quoted from the sixth bulleted item as follows: “Investigate ‘selective dredging’ when ‘decision makers’ conclude that benefits may be ‘worth the cost’” He then questioned, “who are the ‘decision makers’ who would determine if it’s worth the cost?” Councilor Huja replied that the decision would be made by the AC BOS and the CCC. Mayor Norris agreed that it certainly would be a collective determination by the two elected boards. Mr. Wagner next commented that the reason for his question is to point out that “this unelected board will be asked to pay some of the cost.”

Councilor Brown then asked, “If an answer on the wetlands is that wetlands that have been created and been spreading out ... cannot be touched now. If that were an answer we got now ... If we dredged it [reservoir] completely, how much would be taken in? Would that be appreciable or is that a significant amount of area of potential water supply if the regulators were to say, ‘no, you can’t touch the island; you can’t touch the areas that have been done ...?’” Ms. Thomas responded that “through bathymetric studies we know what the storage capacity is of the reservoir, but if you can’t touch the sides, you still can go down ... We don’t actually have as clear an answer to that as I thought we did know ... A person whose profession it is to analyze wetlands, but he was doing it for free ... His analysis is that the soil that’s coming in and what’s happening in the reservoir is not going to be declared to be the kind of wetlands that can’t be touched ... we [Task Force] thought it would be worth getting a paid consultant ... getting the right people to answer that question ... to say that you can’t touch the sides doesn’t necessarily say you can’t do a good deal of restoring storage capacity. We know we’re down to something like 800 million gallons or so. We know that from the bathymetric studies ... Just because you can’t touch the sides, doesn’t mean you can’t dredge the depth.”

Supervisor Rooker next commented that “if we were told that we couldn’t touch the wetland areas without jumping through significant regulatory hurdles ... then you’ve got areas here that are going to become wetlands over the next ten years – you might want to go ahead and dredge those areas that are shallow now, but they haven’t emerged as wetlands in order to preserve the ability of the reservoir to serve as a storage basin in the future ... Let’s assume that’s the answer ... then the bid that you got on dredging might be responsive to that answer ... If you can’t touch the wetlands, we don’t need a dredger coming in and telling us what he’s going to charge us to remove the wetlands. If what we are talking about are specific areas, then ‘opportunistic-type dredging’ might work for preventing those areas from becoming wetlands in the future ... That’s not responsive to a request to get a bid sometime in the next six months on dredging the entire reservoir and storing the material. When we talk about sites, realistically I’m unaware of any site other than the quarry that is a likely good site for the storage of the massive amount of material that would be taken for an entire dredging of the reservoir, and I think we need to recognize that may or may not be available now ... I’ve met with the Dominion people a number of times, and they have an interest in doing it. They don’t control the site ... someone else ... controls the site ... We don’t know that five years from now it would be available, so unless we’re prepared as a community to go out and tie down a site from an expense standpoint – buy a site or enter into some long-term lease for a site because we think at some point in the future we might want to use it. I don’t know how you tie the site down, unless you want to say that we want to go out – regardless of the cost ... and get a bid today for dredging and we want to do it. We’re going to enter into a contract that’s going to be binding to get it done within a certain period of time ... The uncertainty about dredging, which is different from building a dam or building a pipeline, is this issue of finding a site for dewatering and storage long-term, and if you look at most of the dredging operations that have been in reservoirs, are done in areas that have a lot of flat land around them as opposed to steep land. So, it’s much more difficult in our terrain to find good areas to store material.”

Mayor Norris then stated that Mr. Rooker “was absolutely right that there is a big if about whether this alternative is feasible, workable, enforceable ... by going this one route that we could potentially save – the high end estimate on dredging was ... initially I saw a figure of \$220 million, including disposal, and now we have an estimate that says potentially could be as low as \$30 million. That changes the dynamics of the equation ... I want to know is that a feasible number or not?”

Dr. Palmer next pointed out that dredging would need “to be combined with other things.” Mayor Norris agreed that dredging “has to be combined with other things, absolutely. Dredging alone is not going to solve our water supply needs ... If it can be done for \$190 million cheaper than at one point some people estimated that it might be done, do we not owe it to our ratepayers and our taxpayers to at least explore the feasibility of that option and then figure out if that changes the equation of the Water Supply Plan?”

Mr. Gaffney then offered one point of clarification. He stated that “the \$30 million is for a one-time dredging over the next couple of years. The larger number is to dredge from now until 2055. It’s a totally different result in 2055.” Mayor Norris responded that “if you meet with those folks, as I have on several occasions, they will tell you that they will do it all. Now again, these are estimates ... I want to nail that number down ... I don’t think it’s going to cost us \$300,000 to nail that number down.”

Supervisor Rooker next commented that “the only way you will nail that number down and all the factual circumstances associated with it is to actually put out an RFP [to perform the dredging] ... Are you going to put out an RFP for people when you’re not certain you’re going to enter into a contract?” Dr. Palmer added that “you have to secure that land too for the next 50 years ... That quarry has to become ours or we have to lease it for 50 years because you can’t just assume that it’s always going to be available either.”

Supervisor Slutzky then stated that he felt that Mayor Norris’s comments raised “the idea” that “if we find out through this process that yes we can dredge the Rivanna [Reservoir] for a price that we decide is feasible to move forward with that it might somehow influence the way in which we move forward with the already committed to Water [Supply] Plan. He also felt that it ... seems to ignore the idea that if we go back and change the Water Supply Plan significantly ... now we have to go back and ask for permission to do it and are we now sending ourselves back to the James River. The idea of moving forward with exploring the possibility of dredging the Rivanna [Reservoir] for water storage purposes to me has merit, and I think these recommendations put us in a better position to answer that question, but I don’t feel comfortable leaving it on the table that we are thinking collectively somehow that we might actually supplant some component of the existing Water Supply Plan with dredging the Rivanna [Reservoir].”

Dr. Palmer next commented that she was not “trying to be [an] alarmist” ... If you want to refigure the Water Supply Plan, I think it would be very, very important to get some legal advice on what that really means with respect to the water protection permit ... and really understand what the implications of that are before you pursue it, quite frankly.”

Supervisor Slutzky then asked the boards if they wanted “to add the legal to bullet number 1 and make sure that we’ve covered that.” Dr. Palmer suggested adding “legal counsel with respect to changing the storage at Ragged Mountain and changing the Water Supply Plan.”

Supervisor Rooker next stated that “these recommendations don’t encompass changing the Water Supply Plan.” The “message” from both the City and the County previously “was the same – the Water Supply Plan was a given. What we are looking at here are questions that were posed to us, and this is the best answer we could give to those questions.”

Councilor Brown then commented that he thought “part of the issue with where we are today comes from people’s perception of why dredging isn’t part of the current plan.” He received an e-mail from the Sierra Club representative on the Task Force that said, ‘Dredging was rejected

because it was too expensive' ... "So that's a perception out there, and it's certainly a perception that exists within the City – that we made a decision that was based on bad information because we were told it was going to cost \$200 million to dredge; therefore, we didn't even look into dredging. I think a lot of our neighborhood associations [basically] argue, 'is there a cheaper option? Are we wasting money because we didn't even look at dredging?' ... My belief is that we didn't reject dredging because it cost too much; we rejected it because it doesn't give us enough water and that the ways of trying to create enough water – we had to "either dredge and build a new dam but not make it so tall, or we had to dredge and look at a number of other options, which were generally rejected as not being good sources of water supply. Now, some of those options ... I know that the advocates for a 'Sustainable Water Supply' would say that some of those options are good options ... look at Chris Greene Lake ... look at Beaver Creek ... I think we did look, and they are not good options ... My perception is we represent different jurisdictions, and one of the things we do representing them is we listen to where they're concerned; what are their issues and for that reason, I think just going ahead [and] looking at the issues involved in dredging, both to protect it [reservoir] as a potential use in the future but also in terms of issues of how much would it cost to dredge and is there a suitable place to dispose of it. I think it is realistic to just go ahead and answer all those questions – at least get all those things on the table so that everyone has the same information, and you no longer have people saying, 'You didn't even look at dredging; you just dismissed it out of hand because you had faulty estimates as to how much it would cost.' ... I agree with the new comment saying if any of this touches the Water Supply Plan, we should get legal opinion about what would we have to do next if we did that ... maybe we can 'tweak' it a little bit ... but I think we should know ahead of time whether that's possible ... I'd like to see us just go ahead look at dredging ... I agree with the first list of recommendations, and then I'd like to go ahead and see if we can't have a study that answers the questions without it being a full-blown, give us your exact cost to dredge, but be able to have someone come in and give us some realistic estimates on what a dredging professional would say it would cost to dredge."

Mr. Wagner next referenced Councilor Brown's earlier comments that ratepayers should not pay for dredging other than for water supply purposes. He then asked Councilor Brown if he thought ratepayers should pay for these studies for dredging. In response to Councilor Brown's affirmative reply, Mr. Wagner then asked, "What is the difference?" Councilor Brown replied that the "ratepayers are paying for studying the cost of the dam." Mr. Wagner next stated that "dredging will not create a sufficient water supply to satisfy the 50-year plan. Any dredging we would do for capacity would be to extend past the 50 years."

Supervisor Rooker then commented that "part of my problem is that I think dredging is not like building a house because you've got to control a site, you've got to know whether or not there will be a market for the material that will be willing to take that risk, etc. The cost disparity is huge, depending upon how you dispose of the material and where. We can pay \$300,000 for a more detailed study of the dredging with some cost estimates. I don't think the study that was proposed for \$275,000 included getting cost estimates. Let's assume you build that in and it's \$350,000. They are going to give you a range, and you're not going to know what that cost is until you put out an RFP and you actually get somebody that makes an offer ... People are not going to be very serious about responding to an RFP unless they think it's going to be awarded. I think you can go down this road; you could do it for political purposes because we feel like there are people out there raising these questions. At the end of the day are you going to get information which is really useful? I question whether we will."

Dr. Palmer next stated that “we’re paying for engineers to study the costs of the dam because it has already been approved. We’ve gone through a long process; we’ve approved this Water Supply Plan and now we’re moving forward. We certainly wouldn’t be paying for engineers to design the dam if it hadn’t already been approved as part of the Water Supply Plan.”

Supervisor Boyd then commented that “dredging alone won’t provide the capacity ... we’ll recognize that there are people that have a difference of opinion on that ... you can do the dredging and it’s cheaper than what we originally planned. You’ve got to open it [Water Supply Plan] back up and restudy all these other options too to make sure that we have the right capacity. It’s not just the matter of saying, ‘We’ll find out how much it costs to dredge and that will solve the problem,’ because then we’ve got to figure out – shorter Ragged Mountain, Chris Greene Lake, and all the other things. My concern is I think our constituents of both the City and the County are looking for us to solve this problem, not set it back years in the process, and I’m afraid that’s the route we could head down.”

Mayor Norris next stated that “the other studies and other pieces of information that we would need are going to be addressed through these other studies that are already underway – which we’ve all agreed. This is the last piece of the puzzle. I don’t think any of us around this table seriously want to go back to Buck Mountain, James River. I don’t think any of us even think Chris Green [Lake] is a viable alternative, but these other studies that we’ve already commissioned and agreed to are going to provide some information that will help us move forward in a more informed way and within the framework of the adopted plan.” Supervisor Boyd then asked Mayor Norris, “In what way – in a shorter dam at Ragged Mountain?” Mayor Norris replied that “we can have a shorter dam at Ragged Mountain; we’re studying conservation efficiency. I know there is disagreement about how that should impact water supply, and we are not going to even discuss and decide that today. Dredging the reservoir – the size of the pipeline – there are a number of items that are under review right now already, and if we can nail this piece down to the extent that we can, I think we’ll be able to make the argument to our ratepayers and taxpayers [that] in fact, we have vetted the viable options, here’s the pros and cons, here’s the costs the best we can estimate them, and then move forward.”

Addressing Mayor Norris’s comments, Supervisor Slutzky stated that “I would be supportive of implementing the recommendations of the Task Force, which in effect provide the raw material for what you are describing, and I think we ought to add to the first bullet the element in seeking legal advice on the degree to which a modification of the current approved Water Supply Plan would open up the risk of that plan being shifted to outcomes that none of us would support. Let’s find out where the boundary is so we stay away from it. If we for example learn that we could just drop the thing [dam] x number of feet and replace it with a fully dredged thing [reservoir] and we did an economic analysis and it wouldn’t change anything, that would be one scenario we might learn. On the other hand, if we learn from that legal opinion that it doesn’t take much till we trigger the risk that we now are in danger of going back to the James River, you are going to want to know that as much as the rest of us because that’s going to greatly reduce your enthusiasm for changing the existing Water Supply Plan. So, maybe the proposal should be on the table – Do we want to approve these recommendations without addition to the first bullet? Is that kind of a consensus view right now?”

Mayor Norris then commented that “I have no problem with adding that bullet, but I think the hang-up right now is on the sixth bullet, which I think [is] what you’re hearing from the majority of Council right now ...”

Councilor Huja next stated that “I think you’re hearing from all five of us that we would like to see something done more than what this report says.” Mayor Norris then asked Councilor Huja what he “would like to have done additional.” Councilor Huja replied that he would like to see a more defined study. Supervisor Rooker then commented that “there was an RFP presented to RWSA that I think set out the parameters, and what you are suggesting is that RFP that was created about six to eight months ago be followed through on.” Councilor Huja replied affirmatively to Supervisor Rooker’s statement. Supervisor Rooker further stated that “I do have the question – at the end of that are you going to have the information you’re hoping to have. That will give you a whole new bathymetric study; there will be science scans, you’ll have soil samples; you’ll have all the technical information that would be necessary to then do an RFP on dredging. It will not give you the cost of dredging.”

Mayor Norris next commented that “I’m more interested in a study because I think we know how much fill there is; we know what capacity we can generate. I’m much more interested in ‘cutting to the chase’ and finding out – Is a feasible disposal site and what would the cost be of filling.” Supervisor Rooker then stated that “there is a debatable disposal site.” Mayor Norris replied that “you and I both agree that there is a question mark about whether that one is available or could be permitted.”

Dr. Palmer then commented, “if we were going to use Dr. Hurt’s quarry, we would have to secure it. If you are really going to lower the dam at Ragged Mountain by any appreciable amount, you are going to have to secure it for those 50 years of the life of the Water Supply Plan. If you want a one-time dredging and you want to get it all out now, you can only lower the Ragged Mountain Dam by five feet and we can only save \$5 million. If you want to look at sites, you are going to have to decide whether you are trying to secure that site for the next 50 years or you’re trying to secure it for right now for a one-time dredging. So then you have to define why you are going to dredge, and to send out an RFP with no intention of going through with it, I think it is just irresponsible of this community.”

Supervisor Rooker next commented that “I don’t think you would get any responses. People wouldn’t think you were serious about actually letting out the contract. Who’s going to spend all the time and effort to respond to an RFP, which requires significant engineering work, study, etc., if they really don’t think they are going to sign a contract for it?” Mr. Gaffney then stated that “you’d have to have a permit anyway to put out an RFP.” Supervisor Rooker next commented that obtaining a permit could be included as a requirement in the RFP.

Supervisor Slutzky then referred to Dr. Palmer’s comment that “if the presumed maximum capacity” of the reservoir was achieved through dredging, there would be a \$5 million savings if the Ragged Mountain Dam was shortened by five feet. He asked Dr. Palmer about the basis for that \$5 million figure. Dr. Palmer replied that “I should have Tom Frederick speak to this, but that was the information that he gave in his presentation some months ago.” Supervisor Thomas next stated that “with bathymetric studies you actually know what you’re dealing with so that is not an unknown as far as quantity.” Dr. Palmer added that she thought the figure was “360 million gallons” and asked Mr. Frederick if he wanted to comment further.

Mr. Frederick then explained that “what we did last spring/summer – it was in preparation for the City Council work session – is we went back to the dredging report that Gannett Fleming had done, looked at the assumptions that they had developed from the 2002 bathymetric survey, which is the latest detailed information we have on the reservoir, and used their assumptions as

to how much sediment could be removed from the water supply pool in their judgment through a complete dredging; took that volume and then went to what we call a 'stage-storage curve' for the Ragged Mountain area, which is based – at that particular point in time the survey of the site had not been finished ...on topographic information as to how many feet could you come down off of the 45-foot raise to equal the same volume. The conclusion from that set of calculations was that it would reduce the height by five feet. That is based on dredging one-time; that's not based on dredging continuously for the next 50 years. We did a separate calculation based on if the community would be committed to dredge ever after the initial dredging to consistently remove what continues to come into the reservoir, and the answer to that was 15 feet. Those are the two numbers. The calculations are based on assumptions that were made from the 2002 bathymetric survey. I think it should be obvious if we do a bathymetric survey in 2009, there is going to be different set of data than from 2002 because we all know that the sediment picture has changed over the last seven years. You would then do a new calculation and you would then come up with new results. I don't think there is anybody in this room who could predict today what numbers you might calculate after you do a new bathymetric survey. You'd have to do the survey first and then run your computations."

Supervisor Slutzky next commented that "it would be less; you could predict that. You wouldn't be able to have more reduction of the height of the dam because you are going to have less storage capacity because of the interim sedimentation that has occurred. Correct?"

Mr. Frederick replied that "if you accept the argument that there is more sediment in the reservoir now than there was in 2002, which I think it is a pretty logical statement to make, that a complete dredge now compared to 2002 is going to pull more sediment out. If you measure that up against the 50-year plan, it might change the height. I don't think it will change it much. We might be talking about inches – or only talking about a foot or two. I don't think we're going to talk about a huge number, but you're not going to get exactly the same number that you get from the computations that we made based off of the information that was available to us last summer."

If the cost savings for lowering the dam five feet would be \$5 million as suggested by Dr. Palmer, Supervisor Slutzky asked about the cost savings if the dam was lowered 15 feet. Mr. Frederick replied that the numbers provided last summer were "based off of the conceptual estimate of \$37 million for the dam. I would suggest at this point if you want reliable information on costs of different heights, the best thing for us to do at this point is have the patience to let the expert panel do its study and give us a better cost estimate than what we have available now and then we can give you a better answer."

Mayor Norris then asked Mr. Frederick how often bathymetric studies were conducted on the Rivanna Reservoir? Mr. Frederick responded that "in the past there's been no set rule or procedure how often the bathymetric survey is done. It has been a subject of budget discussions by Rivanna in the last couple of years. It has not yet been approved for funding. As I mentioned earlier, the last one was done in 2002. If you are looking to put some [new] dots on that graph that [Supervisor] Sally Thomas showed you earlier that showed the decline over time – if you're interested in putting another data point on that graph, we need to do another survey."

Mayor Norris then asked if RWSA conducted the survey "historically over time anyway regardless of any discussion about dredging." Supervisor Rooker next noted that "there was a recommendation that one be done every five to six years." Mr. Frederick then stated for clarification that he has "heard a couple of comments in the community that suggest that DEQ

mandates a bathymetric survey every five years. That information is not correct. The new permit that was issued last February by DEQ does state that we will perform a bathymetric survey by the time that the new Ragged Mountain Dam is placed into operation and the reason they've put that provision in there is when the new dam becomes operational, according to the permit, we go on a different set of stream release rules at South Fork that is based on the percentage of usable storage, and they wanted a new calculation of what is usable storage –but comments that have suggested that there is a regulatory requirement that is past due is not correct information.”

Supervisor Slutzky first thanked Mr. Frederick for clarifying that issue and addressed his next comments to Mayor Norris. “You are suggesting then that we adopt these recommendations and add in presumably the enhancement to the first one so we get the legal opinion on the impact on our existing permit of tampering with the plan, and what in addition to these recommendations are you asking that we agree to do?” Mayor Norris responded that “I think updating the bathymetric information we have, which sounds like we're needing to do that soon anyway, so let's go ahead and do that. I would suggest that we spend a little money – not \$250,000 – but spend some money on identifying the feasibility of a disposal site for a large-scale dredge.”

In response to Mayor Norris's comments, Supervisor Slutzky stated that “if we're giving direction to Rivanna, we probably need to be fair to them and be clear what we mean by that. I'm not trying to give you a hard time. I want to understand what you mean by a feasibility study ...What does it mean?” Supervisor Mallek next stated that “the bullets in number 6 – are some of these going to explain ...?” Mayor Norris replied that ...“I think there are some things in number 6 that are essential too. I think identifying physical obstacles, like tree stumps, is important. We've already talked about the bathymetric surveys.” Supervisor Thomas next commented that “just a minute ago I thought you were saying identify a disposal site was one thing, but are you saying we have a full disposal for a full dredging study in addition to ...?” Mayor Norris stated that he was “just trying to answer Supervisor Mallek's question about the bullet items in number 6. I don't know that I would agree with all those items, but I think there are a couple[of] things in there that we should probably identify as well. If we're even going to be talking about dredging, we need to know what some of the physical obstacles might be.”

Supervisor Mallek then inquired if there would ever be any interest in dredging ever of Ivy Creek, “because that may be one section east and south of the Woodlands Road Bridge that should be just excluded all together because there are major wetlands over there already that exist and not a whole lot of action place for the dredger to work anyway. So that's something in that first little bullet that would help delineate where the work could be done.”

Supervisor Rooker next asked, ...”if we all agree that the first five should be done, can we approve that, and if what we are talking about is some kind of an RFP for a dredging analysis, including a bathymetric study, I don't know that we can do that around this table today. If the City has an interest in putting that together, then I think that we should have the people who have the technical capability to put that together and maybe we can exchange that back and forth and ultimately adopt a mutual resolution with respect to that component. I'm concerned that we're going beyond our capability here at the table today if we start talking about what the component parts are going to be of a dredging study.”

Councilor Huja next stated that “there was an RFP designed a few months back, as Mr. Frederick said ...” [Editor's Note: The RFP referenced in this discussion had been written by a citizen in

the community, not by RWSA staff.] He felt what Supervisor Rooker just suggested had already been done. Mr. Robert Tucker, RWSA BOD member, suggested that the City further study the RFP to determine if it meets their needs

Supervisor Rooker then commented that he presented the RFP for the Task Force's consideration and "had actually at one point suggested that we incorporate it into the report, but that was not the majority view. We don't have that in front of us today. Also, in light of some of the things said today it may not be exactly what it is that people have in mind. It's not going to provide you with a cost estimate for dredging. It's an RFP to get a study done of things that would be necessary to ultimately go out for an RFP on dredging."

Mayor Norris next stated that "I think that the cost estimates have to be part of this analysis. I know we are not going to get exact numbers, but we'll actually be further along with that study than we are in some of the other key components of the Water Supply Plan. We don't know the cost estimates on those either. We have rough estimates."

Supervisor Thomas then commented that "I think you're right to zero in on a disposal site, because the estimates on the dredging costs are almost identical to whoever is making the estimates ... I have a real concern about misleading the public by suggesting that we're doing a dredging study and out of that will come a decision to do something other than the Water Supply Plan that we've adopted. I'll be interested to see, and I think it's probably a good idea, if City Council can come up with what you would like to see in a study. But I'm certainly going to look at it with an eye on whether we're just doing a study because there are answers that haven't been accepted by the community that are already out there and whether there are truly things that we don't know that we truly need to know ... I think in terms of moving forward for today, there have been some practical suggestions made."

Councilor Brown then stated that he agreed in part with the comments just made by Supervisor Thomas and he understands Supervisor Rooker's comments that "it's probably beyond us to really outline everything the city might want to accomplish in dredging. Having said that, I've got a few suggestions that I'd like to throw out; the things that could be added in here that might give us enough information that we would feel like '... we've done just due diligence with answering a lot of unanswered questions. If you indulge me, I'll throw these out and people can say they think these are worth to include or not ... On the third little circle under the sixth bullet where it says 'Identify physical obstacles to selective dredging of reservoir', I would like to add 'to selective or large-scale dredging of the reservoir' – that would imply are there real serious physical obstacles to doing any type of dredging. The next bullet where it says "undertake bathymetric surveys 'in the critical areas for [selective] dredging', I'd like to delete 'in critical areas for [selective] dredging', so that you just say you do the surveys. Skipping the core samples ... 'Identify access, staging, and dewatering areas for selective [dredging]' and then again I would like to add 'or large-scale dredging.' It seems like some small things we could add that might give us enough information to really kind of get a sense of what dredging in a big way might entail. It wouldn't answer every question, but it might be something that wouldn't be expensive to do and I'd like to throw that out there for comment."

Dr. Palmer then commented that "you're talking about identifying obstacles all up and down that 7 ½ mile reservoir that could possibly impede dredging large scale. So that's going to require, I'm assuming, quite a bit more than what the Task Force is suggesting."

Councilor Brown next stated that “I would assume that you wouldn’t have to look at every square inch ... if the choice ... was to try to dredge comprehensively, are there some physical [obstacles]... an obstacle for example is Ivy Creek ... you couldn’t get back there to realistically dredge. Well that would be an obstacle and that would probably be easily identified. I think once you get beyond the main channels, you might say, ‘Well there’s a tremendous amount of debris along the edges that would actually make it more difficult or not’. ... I don’t think you have to look at every square inch in order to do that. That’s just my ideas – it would be some way of getting information and survey type information on ...”

Dr. Palmer then stated that “identifying access staging in the bordering areas for ‘selective dredging’ or large-scale dredging” would require a much larger area for large-scale dredging. She next asked Councilor Brown if he would want someone to inquire about the price for the land and whether the price could be assured for the next two years. “I’m just trying to figure out how that works; how you identify a price on a site without getting all the information together [on] exactly what you’re going to do and how much you’re going to put there ... When Gannett Fleming was looking at different sites there were certain sites that were for large-scale dredging that were rejected because they weren’t flat enough. One landowner said, ‘Sure, you can put the dredged material there,’ and it was kind of a ravine, and they said, “No, you can’t put it there.” Concerning the quarry ... “would we want to go and say to Dr. Hurt, ‘Will you sell us the quarry or lease the quarry for the next 50 years?’ There are so many unknowns to try to tie that down.”

Councilor Brown then asked if a quarry is the “only feasible place for large-scale dredging? If it is, I’d like to know it. If actually there’s a number of sites that could be used, I’d like to know that.” He further inquired about the issues involved with using the quarry ... “What we could never do prudently would be able to have a business owner just sign a contract and say I’ll do this for the next 50 years. We’d have to tie it down in some significant ways – preferably buy it ... I’m not trying to make this overly complicated.”

Dr. Palmer next commented that she was “just trying to figure out how we go because that makes a big difference in how much you spend on it. It makes a big difference on what we’re asking RWSA to do. Why don’t we just say, ‘find a disposal site’ ...”

Councilor Huja then stated that “... on a relative scale, it really won’t cost you any more than you have here ... the cost is minor compared to the whole scope of what you are talking about ... hundreds of millions of dollars to hundred thousand dollars – so no big deal.”

Supervisor Slutzky responded that “it isn’t a big deal if in fact there’s useful information gathered from it, and I just raise this question again: assuming for the moment that the most conservative estimate of dredging of \$30 million or even say it’s probably on the low end of what it would likely end up being – let’s assume that that number is even a plausible number – and as a result of that scale of dredging that you’d get for \$30 million, let’s assume that you could save \$10 million or \$15 million or maybe even \$20 million off of Ragged Mountain Dam. Are we going to go forward and change the plan if it’s going to cost more money? In other words, there are some fundamental questions worth probably pursuing first, which are the first five bullets on here and the modification of the first bullet where we answer the riddle because I have a suspicion that once we answer the expanded version of the first bullet, we’re going to realize that changing that permit doesn’t take much to trigger the risk of going back to the James River.”

Councilor Huja next stated that “I’ve always said and I’ll say it right now that I support the approved plan. I’m just wanting some additional information ... and want to reassure us that it’s the right decision ... that’s all I’m looking for.”

Supervisor Rooker then commented that “what I don’t want to do is support a recommendation where the cost is completely in the blind. I’m not sure what the cost of the study that you have in mind would be. When you say \$100,000 is not much in a scale of things, maybe, maybe not – maybe talk to the ratepayers; maybe they’d say ‘no.’ I would be a lot more comfortable with this if we could get exactly what it is you’re looking for in writing and have somebody provide an estimate of what it’s going to cost to provide that additional information.”

Mayor Norris next asked Mr. Frederick if the RFP or the study proposal of dredging that was drafted by RWSA was “costed out – was there an estimate attached to that when you presented it or when it was prepared for presentation to the RWSA Board?” Mr. Frederick replied that “what we did was we initiated preparing an RFP, and then the joint chairmen met and said, ‘Whoa, let’s have the Task Force first,’ so we stopped work. We had a start to it. We could pick it back up again. What we were thinking about at the time we stopped work was a process similar to what Gahagan and Bryant had recommended, and if you submit to their estimate of the costs, then you are looking at a comparable time frame. We did not do anything beyond the statement that they made publicly here last May. We didn’t go beyond that and try to estimate what it might cost. I think the best way to get the costs is to put an earnest RFP out and ask the proposers to submit a cost.”

Mayor Norris then stated that “it was a \$275,000 estimate from Gahagan and Bryant, but a significant chunk of that was for the bathymetric study, which we I think said here that we probably need to do anyway.” In response to Mayor Norris’s comment, Mr. Frederick stated that “somewhere in the order of 40 percent to 50 percent of that \$275,000 estimate could be the bathymetric survey.” Mayor Norris next commented, “So, that brings us down to \$150,000.”

Supervisor Rooker then stated that “if what you’re talking about is that RFP, having that actuated and have them [RWSA] going through that process, then we all know what we’re talking about and we can get a cost on it. When we sit here at the table and start adding things in that are not part of that, it makes me concerned ... We leave here and instead of having a \$275,000 study, we got a \$500,000 study, and I don’t want to endorse something ... If everybody was comfortable in going in that direction – I’m not saying they are – but it seems to me we would adopt the first five of these [bullets], and we would ask RWSA to start that process that they cut off for [when] the Task Force was initiated.”

Dr. Palmer next commented that she thought all of the City Councilors were saying “that they support the Water Supply Plan, but they just want to know how much dredging costs.” She inquired if her understanding was correct. Mayor Norris replied that “I fully support the basic framework of the Water Supply Plan, but I do think the Water Supply Plan is not pre-scripted; the Water Supply Plan is permissive. It does not say we cannot do dredging. In fact the Water Supply Plan allows for the possibility of dredging. The Water Supply Plan did not say we have to build a 45-foot dam. It says we can build up to 45 feet. There’s a legitimate question about if we tweak any of these numbers, is that going to make us have to go back to square one on the permit, and I totally agree that question needs to be addressed, But I fully support the new pipeline. I fully support the idea of linking the two reservoirs and improving the infrastructure, but I think there are some other pieces that we’ve already agreed to study, and this is the last

piece that needs to fall into place. Once all these pieces are in place, then we can actually start implementing the water supply plan.”

Dr. Palmer next commented that “if you change the storage at Ragged Mountain, you really do change the plan. You change the flow regime that we have been permitted for by the state. Can I just suggest that we find out what the legal implications of that are prior to deciding to tie down prices and on disposal sites and ... just really understand what it means to lower that dam. I just think that would be a first step so that everyone understands what that is.”

Supervisor Rooker then stated that “I don’t think the RFP that had been prepared for RWSA to look at included a cost and time on a site ... If what we are going to do is leave here with the idea that we are going to ask them to pick that up and carry forward that is not going to include ...”

Supervisor Slutzky next suggested that “we agree to the first five bullets on this page, with the first one modified to address the changing of the water plan. We ask the Authority to move forward. In the meantime, City Council reviews the work that’s been done and come up with a recommendation for how it would like to see the dredging issue next pursued, go back and forth with our Board, and we can either do it by joint resolution if we had an easy meeting of minds or if not, we might need to convene again. If it proves to be the case that we learn from this first bullet as modified that tweaking the Water Supply Plan is more problematic than perhaps you had first thought, you may well shift in your thinking to looking at dredging through a different lens, which is the lens of what about the longer term storage capacity challenge and what about the other community benefits. We still might well want to pursue, I suspect, dredging of the reservoir, but we would have a clearer sense of why we are looking at it. We’re in a sense answering the question, Why are we dredging? ... to some degree. Is that a reasonable way ...?” Mayor Norris responded that “I have no problem with what you just spelled out.” Supervisor Slutzky next asked, “Does that work for everyone else?”

Mr. Wagner then asked for clarification on the following: “You say the City and the Board of Supervisors are going to decide what to do. I assume that means you’re going to pay for it.” Mayor Norris and Supervisor Slutzky both stated that is not what each meant. Supervisor Slutzky added that “I think first is to issue a scope and clearly all four bodies would have to weigh in on it.”

Supervisor Rooker then asked, “When you were considering your RFP before, who was going to pay for that RFP?” Mr. Wagner then inquired, “Which RFP is that?” Supervisor Rooker replied that it was the RFP referred to during this meeting. Mr. Gary Fern, RWSA BOD member, next commented that the RFP “was never brought forward.”

Mr. Wagner next commented that “I think I’m safe in saying that the position of our Board is that the present Water Supply Plan meets the water supply requirements for the next 50 years and that’s what we are asking our ratepayers to pay for, and I’m very uncomfortable asking our ratepayers to pay for something else.”

Supervisor Slutzky then stated that “If there is to be further study, and there’s even to be dredging and the issue then is who’s going to pay for it, that can be tackled later. There’s clearly [a] will on the part of the City Council to look further at this issue, so I guess my proposal is still on the table that we would have the City Council bring back for collaborative endorsement,

perhaps by all four boards makes sense, unless of course we decide we're going to pay for it all on our own." Mayor Norris further commented that "I think it can be a Rivanna decision – in the end it is."

Supervisor Thomas next stated, "Mr. Chairman, I think you made a motion or had someone make a motion, but I promised myself that I wouldn't leave this meeting the same way we left the last four-party meeting in which we had a set of minutes and I think Rivanna was supposed to read between the lines as to what they were supposed to do. So, could we ask Tom whether what we just suggested that Rivanna do is clear or not because otherwise we can make sure we leave this room having clarified ..." Dr. Palmer next asked if they were referring to the first five bulleted items. Ms. Thomas positively confirmed that it concerned the first five bullets.

Mr. Rooker then stated that he would make a motion for his board, which everyone would have to fully accept, that "the first five items on the bullet summary [be approved] with a change in the first one to accommodate some opinion or legal information on what might trigger having to either amend or get a new permit."

Mayor Norris next commented that "I didn't mean to interrupt your motion, but I think we need to know what the ramifications of that would be ... I don't think that alone would give me pause if it simply meant – and I don't know exactly what it means – but if it simply meant that we have to go back and do another six-month process. If it means we have to go back to the James River, then I'm not interested in it ..."

Supervisors Rooker and Slutzky both replied that the wording in the first bullet would be amended to state that a legal opinion would be obtained about the "legal implications of making changes to our existing plan."

Councilor Huja next commented that he was worried that "we may never get to point 6." Mayor Norris replied, "that's the next part of it, right?"

**Mr. Rooker then made a motion for the AC BOS to "adopt these first five recommendations with the first bullet modified." Supervisor Mallek seconded the motion.**

In response to a request by Supervisor Thomas, Supervisor Slutzky asked Mr. Frederick if he had "a clear sense of what we're voting on as a board ... the first five items". Mr. Frederick then stated, "If you can tell me what you changed in the first bullet that might help." Supervisor Slutzky next explained that "we would add to the task in the first bullet, 'additional legal advice with respect to what would be the potential ramifications of modifying the existing Water [Supply Plan]...'" Supervisor Mallek further elaborated on what Supervisor Slutzky just stated as follows: "... the legal advice needed before we proceed with actions which might put the Water Supply Plan in jeopardy." Supervisor Slutzky added that "We want to know if by looking at dredging that in turn suggested changing the height of the dam, what does that do to our permit, number 1; and number 2, how risky is it that we might reopen the permit? ... When do we trigger the need for a new permit and what's the risk of that permit being problematic in today's world." Mayor Norris confirmed the additional wording in bullet number 1 as follows: "What are the legal implications of modifications to the Water Supply Plan."

Supervisor Slutzky then asked Mr. Frederick if he could agree with those modifications to the first bullet. Mr. Frederick replied, "I'm all right with that. I guess you are assuming in that that

the legal advice would be given to the Rivanna Board? Legal advice is usually privileged. I just want to make sure I understood that.” Supervisor Rooker noted that Mr. Larry Davis, Albemarle County Attorney, was in attendance at the meeting. Supervisor Rooker then stated the following for Mr. Davis’s input ... “The question here would be whether or not the information we got back from counsel here is something that we felt would be problematic waiving the privilege with respect to.” Mr. Davis responded that “assuming that it is private or even privileged, you can receive it as confidential information. The boards could certainly waive the privilege.”

**Chairman Slutzky next called for a roll-call vote of the AC BOS on the motion:  
“Ms. Mallek – Yes, Mr. Rooker – Yes, Mr. Slutzky – Yes, Ms. Thomas – Yes, Mr. Boyd – Yes, and Mr. Dorrier – Yes.”**

Mayor Norris next asked for a motion from CCC. Councilor Brown made the same motion as just approved by the AC BOS. Mayor Norris suggested amending the City’s motion to clarify that in addition to approving the first five bullets that “we are going to review the RFP that was drafted for consideration by Rivanna for consideration of a full dredging study and bring that back to the County and the ACSA for further [consideration].” Councilor Brown stated that he would add that as part of the City’s motion.

Councilor Huja next commented that he felt the City should wait to make any motions until the RFP was prepared. Supervisor Slutzky then stated, “we’d like to move forward to get the legal opinion as quickly as possible ... you could choose how to move forward with that [the RFP] because that’s not constraining the first half. But if you hold off on the first half, then you’re kind of holding up the whole process. I don’t think you mean to do that.” Mayor Norris added that “... we want to make sure we do it in the right order, but it’s all going to happen.” Councilor Huja next commented, “[What does] it matter if we hold up the process.” Supervisor Slutzky then responded that “it matters to us a lot. You might vote against it then.” Mayor Norris added that “we’re not deciding today ... what order these things are going to happen. We’re simply saying we’ve agreed to this scope of work – at least half.” Councilor Huja again expressed his concern about making the motions at this time. In response to comments from some other board members that it was up to the City as to whether the motion would be approved, Councilor Huja stated that “it was not up to us [City] alone, but the whole City and County together.” Councilor Brown next stated that “everyone has to look at number 6 and decide what they are comfortable doing. That’s the process. That’s the intent.” Mayor Norris further explained that “everybody understands that if the City is not behind the Water Supply Plan, the path forward is not going to happen. So, we take it seriously.”

Mr. John Martin, ASCA BOD member then requested a restatement of the motion. Mr. Rooker commented that the AC BOS had already passed its motion. Councilor Brown then stated that the City’s motion is “basically moving the County motion, which includes the first five bullets – the first bullet being amended with legal advice on legal ramifications of tinkering with the water supply plan – the components – and then adding in an element that City Council will review the RFP that came before Rivanna previously and amend as necessary and that will then be considered by the other boards our amendment to that.”

Councilor Huja next asked if the motion would be considered by the Board of Supervisors and City Council or by all four boards. Supervisor Rooker responded that ultimately he thought Rivanna would need to approve it and then suggested approval by all four boards.

**Councilor Edwards then seconded the City’s motion. Mayor Norris next asked that “All in favor say ‘Aye.’” All City Councilors voted ‘aye’ and the motion carried.**

**Mr. Wagner next asked, “Do I hear a motion in support to pass the same motion passed by the AC BOS?” Mr. Colbaugh moved that the ACSA BOD moved to approve the motion passed by the AC BOS, seconded by Dr. Palmer. All ACSA BOD members voted ‘aye,’ and the motion carried.**

**Mr. Gaffney next asked, “Do we have a motion to pass the same resolution that the AC BOS carried?” Mr. Tucker moved that the RWSA BOD move to approve the motion passed by the AC BOS, seconded by Mr. Fern. All RWSA BOD members voted ‘aye’ and the motion carried.**

Mr. Gaffney next commented that “Rivanna will diligently pursue the legal ramifications, and we would appreciate the City moving forward quickly, because one of the things we want to do, if we decide to do a full-blown dredging study, we don’t want it to drag on forever.” Mayor Norris responded that “We fully agree. We will do it as expeditiously as possible.”

**2.0 Adjournment**

The meeting was adjourned at 4:29 p.m.

Respectfully submitted,

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Mr. Robert Tucker  
Secretary - Treasurer

## BULLET SUMMARY OF TASK FORCE RECOMMENDATIONS

Qualification of Task Force Recommendations: “. . .consistent with the Task Force mandate which places the fundamentals of the Water Supply Plan beyond the Task Force purview. .”

### Task Force Recommendations:

- Investigate if inflowing sediment will likely create new wetlands and if so, seek legal counsel and engineering advice toward understanding if these wetlands can be removed by permit under federal and state law at some future date when water storage beyond the storage currently permitted at Ragged Mountain is needed.
- Investigate technical feasibility (including effectiveness and probable cost) through a consultant, and the permitability through discussions with federal and state agencies, of constructing a sediment forebay for the reservoir.
- Maintain a dialogue with the University of Virginia and “recreational users” of the South Fork Reservoir on conditions that inhibit future rowing and “recreational pursuits”, and discuss maintenance programs that may correct such conditions to the extent the financial investment required for maintenance is considered “important”.
- Continue “Community” efforts to reduce sediment and pollutants entering the Reservoir, to include “strengthening and enforcing” water protection ordinances and programs “such as those of the Thomas Jefferson Soil & Water Conservation District.”
- Continue to monitor growth of hydrilla and study effective management options.
- Investigate “selective dredging” when “decision makers” conclude that benefits may be “worth the cost” by:
  - Developing a map identifying priority areas and cleared depths for recreational uses;
  - Identify areas for selective dredging to prevent wetland creation from sedimentation;
  - Identify physical obstacles (e.g., tree stumps) to selective dredging of reservoir;
  - Undertake bathymetric surveys “in the critical areas for [selective] dredging”;
  - Take and analyze sediment core samples “in the critical areas for [selective] dredging”;
  - Identify access, staging, and dewatering areas for selective dredging;
  - Explore “opportunistic dredging” based on attractiveness of “market conditions”;
  - Estimate impact and duration of selective dredging on residents and aquatic habitat, and assess prevention, preparedness and response measures for water quality and treatment impacts.
- Determine in relation to other infrastructure financial priorities if the public interest is served by issuing a Request for Proposals for “removal of sediment”.