

RWSA BOARD OF DIRECTORS
Minutes of Special Public Outreach Meeting
February 17, 2005

A special meeting of the Rivanna Water & Sewer Authority (RWSA) Board of Directors was held on Thursday, February 17, 2005, at 6:30 p.m. in Conference Room A at the Albemarle County Office Building – 5th Street, 1600 5th Street, Charlottesville, Virginia. The purpose of the meeting was to share information and receive public comment on the four concepts for the Community Water Supply Plan currently under consideration which are as follows: the South Fork Rivanna Reservoir (SFRR) Dredging concept, the SFRR Expansion concept, the James River Intake concept, and the Ragged Mountain Expansion concept.

Board Members Present: Mr. William Brent, Mr. Michael Gaffney – Presiding, Mrs. Judith Mueller, Mr. Gary O’Connell, and Mr. Robert Tucker.

Authority Staff Present: Ms. Anne Bedarf, Mr. Richard Defibaugh, Mr. Bruce Edmonds, Mr. Tom Frederick, Ms. Mary Knowles, Ms. Michelle Simpson, Ms. Andrea Terry, Ms. Jennifer Whitaker, Dr. Robert Wichser, Mr. Lonnie Wood, and Mr. Roger Zieg.

Also Present: Ms. Becky C. Christensen – Facilitator; Mr. Aaron Keno – Gannett Fleming Vice President and Project Principal; Mr. Bob Klein – Gannett Fleming Project Team, Mr. Kurt Krueger – RWSA Attorney; Mr. Tom Pursel – Gannett Fleming Project Manager; Neville Reynolds – VHB Project Team; City and County Government Officials; Albemarle County Service Authority, City, and County staff; members of the public; and media representatives.

1.0 Call To Order

The special meeting of the RWSA Board of Directors was called to order by Mr. Michael Gaffney on Thursday, February 17, 2005 at 6:30 p.m., and he noted that a quorum was present. He explained that due to the number of Board members present, legal requirements specified that this public gathering become an official Board meeting. No Board actions would be taken tonight. Minutes would be prepared and submitted for Board approval.

Mr. Gaffney welcomed the members of the public in attendance at the meeting. He stated that it was great to see the large number of citizens who were attending their first Public Outreach Meeting.

Mr. Gaffney informed the audience that a sign-in table was located in front of the Conference Room. He invited citizens to sign the meeting register and provide RWSA with their e-mail address, if they had not done so previously, to receive

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

continuing updates on this process as it moved forward. He also stated that concept information and public comments from each of the Public Outreach Meetings would be posted to the RWSA website at www.rivanna.org. Written comments could also be submitted to RWSA and would be placed on the website as well.

Mr. Gaffney commented that since this Public Outreach Meeting was being held at a location different from the previous meetings, he pointed out the main entrance from the foyer and the emergency exits.

Mr. Gaffney noted that tonight's discussion would bring together all four conceptual ideas for increasing the community's water supply. In the last four meetings technical information was presented on each concept, one at a time. For citizens new to the process, he explained that the four concepts were dredging the South Fork Rivanna Reservoir (SFRR), raising the water level of the SFRR with crest gates, extending a pipeline from the James River, and expanding the Ragged Mountain Reservoir.

As discussed at previous meetings, Mr. Gaffney stated that the James River and Ragged Mountain Reservoir concepts each would supply the full 9.9 million gallons per day (MGD) of safe yield in its entirety. The two SFRR concepts – dredging and raising the Reservoir level with crest gates – only partially met those demands and would need to be combined with other concepts in order to satisfy the projected deficit.

Mr. Gaffney also commented that raw water cost estimates for each concept were also provided at previous meetings. The consultants had cautioned at that time that an "apples-to-apples" cost comparison would not be possible until combinations with other concepts were developed for the SFRR concepts to fully satisfy project purposes. The purpose of tonight's meeting was to provide that "apples-to-apples" comparison. RWSA consultants and staff have prepared information on cost comparison and projected water rate impacts and would present the preliminary numbers tonight.

Mr. Gaffney next briefly reviewed the meeting format. He stated that there would be a PowerPoint presentation, followed by a facilitated discussion for questions of clarity and public comment. The presentation would briefly review the four concepts again, but in the interest of time, information provided at previous meetings would not be discussed in great detail. Citizens not familiar with the concepts were invited to visit RWSA's website at www.rivanna.org for additional information or could contact staff during business hours with questions.

Mr. Gaffney also mentioned that the meeting was being videotaped and would be aired in the near future on the City of Charlottesville Cable Channel 14. The

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

broadcast schedule would be posted to the RWSA website as soon as it became available. On behalf of Rivanna, he thanked the City for allowing RWSA to reach more people in this manner. He commented that he was surprised at the number of citizens who had indicated to him that they had viewed those broadcasts.

Mr. Gaffney next introduced Ms. Becky Christensen who will be facilitating the meeting. He stated that Ms. Christensen had assisted RWSA throughout this process, as well as providing professional facilitation to both Albemarle County and the City Charlottesville. He then turned the meeting over to Ms. Christensen.

Ms. Christensen thanked Mr. Gaffney and welcomed the members of the public in attendance at tonight's meeting. She stated that her role in this process has been to work with RWSA in developing ways to promote the most comprehensive community voice. Tonight's format would be structured similar to previous meetings, except the focus would be on all four concepts. Technical information would be presented during the first part of the meeting. After the presentation, the public would be offered the opportunity to ask questions and provide comment. Public comments from previous meetings had indicated the need for additional clarifying information on the concepts under consideration. The purpose of tonight's meeting was to involve the community in the concept comparison process.

She asked the audience to indicate by show of hands how many had attended all of the public meetings held during the Community Water Supply Plan Update process. She next inquired as to how many had attended at least one meeting and then how many were attending their first meeting. She commented that RWSA appreciated the citizens who have participated throughout the process and welcomed the input provided by all perspectives represented at these meetings. During her review of the Agenda, Ms. Christensen stated that Mr. Aaron Keno with Gannett Fleming and Mr. Tom Frederick with RWSA would present the technical information. The facilitated "Public Q & A for Questions of Clarity" and the "Public Conversation on the Concept" segments would follow the presentation. She then noted the focus question included on the Agenda, which posed the following: "How do the concepts meet the regulatory requirements and serve the community's needs?" The audience was asked to consider this question and offer their perspective during the public comment period. Ms. Christensen then asked Mr. Keno to come forward at this time to begin his portion of the presentation.

Mr. Keno commented that he appreciated the opportunity to provide technical information again during the Public Outreach Meeting process. He added that he recognized many in the audience who had attended previous meetings. For those attending for the first time, he introduced himself and stated that he was a

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

Principal Engineer for Gannett Fleming, the consulting engineer to the RWSA for the Community Water Supply Plan.

Mr. Keno then provided a quick overview of tonight's Agenda, which included a discussion of the project goal, a very brief summary of the four concepts with new information for comparison purposes, the next steps in the regulatory process, and project impacts to rates.

Mr. Keno reiterated from previous meetings that the goal is "To identify the least environmentally damaging, practicable alternative taking into account RWSA's overall project purposes, feasibility, logistics, and cost." He stressed the importance of this federal mandate and added that it was the basis of the consultant's work on this project. Most of the answers to questions or reasons for their processes were driven by this regulation.

Mr. Keno further stated that the four concepts under consideration included the SFRR Dredging, SFRR Expansion (4-foot crest), the James River Intake, and the Ragged Mountain Reservoir Expansion. As previously mentioned by Mr. Gaffney and also illustrated on the slide, only a 5.5 MGD increase in safe yield is provided by the SFRR Dredging concept and a 3.3 MGD increase in safe yield is realized with the SFRR Expansion (4-foot crest) concept. Neither of them would satisfy the projected water supply deficit entirely. The James River Intake and the Ragged Mountain Reservoir Expansion concepts each could be constructed in a size large enough to satisfy the entire 9.9 MGD deficit.

Mr. Keno reminded the citizens that the cost estimates for each of the four concepts included only the raw water portion that was required to provide water for that particular concept. Each of the projects would also require some water treatment and other features to bring the project to completion and provide water into the Urban system. The costs that have been presented in the past were based on preliminary information from the July 2004 report in which the evaluation of alternatives included water treatment and other aspects of the project. At this stage, costs included only the raw water elements.

Mr. Keno further stated that all four concepts are technically feasible. As previously mentioned, two of the concepts could satisfy the entire deficit and the other two must be combined to satisfy the deficit. Each of the concepts varied as to project costs and environmental impacts. This information would be provided tonight, both in summary and comparatively.

Mr. Keno then referenced the slide concerning the SFRR Dredging concept. He reiterated that it must be combined with another concept. There were also transportation and disposal challenges, which included material removal, dewatering on-site, and transporting to a disposal facility. The material reuse

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

issue is driven largely by the marketability of that material. Additional information on the reuse issue could be found in the Technical Memorandum that was posted on the RWSA website. Local impacts must be managed, particularly near the Reservoir, which included noise, visual impacts related to the dredging equipment, and odor. A significant land purchase would also be required for disposal of the material.

Mr. Keno next addressed the SFRR Expansion (4-foot crest) concept. He commented that it must be combined with another concept to satisfy the deficit. There were also wetland and stream impacts that have been previously discussed. It would require acquisition of an estimated 115 acres of property. There was also the possibility that the Route 676 bridge would need to be replaced.

Mr. Keno then discussed the James River Intake concept. He restated that this concept could satisfy the projected water deficit on its own. It could be developed to satisfy the needs of the RWSA on its own or could also be developed as a regional project. A variety of pipeline routes from the James River to the current Urban system were discussed that could either serve RWSA alone or could be expanded to serve regional needs. There were also pipeline challenges associated with the 20 miles of pipeline that would need to be constructed. He added that overcoming those obstacles would be feasible through the engineering design work. He noted that the wetland and stream impacts are minimal on this particular concept.

Mr. Keno next reviewed the Ragged Mountain Reservoir Expansion concept. He stated that this is the other concept that could meet the projected water deficit in its entirety. The expansion could accomplish the rehabilitation needs. He further explained that the present structures at Ragged Mountain were in need of rehabilitation, regardless of what was done in terms of the expansion of the RWSA water supply. If expansion was performed at Ragged Mountain, the rehabilitation work could be addressed at the same time. There were issues with the refill time after a drought situation, which was a very occasional event. These issues were reviewed and covered in the Technical Memorandum that was posted to the RWSA website. There were some hiking trails that would be impacted and would need to be managed in terms of how they would be replaced.

Mr. Keno next referenced the slide which contained a table that summarized safe yield and cost for each of the four concepts. He pointed out the columns which listed data for Safe Yield, Total Raw Water Cost of the Concept, and the Unit Cost. The information was provided as a way to compare total raw water costs for the amount of safe yield that is provided. He noted the large Unit Cost associated with the Dredging concept.

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

Mr. Keno then discussed the slide which contained a table that summarized the wetland and stream impacts, which are the primary environmental impacts of interest from a regulatory perspective. He stated that the same four raw water concepts were listed as in the previous table, along with a breakdown of the various types of wetland and stream impacts that have been determined to be in place at each of these concepts. He pointed out that the wetland and permanent stream impacts are much larger for the SFRR Expansion (4-foot crest) concept in comparison to the other concepts.

Mr. Keno then proceeded to discuss the next steps in the regulatory process. He explained that the Authority was moving from the four concepts through final investigations while continuing to receive public and the Board's input on narrowing the concepts all the way to the preferred alternative. Ultimately the RWSA Board of Directors selects its preferred alternative and makes application to the regulators to obtain permits in order to construct the facilities. Mr. Keno stated that it was important to note that the regulatory agencies decide if the submitted preferred alternative would be approved.

Mr. Keno then reviewed in more detail the next steps in the regulatory process. He commented that RWSA would continue to receive public input. On March 3, 2005 there will be a joint work session of the Boards that have an interest in the water supply projects. It was expected that the concepts would be reviewed at that time and the selection process refined. In the meantime, information on the alternatives would continue to be developed as appropriate. Ultimately, a preferred alternative would be recommended and the public would have an opportunity to provide input on that recommended alternative. A final report would be developed that documented the process and Board approval would then be obtained. An application on the preferred alternative would be submitted to the regulators. The target date for this to occur was July 2005. Finally, a response to the application is received from the regulatory agency.

Mr. Keno next addressed rate impacts. He commented that Mr. Tom Frederick, Executive Director for RWSA, would be discussing some specific issues about rate impacts during his segment of the presentation. Mr. Keno stated that Gannett Fleming had taken the information from the four Technical Memorandums and advanced the process to allow RWSA to begin evaluating how each concept would impact the rates. During this discussion Mr. Keno stated that he would be reviewing the usage of the terms "concepts" and "alternatives," the cost estimates that have been developed, and projections for phasing each alternative.

Mr. Keno added as a reminder that the raw water concepts were just a way of increasing safe yield. There had been previous discussions on the amount of safe yield that could be obtained from each one of the concepts and that not all of them would be able to satisfy the projected water supply deficit on their own. He

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

further explained that an alternative is a “stand-alone” concept or a combination of concepts, together with some system upgrades, that could deliver the treated water into the Urban system and satisfy the projected safe yield need.

Mr. Keno asked citizens to keep in mind the difference between the costs for concepts and the costs for alternatives when reviewing the information on the website and the handout material. Concept costs were reviewed earlier in the presentation, and he would now proceed with the overview of the costs for the alternatives. Mr. Keno noted that if the numbers appeared much larger for the alternatives, it was due to the addition of the other elements into the total project costs.

Mr. Keno referred to the slide which illustrated the move from the four concepts to the possible alternatives at this point. The slide also listed the nine possible alternatives that satisfied the projected water supply deficit. He then moved on to the slide which explained how the list of nine alternatives was compiled. The process began with the James River Intake and the Ragged Mountain Expansion concepts as stand-alone alternatives. These two alternatives were then each combined with Dredging, which meant that the James River Intake and Ragged Mountain Expansion projects could be scaled down in size. The James River and Ragged Mountain alternatives were then each combined with the SFRR Expansion (4-foot crest) option. The next combination of alternatives entailed combining James River and Ragged Mountain with both Dredging and the 4-foot crest. The ninth possible alternative resulted from combining the James River Intake and Ragged Mountain Expansion alternatives.

Mr. Keno then summarized the environmental impacts associated with the nine possible alternatives, specifically wetland and stream impacts. He referred to the slide that listed those impacts for each of the nine alternatives. Alternatives 4, 5, 7, and 8, each of which included the 4-foot crest gates project, were shaded in a mustard color to highlight that the wetland and stream impacts on those four are significantly larger than the other alternatives. He noted that this was important information as the evaluation process moved forward. As pointed out in an earlier slide during the concept discussion, the SFRR had significant environmental impacts.

Mr. Keno noted a slide which listed the same nine alternatives with the planning level cost estimates. The results of the Technical Memorandums, preliminary treatment costs and other elements associated with the completion of these projects were used to project the planning level cost for each alternative. The alternatives with the larger cost estimates were highlighted and each of these included the Dredging project.

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

Mr. Keno stated that this concluded his portion of the presentation. Mr. Frederick would next present information concerning the rate impact for each of the nine alternatives.

Mr. Frederick stated that as RWSA collected public comments at the previously held Public Outreach Meetings, one of the themes that had clearly emerged, not only from the public but also from some of the elected officials, was the desire to begin to see these different concepts converted into combinations, as was just explained by Mr. Keno, which would include how they could be implemented and how they would be financed. There have also been discussions on phasing, and the relevance of phasing some options versus others, with the focus being on the impact to the water rate payer. RWSA felt that this was a very important question.

Mr. Frederick further stated that in a traditional review process, and the way it had been originally scoped in the study that was negotiated by RWSA's engineering consultant, the type of costs and rate impact information that will be presented shortly generally comes at the end of the process after all the engineering work has been completed in order to develop and scope the different elements of the project. Because of the public comment received by RWSA, it was decided to advance on a preliminary basis this type of information and present it at this meeting. He noted that RWSA's consultant was still continuing the investigations. Their work on the how treatment plant options in more detail fit into these different concepts has not yet been completed. It is his understanding that some modeling work is still being conducted, especially related to a Sugar Hollow - Ragged Mountain pipeline. There are still some refinements in the cost estimates that still would be needed. Mr. Frederick asked that the information being shared tonight be accepted with the responsibility of understanding upfront that the numbers are still being refined as the project nears completion and the process is not yet at the point where the ranking of the alternatives could be considered final. Some of the costs are fairly close between the alternatives, and he cautioned about reaching conclusions that the least expensive alternatives had been identified at this point in the process.

Mr. Frederick also stated that RWSA had taken the recent information provided by Gannett Fleming on their latest update and best available information on cost estimates and developed a rate impact analysis in terms of phasing and how that might affect future water rates. He commented that in order to evaluate impacts to water rates, assumptions need to be made on how each alternative would be phased. He noted that Ragged Mountain Dam work would appear on all the alternatives due to the rehabilitation work that needed to move forward for dam safety reasons. As a result, for each alternative the Ragged Mountain work would be completed first. In any alternative where the SFRR 4-foot crest appeared, that project's work would be ranked second for completion. Although the project

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

does not satisfy all of the projected 9.9 MGD deficit, it would provide more time and could be completed within a price range that would allow additional reserves to be accumulated for the larger projects that would need to be undertaken later. Any alternative that included the James River pipeline would be ranked third, and the Dredging project, because of its higher cost, would be phased last. Although there are many dredging methods, RWSA chose to begin the discussion with Dredging ranked at that level based on undertaking the project when area growth has occurred and the customer base is larger. The costs could then be spread over a larger customer base.

Mr. Frederick next discussed the development of the phasing model through an Excel spreadsheet. He stated that RWSA was able to take the cost estimates provided by Gannett Fleming and enter them in a way where a year could be assigned to a particular project when financing would need to be available. The year is assigned based on an analysis of the safe yield versus demand curves, which would indicate when critical infrastructure improvements would be needed. Once one phase has been implemented to increase the water supply, the supply line would move up and the crossing of the safe yield and demand lines would occur at a later date for the next phase of the improvements. At that point, the second phase would be implemented.

Mr. Frederick added that RWSA had built into the model the capability of deciding to accumulate reserves to help defray the sudden impact of large bond sale and make the rate impacts smoother and gentler over a period of years.

Mr. Frederick clarified that RWSA has two wholesale customers, which were the Albemarle County Service Authority and the City of Charlottesville. Each of those two provide the retail services in this community at different rate structures and different setups. He also stated that any time RWSA implemented a project that provided benefit to both of its wholesale customers, the two customers negotiate a contract as to how the costs would be shared. Based on this organizational configuration, rate impacts were analyzed by taking the total retail customer base for both of RWSA's customers and then combined it into one pot. What would be presented tonight is the average across the board. He felt it was valid when comparing the alternatives, and it was based on the best information available at the present time. RWSA did not want to make an assumption tonight on what the split might be between its two customers because it would prejudice the negotiating process that had not yet taken place.

Mr. Frederick commented that they were able to insert inflation into the cost estimates and report rates at the inflated value in a given year. After the rates were calculated over the years for the rate impacts, inflation was removed from the graph to return the costs to present-day values. He then displayed the slide containing this cost information. He explained that the bottom figure represented

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

the amount that RWSA would forecast, based on current available data, would be the added cost per 1,000 gallons to the water bill as a result of the Community Water Supply Plan. The typical residential retail customer used about 5,000 gallons per month. Based on these numbers, he pointed to an alternative that in the year 2015 would add about \$1.20 per 1,000 gallons to the water bill for a total of about \$6.00 per month for a typical household.

Mr. Frederick next reviewed trends as indicated by the graph. As discussed previously, methods to minimize the rate impacts during the first phase of the Community Water Supply Plan were examined. The alternative that was the most difficult to transition in this manner was associated with the Ragged Mountain Expansion project. This was due to the regulatory requirement of rehabilitating this facility by the dam safety regulators before the additional water supply would be needed. RWSA also operated the Beaver Creek Reservoir in the western part of the County, and it is the sole water supply for the community of Crozet. Crozet's current population does not require the use of the entire safe yield of that reservoir, so there is water in that Reservoir now that could be withdrawn for the Urban system in the event of a drought condition. Under that assumption and using the projections for Crozet's future use of the Beaver Creek Reservoir, we are projecting that the lines would cross between supply and demand for the Urban system in 2018. This critical date becomes the deadline when the first component of the 50-year plan would have to be in place and operational. With respect to Ragged Mountain, RWSA projected the year 2007 for phasing purposes as the date when financing would be needed for this project because of the regulatory issues. For the stand-alone Ragged Mountain concept, Gannett Fleming has confirmed that the 45-foot dam height increase could be built in two phases. The first phase would be done in 2007, and the second phase would be financed in 2023. Similarly, RWSA has examined phasing for each of the other alternatives.

As mentioned previously, Mr. Frederick commented that one of the most difficult projects to actually phase in sections is the James River pipeline. Because without the intake, the entire pipeline back to Charlottesville, there is no additional safe yield. For this particular alternative, RWSA has looked into using the Beaver Creek Reservoir as a back-up reserve until 2018. The financing for the stand-alone James River alternative was scheduled to occur at 2013, which would allow for a five-year time frame for design and full construction of a pipeline.

Mr. Frederick added that in the intervening years, between now and 2013 when the bonds would be sold for the James River Intake alternative, the Ragged Mountain Dam would be undergoing rehabilitation at its existing level to meet regulatory requirements. The remainder of the financing would be put into the reserves for the future capital projects.

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

Mr. Frederick further commented that RWSA recognized that no matter what alternative(s) are selected for the Community Water Supply Plan, there would be large costs involved with that project as reflected by the numbers on the graph. Because it is a heavily regulatory-driven process, there are certain steps that RWSA would be required to follow and would have an impact on the costs of the project. Regardless of which alternative is selected, it is RWSA's mission to move forward with the necessary permits and implement the project as economical as possible.

Mr. Frederick then commented on the conclusion that he is completed, a decision is made, and the permits are obtained as quickly and reasonably as possible, then RWSA could move to a financial plan that would extend the rate phasing in a very responsible manner. Reserves would also be accumulated to the extent needed until there would be a need to sell bonds. He felt that with this plan, the impacts of any of the alternatives could be managed. Mr. Frederick pointed out on the graph how higher rate impacts are in place during years when bonds are being paid off based on the costs available at this time. He also noted a key period during that time frame as reflected on the graph when bonds are getting paid off on capital improvement infrastructure and rate impacts begin to drop.

As a preface to a discussion on the next slide, Mr. Frederick restated that when possible RWSA would accumulate reserves to flatten the rate impacts. He pointed out that the graph included all nine alternatives in relation to the amount of accumulated reserves. The high and low swings on the graph indicated the multiple phases when RWSA could put money in the bank, sell bonds, and then withdraw money from the bank to pay off the bonds, as Rivanna was continuing to responsibly increase rates as well in a graduated fashion. The one item that cuts across all the alternatives was the water treatment expansion that would be needed about 2012 to 2015.

Mr. Frederick commented that he hoped the information provided during the presentation was helpful and would facilitate the upcoming discussion. He also stated that this concluded tonight's presentation and advanced to the slide which posed tonight's focus question. He turned the meeting back over to Ms. Christensen for the facilitated public input segments.

Ms. Christensen stated that questions for clarity would be entertained at this time. She directed the citizens to speak into the microphone and requested that they identify themselves and if they represented any organization. These guidelines would be in place for the public comment session as well.

Mr. Chad Freckmann – City of Charlottesville: “Can you give us a comparison of the wholesale water rates today, so we can get an idea of what \$6.00 a month would mean five years from now?”

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

“Secondly, you mention that the Ragged Mountain rehabilitation costs we are going to have happen anyway. My question is if it is in all of the alternatives, why is that cost not included in all the alternatives?”

“Third ... you mention Beaver Creek is in Crozet, and it’s to supply the water source for that population. Therefore, it is not figured in your calculations. You also mention that if you use the James River Intake alternative, you would rely on Beaver Creek during that phasing period. I’m a little bit confused on that comment.”

Mr. Tom Frederick: “I’ll take those questions one at a time. The current wholesale rate ... I don’t have that figure off the top of my head. Rivanna charges the City and the Albemarle County Service Authority somewhere about \$2.00 per 1,000 gallons. Then they have to read meters and they have to maintain the pipes in the streets, so they have additional costs that they have to accumulate. Again, those rate schedules are different depending on who your customer is.

“The second question ... Ragged Mountain’s cost is in each of the nine alternatives. The only fair way for an “apples-to-apples” comparison when there are different costs depending on the alternative is to include those costs in each one. In those alternatives where Ragged Mountain is not supplying the water supply deficit, the figure is about \$5.2 million at the total cost with contingency and engineering and financing to rehab the dam to meet Dam Safety needs. In the alternatives where Ragged Mountain is expanded to supply more water, I think the one with the 45-foot raise is about \$16 million in the first phase and an additional \$11 to 12 million in the second phase for the dam. That way by putting it in all of them you could get a comparison.

“Then you asked something about Beaver Creek. I wanted to show that for James River because there have been questions asked about how you phase James River. In order to get an “apples-to-apples” comparison, we assumed about 2018 the James was available for all of the alternatives we looked at, with one exception, that is when we are building the Ragged Mountain Dam to both address Dam Safety and add some water supply incorporated into the same project. Because of the regulatory requirements, we don’t have the luxury on that issue to wait until 2018, so that’s advanced toward the front. That is the one exception.

“I’ll give you another example ... where we paired the Ragged Mountain with the 4-foot crest and Dredging. Ragged Mountain again has to be done first. We can take into account when the demand and supply curves meet, taking into account what might be available from Beaver Creek before we do the 4-foot crest. Then apply that and use the capacity of the 4-foot crest before we have to do dredging. That’s the assumption we made in order to get an “apples-to-apples” comparison for rate impacts.”

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

Mr. Dave Phillips – Charlottesville Association of Realtors: “I was curious on the regulatory costs ... two questions: 1) the regulatory costs could they end up being more than the capital costs, and 2) are any of the four alternatives more difficult or expensive regulatory-wise than the others?”

Mr. Aaron Keno: “There will be some differences in the regulatory process for each of the alternative. We don’t expect there to be major differences in the costs in terms of what needs to be developed for supporting documentation for these alternatives. As we advance the process and get feedback from the regulators, we will certainly have a better idea what their posture is going to be for each of those which will contribute toward selecting the one that meets the criteria reviewed in the PowerPoint earlier.”

Ms. Liz Palmer – League of Women Voters: “I have a couple of questions. On Beaver Creek ... If the Board of Supervisors or the City Council asked you to put that back out on the table, would that be put back on the table?”

In response to requests from the audience, Ms. Palmer restated her question: “I asked a question about accessing the water of Beaver Creek. It was kind of on the table through 2018 for a while, and it’s sort of on the table with the James River. The other gentlemen asked that question. The second part of that question ... if City Council and the Board of Supervisors asked to have that put back on the table, would it be put back on the table?”

Mr. Tom Frederick: “The way that I would like to respond to that first is to admit the obvious which is we serve to meet the needs of the City and the Albemarle County Service Authority; that’s who our customers are; that’s who we work for. Our Board members are represented by those specific agencies. If there is a specific directive from those Boards to address an issue and there are costs associated with the additional request, they pick up the cost as part of their wholesale rate. Certainly we would do whatever is requested.

“With respect to the Beaver Creek issue, questions were asked at the County Board of Supervisors on February 2, 2005. We are working on a response, and it will be available sometime next week to the Board on that and other issues. We do think it would be worthy to continue to discuss that issue and reach a mutual understanding of how decisions were made up to this point. Then, with this or any other decision, if we need to take a look back, of course we would do that.”

Ms. Liz Palmer: “My second question is on the cost estimates on the James River Intake for clarity. I want to know where the land acquisition costs are. Is it under something else?”

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

Mr. Aaron Keno: "I'm not able to answer that question with what it's under, but it is definitely in there."

Ms. Liz Palmer: "About the final decision, I'm assuming that when you go to the regulators, maybe this is wrong, do you go with a couple of different combinations of alternatives and they come back to you and want you to just approve one thing or probably give you approval for several things. Who makes the final decision? Does Rivanna?"

Mr. Aaron Keno: "The conventional process is to conduct the evaluations that we have explained, following a logical process prescribed by the regulators. We continually interact with the regulators as we are developing that information to kind of confirm that we believe we are following the path as the regulations are to be interpreted by those regulators. As we push toward the preferred alternative, we work with the Boards who need to make those decisions on which is the preferred alternative that we believe follows that process and is the one that they wish to select and make application for. Once that process is completed, it is up to the regulators then to determine if we had followed the appropriate process and make the decision whether or not that is the appropriate alternative that should be approved."

Mr. Jeff Werner: "I work for the Piedmont Environmental Council and also a City Resident. I have a question for clarification. On slide number 10, you show that the James River is still \$49.9 and you show Ragged Mountain Dam at \$59.5. Then in the white sheets in the back here, you take out the water treatment as you said, the James River alternative ends up at \$82,965,000, so that slide is incorrect. That's the same thing with the Ragged Mountain, you guys had it in there as \$59.5, but if you take this current sheet and take out the water treatment as you said, the total cost ends up \$84,664,000. I would hope for some more consistency, and I'm curious why you have a slide that says \$49.9 million. Which is right? You said on January 6 that it was \$49.9. Today, I guess a month later, \$40 million has been tagged onto the price. What's going on here?"

Mr. Aaron Keno: "Thank you for asking that. It's an excellent example to help me clarify what I was attempting to present. You may recall we also talked in the one slide about concepts and alternatives. Concepts being those raw water elements only in the concept; what it takes to construct that concept. For an alternative, you have to look at everything else that goes in there. We use the word treatment because that's one of the largest ones, and you pointed out those differences. But in fact, the costs within the \$40 some million and the \$50 million that you referred to in the concept is some of the supporting information that goes into the alternative and then all of the other costs need to go in there. There's also in the alternative estimates for other things that have to be done to develop that alternative, in terms of design and project contingencies and so on. Both numbers

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

are indeed accurate. One is talking about the James River concept; one is talking about the James River alternative that has all of the other elements necessary to deliver water.”

Mr. Jeff Werner: “I just ran back and brought my calculator ... Intake \$7.7 million, pipeline \$32 million; environmental mitigation, \$201,000; electrical costs, \$15 million. Take out Rehab Ragged Mountain; take out the pipeline; take out Rehab of Observatory; take out WTP Expansion; the subtotal is \$55 million. Add 20 percent, that’s \$11 million; add 25 percent, that’s additional \$16 million. The total without water treatment is \$82,955,000 and not \$49.9 million as was in slide number 10. If you wanted to, I could take you to \$49.9 million and back it up. I’m pretty capable of that. You would have to start with a price without any contingency of \$33 million. Looking at this white sheet, suggests that the only thing being built is the pipeline. So, I don’t buy your answer. There’s a mistake here, and I would like to know what it is.”

Mr. Aaron Keno: “I will try to explain in a little more detail. There are some items that are included in the alternative. Engineering permitting and construction management services are going to be nearly \$15 million. Project contingencies are another \$27 million. In addition, in the Technical Memorandum we were dealing with the information that we had available at that time to bring the pipeline into the Urban system. As we developed these, we looked at all of the other things that needed to be done. For example, the pipeline from the James River to the Urban system was of a certain length. I don’t recall the number off hand. As we looked at developing that alternative, we realized we have to carry that water all the way to Ragged Mountain and we have to improve the pipelines between Ragged Mountain and Observatory. So when you look at the Technical Memorandum and those costs for just that concept, you don’t have those costs in there as well. Although they don’t appear in that line item ... they actually carry a pipeline line item in the summary that you are looking at ...those are over and above what needs to be done in the concept.”

Mr. Jeff Werner: “Again, I don’t want to pick. I use to be a construction estimator. I went right to your list from last August. It has specifically in there, 20 percent for engineering, 25 percent for contingency. You take out the \$60 some million for the water treatment plant. Lo and behold, the number ends up always \$49.9 million. So, this is not a concept. This is clearly what you had in August. This is what you presented in January. Now here we are with a slide with \$49.9 million on it. In reality, the price is something like \$84 million. I just think we need to get some straight answers. We are not getting straight answers; just people trying to make political decisions in this phase of the process. Suffice it to say, your numbers are all over the map.”

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

Mr. Aaron Keno: “Mr. Frederick has suggested, and we certainly can do, is provide a little bit more of a breakdown to explain where those differences are, and I think you would be willing to post that on the Rivanna website so you would be able to actually see where those differences are. We would be happy to do that.”

Ms. Christensen stated that questions for clarity would still be entertained, but the floor would also be opened up for comments. She reminded the audience of the “requested guidelines for participation” that were included on the Agenda. In order to hear from as many citizens as possible, citizens were requested to limit their comments to three minutes if at all possible. Written statements that exceeded that time limit would be accepted by RWSA and posted on its website.

Mr. Jack Brown – City of Charlottesville: “My question has to do with one of your four options, which is dredging. It seems to be an option to address the problem of the water deficit. In earlier meetings, I heard matters raised on how the SFRR has silted up by 50 percent since it was built. So the question is will we have to dredge the Reservoir no matter what at some point? If so, how are we actually handling that cost relative to the other three options? Is this akin to work that has to happen to the Ragged Mountain Dam no matter what?”

Mr. Aaron Keno: “In terms of comparing it to the Ragged Mountain Dam, the nature of the sedimentation that has been observed in the SFRR is significantly different and more than what is being experienced in Ragged Mountain. So that is not something that we would expect at Ragged Mountain.

“In terms of what would need to be done at SFRR if dredging is not done, that seems to be what your question is leading?”

Mr. Jack Brown: “The question is pretty straight forward. If we pick the James River pipeline, are we still in 50 years going to have to dredge the SFRR?”

Mr. Aaron Keno: “No. The James River would be a size large enough to handle the entire water supply deficit, based on the information we have for continued sedimentations at the SFRR.”

Mr. Jack Brown: “But we might find ourselves in 50 years facing a SFRR that is 90 percent silted in. A lovely place to build houses.”

Mr. Aaron Keno: “Absolutely, you bring up a great point which is that it needs to be monitored what happens to the sedimentation rate in the SFRR. We addressed it in that Technical Memorandum, and in the public meeting we talked a little bit more about what could happen there. The nature of the Reservoir is likely to change as it continues to accumulate sediment. Although we don’t expect it to

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

turn into some sort of a mud bog. It does need to be monitored over time to assess how that sediment is accumulating. There are reservoir management procedures that could be implemented as well.”

Mr. Tom Loach – President of Crozet Home Owners Association: “I have two questions. What percentage of the Beaver Creek yield would you hold and reserve to meet those needs that you were talking about? The second question ... your Chief Engineer Jennifer Whitaker was quoted in “The Daily Progress” as saying that Crozet’s system water needs could jump from 400,000 gallons a day to 1.6 million. Since we only have a treatment capacity for 1 million, does this mean that in order to accommodate employment in Crozet, we either (a) have a deficit now of 0.6 million or (b) taking 0.6 million away from our million gallon treatment that we only have capacity for water right now?”

Mr. Tom Frederick: “Thank you for your question. With respect to the Beaver Creek Reservoir in Crozet, the decision that was taken by the Rivanna Board last October gives priority to the Crozet community for Beaver Creek Reservoir because that is Crozet’s sole source of supply. The Urban system, of course, has Ragged Mountain and SFRR and North Fork Rivanna Reservoir. The way that policy is structured, priority goes to Crozet, but we recognize that current day Crozet is not required to use up all the capacity of that Reservoir. So, if in 2005 – let’s hope this doesn’t happen – it ended up being a drought year and the Urban system was threatened. There is ample capacity in the Beaver Creek Reservoir to serve Crozet today. In 2005, the policy would allow withdrawal of water from Beaver Creek to help supplement the Urban system through the drought. In 2006, it reverts back to the same question: The needs of Crozet come first. If Crozet has grown a little bit, that has to be reserved. So that’s how Crozet’s needs are protected.

“Your second question about if the Crozet system grows as the town has projected and if industrial demand is restored, that would equal the 1.6 MGD that you mentioned was referred to. The water treatment plant itself may need to be expanded to continue to provide capacity, but the Beaver Creek Reservoir itself has the capacity to meet that need.”

Mr. Jack Brown: “But the question was that currently what you are saying is that the potential is 1.6. In other words, if we want to go out and look for new business in Crozet, there is no planning for that expansion. So we are really either maxed out or at a deficit right now in order to go out and market business in Crozet. It seems to me that you are going to have to plan for the immediate so you can start to put the capacity into the treatment now. Remember Crozet is now in the Master Plan going from 3,000 to 12,000 people, so it’s imperative that we know what percentage of that yield of Beaver Creek you might take in case of an emergency. Thank you.”

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

Mr. Tom Frederick: “In respect to treatment plant capacity, the way Rivanna looks at it is very much the way utilities across the nation look at it. We look at it in terms of making the best forecasting, recognizing forecasting is never a perfect science. You do the best job of forecasting you can as to what the demands are going to be in the future and project when we need to add infrastructure to the treatment plant, based on that. It could always happen to any community, and it could happen to an urban area, that somehow a very large customer comes in. The County or the City, whosever jurisdiction it is in, would have to look at that opportunity and say ‘Do we want this in our community? Is it consistent with our Comprehensive Plan?’ This is a decision that those Boards would need to make, and Rivanna needs to wait until that decision is made. If the decision was made that here’s a clean industry or whatever and it’s bringing X number of top-paying jobs – typically unless there is a building perfectly made for that industry to move into tomorrow, which is almost never the case, there is construction time. With a customer in hand and with a signed contract, there would have to be discussions about are they going to come and are they going to agree to buy the water. Then we can finance and pay for it.

“Typically utilities don’t build water treatment plants based on what capacity might be needed 20 years from now. The reason for that is if you spend that money, then the current customers end up paying all the debt service on it and that potential customer may not come in the future. So, you plan a little bit more closely than that. I hope that’s the answer to your question.”

Mr. Mitch King – City of Charlottesville: “I want to speak about dredging. My impression from looking at the Fact Sheet on dredging is that one of the reasons the dredging cost is so high is because you have a relatively aggressive dredging schedule on here that results in a lot of material being removed from the Reservoir for which there is no market and therefore has to be disposed of and the costs. If a less aggressive dredging schedule were used and it more closely matched the current and projected markets for the material that is removed, you might find, and would I’m sure, have substantially lower dredging costs. Can you tell me whether anybody has looked at a less aggressive dredging schedule and tell us what possibly could be conceived between marketability with regard to this material?”

Mr. Aaron Keno: “We looked at a variety of schedules for removing the dredged material. We also did our best to investigate the marketability of that material. In addition to the rate at which it could be removed and possibly marketed, we have another restriction and that is, as Tom talked about, phasing of each of these alternatives. Any of those that include dredging, we had to evaluate how much we had to get out of the Reservoir in time to provide the water supply that we need. So, we are bound by the water supply needs, depending upon when it is constructed as well. So that dictates that it has to be out at certain times,

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

depending on which alternative. We also look at the marketability of that material and looked at a range and developed our costs based on a range of how much there is a market for it. Some of you who may have been at the earlier public meeting on Dredging, you will recall that we talked a little bit about the volume of material. There is 5 million cubic yards of material that needs to come out of there for water supply purposes to provide that 5.5 MGD that is projected. That is just a tremendous amount of material. Our estimates are projected on anywhere from 0 percent – none of it – up to as much as 50 percent of that being reused in some manner, assuming that there could be some sort of a market over that 50-year period to market at least half of that material. So that costs as you remember on the lowest end of the range that we showed for that concept represents that 50 percent, which we believe is a very liberal estimate. Although there may be some market for some of that material, there was nothing that we were able to find that would indicate it would ever approach anything near that amount. So even at the most liberal assumption of half of it being able to be used in some manner, the costs were still very high for that half that would need to be disposed of. What we did not account for was that someone would actually be willing to pay for all that, which could potentially reduce those costs. But again, in the research that we have done talking to contractors and suppliers and folks that deal in that business, there's nothing that has been indicated that anyone would be willing to pay for that material. If you would transport it to them, they may take it at no charge. So that is the way we estimated assuming we still have to transport it, but that somebody would take it if we took to them. Those are the restrictions we are dealing with."

Mr. Mitch King: "I guess the point I was trying to get at, and I'm not sure if I stated it, was that if you dredge on a less aggressive rate, say something closer to what the market would bear in terms of disposal of this material, the dredging costs would lower. Yes, you don't get the full safe yield that you are looking for, but that would mean that you maybe need one less foot on Ragged Mountain Dam Expansion and save \$10 million."

Mr. Aaron Keno: "Great question. I'm sorry I didn't understand it completely. To address that, there are an infinite number of possibilities between dredging it half, completely, to doing nothing. Let's take the James River alternative as an example. If you did James River all by itself, you would do no dredging. We also looked at doing dredging completely, as much as we could get out, coupled with the James River. We did not examine all of those possibilities in-between. You're right, there are some possibilities. What we did is examine each end of spectrum, and that's what we presented here. We believe that could be representative of what we would find because of looking at both ends of the spectrum."

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

Ms. Christensen stated that Mr. King's question would be taken as a comment.

Mr. Mitch King: "I'll make the comment now. If you look at both ends, which is zero costs for dredging and as high as possible costs for dredging, you really haven't looked at the optimal costs. That is the whole point. You need to figure out what the optimal figure would be."

Mr. Barry Clarke – with the Town of Scottsville: "I ask you to consider tonight ... when you think of the various sources of water, we think of rivers and we think of reservoirs. But rivers are for recreation, for relaxation, and it's also for water runoff, which can add towards the treatment costs of drinking water. Reservoirs are retaining drinking water, and that is why there is no swimming in reservoirs. So, we are going to have to ban swimming in the James River or tubing in the James. The James River concept, hands down, will affect more people directly than any other concept that's presented here tonight. There is going to be 23 miles of pipeline running along Route 20 of all places. Perhaps one of the most dangerous roads in our area is now going to be impacted with even more severe construction that will go on for months. This has to happen close to the roads too because it's going to be in the VDOT right of way. That is why there is no acquisition costs listed under that proposal. So that will bring it close to the road. I then ask you about the human impact of this project. What about the people in Scottsville and all its neighbors. It's no secret that this area has the lowest median income of Albemarle. That is why we rely so heavily on the river for income. The tourists come to Scottsville to enjoy the river, as well as the locals. We have two businesses that provide tubing, canoeing and kayaking from as far up as Warrenton, Hatton Ferry, all the way down to Bremono Bluff. The James River proposal would draw the water just above Scottsville and then not return any of it until it reaches the Rivanna River below Scottsville. So, I ask you all tonight to consider the environmental impacts because there is 23 miles of it with the James River concept, but also consider the human impacts as well."

Mr. Dave Phillips – Charlottesville Area Association of Realtors: "I just wanted to say that CAAR has no position on any of the four options that you are considering. What we do have a position on is an open process for this type of public-interest item to go through, and I wanted to applaud the Authority, the consultants, the County, and the City and everybody on allowing such great public input and such a great open process. I feel very well informed by the information that has been provided at this and the other forums. I would like to particularly highlight the leadership of Mike Gaffney and Tom Frederick. I think they have done a great job and the patience that everyone has shown. I thank you a lot for that. The bad news is that no good deed goes unpunished. When you go to the next step, I'm afraid you might receive some punishment. No matter what you choose, which option or which combination option, or even no option, there's going to be people that aren't happy. I know that is a tough situation for you to be

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

in, and whatever you decide or whatever option you go with, we hope that you will strive to maintain a great quality of life that we have here in Charlottesville and you have the full support of the Charlottesville Area Association of Realtors. Thank you very much.”

Ms. Liz Palmer: “I have some more questions about the sediment issue. We had a 2002 water supply plan that was approved by the Board of Supervisors and the City Council. I recognize that we are revisiting that because of the problems with the numbers on the bladder. They’re not getting us as much as we thought they were going to get in safe yield. But, at one of the previous meetings it was asked if the whole rest of the Water Supply Plan that was approved was to be thrown out. I can’t remember ... I think it was you who said ‘no, we are keeping it but just reviewing parts of it.’ In that plan, it very specifically made commitment to address the sediment issue in the SFRR. There was a section on addressing the sediment issue. I’m not hearing any of that, and your answer to the other gentleman about dredging was to monitor it ... I just don’t quite understand how monitoring is going to address the sediment problem.”

Ms. Christensen asked if Ms. Palmer’s question concerned whether the current commitment out of the 2002 Plan was still there.

Ms. Liz Palmer: “Is it still there and if so, how is it going to be addressed?”

Mr. Tom Frederick: “I appreciate the question. What we communicated to the public at the first Public Outreach Meeting in September was that parts of the 2002 Community Water Supply Plan that were being reconsidered were all of the elements associated with Capital Improvement costs or the cost elements of the infrastructure improvements. That included all the alternatives we are now considering and reevaluating. There were some conceptual goals expressed, that to the best of my knowledge, are still in effect from the Board, such as watershed management. To address that issue, we have hired a Watershed Manager who is actively working in this community with other agencies to help address some of those issues. She is also working on a Drought Management Plan for this community, which is something that has been requested. You are going to see as the months come forward, more of those kinds of initiatives working. Our interest in the project TNC [The Nature Conservancy] is doing is just another example of some of that. But the Board, because of concern about whether the water supply yield would be met, which is the number one issue of the RWSA, and because of the cost issues involved with some of the big ticketed improvements, did choose to revisit those issues. That is why we are talking about dredging as a concept now and the 4-foot crest as a concept and Ragged Mountain as a concept, as opposed to saying ‘ok we are just going to go and spend money and do this’ because it was in the plan. All of that is part of what is being revisited.”

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

Ms. Liz Palmer: “There was a 2001 advisory in a forum to look at the sediment issue, and they have a whole list of recommendations ... I do recall hearing them ... I can’t think of the name of that advisory committee. It was really Stephen Bowler’s state of the watershed report ... Are we going through those and looking at any of those recommendations that were made in 2001? I guess I keep asking and other people keep asking because ... big environmental problems we could be leaving future generations. We want to really understand before an alternative is picked if we have any liability out there with respect to the Reservoir.”

Mr. Tom Frederick: “I think we should and we will look at that, and I appreciate your bringing that up about a 2001 plan. We will look at it in terms of how we see those issues stack up in terms of what we now understand today. I’m not sure that I would quantify the issues in the SFRR current day as a significant liability. We monitor the water on a daily basis because we withdraw water from our Reservoir for treatment. As a part of that process, we are required by regulations to do extensive water monitoring. We are going to make sure at all times that the water that goes to you is safe. We are also suggesting, and it’s not been something that has been budgeted to this date, that regardless of which of these alternatives go forward, in the end that there should be a more detailed monitoring plan for the SFRR rather than relying on the treatment issues and some things we are relying on today in aesthetics. We don’t know if it is absolutely clear. We think there are some people in this community who have concluded that we’ve got to dredge or the lake will die, but I don’t have the factual data that says that definitely is going to happen. I think it bears some study.”

Ms. Liz Palmer: “How are we going to get those facts? Are we looking at the long term?”

Mr. Tom Frederick: “A monitoring plan is a plan of how over time we are going to watch and monitor the conditions of the Reservoir. Let’s say that the plan was ready tomorrow, and we implemented all the steps of that plan. Then we get data next month, and it doesn’t draw any severe adverse conclusions. It doesn’t mean that we are going to jump to conclusions and going so do something. What it does mean is that we will make a commitment to continue to monitor. When we see trends that are bothersome, if we do, then we look at where are the alternatives that address that issue. We’ve also said publicly that we should not rule out dredging as an option for addressing problems that we may identify in the future. As much as we said we should not rule out dredging, we should not rule out other potential alternatives. We really don’t know what that solution is until we know what the problem is. We made a commitment that we would not ignore this problem; that’s drinking water supply for a lot of people in this community, and it is something that we cannot ignore.”

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

Ms. Liz Palmer: “Can I ask one more question and one more comment? The airport expansion of the runway ... they’re going to need a large amount of something to fill that. They said they may have to think about \$20 million to buy that dirt to get it over to them. I’m understanding, I could be wrong about this, but ...testing on the sediment. Apparently, it can be done prior to dredging just to see if the airport can even use it. Is there anything going on about that?”

Mr. Tom Frederick: “Yes, there is. This was brought to our attention I guess about a month ago from a couple of sources. We have through Gannett Fleming made contact with the Airport Authority’s consultant. We have provided him a packet of information as to what we have available right now, and they are studying that information and will get back to us. We are pursuing what we think are the broader questions first, including how will the Airport Authority look at the fill material that may need to be brought into the airport in terms of its technical characteristics and in terms of market. What kind of pricing structure are they going to be looking at. If it looks feasible in the first phase, we may take it to another phase. The kind of approach that we are using is answer the big questions first and rule out the issues that don’t cost a lot of money before we spend money looking at investigations that do require greater and greater expenditures. Aaron Keno is very much involved in that discussion. If you want to add anything to what I’ve just said, feel free to.”

Mr. Aaron Keno indicated that he did not have anything further to add to Mr. Frederick’s comments.

Ms. Jerry McCormick-Ray – Citizens for Albemarle: “Citizens for Albemarle basically support the idea of staying within our watershed and working with the Rivanna rather than going to the James. The reason for this is the problem that we are facing now is not just a local sediment problem; it’s been a problem that’s been emerging for a long time because of the development and because of the lack of consideration that the watershed we live in is very sensitive to soil structure and water structure. The combination of that is creating problems with our storage capacity. What we need to do is to look at sources of water, the sedimentation problems, and the land use decisions that are being made independently of the water supply problems that we are having. Going to the James River means that we are going to have greater problems with our neighbors down the road, and we are still not going to address the sedimentation problems that are being incurred by all our reservoirs. We know by definition reservoirs are short-term phenomenon; they silt up. What we need now from Rivanna is that the plan will work interactively with our very enlightened comprehensive rural plan that sets out goals for the County and tries to work for what the people in the County want ... I would like to suggest that what we really need is for Rivanna to have an advisory council that will oversee the development and planning and work with the rural area plan to see how those waters are going to be affected by

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

the decisions that are made across the County and be a watchdog because some of the decisions and land use that has been occurring along the land, around the land, along the streams, on the mountaintops, all the extensive areas that we have, are filling in our reservoir, and it's going to be an expensive problem. Going to the James River is not a solution. We are filling in the Chesapeake Bay, we are filling in the James River, we are filling in downstream; We're moving our mountains and creating a plain ... unless we start right now with an enlightened view of how we should manage water supply problems before it continues to be another problem handed down to us."

Mr. John Martin – Free Union: 'I just like to go back to a basic, if you will, of what this water supply project is all about, because I think that basic seems to have been confused by local media during the past week. I understand that this project is designed to cure the deficit. The deficit is quantified as 9.9 MGD. It is also my understanding that this is not a projected deficit in daily water supply. This is a projected deficit in safe yield, which means by definition it is a deficit that would present itself only during brief, infrequent periods of severe drought. It's a problem that's got to be corrected, but the deficit would present itself during brief, infrequent periods of severe drought and would reach a magnitude of 9.9 MGD only under a drought as severe as the drought of 2002. If that is the case, ask about the James River pipeline. I can see the James River pipeline could be turned on during a severe drought and it could cure a water supply deficit. How would the James River pipeline be used during non-drought times? Could it be left dry and unused for years at times? If it wasn't going to be used continuously, isn't it going to be delivering water into our community that is untreated and would simply overflow back to the Rivanna River after we've pumped it all the way up to the community? So, how is that pipeline going to be used? How often? Thank you."

Mr. Tom Frederick: "Thank you for your question. With any concept that a water utility goes to, whether it's to build or expand a reservoir or building a pipeline, in the Commonwealth of Virginia it is the law that the utility plan is for providing for the needs of its citizens in a drought of record, so that is the baseline that establishes what you are required to design the facilities for. It is true that the nature of water is that sometimes it pours and sometimes it doesn't. If you only needed water most of the time, the facilities that we have could satisfy the needs well into the future. The question becomes when you have a severe drought, what do you do? If you haven't made the plans and haven't built the facilities and infrastructure to provide for that need, the community has huge health problems and huge economic problems. That's probably just the start of the kinds of problems. I've never experienced that before, and I hope I never do. Whether it's the size of the reservoir for the safe yield or a pipeline, it's basically the same issues you are planning for.

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

“With respect to the pipeline itself if it’s built, it will need to be exercised on the basis of keeping the equipment running in good condition. So it’s not something that could be mothballed for a period of years. It would be coupled with whatever other supplies exist and whatever policies are in place by the Board. Policies that relate to stream flows could impact how often the facilities are run. There are a number of issues, so I cannot give a specific exact answer today. I do know that it would have to be operated sufficiently to maintain and take care of the equipment. One thing I can tell you that’s in anticipation is that the cost that you see for the James River do not include the cost of replacing the pipeline from Sugar Hollow to Ragged Mountain. It is the one alternative that does not include that. That helps from a capital cost perspective when looking at that project, but that means where as with all the other alternatives, we are still relying on Sugar Hollow. We would not with the James River pipeline, so we would have to use the James River pipeline sufficient to make sure that we were providing the needs to our community in the absence of that pipeline. That would be an issue that we would certainly need to look at. It would vary year to year. There is no absolutely perfect answer as to exactly how you would operate all 50 years, but there doesn’t need to be. Hopefully I’ve given some parameters that could help answer your question.”

Ms. Liz Palmer: “ Does that mean you take down the Sugar Hollow Dam if the James River pipeline was done?”

Mr. Tom Frederick: “The Authority has not committed to taking down the Dam and those kinds of steps. What’s been represented in the concept is that there is an existing Ragged Mountain – Sugar Hollow pipeline. It wouldn’t immediately be turned off because as we represented earlier, in order to finance a project like this, we can’t go to construction immediately. It would be brought in over a period of time. But at some point in time when the pipeline was no longer able to function, as it is today – we haven’t established what that exact date is, and I don’t think we have to in this meeting – but at some point in time, that pipeline would no longer be used and it would not be replaced with a new pipeline. That is what we are saying.”

Mr. Carlton Ray: “I’m the President of the Citizens for Albemarle, but in real life I’m an ecologist, so I have a few questions about impact. I’ve been up here for an hour and a half ... You don’t seem to be addressing the impact of the structure itself ... Your wetland figures, I don’t know how you find all them – I don’t particularly need to hear that now – I think they are vastly underestimated. Just ... knowing the streams around here, you probably get four or five acres of wetlands with only 1,000 feet of stream ... and here you got 0 kilometers. My big problem is the linear feet of streams have almost nothing to do with environmental impact ... Linear feet really are not a measure of all the environmental impacts of streams

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

themselves. I ask you in your final deliberations to clarify how you came up with these figures for the environmental impacts.”

Mr. Aaron Keno: “In response to part of your comment on the amount of wetlands. We did have environmental experts examine the areas that we have identified in these projects to determine how much wetlands there was to be replaced. So we did have experts look at that.

“The other part of your comment about stream impacts. One of the reasons we are listing those that way again goes back to the regulatory requirement. That is something the regulatory agencies are going to want to see to determine how much of those streams are under impact.”

Mr. Kevin Lynch – City of Charlottesville: “I’ll start with, I guess a comment, is that one thing I haven’t heard tonight was that in 2002, the City and the Service Authority passed on a rate hike to our customers because Rivanna has raised its rates in order to accommodate a future \$15 million bond issue. In 2002 we had a series of projects that were supposed to move forward: the raising of the SFRR Dam by 4 feet, remediation work which was to be done to Ragged Mountain, the Mechums River Pump Station, and I think some miscellaneous engineering work. All of which we respectively already paid for. I’d like to hear some comment about that. What about the rate hike we’ve already absorbed to pay for improving the stuff we haven’t got yet?”

“In following up on that, I look to again the 4-foot crest as being our cheapest gallon for the dollar, bang for the buck, back in 2002. While I see that the numbers have fluctuated all over the place, up and down, I still don’t see that that’s changed today. Now in 2002, what we were told is that the bladder itself is going to be \$2 million, and that it might cost as much as \$6 million to deal with the bridges that have to be raised, so we could be looking at potentially \$8 million. The numbers that you got out today say that the crest itself is more expensive ... \$3.2 million. The bridge replacement because only one of the bridges would have to be replaced is only a little less than \$1.2 million. So we are looking at \$4.4 million for just the bladder by itself. There is a big chunk of these funds which is environmental mitigation. Now that going from \$18 million figure that you gave us several weeks ago; now we are down at \$9.9 million, so we are at \$10 million for environmental mitigation. Even if you took this \$10 million for environmental mitigation, which I’m not certain that I buy into, we are still at about \$14 million for raising the SFRR by 4 feet. That’s \$14 million, not the \$20 million that was up on the slide. So I have some similar questions about your math that Jeff raised, and I think looking at the numbers, I tend to agree with Jeff on the pipeline option. What I see is that the pipeline numbers seem to have been pushed down to make it look cheaper, and the other options seem to be pushed up to make it look more expensive. Given that we have until 2018

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

because of adjustments that we made in being able to use Beaver Creek and using other water sources, we got 2018 as our baseline number. If we were to take the \$15 million to the bonding authority that we've already gave, we ought to be able to put the South Fork up by 4 feet without having to raise anybody's rates at all. That project ought to put us about another 15 to 20 years out in the future. So now instead of 2018, we're now somewhere around 2030 or 2035. Now by 2030 or 2035, a couple things could happen. First of all, we could have an update to our projected water usage. For example, right now our demand curve is based on [the] old demand curve. It was done prior to when we started the drought conservation efforts that we imposed. People say well we can't use year after the drought because it was the year after the drought. Then the year after that, we had a lot of rain so you can't use that. Down the road when if you continue to maintain the same level of usage that we have gone out even further.

"Finally, I would say if we were able to do that, I would think that perhaps the dredging option would start to be useful. People are making improvements in dredging technology. If we are looking at 2030, which is 30 years down the road, I would anticipate that we might see a decreased cost in the dredging option. Other communities are looking at the same problem that we are. You look at mining technology, that has made huge improvements over the last 20-30 years ... I don't understand why you couldn't have similar improvements in costs over dredging. It seems to me – I haven't seen anything in all these meetings to dissuade me of this – that we are moving to push this James River option. The water quality is not going to be as good. It's going to be that more expensive, short-term cost, which I think also has some long-term risks. We are not really looking at how we would make the most out of our system for the least amount of money ... I don't see why we're not building till 2030 at least."

Ms. Christensen stated that she heard two questions during Mr. Lynch's comments, one was the question about the previous rate hike and the other question was about the numbers. She felt that issue had been addressed by RWSA's agreeing to provide a more full explanation of those numbers.

Mr. Aaron Keno: "As we have progressed in our process, our level of detail in the investigations is getting more and more. As we conduct those investigations, we've shared that information. There is going to be some variance in those costs as we refine that level of detail and push toward a preferred alternative, both in terms of what you've seen previously and what you've seen this evening and what you will see in the future. That is going to continue to happen. As we learn more, we are able to refine those costs.

"In terms of the "bang for the buck," if you will and the costs for safe yield ... As you know, 2002 was a very severe drought. We completed additional new safe

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

yield studies, and with the information we received from those, all the costs for safe yield that you are seeing now is based on those results. “

Mr. Kevin Lynch: “I’m using today’s numbers, and I know we are not going to get 7 million gallons out of the SFRR, we’ll get 3.3 million gallons, but that will still give us 15 to 20 years. Your numbers tonight say \$14 million. I’m not talking about your old numbers that said we could do it for \$8 million. Tonight, \$14 million, and we’ve already given you \$15 million. Actually, if I can offer up another question ... The \$10 million dollars for environmental remediation, what did we get for that? Is that money that would come out of our rate structure, and we could use to buy additional land to be created and mitigate what’s lost around the reservoir? Because if we could take that money ... mitigation land ... building a park ... maybe that’s a cost the community doesn’t mind it throws out?”

Mr. Aaron Keno: “We have identified mitigation costs based on those impacts. We haven’t identified every single project that would necessarily be done with those mitigation dollars, but we have estimated them. That’s certainly something that should continue to be talked about, if any of those alternatives were to be moved forward – specifically what would be done for those mitigation projects. You bring up an excellent point. The costs are pretty favorable on the 4-foot crest, even with current-day dollars. I remind you of the very first slide that we had in the presentation about the goal: “the least environmentally damaging, most practicable alternative.” What that means is we have to examine the environmental impacts as well as the costs. If we were able to go to the least cost alternative, we would have a more simplistic approach, and that would be fine. The environmental regulations require us to go through this process and not simply select the least costly project.”

Ms. Christensen asked if Mr. Frederick would like to comment on Mr. Lynch’s question on the previous rate hike.

Mr. Tom Frederick: “I would simply say that any money that has been provided by customers has not been spent and is still there. It has been taken care of. The second is the simple reality that it does not make sense to move forward without a permit. We can’t get a federal permit until we finish this process. That is why we are doing this process. That is why we are listening to public opinion. That is what we are trying to incorporate into our discussions and negotiations with the regulators. I’d love to wish this were a simple process where this community could make a decision and just go do it. As we all know as we’ve discussed several times, it’s not legal in this country to put a 4-foot crest or dredge without a Corps of Engineers’ permit.”

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

Mr. Brian Wheeler – Albemarle County: “I have a quick question. I see the high mitigation costs for the 4-foot crest. I wonder if ... I understand your needing to present that in that fashion to the regulators, but do you think you are ready for whether that’s going to pull the wetlands upstream once the reservoir is raised? At the end of the day, you guys end up looking better going back to the original statement, stating we would factor in the environment. At the end of the equation, might that look better than the way it looks that you have to present to the regulators. Does that make sense?”

Mr. Tom Frederick: “Even when you get through as far in the process as we are right now, even when you get to the point of applying for a permit, there are still not a certain answers to all the questions. That is the reality of what we have to deal with. We are making best professional judgments. We are hiring a consultant to make those judgments and apply those. One of the things we have consciously done is we do not want to lead this community by putting out scenarios that don’t make you aware of potential costs. We are doing that with all the alternatives. The thing that I would suggest is if this community chose the 4-foot crest as part of the selected alternative, and if they were in a permit applied for, in negotiations with the regulators we look to negotiate the most favorable position that we can. I think one of the issues that we would bring up, and I can say we discussed this internally as a team, let’s don’t say anything that rules out the possibility of negotiations that might take into consideration that if we increase the size of the reservoir and then do a survey at a later point, low and behold wetlands have been created to some extent without having to go somewhere else and create wetlands, can we get credits that. That is the kind of negotiating process we should pursue.”

Mr. Brian Wheeler: “... you are not ruling that out? When you shaded those potential alternatives, you make it look like you want to take them off the table because of their high environmental costs.”

Mr. Tom Frederick: “I’m not sure what you mean by ‘shaded?’”

Mr. Brian Wheeler: “In the term shaded ... the 4-foot crest ... has been identified ... negative environmental mitigation costs ... which suggests that you want to take them off the table for that reason.”

Mr. Aaron Keno: “As we present that information, what we have in there is environmental impacts – wetlands and stream. That’s the way regulators are going to look at it. Regardless of what we do to mitigate those impacts, those will still be the impacts. They won’t even consider mitigation first in that process. That will be considered later in the process. They seem to be looking at the least amount of impacts of any of your available projects to satisfy the project purpose.”

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

Mr. John Via – City of Charlottesville: Mr. Via spoke in favor of the James River concept as it could stand alone and continued as follows: “Once you’ve got it up and running, you don’t have to worry about the dredging of the reservoir. There are possibilities that you could drop the water table down to a minimum and to do it conventionally which would be a whole lot cheaper. You really don’t need dredging as of today. You need it 20 or 30 years from now, with my understanding. So I think with all the environmental impacts the Rivanna will have a lot more water going down it with the James River concept than it does today ... it would allow more water to be released from the Sugar Hollow into the Moormans ... all the rivers would be a whole lot better off with the James River concept.”

Ms. Lois Rochester – Albemarle County: “I have two questions. (1) What is the current status of the Mechums River Pump Station? I don’t see that it is in any of these alternatives. It was my understanding that the pump would be important if we were to withdraw water from the Beaver Creek Reservoir. (2) If we were to develop a James River pipeline that could accommodate all of our needs and abandon the SFRR, what would happen to the water treatment plant that we have at the South Fork?”

Mr. Tom Frederick: “The first question about the Mechums Pump Station ... It is a part of the Ragged Mountain concept.”

Ms. Lois Rochester: “Is it listed here?”

Mr. Tom Frederick: “It has been in a number of slides that we’ve presented. I’m not sure how it is represented in what you got there. It is still being actively considered as part of the Ragged Mountain alternative.

“The second question ... It’s not on the table to abandon the SFRR; that’s not really an issue for us. We are going to continue to maintain the South Fork Water Treatment Plant for the foreseeable future. To the extent that we have assets in that area, we think the continued health of the reservoir is very vital to part of our plan.”

Ms. Liz Palmer: “The mitigation costs for the bladder on the SFRR. We own the land that the Buck Mountain Reservoir would have gone on had we gone that route. If we took that land in conservation ... has anyone talked to regulators about that taking the place of some of the mitigation costs for the bladder? It seems like it ought to be looked at.”

Mr. Tom Frederick: “We have not ruled out the issue that you describe at a later point in the process, when an alternative is approved by the regulatory agencies. A specific plan has to be developed. At that time, the plan has to address specific

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

issues that are to a great degree expected by the regulators. I think it would be premature for ruling an option out. It would also be premature to draw a conclusion about what the mitigation might be. We want to make sure we continue to communicate, and keep in mind, the regulatory process says that the first requirement is to avoid environmental impacts. To the extent the environmental impacts cannot be avoided, then mitigation is the second choice. So, it's not strictly a matter of being able to choose which option we want as long as we pay for the costs of mitigation. The regulatory agencies can rule out and deny permits for options that have impacts that they have assessed could be better addressed with lower impacts with another alternative."

Mr. Jeff Werner: "I'm speaking as a resident of Charlottesville, father of two and a wife that live downtown and we are on City Water, addressing the community issues. In June of last year, in a presentation RWSA said that all options, including local and James River would meet projected demands. I would like to just dispel with the myths that are being circulated that your support for a local watershed option as a local option is absolutely false. I support both watershed options. The reason is because this is a great place to live. This is the best place to live. There is no reason for the best place in America to drink the runoff from Lynchburg's shared sewage and stormwater system. So speaking of environmental regulatory requirements, I would like to make a statement about the environmental impact on my family. We all know what the federal government does with environmental regulations. So, Mr. Frederick with all due respect, when you assured us a couple weeks ago at the Board meeting that you could add chemicals at times to make the James River meet federal requirements. That does not at all comfort me. When you look at what's in the James River, there are a lot of words that end in 'ene.' I remember from my organic chemistry days that that's not a good thing. So, I would like to challenge the elected officials in this community if they choose cost over the safety of my family, that they take the most technologically advanced treatment system so that I could drink good water.

"I also say this, there is no doubt in my mind we are being run down the James River pipeline. I don't think these folks are at fault. I think they ask good questions, but what do we do to get it through to them. But to the developers and builder interests in this community, it was like a Christmas present. Why do you think the e-mails are flying to get the realtors, the builders, and the developers out here, because they are scared to death that they are not going to be able to build enough homes. I'll make a prediction, and it's all summed up in the back for us here. Once they prove the James River is the right way to go, then that regional sharing pops up, and suddenly we have a pipeline at Zion Crossroads, down 250 in order to get it into the treatment center. And guess what, all these realtors and speculators here who have interests in Zion Crossroads, they win. I want to go work on a map to see where who owns land over Louisa and Fluvanna who would probably benefit from this water pipeline.

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

“The next thing ... I think it’s ridiculous that we would let the SFRR fill up. You showed your map; it dropped off in 2055. So that means in 2056, what are we going to do? I bet the James River is going to be maxed out by then. It would actually be prudent. I think the developing community would want to embrace this and have that water in the SFRR ready, so in 2056 we would have plenty of water. I’m very concerned that once we let SFRR atrophy, we will see a lot of pressure on some good elected officials here to completely forego our rule of preservation regulations, which actually would benefit the development communities. Surprise.

“Last comment ... this is a challenge to get the development folks ... I’m astounded that we would fail to take an opportunity here. It is sitting in front of you. What do you complain about the most? Incoming business to Albemarle County. We continue to rezone our light industrial land to retail. None of you guys ever say anything about that. Here we have an opportunity ... the Murray? family ... a wonderful family; we all know them. If I had a dime for every person I talked to who said to me ... and I had lunch with Jim Murray the other day ... Jim Murray said to me, ‘are they still talking about all that silt that Steve wants? Drew Murray told me last fall he wants it.’ I like to know have you talked with the Murrays. You know what, let’s compete with the Murrays. How about Albemarle County pay dirt? We hire the guy to run the dredge. We buy the dredge. We buy the trucks. We sell the dirt. You guys bag it up and send it to turf farms all over the state. Albemarle County has a home-grown industry. Of course, that doesn’t involve a Big Box or a Wal-Mart or one of those, so probably the business community doesn’t want to hear about that. I guess, you know we’ve got a hydroelectric dam at the SFRR. What if we hooked that hydroelectric dam up and ran a little electricity. Mr. Frederick, you said the electrical costs to run a dewatering machine were too costly. Well, we adopted in this County a Thomas Jefferson’s Sustainability Award. What a model this country could have; a home-grown incubated business; put people to work on jobs moving dirt; we have a hydroelectric dam that is operating our system. What a great thing to do in the best place in the world.

“I think all of this is nothing. I think my family is going to be drinking filth out of the James River. I think the development community is going to do everything they can to make sure that happens. I am just absolutely not assured by any of you despite your best of intentions that drinking Jerry Falwell’s crap is what I need when I live in the best place in America. Thank you.”

Mr. Mitch King. “I spoke a little earlier. I’ve had a chance to look at this sheet in a little more detail and to think about what you said at the beginning about some of the numbers presented were going to be inflated numbers. By inflated I mean reflect inflation that you expect to incur in the year in which that expense would

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

need to be incurred. Then there would be some discounting of that to current-year dollars. The question ... This in current-year dollars, is that correct?"

Mr. Aaron Keno: "That is correct."

Mr. Mitch King: "I consider then that this is a misleading way to compare the costs of these projects. It shows up for example when you take a look at the James River project coupled with dredging, which tops out at about \$250 million, over \$100 million of that would be for dredging. The point is that \$100 million for dredging doesn't occur today. It occurs 50 years from now. I think we should do an economic analysis and take that \$100 million that would occur 50 years out and discount that rate. Normally you do an economic analysis the way a business would do. You would have a net present value for each of these projects which would give you a much more realistic comparison as to the value of the project to us."

Ms. Dolores Rogers: "I'm on the Planning Commission for the Town of Scottsville and also a realtor. I would like to ask a question of you all. When you were figuring the costs of the James River pipeline, did you apply a dollar factor to the impact that it would have on the Town of Scottsville? We are Scottsville on the James, and last year we were the Scottsville below the James, but we've never been Scottsville above the James and we don't want to be Scottsville above the James. I don't think your numbers reflect accurately what's going to happen to my community. I am community realtor. I like being a community realtor. I don't want to be 'boxed' from Scottsville and I don't want a pipeline in Scottsville and I don't think you have given us a fair picture. Did you factor in the costs of the impact on the town of Scottsville and Albemarle, Scottsville and to Fluvanna, Scottsville and to Buckingham County? There are lots of people in those communities who make their living on, and about and around in connection ... if you lower and take the water away from us before it gets to us and give it back below us, what's going to happen to those people, and what's going to happen to the way of life of those communities in Albemarle County. I realize that Charlottesville has been voted the number one place to live. That was only because the folks who were voting haven't found their way down Route 20 to Scottsville. Thank you."

Mr. Aaron Keno: "We have focused this evening mostly on wetland and stream impacts in terms of the environmental impacts. There are many others: threatened and endangered species, cultural resources, historical resources, archeological resources, and so on. All of those are a required part of the evaluations that we must do and have done to date and will continue to refine. We are following the regulatory requirements on all of those environmental impacts. The wetland and stream impacts that we talked about tonight, largely drive that process from a regulatory perspective, but there are others. For

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

instance, if there were threatened and endangered species, those are a huge impact. Those in some cases have ruled out possibilities. So those that we have not otherwise talked about tonight, we don't see as going to be drivers in that regulatory process, but there are many more that we are looking at."

Mr. Tom Frederick: "Did that answer your question or not?"

Ms. Dolores Rogers: "I think the answer was no, and it ain't going to happen."

Mr. Jim Bonner – Albemarle County: "I don't believe the James River option to increase our water supply should be considered. I agree with a former speaker ... Drinking water subject to Lynchburg runoff, sewer discharge, and God knows what else gets dumped into the James River. It's not something I would wish for my family, friends, or neighbors no matter what you do. The James River option also includes an increasing population, along with some inherent pollution, increased traffic, increased degradation of the natural watershed, and would jeopardize a significant recreation and tourism benefits that the James River currently provides to the people. The James River option of increasing the water supply by importing water outside our own watershed will encourage a reckless endangerment of our extraordinary quality of life."

Mr. Neil Williamson – Free Enterprise Forum: "I want to thank you for the open nature of these dialogs. The Free Enterprise Forum maintains an open mind on all the alternatives. We are concerned that some in the community are rejecting the James River option out of hand. Clearly, this is an option worthy of study. I believe that if you fail to study the option, I think we would be missing the boat. I'm not certain that the James River option is the option by any stretch. I want to join with Jeff Werner in dispelling the myth that any combination of items is antigrowth or pro growth. The goal here is clear. The goal is 9.9 MGD in a most practicable and least environmentally harmful solution. I do have a small kind of procedure process. The questions about the math I think were valid and deserve a public answer. I'm certain that the Authority would do so. Other questions have been raised publicly and should be answered publicly with regard to the manner in which dredging will occur. I have not fully reviewed the Technical Memo. I intend to, but I hope that at the end of this process, everyone's questions will be answered. Not only would it happen, but I really do hope that the Authority will go the extra mile in putting those questions and answers out on the website and to the public. Thank you."

Mr. Jason Halbert: "I live at 803 Stonehenge Avenue in the City and own land in the County. It was tough for me to decide which public hearing to go to tonight. Down the road in Louisa County they are deciding whether or not to build two new nuclear stations, the first new nuclear station in this country since 1979. I grew up down the road from Three Mile Island, knowing what that was like back

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

then. It was question of supplying demand on electricity and water are huge questions. My question for the group is, and forgive me if this has been talked before – I didn't know you were going to do this, and I'm sorry for that – conservation as a supply ... Most of the time conservation is viewed as being a type of management, both in electricity and water. Conservation is actually a supply of water and a supply of electricity ... and the water base, I don't see a lot of discussion amongst the suppliers who view their job as only supplying water ... I don't see conservation as being added into these equations, and I think it's only fair to mention it with the demand curve numbers. I project that the demand curve is absolutely wrong, and the demand curve will continue to decrease based on technology that can be developed and continuing to depend on a pipeline with regards to water conservation. The question is ... was it added in?"

Mr. Tom Frederick: "I may start by making a suggestion that if you are interested in what this community is doing and the policies pursued in the way of conservation that you talk with Ms. Barton who is with the Albemarle County Service Authority. I think if you do that, since you are interested in that topic, I would encourage that. You'll find that there are many things being done in this community through the agencies that supply water to retail customers to educate the public on water conservation and encourage conservation. At Rivanna, we are not directly responsible for the activities that are taken with retail customers, since we are a wholesale supplier. We very strongly support the activities that our customers are taking with regard to promoting water conservation. In the projections that were done for flow needs in the future, we did make some projections for conservation. I think it is debatable for people to argue or speculate those numbers of what we might actually should achieve 30, 40, 50 years from now or maybe we should achieve more. My answer to that is we should not limit ourselves in any way as to what we can accomplish as a community through education of our people. If we can achieve much greater levels of conservation than what are now projected for the future, it benefits the entire community. If we can take what now looks like a 50-year plan and stretch into 60-70 year plan, we should all congratulate ourselves and I think that should be our goal. The other side of the issue – and that's where the tricky part is in this type of discussion – if you now over-project what you are going to conserve and you can't achieve that on the back end, you don't really honestly have a 50-year plan. You have a shorter period than that. So we have to look at both sides of that issue and make a projection that assures our mission and our responsibility to the City and to the Service Authority to make sure we provide an adequate water supply. But at the same, we should be no means limit the possibilities that we can accomplish as a community."

Ms. Christensen thanked the citizens for all their enlightened questions and comments. She felt that this kind of exercise provided RWSA with a diverse

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

as in all the meetings, public knowledge was raised. She then asked Mr. Gaffney to discuss the next steps in the process.

Mr. Gaffney stated that he was extremely impressed with not only with the work of Mr. Keno and Mr. Frederick, but with every citizen who stood up and made comments. He felt that they would be very valuable as we moved forward with the process.

Mr. Gaffney commented that there was an error being made throughout this community, over and over, that he wanted to address; that is, Charlottesville being the best place in this country to live. He stated that actually the Charlottesville MSA was voted the best place in America to live, which included Charlottesville, Albemarle County, Greene County, and Fluvanna County.

Mr. Gaffney stated that the second point he wanted to address concerned the discussion on the Community Water Supply Plan as it was adopted in 2002. What is being forgotten is that the first step after the plan was adopted was to update the data that it was based upon. When the information was updated, a new drought of record occurred as well as other factors which impacted those results. As a Board, it was necessary to revisit the alternatives that were selected and examine other options. These events led to the past two-year study and where we were in the process today. Mr. Gaffney added that RWSA had no other option since this course of action was mandated by the regulatory agencies.

Mr. Gaffney commented further on the discussion concerning the demand curve. He stated that the demand curve being used for this plan started out at 12 MGD. The community was currently using 10 MGD. RWSA was challenged by regulations that dictated how the demand curve could be determined and used as the process moved forward. RWSA could not use the 9 MGD figure from 2002 as a drought of record. Data from 2003 could also not be used due the excessive amount of rainfall received that year. He reiterated that RWSA was mandated to use the demand curves as they currently stood.

A question from a citizen who did not identify himself: “Could you clarify what you mean by that. Does that mean a demand curve from 2001 or a demand curve from 2004?”

Mr. Mike Gaffney: “The demand curve that we are using for the alternatives.”

Follow-up question: “But for what period?”

Mr. Aaron Keno: “In May 2004, Gannett Fleming published the Demand Study. We updated the information based on all of the records that we have at that point in time and made projections from that.”

RWSA Special Board Minutes (cont.)
Public Outreach Meeting on Concept Comparison
February 17, 2005

Mr. Gaffney stated that the process was reaching a critical stage. The next activity would be a joint meeting of the Albemarle County Board of Supervisors, the Albemarle County Service Authority Board of Directors, the Charlottesville City Council, and the RWSA Board of Directors. The meeting would be held on March 3, 2005 at 9:00 a.m. in this room, and the public is welcome. At that time, the four concepts and the nine possible combination alternatives would be discussed. There is one more phase of engineering work that needed to be done before a preferred alternative is selected. The Board might discuss among the alternatives, which ones should be selected for the final phase of the study. It would be at the discretion of these boards what decisions are made and what further direction was to be provided to the RWSA staff and its consultant. The meeting is open to the public, and following this meeting, new information would be posted on the RWSA website. One more Public Outreach Meeting would be scheduled at or near the time our consultant recommended the preferred alternative.

Mr. Gaffney further stated that RWSA would appreciate the citizens filling out a meeting evaluation form located on the sign-in table outside the Conference Room. This information would be helpful to Rivanna in planning future meetings. He also reminded citizens to sign the meeting register and provide RWSA with their e-mail address if they had not already done so.

Mr. Gaffney wished everyone a safe travel home and stated that he hoped to see them again at the next meeting.

Mr. Gaffney adjourned the special meeting of the RWSA Board of Directors at 8:55 p.m.

Respectfully Submitted,

Mr. Robert Tucker
Secretary - Treasurer