



RIVANNA WATER & SEWER AUTHORITY

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MINUTES OF SPECIAL JOINT MEETING AND WORK SESSION

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

March 3, 2005

A special joint meeting and work session of the Albemarle County Board of Supervisors (AC BOS), the Albemarle County Service Authority Board of Directors (ACSA BOD), the Charlottesville City Council (CCC), and the Rivanna Water & Sewer Authority Board of Directors (RWSA BOD) was held on Thursday, March 3, 2005, at 9:00 a.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 discuss the four water supply concepts currently under consideration for the Community Water Supply Plan as follows: the South Fork Rivanna Reservoir Dredging concept, the South Fork Rivanna Reservoir Expansion (4-foot crest) concept, the James River Intake concept, and the Ragged Mountain Expansion concept.

AC BOS PRESENT: Mr. David Bowerman, Mr. Kenneth Boyd – Vice-Chairman, Mr. Lindsay Dorrier, Jr., Mr. Dennis Rooker – Chairman, Ms. Sally Thomas, Mr. David Wyant.

ACSA BOD PRESENT: Mr. Robert Humphris, Mr. Robert Larsen, Mr. Hollis Lumpkin, Mr. J. Randolph Parker - Chairman, Mr. Clarence Roberts, and Mr. Donald Wagner – Vice-Chairman.

CCC PRESENT: Dr. David Brown - Mayor, Mr. Kevin Lynch, - Vice Mayor, and Mr. Rob Schilling.

CCC ABSENT: Mr. Blake Caravati and Ms. Kendra Hamilton.

RWSA BOD PRESENT: Mr. William Brent, Mr. Michael Gaffney – Chairman, Mrs. Judith Mueller, Mr. Gary O’Connell, and Mr. Robert Tucker.

ALSO PRESENT: Ms. Nancy Barker – VHB Project Team; Mr. James Bowling – ACSA BOD Legal Counsel; Mr. Craig Brown – City Attorney; Ms. Ella Carey – Clerk to AC BOS; Mr. Larry Davis – County Attorney; Mr. William Ellis – Legal Counsel to RWSA on the Community Water Supply Plan; Mr. Tom Frederick – RWSA Executive Director, Mr. Aaron Keno – Gannett Fleming Vice President and Project Principal; Mary Knowles – RWSA Executive Secretary; Mr. Kurt Krueger – RWSA Legal Counsel; Ms. Debi Moyers – Senior Deputy Clerk to AC BOS; Ms. Susan Rohm-Briggs – ACSA BOD Administrative Office Associate; Ms. Jennifer Whitaker – RWSA Chief Engineer;



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ACSA, City, County, and RWSA staff; members of the public; and media representatives.

1.0 Call To Order

Mr. Michael Gaffney, Chairman of the RWSA BOD, welcomed everyone in attendance at the special meeting of the AC BOS, ACSA BOD, CCC, and the RWSA BOD. He stated that the first item of business would be for the Chairman of each board to call the special meeting of its board to order as follows:

The special meeting of the RWSA BOD was called to order by Mr. Michael Gaffney on Thursday, March 3, 2005 at 9:08 p.m., and he noted that a quorum was present.

Mr. Dennis Rooker called the special meeting of the AC BOS to order on Thursday, March 3, 2005 at 9:08 p.m., and he noted that a quorum was present.

Mr. J. Randolph Parker called the special meeting of the ACSA BOD to order on Thursday, March 3, 2005 at 9:08 a.m., and he noted that a quorum was present.

Mayor David Brown called the special meeting of the CCC to order on Thursday, March 3, 2005 at 9:15 a.m., and he noted that a quorum was present with the arrival of Vice Mayor Kevin Lynch.

Mr. Gaffney noted that the meeting was being taped. He requested that everyone speak loud enough so their comments could be recorded for the minutes that would be prepared for each of the boards.

Mr. Gaffney again expressed his thanks for everyone's attendance and the time they had dedicated to assist RWSA with this very important community issue on meeting future water supply needs. He commented that the plan's development entailed a very complex set of processes involving technical data, public participation, and regulatory permitting. Each of these processes was important to the success of the project. The goal of this special meeting was to provide a better understanding of the current status of this project and to afford the opportunity for comments and concerns to be put forward to both RWSA and to the other respective boards and council.

Mr. Gaffney explained that the format for today's meeting resulted from citizen comments offered at the series of Public Outreach Meetings held by RWSA between November 2004 and February 2005 on the four concepts under consideration, including a meeting on February 17, 2005 that allowed for public comment on the comparison of all the concepts and combinations of the concepts. At these meetings, many citizens requested that a work session of the deciding

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boards be held for an exchange of dialog on these issues. Today's meeting was designed to accommodate this discussion among the boards.

Mr. Gaffney noted that a public comment segment was not included on the meeting agenda in order to maximize the opportunity for the boards to discuss the issues. He stated that each of these boards have regular meeting agendas with opportunities for public comment, so there would be further opportunities for members of the public to provide comments on today's proceedings and before the process has been completed. RWSA was grateful for the public interest in the Community Water Supply Plan process as evidenced by the comments submitted and the number of citizens in attendance at this meeting. RWSA has also posted written public comments to its website at www.rivanna.org and will continue to do so after this meeting.

Mr. Gaffney commented that his desired outcome from this meeting was that each person would gain a better understanding of the results of the studies to date, the public input received, the decision-making process, including the regulatory process, and the timeline for decisions. In addition, RWSA staff and its consultants had recently taken four "Short-List" concepts, and through combinations of these concepts, had expanded the list to nine possible alternatives, all of which satisfied the projected 9.9 MGD deficit. RWSA will need future direction as to which of the nine alternatives to include in the final phase of the engineering work, taking into consideration the regulatory process and awareness that the number of alternatives to be evaluated impacts the costs and the time frame for completing this phase of the project. There would be an opportunity during the meeting for discussion on this matter. If the boards were not ready to make such a decision today, then RWSA would request that an agreement be reached on a plan or strategy for moving forward to determine the preferred alternative(s).

Mr. Gaffney next reviewed the proposed meeting agenda. As there were no modifications or questions offered by the boards, Mr. Gaffney stated that he would proceed to the "Review of Prepared Questions and Answers Regarding Water Supply Concepts."

Mr. Gaffney reported that RWSA staff and consultants were present at the meeting table to assist with the discussion concerning the "Prepared Questions and Answers" and introduced them as follows: Mr. Tom Frederick – RWSA Executive Director, Ms. Jennifer Whitaker - RWSA Chief Engineer and Project Manager for the Community Water Supply project, Mr. William Ellis – Special Legal Counsel to RWSA on the Community Water Supply project and recognized expert on the legal issues related to The Clean Water Act and the regulatory process, and Mr. Aaron Keno – a Principal with Gannett Fleming, RWSA's engineering consultant. Mr. Gaffney stated that also present at the meeting was

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Ms. Nancy Barker of VHB Consultants who provided the assessment of environmental impacts and mitigation for the Water Supply concepts.

Mr. Gaffney noted that in the interest of allowing multiple opportunities to participate during this discussion, it might be necessary for him to request at any point in time that questions, comments, and statements be kept within a reasonable time. He then asked Mr. Frederick to give a brief overview of this material.

Mr. Bob Tucker, member of the RWSA BOD, suggested that before Mr. Frederick gave his overview, the Chairmen and the Mayor from the various boards and council present today be given the opportunity to share what they felt was the desired purpose for the meeting or if there were other issues they wanted to address today.

Mr. Dennis Rooker, Chairman of the AC BOS, stated that there were some fundamental questions that he felt needed to be answered early in the process. One of the questions concerned whether there were any options under consideration that the regulators would likely not approve. He felt that there also needed to be a better understanding of what the decision-making process entailed. It had been stated at various times in the public meetings that ultimately the regulators selected the options, and he wanted to address the issue as to where local input ranks in the decision-making process. Mr. Rooker further inquired if the projected 9.9 MGD deficit was a fixed number that could not be altered as the plan moved forward. He also commented on the 12 MGD demand figure and whether it was possibly too high, given the average water consumption rates of about 10 MGD over the past three years. Mr. Rooker then asked Mr. Kenneth Boyd to share comments he made concerning the process.

Mr. Kenneth Boyd, Vice-Chairman of the AC BOS, stated that he felt going through all the questions and answers concerning specific options would take a great deal of time. He was more concerned with discussing the decision-making process and how the boards, council, and authorities would interplay during the development of the plan.

Mr. Boyd further commented that he felt the structure of the RWSA Board needed to be reexamined due to the feedback received from their constituents concerning the lack of elected representation on that board. He also felt that the structure should involve both the City Council and the Board of Supervisors in a proactive rather than reactive mode.

Mayor David Brown stated that since there was a lot of public interest in this issue and as elected representatives of this body, he felt a brief overview of the prepared questions and answers would be appropriate as well as addressing questions not

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on the list that were felt to be pertinent and were of decision-making importance. He added that he appreciated the opportunity for the various boards to express their thoughts and to spend some time on the process.

Mr. Rooker stated that another fundamental question concerned the July 2005 deadline. He inquired as to what was driving that deadline and if it would be possible to partially extend the deadline in order to implement intermediate or short-term solutions and postpone the long-term solutions.

Mr. J. Randolph Parker, Chairman of the ACSA BOD, stated that his board was primarily interested in the decision-making process and how the bodies would interact in order to reach a decision. He personally thought that there needed to be a better understanding and coordination between these bodies and RWSA consultants so that everyone was working as a team with the same information. He further stated that his board felt that it had a charge to plan for the future water needs of its customers.

Mr. Tom Frederick, Executive Director of RWSA, next provided a brief review of the prepared questions and answers regarding the water supply concepts.

Mr. Frederick stated that the document he would be reviewing contained 20 pages of text, followed by a graph illustrating the properties along the SFRR that could be affected by the four-foot crest concept, and 2 pages of tables that provided the same information presented graphically at the February 17, 2005 Public Outreach Meeting on water rate impacts. Much of the material was a revisit of issues previously discussed in one of the public forums. He felt that it would be useful information to reference during the discussion concerning issues of particular interest to the boards represented at the meeting.

Mr. Frederick commented that the purpose of this document was to share the best information available to date, recognizing that the boards would be faced with making very important and difficult decisions in the near future based on complexity of the information.

Mr. Frederick then explained that the questions were grouped by category. On page 1, the first question dealt with the Beaver Creek Reservoir and addressed the staff recommendation to the RWSA BOD in October regarding using Beaver Creek as an augmentation for the Urban system for drought management. Due to the uncertainties of the long-term demand figures for Crozet, it was decided not to allocate parts of the Urban system demand to the Beaver Creek Reservoir in this study.

Mr. Frederick next discussed the SFRR Dredging and Sediment category, which began on page 2 through page 8. The largest number of questions in the

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document related to this particular issue. The questions included regulatory issues, the appearance of the reservoir if dredging did not occur, and the cost estimates associated with this concept. He pointed out that the information on page 4 concerned the practices that could be undertaken as a community to possibly limit the amount of sediment issues that would need to be faced in the future. He noted that some of these practices already exist in this community.

Mr. Frederick then reviewed the discussion on the SFRR 4-foot Crest Gate category, which began with Question 13 on page 8. The most significant question related to this concept concerned the assessment of environmental impacts that were listed in the Technical Memorandum and the issue of mitigation. There was also some discussion about "sequencing" that is used by the regulators to assess which alternatives could move forward in the process.

Concerning the James River alternative, Mr. Frederick referenced the table located near the top of page 13 which compared the water quality data for the James River raw water sources versus RWSA raw water sources.

Mr. Frederick commented that further down on page 13, questions concerning Water Conservation and Demands were listed. He then pointed out the bulleted sections on page 14, which listed the conservation measures currently being implemented by ACSA and the City of Charlottesville. He felt it was important to point out the positive measures that are being undertaken in this community.

Mr. Frederick also pointed out Question 24 on the bottom of page 14, which dealt with the issue of using 12 MGD as the starting point for computing future demand, Question 25 on page 15 relating to Cost and Rates, and again directed the group's attention to the graph and tables located at the back of the document related to rate impacts. Mr. Frederick added that RWSA staff had already done extensive work in converting the cost estimates provided by Gannett Fleming to assess potential rate impacts over time.

Mr. Frederick stated that the final category dealt with Regulatory/Management Issues that did not relate to a specific alternative but concerned the overall process. Questions concerning these items began with Question 29 on page 18 and continued through Question 33 on page 20. He noted from previous discussions that key questions related to what concepts, if any, are the regulators not likely to approve and how would the decision-making process be handled locally were addressed in this category.

At the conclusion of Mr. Frederick's overview, Mr. Gaffney opened up the floor for questions and discussion from the group.

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Vice Mayor Kevin Lynch inquired if the Upper and Lower Ragged Mountain improvements could be separated from the rest of this process and what was specifically driving the deadlines.

Mr. Frederick responded that the Department of Conservation and Recreation (DCR) had some serious safety concerns associated with the condition of the dam should a flood or earthquake event occur. Although those events were not likely to happen, potential consequences associated with dam failure could be very grave and DCR felt that it was an issue that needed to be addressed. He then explained how the Ragged Mountain Dam rehabilitation project had interacted with the Community Water Supply Plan process. He stated that RWSA was considering raising Ragged Mountain in various possible configurations as one of the water supply alternatives. For RWSA to proceed with the design work and repairs to the dam without taking into consideration the role Ragged Mountain would play in the Community Water Supply Plan could result in a considerable amount of money being spent on the engineering design work only to reach a point in the Community Water Supply Plan process where a different direction is indicated. As a result, the project could incur even greater costs in order to correct the design work and thereby delay the process. Due to these issues, RWSA had decided to consider the rehabilitation work in the context of the Community Water Supply Plan. DCR had granted RWSA a year, from July 2004 until July 2005, to make the decisions on the rehabilitation work and indicated that DCR had expressed concerns to RWSA staff regarding any further extensions of the deadline.

Mr. Bill Ellis, RWSA special legal counsel for the Community Water Supply Plan, added that the permit issued to RWSA by DCR last summer from their perspective, arguably, required more than a decision by the July 2005 deadline. DCR considered the condition of the dam as serious and would want to see tangible progress in the actual design work and thereafter construction improvements to satisfy their safety concerns.

Mr. Lynch rephrased his question and asked if it would be possible to solve a portion of the community's water supply needs in the context of dealing with dam safety issues.

Mr. Ellis responded that it was not possible from a regulatory point of view to answer a portion of the water supply question independently from the rest of the plan. What had been discussed was the possibility of repairing or rehabilitating Ragged Mountain Reservoir in such a way that the dam could be raised in the future as a water supply measure. One problem with this option is that a considerable portion of the cost of such a project would be in the engineering design and the foundation work. There is the potential that this investment could be lost if Ragged Mountain was not selected as a component of the Community Water Supply Plan. From his perspective, he felt the best course of action would

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be to make a decision if possible concerning dam safety at the point in time where you also have a solution in mind for water supply purposes.

Mr. Rooker noted that the cost for raising Ragged Mountain Dam by 13 feet was \$5.87 million. If Ragged Mountain was raised by 13 feet, or some other number of feet, could it also be built to accommodate a bladder to gain additional water supply and be part of the Community Water Supply Plan? He also inquired as to the amount of additional volume and safe yield that would be gained by raising Ragged Mountain by 13 feet. He felt that it might be more cost effective at this time to raise the dam and include the Beaver Creek Reservoir in the demand equation, which would extend the time before a long-term solution would be needed.

Mr. Ellis stated that building Ragged Mountain to 13 feet might emerge as an alternative or the preferred alternative that satisfied regulatory requirements and could be permitted, but this would not be known until the water supply study has been completed. It was his understanding that the Beaver Creek Reservoir could augment the Urban system until about 2018. At that point, the Ragged Mountain component would have been built and the Beaver Creek contribution would be retired or phased out so that source could continue to provide water to the Crozet system.

Mr. Rooker further commented that he did not believe that all the capacity of Beaver Creek would be lost to the Urban system in the next 40 to 50 years. The analysis was based on a large user coming to the Crozet area and utilizing the former ConAgra facility.

Mr. Ellis replied that the addition to safe yield that has been attributed to Beaver Creek for the Urban service area was based on the assumption that all the water to be released from Beaver Creek and flow down the river would in fact make it into the SFRR. He questioned whether the water could reach that distance during a drought situation. This issue arose in other projects that he worked on, and DEQ was unwilling to provide gallon-for-gallon credit for water to be released based on the assumption that some of the water would be lost in the stream channel or in the river during drought events.

Mr. Rooker further inquired if the Ragged Mountain Dam was raised 13 feet, could it be designed in such a way that when the supply from Beaver Creek was declining a bladder could be added to increase capacity.

Ms. Jennifer Whitaker, RWSA Chief Engineer, stated that although different heights were being proposed in the different alternatives, each of them had a slightly different concept on how that dam would be built. The concept for building up to 13 feet entailed that the earth buttress would be removed and the

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existing structure rehabilitated. Any higher than 13 feet, including building the dam to 13 feet with the option of later additions, would require the construction of a separate dam facility and would add significant costs to the project.

Ms. Sally Thomas, member of the AC BOS, stated that unless we planned to abandon the Ragged Mountain Reservoirs, something had to be done about the facility. If a decision was made to raise the dam by 13-foot, it was her understanding that the addition would take it to the original water level. If a choice could be made before July between the 13-foot rehabilitation and the 13-foot level that would someday become a 33-foot dam and the design work could begin at that time, then we would not have made a 50-year commitment. A decision would have been made to maintain the existing reservoir, which would allow time to utilize the information received after July to shape our long-term water supply solution.

Mr. Ellis stated that he wanted to clear up a misunderstanding. He commented that simply replacing the Ragged Mountain Reservoir safe yield from the existing two dams would entail breaching the upper dam and raising the lower dam 3.2 feet, which is not the 13-foot alternative. Raising the dam by 13 feet would involve expanding the reservoir and increasing safe yield. From a regulatory perspective, when you seek permission to augment the reservoir versus simply replacing the existing facility, all the various permit programs are brought into the process to evaluate all the alternatives.

Mr. Lynch commented that the cost estimates for raising the dam 13 feet was \$5.87 million and \$1.5 million of environmental impacts, which roughly totaled \$7.5 million for about 15 years of additional safe yield. Could the dam be built right to 13 feet without the bladder to its existing capacity? Authorization had already been approved by City Council and ACSA in 2002 to move forward with the \$15 million bond for RWSA, with \$5 million of that amount earmarked for the Ragged Mountain rehabilitation project. For a \$2.5 million incremental cost, additional safe yield could be obtained with this option.

Mr. Lynch also responded to previous comments concerning DCR's concerns with the condition of the Ragged Mountain facility and their expectation that engineering design work would be completed by the July 2005 deadline. It was his understanding that some of that engineering design had already taken place and preliminary work indicated that the earthen buttress could be removed and replaced with a concrete buttress. He inquired as to when this project could begin and what regulatory approvals would be needed.

Ms. Whitaker asked Mr. Lynch if he was referring to the option that would raise the lower dam by 3.2 feet.

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Mr. Lynch stated that he was referring to the alternative to raise the dam by 13 feet. He further stated that he felt the most significant cost associated with raising the dam was replacing the pipeline from Sugar Hollow to Ragged Mountain. The \$29 million cost might need to be phased in over time as sections of the pipeline are replaced. The incremental costs to repair the dam itself and to provide the additional safe yield were very low. He felt this option deserved to be considered in isolation to determine if it could be accomplished within DCR parameters. Raising the level of the dam and replacing the pipeline could then be done at a later date.

Mr. Frederick asked Mr. Aaron Keno to respond to Mr. Lynch's question concerning the time frame and design work associated with this project and what the regulatory ramifications would be if a decision was made to raise the dam by 13 feet rather than performing the rehabilitation work.

Mr. Aaron Keno, consultant for RWSA with Gannett Fleming, stated that he would address the question concerning the time frame and design work first. He stated that a project of this size and nature is gauged by construction seasons for accomplishing the work. Due to the fact it was March, it was not possible to accomplish all the needed design work in order to begin construction this summer. He commented that if a decision on the preferred alternative were made quickly and permits obtained, then the earliest date that the construction work could begin would be next year or possibly even the following construction season in 2007.

Mr. Keno next discussed the issue of "phasing." He stated that practically speaking, there were a number of options associated with how the facility is constructed. In general, decisions made now would affect what you would be able to accomplish in the future. For example, if you were able to rehabilitate the existing structure in its current configuration and did not design and construct for future expansion, you would lose that potential. A decision on the ultimate height of the dam would also need to be made at that time. It was his view that you would not want to proceed with the design work unless you were reasonably certain that the project would receive regulatory approval. He pointed out that there were environmental impacts associated with these options that increased with the degree of expansion planned.

To reinforce Mr. Ellis's previous comments, Mr. Keno stated that to gain the safe yield that you currently have at the two dams you would need to raise the lower dam a little over 3 feet and breach the upper dam. These actions would provide an equivalent amount of safe yield. The 13-foot raise would be done for two reasons: 1) It is an optimal increase in height because of the existing structure and the ability to rehabilitate the existing structure to that height; and 2) it is roughly coincident with a pool level basin that would back the water up to the toe of the slope to Interstate 64. If you continue to increase the pool height above 13

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feet, you encounter more technical issues with the embankment. There were also logistical issues related to rehabilitating the current structure or building a new structure immediately downstream. One of the issues associated with rehabilitating the existing structure in its current location would be reducing the pool, which could possibly involve a significant draw down to do the work.

Mr. Ellis commented on the regulatory issues associated with the project. He stated that some form of authorization from both the U. S. Army Corps of Engineers and the State Water Control Board would be needed before you could raise the pool level elevation at Ragged Mountain to 13 feet. From his perspective, before the work could be started, studies supporting this request would need to be completed and submitted for regulatory review. The regulatory agencies would then have to agree that the 13-foot rise at Ragged Mountain was part of the alternative that satisfied their requirements. Once the permits were obtained, you could proceed with the design and construction process.

Mr. Lynch commented that it appeared from their comments that it would be easier to obtain regulatory approval in the context of the overall water supply plan rather than in isolation from that process.

Mr. Ellis asked Mr. Lynch if his reference to "isolation" concerned raising the dam by 13 feet.

Mr. Lynch replied that he was referring to the 13-foot project in the context of addressing DCR's concerns with the dam.

Mr. Randy Parker inquired if 50 years was the time frame required by the regulatory permitting process.

Mr. Ellis responded that the 50-year number came first from standard practice. Secondly, it had recently been tentatively adopted and endorsed by the Commonwealth of Virginia as the standard planning window. Although it is possible to adopt a short-term option, the U.S. Army Corps of Engineers and DEQ want to see that you have taken a long-term perspective, that you have selected an alternative that is environmentally sound, and that you are planning responsibly.

Mr. Gaffney inquired as to how often the 50-year plan would need to be revisited.

Mr. Ellis stated that the plan is revisited as often as needed, depending on your demand and available water supply. The standard from the Department of Health calls for a revisit of a plan when capacity reaches about 80 percent. At this point, there is no requirement specifying that you need to reevaluate your plan after a certain time frame.

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Mayor Brown stated that there appeared to be a disconnect between the dam safety issue and the water supply process. He commented that he did not see a difference with proceeding with the work separately or as part of the water supply solution. On one hand, we would be expected to put money and time into the design and construction work to address dam safety concerns. In both cases, we would face the issue of meeting the regulatory requirement to select the least environmentally damaging alternative and could be denied a permit based on that mandate.

Mr. Ellis restated Mayor Brown's question for clarification purposes. He understood that Mayor Brown was concerned that after deciding to include raising Ragged Mountain 13 feet as part of the water supply solution, informing DCR of this decision, proceeding with the design work, and submitting a permit application to the U.S. Army Corps of Engineers and the State Water Control Board, the regulatory agencies respond that the 13-foot extension on the Ragged Mountain Reservoir is not an approvable alternative. Mr. Ellis stated that this scenario was theoretically possible. What was expected at the completion of the water supply studies was the selection of a defensible and correct choice of what would or would not satisfy regulatory requirements. The extent to which we would proceed with the submission to DCR and performance of the design work would depend on the degree of confidence with the results of the water supply studies. He felt that when the studies were completed we would have a much better idea which alternative or alternatives would get regulatory approval.

Mr. Rooker referred to Question 31 which stated: "Are we presently considering options that the regulators are unlikely to approve? If so, why?" He commented that the answer suggested that neither the four-foot crest nor dredging is likely to be approved, and he felt that further discussion was needed to better understand the certainty of that response. If that was the case, then only two options were under consideration at this time.

Mr. Ellis stated that Mr. Rooker was correct in pointing that out. The only clarification he would offer was that the question was referring to concepts and not particular alternatives. With respect to the four-foot crest gates, our environmental consultants and engineers have related to us after reviewing the studies that any alternative you attempt to incorporate that concept into results in environmental impacts to wetlands and to stream channels that are substantially higher than any of the other alternatives. With respect to dredging, any of the alternatives that you attempt to incorporate that concept into results in costs that are disproportionate to the costs of the other alternatives.

Ms. Sally Thomas commented that she was encouraged by discussions she had with Environmental Protection Agency (EPA) policy staff that there would be value in decisions made by localities to maintain the present infrastructure and

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particularly not to go outside of the watershed to seek water supply solutions. She asked Mr. Ellis to comment on this issue.

Mr. Ellis stated that he did not feel that the issue was a question of policy versus regulatory practice. He was aware of the preference by EPA and other regulatory agencies to continue the best and most efficient long-term use of the existing infrastructure. He thought that there was a misconception in the community that the SFRR might be abandoned, which was not the case. The SFRR and the treatment plant adjacent to it would continue to be used under any of the scenarios.

Mr. Keno added that in any of the scenarios that were evaluated, the SFRR treatment plant was maintained in those alternatives and continued to draw its raw water from the SFRR. Depending on the concept evaluated, there was varying proportions of water coming from either SFRR or Sugar Hollow. Regardless, the SFRR and the treatment plant were critical to all the alternatives.

Ms. Thomas noted that Mr. Keno referenced Sugar Hollow and asked if he meant the Observatory Treatment Plant.

Mr. Keno responded that he meant in terms of water being released from Sugar Hollow Reservoir along the river, captured at SFRR and used at the South Fork Treatment Plant. The water from Sugar Hollow could be used at Observatory through that pipeline or released into the river. In some of the scenarios, the water from Sugar Hollow is significantly recaptured at the South Fork Treatment Plant.

Mr. Ellis added that it was important to remember that since the SFRR was built in 1966 or 1967, there have been very few occasions during which droughts were so severe as to cause the reservoir pool to fall below the spillway elevation and thus cause the dam to stop spilling water. Even as the reservoir continues to accumulate silt, there would still be water in the reservoir and water flowing over the dam most of the time so the existing infrastructure will continue to be used. It is the few occasions of very severe drought when additional supplies would be critical.

As a follow-up to his previous question, Mr. Rooker inquired if Mr. Ellis felt, based on his best analysis, that the response to Question 31 had been answered with a great degree of confidence that if we moved forward with a plan that included in any way the four-foot crest concept or the dredging concept it would not gain regulatory approval.

Mr. Ellis responded that he felt very confident with the answer to that question.

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Mr. Lynch stated that he wanted to rephrase Mr. Rooker's question on that issue and incorporate Ms. Thomas's earlier statements. He inquired that given EPA had identified preserving the existing infrastructure as being at least a policy priority, and given that there appeared to be local environmental support for the SFRR four-foot crests and dredging of the SFRR, and given that raising of the crests at SFRR and raising the Ragged Mountain Reservoir pool level to 13 feet would accomplish in excess of two-thirds of the community's 50-year water supply needs, and given that RWSA already had the rate structure in place to support the bond that would be necessary to accomplish both the SFRR four-foot crests and the raising of the Ragged Mountain Reservoir pool level, what were RWSA's plans to convince the regulators that these concepts were in fact feasible, least environmentally damaging options. He stated that as identified in the "white paper," there were some ambiguities as to how the wetlands mitigation might be treated. For example, the regulators might take into account the wetlands that would be created by the building of new dams. There also might be the possibility of handling any stream issues within the context of our existing watershed.

Mr. Ellis stated that he had no plans to approach the regulators as stated in Mr. Lynch's question and would not until he received instruction from the RWSA BOD to take that action. If he did receive those instructions, he would feel compelled to advise them that he would do his best job but, that in his judgment, it would be ultimately unsuccessful.

Mr. Rooker commented that the computation of environmental impacts seemed to be incredibly simplistic. The only two items considered were stream inundation and wetlands integrity. There was a difference between mitigation policy in terms of wetlands and environmental impact. It was his understanding that mitigation policy might allow for credit to be given for wetlands created. In terms of computing environmental impacts when comparing the alternatives, he did not believe credit was given for creating wetlands.

Mr. Ellis stated that Mr. Rooker's statement was correct in that mitigation was not normally allowed to alter the selection of the "least damaging" alternative. This is known as EPA's and the Corps' "sequencing" policy. EPA first adopted this policy in the 1980's, and it has since been upheld by numerous court decisions. Unless and until there are statutory changes, the policy will need to be followed during this permit process.

Mr. Keno added that the stream and wetlands impacts were primary to the discussion in this point in time. Other impacts were also evaluated, such as, threatened and endangered species and cultural resources, and were documented in the Technical Memoranda that have been produced on the four concepts. These other issues did not provide the "stumbling blocks" to the same degree as the wetlands and stream impacts.

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Mr. Lindsay Dorrier, member of the AC BOS, commented on the Scottsville residents' concern about the alternative to build a pipeline from the James River. He asked why this option was being considered and if it was being considered seriously. He also inquired as to whether a regional approach with Fluvanna and Louisa Counties was being explored or whether the existing infrastructure of the RWSA would be utilized for this option.

Mr. Ellis first responded to Mr. Dorrier's question concerning why the concept was being considered. He stated there were two federal laws and one state law that were responsible for the option being on the table. Those laws essentially stated that before you could obtain a permit to discharge materials into the waters, a broad range of alternatives must be examined in an effort to find the one that is both practical and least environmentally damaging. The consulting team did not want to be placed in the position several years into the planning process of being questioned on why the possibility of building a pipeline from the James River was not considered and thereby delaying the process. It was necessary to place the James River Intake option on the alternative list in order to have a successful permit process.

Mr. Frederick added to Mr. Ellis's comments by stating that the Technical Memorandum written on this concept pointed out that if this concept moved forward in the process, there would be more specific routing studies conducted to determine the optimal route for the pipeline. Public comments received on this option from citizens living in the Charlottesville and Scottsville areas would be taken under consideration. In order to evaluate this alternative in comparison to the other alternatives and identify for the regulators which alternative had the least environmentally damaging impacts, it required making preliminary decisions on some specifics related to cost and environmental impact issues. Based on those criteria, the Scottsville area was identified as the closest routing for the James River Intake option.

Mr. Frederick then referred to page 12, Question 21, of the prepared questions document, which addressed the anticipated impacts of the James River Intake alternative to the River and the Town of Scottsville. He suggested that citizens who had concerns with this alternative review this information. He further stated that if the pipeline was placed in the Scottsville area, there was strong interest to locate a route with the least impacts and avoid the historical and downtown areas. During pipeline construction, any temporary inconveniences or trenching issues would be resolved very quickly.

Mr. Frederick then addressed Mr. Dorrier's question concerning a regional approach for the James River Intake alternative. He stated that discussions have been held and were continuing with Fluvanna and Louisa Counties concerning having one transmission system and when it might be appropriate to consider

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conducting further studies in that area. Based on preliminary studies on a regional pipeline concept, it had not been determined at this point in the study that the Scottsville area is the best location for a regional pipeline. The regional intake would most likely be located in Fluvanna County.

Mr. Dorrier asked if RWSA was exploring a one-pipeline approach based on preliminary data.

Mr. Frederick clarified that it had not been decided if the James River Intake alternative was the preferred option or whether we should be working within our own watershed. There were two options to consider if the James River alternative was selected for further study. The first option would be for Rivanna to build a pipeline to serve the Urban area of Charlottesville and Albemarle. Another option would be to serve not only the needs of Charlottesville and Albemarle but also Fluvanna and Louisa Counties. If the decision was made between those two options to pursue the regional approach, then the better location for an intake appeared at this point, based on the level of studies conducted, to be in Fluvanna County. Mr. Frederick pointed out that all the options he just discussed were still under consideration.

Mr. Dorrier also inquired as to what would be the major factors that would influence RWSA's decision concerning this alternative.

Mr. Frederick stated that the key driver at this point was the regulatory process that Mr. Ellis discussed earlier and discussions within the community about which of the four concepts under consideration and the alternatives that could be developed from those concepts would be the preferred alternative.

Mr. Rooker stated that he was not happy that it appeared there were only two options on the table for consideration at this time and possibly three if you combined the Ragged Mountain expansion with the James River pipeline.

Mr. Ellis stated that it was his opinion that Mr. Rooker's assessment was correct. The two concepts that had potential to meet regulatory requirements were raising Ragged Mountain in some fashion and going to the James River in some fashion or a combination of the two.

Mr. Rooker asked for direction from the group as to whether they wanted to concentrate on those two options or have further discussion about the other combination of alternatives.

Mr. Lynch responded that the City of Charlottesville had a number of priorities concerning stream protection that were associated with EPA Phase 2 requirements that would be forthcoming. The City had also identified a number of possible

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stormwater mitigation projects to be implemented in the future. He understood that the County had a similar priority to preserve streambanks. He suggested that a scenario be developed for the regulators that included in addition to the bladders for the SFRR and Ragged Mountain a larger package of improvements to the watershed, such as streambank restoration elsewhere and full implementation of the City's EPA Phase 2 projects. He felt these additional improvements might cost an additional \$5 to \$8 million, which would be well within the environmental mitigation costs that were estimated to occur by raising the SFRR. He inquired if a package as he just described would change the way the regulators viewed the entire proposal.

Mr. Ellis stated that he wished he could respond that Mr. Lynch's proposal was a realistic option, but it was not consistent with how the regulatory program functions. The agencies would look at the 30 plus acres that would be inundated and the stream channel impacts and ask if the initial effects could be avoided by implementing some other projects, regardless of whether some or all those impacts could be offset in some way. The answer to that question in this case to the facts appeared to be "yes."

Ms. Thomas requested that Mr. Ellis give an example of a community that submitted a similar package and was turned down by the regulatory agencies.

Mr. Ellis responded that the James City project was such an example.

In response to Mr. Ellis's example of James City County, Ms. Thomas stated that they were proposing a new reservoir which went against the current trend for regulatory approval. She suggested giving an example of a community that was trying to preserve their infrastructure.

Mr. Ellis referred back to James City County and stated that at the time when they began the process to build the reservoir in 1984, it was not considered to have a negative impact on their ability to receive regulatory approval. Some of the environmental issues they encountered concerning a mill pond in the watershed were similar to the potential impacts for adding a bladder to the SFRR.

Concerning the question of preserving the infrastructure, Mr. Ellis understood that RWSA planned to do this and to continue utilizing all existing facilities, regardless of which water supply option is selected.

Mr. Lynch asked if any of the examples given by Mr. Ellis specifically addressed Ms. Thomas's question concerning a community's efforts to preserve its existing infrastructure.

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Mr. Ellis responded that he felt the question was based on an incorrect premise that this community would be abandoning existing infrastructure if the solution was not to increase the height of the existing dam or dredge the existing reservoir. He had explained and Mr. Keno had also pointed out that in fact both existing facilities and existing infrastructure would remain in place, continue to be utilized, and would play a major role in the future water supply planning process.

Mr. Keno added that within Rivanna's system there are two existing facilities in which expansion is possible, one which provided a significantly lower environmental impact for even more safe yield. The environmental impacts associated with raising Ragged Mountain to its full height to satisfy the full deficit were orders of magnitude less than the environmental impacts associated with the expansion of the SFRR. From a regulatory perspective when expanding existing facilities, Ragged Mountain would be favored significantly over the SFRR.

Mr. Clarence Roberts, a member of the ACSA BOD, commented that he had attended just about every meeting held concerning the proposed concepts where he frequently heard stated, "if the regulatory agencies will approve." He added that he came from a regulatory agency. He viewed the regulatory agencies not as obstacles but as resources that could provide assistance to the localities. He inquired as to why we could not use the approach that regulatory agencies were there to help us through this process.

Mr. Bob Humphris, member of the ACSA BOD, commented that during the presentation at the Public Outreach Meeting concerning the dredging concept, it had been proposed that all the sediment be removed from the SFRR in order to return the reservoir to its original storage capacity. He asked if it would be possible to conduct maintenance dredging that would allow the SFRR to keep its current storage capacity and if that option was included in the response to Question 31.

Mr. Ellis replied in the affirmative and asked Mr. Keno if he had additional comments on this issue.

Mr. Keno stated that the dredging concept was studied from each end of the spectrum in terms of dredging all the way back to its current condition at the end of the planning period to the other end of the spectrum of no dredging. In the process of identifying the combinations of concepts as potential alternatives to satisfy the 9.9 MGD deficit, both ends of the dredging spectrum were evaluated. He added that not every single possibility was examined due to the infinite number between the two spectrums.

Mr. Rooker commented that maintenance dredging had been planned during the 2002 drought as it was felt to be the optimal time to conduct this operation, but it

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was never permitted. He asked if it was possible to get regulatory approval to conduct dredging of a limited nature to preserve the current capacity of the SFRR or would we have to develop a 50-year plan. He also inquired that since the dredging concept was not considered practicable for inclusion in future water supply planning, would that mean that we would never be able to dredge the SFRR.

Mr. Ellis emphasized that there might be certain types of dredging that could be conducted without the necessity of a permit. What had been discussed during this process was dredging for water supply purposes.

Mr. Rooker referred to previous comments by Mr. Frederick that if an option(s) was selected that did not include the expansion of the SFRR or dredging the SFRR to produce the safe yield necessary to meet the 50-year demand, we would still need to monitor the health of the reservoir. He felt that as a part of this monitoring process, we would need to obtain some permitting to conduct maintenance dredging in drought situations.

Mr. Ellis stated that there have been discussions concerning the option of contracting with someone who would be willing to dredge the material out of the SFRR because of a particular beneficial use for the material. He felt this would be a worthwhile option to pursue.

Mr. Rooker asked again if it would be possible at this time to obtain a permit which would provide us with some type of long-term permitting process to conduct a certain level of dredging to maintain the current storage of the reservoir.

Mr. Ellis stated that a particular proposal or activity with limited environmental impact and scope would need to be identified before he could evaluate the possibility of obtaining a dredging permit.

Mr. Rooker asked if the permitting process could be initiated now so that the permit would be available to conduct some type of maintenance dredging during drought situations.

Mr. Ellis responded that he understood Mr. Rooker's concerns, and this issue would be discussed further to determine if it would be feasible to obtain such a permit.

Mr. Rooker next commented on the James River Intake concept. He stated that millions could possibly be saved every year that this option was not utilized because of the interest expense on the bonds. Incremental savings could be realized each year by maintaining the SFRR through some type of maintenance dredging and thereby extend the time when the pipeline would need to be built.

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Mr. Ellis commented that the engineers have looked at this issue and determined that the reverse was actually true due to the dredging expenses. He recommended extending dredging operations as far out in the future as possible in order to minimize costs.

Mr. Rooker reiterated that he felt that cost analyses should be prepared now in order to initiate the permit process so that the community would be able to take advantage of the opportunities to dredge during drought situation as they arise when the operation would be less costly.

Mr. David Wyant, member of the AC BOS, inquired if there had been any preliminary discussion with the regulatory agencies concerning these concepts.

Mr. Ellis replied that there have been numerous contacts with the regulatory agencies and agreed with Mr. Wyant that the best approach was to have these contacts early in the process and to keep the regulatory agencies informed on the plan's progress.

Mr. Wyant asked Mr. Ellis to identify which agencies had been contacted.

Mr. Ellis stated that a large number of regulators have been contacted during this process. The principal agencies involved at the federal level included the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and EPA. At the state level, discussions have been held with the Department of Environmental Quality (DEQ), the Department of Game and Inland Fisheries, the Department of Conservation and Recreation, and the Department of Health.

Mr. Wyant further asked Mr. Ellis to name which agency on the federal level and which agency on the state level that he felt would be critical to obtaining regulatory approval.

Mr. Ellis stated that he felt the key player at the federal level was the U.S. Army Corps of Engineers in most instances. The key agency at the state level in most instances was the State Water Control Board, which acted through DEQ.

Mr. Parker commented that he felt the fundamental question that needed to be addressed by this body concerned whether we trusted the consultants in order to move forward with this process.

Mr. Lynch stated that maybe it would be better to ask how could we as political representatives help our consultants get the results that the community wanted, which were the least cost and most common sense solutions. He added that it was not so much a matter of trust as not liking the answers he was hearing today.

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Mr. David Bowerman, member of the AC BOS, stated that he was very discouraged about being able to develop any practical course of action and inquired as to what steps needed to be taken in order to arrive at a solution and get it done.

Mr. Boyd commented that this discussion brought us back to the decision-making process and the need for more involvement by the elected officials. He further suggested that a conference committee or an ad hoc committee be formed that would participate in the regulatory discussions and become an integral part of the decision-making process.

Dr. Brown commented that he would like to think that advice from consultants would be viewed the same as advice from our perspective attorneys. He added that he was still bothered by the deadline aspect of the decision-making process. For example, if one of the options left on the table involved the Ragged Mountain concept, there were a lot of questions that he felt needed to be addressed concerning potential environmental impacts. Would raising the dam to a certain height have a negative effect on the Moormans River or our local stream communities? He felt that the imposed deadline made it difficult to fully explore those types of issues. Dr. Brown further stated that if it was agreed that raising the Ragged Mountain Dam by 13 feet was the direction the community wanted to pursue, he did not see a down side with moving forward with this project to satisfy dam safety concerns. This would allow for more time to fully explore all the options before submitting a permit application to the regulatory agencies.

Mr. Frederick responded that RWSA would continue to suggest that decisions on the Ragged Mountain Dam be made in concert with the water supply plan. The key reason for this approach was that the Ragged Mountain Dam Rehabilitation work could be designed to accommodate future water supply needs. The design work would need to be handled in a different manner if a number of water supply options were left on the table for future consideration. He added that to repair the dam at its existing volume was about \$5.2 million, which involved buttressing the existing dam. This project would not allow you the option of building a dam that could be expanded later. The other option of raising the dam 13 feet would cost about \$5.8 million. As Mr. Ellis previously advised, if a decision was made to proceed with this project, you would need to approach the regulatory process in the same manner as you would for the water supply plan since you would be expanding the water supply with the 13-foot raise of the dam.

Mr. Frederick further commented that instead of repairing the dam, another option would be to build a new dam at the height of the existing structure. The substructure could be built to support infinite options to raise the dam at a later date but would involve a much greater cost than the other options discussed.

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RWSA consultants could provide cost estimates if the boards wanted to pursue this option.

Mr. Lynch stated that he agreed with Mr. Boyd's comments concerning the role of the boards in this process. He also commented that he felt there was a difference between the role of a consultant versus that of an attorney. Political bodies are often presented with two courses of action by legal counsel where one of the choices would require surmounting difficult obstacles. There was an opportunity and some precedent for overcoming at least initial obstacles when dealing with state and federal regulatory agencies. Once a low-cost, community-supported option had been identified, he felt that it should become a priority to take quick action and do whatever is necessary to take that to its conclusion.

Mr. Gaffney explained the goal of this meeting was not to select one option but to narrow down the nine alternatives so we could proceed to the next level.

Mr. Rob Schilling, member of the Charlottesville City Council, stated that we needed to understand the downside of pursuing a course of action as suggested by Mr. Lynch and devise a back-up plan in case regulatory approval is not possible. This body needs to understand the level of confidence in the consultants' decisions and reach agreement on whether it is a reasonable approach or get new consultants. He felt that the community was requesting that action be taken on the plan.

Mr. Boyd clarified that he was not trying to convey that he did not trust the consultants. He stated there were different paths to different resistances. He felt their role as elected officials was to select the path to take during this process.

Mr. Schilling agreed with Mr. Boyd's statement and stated that is why he felt there needed to be a level of understanding of the degree of confidence in our consultants.

Mr. Rooker followed up Mr. Boyd's and Mr. Schilling's discussion by stating that he did not believe it would be inappropriate to get a second opinion. There would be additional costs involved with this action. He added that he was not comfortable proceeding in a direction that was completely contrary to the advice of the consultants who have had experience with the regulatory permitting process. After all the options had been thoroughly evaluated, it would come to a point when we would either have to accept the advice and move on or get a second opinion.

Mr. Lynch commented that he understood from the consultants that the options supported by the community would face regulatory obstacles but had not heard

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that these concepts definitely could not be approved. He asked what would be the likelihood of successfully getting those options permitted.

Mr. Rooker stated that this question has been raised to the consultants numerous times during the meeting and the answer every time has been that the options would not get approved.

Mr. Rooker also inquired that if you submitted a package of options that were low cost and more practicable but had high environmental impacts, at what point does the fact the options are more practicable outweigh potential environmental impacts.

Mr. Ellis responded that guidance from the U.S. Army Corps of Engineers and EPA delineated that when the cost of the alternative becomes totally disproportionate to the costs of the other alternatives, it could then be regarded as not being practicable and therefore not satisfying regulatory criteria. He stated that as a practical matter what was going to be regarded as totally disproportionate depended on what environmental interests were at stake. He added that the only judicial guidance on this question came from a case involving the Ware Creek Reservoir. The United States District Court indicated that an alternative that cost 50 percent more than another alternative was disproportionate in terms of cost.

Mr. Lynch stated that they were not discussing a 50 percent additional cost but referring to a project that had already been paid for with a \$15 million expected bond issuance versus a \$100 million cost.

Mr. William Brent, member of the RWSA BOD, stated that the rate had been set but the \$15 million had not yet been collected.

Mr. Lynch added that the rate had been set to support the bond issuance; therefore, there would be no incremental costs associated with providing for two-thirds of our 50-year water supply needs.

Mr. Lynch stated that he heard Mr. Ellis refer to the 50-year water supply planning as an agency standard and inquired if that was a regulatory requirement.

Mr. Ellis replied that the regulatory agencies request that you provide planning for 50 years.

Mr. Parker stated that it was his understanding that the predicate of Mr. Lynch's question was incorrect. He did not believe that we could still place a four-foot crest on the dam for \$10 million. What has been learned since that figure was presented was that the environmental costs would be much greater and therefore substantially increasing the cost of that project.

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Mr. Rooker commented that the cost of the SFRR 4-foot crests was about \$27 million versus the \$133 million cost of the James River Intake by itself. The alternative package that Mr. Lynch referenced was about \$40 million. You also need to consider the \$15 million already approved for a bond issuance.

Ms. Whitaker clarified the information presented at the Public Outreach Meeting on February 17, 2005 concerning total project costs. She pointed out that when comparing total project costs, you need to be sure that you are comparing total package numbers and not alternatives within those packages. She referenced Alternative 4, which included raising the Ragged Mountain Dam and the 4-foot Crest Gate at SFRR, and noted that it would cost significantly more than \$40 million in order to accomplish all of the components within that alternative package.

Mr. Rooker felt that part of the premise being raised by Mr. Lynch was that if we did not satisfy the 50-year projected deficit with his proposed package, there was a combination of options much less expensive to satisfy maybe a 25 to 30-year demand. He felt this brought the discussion back to his original question concerning the 12 MGD starting figure for computing future demand. There was a 9.9 MGD requirement to meet the 50-year projected deficit. For the past few years, demand has averaged around 9.5 to 10 MGD. He inquired if there was an exponential effect in their figures due to the per household consumption figure being based on 12 MGD and not the present figure of about 10 MGD. He felt that future households would be added at a higher demand rate than what would actually be occurring. He asked again if the 9.9 MGD as the 50-year figure was a fixed amount that could not be changed. If it were possible to reevaluate that 9.9 MGD number, then maybe some of the lower cost options would become doable because they are more practicable and perhaps they satisfy the lower projected demand.

Mr. Ellis stated that he understood Mr. Rooker's question. He stated that he would answer it by explaining the purpose of the requirement that you plan for the long term for at least a 50-year period. The agencies included that requirement precisely to keep applicants from proposing the least-costly option that would supply the future water needs for 15 to 20 years but would be very environmentally damaging. The 50-year time frame was imposed so that applicants would be required to evaluate the options that might appear less costly in the interim but could prove more costly in the long term. He reiterated that the purpose of the 50-year requirement was precisely to rule out alternatives such as raising the SFRR by four feet. The permit application does not have to provide for the immediate construction of all improvements in a 50-year plan. Regulators want to ensure that the least environmentally damaging and practicable alternative would be selected based on a long-term planning basis. They are not going to approve a permit application based on the premise that all the other alternatives,

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because they cost so much more than a 4-foot crest gate in achieving that first incremental water supply, are impracticable.

Mr. Rooker commented that he did not believe that was the message this group was trying to convey but rather it was felt by many in the community that the 12 MGD starting demand figure was 20 percent high and were inquiring if the 9.9 MGD figure could be reevaluated based on the 10 MGD demand numbers that have occurred over the past few years. The demand need and per household usage was being extrapolated out to 50 years based on this 12 MGD starting figure. This reevaluation process could possibly result in a package of alternatives previously considered on an interim basis to become more practicable in the long term.

Mr. Gaffney commented that he wanted to address the concerns expressed with the use of 12 MGD as the starting demand figure. He stated that was the number we are required to use based on regulations. He asked if we could develop a 50-year plan that would allow us to utilize a option that would take us out to 15 to 20 years and then reevaluate the demand curve within 5 to 10 years. If that number was adjusted or some of the other costs change, would we be able to examine another option that could solve the remainder of the 50-year period.

Mr. Ellis stated that he would first answer Mr. Rooker's question concerning the demand figure. He believed that the demand analysis that had been conducted remained accurate regardless of any short-term fluctuation and it did not use exponential forecasting. If there were really serious reasons to believe that those demand predictions were wrong, then we would be truly back to "square one." We would need to begin the process all over again with new demand predictions and evaluate the alternatives to meet the new demand figures, if they were in fact significantly different from the existing number. He had no reason to believe that the current figure was not accurate.

Mr. Rooker questioned that when you start with a demand figure of 12 MGD versus the actual current demand of 10 MGD, why would that not lead you to an incorrect conclusion.

Mr. Parker stated that the demand figures that Mr. Rooker was referencing were County numbers and did not reflect the overall system. The numbers being evaluated by the consultants were based on peak demand at peak periods.

Mr. Keno stated that the 50-year demand projection started at a higher number than the current demand figures due to the linear regressions that were done based on all the data collected up to the drought. That figure was then adjusted 5 percent to reflect aggressive water conservation measures that would be implemented during that time frame. Another approach that was not used by the

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consultants would be to use all of that data to arrive at the 10 MGD figure. Then you would need to project a very short-term recovery in that demand as observed in other systems.

Mr. Rooker noted that the demand figure was at 12 MGD before the drought and has remained consistently around the 10 MGD figure since that time.

Mr. Keno added that it takes several years to determine if the demand would remain constant. He noted that the driest year of record occurred in 2002 followed by the wettest year in record in 2003. He felt that using the demand figures from 2004 was too short a time frame to gauge future trends in water consumption rates.

Dr. Brown inquired if our current conservation measures were aggressive enough or was there room for improvement. Concerning the City's rebate program for low-flow toilets, he questioned what percentage of existing toilets in Charlottesville had been replaced in that program.

Mr. Brent stated that it was also important to point out that in most recent demand analysis, the per capita consumption numbers were lower than what was used in the regional studies. He added that for the ACSA, those numbers were 99 gallons per capita per day to 92 gallons per capita per day.

Mr. Ellis commented that his perception was that the discussion was on a line that ultimately would not be helpful in moving in the desired direction. The demand figures had already been discussed extensively with the regulatory agencies that he mentioned previously. He thought it was fair to say that those agencies regarded those projections as having been reasonably and responsibly developed. If the community was not in agreement with this assessment, then the question would need to be asked whether you were prepared to start the process over with new demand figures.

Ms. Thomas commented that the public needed to be assured that in fact these were the best figures. She stated that she would like to be able to see the figures that were submitted to the regulatory agencies, especially the demand that was determined by population growth. She would also like to see what the usage figures were for households and the economy drivers in the community. The reason less water is being used today than in 1999 was due to the loss of large water users.

Mr. Frederick stated that the demand study upon which these figures were based had been on the RWSA website for a number of months. If the report was no longer on the website, he would see that it was posted again to the site.

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Mr. Keno stated that four different methodologies were used in the demand study to project future demand. Based on the Comprehensive Plan, the future demand figure was projected to be 18.7 MGD in 2005, minus the existing safe yield, resulted in the 9.9 MGD projected water supply deficit. Two of the projection methodologies indicated that the number might exceed 20 MGD in 2055. While it is prudent to consider whether the number should be less, it was also prudent to consider whether the demand figure should be more than 12 MGD.

Mr. Boyd wanted to address again the issues of where we go from here and what the decision-making process would entail. The public wants a decision on how to resolve the future water supply needs of the community.

Mr. Frederick referred to Question 33, which stated that consistent with the Four-Party Agreement responsibility for water supply matters as a practical matter rests with the RWSA BOD. The RWSA BOD wanted this process to include input from this group. He suggested that this group needed to make a decision on this matter.

Mr. Robert Tucker, member of the RWSA BOD, asked whether all the elected and appointed officials, including the ACSA BOD, wanted to be part of the team that participated in the decision-making process or would they recommend a smaller representative group assume this responsibility. He commented that he would not take any action as a member of the RWSA BOD unless directed by his board.

Mr. Rooker stated that he thought it would be feasible to have one or two representatives from each board participate with RWSA during discussions with regulatory agencies and review information provided by the consultants.

Mr. Gaffney suggested that at this point it made sense to narrow down the nine alternatives to a few options for consideration by the individual boards.

Mr. David Bowerman, member of the AC BOS, stated that if a decision was made today to build a large enough dam base to raise Ragged Mountain by 45 feet, build it to 13 feet at this time in order to deal with the dam safety issues that required resolution by July 1, 2005, there would be a specific course of action that could be voted on today.

Mr. Lynch commented that the costs for building the dam base that could accommodate a future 33 foot addition are not substantially higher than raising the dam 13 feet. He felt that we could move ahead on this project and make a decision later as to the dam height.

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Mr. Frederick stated that RWSA would provide the board with the cost estimate for building a new base to the existing level of the Ragged Mountain Dam and another cost estimate for building a new base and going to 13 feet. He suggested that they reserve judgment until they reviewed these cost figures.

Mr. Ellis stated that the consulting team was hoping to complete its studies and have all the necessary information to identify the potential alternatives that would satisfy regulatory requirements by this summer. At this point, the consulting team feels that they have sufficient documentation with respect to all the concepts except the James River Intake, raising Ragged Mountain, and some combinations of these two concepts. From a regulatory perspective what was required was to finish those studies, prepare the necessary reports, obtain a decision from this group as to which option or options you wish to permit, and then prepare the supporting permit application and documentation.

Mr. Rooker commented that implicit in Mr. Ellis's remarks was the conclusion that there were really only three concepts. As they proceeded with this process, they would move forward with the documentation on those three options because from a regulatory standpoint, that any option that included the 4-foot crest and dredging would probably not be able to get permitted as part of the 50-year water supply plan.

Mr. Ellis asked if there were any other items that the group would want the consulting team to study from an intermediary perspective and environmental purpose that the group had not already evaluated and in their judgment would not require being part of the regulatory process but might be required for the group's purpose.

Mr. Dorrier stated that he would want input into consideration of the James River pipeline concept as well as the Town of Scottsville and would recommend that the group as a whole be part of future discussions so that all viewpoints could be represented.

Mr. Boyd stated that he has attended all but one Public Outreach Meeting. The public have offered a number of questions concerning these concepts and questioned whether RWSA had been able to provide answers to all these citizen inquiries.

Mr. Frederick stated that to the best of his knowledge, those questions were incorporated into the prepared questions and answers document, along with input provided from this group.

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Ms. Thomas commented that there was public concern on the appearance of the SFRR if it was allowed to atrophy and inquired if that issue was included in that document.

Mr. Frederick referred Ms. Thomas to Question 5 on page 4, which addressed that issue. He also noted that on the bottom of page 4 there was discussion concerning the possibility of implementing a well-prepared continuing monitoring program on the condition of the SFRR.

Mr. Lynch stated that as elected officials they should look at the demand projections on the RWSA website to see if there were land use and conservation assumptions that were built into the numbers and determine if there were other programs that could be included that would drive the demand figures lower. Since he felt that the project had not really gotten underway, he did not believe that reevaluating the demand numbers would cause any delay in the process.

Mr. Rooker questioned what would be the impact to the process if new demand projections were developed.

Mr. Ellis felt it would set the project back several years. Although a preferred alternative had not been selected, he did not feel that meant a lack of progress. The consulting team had worked very hard to identify alternatives that would satisfy projected demand, which would need to be reevaluated based on the new demand numbers.

Mr. Lynch inquired how this reevaluation process would specifically set back the process. If the demand figure was lower, he felt that the less costly alternatives would become more feasible.

Mr. Ellis stated that a different alternatives and different ranges in combinations would need to be evaluated, which could potentially change the combinations of alternatives that would brought forward for further study. He further commented that if it were the decision of these boards and the RWSA BOD to pursue dredging, then he would do everything he could to get it permitted.

Mr. Dennis Rooker acknowledged the good job that RWSA had done in getting the information out to the public. He asked if the consulting team could furnish information as to how the process would be impacted if the demand figure were changed.

Mr. Ellis stated that they would not be able to furnish that information without having a definite figure in mind.

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Mr. Boyd stated that he was not necessarily recommending that a new demand study take place. He was in favor of having additional meetings as an entire group as the process was being refined.

Mr. Humphris inquired if the group could obtain a breakdown of the portion of the safe yield that would be provided by each of the components within the alternatives.

Mr. Keno remarked that it was an excellent and perceptive question. He stated that if it were very easy, not very costly, and not very time consuming to evaluate these nine potential alternatives, it would make a lot of sense to do that breakdown. RWSA's reservoir system is very complex and would require very detailed raw water modeling in addition to what already had been done. During the final stages of this project, this raw water modeling would be performed on the alternatives that were chosen to advance in this process leading to a preferred alternative. This breakdown would also be important to correctly size the water treatment plants.

Mr. Robert Larsen, member of the ACSA BOD, inquired if it would be possible for this group as a whole or a smaller group to meet with the regulatory agencies concerning this process.

Mr. Ellis commented that typically the regulatory agencies would be involved with a smaller working group due to their work schedules.

Mr. Larsen further inquired if a smaller ad hoc committee could possibly meet with the regulatory agencies and report back to the whole group.

Mr. Lynch suggested talking to the Governor before we approach the regulatory agencies to ensure that the community's considerations are factored into the regulatory process.

Dr. Brown first thanked everyone for their hard work on this project. He commented that their approach to asking challenging questions on the process to date was not intended as a challenge to the integrity of the process but rather as a way to publicly ensure that everyone was comfortable that a thorough examination of the issues had been addressed and could move forward with the process. He was in agreement with Mr. Boyd that it was important that a meeting be held with the group as a whole to ensure that all aspects were discussed.

Mr. Parker noted the deadline associated with the Ragged Mountain Dam rehabilitation work and felt that a decision needed to be made on a process for proceeding with that work.

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Dr. Brown suggested that one person from each body be part of a smaller group working with RWSA as they move forward with this process who would then report back to their respective boards on the plan's progress. A meeting of the entire group could be held at a proper point in the process.

Mr. Lynch further suggested bringing the whole group back together in a month after this ad hoc group has had an opportunity to meet.

Mr. Frederick stated that RWSA desired to work very closely with this group during the process. He further stated that we are at a decision point now where we need to know which of the nine alternatives you want RWSA to evaluate in the final report. There was limited work that could be done until that decision was made. He noted that there was still much work to be done concerning the Ragged Mountain rehabilitations work, and if a decision is not made soon, RWSA would not be able to meet the July deadline set by Dam Safety.

In response to Mr. Frederick's comments, Mr. Lynch stated that he felt it was important for the group to meet as early as possible. He also suggested that in the interim RWSA keep working on the Ragged Mountain project to determine the possibility of proceeding on multiple fronts simultaneously.

Mr. Boyd asked if the consultants could provide them with a written evaluation of which alternatives they felt could be permitted and the reasoning for their decisions.

After further discussion on this issue, Mr. Gaffney stated that if that was the request of the boards he felt that Mr. Ellis would provide that information in a written report.

Mr. Ellis commented that he would encourage the boards to seek a second opinion if that was their decision.

Dr. Brown stated that he would like to provide opportunity for public input as the process moved forward and the list of alternatives was narrowed down.

Mr. Lynch stated that the boards also needed to individually work on this project and possibly meet with DEQ to discuss our options.

Mr. Rooker suggested that before we consider going to DEQ separately, we needed to determine from our consultants if that strategy would help or hurt our cause.

Mr. Lynch asked if the consultants could provide them with a report outlining what regulatory obstacles would have to be overcome in order to pursue the community-supported alternatives and to get them permitted.

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Mr. Gaffney stated that Mr. Ellis would provide the requested written reports as soon as possible. A follow-up meeting would be scheduled with the entire group in the next three to four weeks.

As there was no further discussion, Mr. Gaffney announced that the special meeting of the RWSA BOD was adjourned at 12:22 p.m.

Mayor David Brown adjourned the special meeting of CCC at 12:22 p.m.

Mr. Dennis Rooker adjourned the special meeting of the AC BOS at 12:22 p.m.

Mr. J. Randolph Parker adjourned the special meeting of the ACSA BOD at 12:22 p.m.

Respectfully Submitted,

Mr. Robert Tucker
Secretary - Treasurer