

An adjourned meeting of the Board of Supervisors of Albemarle County, Virginia, and special meetings of the Albemarle County Service Authority Board of Directors (ACSA), the Charlottesville City Council (CCC), and the Rivanna Water & Sewer Authority Board of Directors (RWSA) were held on Tuesday, November 25, 2008 at 2:00 p.m. in "CitySpace" in the Charlottesville Community Design Center, 100 5th Street, S.E. (downtown mall side of the Market Street Parking Garage). The Board of Supervisors meeting was adjourned from November 25, 2008. The purpose of the meeting was to discuss the community water supply plan.

PRESENT: Mr. Kenneth C. Boyd, Mr. Lindsay G. Dorrier, Jr., Ms. Ann H. Mallek, Mr. Dennis S. Rooker, Mr. David Slutzky and Ms. Sally H. Thomas.

ABSENT: None.

ACSA BOARD OF DIRECTORS PRESENT: Mr. Jim Colbaugh, Mr. Robert R. Humphris, Mr. John Martin, Dr. Lizbeth Palmer, Mr. Clarence Roberts, and Mr. Donald J. Wagner.

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

RWSA BOARD OF DIRECTORS PRESENT: Mr. Gary Fern, Mr. Michael Gaffney, Ms. Judith Mueller, Mr. Gary O'Connell, and Mr. Robert Tucker.

OFFICERS PRESENT: County Attorney, Larry W. Davis.

ALSO PRESENT: Albemarle County, ACSA, CCC and RWSA staff, members of the public and media representatives.

Agenda Item No. 1. Call to Order.

Mr. Michael Gaffney, Chairman of the RWSA Board of Directors, welcomed everyone in attendance at this special meeting. 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 Board of Directors was called to order by Mr. Gaffney at 2:00 p.m., and he noted that a quorum was present.

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

The adjourned meeting of the Board of Supervisors was called to order by the Chairman, Mr. Kenneth Boyd at 2:02 p.m., and he noted that a quorum was present.

The special meeting of the ACSA was called to order by the Chairman, Mr. Wagner at 2:03 p.m., and he noted that a quorum was present.

Mr. Gaffney first presented a background summary of the permitting process. He stated that the environmental permits for the Ragged Mountain Dam and the South Fork pipeline have been issued by both the Virginia Department of Environmental Quality (DEQ) and the US Army Corps of Engineers (the Corps). It was important to note that RWSA submitted an application to these agencies in 2006 after receiving the unanimous support from each of the same four boards meeting today. The federal and state agencies performed a thorough review of RWSA's application "in accordance with federal law that strongly emphasized environmental protection." The purpose of today's meeting is to discuss how we might revisit the approved community water supply plan in light of recent challenges. Other communities have faced similar challenges during the transition from the conceptual design to the more detailed design of a complex project. Among the challenges we face are unprecedented economic times where it is difficult enough to trend gasoline prices much less a complex project like the Ragged Mountain Dam. Recent media stories have suggested that the reason for revisiting the water supply plan is to ensure that the community's priorities "best fit our environmental objectives." This is a "noble" goal, but he reminded everyone that federal and state agencies have already performed a similar review prior to issuing the permit. Any studies must align with the objectives of federal law as well as local objectives. The federal objectives include protection of streams, wetlands, endangered species and their habitat, cultural and historic resources, and in-stream flows for our rivers. He believes that City Council's intent to call for additional study is aligned with those objectives, as their resolution emphasized the need to "remain consistent with the context of the approved permits."

Mr. Gaffney further stated that as the boards discuss how the water supply plan might be revisited he asked that "we all celebrate that despite our current challenges we are today farther down the path of achieving our goal to provide our long-term water needs than ever before." The current goal should be to build and improve on the success this community has attained through its hard work and avoid steps that could reverse the process. The current challenges start with the interpretation of geophysical data by

Gannett Fleming (GF). Borings to collect geophysical data are typical during the preliminary design of a dam after the project has been approved in concept. It is not unusual for geophysical data to include some "surprises," as the data comes from borings into the ground revealing characteristics that cannot be otherwise observed. In August GF informed RWSA staff that its interpretation of data was still a "work in progress" but believed that the recent data suggested a need for a much deeper concrete dam foundation, as much as 60 feet below ground in places as compared to an assumed average depth of 20 feet during the conceptual phase. Their interpretation was also focused on an opinion that the core walls into the side slopes of the valley might also need to be deeper leading to an increased project cost. Recent media accounts have focused heavily on the GF estimate but very little has been written recently about the second opinion offered in September by another dam engineering firm, Schnabel Engineering. Mr. Gaffney noted that RWSA has not endorsed the interpretations of GF, which reflect the opinion of one firm. Schnabel Engineering offered a separate opinion detailing a number of approaches and strategies that can substantially reduce the cost in GF's report. Based on this "compelling" report, RWSA Board in September authorized RWSA staff to draft a Request for Proposal (RFP) to solicit a panel of dam experts to clarify design criteria that would optimize the cost. In October at Mr. O'Connell's request, the Board asked that RWSA staff to delay the issuance of the RFP to allow further review of the staff's draft. On November 3, City Council asked RWSA to broaden the expert review of the project to include water conservation and a review of the reasonableness of water demand projections, a dredging feasibility study, and review of the pipeline alternatives in addition to the dam review. Mayor Norris will explain City Council's request in more detail.

Mr. Gaffney also commented that today's objective is to engage in an active dialog in an attempt to reach consensus of the four boards on the scope of the expert review and then give clear direction to RWSA on how to proceed. Recent media conversations focused on the potential cost of the expert study. As feedback to guide today's discussion, RWSA staff contacted a few national consulting firms and provided them a copy of the [City Council's] November 3 work outline. While reluctant to provide detailed work or written opinions without compensation, consultants provided some oral "ballpark" estimates in the range of possibly \$750,000 to \$1.0 million. Some at this table have commented that they wanted the study to cost less. If that is the group consensus, he asked that the focus be on how to simplify the scope of work outline, while still achieving clearly-stated objectives.

Mr. Gaffney then stated that today's meeting is a discussion of the four boards and no public comments will be received. He also mentioned that he was confident each board would reflect on prior public comment in making decisions at this meeting. As none of the members of the four boards had any procedural questions about the meeting agenda, Mr. Gaffney requested that Mayor Dave Norris outline the City Council's position on the scope of the work for the study.

Mayor Norris thanked the members of the public in attendance and welcomed the opportunity to discuss this issue with the other boards about the scope of work for the expert panel that was offered in City Council's resolution at the November 3 City Council meeting.

Mayor Norris next noted that City Council was not asking for an extensive delay in this project. There was a "pause" in the project's work because of the issues just outlined by Mr. Gaffney. There is an opportunity now to obtain better information that will guide us as the project moves forward – "objective, outside opinion on the most environmentally and economically responsible path forward for the community's water supply plan." There is also time to get better information and make better decisions since it will be at least one to one and one-half years before construction begins on the Ragged Mountain Dam.

Mayor Norris then distributed a written statement to the members of the public in attendance at the meeting that summarized City Council's thinking on November 3 when they adopted the resolution. He then read from his written statement as follows:

"Earlier this year, City Council and the Board of Supervisors passed resolutions adopting a framework for a 50-year water supply plan, and we are now moving forward on implementation of that plan. The resolutions that we passed called for development of stronger measures to promote conservation and efficiency of water use as well as measures to maintain the South Fork Rivanna Reservoir (SFRR) for the long-term potentially to include dredging.

Two of the proposed action items on Council's November 3 resolution follow directly from those earlier resolutions. One is to commission a study to explore how we are using our water today and how we can institute stronger measures, vis-à-vis conservation, increasing efficiency, etc. While we as a region have made some incremental progress in this regard in recent years, we need to look at best practices, emerging technologies, and incorporate systemic improvements that will result in concrete and significant water savings over the long-term versus short-term fixes of the sort that we look to in times of drought and then subsequently 'undo.' Based on the outcomes of this study, we should update our 50-year demand projections and adjust our water supply plan accordingly. [Item] two is following on the recommendation of the SFRR Stewardship Task Force ... commission a feasibility study and related analysis for dredging the reservoir and institution of practices to minimize future siltation of the reservoir. Taking such actions would produce as yet some undetermined amount of water supply gains, and the water supply plan should be adjusted accordingly.

Another of the action items on Council's November 3 resolution mirrors a decision that the RWSA Board had already made, as Mr. Gaffney just explained, which is to 'impanel' a small group of outside experts to review the cost estimates, scope of work, and design considerations for repairing or replacing the Ragged Mountain Dam. Based on that panel's recommendations as to the best path forward, adjust the water supply plan accordingly.

The last action item is very similar, which would be to 'impanel' a small group of outside experts to review the cost estimates, scope of work, and design considerations for construction of the SFRR – Ragged Mountain pipeline, so we don't find out ten years from now that the pipeline is going to cost substantially higher than expected or encounter some other potentially fatal obstacles. We won't know precisely how much any pipeline will cost until a 'full bore' engineering analysis is completed, but we need to reassure our taxpayers and ratepayers that this pipeline is at least sound in concept and preferential to the alternatives. As part of this review the expert panel should assess the potential for enlarging the pipeline as a way of minimizing the needed storage capacity of the Ragged Mountain Reservoir and provide an objective analysis of the advantages and disadvantages of constructing this new pipeline versus continuing to rely on the Sugar Hollow pipeline as a vehicle for filling the reservoir. Based on the recommendations of this panel, we have the opportunity to adjust the water supply plan accordingly."

Mayor Norris said he did not believe that the items suggested in his statement would amount to \$750,000 to \$1.0 million in cost, nor delay the project 12 months or longer as suggested by others. He believes that there is the opportunity and time now to gather this information, and City Council recommends that this is the best process to undertake at this time.

Mr. Boyd stated that he had no prepared remarks but was commenting as a starting point for further discussion that City Council appeared to be questioning the work that has been done previously, with the exception of the data from the borings that GF suggested would increase the cost of the dam from previous estimates. There was also some question about the future demand needs. He does not know where it was pointed out that the past studies were inaccurate. There were also questions about how much more water could be conserved, which has also been studied and is ongoing. These were his personal views and not necessarily shared by his colleagues.

Mr. Rooker said when the County received the resolution passed by City Council, it was discussed at a Board of Supervisors meeting with Mr. Frederick also present. Mr. Frederick was asked about the potential cost of these studies and relayed the same \$750,000 to \$1.0 million figure. Mr. Frederick also indicated that it would take nine months to one and one-half years to complete the studies. Based on that information, the Board of Supervisors felt it necessary to meet with the other Boards to discuss these issues further as it was important that whatever decisions were made that it be done with unanimity. There is a need today to determine through input from Mr. Frederick and his staff the potential costs and time for conducting these additional studies and whether it was felt that these studies would delay implementing the project in some way. He believes the estimated costs for the studies might have led City Council to view this matter differently. He hoped the Councilors were correct in their belief that the studies would not cost that much. Mr. Rooker suggested that RWSA staff elaborate further on the cost and time estimates as compared to the deadline imposed by Dam Safety for repairing the dam and whether additional time could be granted. Dam Safety could possibly require that the reservoir be drained until the repairs were made. The existing community water supply would be significantly impaired if that were to occur.

Mr. Gaffney said Mr. Rooker is requesting further clarification on the \$750,000 to \$1.0 million estimate and asked Mr. Frederick to address this issue.

Mr. Rooker also requested clarification on the estimated time period from beginning to end to complete the proposed studies.

Ms. Thomas referenced Mayor Norris' comments that the additional studies would not delay construction of the dam, and questioned when RWSA staff felt construction work could begin if the expert panel began its work as expected.

Mr. Frederick commented that staff information is not detailed and has been shared with the Boards previously. The consultants were reluctant to provide detailed information without compensation, and RWSA had not been authorized to pay these consultants to provide estimates on the project costs. He asked a few senior executives he personally knew to give him some "ballpark" ideas over the phone based on the scope of work faxed to them. He had to promise them that he would not use their names or attribute statements to a particular consultant. The information provided to the Boards was a compilation of their statements. It was intended as helpful feedback to move the process forward and is an indication and not an exact quantity. During the initial community water supply planning process, ten public meetings were held and a lot of expense and time was associated with those meetings. There are a lot of objectives to balance in making decisions. If the intent is a quick, short process and limited amount of spending, then the focus of the scope should be on the technical aspects of the work. PowerPoint and other forms of public presentations or public input outside the context of the technical study might be helpful to the process but adds to the cost and time. He does not have a detailed breakdown on the costs that he could share at this time as they were quick phone conversations to obtain "ballpark" figures.

Mr. Frederick next addressed Ms. Thomas' question. When GF stopped its work in August 2008, the project was on schedule to have drawings produced by the end of December for bidding on the construction of the dam foundation, which is about a four-month time frame. When Schnabel Engineering reviewed GF's data, questions were raised as to whether GF's approach to having two contracts – one to excavate the foundation first followed by a contract for the concrete structure – was the right approach. The expert panel would be asked to review this issue and advise if construction in two phases or as one contract was the best approach.

Mr. Rooker commented that RWSA had planned to issue an RFP to retain an expert panel to conduct a review of the Ragged Mountain project data. He asked Mr. Frederick if the RFP was expanded to include additional elements as outlined in City Council's resolution, how long it would take to update the

RFP. Also, if the RFP was written requesting a quote on the work previously "contemplated" and then quotes on Item 2 through 6 in the resolution, how long would it take to complete the RFP? If a decision was made today to undertake these additional elements of study by the expert panel, then estimated costs and the time frame to complete the work would be received from the RFP process.

Mr. Boyd asked Mr. Frederick if RWSA was looking to recruit individuals that were expert in this field and not a single company in order to evaluate existing data and not something new. He believes that City Council's resolution would greatly change the RFP.

Mr. Frederick stated that the expert panel being suggested would consist of representation by multiple firms. After solicitations were received, experts would be selected from possibly more than one of these firms. It could possibly involve more than one contract being developed. He stated that the scope of the panel process would be determined after the panel members were selected and a moderator chosen.

Mr. Frederick next addressed Mr. Rooker's question about how different studies might be conducted and how it could impact the project schedule. If properly structured, multiple studies could be undertaken on parallel tracks, depending on the amount of detail requested.

Mr. Rooker asked Mr. Frederick if the other items being requested by City Council would be appropriate for a single firm to undertake.

Mr. Frederick responded that a dredging feasibility study, water conservation, and the pipeline feasibility study could be undertaken by individual firms. The question is whether you would like individual firms to undertake these studies independent of the dam expert panel. There would be a higher cost associated with having individual studies be further reviewed by a panel.

Dr. Brown inquired if the expertise desired for the expert panel would fit with a study of the pipeline alternative as well as to its feasibility.

Mr. Frederick responded that it would be fair to say that there would be individuals who would be qualified to review the Ragged Mountain Dam project data as well as the feasibility of the pipeline. RWSA did not want to connect the two studies because they wanted the best dam experts to review the data and not be restricted to firms that could also do the pipeline work.

Mayor Norris asked if RWSA had an estimate on the cost for the expert panel to review the dam design work?

Mr. Frederick replied that when discussing the expert panel with the Board of Supervisors, contacts had not yet been made to solicit some "ballpark" figures. Within the "context" of some of the phone calls he made after November 3, he would estimate on the low end of about \$150,000 to \$200,000 or possibly \$300,000.

Mr. Boyd commented that it appeared City Council was questioning the validity of the work that had already been done when the initial 32 alternatives were identified, which were reduced during the public input process. He asked whether an expert panel or firm would be hired to review the information to determine whether or not the data was valid.

Mayor Norris replied that the reason for the November 3 resolution was to avoid finding out sometime in the future that the pipeline project will cost much more than estimated or there are other obstacles that would be problematic. City Council was not asking that the expert panel conduct an independent engineering analysis on the pipeline, but to review all the available information and provide their best objective opinion as to whether this was the best approach.

Mr. Boyd inquired if City Council envisioned holding a public input process during the pipeline review.

Mayor Norris said it would be very similar to what was being suggested for the review of the Ragged Mountain Dam project. There is a lot of information on hand that the panel would review in order to reassure the public that this proposal is "sound." The water conservation element would require some analysis and probably some public "engagement." Mr. Ridge Schuyler from The Nature Conservancy estimated that this study would cost no more than \$50,000. The dredging feasibility study would probably be the recommendation of the South Fork Rivanna Reservoir (SFRR) Stewardship Task Force, which is not necessarily a new proposal. New items "on the table" as a result of the November 3 resolution include \$50,000 for water conservation study. He further estimated that it would cost about \$200,000 to contract a group of experts to study the pipeline proposal unless the proposed expert panel could broaden its scope and review both the Ragged Mountain data as well as the feasibility of the pipeline.

Dr. Palmer commented that if the expert panel had been formed prior to receiving the data on the recent borings performed at the dam site, their recommendation might have been that this was a "great project" and the all the data was found to be valid. Having an expert panel examine the pipeline proposal without doing an extensive engineering study now might still result in finding problems ten years later. The same problems could have been encountered if the James River pipeline had been pursued.

Mayor Norris said that Dr. Palmer's comments were "fair" and that there would be uncertainty until a full engineering analysis was performed.

Mr. Wagner questioned why we want to spend money now when the data will not provide the full answers.

Mayor Norris replied that there have been a lot of "legitimate" questions raised about the pipeline, and the public needs to be reassured about moving forward with this option.

Mr. Wagner asked what questions have been raised about the pipeline since the community water supply plan had been approved by all four Boards that made City Council decide to review the process.

Dr. Brown stated that many of the neighborhood associations have expressed concern about the price of the dam. He recognized that the neighborhood associations had probably received part of their information from a story in "The Hook," which did not mention the fracture lines found in the rock and implied that the cost increase was the result of underestimating by the consultants. A lot of residents are concerned about whether they were receiving accurate estimates on the dam, and "by extension" whether the estimates for the pipeline project were reasonable or contained some type of "improper methodology." He wants to hear some information from Mr. Frederick about whether the rising estimates on the dam itself was due solely to the presence of the fractured rock and the need to deepen the foundation or were there other reasons why the estimates have increased.

Mr. Frederick commented that in today's economic climate, it is difficult to estimate how much something will cost with certainty. When RWSA learned of this increase in August, it was mentioned that a \$37.0 million project in 2005-2006 would have at that time been a \$42.0 to \$43.0 million project based solely on inflation in the construction industry. RWSA has publicly stated that the major reason for the change in GF's estimate was due to their assumption based on their geophysical data review that the dam foundation needs to be much deeper in the ground than what was originally proposed. Contractors will incorporate the current fluctuations in gas prices when bidding on a project with a 24 to 36 month time frame, unless RWSA ties fuel prices to some type of index for construction projects.

Mr. Dorrier said that the issue was the increased cost in dredging and locating a site for the sediment removed from the reservoir. He inquired if there had been any changes in the cost since this option was initially discussed. He understood that a quarry site near the reservoir had been identified for the sediment material.

Mr. Frederick said the best way to determine the cost of a dredging operation would be to conduct a feasibility study similar to what Gahagan & Bryant has recommended. A private entity with a quarry has recently "stepped forward" and during verbal discussions offering this site as an alternative for the "dredge spoils" rather than RWSA owning or buying a site, which did not occur three years ago. A private entity offering this service could result the dredging operation to be less costly than previous estimates, which GF acknowledged in their report.

Mr. Rooker stated that a way to determine current market prices for a dredging operation is by issuing an RFP and receive bids on the project.

Mr. Frederick stated that if a study is conducted similar to what is being recommended by Gahagan & Bryant with a disposal site identified then better estimates would be received. As Mr. Rooker mentioned, the only definite way to know the current price for dredging is to solicit bids. Prices can also fluctuate during the construction phase of the project.

Mr. Boyd clarified that dredging by itself will not solve the 50-year water needs of this community.

Mr. Frederick replied that Mr. Boyd's comment was correct.

Mr. Boyd further stated that there might be some variances in the height of the dam, but we will still need to do something else besides dredging, such as some type of water impoundment/supply.

Mr. Frederick commented that this community has received a complete review of the safe yield analysis done by GF; the review was performed by Hydrologics and paid for by The Nature Conservancy (TNC). During discussions about stream flows, GF was able to compare and calibrate GF's model data with Hydrologics. It was important to note that two firms independently came to the same conclusion regarding the safe yield. GF estimated that about 85 percent of the original volume of the SFRR could be restored through a dredging operation. If you accept that assumption, the safe yield accomplished through dredging is 14.3 million gallons per day. During the community water supply planning process, the safe yield needed to meet the community needs for the next 50 years was 18.7 million gallons per day.

Mr. Huja stated that as Mayor Norris previously discussed, City Council does not expect to redesign the water supply plan process but wants to make sure that the data is valid. He also thinks that the SFRR Stewardship Task Force would recommend that dredging, whether as a separate operation or as part of the water supply plan, should occur "sooner [rather] than later."

Mr. Frederick stated that at the time the public meetings were being held and the water supply plan was advancing, there was strong interest in this community as expressed by the public input about the SFRR pipeline not carrying sediment into the Ragged Mountain Reservoir. There were proposals, including removing sediment from the SFRR, that specifically addressed that interest and concern. The pipeline project can be simplified without having to engage an expert panel. The importance of the scope of the project depends on the objectives of the community, which should be put in context to when the proposals were made.

Mr. Martin said following up Mr. Wagner's question, he asked the City if they had a "specific factual basis for the necessity for spending this additional money for these additional studies." Resolutions usually come with some "statement of the facts that support the necessity for the resolution." He has not seen such a statement. Mr. Norris seemed to indicate that part of the reason was to reassure the public that the community has the best water supply plan. He thinks that it does not matter what plan was selected as there would be elements in the public who would disagree with the actions of the governing bodies. The question should be addressed as to whether the government should be "paralyzed just because there is an element of the community that has some concerns." The focus should be more on a "statement of specific facts" that clearly identify any defects found in the prior studies before any further money is spent on this process.

Responding to Mr. Martin's question, Mr. Taliaferro stated that one of his concerns is the cost of the project. The Councilors represent the interests of City residents, who have expressed a lot of interest in this project especially with the proposed large increase. He does not want to waste any money, but he believes a lot of citizens and neighborhoods had "valid concerns" and questions they would like addressed.

Mr. Rooker said that the plan was originally supported based on cost estimates. Although he doubts this would occur, he asked if all the Boards would continue to support moving forward with the plan if the cost doubled without looking at other alternatives. He believes it would be "prudent" with the recent cost increases that seem to be occurring with the dam foundation work to make sure that the other components of the project were "reasonably estimated." He does not think it was much of a plan to just expand Ragged Mountain without looking further at the pipeline issue. Although there were differing opinions, he was not in favor of waiting ten years to go forward with the pipeline until we determine the costs and if the option is even feasible. He would not want to be in the situation where after expanding Ragged Mountain the pipeline project is found not to be feasible "for whatever reason." He thinks it was feasible, but also thought it would be helpful to have a panel of experts to review the cost estimates and determine that the pipeline can be built as outlined in the plan.

Dr. Palmer stated that she wanted to make two points. The first point concerned the Councilor's desire to make their citizens more "comfortable" with the dam cost, which she believes could be addressed by allowing RWSA to convene an expert panel to review the data. The second point concerned how to fill the dam after it has been constructed at some height. During a review of the cost of a nine-mile pipeline from the SFRR to the Ragged Mountain Reservoir, a comparison will need to be made with the other options for which complete cost estimates have not been done to this point. One of those options is the 23-mile pipeline from the James River or replacing a 13-mile pipeline across the rural areas to the Moormans River. She said an "apples to apples" comparison was needed to ensure citizens that the project is valid. She is not advocating this larger study but was pointing out that a study on the nine-mile pipeline might lead to the conclusion that the cost was too high without conducting a comparative review of the other two choices that involved longer routes with at least a similar if not higher cost.

Expanding further on Dr. Palmer's comments, Mr. Boyd said it would be difficult to find the most "practical cost" alternative with a project that was potentially ten years away from being implemented. He could "guarantee" that no matter how many studies are conducted now that the cost for building the pipeline ten years from now will be either less or more than what was estimated today based on future construction and land costs, as well as other factors. He said that any defined project cost now would encounter a similar situation ten years from now due to future market conditions, which could double the cost of the project anyway.

Mayor Norris said that lots of good issues had been raised and specifically addressed Mr. Martin's previous comments about identifying the City's specific concerns about the project. He believes the water supply plan has "suffered from lack of specificity and accuracy" with respect to the cost. The public was told that dredging the SFRR might cost \$220 million. Based on information that he felt was not that hard to obtain, that cost was "dramatically overinflated." He noted that Dr. Palmer's point was accurate regarding not knowing that the dam project would be that costly without the analysis of the borings done at the dam site. He also agreed with Mr. Taliaferro's comments that the Councilors were concerned about the increased cost of the dam project. Concerning the pipeline project, there is concern in part that it is "premised" on the construction of the Western Bypass. Some might comment that there might be better alternatives or there is another alternative if the Bypass is not built, and citizens want reassurance that the project is feasible. The conservation goals set forth in this plan of "five percent reduction per capita in conservation" are considered by many to be "woefully inadequate." Other communities have shown that the goal can be much higher without having permanent drought restrictions in place. The plan does not consider the gains in water supply from a dredging operation, so why would the community not incorporate the dredging alternative into the plan that could provide gains in the water supply and save money, acreage, and plenty of trees in the Ragged Mountain Reservoir area. He also fully agrees with an "apples to apples" comparison. Part of the reason that the pipeline was receiving some "negative press" is that people are not considering the alternatives. The pipeline might end up being the lowest cost alternative when compared to the cost of replacing the Sugar Hollow pipeline, which is the reason a request for better analysis and as accurate a comparison as possible to the other alternatives is being made at this time rather than a full engineering analysis of the borings. He does not believe that any members of the four Boards wanted to revisit the James River pipeline alternative in order to stay within the goal of the community water supply planning process, which is related to keeping the water supply in this community's watershed.

Ms. Thomas said that everyone agreed on having an expert panel review the Ragged Mountain Dam design. There were three pipelines that were being discussed, which included the James River,

Sugar Hollow and the SFRR. There was also agreement about not revisiting the James River pipeline, and there were sediment issues with some of the other pipeline options. The cost of dealing with sedimentation would need to be factored in when considering the various options. The nine-mile SFRR pipeline would offer pre-treatment to remove the silt before the water is pumped to the Ragged Mountain Reservoir, thereby preventing the water supply from silting up and making this option a "long-range bargain." The SFRR pipeline is also the most "environmentally-friendly" alternative as it would have a positive impact on the Moormans River.

Dr. Brown asked Mayor Norris to clarify his comments about the SFRR Pipeline route as to whether he meant that it was contingent upon a Western Bypass being built or it would it be taking advantage of VDOT's bypass route.

Mayor Norris clarified his comments to mean that the pipeline is planned along the right-of-way for the Western Bypass. There might be some other alternatives that the City has not heard about to this point.

Mr. Rooker stated that when this alternative was being considered, one of the options involved routing the pipeline down Georgetown Road, which he felt was feasible. It would also entail more impairment of traffic and other activities in that area than the current planned route. He said there was also a third possible option for the pipeline route.

Dr. Brown commented that he didn't want the group to get "stuck on" the idea that the pipeline was contingent upon the bypass being built.

Mayor Norris responded that if he made that statement then he "misspoke" because that is not what he meant to say.

Mr. Frederick stated that RWSA does not believe that the construction of the SFRR pipeline was contingent upon the building of the bypass. When you look at the "lay of the land" in that area between the SFRR and Ragged Mountain and based on the public input received during a public outreach meeting during the water supply process, the decision was made to locate the pipeline along the fringe of the rural areas and not down Georgetown Road. If the pipeline was being proposed in the area and if VDOT does build a road along the edge of the corridor, it would entail the least disruption of property to route the pipeline along that road. If the bypass is not built and VDOT decides to revert the property back to the original owners, RWSA does not think it makes "sense" to attempt to build a pipeline in that exact corridor. Other alternatives would be considered based on community input. RWSA does think it is feasible to build a pipeline with a slightly different corridor and does not agree with the statement that the pipeline is not viable unless the bypass is built.

Mr. Boyd expressed agreement with Ms. Thomas' earlier comments about focusing on the items on which the Boards could agree in order to reach a consensus. The first item was the request to issue an RFP prepared by RWSA to recruit an expert panel to review the design work for the Ragged Mountain Dam. There was some discussion about combining this group's work with a review of the SFRR pipeline. Mr. Boyd said that from today's discussions this additional study would not save that much money and could possibly delay the process. He believes this is an important first step and asked if there was a consensus to move forward with issuing the RFP.

Mr. Rooker said that no one had raised a disagreement about the issuance of the RFP.

Mr. Gaffney commented that Mr. Boyd was requesting a vote on the issuance of a RFP for the expert panel and then move on to a discussion on the other items.

Mr. Boyd added that he did not believe that a vote was necessary and asked if anyone was opposed to moving ahead with the RFP.

Mr. Huja commented that the study of the pipeline estimates were linked to the Ragged Mountain Dam project, since there would be no way to fill up the reservoir without the pipeline.

Mr. Boyd stated that he was not discounting that statement but thinks that the group could agree to move forward with this first step in order to determine the cost of the dam.

Mr. Rooker commented that the City included the issuance of the RFP in their resolution, and he believed that the RWSA Board of Directors was in favor of moving forward with this item.

Mr. Gaffney suggested that the group reach agreement at this time about moving this item forward, but there would also be a vote on this issue along with the other consensus items at the conclusion of the meeting.

Concerning the conservation item, Mr. Gaffney commented that RWSA only has two customers, which are the City and the ACSA. RWSA does not have a lot of control over the amount of water that its customers conserve, but those two entities have a lot of ability to affect the conservation efforts of their customers. He would suggest that the conservation study be moved to those two organizations so they can work together to improve conservation efforts in this community.

Mr. Boyd stated that he did not have any "problem" with Mr. Gaffney's suggestion as he has been impressed with the activities already been undertaken and the internal studies being done by ACSA and the City's Public Works Department.

Mr. Slutzky commented that Albemarle County had proposed language for its Comprehensive Plan specifically addressing water conservation practices, which was delayed subject to the outcome of this meeting. He believes that it makes sense to have the two bodies that are responsible for their retail customers' "behavior" to independently and perhaps collaboratively "tackle" that issue.

Mr. Gaffney stated that considering how water conservation might affect the community water supply plan and the demand study, feedback from the City and ACSA would be needed as to how it might impact the demand aspect of the permitting process by DEQ and the Corps.

Mr. Slutzky commented that the demand analysis has already been reviewed by the regulatory agencies. There might be some new thoughts on how to expand the efforts, but he could not envision that the figures would be "dramatically" different enough to change the process.

Mayor Norris stated that the City would not have recommended that item unless they thought the effort would impact the water supply. The City was not concerned about whether it was RWSA, the City or ACSA who led this effort, but wanted this analysis performed and reflected in the demand projections based on "reasonable" practices that could be implemented in this community.

Mr. Rooker commented that he wanted a better understanding of what it meant to revisit the demand projections and how it would impact the permit applications filed for the water supply plan. Some of the issues being raised now were the same ones raised by him and others during this process. He had personally thought during this process that not enough conservation practices were included in the plan in terms of establishing a demand analysis. He also thinks that the projected population numbers and the starting point for the computation of the demand analysis were also too high. However, those arguments did not "prevail," the plan was approved, and the permits were obtained. He never believed that the plan was "100% accurate" and was "based on a series of assumptions." A lot of time and money could be spent "attacking" the demand analysis to possibly find out that instead of 18.7 million gallons of water per day of safe yield only 17.2 million gallons of water per day of safe yield would be needed. He "ultimately became resigned to the fact that maybe we have a 65-year plan instead of a 50-year plan," which he felt might not necessarily be a bad outcome. Dredging by itself will not satisfy the entire projected future water need of this community, so additional measures would need to be undertaken in conjunction with a dredging operation. There were a lot of reasons why the Ragged Mountain project "made sense" to him. He thinks that part of what the City was recommending was to perform a substantial amount of work and studies to determine if the demand figure was accurate, and he was not certain what would be accomplished by this course of action.

Mr. Slutzky asked if the City had a specific reason to question the demand assumptions that were originally developed.

Dr. Brown pointed out that one of the differences between the Board of Supervisors and City Council is that the majority of the members of the Board of Supervisors participated in creating the water supply plan. He is the only current member of City Council that participated in that process. Mr. Kevin Lynch, who served on City Council during that time, is now a vocal critic of the plan. He thinks that Mr. Lynch would suggest that the demand figure could be 20 percent lower based on increased conservation efforts. These were some of the reasons that have led these City Councilors to question those figures in the same manner that was done during the initial process.

Mr. Boyd stated that he also attended the community water supply planning meetings and thought that Dr. Brown made a good point about the differences between the two entities.

Mayor Norris addressed Mr. Rooker's question about why the City was raising the issue at this time. The City was very clear in its resolution about "endorsing the framework of the water supply plan" but thinks the plan did not go far enough in "terms of conservation." Conservation is the "cheapest, easiest, and best way to extend our water supply."

Mr. Slutzky asked Mr. Norris if the City's intent was not to study the conservation issue as a "condition precedent to moving forward with the implementation of the framework but rather as a separate, parallel track" or was the City "rethinking its commitment to the water plan."

Mayor Norris commented that when the City endorsed the water supply plan, language was added specifying that the Councilors felt that the conservation measures in place were not "strong enough."

Mr. Slutzky stated that the City endorsed the "framework" but now wants to revisit the plan to address that "caveat" before moving on with the process. He was trying to understand the City's change of position.

Mayor Norris replied that "we are not saying now by the way our endorsement is contingent upon this...our endorsement was contingent upon that when we endorsed the plan."

Mr. Wagner asked Mayor Norris if his reference to "we" referred to City Council.

Mayor Norris replied that when City Council and the Board of Supervisors endorsed the plan they both included language about doing more with conservation.

Mr. Rooker said there were two different issues being discussed. The first entailed what the community does in order to improve its conservation efforts, which does not necessarily by itself impact or "hold up" the water supply plan. The second part related to whether City Council was stating that the

demand analysis should be redone and population figures revisited since it was felt that better conservation efforts could be achieved than the number included in the plan. These same issues had been raised previously during the early phase of the water supply planning process. He questioned whether this would lead to the conclusion that only 16.5 million gallons of safe yield will be needed and a position that the entire plan should be revisited based on these new numbers to see if different alternatives can be combined to achieve that new safe yield figure. He believes that all in attendance today wanted to obtain the best water for this community in the least expensive and most environmentally sound way. He then asked Mr. Frederick how a new demand study would effect the existing permit approvals.

Mr. Frederick said that Mr. Rooker asked a very important question that entered the "realm of legal advice." If this community wanted to conduct a study and hire a "strong consultant" who understands how to implement water conservation programs through educational programs, he thinks this could be undertaken without affecting the water supply plan. He has been advised to use a great deal of caution when considering redoing the demand study, since proposing a smaller figure could put into question whether the right alternative has been chosen based on federal regulations, which could require that the alternative review process be undertaken again.

Mr. Rooker said there was an assumption by some members of the public that any four or five alternatives could be combined and be automatically approved. He believes that regulators would require a lengthy process be undertaken if significant changes were made to the current approved plan, which could involve a multi-year process and multi-year public-input approach. Based on his meetings with the regulatory agencies, he believes that other than the approved plan the regulators would next favor the James River pipeline alternative as a "feasible, practicable alternative" and not some of the other components that have been discussed.

Mr. Martin commented that he was involved as a citizen during the water supply planning process since about 1998. He said that it was very "frustrating" the demand analysis and the water conservation issues are being addressed again as they were both "thoroughly, thoroughly discussed a long time ago." With respect to water conservation, five percent was considered at that time to be a conservative number and that the community could probably do better in their efforts. If you overestimate the number for water supply planning purposes, he thinks you would be "shorting yourself." By being conservative and the number is actually higher, there would be more water supply. He thinks it would be "irresponsible" to plan water supply capacity on "assumptions that the public will theoretically cooperate in the future and actually conserve." There are also many other "uncertainties" with the entire demand analysis process, including accurate population projections. The number of "water-intensive" industries that might be relocating to this area is also unknown. He believes you should "err on the side of having more water capacity than you need rather than less water capacity than you need." The community "suffers" if you underestimate your future water needs. It is clear that the real concern of people who are now critical of this plan is that they really want a "smaller water supply" and not necessarily a "better water supply," which he thinks did not serve the interests of this community.

Ms. Thomas stated that since a "City-County combined entity" will need to produce a water conservation plan by 2011 as part of our regional water plan, it is appropriate for the City, ACSA, as well as the County to be involved in water conservation planning because well users and residents in the rural areas of the County in addition to residents on the public water system will be affected by this plan. One way to reduce demand is to allow "greater sprawl" out into the rural areas, which would increase the number of people who use wells rather than the public water system. Most members of the Board of Supervisors have spent a considerable amount of time and effort establishing a "development area boundary inside which we provide public water and sewer and we don't encourage development outside that area." The County actually prefers that the water demand be on the public water system rather than "sprawling out in the countryside."

Dr. Palmer said that she did not know if the City Councilors had an opportunity to read the material that she sent out last night about how an outside firm would evaluate the City and the County's conservation efforts. The "cornerstone" of any water conservation plan is to look at a community's maintenance of water and distribution lines. This area has aging infrastructure that needs repair work, and there has been a big effort these last few years by the City and the ACSA to evaluate its infrastructure and undertake the necessary maintenance work. She thinks it would be "premature and [a] waste of money" to have an outside consultant study the community's infrastructure at this time due to the "GIS mapping" occurring now as well as the monitoring activities underway. The other aspect is on the "consumption end," and the City has many public education programs related to water conservation. Most of the growth has been projected to occur in the County, and the County will be paying more for the water supply plan proportionately than the City based on future needs. ACSA takes water conservation on the "consumption end very, very seriously," as well as maintenance of their distribution lines. Tiered pricing is in place as part of ACSA's efforts to reduce the amount of irrigation that occurs in the County as well as misuse of water in general. She noted that in City Council's resolution there is a suggestion that rate structures be reviewed, which ACSA is currently undertaking. She thinks that the public would be surprised by the number of ACSA's programs related to water conservation and its commitment towards this effort.

Mr. Roberts said that consensus building was important. In City Council's resolution there were six or more points. It would have been his wish for City Council to take that resolution "under advisement and get input from its users" so that there could be a solution or answer to each point. The RWSA Board of Directors consists of two members from the City and two members from the County. There may be some confusion among all the members of the four Boards as to how much has been done on each of these points. We should use the resources "in this room" to learn how much has been done in each of

those areas and then determine the direction to take in this process. Much of the work might have already been done in water conservation or we might want to delegate as has been suggested to the ACSA and the City their respective areas of responsibility so that we can reach a consensus and move forward with the 50-year water supply plan. His only reason for attending today's meeting was to see this community move forward on that plan. If the City requires answers to the questions in the resolution, then we have the expertise "in this room to answer a lot of those questions. At least to inform everyone around this table what has been done on each of these six points. He thinks it was important "since we are partners in this 50-year water plan, we need to be partners in this 50-year water plan." It appears to him that a significant amount of this work has already been done, has been addressed in various studies during the process, and he wanted to see the plan move forward through some type of consensus. He believes this would be possible by asking RWSA to address each of these points "to everyone in this room" and prepare a document that addresses each of those points as well as listing the work that has been done to this point and what needs to be done to reach the next level.

Mr. Huja commented that he has not seen or heard about a dredging feasibility study to date. He asked if that would be agreeable to the County and the other parties to at least conduct that work.

Dr. Brown said that he agree with the comments by Mr. Martin and Mr. Rooker that the issues of water conservation and demand were studied in depth and were challenged to the satisfaction of a lot of the people who were present at that time. As Mr. Roberts suggested, why not have the City and the ACSA look at their water conservation practices and to what degree they have been implemented, such as the degree to which toilet rebates have actually "penetrated" the market. He would be concerned if we were more "aggressive in our conservation numbers." He thinks the evidence supports that the opposite is occurring, such as the water use by the University of Virginia is rising after several years of being on the decline, even after implementing several water conservation measures. Politically, he sees more "evidence" of weakening efforts during droughts in order to be "cognizant of economic impacts" of drought measures than the willingness of the elected bodies to enact stricter measures. The County and City Council recently amended their drought ordinances that made it easier during the Drought Warning phase for the public to "sod a lawn, to water it regularly, and use more water in his opinion rather than to conserve." He suggested having RWSA look at the best water conservation practices and the degree to which they are being met, and consider hiring an outside consultant only if it were found that an additional resource would be needed in this area.

Mr. Colbaugh said he would agree with moving forward with a conservation program, especially by the ACSA and the City, so that this community does not "slip back." He does not feel that the conservation and demand figures would be lowered as a result of these studies, but that a conservation program could be developed that all the Boards and the customers could agree on in order to maintain our current efforts. He believes that it was an important program and that currently this community wasn't "doing that much" in this area and he thought we could do more. He thinks the City Manager and ACSA's Manager could work together and agree on a scope of a plan that would be funded individually, which would include finding out where water losses are occurring.

Mr. Rooker asked if 10 percent to 15 percent of the water in this area was lost due to leaks.

Mr. Colbaugh said that he thought the number was probably higher. He added that the demand projects were based on RWSA's flows and not ACSA's flows. Both the City and ACSA sell a "lot less water than [RWSA] sell[s] to us," so there is the need to find all the water leaks and fix all the pipes in order to get closer to the five percent water conservation rate. At this time, the rate is lower than five percent.

Mr. Boyd asked if he was hearing agreement on placing the water conservation responsibility back to the City and the ACSA.

Mayor Norris stated that it was more important to find out what more could be done in this community's water conservation efforts than whether RWSA or ACSA and the City conducted this study. He said there would probably be disagreement even among the Councilors as to what was done with the information. He added that water conservation and the demand figures were "intricately linked" and that the demand projections should be adjusted based on the results of this analysis. He asked that at least for now agreement is reached on moving forward with this water conservation analysis and make a decision as to whether to adjust the demand analysis at a later point.

Mr. Rooker said that there needed to be clarification as to the type of analysis to be conducted before an agreement could be reached. City Council's resolution called for the hiring of an outside firm to conduct this study, but what has been suggested today is moving forward with efforts currently underway by the ACSA and the City to improve water conservation efforts in this community and decreasing the amount of water loss to leaks without hiring an expert. He personally was in favor of moving in this direction rather than spending the money on an outside expert.

Mayor Norris commented that there is the assumption that this community is doing the best that it can and just needed to do more pipe maintenance to improve conservation numbers. He wants to see this community "think out of the box" and look at what other communities are doing in this area. He does not think it necessarily required the hiring of an outside consultant to approach this issue and believes that we have the internal ability to look at some best practices and determine how to build on the programs already in place.

Mr. Rooker suggested that the water conservation analysis could be removed as an item to be undertaken by RWSA as a condition for moving forward with the water supply plan and noted that this task would be accomplished by charging ACSA and the City with this responsibility.

Mr. Slutzky asked Mayor Norris to clarify if he viewed the identification of aggressive water conservation strategies as a separate item and was not proposing that the water supply plan be put on hold until the information became available and then revisit the demand analysis.

Mayor Norris replied that it was his personal opinion that the water supply plan should be adjusted based on the outcome of the demand analysis.

Dr. Brown commented that he would like to see the demand analysis promptly conducted and then make a decision after the results are reviewed about the next course of action.

Mr. Gaffney asked if all the Board members were in agreement about requesting the ACSA and the City to conduct a water conservation study and report its findings to the four Boards.

Dr. Brown added that he wanted those two agencies to specifically look at "best practices" in other localities.

Mr. Gaffney asked Ms. Thomas to provide an update on the time frame for the work of the SFRR Stewardship Task Force.

Ms. Thomas reported that the assignment given to the Task Force by the four Board chairmen was to be finished by the end of this calendar year, which they are working very hard to accomplish.

Mr. Gaffney next addressed the "Dredging Feasibility Study" item on the resolution, which will be based on the Task Force's recommendation on this issue.

Ms. Thomas commented that there were many options being discussed by the Task Force in addition to dredging that can be pursued to maintain the health of the Rivanna River, such as the projects that the Thomas Jefferson Soil & Water Conservation District (TJSWCD) offers to farmers and the programs that the County has implemented for construction activities.

Mr. Gaffney stated that it was his understanding that since there was money in RWSA's budget to conduct a dredging study if the four Boards agree to pursue this option, then the dredging study could move forward as outlined in the City's resolution.

Mr. Huja asked if Mr. Gaffney's comments meant that RWSA would proceed with the dredging study now.

Mr. Gaffney and Mayor Norris both stated that a dredging study would be undertaken based on the Task Force's recommendations.

Dr. Palmer stated that she must have misunderstood Mr. Gaffney's comments and asked if a vote would be taken today on whether or not to undertake the dredging study.

Mr. Gaffney confirmed that a vote on this item would be considered after the four Boards receive the Task Force's recommendations on maintaining the SFRR.

Mr. Rooker said that he does not disagree with the City's resolution on that issue. The resolution states that "if the South Fork Rivanna Reservoir Task Force recommends dredging as a means of maintaining the reservoir, RWSA will retain an engineering firm ..." and goes on to list the studies that this project might entail. He then asked if anyone disagreed with that approach.

Mr. Martin commented that he is a member of the Task Force and asked the four Boards to "keep in mind" that the Task Force is studying the question of "Why we should dredge," which may or may not lead to a decision with specific reasons for dredging. The Task Force has also been assigned to address the question about when to dredge. A decision could be made to dredge in order to maintain the SFRR for the University of Virginia's rowing programs. If dredging were to occur ten years from now, there would be no need for a dredging feasibility study at this time due to results of the study becoming "stale" by the time the project took place.

Mr. Gaffney stated that as there were no further comments or questions about the dredging issue, he addressed the request to review the 50-year demand projections. He noted that previous discussion related to looking at the assumptions used for the demand projections and conform that the method used was correct.

Mr. Boyd referred back to Mr. Frederick's earlier comments that two independent reviews were conducted on the demand projections, which included GF's data as well as TNC's contribution to this study.

Mr. Frederick stated that TNC's hydrologic modeling work confirmed GF's safe yield figure.

Mr. Rooker commented that demand and safe yield were two different concepts.

Mayor Norris clarified that this issue arose from the discussion on whether the demand projections could be adjusted based on increased water conservation efforts in this community. Previous discussion reflected interest in increasing the community's water conservation goal, but there was uncertainty as to how this might impact the demand analysis. He does not believe that the group is "ready to cross that bridge" at this time.

Mr. Slutzky asked if there was any way that City Council could take a position on this critical issue today. One outcome would be if City Council by a majority vote concluded that this community should go forward "with due haste" to learn as much as possible about increasing water conservation and then implement those measures. Another outcome would be if City Council added that they also wanted to "hold up" moving forward with the 50-year water supply plan until the results of the water conservation studies could be used to revisit the demand projections and possibly impact components of the 50-year water supply plan. He believes that his Board would agree that implementing water conservation measures "to the max" made sense, but his Board would disagree with holding up the 50-year water supply plan in order to make some adjustments to the demand projections.

Mayor Norris questioned Mr. Slutzky's "semantics" when he referred to "holding up the plan." He referred back to Mr. Gaffney's comments at the outset of this meeting related to the adjustments that normally occur during the process of moving from a conceptual stage to an implementation stage of a project.

Mr. Slutzky added that he was concerned about the permitting process and the input received earlier during the meeting that was somewhat "hedged" due to legal "nuances" and the need for further legal counsel on this matter. He again asked if the group wanted to formally stop the forward movement of the water supply plan due to adjustments to the demand analysis based on water conservation studies, or accept the numbers, move forward with the water supply plan and "be thrilled that we've been able to scale back our demand number going forward."

Mayor Norris responded that he was not prepared and he did not think City Council was ready to take action until they had more concrete information about what the impacts would be on revisiting the demand analysis.

Mr. Wagner, speaking on behalf of the ACSA Board of Directors, stated that ACSA would be paying most of the cost of the 50-year water supply plan and they would not want to do anything that would hold up the progress of this plan. He thought the water conservation studies were very appropriate, but he would not like to delay implementing the plan by revisiting the demand analysis and making changes to the plan.

Mr. Boyd said that it came back to Mr. Rooker's previous comment about having a 65-year plan versus a 50-year plan, which might not necessarily be a bad outcome.

Mr. Rooker said it would be important to leave today's meeting with some clarity about City Council's intent.

Mayor Norris stated that the question "on the table" for City Council concerned whether there was interest to see if increased water conservation can impact the demand analysis or should these be considered separate issues.

Mr. Huja commented that he wanted to know the water conservation figures for the City and the County before he could make that determination.

Dr. Brown said he would personally be very "leery" about holding up the plan or taking action that might result in having to redo the water supply planning process. He does not believe that was the intent of any of the City Councilors by expressing their interest in looking at water conservation measures. He does not know if anyone could answer the question about the demand analysis by looking at water conservation, which was a small piece of the City's resolution. He thinks it depended upon the experts' opinion about the cost of the dam and the SFRR Task Force's recommendations about undertaking a dredging study, as he thinks all these items "interlink." He was interested in learning how this community could conserve more water, but he could not envision a role for this item in the creation of a new water supply plan.

Mr. Gaffney reminded everyone that the purpose of this meeting was to provide RWSA with direction and not to cause City Council to make a decision before they were ready to take action on this matter.

Dr. Palmer asked if agreement could be reached to allow RWSA to move forward with the expert panel to review the cost of the dam. ACSA should be "proud" about its recent and future water conservation programs. Both the Board and staff have been discussing water conservation during its strategic planning process. It would not be difficult for Mr. Fern or another staff person to provide this information to the Boards, and she believes they would be "surprised and pleased" about what has been accomplished to date. Also it would be very helpful to give RWSA direction about retaining an expert panel to review the costs of the dam, which would assist the Board members in addressing citizen inquiries about this issue.

Mr. Huja commented that he wanted the expert panel to address the pipeline issue as well.

Mr. Tucker pointed out that RWSA has a deadline from Dam Safety to have the dam repairs completed by June 30, 2011. The design work was scheduled to begin in early 2009 with construction to be underway in 2010 and completed in 2011. The project is already behind schedule. It is not certain what action the Department of Conservation and Recreation (DCR) and Dam Safety will take if the work is delayed beyond the 2011 deadline. It has been "eluded" that RWSA might be required to drain the Ragged Mountain Reservoir, but it was uncertain at this time if this action will need to be taken. He asked the other Board members to consider the DCR deadline when considering additional steps in this process.

Mr. Huja stated that the City did not intend to delay the process and suggested that the additional studies could be conducted concurrently with the project work.

Mr. Tucker responded that as long as the studies were done concurrently, he does not believe that DCR's deadline would be an issue at this time.

Mr. Gaffney commented that Ms. Thomas put forth a proposal earlier in the meeting on the pipeline study related to hire an engineering firm to provide a cost estimate on laying the pipeline based on similar projects being undertaken throughout the country. He asked if the other Board members were in agreement with this proposal or if a more in-depth study would be needed.

Mayor Norris responded that he did not believe an in-depth study was needed. He thinks an expert review of the data that is already collected in order to provide an objective analysis so that the public can be reassured would be the "best path forward."

Mr. Boyd commented that he did not have a problem with that proposal, but he did not know if this additional review would provide information that would be accurate five to ten years from now when the pipeline was scheduled to be constructed.

Mayor Norris asked if the pipeline analysis could be added to the scope of work for the experts who would already be "impaneled" to review the costs of the Ragged Mountain Dam project. He thinks that the panel would be able to advise whether the project was valid or suggest another alternative. The advantages would be that the pipeline study could be undertaken concurrently with the Ragged Mountain Dam review process at no large additional cost and could reassure the public that there were no "major flaws" that would present problems ten years from now.

Mr. Gaffney asked Mr. Frederick to provide his perspective related to efficiency and effectiveness as to whether two separate expert panels should be hired or whether one panel could review both of these projects.

Mr. Frederick stated that he believed that the two studies could be undertaken at the same time, but he did not necessarily agree that the same experts should review both projects.

Mr. Wagner concurred with Mr. Frederick's comments and added that the dam experts might not be knowledgeable about pipeline work. Even though you "impanel" one group to undertake both reviews, RWSA would still need to pay them for the additional study. He cautioned about hiring a group that will not actually conduct the work, such as surveying and test borings for rock, leaving them with two choices. They can either assume the worst conditions and propose a high cost for the project or assume that all the conditions will be favorable and propose a low project cost. Ten years from now when bids are actually received for this project, it would depend upon the construction market at that time as to whether high or low bids are offered. He does not think it is a good use of money to undertake a pipeline study now. Pipelines can be built, and he assumed there was some "right" that would allow the Sugar Hollow pipeline to be repaired based possibly on some legal rights that have accrued to an easement due to the amount of time that the pipeline has existed in that area. [At this time, some of the other Board members confirmed that there is a recorded easement that was "very nonspecific."] Mr. Wagner amended his comment by stating that there is a recorded easement, but added that through eminent domain or some other means there is a way to access land in order to build a pipeline if that is the decision made by this community. He believes that obtaining an estimate on the project cost through the "number of feet and price per foot" would be a "waste of money."

Dr. Brown reiterated his earlier statement that a big issue for City Council and what was "driving" this resolution is that City residents are becoming increasingly concerned about the cost of the dam and the cost of the pipeline. The Councilors represent the neighborhood associations, six of which have presented resolutions to City Council about these issues. He did not believe that County residents have been as vocal on this matter at the Board of Supervisors meetings. He thinks that City Council have a responsibility to ensure that City residents have confidence in GF and the process that is moving forward and that is it conducted in the most cost effective manner. For those reasons, he thought it was important to have an expert panel review the work that has been done on the pipeline to either confirm that the data is valid or point out "methodology" concerns.

Dr. Palmer asked if there was some concern by City Council that the pipeline is not a viable option or that it was more expensive than the Sugar Hollow pipeline.

Dr. Brown responded that he thought the pipeline was viable and was important to the water supply plan but was conveying concerns by City residents.

Dr. Palmer asked the other City Council members to respond to the same question as to whether their concerns were based on the pipeline's validity or its cost.

Mr. Huja replied that he was concerned about the cost of the project.

Dr. Palmer questioned if the cost of SFRR pipe being more expensive than the 13-mile Sugar Hollow pipeline was the concern.

Mr. Huja stated that he would know how to respond to her question after the experts have reviewed the pipeline data.

Dr. Palmer stated that the pipeline information provided during the initial review of the 32 alternatives, which included the Sugar Hollow pipeline, was preliminary as it had not been fully evaluated at that stage of the process. The price became known to the public, which she thought was unfortunate, as it was not an "apples to apples" comparison. She asked if it would be helpful if RWSA could provide additional information as to why a comparison of the "old Sugar Hollow pipeline value" should not be made with the "newer 9-mile South Fork price tag."

Mr. Huja responded that the additional information would not be very helpful to him.

Mr. Taliaferro commented that his major concern was the cost of the South Fork pipeline project.

Dr. Palmer inquired if City Council was in agreement that a pipeline was a necessary component of the water supply plan and would they favor the Sugar Hollow pipeline because of its lower cost.

Mr. Taliaferro replied that he did not know at this time if he would favor the Sugar Hollow pipeline.

Mr. Rooker commented that there were other issues besides the cost of the pipeline. The best way to fill the Ragged Mountain Reservoir was an important consideration when comparing the Sugar Hollow pipeline to the South Fork pipeline. If the costs were comparable, then the size of the watersheds and the length of time that it would take to fill the reservoir would be the deciding factors in the pipeline decision. He would agree that we need to determine if the cost of the pipeline project is reasonable and is based on valid information before undertaking the Ragged Mountain Dam project. He believes Ms. Palmer was suggesting that City Council was comparing the cost of replacing the Sugar Hollow pipeline versus constructing a new South Fork pipeline. He could not understand the value of that comparison if the Sugar Hollow pipeline would not be a viable means to fill the Ragged Mountain Reservoir.

Mayor Norris stated that "the value isn't so much for us as decision makers. The value is for reassuring the public that this is the best plan." As Ms. Palmer stated previously, the "idea is being floated out there that the Sugar Hollow pipeline is cheaper and we can just patch it up and it will last for another 50 years." He wanted as to get the best possible "apples to apples" comparison of those two pipeline options. From the information that he has seen to date, he was convinced that the South Fork pipeline "made more sense" than the Sugar Hollow pipeline for many reasons. As Mr. Brown stated, there is a lot of "distrust" among the public and City Council is hearing regularly from City residents that they need reassurance that this is the best approach.

Mr. Dorrier asked if Mr. Norris was referring to the "vocal minority or the vocal majority."

Mayor Norris responded that he has not had many people say to him, "Boy, that's a great plan you've got there." A lot of citizens are "wondering about" different components of the plan. He believes that the "basic parameters of the plan are sound," but many citizens are not convinced.

Mr. Boyd stated that if we assume as a fact that this community will be moving forward with the Ragged Mountain Dam project, the reservoir will need to be refilled by either a pipeline from the South Fork or Sugar Hollow Reservoirs. The local Board members could be more "upfront" with the public if we told them that as it gets closer to determining the "construction constraints five years from now," then an analysis of which pipeline to use would be more valid. He believes that any studies undertaken now would become just as "suspect" ten years from now as the studies conducted three years ago related to the Ragged Mountain Dam. He is concerned about spending money now on a study that needs to be conducted closer to the time of the actual work.

Dr. Brown commented that he would agree with Mr. Boyd's comments if he was referring to an engineering study, but not about a group of experts that would review the data already collected.

Mr. Boyd asked if the plan would be changed to the Sugar Hollow approach based on the recommendations of the expert panel.

Mr. Rooker asked if it would even be viable to consider a plan where Ragged Mountain in an "expanded state" is filled up with a pipeline from Sugar Hollow and what would be the length of time to fill the reservoir if that plan were implemented. He did not think it "made sense" to study an option that was not even viable.

Mr. Frederick commented that the same computer modeling used to generate the safe yield figure has shown that with the projected 2020 demand data that the expanded Ragged Mountain Dam could be filled over a slower period of time during a drought with an 18-inch Sugar Hollow pipeline. RWSA has not confirmed that this could take place by 2055. He pointed out that an 18-inch Sugar Hollow pipeline is at best four million gallons per day pipeline. The 2055 plan projects that the Observatory Water Treatment Plant will have a ten million gallons per day capacity. "The viability of your treatment plant is only as good as the components that are filling it. If you can't bring the water to the plant, you can't treat the water."

RWSA suggested in the plan that in the 2020 to 2021 time period that the new pipeline should be under construction.

Mr. Frederick further noted that the current permits have provisions for releasing water to streams, including the South Fork and Moormans River. "If this community were to decide later that it would like to implement the Sugar Hollow pipeline option instead of a South Fork pipeline, you will not be able to put the water into the Sugar Hollow pipeline to the Ragged Mountain and meet the provisions for releases included in the current permits." This would require substantial modifications to the permits, and based on the current thinking by the regulatory agencies, he did not believe that those modifications would be approved.

Ms. Mallek said that perhaps questions concerning the wildlife/migratory issues have not been addressed. Since most of the Sugar Hollow pipeline land is situated near the park, there would be a different "layer" of regulatory oversight by the Virginia Game and Inlands Fisheries and other state agencies than a more urban route and could possibly pose pipeline replacement issues.

Dr. Brown commented that he would like to see as a result of experts reviewing GF's pipeline work is for no one to be able to come back later and state that they really underestimated the cost of that project. If the cost of the dam has increased from \$37.0 million to about \$70.0 million, he does not want to find out later that the original pipeline estimate has risen 50 percent or more.

Dr. Brown also stated that he believes a lot of City residents feel a "sense of ownership" over the natural resources in Albemarle County, including the Moormans River, and "maintaining flow" in that river is valued as well and is considered an important component of this plan.

Ms. Thomas commented that the South Fork River also has a "guaranteed flow" in this plan so it had a "direct relationship with the enjoyment of the Rivanna River by the City residents too."

Mr. Gaffney referred to the earlier discussion that included Mr. Frederick's input about whether it was feasible for the experts that would be reviewing the dam work could also review the pipeline data. He thought it "made sense" to have a separate engineering firm look at the pipeline work if that is the consensus of all four Boards and make those two separate studies.

Mr. Rooker commented that if he understood correctly from the previous discussions that the scope of the analysis would be to determine that the cost numbers that are being included in the plan are reasonably accurate.

Mr. Gaffney responded in the affirmative and added that the analysis would be to confirm the original assumptions made by Gannett Fleming on the pipeline.

Dr. Palmer asked if Mr. Fern, as an engineer, could speak further about the scope of work being requested of the expert panel.

Mr. Fern commented that he was receiving a "mixed message" from City Council. First, he heard statements that City Council wants to know about the cost, but then he heard that maybe they do not want to know about the cost. The estimates prepared somewhere in the 2004 to 2006 time frame for the pipeline project would be different now than when it was originally proposed. He asked how much of a difference would be agreeable to City Council, and if the numbers were considered too high, what would be the alternative to filling the Ragged Mountain Reservoir if it were still less expensive to use the South Fork pipeline than the Sugar Hollow pipeline.

Dr. Brown said it was less about the cost than it was about reviewing the work to ensure that the "methodology" and the estimates were valid.

Mr. Fern commented that if that is all the review would entail, then an engineer could do that in a very short period of time. If more is requested from the reviewer, then the scope and the price of the study will both increase.

Mr. Slutzky asked if he understood correctly that the significant increase in the cost estimates for the dam was not attributable to "bad math" or "defective methodology" on Gannett Fleming's part but on the findings from engineering data that was not previously available when the estimates were prepared, plus adjustments to reflect current construction costs.

Mr. Huja said that Gannett Fleming made bad assumptions at that time.

Mr. Slutzky stated that when Gannett Fleming prepared its cost estimates they believed that the rock was solid, but after doing the borings, they discovered that the dam base would need to be a lot deeper to support the structure. If the figures for the pipeline were revisited now without any engineering analysis for a possible route through the "right-of-way" of the Western Bypass or as discussed today other alternative routes, he wondered how meaningful the "exercise would be of coming up with revised cost estimate for that pipeline and comparing it to another vague estimate of what the Sugar Hollow might be." The actual costs will not be known until the engineering studies are conducted ten years from now. He questioned whether this would be good use of taxpayers' money in the short term or "are we kind of creating the illusion that we've now looked at it again and hopefully get the right conclusion..." He was "struggling" with the value of doing more than the "casual look" suggested by Mr. Fern, which would entail having an engineer revisit the "methodologies" to confirm whether or not they were "sound."

Mayor Norris commented that GF and Schnabel Engineering both looked at the same data with a "cost differential" of about \$15 million. He believes that it would be worthwhile to spend a little money to have someone "double check" GF's numbers and assumptions on the pipeline as well.

Mr. Frederick offered the following observations to help the Boards with their decision-making process. There was some suggestion that an independent study be undertaken on the conceptual design of the pipeline to verify if the project was feasible or if there were a better alternative and also provide an updated cost estimate. If there was agreement on this approach, it would be a fairly simple process that could be done rather economically and in less time than the expert's panel review of the Ragged Mountain project. Another aspect from today's discussion related to conducting a comparison of multiple alternatives, which he thought would be a much larger, more costly, and much more time-consuming study. He used as an example a comparison of the South Fork and Sugar Hollow pipelines. Some of the advice that RWSA has received stated that if you "take the split in the water source back to Sugar Hollow and split it to Ragged Mountain or South Fork," a decision will need to be made very early in a drought on how to split the flows. The decision cannot be "taken back" since there is no interconnection between the final reservoirs where the treatment plants are located. This would also require more storage space and/or more water treatment capacity to accomplish the same safe yield, which could result in the revisit of safe yield projections. He believes that an "apples to apples" comparison on those issues would be complex and difficult to "orchestrate" compared to a simpler review of only the South Fork pipeline related to its feasibility and the validity of the cost estimates.

Mr. Boyd asked if the City would be in agreement with conducting a simple study on the conceptual design of the pipeline.

Mayor Norris said that a study as in-depth as an "apples to apples" comparison was not necessarily needed. He would like to be able to explain to the public in very simple terms what the advantages and disadvantages are between the South Fork and Sugar Hollow pipelines without having to go into engineering detail that had been discussed.

Mr. Gaffney suggested that RWSA could help with the explanation for the public by summarizing the results of the independent pipeline study.

Mayor Norris stated that the information should be based on the new analysis and not on Gannett Fleming's work.

Dr. Palmer suggested that the information could be shared at neighborhood association meetings.

Mayor Norris commented that once the new information became available, some type of meetings would need to be held.

Dr. Palmer asked if the old information needed to be distributed again as well.

Mayor Norris said that since there were a lot of questions being raised about the old studies. He further stated that it appeared that agreement had been reached on the information that needed to be shared with the public.

Ms. Thomas commented that she was confused about the format of the City Council resolution. Number 1 stated "Appoint Board of Consultants," and item d under Number 2 stated "Ragged Mountain Dam Design Review." She assumed that the Boards were in agreement with item 2d, but that item 1 appeared be a "whole new layer," so she would not agree with that item.

Mayor Norris stated that he could agree with taking item 1 "off the table."

Mr. Gaffney stated that he thought there was agreement on item 2e – "Pipeline to Ragged Mountain" – about requesting RWSA to hire an engineering firm to look at the "methodologies" and cost estimates and confirm the assumptions made by Gannett Fleming.

Mr. Boyd added that the engineering firm should also conduct a comparison between the South Fork and Sugar Hollow pipelines as well.

Mr. Gaffney clarified that this information would be provided by RWSA staff after it received the results of the independent study.

Mr. Martin inquired about the cost for this independent study of the pipeline and what would be agreeable to the Boards.

Mr. Wagner stated that he felt ACSA would agree on the appropriateness of RWSA staff to proceed with retaining a firm but that both the City and ACSA should approve the cost before the study is undertaken.

Mr. Gaffney suggested setting a price that would be acceptable to all the Boards, and if RWSA is not able to retain an engineering firm at that set price, then approval of all the Boards would be needed before undertaking the study at a higher cost. He then asked Mr. Frederick if he had a rough estimate on the cost for this study.

Mr. Frederick commented that he if the scope of the pipeline study was kept simple and limited to a review of the conceptual design proposed by Gannett Fleming then he felt the cost could be set at \$25,000.

Mr. Rooker added that the engineering firm would also be requested to provide an opinion as to whether the cost for the pipeline study was reasonable and if not, what would be a reasonable cost.

Mr. Frederick agreed that the cost should be an item of review for the study.

Mr. Gaffney inquired if a "cost not to exceed \$25,000" was acceptable to all the Boards.

Mr. Martin asked whether the cost of the project would be split "50-50" between the City and the County.

Mr. Rooker commented that since this was an RWSA expense to have the study conducted, it would be paid out of their operating budget, which meant 52 percent from the County and 48 percent from the City. He thinks that in the interest of the public that the City and the County incur this expense.

Mr. Gaffney repeated the agreement reached by all the Boards as follows: A study will be undertaken that will review Gannett Fleming's work on the pipeline project related to the assumptions and "methodologies used, as well as provide an updated cost estimate for this project, which will not exceed \$25,000 and will be funded through RWSA's current split between the City and County. He asked if there was a motion to approve this item.

Mr. Wagner suggested first discussing the other items that are "on the table" to see if agreement could be reached and then voting to approve all the items at one time.

Mr. Gaffney stated that he understood that the Boards had already reached consensus concerning RWSA retaining a team of dam experts from multiple firms to review the Ragged Mountain Dam Design.

Mr. Roberts suggested that a Memorandum of Understanding (MOU) be prepared on each of the agreed-upon items and approved by each of the four Boards.

Mr. Gaffney agreed with Mr. Roberts' suggestion and stated that a MOU concerning the items agreed upon today would be circulated among all the Boards for approval. He added that consensus of the Boards on the Dredging Feasibility Study will await a report by the SFRR Stewardship Task Force on their recommendation as to whether or not to undertake this study.

Mr. Gaffney also commented that the City and ACSA will each conduct a Water Conservation Study and report back to the four Boards on their findings. At that time a decision will be made on whether to revisit the 50-year demand calculations.

Ms. Mallek asked if the four Boards would reconvene after the SFRR Stewardship Task Force issues its report to discuss the Task Force's recommendation in further detail on whether to conduct a Dredging Feasibility Study, and if so, the next steps in the process.

Mr. Gaffney replied that he believed that the four Board chairs requested that the SFRR Stewardship Task Force reports its findings at a meeting of the four Boards.

Mr. Rooker read the last sentence under item d in City Council's resolution as follows: "The team, for comparison purposes, will also develop an updated cost estimate in current dollars to simply make required dam safety improvements to the existing Ragged Mountain Dams with no supply increase." He then inquired about whether the cost estimate had ever been made, and if not, what would it entail to have that cost estimate made as a separate matter.

Mr. Frederick replied that prior to the 2004 community water supply planning process, a study was conducted specifically to address dam safety issues as part of a study of the various alternatives. The study used 2002 to 2003 market values, so the cost estimates would need to be updated to reflect current prices. Although he was not at Rivanna during the time period of that study, he asked later and did receive confirmation that the Ragged Mountain Dam level would probably need to be lowered during the repair work. He thinks that it is an important point that the community would be losing some water supply when demand would be reaching its safe yield number. He reiterated that he believes the cost estimate would need to be updated to reflect current market prices.

Mr. Rooker asked if the results of the Dam Safety team's assessment of the Ragged Mountain Dam related to addressing safety issues would be added to the scope of work of the expert panel. This item appears to have been added by the City.

Mayor Norris replied that the City was under the assumption that the expert panel would "double check" all the assumptions made by Gannett Fleming related to all the needed dam work.

Mr. Rooker further inquired that this item was not included in the proposal reviewed by RWSA and asked if it had been added later.

Mr. O'Connell explained that this item was added to the proposal due to citizen comments about Dam Safety issues and the cost for repairing the dam versus full replacement.

Ms. Thomas questioned whether the Boards would ever agree on this item, and if not, why spend the money for engineering experts to determine a comparative cost. The Ragged Mountain Reservoir will be an "almost unique reservoir that doesn't silt in. It's such a good part of our community water supply that one could not imagine simply repairing that dam and not taking advantage of a situation where you are already going to have to do a lot of construction work there and yet not add to your water supply storage." She then asked if the other members agreed with her position on this item.

Mayor Norris expressed his agreement and added that under any "reasonable scenario" the water supply capacity would need to be expanded at the Ragged Mountain Reservoir. Legitimate questions have been raised about the dam height and at what point would the dam need to be repaired versus entirely replacing the dam. The City's intent was to determine the amount of expenditure at various height levels.

Mr. Rooker commented that Mayor Norris' comments were addressing a different point than what was stated in the resolution. He next asked Mr. Frederick if RWSA intended to request the expert panel to review the cost estimates for the various dam heights.

Mr. Frederick replied that the expert panel would be requested to review all the background material, and this item would be included in that review. He added that RWSA would want the panel of dam experts to look beyond the configuration chosen by Gannett Fleming for the dam, possibly moving closer to the existing dam or maybe using the configuration at the existing dam, which he thinks would address the questions raised by Mayor Norris.

Mr. Gaffney, referred to Item 1 in City Council's resolution that read "Appoint Board of Consultants," which the Boards agreed could be entirely deleted from that document.

Mr. Gaffney then inquired if any Board members had questions or comments before the meeting was adjourned.

Mr. Boyd asked if the last sentence in the resolution that refers to City Council's request that construction work on the dam not proceed until the other studies were completed was necessary and if it needed to remain in the document

Mayor Norris commented that construction on the dam will probably not occur until "one-and-a-half" years from now, so there would be plenty of time to complete the studies.

Mr. Boyd inquired again if that sentence could be removed from the resolution.

Mayor Norris said it was important to leave that sentence in the resolution although it was probably a "moot point." He could not believe that any of these studies would take "one-and-a-half" years to complete.

Mr. Boyd stated that it would depend upon what he meant by construction work and inquired if it was intended strictly as construction work as opposed to engineering design work.

Mayor Norris clarified that the term referred to "construction. It was "deliberately worded that way."

Mr. Rooker stated that he did not have any problems with it. "Given the scope of the studies we are now doing, it sounds like it is not going to hold anything up."

Mr. Slutzky added that today's discussion makes it clear that it was referring to construction and not design.

Mr. Gaffney asked if there were any other comments on this issue.

Dr. Palmer asked if the term "other studies" in the last sentence referred to the studies "as defined" at today's meeting.

Mr. Gaffney replied in the affirmative.

Mr. Boyd inquired if RWSA would draft a MOU for the four Boards' approval.

Mr. Gaffney replied that RWSA would handle the drafting of the document.

Mr. Boyd suggested that the RWSA Board of Directors vote today to approve moving forward with the expert panel.

Mr. Gaffney asked for a motion from the RWSA Board of Directors on the expert panel.

Ms. Mueller **moved** to authorize the RWSA Executive Director to move forward with the selection of an expert panel to review the Ragged Mountain Dam Design work.

Mr. Fern **seconded** the motion.

Prior to the vote, Mr. O'Connell asked if this motion referred to the October 27, 2008 scope of work.

Mr. Gaffney replied that the scope of work for the expert panel was based on the draft RFP prepared by RWSA in October.

As there were not further questions or comments, the motion was **approved** by a five to zero voice vote of the RWSA Board of Directors.

Agenda Item No. 2. Adjournment.

Mr. Fern **moved** to adjourn the special meeting of the RWSA Board of Directors, **seconded** by Gary O'Connell. All members voted aye on a voice call, and their meeting was adjourned at 4:20 p.m.

Dr. Brown **moved** to adjourn the special meeting of Charlottesville City Council, **seconded** by Mr. Huja. All members voted aye on a voice call, and their meeting was adjourned at 4:21 p.m.

Ms. Thomas **moved** to adjourn the meeting of the Board of Supervisors until Tuesday, December 2, 2008, when some of the Board members will be traveling to Culpeper to meet with VDOT. The motion was **seconded** by Mr. Rooker. All members voted aye on a voice call, and their meeting was adjourned at 4:22 p.m.

Dr. Palmer **moved** to adjourn the special meeting of the ACSA Board of Directors, **seconded** by Mr. Martin. All members voted aye on a voice call, and their meeting was adjourned at 4:23 p.m.

Chairman

Approved by Board
Date: 01/14/2009
Initials: EWJ