

RWSA BOARD OF DIRECTORS
Minutes of Special Public Outreach Meeting
October 27, 2005

A special meeting of the Rivanna Water & Sewer Authority (RWSA) Board of Directors was held on Thursday, October 27, 2005, at 6:30 p.m. in the Monticello High School Forum, 1400 Independence Way, Charlottesville, Virginia. The purpose of the meeting was to share information and receive public comment on the Ragged Mountain Expansion alternative and route options for a new pipeline between the South Fork and Ragged Mountain Reservoirs.

Board Members Present: Mr. William Brent, Mr. Michael Gaffney – Presiding, Ms. Judith Mueller and Mr. Robert Tucker.

Board Member Absent: Mr. Gary O’Connell.

Authority Staff Present: Ms. Anne Bedarf, Mr. Richard Defibaugh, Mr. Bruce Edmonds, Mr. Tom Frederick, Mr. Chuck Kent, Ms. Mary Knowles, Mr. Glen Recknagel, Ms. Michelle Simpson, Ms. Andrea Terry, Mr. Norman Wescoat, Ms. Randi Wescoat, Ms. Jennifer Whitaker, and Dr. Robert Wichser.

Also Present: Ms. Becky C. Christensen – Facilitator; Mr. William Ellis – Legal Counsel to RWSA for the Community Water Supply Plan, Mr. Aaron Keno – Gannett Fleming Vice President and Project Principal, Mr. Neville Reynolds – VHB Project Team Member; Mr. Kurt Krueger – RWSA Attorney; members of the public; and media representatives.

1.0 Call To Order

The special meeting of the RWSA Board of Directors was called to order by Mr. Michael Gaffney on Thursday, October 27, 2005 at 6:30 p.m., and he noted that a quorum was present. He explained that due to the number of Board members present, legal requirements specified that this public gathering become an official Board meeting. No Board actions would be taken tonight. Minutes would be prepared and submitted for Board approval.

Mr. Gaffney welcomed and thanked the members of the public for their attendance at tonight’s meeting and for their continuing interest in the Community Water Supply Plan. He commented that he hoped everyone would have the opportunity to sign the meeting register to provide RWSA with a record of attendees. The public was also invited to provide their e-mail address on the sign-up sheets, if they had not done so previously, in order to be included on RWSA’s e-mail list for updates on the Community Water Supply Plan process. Information pertaining to the Public Outreach Meetings and the Community Water Supply Plan Update process were also posted to the RWSA website at www.rivanna.org.

Minutes of Special RWSA Board Meeting (Cont.)
Community Water Supply Public Outreach Meeting
October 27, 2005

Mr. Gaffney next provided some background information for the citizens who had not attended a previous Public Outreach Meeting. RWSA had identified a need for increasing the available water supply to meet the future needs of this community. It had previously been determined that an additional 9.9 million gallons per day (MGD) of water supply would be needed over the next 50 years. The process for selecting the preferred project to supply this need must meet complex federal and state regulations. RWSA also wanted the selected project to be the consensus of the community. Initially, 32 possible alternatives were developed. After reviewing the regulatory requirements and receiving public comment, the list was narrowed to four alternatives last fall and public meetings were held on each alternative between November 2004 and February 2005. In March and April 2005, joint meetings were held among the RWSA Board of Directors, Charlottesville City Council, Albemarle County Board of Supervisors, and the ACSA Board of Directors. With the consent of each of these boards, a Pre-application Meeting with the regulators was held in Richmond on June 22, 2005. As a result of the comments received from the regulators at this meeting, the list of four was reduced to the following two alternatives: (1) expanding the Ragged Mountain Reservoir; or (2) building a pipeline to the James River.

Mr. Gaffney stated that after his introductory remarks, those in attendance would hear a technical presentation prepared on PowerPoint slides. A copy of the PowerPoint presentation was available to the public. For those who did not receive a copy when they entered the Forum, more were available at the sign-in table.

Mr. Gaffney then provided a brief summary of the technical presentation. He stated that it would begin with a review of the feedback received from the regulators at the June 22, 2005 Pre-Application Meeting in Richmond. Following this review, there would be a brief summary of the James River alternative as presented last January. The new Ragged Mountain alternative and two options for building a pipeline between the South Fork and Ragged Mountain Reservoirs would then be presented. The Technical Presentation would close with updated information on the evaluation of the environmental impacts between the two remaining alternatives, which was very important to the regulators.

Mr. Gaffney added that after the presentation, the public would be invited to ask questions and provide comments on the technical information provided. He asked that all input be kept positive, constructive, and focused on questions and ideas that would help RWSA to be as complete as possible. Constructive comments on the options for a pipeline between the South Fork and Ragged Mountain Reservoirs were especially important to RWSA at this meeting.

Mr. Gaffney next commented that the RWSA Board of Directors has not yet voted on a preferred alternative. Following tonight's meeting, RWSA's consulting team would conduct detailed pipeline route environmental assessments, as well as cultural and historic resource surveys, based on the feedback received tonight on the pipeline route options. Out of respect for the U.S. Army Corps of Engineers' request, the local boards

Minutes of Special RWSA Board Meeting (Cont.)
Community Water Supply Public Outreach Meeting
October 27, 2005

would not formally vote on a preferred alternative until those surveys were completed and the results were published. Mr. Gaffney felt he could speak for all the boards in stating that it was hoped that the selection would both satisfy the regulatory requirements and be the broad consensus of the local community. For that reason, the public's feedback was being solicited at this meeting. If citizens had any additional questions or comments after tonight's meeting, they should contact RWSA staff or e-mail the Authority at info@rivanna.org. All comments would be considered.

Mr. Gaffney further stated that following the time designated for public input, he would make some concluding comments before the meeting was adjourned. At that time, he would review with the audience the next steps for completing this project.

Mr. Gaffney noted that the meeting was being videotaped by Charlottesville Public Access TV and would be aired in the near future on the government cable television. Information concerning the broadcast schedule would be posted to RWSA's website later this week.

Mr. Gaffney then introduced Ms. Becky C. Christensen, who would be facilitating tonight's meeting and as well as having moderated most of the other Public Outreach Meetings. He then turned the meeting over to Ms. Christensen.

Ms. Christensen thanked Mr. Gaffney and welcomed the members of the public in attendance at tonight's meeting. She commented that it was about 14 months ago that the public first gathered for the purpose of information sharing and identifying issues during the Community Water Supply Plan process. Although the process was not finished, much progress had been made toward the selection of a preferred alternative.

Ms. Christensen next explained the two-part format for tonight's meeting. The first part would consist of technical presentations that would provide a project review and updated information on the current project status. A discussion concerning the next steps in the process would also occur. During the second part the audience would break into small groups, similar to what occurred at a previous meeting, in order to have in-depth conversations regarding the Ragged Mountain alternative. New information concerning this alternative would be provided prior to the breakout sessions. This process would be discussed in further detail at that point during the meeting.

Ms. Christensen asked the audience to indicate by show of hands how many had attended at least one previous meeting in the last 14 months and then how many were participating for the first time. She commented that both groups were well represented and that RWSA appreciated the input provided by all perspectives that were in attendance.

Ms. Christensen informed the audience that there would be several interactive opportunities during the meeting. After the technical presentations, there would be a brief period for quick questions and answers for clarifying purposes, followed by the

small group breakout sessions. She explained that there would be three breakout

Minutes of Special RWSA Board Meeting (Cont.)
Community Water Supply Public Outreach Meeting
October 27, 2005

groups. Assignment to a particular group would be based on the color-coded name badges given to the public at the sign-in table. She noted that a purple evaluation and survey sheet was placed on each person's chair. RWSA would greatly appreciate if those in attendance would not only evaluate this meeting but also complete the very specific questions located at the bottom portion of the form relative to the Ragged Mountain pipeline options as well as the alternative choices between the new Ragged Mountain alternative and the James River Pipeline. She reiterated Mr. Gaffney's earlier statement that the public was encouraged to submit any comments or ideas not shared during tonight's meeting by e-mail to RWSA for follow-up comments.

Ms. Christensen then explained that the purpose for the breakout sessions was to continue the value held during this process of maximizing the participation of the community. Since there would be three groups, everything written down would be compiled and posted on the RWSA website.

As the meeting was being televised, Ms. Christensen requested that all cell phones be turned off so they would not interfere with the broadcast.

Ms. Christensen then asked Mr. Tom Frederick, RWSA Executive Director, to come forward and begin the technical presentation portion of the meeting.

Prior to beginning his presentation, Mr. Frederick made a special announcement concerning the breakout group sessions. He stated that RWSA staff would be assisting Ms. Christensen in facilitating those groups. He had a personal interest in Rivanna becoming very strong in public outreach and skilled in soliciting public ideas and facilitating public meetings. He received an overwhelming response from staff to his request for volunteers. Mr. Frederick asked that the citizens support RWSA staff members, who were stretching themselves to another level by helping to facilitate the breakout group discussions. He was very proud of staff efforts and welcomed the public's feedback on this endeavor.

Mr. Frederick then began his presentation by referencing the Agenda slide and stating that he would be following-up on what Mr. Gaffney discussed in his introductory remarks. He would provide a brief summary for those in the audience who were new to the process and also do a brief review for those who had attended a previous meeting.

Mr. Frederick stated that RWSA was working with four alternatives one year ago. A series of public meetings were held last winter to provide detailed information on each of the four alternatives. A public meeting was then held in February 2005 where a comparison of all four alternatives was presented. The four local boards then met for more detailed discussions. As part of that process, an invitation was issued by the joint regulatory agencies, whose approval was needed in order to receive a permit for the water supply project, to informally discuss the water supply options in Richmond on June 22, 2005. Mr. Frederick was grateful that the regulatory agencies were candid in

their assessments of some of the options RWSA was pursuing related to the limitations as well as the opportunities. As a result of those discussions, the alternatives were

Minutes of Special RWSA Board Meeting (Cont.)
Community Water Supply Public Outreach Meeting
October 27, 2005

narrowed down to the two that would be reviewed at this meeting.

Mr. Frederick commented that the James River alternative would be mentioned during the meeting, but since the option had been discussed at a previous public meeting, the emphasis tonight would be on the new Ragged Mountain alternative due to key changes that were made since this option was first presented to the public. In January 2005, the public was informed that if the Ragged Mountain Reservoir (RMR) were expanded, it would be filled by a new pipeline from the Sugar Hollow Reservoir (SFRR). Tonight, RWSA would be proposing that water from the SFRR be used to refill the RMR, which culminated from local board discussions with significant community input.

Mr. Frederick added that there would also be a brief update on what has occurred since the June 22 meeting to follow up on the regulatory suggestions related to environmental impacts, followed by a review of the next steps in order to complete the process.

Mr. Frederick next briefly reviewed the project goal. He had suggested previously that this was a marriage, not necessarily an easy marriage but a doable one between the interests of this community, spoken through the heartfelt comments by the citizens, and the regulatory agencies who have a certain set of guidelines based on federal law passed by Congress. He really appreciated the comments expressed by many of the citizens that they wanted this project to succeed. In order to succeed, both of those partners must be matched together.

Mr. Frederick noted that the next two slides summarized the very “guts” of the feedback received from the joint regulatory agencies at the June 22 meeting, which has been the precipice of all the work done since that point.

Mr. Frederick commented that the two alternatives included on the first slide were no longer under consideration from the standpoint of the current 50-year Water Supply Plan. The 4-foot crest option entailed expanding the SFRR in order to provide 3.3 million gallons of additional safe yield. The regulatory agencies conveyed to RWSA in very strong terms that based on the environmental impact studies, this alternative could not get permitted due to its adverse affect on aquatic ecosystems and also due to its threat to the habitat of the endangered James Spynymussel. Concerning dredging the SFRR, the regulatory agencies communicated that the estimated costs based on the engineering study were significantly higher than the other three alternatives, rendering an argument that the costs could be considered disproportionate by the regulators. As a result, the regulators would not require RWSA to consider this option further as a water supply alternative for future needs. The regulators were also asked if they anticipated ever mandating as a regulatory requirement that dredging be conducted at SFRR, and the regulators responded “no.” If this community chose locally for its own reasons to dredge the SFRR, there would be a way to get this project permitted outside of the water supply process.

Mr. Frederick next discussed the other two alternatives, which were still under consideration. RWSA received very positive comments, especially from the U.S. Fish and Wildlife Service and the Virginia Department of Game and Inland Fisheries, on the

Minutes of Special RWSA Board Meeting (Cont.)
Community Water Supply Public Outreach Meeting
October 27, 2005

Ragged Mountain Expansion alternative, which was based on filling the reservoir from SFRR. Both of those agencies were experts at evaluating environmental issues. The U.S. Army Corps of Engineers (ACOE) did express concern about the stream impacts of the Ragged Mountain alternative compared to the James River alternative. During the dialogue it was important to note that ACOE did state that it could evaluate the stream impacts of those two alternatives, not based on length of streams affected, but on the biological functional value of those streams when RWSA presented its argument as to which was the “least environmentally damaging” alternative. The biological functional value of streams has now become the focus of RWSA’s environmental impact studies, and an update will be presented at tonight’s meeting.

Mr. Frederick then turned the next part of the presentation over to Mr. Aaron Keno with Gannett Fleming who would be providing more detail on the James River and Ragged Mountain alternatives.

Mr. Keno commented that he appreciated the opportunity to provide technical information again during the Public Outreach Meeting process. He added that he recognized many in the audience who had attended previous meetings. For those attending for the first time, he introduced himself and stated that he was Vice President with Gannett Fleming and Project Principal for the consulting team on the Community Water Supply Plan project.

Mr. Keno reiterated Mr. Frederick’s comments that he would be providing more detail on the James River and Ragged Mountain alternatives. Each of those alternatives could meet the projected water supply deficit. At a previous meeting, it was presented that the James River option could supply RWSA’s needs on its own and had regional possibilities as well. There was over 22 miles of pipeline associated with bringing the water from an intake on the James River into the Charlottesville area. There were also significant challenges associated with that routing and significant local opposition to this particular alternative. He would discuss some of the other issues associated with this option on later slides.

Mr. Keno next stated that the RMR alternative would be accomplished through the construction of a new dam. There were slides included in the presentation that illustrated how that would be accomplished. As indicated previously by Mr. Frederick, the change in this particular alternative was the configuration of how the reservoir would be refilled as the water was used for the area’s water supply needs. Historically, a pipeline from Sugar Hollow down to Ragged Mountain was the way in which the reservoir was refilled. A pipeline from SFRR to RMR was now being proposed for that purpose. There were potential pipeline corridors that would be discussed further tonight, as well as some existing hiking trails around Ragged Mountain that would be impacted by the higher reservoir pool. Those hiking trails would be replaced as part of the project.

Mr. Keno pointed out the location of the SFRR on the next slide and where a new SFRR intake and pump station would be constructed. The RMR was located toward the bottom of the same slide and would be expanded. A pipeline would be installed in-between those two locations. The water could be pumped from SFRR to the RMR and

Minutes of Special RWSA Board Meeting (Cont.)
Community Water Supply Public Outreach Meeting
October 27, 2005

stored there until there was a need to pump the water back to either South Fork Water Treatment Plant or to Observatory Water Treatment Plant for use in the distribution system.

Mr. Keno commented that some in the audience might recall the slide from a previous meeting that pictured the original Ragged Mountain Dam, which was still in existence. It was very old and needed extensive repair or replacement. The new reservoir would accomplish the goal of dealing with Dam Safety issues by replacing the dams with a new structure.

Mr. Keno further stated that the new dam would be constructed downstream of the existing Lower Ragged Mountain Dam, which was illustrated by the aerial photograph of the area. The darker blue area was the existing reservoir pool, and the lighter blue area was the new reservoir pool, which would back water onto the southern side of Interstate 64. A larger dam would be built downstream from the existing structures. The existing pools would be lowered, the existing upper and lower dams would be significantly breached or completely removed, and eventually the pool would be increased to the new height of the reservoir. The increased volume as a result of expanding the RMR would be available to offset the projected 9.9 MGD deficit.

Mr. Keno then pointed out a slide which pictured another Gannett Fleming dam replacement project, which was very similar to what was being proposed for the RMR.

Mr. Keno next discussed the issues concerning the existing culvert underneath Interstate 64. There were technical issues related to the embankment, reinforcing the embankment, and extending the culverts. Those improvements would need to be coordinated closely with VDOT and Federal Highways as the project moved forward, but they did not see any obstacles at this point.

Mr. Keno then reviewed how the expanded RMR would operate under a future scenario. The RMR would routinely supply water to the Observatory Water Treatment Plant, and it would also be routinely refilled from the SFRR through the new pipeline. As indicated previously, the water could go in reverse during dry times to take the water back out of the RMR. As a result of the expansion, the Sugar Hollow Reservoir would be full most of the time and could supply water to the SFRR through a release in the Moormans River onto the South Fork Rivanna River where it would be withdrawn at the SFRR. Once the new pipeline was constructed from SFRR to RMR, the Sugar Hollow pipeline would be abandoned, and therefore all of the water that would come out of the Sugar Hollow Reservoir would be released to the Moormans River. Mr. Keno also discussed the future local stream flows. It was anticipated that the natural flow patterns downstream from Sugar Hollow, particularly in the Moormans River, would be mimicked since Sugar Hollow would be full most of the time. In drier

weather patterns, there was not much water flowing in the Moormans River. During heavier precipitation events, the water spills at Sugar and flows into the Moormans River, which would be expected even without the reservoir. As previously discussed, the water from the SFRR would be pumped through the pipeline to the RMR. The water main was currently sized at 36 inches because the water needed to be withdrawn

Minutes of Special RWSA Board Meeting (Cont.)
Community Water Supply Public Outreach Meeting
October 27, 2005

from the SFRR during moderate and high flow periods when it was available. He anticipated working with DEQ and the other regulators on permit conditions related to transferring the water to the expanded RMR.

Mr. Keno further stated that there was also some flexibility in this alternative as it related to flow prescriptions. It was anticipated that at some point in the future interested groups, such as The Nature Conservancy (TNC), would offer recommendations, and this plan offers the flexibility to work with such requests to the extent not limited by water storage or regulatory requirements.

Mr. Keno next referenced the slides concerning the SFRR to RMR pipeline. A significant amount of effort had gone into identifying potential routes for the pipeline. A variety of corridors had been considered, taking into account environmental issues, topography, existing land development, potential for future land development, constructability, and cost. Two potential routes consisting of four segments of pipeline between RMR and SFRR were currently under consideration. The corridors shown on the slide were approximate at this point, and public input was being sought on the proposed pipeline options being presented tonight. A decision on a single pipeline corridor would need to be reached because the joint permit application required that the location be identified, as well the property owners. After one corridor has been selected and was advanced toward design, the location could continually be refined if any obstacles were encountered or there were other reasons for moving the corridor location.

Mr. Keno referenced the slide that illustrated the proposed pipeline corridors and reiterated that there were four segments in tonight's presentation under consideration. Segment 1 between Ragged Mountain and Ivy Road included two options for reaching that site. The options were designated by the red and green lines on the map. He noted that Segment 2 was in a very congested area that would require a railroad crossing, so a single desirable corridor was identified in that very short segment. Segment 3-A, shown as a purple line, and Segment 3-B, shown as a yellowish-brownish line, were the two options for reaching the SFRR area. The fourth segment was logically located along the road to the water treatment plant.

Mr. Keno commented that the diagram on the current slide was similar to the one on the previous slide, except it was turned a bit counter-clockwise for the convenience of presentation. RMR was now on the bottom of the slide and the SFRR was located at the top. The following two slides were enlargements of the lower area near RMR and then the upper area near the SFRR. He pointed out the various segments on these maps and noted the VDOT property shaded in the red. Discussions have been held with VDOT

concerning the possibility of locating the right-of-way along their limited access in that area.

Mr. Keno added that it might be possible to use the pipeline corridor in certain areas for other public interests, such as trails.

Mr. Keno next discussed the slide which listed pipeline statistics and included the pipeline segments that he just reviewed. The purpose for presenting this information was to better illustrate the contrast between the different options. For example, 11,000 linear feet of 3A was along the VDOT property and Segment 3B had only 400 linear feet along VDOT property. Segment 3B was significantly an urban route with 16,000 linear feet along roads as opposed to 2,300 linear along roads for 3A. He also noted that there were 0 acres of wetlands along any of the proposed segments based on the National Wetlands Inventory. During the refinement phase, field investigations would be conducted to confirm the absence of wetlands impacts. Pipeline routes could be adjusted if any wetlands impacts were encountered in the field.

Mr. Keno then reviewed estimated costs for the two alternatives. The RMR was estimated at this time to be in the \$123 million to \$146 million range. Some of the items listed contained a cost range, while other did not. This reflected the level of detail on a particular item. He noted that there was a cost range for the SFRR to RMR pipeline item because they were in the process of selecting the corridor for which the permit would be developed. He also pointed out that the range of costs for the reconfigured RMR pipeline was very comparable to the original alternative presented on Ragged Mountain.

Mr. Keno commented that similar cost information was listed for the James River alternative, which was estimated in the \$135 million to \$143 million range. Refinement of the cost information would continue as the details became more defined and as the process moved toward the joint permit application. He added that the costs were based on the best information available at this time and felt that the costs for these two alternatives were comparable.

At this point, he turned the presentation over to Mr. Neville Reynolds, VHB Project Team member, who would discuss the environmental investigations that had currently been conducted related to these two alternatives.

Mr. Reynolds stated that as Mr. Frederick discussed earlier, a meeting with the joint regulatory agencies was held in June 2005. At that meeting, the regulators requested that additional investigations be conducted, particularly with respect to the stream channels that would be impacted by both the James River and Ragged Mountain alternatives. Additional field studies were done to determine whether the streams were perennial or intermittent and to also more completely characterize the physical and ecological characteristics in the channels. The regulators also requested a field visit to the Ragged Mountain site in order to view the channels themselves.

Mr. Reynolds further stated that it was found that the stream channels leading to the existing RMR that would be inundated by the expansion of the facility were generally very shallow and very narrow channels that occurred in steep terrain. Most of the streams were perennial as a result of groundwater seepage. Biologically, they generally supported lower trophic organizations, such as a variety of worms, aquatic insects, and larvae.

Mr. Reynolds commented that an item of interest was that these channels had for more than 100 years primarily provided conduits for stormwater or for runoff and groundwater to make their way to the reservoir. The dam had essentially separated these stream channels from the downstream ecosystem for a significant period of time. A positive impact resulting from expanding the RMR would be the creation of more open water aquatic habitat, such as fish and wildlife, as well as for recreation.

Mr. Reynolds also stated that the environmental impacts associated with the James River Pipeline alternative could be discussed with respect to the pipeline and intake components of the project. During the evaluation of a pipeline route, it was found that the pipeline corridor crossed 49 or more channels which tended to be higher order streams supporting some wetlands and flood plain conditions and the more diverse and higher aquatic organisms. Concerning the intake, there would be a reduction in the James River as a result of the intake, which would mostly occur with withdrawals during drought conditions. The James River was a very complex ecological ecosystem. With the potential for cumulative impacts associated with multiple withdrawals, it had been suggested that the withdrawal aspect of this project might require additional study.

Mr. Reynolds then turned the presentation back over to Mr. Frederick who would present the concluding information.

Mr. Frederick referenced the flow chart on the current slide during his review of the next steps in the regulatory process. He began with the shaded box at the top that read "Review Public Comments" and noted that those were the comments that would be received from citizens in attendance tonight. RWSA welcomed and encouraged everyone's participation and ideas that would assist the Authority in making final decisions. The joint permit application would require that each alternative be evaluated and that one pipeline corridor be selected. The selection of the pipeline corridor was still needed for the Ragged Mountain alternative, which RWSA intended to do as quickly as feasible after taking tonight's public comments into consideration. Rivanna would next make arrangements with property owners along the selected routes and conduct field surveys in order to confirm some of the issues – such as, environmental impacts, cultural and historic resources – that federal and state agencies required as part of the application. A report would then be prepared, and it was hoped at that time that a preferred alternative could be recommended. An additional public meeting would be held to solicit comments concerning the recommended alternative. The local boards would then each have the opportunity to adopt the preferred alternative and authorize RWSA to move forward with submitting a joint permit application to state and federal agencies. As mentioned in previous meetings, the goal driving the process was that the

ultimate decision would comply with federal and state regulations and incorporate the community's preferences and needs so that the permit could be approved and the project construction could move forward.

Mr. Frederick further stated that RWSA was looking at an early 2006 time frame for the next public meeting, possibly January or February 2006. The meeting date would depend upon how quickly a decision was made on the pipeline corridor. It was also

Minutes of Special RWSA Board Meeting (Cont.)
Community Water Supply Public Outreach Meeting
October 27, 2005

hoped that by early spring RWSA would be in the position to submit the joint permit application.

Mr. Frederick added that in RWSA's continuing efforts to provide outreach to the community, a mass mailing was sent in early September 2005 inviting numerous individuals on the Authority's mailing list throughout the community, as well as local agencies, to submit comments and ideas on potential mitigation projects. Once the environmental impacts were quantified and the preferred alternative selected, those impacts must be mitigated. The organizations who responded to the mass mailing were listed on the current slide. He was very grateful, as were the rest of the RWSA staff, for all the mitigation project ideas. The environmental staffs from Albemarle County and the City of Charlottesville spent an extensive amount of time in submitting numerous ideas that were currently being reviewed. Mr. Frederick expressed his appreciation for all the comments received from all those agencies, which were very helpful.

Mr. Frederick further commented that RWSA was able to summarize all the comments into three major theme areas as follows:

- Restoration/preservation of James Spiny mussel habitat.
- Restoring the natural flow regime of the Rivanna River.
- Stream restoration and buffer enhancements on specific stream reaches.

Mr. Frederick added that the slide summarized the proposed discussions for the next public meeting in early 2006, which included the recommended preferred alternative, potential phasing opportunities, conceptual financial impacts, proposed mitigation plan, and an update of the 2002 Community Water Supply Policy.

Mr. Frederick then turned the meeting over to Ms. Christensen for the Question and Answer segment.

Ms. Christensen stated that the small group breakout sessions would be held in a few minutes. She noted that at that time public comments would be solicited on the focus questions listed on the Agenda as follows:

- *What are the Benefits and Challenges of the Ragged Mountain Alternative Regarding:*
 - *Environmental Impact*
 - *Cultural and Recreational Features*
 - *Regional Issues and Growth*

 - *Land Affected by Construction*
- *Which of the SFRR to RMR Pipeline Options do you prefer? Why?*
- *Which Alternative (Ragged Mountain or James River) do you Believe is Best for the Community? Why?*

Ms. Christensen added that in order to have a common understanding of the factual data that had just been presented prior to going into the breakout sessions, she invited

Minutes of Special RWSA Board Meeting (Cont.)
Community Water Supply Public Outreach Meeting
October 27, 2005

anyone who had a question for clarity that required a quick answer to approach the microphone at this time. She requested that the speakers also identify themselves first.

Question from Mr. Bill Ross: "I just wondered if your cost estimates were in today's dollars or some assumed completion date dollars?"

Mr. Frederick responded that the cost estimates were in today's dollars. All construction cost estimates included 20 percent for engineering and administration, which included financing, and added 25 percent for contingency to cover future unknowns.

Question from Ms. Jerry McCormick-Ray, Citizens for Albemarle: "Are you accounting for the extreme weather changes that we have been having in the past five years, particularly in the last 2 years from drought to flooding?"

Mr. Frederick stated that the answer to her question was "yes" in a couple respects. Virginia regulations required that the safe yield evaluation consider the drought of record, which was in 2002.

Follow-up Question from Ms. Jerry McCormick-Ray: "What about flooding?"
Mr. Frederick stated that the flow regime for the alternatives under consideration would be based more on natural flow. This meant that during flood periods the streams would be high flow streams.

Follow-up Question from Ms. Jerry McCormick-Ray: "I was wondering if you have been accounting for the recent flooding that we've had in terms of sediment to our reservoirs and streams. Is there any data to know how much we have inherited in the last two years in flooding?"

Mr. Frederick inquired if Ms. McCormick-Ray was referring to sediment.

Ms. McCormick-Ray responded in the affirmative.

Mr. Frederick commented that although it was separate from the Community Water Supply Plan process, RWSA has been for a number of years measuring the amount of sediment in the SFRR. When the Dredging alternative was discussed several months ago, RWSA was able to provide a graph with projections of future sedimentation rates.

RWSA planned to continue conducting its periodic measurements, usually on a three-four year average basis. He added that the process was very costly.

Question from Ms. Laurel Woodworth: "I'm sure you have covered this in previous meetings, but what was the basic reason that you have to have a pipeline going from SFRR to RMR instead of delivering the water directly to Charlottesville?"

Mr. Frederick replied that it was an excellent question. He explained that the refill rate of a lake depended upon how much land area was draining into it. Ragged Mountain

Minutes of Special RWSA Board Meeting (Cont.)
Community Water Supply Public Outreach Meeting
October 27, 2005

had a small land area that was draining into it. Ragged Mountain increased by about one-half foot in depth from the seven-inch rainfall event the area had two to three weeks ago, as compared to SFRR where there was a large drainage area and water was pouring over the dam. The pipeline was needed because Ragged Mountain by itself would refill after a drought very, very slowly.

Question from Mr. Morgan Butler: “I was just looking at the cost breakdowns between the two options, and I noticed that the James River option does not include expanding the RMR. I am wondering if that is a safe bet in light of the fact that we seem to acknowledge there could be competing and cumulative withdraw issues on the James River? Is there a reliable enough source of water from the James to justify not having to expand the RMR?”

Mr. Frederick replied that the current status of that alternative was based on discussions with the regulatory agencies, and RWSA did not have all the answers to that question. The regulators had indicated that if the James River Intake was selected as the preferred option, RWSA would be allowed to build an intake to make up the entire deficit, which was 9.9 MGD on an average-day basis. Most intakes allowed you to design for a peaking factor since water demand fluctuates each day. The regulatory agencies also communicated to RWSA that during a severe drought, a community that had an intake on a major river would not be allowed to withdraw all its full permitted capability because they wanted all communities to require their residents to conserve water during a drought. It had also been suggested by the regulatory agencies that they would have some concerns if a number of different communities wanted to put “a straw” in the James River and could require those agencies together to do a cumulative impact study. If that study were undertaken, he did not believe that anyone would know the answer to those questions until the results of the study were known. RWSA was not at this point in time suggesting that the James River option would require adding more storage to its system. If the community chose to move in that direction and RWSA entered into negotiations with the regulators who requested the cumulative impact study, RWSA would have to evaluate the study results before confirming if that were still correct.

Question from Mr. Mitch King: “What is the elevation difference between SFRR and RMR where you were planning to pump the water and why does that make more sense to pump it than to use gravity flow from Moormans or Mechums upstream?”

Mr. Keno responded that there was an issue between Sugar Hollow and SFRR in terms of elevation. Depending on the size of the pipeline that would be constructed from Sugar Hollow to RMR, a certain amount of water could flow by gravity because Sugar Hollow is much higher. SFRR was several hundred feet lower than RMR, and the water would need to be lifted in order to reach RMR. He added that this was just one component of the overall Water Supply Plan. The other components related to the water’s source, how it impacted the stream flows, as well as other factors. There were also the capital costs versus the operating costs that would need to be evaluated in both of those cases. Key operating costs were listed in the cost estimates in order to have a fair comparison.

Minutes of Special RWSA Board Meeting (Cont.)
Community Water Supply Public Outreach Meeting
October 27, 2005

Question from Ms. Liz Palmer: “On the local issue you have decided you need to raise the Ragged Mountain Dam 45 feet. Do you have a safe yield determination yet for that sized dam height and did you do the safe yield for the other dam heights that you discussed earlier in previous meetings?”

Mr. Keno asked if he understood her question correctly that it related to the safe yield associated with the 45-foot dam raise.

Ms. Palmer replied in the affirmative.

Mr. Keno stated that the 45-foot dam raise was the size that was necessary to supply the projected deficit of 9.9 MGD in the 50-year planning horizon. It would be possible to phase the construction of Ragged Mountain Dam and build it to a certain height now, and then at some point in the future, raise it by the amount needed to reach the 45-foot level.

Follow-up Question from Ms. Palmer: “So, the 45-foot gives it exactly what we need for that 2050?”

Mr. Keno commented that she was correct in that it was sized to provide what would be needed for the 50-year planning horizon.

Follow-up Question from Ms. Palmer: “So if we went back to what we had discussed earlier about doing a 30-year horizon or 50-year planning horizon, did you look at the safe yield for some of those other heights as to how we would incrementally raise the height?”

Mr. Keno further stated that they had several points on the graph that ranged from 0 to 45 which indicated if you raised the dam by a certain amount, a certain amount of safe yield would be provided. He added that specific modeling would need to be conducted to confirm those estimated numbers.

Question from Mr. Tim Hulbert: “I live and work in the City of Charlottesville. I’m looking at this very helpful chart about linear feet for the various segments, and I’m confused, and it’s probably no big deal, but on 3A, you have VDOT property 11,000

linear feet. Then you have along roads 2,300 linear feet. I’m guessing ‘along the roads’ is also VDOT property or is it in the right-of-way and it’s owned by VDOT? Then 3,200 linear feet of government property – I assume that’s government property other than VDOT – local government property, federal government property?”

Mr. Keno stated that Mr. Hulbert’s statement was correct.

Continuation of Question from Mr. Hulbert: “So, ‘along the roads’ are we to assume that that is not in the right-of-way and that is not currently in the public domain?”

Minutes of Special RWSA Board Meeting (Cont.)
Community Water Supply Public Outreach Meeting
October 27, 2005

Mr. Keno replied that based on Albemarle County tax records where the VDOT-owned property could be identified, it was indicated as VDOT property and that is what that category was intended to represent.

Follow-up Question from Mr. Hulbert: “‘Along the roads,’ is that in the existing right-of-way?”

Mr. Keno stated that it could be a combination of either existing right-of-way or in an easement immediately outside. It was designated “along the roadway” if they could be in the right-of-way and avoid physical features during the pipeline construction. Otherwise, some of the property might need to be an easement, which would be part of the next step as the alignment was refined.

Follow-up question from Mr. Hulbert: “The government property category would mean then ‘other governments’ – local governments, federal governments?”

Mr. Keno replied in the affirmative and added that it was intended to mean any of the local government properties, such as City, County, and agencies in local government.

Follow-up Question from Mr. Hulbert: “Or UVa?”

Mr. Keno commented that the University of Virginia was specifically listed as “UVa Foundation.”

Follow-Up Question from Mr. Hulbert: “But UVa owns property also.”

Mr. Keno added that they did not attempt to separate property that was strictly UVa’s.

Question from Mr. Madison Cummings: “I live in the southern part of the County. In 2002 when we had the bad drought, my stream completely dried up. It feeds the South Fork of the Hardware. I noticed about a month and a half ago when we were in the midst of the late summer drought, the North Fork was really low. I came in a little late, so maybe you discussed it, but were measurements done on the level of the James in the drought of 2002 and also in the recent mini-drought. As I mentioned, the Hardware is one of the 50 or however many rivers feed the James River Basin. My relatives live in

Lexington, and the Maury River was down as well. Were measurements done during those two drought periods?”

Mr. Frederick asked if Mr. Cummings was inquiring if measurements were done on the James River.

Mr. Cummings replied in the affirmative.

Mr. Frederick replied that there was a United States Geological Survey (USGS) measuring station on the James River near Scottsville. That data was available on-line, and anyone could access that information.

Follow-up Question from Mr. Cummings: “And even still considering the James River as an option?”

Mr. Frederick added that at the lowest point in 2002, the James River flow past the gauging station in Scottsville was something a little over 300 million gallons per day. The issue with the James River option was not the quantity of water to meet the 9.9 mgd, but the cumulative impacts from several communities withdrawing from the James River. The federal agencies, EPA in particular, were concerned about the fish habitat and other aquatic life in the river as a result of those cumulative impacts.

Question from Mr. Jeff Warner: “We are very excited how you have taken the local solution and run with it. Thank you. A couple of quick questions for clarification. First off, and I didn’t bring the article, but this was circulated to me by Allyson Sappington. Lynchburg reported that when it has to draw water directly from the James in lieu of using it from its impoundment, that its treatment costs are four to five times its normal cost. We are talking about a lot of money here, but the cost of treatment – and I know you all aren’t discussing it – but that’s going to be a real cost that my family and others are going to have to realize. So, that has to be thought of at some point in time so that we can all make a decision on that. Secondly, where is the sediment from the James River going to go? Is there going to be a detention pond at Observatory Hill? How will that be taken out of this and then what would we do with all those millions of gallons of sediment that pile up at Observatory Hill? Last, it would be helpful to answer Mr. Hulbert’s question ... is to do a foot-by-foot breakdown of the James River Pipeline because I don’t think it’s going to be hanging from a skyhook. I think we’d find that it’s an awful lot of properties, so maybe that’s something you could provide in a later report. Thank you.”

Mr. Frederick responded to the last part of Mr. Werner’s question concerning the statistical data on the James River Pipeline. Although he did not have the information at the meeting, RWSA could provide that data. The proposed pipeline route was along Route 20, which indicated to him that a lot of pipeline would be along roads.

Mr. Frederick next addressed Mr. Werner’s question concerning treatment costs. He stated that between now and filing of the final report, he would be requesting that

Gannett Fleming take the treatment issues under serious consideration. The information was not included in the data provided at this meeting. He asked Mr. Werner to recognize that the project was still a work in progress, but he appreciated the comment.

Mr. Frederick then commented on Mr. Werner’s question concerning sediment issues. He stated that in RWSA’s proposal for the Ragged Mountain alternative, the pipeline would be taken to the South Fork Water Treatment Plant because of the plant’s ability to handle sedimentation by treating the water and removing the sediment and phosphorus before it was transferred to Ragged Mountain in order to prevent the sediment from getting into the RMR or into the Observatory Hill water plant.

Minutes of Special RWSA Board Meeting (Cont.)
Community Water Supply Public Outreach Meeting
October 27, 2005

Follow-up question from Mr. Werner: "... James River going to Observatory Hill?"

Mr. Frederick stated that he felt that issue need to be studied in greater detail.

Question from Mr. John Via: "What I think a lot of people are misunderstanding is that they think they're going to pump water from the James River 24 hours a day. Well it's the impoundment of the larger 4 times lake that you are showing up there. It's only going to be pumped at high flow most likely; just like it's going to be pumped at the South Fork. Right? I mean, they think they are going to be pumping water at all times at minimum water flow."

Mr. Frederick addressed Mr. Via's question by referencing one of the analogies that he's used for whether you store water or whether you pumped it from a big river. We buy health insurance not because we think we are going to be sick tomorrow but because we want to make sure that we had the insurance when we needed it. We do not know when another drought will occur. No matter which option was selected, facilities will need to be built that were larger that what would be needed on a daily basis to handle the dry conditions.

Follow-up question from Mr. Via: "We're only talking about 4 percent of the water at low flow coming out of the James River. Most likely we will be pumping water and filling the larger lake at a high flow. Just like you would if you pumped from the SFRR."

Mr. Keno stated that he understood Mr. Via to be asking, "Won't you be pumping from the James River and storing it up in Ragged Mountain?" In the James River alternative it was not being proposed that the same height dam would be built at Ragged Mountain. The structure would be rehabilitated at a smaller size. With the James River alternative, at low flows RWSA would be relying on the water in the James River.

Follow-up question from Mr. Via: "Why wouldn't you build the same size lake?"

Mr. Keno responded that if the larger reservoir was built, you would essentially be mimicking the RMR alternative itself and be installing 22 miles of pipeline to fill it.

Ms. Christensen interjected at this point to suggest that when completing the Meeting Evaluation form, any comments or suggestions could be added to the "Alternative Preference" section.

Question from Tonya Howard, Albemarle County resident: "I want to make sure I understand something. Between the two solutions, James River versus the Ragged Mountain, I want to make sure I understand where the water is coming from. My understanding, and tell me if I'm wrong, is that if it comes from the James it comes from outside of the County. If the water comes from Ragged Mountain, it comes from the rain that falls on Albemarle County. Am I right or not? Thank you."

Minutes of Special RWSA Board Meeting (Cont.)
Community Water Supply Public Outreach Meeting
October 27, 2005

Mr. Frederick replied that she was largely correct. The James River extended all the way to the West Virginia line, so the water could flow anywhere on the land along that route. The Rivanna watershed does have a small piece in Greene County, but well over 80 percent of the watershed was in Albemarle County.

Ms. Christensen thanked everyone for their informative questions. She then discussed the color-coded name badges that would be used for assigning individuals into one of the three breakout sessions. She also requested the audience to reflect on the focus question concerning the benefits and challenges of the Ragged Mountain alternative. There had been similar discussions with the other alternatives during the public participation process. Given the nature of this particular alternative change, it was felt important to have this level and depth of conversation with community members. At this time, members of the audience who had a red dot on their name badge were requested to go to the rear of the Forum. Citizens who had a green dot were directed to the other side of where the red dot group was assigned, and the yellow dot group would congregate to the front of the Forum. Ms. Christensen reiterated that each group would be asked the same focus questions, and individuals within the groups would also have the opportunity to provide input on the RMR. The entire group would reconvene in 30 minutes, at which time there would be a report out from each of the breakout stations.

As there were no further questions on the process, the breakout sessions began around 7:35 p.m.

At the conclusion of the breakout sessions, the meeting participants returned to the Forum for a report out from each group.

Ms. Christensen then explained that the person chosen as a recorder from each of the three groups would be requested to provide a brief report out on what their group felt was an essential benefit or challenge to the Ragged Mountain alternative.

Ms. Lois Rochester, the recorder for the green dot group, stated that her group had a very interesting discussion. There were some positives and negatives on all of their charts, but everyone was generally in agreement. The group liked the SFRR pipeline to RMR option for the following reasons:

- The community could stay within its watershed.
- The water supply could be kept under local control.
- The restoration of the Moormans River would finally come about.
- Could count on better water quality and therefore lower treatment costs.

Dr. Carlton Ray, recorder for the red dot group, reported that there were three issues that the group overwhelming felt were a benefit of the Ragged Mountain alternative.

- Avoid exposure to potential pollution in the James River Basin and water quality issues with the James River.
- Watershed under local control.

Minutes of Special RWSA Board Meeting (Cont.)
Community Water Supply Public Outreach Meeting
October 27, 2005

- Less environmental impacts.

Ms. Tonya Watson, recorder for the yellow dot group, stated that in her group the majority of the people voted against the James River alternative for the following reasons:

- Water quality issues
- Stewardship of our water
- Preserving the James River downstream from Charlottesville.

Ms. Watson also inquired if there was a mistake in the pipeline length for Segment 1B, since the pipeline lengths for the different categories within that pipeline route did not add up to the 16,800 linear feet total that was listed on the slide.

Mr. Keno explained that the category statistics for each segment were not meant to add up to the total linear feet figure. The comparison data was included to help illustrate the amount of pipeline that might be along the road with respect to each segment.

Ms. Christensen expressed her appreciation to everyone who participated in the breakout sessions. She felt that a clear consistent message was conveyed by the three different groups. She then asked Mr. Gaffney to review the next steps in the process.

Mr. Gaffney thanked RWSA staff, Gannett Fleming, and VHB consulting for the presentation tonight. He also thanked Ms. Becky Christensen for her excellent assistance with the facilitation of this meeting, and thanked the elected officials and the Board members of both the ACSA and RWSA who were in attendance. Mr. Gaffney further stated that most importantly he wanted to thank the members of the public for their attendance, the input provided tonight and also during the past years as the process has moved forward. RWSA would be reviewing and responding to the input received tonight, as well as to any comments received after this meeting.

Mr. Gaffney commented that once RWSA staff and its consulting team completed the environmental surveys on the SFRR to RMR pipeline, the staff would make a recommendation to the local boards on a preferred alternative and the final Public

Outreach Meeting would be scheduled. It was anticipated that the meeting would be held in either January or February 2006. Following that meeting, the local boards would each need to take a formal position on the recommended preferred alternative. As soon as all four boards agreed on the same alternative, RWSA would submit an application to the regulatory agencies for final approval.

Mr. Gaffney also recognized that many citizens and citizen groups in this community had stated a preference for the Ragged Mountain alternative. Several other groups had not expressed a preference between the alternatives, but had clearly stated the need to complete this process and build the water supply capacity this community needs. Having heard the public's comments, it was his personal hope that every effort would be made by RWSA staff and consulting team to fully explore the environmental

Minutes of Special RWSA Board Meeting (Cont.)
Community Water Supply Public Outreach Meeting
October 27, 2005

advantages of the Ragged Mountain alternative while following the regulatory process to the end.

Mr. Gaffney added that RWSA continues to offer the opportunity for civic and community organizations to learn more about the process through the use of Rivanna's speakers' bureau. A program on the Community Water Supply could be presented at an upcoming meeting tailored to the group's time frame and to topics of interest. Citizens were asked to contact Mary Knowles, Executive Secretary, at 434-977-2970, ext. 101, for more information.

Mr. Gaffney stated that RWSA would appreciate citizens taking a few minutes to complete a meeting evaluation form to let Rivanna know whether tonight's session had been worthwhile and how future meetings could better serve the community. He also reminded the public to sign the meeting register on the table located at the entrance of the Forum and to also provide their e-mail address if they had not done so already to receive updates on the Community Water Supply Plan process.

Mr. Gaffney wished everyone a safe travel home and stated that he hoped to see them again at the next Public Outreach Meeting in early 2006.

Mr. Gaffney adjourned the special meeting of the RWSA Board of Directors at 8:20 p.m.

Respectfully Submitted,

Mr. Robert Tucker
Secretary - Treasurer