

**South Fork Rivanna Reservoir Stewardship Task Force  
DRAFT Minutes of Task Force Members Meeting  
October 27, 2008**

A meeting of the members of the South Fork Rivanna Reservoir (SFRR) Stewardship Task Force was held on Monday, October 27, 2008, at 6:00 p.m. in Lane Auditorium at the Albemarle County Office Building, 401 McIntire Road, Charlottesville, VA.

**SFRR Stewardship Task Force Members Present:** Ms. Holly Edwards ó Charlottesville City Council, Mr. Mark Fletcher ó citizen from University of Virginia (UVA) representing recreational interests on the SFRR, Mr. Michael Gaffney ó Rivanna Water & Sewer Authority Board of Directors, Mr. Thomas Jones ó citizen representing property owners along SFRR, Ms. Karen Joyner ó Ivy Creek Foundation, Mr. Chris Lee ó Charlottesville Regional Chamber of Commerce, Mr. John Martin ó Rivanna River Basin Commission, Ms. Wren Olivier ó Sierra Club, Dr. Liz Palmer ó Albemarle County Service Authority Board of Directors, Mr. Dennis Rooker ó Albemarle County Board of Supervisors, Mr. Ridge Schuyler ó The Nature Conservancy, Ms. Dede Smith ó Citizens for Sustainable Water Supply, and Ms. Sally Thomas ó Chair, member of the Albemarle County Board of Supervisors and representing the League of Women Voters.

**SFRR Stewardship Task Force Members Absent:** None

**Also Present:** Ms. Tamara Ambler ó RWSA Water Resources Manager, Ms. Lee Catlin ó Albemarle County Community Relations Director, Dr. Robert Wichser ó RWSA Water & Wastewater Director, members of the public, and media representatives.

**1.0 Call to Order**

The meeting of the SFRR Stewardship Task Force was called to order by Ms. Thomas on Monday, October 27, 2008 at 6:00 p.m.

She reported that the task force was formed in August by the four chairmen, and she asked them to discuss what they anticipated from this group.

Dave Norris addressed the Board, stating that he is speaking on behalf of Ken Boyd and himself and thanking members of the task force and members of the public who have attended the meetings. He noted that there has been some confusion about the City and County's expectations for the task force, and said he hoped tonight would bring some clarity and focus to their work. He said that this statement reflects his and Mr. Boyd's personal opinions as members of the "four chairs" group that chartered the task force, and has not been endorsed by either the City Council or Board of Supervisors.

Mr. Norris said that the water supply resolution was unanimously approved by City Council on June 2, 2008 and by the County Board of Supervisors on June 11, 2008, and included the following text: "Be it further resolved that in addition to the specific elements of the local water supply plan endorsed and approved by this resolution, the

City Council and Board of Supervisors hereby request the Rivanna Water and Sewer Authority to undertake a study of the South Fork Rivanna Reservoir and the viability and merits of maintenance dredging, siltation prevention, and any other appropriate initiatives that could maintain and enhance the aquatic health and water quality of the South Fork Rivanna Reservoir as a valuable water resource for the long term future benefit of the community. Mr. Norris said that it's important to note that this task force was conceived in the context of a joint city-county reaffirmation of the basic parameters of the proposed water supply plan. He added that measures to sustain the long-term health of the South Fork reservoir ó potentially to include dredging ó were not envisioned as replacing but rather supplementing the other components of the water supply plan approved by the city and the county. "This task force was not charged with responsibility for reassessing the fundamentals of the water supply itself."

Mr. Norris also said both the city and county acknowledged the valuable role that the South Fork plays in a water resource for the community, not just a place where people go for recreation. He stated that it was created as a water supply vehicle and will continue to serve in that capacity under any scenario offered to date. Mr. Norris said that if the task force were to recommend that the reservoir be dredged, it is clear that water supply gains would result. He noted that there is no consensus as of today as to whether those gains would be factored into the overall water supply equation and the water supply plan adjusted accordingly, or whether they would simply be seen as creating additional supply to extend the life of the plan and/or give us greater capacity to manage any future water emergencies ó that is a decision that is outside the purview of this task force.

Mr. Norris emphasized that the task force's focus should be on building a well-rounded case as to how the reservoir benefits the community, what measures would be most effective in maintaining those benefits, what is likely to happen to the reservoir if no such measures are undertaken, and what the next steps would be in order to move those measures forward. From there, he said, the city, county, RWSA, and ACSA would have a much more well-informed discussion about how to proceed in implementing those steps. Mr. Norris said that the taxpayers and rate-payers of the community would be well served by a more thorough assessment of cost and feasibility of the various components of the adopted water-supply plan, especially in light of recent news about increased costs of the Ragged Mountain dam project. He said that they commend the step of RWSA inviting in third-party experts to reassess the costs of repairing or replacing the Ragged Mountain Dam.

Mr. Norris said, "Whether by broadening the scope of that review process or by proceeding with a parallel effort to engage independent experts in watershed and water supply management, we believe RWSA should take advantage of this pause in the implementation process to more closely analyze the key components of the adopted and alternative plans to ensure that the path we choose for meeting our community water supply goals truly is the most economically and environmentally responsible one."

He indicated that the city and county have called for the initiation of stronger measures to promote conservation and efficiency in our use of water and these two need to be

incorporated into the community's long-term water supply plan.

Ms. Thomas thanked him and asked task force members if they had any questions. She said that they are gathered here to receive comments from the public, and in preparation for that input she presented a photograph with an aerial view of the reservoir. Ms. Thomas mentioned that 250 people in the community have answered the questionnaire that has been distributed and available online. She asked members to introduce themselves, and they did as follows:

John Martin ó Rivanna River Basin Commission  
Chris Lee ó Charlottesville Regional Chamber of Commerce  
Karen Joyner ó Ivy Creek Foundation  
Tom Jones ó Residents who live near the reservoir  
Dennis Rooker ó Albemarle County Board of Supervisors  
Ridge Schuyler ó The Nature Conservancy  
Sally Thomas ó League of Women Voters  
Holly Edwards ó Charlottesville City Council  
Mike Gaffney ó Rivanna Water and Sewer Authority  
Dede Smith ó Citizens for a Sustainable Water Plan  
Mark Fletcher ó University of Virginia  
Wren Olivier ó Sierra Club  
Liz Palmer ó Albemarle County Service Authority

Richard Collins, who represents Citizens for a Sustainable Water Plan, asked the task force if they had copies of a letter from the Army Corps of Engineers in relation to this project. Members indicated that they did not, so Dr. Collins explained that what he is referring to is a letter in response to a letter resent to the Corps on July 17, 2008; the reply was received on October 8, 2008 signed by the Commander of the Corps's Norfolk District. He said that the Citizens group asked for peer review because of the "wildly conflicted" economic claims.

Dr. Collins reported that the Corps's letter said, in part, "Our decision documents found the dredging alternative not to be practicable based on cost and the lack of identified short-term and long term disposal sites. The information you presented is interesting and has apparently led to a local government resolution being passed that calls for a more detailed evaluation of that alternative. That seems to be a reasonable response on the part of the local governments. I would be interested to learn the outcome of that detailed evaluation."

Dr. Collins said that the Army Corps did not feel that they could rescind the permit, but they were also very clear that it doesn't require action but is merely an authorization; if the group chose to evaluate this alternative more completely ó which is what the Citizens group urges them to do ó there is an expectation that the Corps would look at it favorably. He also suggested that the plan has two major parts ó enlargement of the dam at Ragged Mountain and an energy-consuming pump-back scheme to bring water up the mountain. Dr. Collins commented that those plans have become much more expensive than

anticipated, and the Citizens group feels that all of the information provided by consultants and others shows that the cost of dredging and local disposal and resource recovery is much greater. He added that the confusion is not so much confusion but a contested idea. "It is in contest, not in confusion, that we are resting." Dr. Collins encouraged them to undertake a dredging study with appropriate expertise.

Elizabeth King addressed the task force, stating that she was asked by representatives from Blue Ridge Sand to present a copy of their proposal which says they would be willing to bring their equipment up from the New River and demonstrate their unique type of dredging. She said that their type of dredging is different from the typical kind of dredging, as they use a different kind of equipment.

John Wheeler addressed the task force, stating that Fox News has reported that the drought that has plagued the deep south for more than a year is creeping northward, and extreme drought conditions have now spread into Kentucky and severe conditions will extend to southwest Virginia, according to the US Drought Monitor. Mr. Wheeler said that for this reason, the community needs to maintain and increase reservoir capacity now, not years from now. "Dredging is our best bet to do that."

John Cruickshank of Earlysville, representing the Piedmont Group of the Sierra Club, addressed the task force. He explained that about a month ago his group began to collect signatures on a petition regarding dredging on the South Fork of the Rivanna Reservoir. He reported that 362 residents have signed the petition, which states: "In light of recent information on the possible costs and feasibility of dredging the Rivanna Reservoir, we the undersigned believe that local government decision-makers should refrain from implementing the existing long-term water supply plan until a study of dredging the reservoir is completed. We urge the Rivanna Reservoir Task Force to recommend that a study of the costs and feasibility of dredging the Rivanna Reservoir to restore its original water storage capacity be conducted."

Mr. Cruickshank said that he participated three years ago when the water supply plan was first being discussed and signed the [drinklocalwater.org](http://drinklocalwater.org) document of May 27, 2005, which was a forerunner of the currently adopted plan. He stated that the third component of that plan said they would perform some level of maintenance dredging of the South Fork Rivanna Reservoir to maintain or improve capacity. In the past three years, he said, there have been conflicting reports about the cost and feasibility of dredging the reservoir, and "we now need accurate and reliable information before work begins on a new dam, pipeline, or other components of the water supply plan. He emphasized that we need a water supply plan that has the full support and confidence of community, and the Sierra Club urges local government leaders to get reliable information on dredging, consider all the options carefully, and then make a final decision on a water supply plan that will provide quality drinking water to our community and at the same time protect the natural environment. Mr. Cruickshank presented the petitions to the task force.

Kevin Lynch thanked the mayor and Ken Boyd for giving a bit more clarity for the purpose of the task force, but he still expressed concern about the origin of the task

force's charge. Mr. Lynch noted that the task force was originally created by Rivanna on June 23<sup>rd</sup> when their Board met; they are a duly constituted and authorized board that has the power to make decisions, and they decided that they would put out an RFP for dredging that would go out by July 2008, and that this task force would be appointed by the four chairs to set the scope of that dredging study. "That was what the representatives for Rivanna decided." He also said that on June 30<sup>th</sup>, the four chairs got together and after some discussion about the composition of the task force they verified the charge and passed out a copy of the charge that included an evaluation of resources at the reservoir including drinking water and how dredging would impact them.

Mr. Lynch said, "I'm still waiting for that to happen, and I'm still waiting for an answer of how that charge from June 30<sup>th</sup> got translated into the list of the charge, that outline for work, that was never approved at any public meeting. It was never approved anywhere that I could see except that it was read by Mike Gaffney to this board. How did that happen?"

Mr. Lynch emphasized that the problem with the Rivanna board is the same problem that we've seen with the banking, real estate, and financial communities across the U.S. "Their reach exceeded their grasp. Their greed exceeded what they could competently manage." He added that the money hasn't been spent here yet, and there is an opportunity to scale the project back.

Karen Pape addressed the task force, stating that the RWSA inherited this problem and didn't create it. She noted that many sewer lines have suffered from years of neglect, and now the community is faced with having to fix what's in disrepair. Ms. Pape said that she is a real estate appraiser, and the resource the reservoir provides is irreplaceable because we couldn't get permits to build this body of water today. She also said that if the reservoir silts in, it will not be able to be replaced today. Ms. Pape purported that just to buy the land needed to build a similar reservoir at 514 acres with 200 feet of buffer area, etc, would cost the city and county over \$40 million just to buy land; building the reservoir would likely cost over \$100 million, and a prudent investor would factor in maintenance costs at 10%. Ms. Pape said that \$250,000 would need to be set aside every year for 40 years to get to \$30 million; there are 170 reservoir area property owners and 106 of them pay a premium in their real estate taxes or assessments at \$9.5 million or just because of their proximity to the reservoir, accounting for about \$70,000 annually in additional income to the county.

Tom Olivier said that he is speaking as an individual today, and commended Chairman Boyd and Mayor Norris for issuing a joint statement "that will help constructively resolve what has been a recurrently contentious issue in previous meetings of the task force." Mr. Olivier also urged the task force to recommend a study of capacity-restoring dredging of the Rivanna Reservoir. He noted that the high estimates of dredging at the time the water supply plan was developed may have led to an "incorrect rejection" of this possibility, and there have been more jumps recently in the cost of implementing the adopted plan. Mr. Olivier added that we are likely entering into a deep and painful financial crisis that may mean that many public projects are not as feasible. "Do we have

the money to pay for the adopted plan?ö

Mr. Olivier also said that it would be öimprudent for the task force to recommend only narrow studies that don't illuminate alternative possibilities.ö He said that both Advocates for a Sustainable Albemarle Population and the Sierra Club have raised population issues related to the adopted water plan; ASAP pointed out that in a recent statement that they don't know if the population size targeted for support in the adopted plan is sustainable and concern about the effects of the water plan on growth are significant, legitimate, and need to be raised out in the open and not lurking unspoken in background.

Phyllis Kott Chervis addressed the task force, stating that she lives on the reservoir and acknowledged them for taking on this responsibility and listening to residents. Ms. Chervis said that she can see firsthand how many community members are using the reservoir, as people come for fishing and recreation, school class trips, and just enjoyment and observation. She commented that she has lived there during drought times and if nothing is done, this resource may be lost. öWe have the opportunity to make this valuable resource live for us for a long time, and I hope that we will take another look to make sure that we do that. And it certainly does seem that dredging is the most logical, cost effective way to do that, especially having seen what the increases in the cost of the dam are.ö

Howard Pape addressed the task force, stating that a household or business would not be sustainable without maintenance of resources, but in this community the opposite is the rule and not the exception. He used the downtown mall, the Meadowcreek sewer line, and Sugar Hollow pipeline, as example of problems that can occur with deferred maintenance. Mr. Pape said that the reservoir is about 40 years old, and there has never been a maintenance budget for this valuable resource. In the county's Comprehensive Plan, he said, the goal in the section on water resources is to öpreserve and manage the county's natural resources in order to protect the environment and conserve resources for future use.ö Mr. Pape also noted that in the section on public uses and ecological values, it states that water serves a myriad of uses and öwe need to look no further than this to understand what is at stake hereí we already know what a valuable resource the reservoir is.ö

Sam Krilick addressed the task force, stating that there is every reason to concentrate on the dredging in the South Fork Reservoir. Based on a study, he said, funded but not enacted by the RWSA, water storage can be significantly increased; if some of the dredged material is gravel and compactable sand it can be sold ó further reducing the cost of dredging. He commented that he doesn't understand why the task force is öfixed on the recreational aspect of the reservoir,ö instead of the prime purpose of supplying the maximum volume of water at the least cost to consumers. Mr. Krilick said that dredging has the potential for doing this, and he doesn't understand the position of those on City Council and the Board of Supervisors who are still pledged to öthe incredibly flawed and expensive Ragged Mountain Reservoir expansionö over the solution of dredging the South Fork Reservoir. He added that the question of location and final cost of pipeline

critical for the expansion is still a subject for future planning by the RWSA; in his opinion the price will mean all residents will shoulder the costs, paying massively higher water bills, sustaining incredible environmental and habitat damage, and future developers won't have to pay a penny for the use of the additional water. Additionally, he said, there will be further sprawl and increased traffic and reduction of air quality as the site is clear cut. "Now is the time to insist that the RWSA sends out RFPs for a bottom study so that dredging proposals can be obtained and reviewed by the task force."

Dan Bieker addressed the task force, stating that what's troubling to him with the water plan is the lack of attention that's been given to conservation. He said that the cost increase in the dam at Ragged Mountain could supply every household in the water system with a front-loading washing machine, faucet aerators, low-flow showerheads, and save approximately 2 million gallons of water per day, \$200 per household in energy savings. Using other water collection measures, Mr. Bieker said, conservation could substantially impact the whole water plan and possibly reduce the need to destroy habitat as well as increasing stream flows. "Conservation ends up being one line at the end. Why isn't it up front?"

Betty Mooney addressed the task force, and expressed concern that dredging has been discussed since 1995, and many people on the task force have been in on those discussions. Ms. Mooney emphasized that none of them are dredging experts, and when Gannett Fleming was hired to implement the 2002 plan, dredging was part of that plan and "was part of the four alternatives for the water supply plan." She said that on September 21, 2004, Becky Christensen gave the report for the "South Fork Rivanna River dredging alternative," and the consensus of all three groups was that the dredging needed to happen anyway since the reservoir was a community asset and had recreational value." Ms. Mooney said that everyone at the first community meeting agreed that dredging should happen, but at the next community meeting the consultants made dredging "sound so scary that no one in their right mind would want to dredge." From that day on, she said, she believed there was a concerted effort to prevent dredging in this community from being part of the water supply, and she believes the costs of the dam at \$37 million were never evaluated "she further believes that in 2004 it was never reconsidered but the dredging estimates were continually elevated.

Jack Brown thanked them for volunteering on this task force, and thanked the RWSA, the County, and the City, for working "with best interest of community in mind." Mr. Brown said that he is a historian of technology, and teaches engineers at the University of Virginia. He said that engineers prefer to build new over maintaining old, so encouraging them to think of maintenance is always an uphill battle. Mr. Brown emphasized that all alternatives will entail maintenance. He said that some oppose dredging because it will have to be re-dredged, but that's a straw-man argument. He noted that the Ragged Mountain dam and pipeline concept lacks maintenance costs, but would be very expensive to maintain. He said that the long term trend is the rising burden of environmental regulations, which will become more burdensome over time. Mr. Brown said that the clear thing to do right now is to realize there is a maintenance burden and

respond to it, with the task force focusing on an endorsement of the City and County resolutions that called for bathymetric studies.

Francis Fife addressed the group, stating that the engineering firm Gahagan & Bryant came to Charlottesville in May, and is very experienced in the field of dredging ó stating that they could do a dredging study for \$275,00. Mr. Fife indicated that Mr. Frederick volunteered that there is a fund of \$300,000 that could be used for this purpose. Mr. Fife recommended that the study proceed now, and encouraged the task force to ask the RWSA Board to conduct a new review of the entire water supply plan.

Richard Lloyd said that at the last SFRR meeting, Ridge Schuyler presented pictures of what the reservoir would like if it were not dredged. He said that he found mention of the Rivanna all over The Nature Conservancy's website, and learned that there are 20 people working for TNC's Freshwater Initiative. Mr. Lloyd said that the Conservancy's Brian Richter wrote a book entitled *Rivers of Life*, which describes how TNC views the restoration of natural flows in rivers. Mr. Lloyd also found a letter from TNC to Rivanna in 2005 talking about their partnership, and that resulted in the safe yield analysis that indicated the need for more storage capacity within the reservoir. He said that their method of doing this is to monitor minimum flows to establish that first flood of the year proceeds in uninterrupted fashion; the yield is taken from rising and falling floods. Mr. Lloyd said that you essentially are building a natural river on top of 70 feet of latent sediment, which is held in place by a dam, with sediment packed up against it and placing additional force on it.

Downing Smith addressed the task force, stating that he doubts the pipeline could ever be built and without it, the Ragged Mountain project doesn't work. Mr. Smith said if that is found out later without any dredging having been done, we're in a really bad situation. He added that the reservoir will be needed anyway to provide water for that pipeline and if it silts in there won't be enough water. Mr. Smith also indicated that we know what dredging costs and people are lined up to do it, and we need to do something now.

Collette Hall addressed the task force and said that in 19 years she has been to the SFRR once, but expects it to be maintained for potable water. Ms. Hall said that she would like to speak for the silent majority ó as she received a notice from RWSA that input would only be taken until October 31<sup>st</sup>. She expressed concern about the limits of the survey distribution, and encouraged the task force to explore having them put in utility bills and post them in other public locations.

Keith Rosenfeld of Ivy addressed the task force, thanking them for their work. He said that he has an environmental sciences degree and is also a rower and photographer. Mr. Rosenfeld said that he has spent about 15 years on the Rivanna and there have been huge changes ó with areas that have gone from six feet deep to two feet deep, trees that were washed in by storms and were never moved, areas that have encroached with land 50 or more feet into the waterway. He said that he has called RWSA to move trees, but were told they were not allowed to improve it. Mr. Rosenfeld added that after attending some of Tom Frederick's presentations, he has óa heck of a lot more confidenceö in the RWSA



than he did previously, and commented that the reservoir should be the water supply. He also said that the DEQ indicated that if dredging took place the reservoir could be permitted to bring it in to its natural contour.

Jeff Werner addressed the task force, stating that the water supply, the cost of wastewater treatment at Moores Creek, and the pending cost of underground pipes would have to be paid for by families like his. He emphasized that a lot is at stake beyond taking away people's recreational opportunities. Mr. Werner said that he would like to see more stringent soil and erosion controls, more strict controls on properties in that area that use fertilizers, weed killers etc., and would like to see a vegetative buffer along the reservoir on every inch owned by the city and RWSA. He also said that the task force needs to take a close look at what traffic and trucks are using the bridges, as some carry hazardous items such as jet fuel. Mr. Werner said that the numbers that Gannett Fleming used in their report are from a contractor here that's never done any dredging at all. He said that Gannett Fleming considered what it would take to remove the soil sediment and keep it out for the next 50 years, and they came up with five million cubic yards, which differs from the local estimates of two million. Mr. Werner also encouraged the task force to have consultants give an image of what it's going to look and feel like around the reservoir to have a 24/7 operation to have millions of cubic yards and millions of gallons of water removed with dredging.

There being no further public comment, the task force began their discussion.

Ms. Thomas thanked everyone for their input, noting that over 250 people replied to the on-line survey; she said she has also distributed other paper copies and has received 15-20 responses from those.

Mr. Rooker commented that one of the task force's charges is looking into how the reservoir is used and the value it has to the community, but one thing that hasn't been developed is what steps would be effective or other than dredging or in maintaining it on a long-term basis. He asked what kind of expertise could be brought in to address that.

Ms. Thomas mentioned that she had seen a book on Ms. Ambler's desk about maintaining water quality in reservoirs, and she is aware that there are people who have expertise in that area.

Mr. Rooker added that other than the issue of sedimentation, there may be maintenance issues with respect to the quality of water, how the banks are maintained, etc. "What other issues do we have other than sedimentation?"

Ms. Olivier mentioned hydrilla and other invasive plants as being a factor.

Mr. Rooker replied that there was no definitive answer on whether that was an indication of an unhealthy or healthy reservoir.

Ms. Thomas said that she also had no resolution on the effects of hydrilla, although it is

an invasive species, and John Kaufman should be able to speak to its impact.

Dr. Palmer noted that her understanding is that hydrilla would not impact water quality.

Ms. Thomas commented that if no more than 30% of the water body is occupied by the plants then it is regarded as a generally healthy situation, and fish use it for shelter.

Mr. Schuyler wondered if Sam Austin of the USGS, who is also Chairman of the Technical Advisory Committee of the Rivanna River Basin Commission would come in and talk about the commission's work to address the threat of excessive sedimentation.

Mr. Martin agreed that that would be very useful.

Ms. Smith reiterated appreciation to Dave Norris and Ken Boyd, and acknowledged that "we can't look at dredging as an isolated factor," but instead have to look at it in holistic way, how it affects the community, and how it supports values that are important to the community. Ms. Smith mentioned that this community talks a lot about sustainability, and all factors including cost and capacity after dredging must be considered. She also said that she appreciated the reference to the Gahagan & Bryant study, emphasizing that what's needed are experts to come in and share information. "We need real science. We need real information to know really what the answers are. It's not a book on somebody's desk, there are people who know how to address these questions and who to go to and could give it to us all together in one report." She emphasized that the surveys reflect the same mindset.

Ms. Thomas asked who Ms. Smith would like to have come address the task force.

Ms. Smith replied that the group should go forward with City and County recommendations to proceed with a real expert study.

Mr. Rooker asked what kind of an expert study.

Ms. Smith replied that this would be a study of the reservoir and dredging. She explained that in the Gahagan & Bryant presentation "which is available on podcast" they talk about all of these issues, including prevention of further sedimentation, permitting, disposal sites, issues with dredging, etc.

Mr. Rooker indicated that he had met with the firm.

Ms. Thomas added that she had too, as did Mr. Martin and Dr. Palmer.

Ms. Olivier agreed with Ms. Smith, and added that she also supports Mr. Bieker's contention that more emphasis should be put on conservation of water.

Dr. Palmer said that conservation involves changing people's habits, but there are also a lot of leaky pipes out there that contribute to water loss. She mentioned that RWSA and

other agencies have put a lot of time and effort to try to stop the leakage, which can be as much as 17-18% in any given month. Dr. Palmer added that this is an expensive part of what's in the water supply plan for repairing the aging infrastructure in the Ragged Mountain system. She apologized to Colette Hall that she didn't get the information put into utility bills, noting that there wasn't enough time to make that happen.

Mr. Fletcher said that it would be good to see if there is agreement on looking at recommendations for maintenance with respect to how it might supplement the water supply plan or mitigate any timing or cost risks, without second-guessing the plan itself. He stated that it's also important to clarify the form of recommendation and how far it's taken, noting that it seems there is an expectation that the task force will commission a study or review the results of a study or issue an RFP, when it seems more likely that the group will recommend that RWSA issue a bathymetric study. Mr. Fletcher suggested that he doesn't know if the task force would review those results, but perhaps that study would be first step in getting reliable estimates so that the bidders would have a good scientific basis for their recommendations ó yielding more competitive bids. He said that he would be surprised if this group was expected to write an RFP for a bathymetric study.

Mr. Gaffney said he wanted to review a question that Mr. Lynch had asked regarding the outcome of the June 23<sup>rd</sup> RWSA meeting when they agreed by July 8<sup>th</sup> to issue an RFP, but before that to ask the city, county, service authority and RWSA to identify the need, the make-up, and the goals for a task force to help define in greater detail the purpose of the study. At the end of the meeting on the 30<sup>th</sup>, he said, Mr. Boyd requested that the notes from the meeting be sent to the four chairs and that they confirm their directive to the task force based on that day's discussion. Mr. Gaffney said that the email traffic generated by the minutes of that meeting resulted in what is posted now as the SFRR Task Force's charge. He thanked Dave Norris and Ken Boyd for their work on this.

Mr. Rooker asked what the intent of the RFP was.

Mr. Gaffney responded that the RFP was intended for consulting firms that were qualified to perform studies of the South Fork Rivanna, explaining their qualifications so that it became clear to whom to submit the RFP, and that it was developed based on the input of the task force. "Input was to be presented from this task force to Rivanna so that we could go to those qualified engineers to do the study." He added that it probably would have made more sense if it was an RFQ, rather than an RFP.

Dr. Palmer also said that it would be helpful to know how to stop the sediment from getting in, how to get the cows out of the river, etc., before dredging is recommended. She also said that she would like more information about the specifics of dredging ó how long of a stretch would need to be dredged, how long it would take, what the schedule would be like on a daily basis, anticipated impact on the surrounding community, and other items related to the operation. Dr. Palmer added that Gannett Fleming talked a lot about getting up into the higher reaches of the reservoir and what that would look like as an operation. She emphasized that one of the primary considerations is what they are dredging for, as there are lots of different reasons.

Mr. Gaffney commented that it's good to ask those questions as it helps narrow down what a consultant is needed for. He also said that he would like to know what 85% of removing all the dredged material includes - how far up, how invasive, etc. - as the studies of dredging to return it to its natural state include that amount, not 100%. "What are the other 15% we're leaving in there?"

Ms. Smith stated that the group keeps coming back to what Gahagan & Bryant has indicated they would address in a study, and the money is there for that - a "drop in the bucket" compared to money already put out to get plans that now "we don't have answers to." Ms. Smith strongly encouraged task force members to listen to their presentation, as it answers many of these questions.

Ms. Thomas pointed out that it's on the website of Citizens for a Sustainable Water Supply.

Dr. Palmer noted that the questions she has asked are not answered in that presentation.

Mr. Schuyler said Gahagan & Bryant couldn't answer the question of "why are you dredging and what goal are you trying to achieve." He emphasized that the maintenance requirements are going to vary depending on why it is the reservoir needs to be maintained. "What we are here to do - we are trying to represent the community in answering "why dredge?" Mr. Schuyler stated that what this group is trying to do is respond to the four chairs with clarity on what the maintenance should be designed to achieve, so that there is a specific scope of work that can be presented to a consultant.

Mr. Rooker said that while he concurs with that sentiment, a lot of this is cost-impacted. He explained that there will be different costs associated with the various levels of dredging, and ultimately everything that the group might recommend has costs lurking in the background.

Mr. Schuyler responded that the very act of getting this information costs money, and the question is whether an analysis of what it would take to restore the reservoir back to its original capacity would be worth the cost of finding that out. He noted that Mr. Frederick had mentioned previously that dredging the entire reservoir would reduce the height of the dam by five feet. "I think we can leave that for decision-makers about whether it's worth the cost of investigating that option, but I think that it isn't without cost to find out the answers to these questions."

Mr. Rooker asked if a bathymetric study would really be needed if there were companies willing to come in and "take the risk of the status of the reservoir." He added that the end product is finding competent companies that might dredge and finding out what the cost and conditions would be under which they could do that. Mr. Rooker also said he didn't know if a bathymetric study is what Gahagan was talking about.

Ms. Smith interjected that Gahagan's proposed feasibility study would include a

bathymetric study.

Mr. Rooker replied that some of the dredging companies that have come in have not demanded a bathymetric study in order to respond to an offer.

Mr. Gaffney said that before a dredger can get on the reservoir, the plan would have to be approved by the Army Corps of Engineers and DEQ, and all studies would need to be complete. "At that point you get prices from dredgers to dredge, because anything before that is only going to be an estimate and not something that you can write a contract on."

Mr. Rooker commented that perhaps the scope of this project is larger, but some of these companies don't seem to have gone through that kind of a process before they dredge.

Mr. Gaffney responded that it's similar to getting prices to build a dam, and until studies are complete, they don't know what they're bidding.

Ms. Smith pointed out that Gahagan & Bryant said that they could come within 10-15% of the cost of the dredging estimate.

Mr. Fletcher asked if part of their study is coming back with where they think the bids are likely to come in.

Ms. Smith replied yes, and said that an important part of the study is identifying disposal sites, as a bulk of the cost is disposal of sediment. She noted that the \$275,000 that RWSA has set aside would cover a study to include all of that information, and pointed out that the cost may actually be less.

Mr. Fletcher said there would need to be information on how long the study would take and what the different approaches to dredging would mean in terms of equipment along the reservoir, operations, etc.

Dr. Palmer added that it also needs to be determined how far up the reservoir the dredging operation would go.

Ms. Thomas said that the task force is charged in part with defining the problem, which is another way of asking "why dredge." She urged the task force members to define what they want in the next three meetings, noting that it seems there is a desire to get more information about hydrilla, more information on keeping sediment out, and a better understanding of the dredging process.

Mr. Rooker added that it would be very helpful to have Mr. Austin come in to help the group understand more about reservoirs and water maintenance, as he would like to ensure that when the task force reaches the end of this process they've considered everything needed to maintain the reservoir. He also said that he would like to get information from other communities on what they did when they dredged.

Ms. Thomas responded that information from other communities has been tried for many years, but there are not that many old ōrun of the riverö reservoirs that have been dredged. She mentioned that when she asked the entire Chesapeake Bay Watershed Forum, participants did not know of a single place. Ms. Thomas noted that itø where to put the dredged spoil that becomes the predominant issue.

Mr. Rooker said that he would like to know what kind of preliminary studies were done with specific projects, and how much was spent on studies before RFPs for dredging were issued. ōWhy reinvent the wheel if other people have gone through this. I would assume they have some preliminary work they did that they would share with us.ö

Mr. Gaffney suggested asking Gahagan & Bryant for any RFPs ever received to do dredging studies.

Ms. Edwards commented that itø important to make conservation a primary part of the groupø focus. She also said that there is a history of not maintaining infrastructure, and she has inherited a lot on council related to that. Ms. Edwards emphasized the importance of designing some erosion control measures and being vigilant in enforcing them. She mentioned that there are people who disagree with specific water supply ōtheologies,ö and said that keeping stewardship in mind first will be the best thing for the entire community. Ms. Edwards said that doing nothing is not an option, and she has still not let go of the idea of letting the river be a river.

Ms. Thomas commented that it seems the next meeting is ōlined upö with the possibility of having experts come in and talk about the process of dredging and an RFP for dredging, preventing the sediment coming into the river, and getting more questions answered about the hydrilla.

Mr. Fletcher said that he wants to make sure these experts focus on the primary task ó the overall maintenance of the reservoir ó and the conversation tonight seems to relate to the question of dredging and bathymetric studies that will lower the risk to the dredging bidders. Mr. Fletcher said that they should also address decisions about which course to pursue based on how the bids or bathymetric studies come in, with a lower priority given to hydrilla and reducing sediment inflow.

Mr. Schuyler mentioned that the June 2<sup>nd</sup> resolution from City Council, which was followed up with a similar resolution from the Board of Supervisors, gave rise to the need to determine reservoir maintenance measures. He said that it talks about the viability and merits of maintenance dredging and siltation prevention, and they are listed equally in the resolution.

Mr. Rooker commented that addressing issues related to sedimentation and slowing it down is one way this task force can help out RWSA, and the group needs to establish what can be included in a report to provide them with information and save them time. Mr. Rooker said that one of the objections to dredging was the fact it would mean pumping out 2.5 million cubic yards, but that could be impacted if sedimentation is

slowed down. "I don't know that we've really gotten very definitive information at this point about what strategies could be employed and how successful they might be expected to be and what the cost might be."

Mr. Rooker also stated that Steven Bowler talked a little bit about it, but there is nothing definitive and it's important to get to the point that there are different opinions on what would happen if dredging is not done, and the impetus to dredging is that something will be created that's acceptable to the community. "I think when we talk about what maintenance is necessary, we need to understand what happens if you don't maintain [the reservoir] and does it really create an untenable situation." Mr. Rooker emphasized that he does not feel that he has the answer to that question at this point.

Ms. Smith commented that the river is not in a natural state as long as the dam is still there, and if the dam is brought down the reservoir would need to be dredged "because you can't just let it loose."

Mr. Rooker said that there is not a professional answer to that question.

Ms. Smith agreed, stating that there is not a professional answer to a lot of questions.

Ms. Thomas said that the questions that the task force want answered should be specified in the RFP, and in a sense they will have failed if all of the questions are not asked.

Ms. Thomas said that a lot of the survey respondents mention the Ivy Creek Natural Area, and asked Ms. Joyner to provide information at a future meeting about educational programs and how Ivy Creek may be impacted.

Mr. Rooker said that he would also like to have information as to the degree to which having or not having capacity in the South Fork impacts the long-range plan in terms of pumping of water from Ragged Mountain to South Fork.

Ms. Thomas responded that the last meeting provided some information on this subject.

Mr. Rooker stated that he does not fully understand, as he's heard it doesn't really matter if South Fork silts in because there is plenty of water to pump from that location even if it's in a river state. He said that he has also heard people say that there must be some capacity in South Fork if water is going to be pumped to fill Ragged Mountain.

Mr. Gaffney said that this issue has been studied, and even in the river state there would be 400 million gallons of storage close to the dam, which would be plenty to supply to Ragged Mountain with the pipeline because 95-98% of the water goes over the dam anyway.

Mr. Rooker added that it's at times of high reservoir level when the pumping is done, so a fully silted-in river state would not impair the plan as it's currently structured.

Mr. Gaffney responded that there would still be a reservoir of about 400 million gallons of water, because the speed of the water would take silt over the top of the dam, and it would reach a steady state whereby no more silt will settle. He indicated that it was in one of the studies.

Ms. Smith said that it would also be useful to know what the implication of all that silt going over the dam is; she also stated that the estimate in the water supply plan is actually 200 million usable gallons of storage at the 50-year point.

There being no further business, the meeting adjourned at 8:03 p.m.