South Fork Rivanna Reservoir Stewardship Task Force
Minutes of Task Force Members Meeting
December 18, 2008

A meeting of the members of the South Fork Rivanna Reservoir (SFRR) Stewardship Task Force was held on Thursday, December 18, 2008, at 6:00 p.m. in Conference Room A of the County Office Building ï 5th Street, Charlottesville, VA.

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

SFRR Stewardship Task Force Members Absent: Ms. Holly Edwards ï Charlottesville City Council, Mr. Michael Gaffney ï Rivanna Water & Sewer Authority Board of Directors

Also Present: Ms. Tamara Ambler ï RWSA Water Resources Manager, Mr. Tom Frederick ï RWSA Executive Director, members of the public, and media representatives.

Ms. Thomas convened the meeting, noting that Mr. Gaffney, Ms. Edwards, and Mr. Lee had not yet arrived.

Review of Minutes
Ms. Thomas commented that the minutes were nearly verbatim and well-done. She also expressed her appreciation to Sean Tubbs and Charlottesville Tomorrow.

Mr. Rooker suggested having everyone read the minutes and distribute corrections via email.

Ms. Thomas thanked Mr. Jones for providing the outline of recommendations, Mr. Schuyler for assisting, and Ms. Palmer for providing the outline of the first part of the recommendations. She said that the working document is usable from which to move forward. A working draft was projected onto a screen for the Task Force members to see.

Ms. Smith reiterated her concern that the report is not following the format of answering the four questions posed to the Task Force. She emphasized that using the directives from the four board chairs to organize the Task Force recommendations would probably be the best approach.

Ms. Thomas responded that their first question ï ñHow the South Fork Rivanna Reservoir Benefits the Communityò ï is directly in line with the report section entitled ñBenefits of the South Fork Rivanna Reservoir.ò She also said that the question ñWhat Measures are the Most

Effective in Maintaining Benefits to the Communityò follows what Mr. Jones included in his recommendations; ñWhat is Most Likely to Happen to the Reservoir if no Measures are Takenò is worked into the first part of the report; and ñNext Stepsò in Mr. Jonesôoutline are similar to the four board chairs ñWhat Measuresé .ò question. Ms. Thomas said that the Task Forceôs next step is to make a report, and the actual ñNext Stepsò for the reservoir itself come out of those recommendations.

Ms. Smith commented that itôs difficult in this to ñmine outò what the Task Force recommendations are, as they are mixed in with general information. She suggested that the recommendations from the group be put up front, with additional supporting information in the rest of the document.

Ms. Palmer commented that she believes all of the recommendations and backing information are included within this report.

Ms. Smith suggested organizing the report in the order and format of the four board chairsôfour-question format.

Ms. Thomas agreed that she could do that in formulating the report for presentation, but couldnôt really disassemble and reassemble it tonight. ñWhat we have in front of us is based on what Tom [Jones] came up with.ò

Mr. Jones said that itôs common for government or business reports to have an executive summary that summarizes key findings in a page or less, and that might create a framework for how to organize the rest of the data.

Mr. Martin responded that he didnôt feel an executive summary would be necessary for a ten-page report, but perhaps an introduction would accomplish the same thing.

Ms. Thomas noted that changes suggested by Task Force members may not all be incorporated in this version of the report. She began the discussion with a review of the first page of the report draft, noting that Ms. Smith had added some background information. Ms. Thomas mentioned Charlotte Humphris information as being helpful in capturing the background and community perspective of the reservoir and surrounding issues ï including the lawsuits that followed due to the downzoning decision.

Mr. Martin said that he would like to see a section in the beginning of the report entitled ñState of the Reservoirò that describes the long history beginning in 1962, commenting on all of the initiatives from the city and county to protect it ï including the 1980 downzoning. ñThe watershed has been protected.ò He added that the state of the reservoir is that itôs a reservoir thatôs experienced some siltation problems, but it is sitting in a ñvery protected watershedò with ñvery strong ordinances in place to protect the rivers and streams.ò Mr. Martin noted that those protective measures are the reason the reservoir is not a ñmuddy bogò right now, and emphasized that itôs simply not true that the county built the reservoir and just walked away from it.

Ms. Smith noted that Stephen Bowler has some good information about that history.

Ms. Thomas noted that he used Ms. Humprhisôreport, and said that the reservoir was essentially responsible for ñan entire turnover in the Board of Supervisorsò as people became concerned about issues they previously hadnôt been involved in. She mentioned that the supervisors had been in a ñpro-development modeò until the reservoir became a public issue; it also coincided with redistricting.

Mr. Rooker mentioned that there were two lawsuits pursued by two developers over the downzoning ï one that went to the Circuit Court of Appeals and one that went to the Virginia Supreme Court ï and in both cases the county prevailed based upon the health, safety, and welfare aspects of protecting the reservoir.

Ms. Thomas said that the next step is to work on the organization of the report.

Mr. Schuyler thanked Task Force members for their work and suggested having some ñground rulesò on what to include in the report or not. He suggested using the criteria for inclusion of ñis it relevant, is it accurate, and does it make the report clearer.ò Mr. Schuyler also suggested adding John Kaufmannôs observation of the ñlack of developed public access located near the center or upper end of the reservoirò and adding clarification that the Task Force recommendations do address that problem.

Mr. Jones asked if the five facts mentioned in the background should be put ñup frontò in the report, noting that some of that information is within the body of the report. He said that heôs not objecting to any items, but to start out with them seems like putting detail before structure.

Ms. Thomas showed the group on the screen whatôs on the Task Forceôs webpage. She mentioned that the quick facts in the draft report are helpful, but might not be relevant to the recommendations of the group. She said that Gary OôConnell mentioned after the ñchairs presentationò that the Task Force should make their final recommendations to the four board chairs as a PowerPoint presentation.

Ms. Thomas said that Task Force members have said that the order for presenting the reservoir benefits should start with the more ñtypicalò reservoir benefits: water supply, water storage, and water quality aspects; then go on to recreational, ecological, etc. benefits. She expressed concern about the reader only reading the first few words of each section, and suggested putting information up front so it would be noticed.

Mr. Jones noted that itôs only a ten-page document and that should be fairly easy for the reader to get through in its entirety.

Dr. Palmer stated that itôs important to include the ñwhyò for the recommendations the Task Force is going to suggest, as the group has already been informed that storage in the reservoir is not needed for the 50-year water supply plan. She said that she objects to the storage aspect being listed as a primary reason because itôs not part of the plan.

Mr. Jones responded that the report can clarify that, and include the fact that the reservoir is needed for about 7% of water storage.

Ms. Thomas said that the list of 1-5 in the benefits and conditions sections are then followed by the measures needed to effectively maintain those benefits, and Mr. Jones has suggested having the order of those parts align with one another. She mentioned that via email, Mr. Rooker has suggested having the report order ñturned the opposite of the way it is now.ò

Ms. Smith noted that the community survey overwhelmingly listed ñwater supplyò as a top priority for the reservoir.

Dr. Palmer said that it will be important to clarify the water supply issue when the report explores the Task Forceôs recommendations regarding the reasons for dredging.

Mr. Martin said the reservoir would have diminishing importance as water storage over the years, but increasing importance in all other areas. ñI thought that the Task Force was to concentrate on what the non-water storage importance of the reservoir is to be to the community on into the future.ò

Mr. Fletcher stated that in going back to the #1 question about how the reservoir benefits the community, the reservoir served the purpose of water supply and water storage ï not recreation ï when it was built. ñNow maybe that mix has changed over the years, but the fundamental piece of this is still about water supply and much less water storage.ò

Mr. Rooker emphasized that the Task Force would be remiss in signing off on a report that lists rowing as the primary purpose for the reservoir, as the facility was built for water supply and storage ï not recreation. He mentioned that no matter what is done in the water supply plan, ñalmost all the water is going to be coming out of the South Fork.ò

Mr. Schuyler commented that he is less concerned about the order of the report, and more concerned as to whether the content is accurate, relevant, and helpful to the four board chairs in advancing their decision making. He said that it does need to be made clear that dredging is not needed in order to maintain the role of the South Fork reservoir as a water supply ï at least not in the next 50 years. Mr. Schuyler noted that while the reservoir would need to be dredged for storage, that storage wouldnôt be needed in the next 50 years because there is an alternative water storage option that people have agreed to.

Mr. Rooker responded that there is some obligation to maintain the reservoir and its storage capacity, and he doesnôt see the problem in maintaining it for that purpose as well as for recreation and other uses.

Mr. Schuyler said that while that might be his opinion, that doesnôt change the fact that the reservoir does not need to be dredged in order to meet the stipulations of the 50-year water supply plan.

Dr. Palmer emphasized that the state requires localities to plan for the next 30 or 50 years, and present-day ratepayers are not supposed to be asked to pay for something that goes beyond that timeframe.

Mr. Rooker replied that ñweôre not making that decision.ò

Mr. Jones said that he made the comment about order because the most important aspect of the reservoir relates to water supply, storage, and quality, and information related to those should be placed up front in the report.

Ms. Thomas acknowledged that while this discussion was taking place, she reordered the benefits information as: water supply, water quality, water storage, recreation (including rowing and fishing), physical presentation, and biota.

Mr. Fletcher noted that there is nothing included yet regarding educational benefits.

Ms. Joyner suggested placing them before aesthetic value.

Dr. Palmer suggested adding some language in the water storage section that clarifies the dredging consultantsôrecommendation that the operation would need to occur near the intake of the water treatment plant, not the entire reservoir.

Mr. Schuyler said that the information needs to go in the water supply section, as it relates more to that than it does to storage.

Ms. Smith commented that there should be consistency in stating ñtotal volumeò versus ñusable volume.ò

Mr. Schuyler stated that the figure of 80 to 90 years for clearing the water treatment intake relates to how long itôs projected for sediment to fill up the dead storage high enough that it gets to the lowest intake. ñAnother way of looking at that is it will take 80 to 90 years for the [dead] storage to fill up with sediment as opposed to with water.ò

Ms. Smith mentioned that Mr. Schuylerôs statement is an opinion, and no field studies have been done on that.

Mr. Schuyler responded that it is the best estimate currently available.

Mr. Rooker suggested adding the word ñestimatedò to clarify that.

Mr. Schuyler said that a study to determine a more precise number would cost about $100,000 according to the USGS, and Mr. Bowler and Mr. Harper suggested that such a study was unnecessary as relatively accurate information could be gathered without it, based on history.

Mr. Jones added that if it fills up at 1% per year, it would take about 100 years to fill up.

Mr. Schuyler said that dead storage is 450 million gallons, and with 15.1 million gallons of storage a year being lost it would take 30 years for that to get to the lowest intake. ñWhat we donôt know is how long itôs going to take for sediment from seven miles up to get into the dead storageé .ò

Ms. Smith mentioned that there is a reference to hydrologic information that is in the new version of the report but not in previous material.

Mr. Schuyler said that it was based on something he had said at a meeting, but he didnôt ask for it to be included in the report.

Mr. Jones commented that if the information is not from a study done in conjunction with the water supply plan itself, it shouldnôt be included in the Task Forceôs report, especially if water levels in the South Fork were decided to be kept up to meet recreational or other purposes.

Mr. Schuyler responded that he doesnôt really care if itôs included or excluded, but the information does serve as ña very important reminder of what the storage facility is.ò He said that itôs helpful to know how the system will work, so if itôs recommended that the South Fork be kept full the current system requires an average of 17 days of transfer a year up to Ragged Mountain, but if Ragged Mountain is drawn down more because of keeping the South Fork full, then more water may need to be transferred.

Dr. Palmer pointed out that Rivanna staff has indicated that depending on drought management and weather conditions, the pump shouldnôt be run more than three months out of the year.

Mr. Jones commented that the difference between 17 days and three months is a fairly big window, and in general the information should be taken out because itôs not particularly relevant to what this Task Force is doing. ñIf people want to understand how the current water supply plan works, they ought to turn to that [plan] and read [it]. Weôre not trying to explain the current water supply plan.ò

Ms. Thomas responded that the reason something needs to be said is there is an assumption that most water will continue to come from the South Fork River.

Dr. Palmer said that Rivanna could be asked to clarify the information.

Mr. Rooker suggested including a reference as to where the information came from, and itôs a salient point to be put in the report, especially for the general public as it is unlikely that people are going to run and look at the water supply plan.

Ms. Thomas noted that the information was based on computer modeling, experience, and policies now in existence.

Mr. Schuyler responded that this Task Force is perhaps recommending changing those policies.

Mr. Jones said that itôs hard to imagine those policies would stay in effect, as the South Fork shrinks, that you would draw it down to three or six feet down before water is pulled out of Ragged Mountain. He stated that ñit makes certain assumptions,ò and it is up to the group as to whether those are included.

Dr. Palmer said that they could be footnoted in the report.

Ms. Smith suggested adding the word ñwatershedò onto the reference of 96% of water coming from the South Fork.

Ms. Thomas shifted the discussion to the draft report section relating to impacts on water quality.

Mr. Chris Lee arrived at the meeting.

Dr. Palmer said that she would like clarification on the difference between water quality impacted by sedimentation entering the South Fork reservoir and sediment accumulation in the reservoir.

Ms. Smith responded that she objects to the entire sentence, as water going into Ragged Mountain has already been treated. She added that there is a lot of sediment in the Sugar Hollow reservoir, and in 2002 there were plans to dredge it.

Mr. Rooker suggested adding language that says ñif sediment in the reservoir were reduced.ò

Dr. Palmer said that she would like it to say ñflowing into the reservoirò versus ñcoming into the reservoir.ò

Ms. Smith noted that sediment removal treatment canôt be reduced at Ragged Mountain because there isnôt enough water, and sediment must be removed there. ñI just think itôs misleading to say we can reduce our sediment at a place like Ragged Mountain.ò

Dr. Palmer commented that right now it has less sediment than the South Fork Rivanna Reservoir.

Mr. Rooker suggested including the statement: ñIf sediment entering the South Fork Rivanna Reservoir were reduced, water treatment efforts could also be reduced.ò He also said that the purpose of this Task Force is to focus on the South Fork, not to compare it to other reservoirs.

Ms. Thomas said that they could include a statement saying that ñif it werenôt a run of the river reservoir, it wouldnôt be accumulating sediment.ò

Mr. Jones pointed out that one reason Ragged Mountain doesnôt have sediment is it doesnôt have any water coming into it.

Mr. Schuyler added that the Ragged Mountain reservoir doesnôt have a lot of sediment because itôs in a two square-mile drainage basin, and South Fork has a huge amount because it has a 260 square-mile drainage basin.

Mr. Jones said that this is background about what benefits are received, and itôs irrelevant to compare Ragged Mountain and Sugar Hollow as the soil composition, terrain, and storms all affect them differently.

Mr. Rooker stated that the point here is that one of the groupôs recommendations should be encouraging efforts to reduce sediment entering the South Fork reservoir, and one positive benefit to that is it may reduce the cost of treatment.

Ms. Thomas shifted the discussion to water storage and referred to that part of the draft report, then displayed it on the screen.

Mr. Schuyler reiterated Ms. Smithôs point that total volume and usable volume need to be differentiated within the report, noting that usable volume is the real amount available for the community to use. He said that if itôs not too confusing, the report should include information that an original volume of about 1,700 million gallons produces about 1,250 million gallons of usable storage and 450 million gallons of dead storage below the water intake.

Mr. Jones suggested talking about usable storage from this point out.

Dr. Palmer said she would like to include the fact that about 15 million gallons per year are lost, or roughly 1% per year of original capacity.

Mr. Rooker noted that 1% would actually be 17 million.

Dr. Palmer said that it would be a good idea to add a sentence that says the approved 50-year water supply plan shifts the storage so that Ragged Mountain is the main storage facility.

Ms. Smith commented that she did not come up with the 7% figure being used to characterize the amount of water storage the South Fork reservoir would provide.

Ms. Thomas responded that she printed off information that showed what it was in 1966, 2002, and what it was projected to be in 2055 ï and that comes to 7% in 2055.

Mr. Rooker said that the 7% figure is in the furthest point of the 50-year plan, because until the Ragged Mountain pipeline is built a whole lot more storage would be coming out of the South Fork.

Ms. Thomas suggested adding the word ñultimatelyò to clarify that.

Mr. Schuyler said that Mr. Frederick has made it very clear that restoring capacity to the South Fork reservoir ñis not vitalò to the 50-year water storage need.

Dr. Palmer agreed that itôs important to include that.

Mr. Fletcher agreed with the importance of differentiating year one and year 50.

Dr. Palmer responded that itôs not going to take 50 years to build the Ragged Mountain Dam, and once Ragged Mountain becomes full and the water supply plan is implemented, South Fork becomes much less important from a storage standpoint.

Mr. Fletcher asked what year that would be.

Dr. Palmer replied that it depends on money.

Mr. Rooker said that the group seems to be going down the road of discussing the water supply plan, rather than focusing on the reservoir and its benefits.

Mr. Schuyler stated that he wants it to be absolutely clear to the community that the 7% level would occur in the future, and there is a plan to replace that storage.

Mr. Rooker said that the point of this is to clarify the purpose of this reservoir.

Mr. Schuyler reiterated that it needs to be said that restoring the SFRR capacity is not vital to storage within the 50-year water supply plan.

Mr. Rooker responded that there is a lot of distance between the early years and the later years, and until the new dam is in place the reservoir now is a more important component in the system.

Mr. Fletcher said that Mr. Rookerôs point that the reservoir will become less important from a storage standpoint in each year is appropriate for inclusion.

Mr. Martin asked that the source of the 7% figure be identified within the report.

Mr. Rooker clarified his suggested statement for inclusion in the report as: ñThe South Fork Rivanna Reservoir storage capacity will become less important over time as the components of the planned water supply plan are put into place.ò

Regarding the reference in the document to rowing, Ms. Thomas said that there is a change in the wording that currently says ñIn five to seven years at the current rate of siltation, Mr. Sauer thinks his rowing team will need to decide whether to move to another venueò as an email from him this afternoon indicated that it would likely be much further in the future than seven years. She said that he also indicated that he wasnôt sure the rowers could ever move to Lake Monticello, but that lake does have 3,000 meters available for practice ï which is what is available to them now on the South Fork between the dock house and the dam. ñItôs the upstream part thatôs being constrictedé .ò

Mr. Jones suggested just removing the information entirely, as it is speculative.

Ms. Thomas said that she would like to leave it in because the impact of the report implies that this is an immediate issue.

Mr. Martin agreed that it is very important to include.

Ms. Thomas stated that Mr. Sauer is indicating that going from the 3,000 meters dock to the dam is still enough for him to keep his program going, even though he would like to have the hundred-foot wide, four-foot deep channel.

Mr. Fletcher said that his specific question to Mr. Sauer related to the mile-and-a-half from the dock in the other direction, not to the dam, and how long he thought it would be before that section was lost ï and he said five to seven years. Mr. Fletcher noted that over the summer when the reservoir level was down, that would not have been possible. He added that there is an assumption that if nothing is done, itôs only going to get worse. Mr. Fletcher clarified that Mr. Sauer is basing the five to seven year figure on what he has experienced over the last 20 years and how that will continue, and he knows that it cannot be used during extreme drought.

Ms. Thomas read the statement for inclusion as: ñIn five to seven years based on his observations, Mr. Sauer opines that the area up river from the boat house may be lost. Sometime after seven years at the current rate of siltation, he predicts his rowing team will need to decideé .ò

Ms. Joyner said that if he can just use the downstream portion from the dock, that should be included in the report.

Mr. Schuyler noted that space of 100 feet wide and four-foot deep channel three miles from the bridge up may be what someone wants, but thatôs not the minimum necessary.

Mr. Jones stated that Mr. Sauer was asked to provide the minimum width and depth to make an area rowable, and he responded 100-feet wide ï which is two eights side-by-side going the same direction ï and ideally four feet deep. Mr. Jones noted that there are also two boats coming the other way, and 100 feet is not adequate for having two groups passing. ñItôs hard to specify with a single number what makes a good place to practice.ò

Ms. Thomas said that the only comment she received regarding the section of the draft report on fishing was one from Ms. Smith indicating that suggested it be noted that a self-sustaining population of channel catfish is unusual. She said that she received no comments on the aesthetic value section.

In the biota section of the draft report, Ms. Thomas reported that several comments were provided related to hydrilla. She explained that she exchanged a series of emails with John Kaufmann, who is ñamazingly laid-backò about hydrilla and indicated that native grasses and native fish are no longer present in the reservoir. Ms. Thomas said that he indicated that hydrilla can have positive effects on the water, but ñpeople hate it.ò She added that Pat Mullaney told her hydrilla is a problem in all recreational lakes in Albemarle County, and Mint Springs is using grass-eating carp there, but they have had no positive impact thus far.

Ms. Smith commented that the other point thatôs important to include is that hydrilla is very new to the reservoir, so there are a lot of unknowns.

Mr. Jones noted that in 2002 he and others installed a wood duck house on the mud flats of a cove, and a few years ago when they went out to do maintenance on it the ground was sinking mud. This year, he said, it was a ñcarpet of hydrilla.ò Mr. Jones further stated thatôs about 600 feet up into the cove in one year.

Dr. Palmer suggested including something in the report that states the Task Force doesnôt have a conclusion regarding what to do about hydrilla.

Ms. Thomas presented on the screen what she currently has in the report.

Mr. Fletcher said that itôs important to include a reference to the fact that the county is taking measures now to reduce and control hydrilla.

Ms. Thomas mentioned that the carp need a year to grow before they eat the hydrilla. She also indicated that she would summarize the information and include her dialogue with Mr. Kaufmann.

Mr. Schuyler pointed out that hydrilla grows to a depth of 10 feet, and the usable portion of the reservoir is only 15 feet, so dredging to go from two feet to five feet ñisnôt going to solve our problemò and could actually make it worse because it stirs up the ribosomes and makes the plant grow faster. ñIôm a little bit worried about dredging as a resolution for hydrilla as if in some sense we could get to below ten feet by doing it.ò

Ms. Smith and Mr. Rooker said that those clarifying points could be stated in the report.

Ms. Thomas shifted the conversation to measures that should be taken.

Ms. Smith asked why the term ñphysical maintenanceò was being used.

Mr. Schuyler explained that it refers to what is being engineered versus what naturally stops sediment from coming into the reservoir.

Dr. Palmer asked if the language related to the groupôs recommendation to ñascertainò the ability of the South Fork to serve as a reservoir was referring to getting a legal opinion.

Mr. Jones noted that the original wording was ñwe should preserve.ò

Ms. Thomas said that she changed the language to ñwe should ascertain that we can preserveò because that is the first step.

Dr. Palmer said that about 1% a year is being lost in original reservoir capacity, but only a fraction of that amount is being permanently changed to land formation. Citing other serious

infrastructure needs related to the water supply, she expressed concern about spending money now for a plan responding to need more than 50 years out if only some fraction of 1% of original reservoir capacity is being lost each year.

Mr. Jones responded that the reservoir is not of uniform depth and there are some areas getting extremely shallow, and spot dredging could address the portions of the reservoir that might provide the most gain in terms of capacity.

Ms. Thomas emphasized that the point is whatôs being lost to capacity, and referenced the chart that Mr. Harper had shared with the group.

Mr. Schuyler explained that Ms. Palmerôs point is not every amount of sediment becomes a wetland and a permanent bar to use of the reservoir.

Mr. Rooker said that this is just a general statement that ñwe should preserve the abilityò to preserve the reservoir.

Mr. Schuyler responded that what could prevent future preservation is the creation of wetlands.

Dr. Palmer added that what is being considered is the importance of looking at dredging now versus ten years or so in the future.

Mr. Schuyler noted that Mr. Harper used the figure of 20 acres lost in the main body of the reservoir over the next 50 years that would be above the surface of the water ï theoretically potential wetlands.

Mr. Rooker said that Mr. Harperôs slides are going to be included in the report.

Dr. Palmer stated that she doesnôt want land formation over time to be listed as a reason to dredge now.

Mr. Rooker replied that it is not being presented that way, as the language simply states a recommendation to maintain the ability to preserve the capacity of this area to serve as a reservoir in the future. ñWeôre not saying when, weôre not saying what percentageé weôre just saying that is a benefit.ò

Mr. Martin commented that itôs speculative to ñnibble around the edgesò of the reservoir to preserve a possible need in 40 years to achieve additional capacity.

Mr. Rooker said that one recommendation being considered is obtaining an opinion as to what the legal bars to dredging in the future might be.

Mr. Martin responded that there is no evidence that will be the case, only Mr. Jonesôsuggestion.

Mr. Rooker stated that itôs an important question to get the answer to.

Mr. Martin said that the focus is on what needs to be done now in order to maintain future benefits, and he is not convinced that anything needs to be done now in order to be able to dredge in the future to achieve capacity if necessary.

Mr. Rooker emphasized that there is not an official legal opinion on that, and he wants to know if there are things that might prevent dredging in the future.

Dr. Palmer suggested including the data of how many acres would be lost over the 50 years.

Mr. Jones said that he appreciated Mr. Harperôs work, but he was not able to measure the depth of the water so ñthings could be silting in.ò

Dr. Palmer emphasized that she simply doesnôt want to give the impression that the reservoir is going to silt in, in the short term. She reiterated her concern that elected officials have to deal with the problem of aging infrastructure in the short term, and there is no way of quantifying how much capacity is being permanently lost to land fill.

Mr. Rooker said that the group seems to be ñjumping to broad conclusions,ò as all the report includes now is a general statement about the long-term benefit of preserving the South Fork as a future reservoir. ñIt doesnôt really go beyond that.ò

Dr. Palmer contended that itôs important to include data about what the Task Force has learned about how much capacity is being lost permanently to land formation.

Mr. Martin said that the group should be specific about the ñurgencyò of dredging so officials can make decision on whether to advance that as a priority over other infrastructure priorities.

Mr. Rooker emphasized that this is just general information on benefits, not specific recommendations.

Mr. Schuyler said, ñAll I can say is here are the benefits that the reservoir provides, here are the obstacles to achieving those benefits, and hereôs the path you would pursue if you want to maintain those benefits. Iôm not going to tell you, however, when and where and how much to spend on pursuing any particular pathé ò He said that itôs appropriate to consider whether the failure to maintain the reservoir would lead to permanent limiting of it in the future, and if thatôs the case ñthen it belongs on the list.ò

Mr. Martin responded that there is no evidence that acting now in urgency is necessary to preserve the long-term benefit.

Mr. Schuyler stated that it should be established whether lack of action today precludes options for future generations.

Ms. Smith asked if it was necessary to get a ñlegal opinionò or just a ñprofessional opinion,ò as a study might answer some of those questions.

Ms. Thomas responded that it seems a legal opinion is desired.

Mr. Jones said that in looking at trends in environmental regulations, it seems questionable as to whether those wetlands could be removed in the future.

Dr. Palmer emphasized that a legal opinion could help establish what mitigation might be required.

Ms. Thomas suggested removing the word ñurgentò and just describing the importance of action.

Mr. Rooker noted that even if an opinion is obtained today, regulatory climates change and there is no way to know what the future holds. ñItôs important to at least maintain the option of using this as a reservoir for future generationsé ò

Ms. Thomas said that assuming that the wetlands would be ñnon-touchableò in the future, the actions as proposed should be recommended to the four board chairs.

Ms. Joyner suggested that the report should mention concern for water storage ñacross the board,ò and not just this reservoir.

Several Task Force members indicated that the focus of this group is the South Fork Rivanna Reservoir, not the entire water supply plan.

Ms. Thomas noted that this group was not set up to address the entire plan, and perhaps that charge needs to be stated in the report. She also mentioned that several Task Force members had a tour of the landfill this morning.

Ms. Thomas shifted the discussion to immediate benefits.

Dr. Palmer said that the flow regiment that has been permitted for filling the first one-third of the new Ragged Mountain Dam accounts for the need to maintain adequate safe yield in case of drought, and Beaver Creek has been added to supply in case of drought. She also stated that it would take two to two-and-a-half years to get a dredging operation up and running so ñthe timing would be off.ò

Mr. Rooker responded that he didnôt agree with all those facts, as dredgers have indicated that it wouldnôt take that long to start some maintenance dredging.

Ms. Thomas said that Rivanna provided the information on the timeframe, and the time needed to obtain permitting needs to be considered.

Mr. Schuyler noted that it would depend on whether an individual or general permit would be needed to begin the dredging operation.

Mr. Rooker asked if the current storage could meet community needs in a drought of record if it were the situation today.

Mr. Martin said that Mr. Frederick is here to answer that, but the modeling done has established that dredging is not needed for that immediate benefit ñalthough it would be nice to have a little insurance policy.ò

Mr. Frederick stated that if there were a drought today and the additional capacity in Beaver Creek could be depended upon, there is a plan in place to get through a drought of record without the additional storage.

Mr. Rooker said that he understood that the stream beds ñsuck up a lot of waterò in Beaver Creek during drought conditions.

Mr. Frederick said that at the time the decision was made to use Beaver Creek assumptions were made because there was no empirical data, but in 2006 test results suggested there was no bed loss. He added that they tried to run the test in 2007, but beavers had built a dam near the stream gage and the data was therefore inconclusive.

Mr. Rooker stated that there had been discussion of connecting the Crozet water system into the urban system, and asked if that plan had been abandoned.

Mr. Frederick responded that Beaver Creek can be used to supplement the urban system, but thatôs on a temporary basis, and Community Developmentôs anticipation of demands in Crozet indicates that it would be necessary to dedicate ñevery drop of waterò in Beaver Creek in about 40 years just for Crozet.

Ms. Smith noted that the plan to use Beaver Creek in the event of a drought is built on the assumption that Ragged Mountain is intact, so in the process of building the new dam the water level will go down and the scenario would change.

Mr. Frederick said that there is a point when the decision will need to be made when to breach the old dams, and if there are drought conditions RWSA will likely recommend delaying the breach until water levels improve.

Ms. Smith commented that itôs not known whether the dam and dredging would be taking place at the same time, and there are a lot of ñwhat ifs.ò

Dr. Palmer asked Mr. Frederick to clarify how long it would take to get a dredging operation going, as there have been some discrepancies there.

Mr. Frederick said that Chris Gibson of Gahagan & Bryant mentioned in his phone conversation with the Task Force that he thought it would take three months to do a feasibility study, some additional time to get permits ï perhaps 12 months or so ï and then dredging could begin. Mr. Frederick noted that there were a few gaps in his timeline: the procurement process for RWSA, which could take about three months; and securing a disposal site prior to applying for a permit,

as the Army Corps or DEQ would want to know more about that site. ñ[Mr. Gibson] made no allowance in time for procurement of real estate, or leasingé and I was simply suggesting that there is a time associated with that too.ò

Mr. Rooker responded that several dredgers have indicated that they would get the permits, and they would secure the sites.

Mr. Frederick explained that there is a law in Virginia that allows for solicitation of turnkey proposals, but the question becomes whether you can get competitive proposals with that type of process. He said that it takes a bidder time to establish whether they can obtain permits, and if they canôt opt out of the contract ñthen youôre back to square one.ò

Mr. Rooker responded that you always have that risk in the RFP process.

Mr. Frederick agreed, and said that going through a feasibility study would help address those uncertainties up front and improve the likelihood of getting bids from dredging contractors.

Mr. Rooker asked if there would be a time difference in obtaining permits for a small dredging operation versus a large one.

Mr. Frederick responded that a dredger may be able to produce a contract to begin operations in a shorter amount of time, as in the case of the dredger with a smaller operation like Blue Ridge Sand, but it would take him longer to perform the actual dredging.

Ms. Thomas reviewed the immediate benefits, noting the one pertaining to having additional storage capacity in the next few years.

Dr. Palmer said that she would like to remove that provision, given Mr. Martinôs point and cost considerations.

Mr. Jones commented that he is less concerned about the time-frame for getting the dam built, but more concerned about getting the South Fork Rivanna pipeline on-line with the Sugar Hollow pipeline, given the condition of the older pipes.

Dr. Palmer responded that the phasing of the water supply plan is driven by financial considerations, and it seems most reasonable to apply funds to improving aging infrastructure. She said that Mr. Frederick presented three different options: phasing of the dam, doing the whole thing at once, and phasing the project by putting in the dam first and then the pipe. ñIf youôve got [$30 million] to put into dredging, you just put the pipe in sooner.ò

Mr. Jones said that there are other tradeoffs, as there may be multiple benefits to dredging with side benefits of preserving an area of the reservoir for future dredging.

Dr. Palmer reiterated her concern about the aging infrastructure in the existing supply system, stating that ñthat system has to take priority because of reliability to water supply for City residents.ò

Mr. Jones responded that the decisions regarding priorities are going to be made by policy and decision-makers.

Mr. Rooker commented that he thought there hasnôt been a firm resolution made not to do the pipeline earlier than 2013.

Mr. Fletcher said that he did not think a final decision had been made.

Dr. Palmer replied that her point is just not wanting to include dredging as a priority.

Mr. Frederick clarified that a firm decision on the pipeline has not been finalized, but for planning purposes RWSA is operating under the timeline that the dam would be built by 2011 and the pipeline would be built by 2021. He added that if decision-makers wanted to discuss other options, RWSA would certainly be at the table.

Ms. Smith mentioned that all four bodies involved have indicated that they donôt have answers to all the questions, and that information might help them form their decisions.

Dr. Palmer said that she just doesnôt feel that increased capacity isnôt an immediate benefit and shouldnôt be used as a reason to dredge.

Mr. Rooker asked if she would be willing to say that ñit might be helpful for storage during droughts.ò

Dr. Palmer responded that she would rather it have reference to the period during construction of the water supply plan, as those decisions are fueled by money.

Mr. Rooker said that she is making a relative comparison, and this Task Force is not making the decisions about priorities and associated funding allocations. He suggested including the language ñincreased capacity at South Fork Rivanna Reservoir might be helpful for needed storage during droughtsò under immediate benefits.

Mr. Schuyler stated that the question is whether dredging should be recommended to create an ñinsurance policyò during the construction of the water supply plan, as Mr. Frederick has indicated it is not necessary because of Beaver Creek.

Mr. Rooker suggested removing reference related to the construction of the water supply plan and adding a notation that under the current water supply modeling that dredging may not be necessary in a drought of record. He clarified the language to include as ñIncreased capacity at the South Fork Rivanna Reservoir could be needed for storage during droughts, however the current modeling by RWSA does not indicate it would be needed to get through a drought comparable to the current drought of record (2002).ò

Mr. Jones noted that when the water supply components are built there will be a lot of storage, and the value of South Forkôs capacity is during the transition when they are being built.

Dr. Palmer noted that once the Ragged Mountain reservoir gets filled to a certain amount, if Sugar Hollow pipeline breaks down for a few weeks the storage could be used. ñThere is a point where we have additional storage in that reservoir before the whole thing gets put in.ò

Mr. Jones emphasized that things can go wrong, and he could certainly foresee a time when there are components of the water supply system that are not up and running.

Dr. Palmer mentioned that under long-term benefits, the statement that ñsedimentation has resulted in a loss of capacity of approximately 15 million gallons per year, approximately 1% of original capacity per year at that rate is projected to continue in the absence of dredgingò should be clarified because it would still continue at that rate even with dredging. She also suggested adding the words ñlong-termò in front of water storage options, as it goes out beyond the 50-year water supply plan, and also suggested removing the words ñif anyò under the bullet related to possible options for future storage.

Ms. Thomas shifted the discussion to recommendations.

Mr. Rooker commented that this committee isnôt recommending dredging, but may recommend a study ñof some kind.ò He said that the first recommendation is obtaining a legal opinion so that RWSA has a sense of whether delaying action would impair the ability to retain the reservoir as a long-term water resource in the community.

Ms. Smith said that there were three reasons stated: long-term, short-term, and recreational, and pinning it all on the long term might not be the right approach.

Dr. Palmer said that the long-term reason would be the need to preserve it, there are reasons for recreation, and those are the two main reasons identified.

Mr. Schuyler stated that the Task Force is not recommending dredging, but is saying to the four board chairs if they want to achieve the objectives as presented by the group ñthen you need to dredge.ò He emphasized that it is up to the decision-makers to decide whether the objectives are compelling enough to move forward with dredging.

Ms. Thomas said that the Task Force is recommending getting the legal opinion, though, as that is a piece of information the community doesnôt have.

Mr. Schuyler asked what would happen if the four board chairs received this information and chose to do nothing.

Mr. Rooker stated that he hoped that the Task Force would at a minimum recommend to the four board chairs to find out how the failure to act today might impact future use of the reservoir.

Ms. Thomas said that to find out is the first recommendation, the second is to reduce the amount of sediment entering the reservoir, the third one would be discussed momentarily, and the fourth

one is to investigate dredging sediment in critical areas for the least cost if the funding authorities decide to meet the objectives. She asked Mr. Schuyler to elaborate on the third recommendation.

Mr. Schuyler explained that the problem of hydrilla becomes acute when the water level is low, and perhaps the Task Force should recommend that the RWSA draw down Ragged Mountain before they draw down South Fork so that it remains fuller for recreational uses.

Ms. Smith commented that the issue will be moot if dredging isn't done because the water level won't be sufficient anyway.

Mr. Rooker said that it is worth including the recommendation, as it doesn't interfere with the water supply model.

Ms. Thomas stated that the next section of the report relates to next steps, and she didn't get any corrections from Task Force members on this.

She said that she would like to include removal of snags as a step to addressing accumulating sedimentation, noting that Mr. Harper pointed out places where water slows down because of the presence of snags.

Mr. Fletcher asked if any maintenance dollars have been spent in the reservoir.

Mr. Martin said that there has been maintenance in the case of nutrient problems, but hasn't been in the case of trees and other obstacles.

Ms. Joyner noted that nothing has been mentioned about conservation.

Ms. Smith responded that she doesn't mind putting it in, but a conservation study ï independent of a dredging study ï is being considered by the four board chairs to capture that point.

Mr. Rooker said that it's not specifically applicable to reservoir maintenance, and in the MOA between the four boards there is a specific paragraph related to obtaining a conservation study, but it is "separate from the charge of this committee."

Ms. Thomas mentioned that the Task Force has discussed how to obtain more storage capacity after 50 years if water conservation and technical engineering measures "haven't taken hold."

Mr. Jones noted that there is a section on why more storage might be needed.

Mr. Rooker said that there is a recommendation for a bathymetric study, etc., and asked if everyone was in agreement to move forward with that.

Dr. Palmer wanted to ensure that the study wouldn't be along the lines of the $275,000 study as recommended by Gahagan & Bryant.

Mr. Schuyler distributed a ñdecision treeò that Ms. Thomas said takes the three purposes for dredging, determines the need for dredging, comes up with reasons to proceed, and recommends identifying specific target areas and gathering of specific data.

Mr. Rooker commented that this cannot be comprehended and decided upon for incorporation in the report tonight.

Ms. Thomas responded that this is not new information, just a new format.

Mr. Rooker suggested having another meeting in January, as the Task Force is at a crucial point for its recommendations. ñI really think we need some time to digest this ï which looks to be an excellent presentationé .we would function much better if we had a meeting in Januaryé to try to finalize the end of this report.ò He said that the meeting could be the last one.

Mr. Rooker noted that the VHB study done in 2001 recommended that the RWSA make every reasonable effort to control sedimentation to the reservoir, and conduct bathymetric surveys every five years to monitor sedimentation rates over time. He said that he would like to get some understanding about how RWSA has responded to that, as it may impact what the Task Force puts in their recommendations for studies.

Ms. Thomas said that a bathymetric study was done in 2002.

Dr. Palmer stated that the reservoir is due for another study.

Ms. Thomas commented that the group is at least 80% finished, but the changes made today would need to be incorporated and distributed to members as part of the report.

The meeting was adjourned at 9:35 p.m.