



RIVANNA WATER & SEWER AUTHORITY

695 MOORES CREEK LANE • CHARLOTTESVILLE, VIRGINIA 22902-9018
(434) 977-2970 • FAX: (434) 293-8658 • WEBSITE: WWW.RIVANNA.ORG

MEMORANDUM

TO: ROBERT W. TUCKER, JR., ALBEMARLE COUNTY EXECUTIVE

FROM: THOMAS L. FREDERICK, EXECUTIVE DIRECTOR

DATE: DECEMBER 3, 2004

SUBJECT: DREDGING RESOLUTION PROPOSED TO BOARD OF SUPERVISORS



I have had an opportunity to review the Dredging Resolution that has been proposed for consideration by the Albemarle County Board of Supervisors and offer the following comments to assist the Supervisors in the consideration of this issue:

- (1) Rivanna concurs with the importance of the reservoir and watershed as outlined in the first whereas clause, and the data provided in the second and third whereas clauses agree with the data presented by Gannett Fleming to RWSA.
- (2) RWSA staff was informed by the County Planning staff one day before the Public Outreach Meeting on dredging that Mr. Martin had contacted the County about a dredging project in Decatur, Illinois. We immediately referred this information to Gannett Fleming and they contacted officials in Decatur and visited Decatur's website. Gannett Fleming advised us that Decatur did dredge and dewater/stockpile dredged spoil on a large tract of land they own adjacent to their water supply reservoir, but they have not transported the dredged spoil to a disposal site away from the reservoir. Gannett Fleming informed us that their estimates for dredging and dewatering at South Fork Rivanna, while conservative and include some contingency as are the estimates for all water supply alternatives, are close to the costs for Decatur when inflation is added to cover the time since Decatur performed dredging. Gannett Fleming has added costs for transportation and disposal (which are significant), assuming that this community will not accept long-term stockpiling of dredged spoil immediately adjacent to the reservoir (the terrain around the South Fork is also steeper than the terrain in Decatur, making such a stockpiling without erosion back to the reservoir more difficult). In the past two weeks the RWSA staff have been heavily focused on the December 2 Public Outreach Meeting, but we do plan to have further discussions with Decatur and take advantage of any breakthrough opportunities or ideas such contact may bring.
- (3) We've heard several references in public comment that the "lake will die" if dredging is not performed, but this phrase is very general, means different things to different people, and is therefore difficult to respond to. RWSA does not accept as "fact" the assertion of some that the lake has to die if dredging is not done soon. This community may select dredging as a water supply alternative, but we believe a balanced discussion at this point in the study should include a plan to aggressively manage the reservoir whether or not dredging is selected for

water supply. Such aggressive management includes watershed protection measures targeted toward reduced sediment transport (while recognizing some natural transport will always occur) and regular monitoring of the quality of the reservoir. Watershed protection extends the time that the reservoir is maintained as healthy, and monitoring provides an early warning if more aggressive maintenance becomes necessary in the future (of which dredging may be an alternative solution) is needed in the future. Watershed protection will be a collaborative effort, taking advantage of planning, regulations, and expertise that resides within the Albemarle County staff as well as RWSA.

- (4) The first resolved clause of the dredging resolution asks RWSA to "investigate more thoroughly the potential for dredging". In order for RWSA to be responsive, this statement needs to be more specific. We can identify a cost and time schedule for specific requests for additional engineering services. We have carefully developed the scope of Gannett Fleming's contract to provide what we believe to be the appropriate level of detail at each phase of a screening process, in order to provide useful information for decision making while also managing a project budget. It should also be noted that if the Board of Supervisors want to direct RWSA to perform additional work that increases the cost of the project, such direction could affect the current cost share agreement between the City and the Albemarle County Service Authority if the Charlottesville City Council does not agree with the need for the additional work.
- (5) In reference to the second resolved clause, Gannett Fleming is already investigating the Decatur situation and the "mud cat" as previously mentioned in my comments above.
- (6) The third resolved clause discusses "reconsidering" dredging with the goal of maintenance dredging, which I assume means maintaining current levels of sediment in the reservoir. Gannett Fleming has suggested the removal of 100,000 cubic yards of sediment from the reservoir per year for 50 years to restore 85% of the initial water supply pool, followed by 75,000 cubic yards per year to maintain that condition. If the community elected only to maintain the current volume, such goal could be achieved by removing 75,000 cubic yards per year initially and beyond 50 years. Except for mobilization and demobilization of equipment, the estimated costs of dredging are linear and can be adjusted to the volume desired. It is recognized that if a smaller dredging project is selected, the safe yield gained is smaller, which increases the size of other projects to achieve the 9.9 MGD added safe yield goal of the overall project.

I hope this information is helpful in the consideration of the dredging resolution. Please let me know if you have any further questions.

cc: RWSA Board of Directors