






Cost estimates for dredging South Fork Rivanna Reservoir released
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 Supplement to dredging report by RWSA
 HDR's dredging alternatives report
HDR's dewatering analysis 
 HDR's beneficial reuse report

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Dredging the South Fork Rivanna Reservoir is possible — but not cheap.

That's according to findings released Tuesday, which the Rivanna Water & Sewer Authority's director says indicates that a water supply plan centered on dredging would be more expensive than the community's existing plan.

However, dredging advocates still believe dredging is cheaper.

Local officials hired HDR Engineering Inc. to study whether dredging is possible and if it could be cheaper to dredge the South Fork reservoir instead of going forward with the community's approved plan, which calls for construction of a higher dam at Ragged Mountain.

"We believe from the information provided by our consultant ... it actually would be more expensive [to dredge]," RWSA Executive Director Thomas L. Frederick Jr. said.

The report concludes that, for about \$34 million to \$40 million, it would be possible to remove about 65 percent of the sediment that has fallen into the South Fork reservoir in the decades since it was expanded to supply water for Charlottesville and urban Albemarle residents.

The current plan was approved in 2006, calling for a new, taller dam at Ragged Mountain and a new pipeline that would transfer water from the South Fork reservoir to fill the expanded reservoir.

About 65 percent of the South Fork could feasibly be dredged, according to the report. Some wetlands areas could not be dredged under federal regulations, and other areas are out of reach because of a shortage of large sites nearby where the sediment could be deposited and dewatered.

The community has also been trying to determine whether small-scale dredging could have recreational benefits and potentially supplement a long-term water supply plan. The findings in the report show promise that small-scale dredging could make the reservoir better suited for recreational use, Frederick concluded.

The report indicates that there's potential to dredge some sediment at the upper end of the reservoir, perhaps inexpensively. Much of the sediment there is sand, which could be sold. Dredging only at the upper end of the reservoir could supply about 59 million gallons of water storage — a drop in the bucket considering the community uses about 10 million gallons per day.

If the reservoir were dredged as much as feasibly possible, the operation would supply an additional 228 million gallons of water storage capacity. The plan for a new dam would increase water storage capacity 1.7 billion gallons, Frederick said.

"The cost of dredging only provides 13 percent of the storage that the Ragged Mountain Reservoir provides, so when you put those numbers on a per gallon basis, the construction of the dam is clearly cheaper," Frederick said.

The approved plan has come under fire by opponents who favor dredging the South Fork. They contend that dredging would be cheaper than the approved plan and that a years-old demand study overestimates the amount of water residents will use in the future.

Charlottesville Mayor Dave Norris has called for examination of an alternative plan that would include dredging the South Fork and repairing and raising the existing century-old dam, instead of building a much taller dam. A demand analysis is being conducted for the city.

Phone calls to Norris were not immediately returned Tuesday.

While the approved water supply plan would supply far more water, the major players in the water supply debate disagree about whether dredging, along with repairing and raising the existing Ragged Mountain Dam, would supply enough water for the community for the next 50 years.

Dede Smith, a member of Citizens for a Sustainable Water Plan, noted that the analysis predicted water usage would increase. Instead, water usage has declined locally in recent years.

However, former Supervisor David L. Slutzky had long contended that the water demand projections did not adequately account for Albemarle's mission to direct new business and housing developments primarily into urban areas.

A debate began Tuesday over whether the HDR report proves the approved plan is cheaper than a dredging plan.

Members of Citizens for a Sustainable Water Plan said Tuesday that the report actually helps make the case for dredging.

"I think it confirms what we've always said, which is dredging the reservoir is feasible," Citizens' member Kevin Lynch said. "The numbers that the consultant came up with are a little higher than what I would expect and I think a little higher than what you'd get if you actually put it out to bid."

"I think we need to simply put dredging out to bid," said Lynch, who voted in favor of the water plan while a member of the City Council in 2006.

Lynch said that comparing the cost of dredging to the cost of the new dam is not an "apples to apples" comparison.

One would have to consider that the dam plan includes construction of a new pipeline estimated to cost nearly \$60 million — which Citizens group members believe is actually a low estimate. Other smaller, water supply plan costs could be tens of millions of dollars on top.

However, Supervisor Kenneth C. Boyd said a plan based on dredging would also require replacement of a pipeline, as well as the cost to repair the old dam at Ragged Mountain.

"People have to remember, if we don't build a new pipeline, we're going to have to do something with the Sugar Hollow pipeline, which is much longer in terms of miles," Boyd said.

Under a dredging alternative, officials would have to continue to dredge or find ways to prevent sediment from filling the reservoir.

As for how much water is needed in the future, Boyd said he'd rather err on the conservative side.

Boyd, who is also a member of the Rivanna Water & Sewer Authority Board of Directors, said supervisors are working to schedule a joint meeting of the Board of Supervisors, Charlottesville City Council, RWSA and Albemarle County Service Authority. He expects that meeting to occur within a couple of months or so.

Boyd said he's going to push for work to begin soon, while the bidding climate is low.

"It's a very, very favorable [bidding] climate out there," Boyd said. "If we're talking about a \$30 million dam and saving a third of it, that's \$10 million. I think it's irresponsible of us to walk away from that because we want to do more studies. We've studied enough."