

Engineering firm provides city 1st cost estimates for a phased concrete dam
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The engineering firm hired by Charlottesville to evaluate the cost and feasibility of expanding the
Lower Ragged Mountain Dam

says its concrete design can be done in phases and at a price well below that of an all-new earthen dam
favored by Albemarle County.

The cost estimates from

Black & Veatch

take into account some of the

questions raised in November

by an independent panel of dam experts. The design approach and initial height of the enlarged
reservoir are the key issues to be resolved before a long-term water supply plan can begin to be
implemented by the city and county.

According to Judy Mueller, director of Charlottesville's Department of Public Works, the city has paid
Black & Veatch \$186,135 for its work on the concrete dam feasibility study.

"They have now had time to reflect on the issues that would have the biggest impact on their cost
estimates," Mueller said in an interview. "It is not as complete a picture [as the earthen dam's current
design], but it also has a very a large cost contingency built in. ... I am confident given the reputation of
Black & Veatch that they will stand behind their numbers."



Greg Zamensky, Black & Veatch

In December

, Greg Zamensky, an engineer with Black & Veatch, informed the city that the existing dam could be
expanded, raising the reservoir pool by 45 feet, for between \$22.2 million and \$28.2 million.

The water plan first approved in 2006 has a total estimated cost of \$142.6 million, including \$ million as

the total budget for the earthen dam. About \$3 million has already been spent on engineering studies and preliminary design work.

At Monday's City Council meeting, Zamensky provided his firm's first cost estimates for phasing the dam's construction,

an approach council embraced unanimously in September

. Black & Veatch estimates that the total cost of a phased dam would be about \$1 million more than building the dam all at once.

Zamensky said the first phase of the dam could be built for between \$10.9 million and \$15.5 million to raise the reservoir by 13 feet, but with a base that could support up to 45 feet. Including other cost factors if the dam is built to its full height, the total cost of the phased concrete dam would be \$24.6 million to \$29.2 million, according to Zamensky's presentation. This highest cost estimate is \$ million less than the proposed earthen dam.

Councilor

David Brown

said in an interview that he sees the pivotal question as determining at what height to build the initial phase of the dam so that the 2006 goal for improving area stream flows is still met.

"Cost for me is not a huge concern, because the cost for expanding the water supply to account for county growth is something the county expects to pay for," said Brown. "However, if we insist on phasing, and it costs more to do that, then we may have to contribute to those costs."

Councilor

Kristin Szakos

hopes the second phase of the dam won't be necessary to satisfy stream flows or water supply needs.

"There is a risk we will have to do more [than the first phase] and it will cost more later. The hope is we won't have to build more," Szakos said in an interview. "We want a solution that will meet the needs of the region for the next 30 years without having to come back and build more in that period."

Mayor

Dave Norris

has been the leading proponent for a modest first phase that would raise the reservoir only 13 feet. The Virginia Department of Environmental Quality has

previously said

such a limited increase would not be sufficient for current stream flow goals included in the 2006 plan. The City Council had expressed interest in a joint meeting with county officials and the DEQ in part to further evaluate the effect of phasing on stream flows.

In a

December letter

from Albemarle's Board of Supervisors to the DEQ, Chairwoman

Ann Mallek

wrote that the county would not meet with state officials and that it continues to insist on construction of a full height earthen dam allowing the reservoir to be raised up to 42 feet. However, Mallek also indicated, in an apparent concession to the city, that the initial filling of the expanded reservoir could stop at the 30-foot level.

Many of the 15 people who spoke about the water plan to the council during the public input opportunity Monday asked for the city to focus first on dredging and repairing the existing Ragged Mountain Dam instead of expanding the reservoir.



*Tom Olivier, Chair, Piedmont Group
of the Sierra Club*

Tom Olivier

spoke as the newly elected chairman of the

Piedmont Group of the Sierra Club

. Olivier also serves on the board of

Advocates for a Sustainable Albemarle Population

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"The Sierra Club supports phased increases in water capacity storage at Ragged Mountain but only if and when facts rather than speculations on population growth indicate that more water storage capacity is needed," Olivier said. "The [Sierra Club] takes the position that building more infrastructure than is needed is not good and prudent."

City resident Frank Biller moved to the community from Switzerland a little more than a year ago. He told the council that the lack of compromise on the water plan made him suspicious.

"I'd would like to encourage council to step up and do what's right," Biller said. "Look at the facts, and don't be pushed around."

Szakos said in an interview before the meeting that she was ready to move on to other pressing issues facing the city. She said, assuming her questions are answered, that she would be ready to make a

decision on the dam at the City Council's meeting Jan. 18.

"When I go talk to people about their priorities for the city, this never ever comes up," Szakos said.

"This is not the big issue for most people in the city, and the more time we spend on this, the less time we have for other important issues, and I find that very frustrating."

No action on the informational report was anticipated by city staff.

"We are not voting tonight on this issue," Norris said. "Our task tonight was to hear the report and ask questions. However, we are coming to a point very soon, perhaps at our next meeting, where we will have to make a final decision."