

May 5, 2023

TO: SMITHFIELD TOWN COUNCIL

FROM: LESLEY G. KING
TOWN CLERK

SUBJECT: INFORMATIONAL REPORT FOR THE PUBLIC WORKS COMMITTEE
MEETING HELD ON MONDAY, APRIL 24th, 2023

The Public Works Committee held a meeting on Monday, April 24th, 2023 at 5:44 p.m. at the Smithfield Center located at 220 North Church Street, Smithfield Virginia. Committee members attending were Mr. Jeffrey Brooks, Chair, Mrs. Rountree, and Mr. Michael Smith. Other Council members present were Mr. Wayne Hall, and Steven G. Bowman, Mayor. Staff members present were Mr. Michael Stallings, Town Manager; Mr. William H. Riddick, III, Town Attorney; Ms. Lesley King, Town Clerk; Mr. Jay Hunemuller, Interim Treasurer; Ms. Ashley Rogers, Director of Human Resources; Mr. Jack Reed, Director of Engineering and Public Works; Mr. Wayne Griffin, Town Engineer; Mrs. Tammie Clary, Director of Community Development and Planning; Ms. Amy Novak, Director of Parks and Recreation; and Mr. Steve Clark, Parks and Rec Department. Also in Attendance were Mr. Randolph Barlow, Mr. and Mrs. Buddy Jones and Mr. Tim Dean of TRC (formerly Draper Aden Associates). There was no media represented.

Public Works Committee Chair, Mr. Jeffrey Brooks, called the meeting to order.

A. MATTERS DISCUSSED BY COMMITTEE WHICH WILL BE ON THE COUNCIL'S AGENDA

1. Smithfield Lake Dam Alternatives Analysis – Mr. Jack Reed stated that the most recent alternatives evaluation on the Waterworks Road Dam project was included in your agenda packet. The evaluation looked at both the rehabilitation and decommissioning options of the dam. The largest unknown and the value between options is the potential lakebed restoration if the decision was made to decommission the dam. This would be largely contingent upon how well the lakebed naturally restores itself or if work needs to be done to it. Here with us today is Mr. Tim Dean of TRC (formerly Draper Aden Associates) as well as Shawn McGee and Ms. Melinda Luna to explain the options before

you today. Mr. McGee explained that back in 2013 the Department of Conservation and Recreation (DCR) who handles dam safety regulations across the state of Virginia had the regulations changed. The Smithfield Lake Dam falls within the new category as a high hazard dam because downstream impacts to potential homeowners as well as other factors. Now that it is in this new category the dam needs to be brought into compliance for certification. Currently, the dam has a conditional permit. Councilwoman Rountree asked if there is anyway to appeal that this dam should not be in the category as a high hazard dam. Mr. Dean stated that to his knowledge it cannot be appealed. In the packet today are alternative analysis on ways to bring the dam into compliance or take the dam out of commission and it would no longer serve as a dam. Councilwoman Rountree stated that a study was down in 2020 as well and wanted to know what the results were from that study. Mr. Dean stated that they were pretty close to the alternatives that we have here today. The Town Engineer stated that staff had given Town Council the options at that time with the cost to decommission the dam. At that time, staff did not have the cost it would take to maintain the dam and bring it into compliance. The current analysis gives the estimated cost to keep the dam and bring it into compliance as well as the cost to decommission the dam. Councilwoman asked if any of the options keep the lake in tack and the roadway. Mr. Dean replied that there were a couple of options that allow the lake and roadway to remain in tack. Mr. McGee stated that alternatives 1 and 2 are for rehabilitating the dam to comply with the dam regulations set by DCR. Alternatives 1 and 2 would include removing the existing pipes that are there and installing larger box culverts. The estimated cost for Alternative # 1 was \$4.9 million and the cost estimate for Alternative # 2 was \$5.5 million. Alternative # 1 has concrete block mats that consist of open-celled concrete blocks that are cabled together to form individual mats. These openings in the blocks allow for grass to grow in between the blocks and in most cases more aesthetically pleasing. Alternative # 2 is a rehabilitation with hydroturf. It is an engineered synthetic turf with an integrated drainage layer. Councilwoman Rountree asked the difference between the ACB Protection 4.7 EPEC for \$5,450,000 and the ACB Protection 8.5 EPEC for \$5,850,000. Mr. McGee stated that is the difference in the size of the articulated concrete blocks. The larger blocks would have more protection against erosion. All the options today keep the roadway in tack. The option to remove the roadway that was given years ago and was removed completely as it was not a desired option. The Town Engineer explained that doing away with the roadway would most likely take the dam out of the high hazard dam category; however, the Town would still be responsible for a dam. Alternative # 3 would be to decommission the dam and drain the lake. The pipes would be removed and replaced with a large box culvert so there would no longer be water impounding. The stream would need to be restored back to its original condition. At that point it would be exempt from dam regulations because it would be free flowing. The cost to decommission the dam would be \$9.2 million. Councilwoman Rountree asked if there was an alternative that would cost less if the road were closed. Mr. McGee stated that he feels that it would be less than Alternative # 1 and 2 because you would not have to store the roadway and the box culverts could be smaller in size which would most likely save money as well.

The Town Attorney explained that the way this all started was because the new regulations came into play and the Town was forced to do something. Decommissioning the dam was not even on the table until we got this huge cost estimate to bring the dam into compliance, so it was decided at that time to look at getting rid of the dam completely. At one point the thought was that decommissioning the dam would be the less expense option; however, now to decommission the dam it is twice as much as it originally was. Councilwoman Rountree stated that if we had decided to have the dam decommissioned before the Town Manager had found a grant that would have paid for most of the restoration of the lakebed; however, Town Council decided that they want to do what they could to retain this water source. Mayor Bowman asked if we have a report from DCR that somebody has been on site, examined the dam and said with reasonable certainty that this is what it is. Mr. Dean stated that DCR should have that report because they are the ones that make that determination on what hazard class a particular dam falls within. Mayor Bowman stated that he would like to see this report from DCR that says this. Are there experts out there other than DCR and Gannet Fleming that could come in and give us an alternative evaluation that says it is not as bad as it appears to be. This is a lot of money for a small Town. Mayor Bowman asked what happens if the Town chooses not to do anything at this time. Mr. Reed stated that he does not know what would happen if the Town stopped working toward bringing the dam into compliance. The Town Engineer stated that he would go back through his paperwork and see if he could find documentation from DRC on the dam's condition as it relates to bringing it into compliance. The Town Attorney asked if anyone had looked at the impacts downstream if the dam were to fail. The thought is that the impacts of a failed dam would be minimal downstream. The Town Attorney stated that the problem with keeping the dam is that the state continues to move the goal post. The Town has already spent a lot of money to make changes to the dam and then the regulations change. Mayor Bowman asked how many other dams are similarly situated in the Commonwealth of Virginia and if so, what actions has DCR taken as far as enforcement is concerned. Have they taken localities to court for failing to comply? How do you determine that this specific dam based on the way it is designed warrants an adjustment of this magnitude at this time. What is DCR really doing from an enforcement perspective. Mr. Dean stated that enforcement from DCR comes from years of being unresponsive to trying to make improvements. Mayor Bowman stated that if we knew that this dam was a definitive hazard of killing people downstream there would be no questions and we would be doing what ever needed to be done to mitigate the hazard to preserve the health and safety everyone.

Meeting adjourned at 6:18 p.m.