

June 21, 2022

A Regular Work Session of the Danville City Council convened on June 21, 2022, at 8:31 p.m. in the Conference Room located on the Fourth Floor of the Municipal Building. Council Members present were: James B. Buckner, L.G. "Larry" Campbell Jr., Bryant Hood, Mayor Alonzo Jones, Barry P. Mayo, Vice Mayor Gary P. Miller, Sherman M. Saunders, J. Lee Vogler, Jr., and Madison J.R. Whittle (9).

Staff Members present were: City Manager Ken Larking, Deputy City Manager Earl B. Reynolds, Jr., City Attorney W. Clarke Whitfield Jr., and City Clerk Susan M. DeMasi.

Mayor Jones presided.

MINUTES

Upon **Motion** by Council Member Buckner and **second** by Council Member Mayo, Minutes of the Regular Work Session held on May 17, 2022 were approved as presented. Draft copies were distributed to Council Members prior to the Meeting.

WORK SESSION ITEMS

DISCUSSION OF THE LONG MILL DAM

City Manager Ken Larking noted this issue had come up before and he recognized that there were many members of the community that enjoy the beauty of the Dan River where the Long Mill Dam was located. Mr. Larking noted, however, there were some very good reasons why the Long Mill dam needed to go, and reviewed his power point on the removal of the Long Mill Dam. He noted that the main arguments for the removal of the dam included, the Long Mill Dam was not serving a function, it did in the past, but now was a low head dam in the river. It was dangerous, especially when the water was up; people have died at Long Mill dam, they were considered drowning machines. There were state and federal permitting advantages for planned development that was to occur around that site including the City's Riverfront Park and the White Mill development. Removal of the dam would reduce flooding for current and future development along the river. There were environmental benefits to returning the Dan River to its natural state that include restoring fish passage, creating natural sediment movement, and reduction in bank erosion. Several agencies support the removal of the dam including the Virginia Department of Game and Inland Fisheries, the Virginia Department of Environmental Quality, United States Army Corps of Engineers, the Dan River Basin Association and American Rivers.

There have been some concerns expressed regarding the removal of the dam including it looks great to have water rushing over the dam. The response to that was with probable exposed rocks/rapids the appearance will change from water rushing over a wall to rushing over and around a collection of natural rocks/outcroppings. Another argument was, it sounds great to have the water washing over the dam. In response, with probable exposed rocks/rapids the sound was still there and would now be spread throughout the river bottom, not just in one location. Another argument to keeping the Long Mill Dam was the next dam to be taken down will be Union Street Dam. Mr. Larking noted there was no benefit to removing the Union Street Dam for the following reasons: it was an integral built-in water control device for the potential Whitewater course that the City Council approved funding for the design, Union Street Dam height/scale was different from the low head dam at the Long Mill site, and there was no proposed upstream development from Union Street.

June 21, 2022

Mr. Larking stated safety was the number one concern; in 2010, a five-year-old boy died at what was the Brantley Dam, a low head dam further downstream. It was removed shortly after the incident. In 2020, one man died, and another man was injured when their canoe went over the Long Mill Dam. Last year, five people died when their tubes went over a low head dam on the Dan River near Eden, NC. Earlier this month, twelve people were involved in an accident at a low head dam on the James River where two people died. Low head dams create hazards because when water flows over a low-head dam, it forms a hydraulic jump or intense recirculation of the water below the dam. This "roller" type recirculation directs the water flow back upstream toward the face of the dam. Should something get into this recirculating current, drowning was possible. Research has shown that, of all the documented deaths at low-head dams in the US, 69% of them have occurred in the last fifteen years. This was likely because low head dams were built for industrial purposes, and when those industrial purposes stopped existing, low head dams did not go with them. People were then enjoying the river, and the increase in water-related public recreation was a contributing factor to the increase in fatalities. More development along the river will initiate an increase in people and danger. Current development includes the Riverfront Park, an extension of the Riverwalk Trail to the White Mill, redevelopment of the White Mill, redevelopment of the White Mill Bridge into a pedestrian crossing, and the property next to the YMCA being currently marketed for development.

Mr. Larking explained there were permitting benefits to the dam removal. There were elements that were part of the Park, including the pier, the white-water park feature, the riverwalk trail and pedestrian connection that will impact the flood plain; the City will have to get permits for some of these items. The City does not receive any credit for partial removal or modification of the dam. If the City were to turn in their permit application and include the removal of the dam within that process, they will benefit from the dam removal, because it will positively impact the floodway, enable the City to do work within the floodway, and that would make getting the federal permits more achievable than if they didn't do anything with the dam. Mr. Larking noted one of the things they would have to delay work on was the pier element; one of the piers was going to be in the river and that will impact the flood plain. FEMA has a No-Rise Permit which can be done locally; the City was not able to get a No-Rise permit for the pier element at the park because it does impact the flood plain. If the City removes the dam, the City will get credit for that and be able to put the pier in so they can have that element of the Riverfront Park. Mr. Larking noted other park elements that required Federal permitting were the white-water rafting facility and the riverwalk trail. Mr. Larking noted staff recommended the dam be removed as part of the permitting process to do the park elements, the future expansion of the Riverwalk Trail and the white-water rafting facility all at the same time so the City can better get through the Federal and State permitting process, in addition to the safety and environmental benefits.

Mayor Jones thanked Mr. Larking for his presentation and thanked all those in attendance for being there. He also reminded Council that they have had the recommendation to remove the dam before them many times.

Council Member Buckner asked if the Army Corp of Engineers had any idea what the water levels will be once the dam was removed and Mr. Larking stated it depended on the flow of water. What they anticipate, because the Union Street Dam backs up water, was downstream from the Union Street dam will be low; they don't expect there to be a lot of sediment or mud, mostly a rocky bottom with a few inches of water when it was really low. There could be times when it was raining when it could be higher than that. Mr. Buckner asked when they come out at the bottom past the low head dam, it was basically a rock pile now so how will they send boaters out into a pile of rocks. Mr. Larking explained that when people were in the canal, the water level inside the canal will be higher until it dumps out into the river. Then the water level will be lower giving the

June 21, 2022

boaters a chance to get out of the raft in a safe way. In response to Mr. Buckner, Director of Parks and Recreation Bill Sgrinia explained the way it would work was that the boats would come down the canal, not a lot of water was required to run it because it gets its speed through the restriction of the canal and the gradient; they were not taking more water from above the dam. When it comes down to the bottom there will be a pool because they were losing gradient to get down to the river. That was where people would get out of the rafts; they were not sending them into the river.

Mr. Buckner noted his concern was that the river was roughly 1,000 feet wide and if they take down the dam what does that shrink to, and Mr. Sgrinia noted when the Brantley dam was removed they could not tell a difference in the size of the river; that had been a concern with Brantley as well. Here they were projecting that the river may be one to two inches lower, it would not shrink on either side, the same amount of water would be flowing. He introduced Graham Smith who was the architect on the Riverfront Park and had been spending days on the white-water channel with the engineers. He has done the flood plain mapping, studies, all the permitting for this park to be built with No Rise. Mr. Smith noted given the evidence they have seen, and the historical data, there were rocks going all the way up to the face of the Union Street Dam, with a continuous slope. They think they know visually what they will see and there was no evidence, based on the Brantley Dam and the ecologist they have on their team, that they will lose significant river width. There was scouring on both ends of the dam and those scour spots may fill in which will be a good thing, because there was some erosion happening and some utilities that may be at danger there. They do not believe there will be any significant change in the river width in those corridors.

Council Member Campbell asked how they would be able to increase the amount of water in the channel, and Mr. Smith explained that a water control device, the Union Street Dam, had a series of headgates there that would be rebuilt to be operational. Water was flowing into the canal now and moving in the canal. They expect the water to flow four feet higher than it does now; in historical photos it used to flow seven feet higher than it does currently. The upper section would somewhat be a .5% slope which was flat water and then toward the end of the White Mill, getting into the competition course, they will take it to 1.8% to 2%, and that starts to change the velocity. They will constrict it sometimes and get into an Olympic caliber event if they needed it, and could also do recreation. Mr. Campbell asked how they were able to raise the water and Mr. Smith explained in the design they came up with today, they would like to add one water control device in the current channel, it was a dam that would be on a pulley system and controlled by a computer.

Council Member Whittle noted there was an enormous amount of coal ash still sitting in the river bottom adjacent to his property, and stated it was on the river bottom near the Long Mill Dam. If the dam was removed, will it stir up the coal ash all the way down the river, and Mr. Larking noted that there was no evidence of coal ash being there.

Vice Mayor Miller noted as a priority of Council, this was public safety, to protect the public by taking the dam down. The City was going to put in a new park right below the dam; it will attract people and children who will be getting near the low head dam which was a dangerous structure. Economic Development needs the removal of the dam to develop the whitewater component, and the City needs to do a better job of educating the public about fishing, the river and water safety. Another reason, the fish would spread out and be able to grow larger. There were numerous reasons why the dam needed to be removed. A flowing river over rapids was much prettier than a dammed up river, and it would be less likely to flood.

June 21, 2022

Council Member Vogler noted historical data was referenced on the dam and asked if that was the same data from the Army Corps of Engineers from 1877 through the 1880's which was before the dam was built. Mr. Vogler noted that the data from the Army Corps of Engineers was very detailed including the fact that the depth of the river ranged from $\frac{3}{4}$ " to four-foot pools before the dam. Mr. Vogler questioned if the City Manager was guaranteeing if the dam was removed, the pier gets permitted or will the City get credit for that. Mr. Smith explained that flood models were done from downstream to upstream. When a disturbance was put in the flow from a downstream portion, they try to balance that out. In the immediate adjacent area to the river, there cannot be any rise over .01 inch. When they start putting things in that floodway, it constricts the water, it rises the water and changes the flood model. This assists with the approvals and balances out all of it in a lot of ways. Mr. Vogler stated removing the dam would help get a permit for the pier, but the City doesn't know 100% that they will get that permit and Mr. Smith explained they would get it if they removed the dam.

Mayor Jones noted there was a request on the floor from the City Manager to remove the dam. He requested a straw poll from Council to see if this item would be placed on the agenda. The City Clerk noted six votes to put this item on a business agenda.

COMMUNICATIONS

Council Member Campbell noted his thanks to Council Members Saunders and Miller for their service on the education board.

Mayor Jones noted that Dr. Hairston sent an email about scores she dropped off, had asked that those be broken down and find out where Danville ranks in the state.

MEETING ADJOURNED AT 8:54 P.M.

APPROVED:

s/Alonzo L. Jones
MAYOR

ATTEST:

s/Susan M. DeMasi, CMC
CITY CLERK