



# ETC Engineers & Architects, Inc.

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November 20, 2017

Mr. Layne Pemberton  
Enforcement Analyst  
ADEQ Office of Water Quality  
Enforcement Branch  
5301 Northshore Drive  
North Little Rock, AR 72118

Re: Permit #AR0020087  
Forrest City Levee Repair – South Pond

Dear Mr. Pemberton,

In response to your email to Mayor Bryant and Mr. Murdock dated August 3, 2017, the Forrest City Water Utility has retained our services to address your comments regarding the above referenced project. In a previous letter dated August 28, 2017 I had certified the completion of the North pond. This letter is in reference to the South Pond completion.

The levee repair project was undertaken by the Forrest City Water Utility (FCWU) in-house staff using their equipment and personnel. Materials were procured locally. Three sides of the South pond (east, west and south levees) levees which were not part of the previous project were completed recently.

Similar to the previous project, this project involved widening the levee top, repairing existing levee top and slopes to remove erosion related damages and install protective measure against future erosion. The expertise to do so currently exists within the City staff capabilities. The City did not engage a third party engineer or develop any construction drawings.

As part of my work scope, I reviewed all available documents. The document review consisted of reviewing the material hauling records for the project. Between September 22, 2017 and October 26, 2017 the FCWU staff has hauled 28 loads of select fill and 762 Tons of B-Stone from sources used by the Arkansas Department of Transportation (ARDOT).

I made a field trip to visually inspect the finished project on November 9, 2017. During the field visit, I quizzed City staff about the methods and techniques used in reconstructing the levee top and reestablishing the levee slopes. I looked at the equipment and materials used. The levee

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top appears to provide a wide enough path that allows safe passage for any construction or service vehicles. The path is devoid of any ruts or gullies created by erosion. There were no trees, bushes or plants on the upstream side of the levee. Downstream slope has large and small trees that needs to be maintained properly. The levee top is level and provides approximately 4 feet of freeboard, adequate to contain wave related rise. The staff has used conventional method of scarifying existing soil, adding select fill, compacting and adding B-stone on top of the fill for slope protection and erosion control. There were no compaction tests. Pictures of the completed work are included as attachments.

Based on my visual observation of the repair work, discussion with staff involved in the repair work and inspection of hauling record, I am of the opinion that the repair work has created a stable erosion resistant upstream surface to the levee and a stable adequately wide levee top capable of accommodating all service trucks safely. Therefore, I hereby certify that the repair project is complete.


Please feel free to contact me if you have any questions. I can be reached at 501-375-1786.

Sincerely,

  
Mizan Rahman, P.E.  
Sr. Project Manager

CC: Mayor Larry Bryant  
Mr. Calvin Murdock



  
11/20/17

