

Arkansas Natural Resources Commission



J. Randy Young, PE Executive Director 101 East Capitol, Suite 350 Little Rock, Arkansas 72201 http://www.anrc.arkansas.gov/ Phone: (501) 682-1611 Fax: (501) 682-3991 E-mail: anrc@arkansas.gov Asa Hutchinson Governor

June 14, 2017

Mr. Tim Nyander City of Fayetteville 113 West Mountain St. Fayetteville, AR 72701

RE: INSPECTION: PERMIT 330 -- LAKE FAYETTEVILLE – WASHINGTON CO.

Dear Mr. Nyander:

I performed my inspection of Lake Fayetteville Dam on the 16th of February 2016. Once again, as a reminder: the hazard classification for this dam is "high" and the spillway will accommodate less than 50 percent of the PMF, according to the Phase I report issued by the Corp of Engineers published in September of 1979. Thank you for exercising your Emergency Action Plan (EAP) on October 7th of 2015.

I believe that the exercise was one of, if not the most, effective that I have been involved with. There was much beneficial dialog and reevaluation of roles and responsibilities that will lead to improved responses. With the updated plan and recent exercise the efficacy should be improved should implementation ever become necessary. I would like to add, one possibility for improving the EAP would be to update the inundation study. New methods and technologies could potentially lead to more refined determinations of arrival times and depths. This in turn might lead to a more informed response and allocation of resources. I want to emphasize that this is not a requirement, but a possibility for improvement that you might explore.

With regard to the maintenance and needs of the dam:

The upstream slope is likely in better condition to resist erosion at normal pool levels after the recent rearranging of the riprap. But the rains just prior to my visit demonstrated the ease with which a reasonably common event can bring the pool up and into an unprotected area. I believe that additional protection, for at least a portion of the slope, would prove beneficial. Figure one shows this area and the debris deposited from the high water. Creating a uniform grade would also allow for an easy visual check of the condition of the slope.

No issues were present on the crest.

A few small ruts were present on the downstream face/toe area where maintenance efforts encountered saturated areas. Please repair these and any future occurrences as they occur.

The seepage on the dam was consistent with past observations. Your efforts to manage it with filters and drains appears to be effective, but please remain vigilant for changes to volume and characteristics such as turbidity.

The spillway did not appear to have any deficiencies.

Our annual owner training will occur in Little Rock on April 25th. Hopefully this date is convenient for you and or your staff. Details should arrive via regular mail in the near future.

Thank you for your management of this resource. Please continue with your diligent and conscientious efforts. If there are any questions or you feel that I can assist with anything, please feel free to contact me at 501.682.6739

Sincerely,

Ryan Brooks Hydrologic Engineer

RB: rb



Figure 1 Upstream slope



Figure 2 Downstream face



Figure 3 Spillway crest