



# Arkansas Natural Resources Commission



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Asa Hutchinson  
Governor

April 20, 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:

On April 4, 2017, the Arkansas Natural Resources Commission carried out its annual inspection of the Lake Fayetteville Dam. 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 your continued efforts to update and exercise the EAP on an annual basis. Please continue to submit your updated EAP to our office.

Thanks to Lynn Hyke and Shae Fankhauser for accompanying me on the inspection. Lynn was very knowledgeable about the history of the dam, its maintenance schedules, and the issues past and present. I will now briefly discuss the issues noted during our inspection.

The upstream slope of the dam and the crest appeared to be in good condition overall. There are large trees growing on the upstream slope, and their root systems are causing small depressions and small cracks to form on the crest of the dam (**Figure 1 & 2**). The rip-rap added along the shoreline appears to be holding its position, but the rip-rap line could be brought further up the slope to help prevent erosion when the lake is higher (**Figure 3**).

The downstream slope of the dam and the toe of the dam appeared to be in good condition overall, but the embankment was saturated in some areas with some seepage (**Figure 4**). The seepage blanket installed on the right half of the downstream slope appears to be functioning well. Please continue to monitor the downstream slope of the dam for signs of increased/muddy seepage, and continue to regularly mow and burn the brush from the slopes of the dam. A few small ruts were present on the downstream face/toe area where maintenance efforts encountered saturated areas (**Figure 5**). Please repair these and any future occurrences as they occur.

The primary spillway was long ago decommissioned, but the drain systems installed on the downstream slope appear to be functioning properly. The auxiliary spillway also appears to be functioning properly. According to our records, the spillway is undersized based on the fact that it can only accommodate 50% of the full PMF. It may be helpful to review the spillway capacity in the future to confirm those findings.

Overall, the Lake Fayetteville Dam is in good condition. Thanks again for your continued efforts in maintaining the dam, and in keeping up with the annual EAP and table-top exercise. We look forward to seeing you all soon at the Dam Owner's Training on May 23, 2017.

Thanks,

Walt MacPhee

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Figures 1 & 2. Large trees growing on upstream slope. Cracks forming on crest of dam caused by root systems of large trees.



Figure 3. Signs of erosion on the lower portion of the upstream slope above the rip-rap line.



Figure 4. Seepage on downstream slope of dam.



Figure 5. Ruts on downstream slope of dam.