



# ARKANSAS

## ENERGY & ENVIRONMENT

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Thank you for speaking to me the other day about the “cease and desist” letter that the Osage Nation Historic Preservation Office sent to DEQ on April 6, 2023. The “cease and desist” letter was regarding the permitting process for the Paradise Valley Waste Water Treatment Plant, Roland Cutoff Road, Pulaski County, Arkansas. In that letter, the Osage Nation alleged that “current flood levels are directly inundating and adversely affecting a sacred Osage burial ground downstream from the project area.” The Osage Nation also alleges that the effluent flow for this facility would be an increased water discharge that will adversely affecting a sacred Osage burial ground downstream from that discharge.

This correspondence serves as DEQ’s response to the allegations in the “cease and desist” letter.

DEQ acknowledges that Osage Nation Historic Preservation Office personnel have observed that “current flood levels are directly inundating and adversely affecting a sacred Osage burial ground downstream from the project area.” DEQ acknowledges that there is an area of concern downstream from the location of the proposed wastewater treatment facility and that the Osage Nation is concerned that flooding in this area of concern could adversely impact a sacred Osage burial ground.

DEQ notes that this facility has not been built and has not discharged, thus it has never contributed to any current or historic flooding. With respect to the proposed discharge, DEQ notes that the design flow for the discharge from this facility was calculated to be 0.08 cubic feet per second (cfs).

In an effort to address the concerns about flooding, DEQ consulted USGS StreamStats<sup>1</sup> to determine the flow statistics for the unnamed tributary to Mill Bayou at a point where the stream passes by the area of concern. USGS StreamStats provides flow data for streams and can be used to get flow data for a particular point on the stream. DEQ queried USGS StreamStats to get low flow, peak flow, and mean flow data for the point is adjacent to the area of concern.

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<sup>1</sup> USGS StreamStats can be accessed at <https://streamstats.usgs.gov/ss/>

The November mean flow for the unnamed tributary of Mill Bayou near the area of concern is 2.89 cfs, according to USGS StreamStats. The design flow for the proposed facility is 0.08 cfs, and that flow is less than three percent (3%) of the November mean flow. That flow of 0.08 cfs is also less than half of the mean flow for August, which is 0.21 cfs.

Based on the Peak-Flow Statistics, there is a fifty percent (50%) annual exceedance probability that the flow for this stream will exceed 287 cfs. Again, the design flow of 0.08 cfs is less than 0.03 percent (0.03 %) of this fifty percent (50%) annual exceedance probability flow.

Based on this USGS StreamStats data, DEQ cannot conclude that a design flow of 0.08 cfs could contribute to any flooding. Because there is a fifty percent (50%) chance that the flow near this area will reach or exceed 287 cfs any given year, the flow from this facility is simply too small to have any impact on flooding near the area of concern. At this time, DEQ has no factual basis that supports the allegation that this facility could “directly increase water discharges that erode, destabilize, and ultimately destroy Osage protected sites.”

Based on the facts above, DEQ’s permitting action for the Paradise Valley Waste Water Treatment Plant cannot in any way cause a violation of the Arkansas State Unmarked Burial Act (Act 753 of 1991, as amended) or otherwise harm the area of concern. DEQ is not aware of any permitted or proposed discharges from a wastewater treatment facility upstream of the area of concern that could discharge a volume of flow that could have any appreciable impact on flooding near the area of concern.

Sincerely,



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