

EXHIBIT D

ECONOMIC IMPACT/ ENVIRONMENTAL BENEFIT ANALYSIS

**ARKANSAS POLLUTION CONTROL & ECOLOGY COMMISSION
ECONOMIC IMPACT/ENVIRONMENTAL BENEFIT ANALYSIS**

Rule Number & Title: APCEC Regulation No. 2; Regulation Establishing Water Quality Standards for Surface Water of the State of Arkansas

Petitioners: Cities of Harrison and Yellville Wastewater Treatment Plants

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2A. ECONOMIC IMPACT

1. Who will be affected economically by this proposed rule? State: a) the specific public and/or private entities affected by this rulemaking, indicating for each category if it is a positive or negative economic effect; and b) provide the estimated number of entities affected by this proposed rule.

Only the Cities of Harrison and Yellville are affected by this proposed rule. The effect on the Cities is positive.

Sources and Assumptions: *Use Attainability Analysis Report, Crooked Creek, Boone and Marion Counties, Arkansas (June, 2015) attached as Exhibit F to the Cities' Petition to Initiate Third-Party Rulemaking.*

2. What are the economic effects of the proposed rule? State: The estimated increased or decreased cost for an average facility to implement the proposed rule; and 2) the estimated total cost to implement the rule.

There are no economic effects of the proposed rule. Adoption of proposed rule will allow Harrison and Yellville to continue to operate their respective Wastewater Treatment Plants in compliance with their NPDES Permits through the site-specific modification of the dissolved mineral standards for the affected segment of Crooked Creek to levels that reflect current and historic water quality conditions, are appropriate for the operation of the Plants and are protective of the existing and designated uses.

3. List any fee changes imposed by this proposal and justification for each.

None

4. What is the probable cost to ADEQ in manpower and associated resources to implement and enforce this proposed change, and what is the source of revenue supporting this proposed rule.

None

5. Is there a known beneficial or adverse impact to any other relevant state agency to implement or enforce this proposed rule? Is there any other relevant state agency's rule that could adequately address this issue, or is this proposed rulemaking in conflict with or have any nexus to any other relevant state agency's rule? Identify the state agency and/or rule.

There is no known impact to another state agency nor is there another state agency's rule that could address the proposed change to APCEC Regulation No. 2. This rulemaking is not in conflict with, nor does it have a nexus to, any other relevant state agency's rule.

6. Are there any less costly, non-regulatory, or less intrusive methods that would achieve the same purpose of this proposed rule?

No

2B. ENVIRONMENTAL BENEFIT

1. What issues affecting the environment are addressed by this proposal?

There are currently no known technically and economically feasible treatments capable of reducing the chloride, sulfate and total dissolved solids concentration to levels that meet the current water quality criteria. This rule will allow Harrison and Yellville to continue their operations while preserving the aquatic life, domestic water supply, agricultural water supply, industrial water supply, and primary and secondary recreational contact designated uses of Crooked Creek.

2. How does this proposed rule protect, enhance, or restore the natural environment for the well being of all Arkansas?

The Use Attainability Analysis supporting Cities' requested site-specific modifications established that the requested changes will be protective of, and have no adverse effect on, the aquatic life in the affected streams. Toxicity testing on Ceriodaphnia dubia using the WWTPs' effluent showed no lethal or sub-lethal toxicity.

Sources and Assumptions: *Use Attainability Analysis Report, Crooked Creek, Boone and Marion Counties, Arkansas (June, 2015) attached as Exhibit F to Cities' Petition to Initiate Third-Party Rulemaking.*

3. What detrimental effect will there be to the environment or to the public health and safety if this proposed rule is not implemented?

All other available treatment technologies for the removal of minerals are either economically infeasible, provide no significantly increased environmental protection or are infeasible due to land restraints, and would involve an estimated initial investment of \$5,600,000 for Harrison and its ratepayers and \$2,250,000 for Yellville and its

ratepayers. Yellville would incur and additional \$660,000 annually in estimated operating costs. Harrison's annual operating costs are estimated to exceed \$4,000,000.

Sources and Assumptions: *Use Attainability Analysis Report, Crooked Creek, Boone and Marion Counties, Arkansas (June, 2015) attached as Exhibit F to Cities' Petition to Initiate Third-Party Rulemaking.*

4. What risks are addressed by the proposal and to what extent are the risks anticipated to be reduced?

The risks addressed by this proposal are the economic risk to the Cities of Harrison and Yellville and their ratepayers should the dissolved mineral criteria not be modified, and the continued protection of the Ozark Highland fishery, domestic, agricultural and industrial water supply, and primary/secondary contact recreational use designation of the affected stream segments. Under this proposal the risks are substantially eliminated.