EXHIBIT E

ECONOMIC IMPACT/ ENVIRONMENTAL BENEFIT ANALYSIS

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

Rule Number & Title: APCEC Regulation No. 37; Arkansas Nutrient Water Trading

Regulation

Petitioners: Northwest Arkansas Nutrient Trading Research and Advisory

Group ("NANTRAG")

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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.

Pursuant to the enabling statute, any decision to participate in the nutrient water quality trading program is voluntary and is entirely the choice of each participant in the nutrient water quality trading program or arrangement. Only those "persons" voluntarily seeking approval for a Nutrient Credit Generating Project and/or seeking to utilize credits from a Nutrient Credit Generating Project will be affected by this proposed rule.

The "persons" involved with and affected by nutrient trading are likely to include: (i) municipal waster water utilities with NPDES permit limits for nutrients and (ii) non-point source entities seeking compensation for the implementation of best management practices (i.e. – farmers or urban landowners). The economic effect on the persons/applicants is positive.

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 negative economic effects of the proposed rule. Adoption of the proposed rule will foster an alternative, and more cost-effective, compliance mechanism for National Pollutant Discharge Elimination System ("NPDES") permit holders. Specifically, the proposed rule will allow permit holders to utilize nutrient credits generated by Nutrient Credit Generating Projects as offsets to their nutrient discharges when determining compliance with permit limits and conditions.

This alternative compliance mechanism may, in turn, protect municipal waste water utility ratepayers from the higher costs of system upgrades by allowing the utility to meet permit terms and conditions through the nutrient reductions created by another source that can achieve nutrient reductions at a lower cost.

Participation in nutrient trading programs and arrangements is voluntary and any cost to implement the proposed rule will be captured in the application fees attendant to the Arkansas Department of Environmental Quality's ("ADEQ") review of Nutrient Credit Generating Project applications. See Response to Question No. 3.

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

The Arkansas Department of Environmental Quality ("ADEQ") is evaluating the fee structure and fee amounts that will be necessary and sufficient to cover ADEQ's cost to review and evaluate applications for a proposed Nutrient Credit Generating Project. NANTRAG understands that any fees will be separately proposed by ADEQ and will be included in an amended APCEC Regulation No. 9 – Fee Regulation. Such fees must be consistent with the specific statutory authorizations set forth in Ark. Code Ann. § 8-4-232(b)(2)(E).

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.

See Response to Question No(s). 2 and 3.

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.

The Arkansas Natural Resource Commission ("ANRC") is the only other relevant state agency involved with the implementation of the proposed rule. ANRC's role is to review and provide recommendations to ADEQ regarding certain types of nutrient trading project applications that ADEQ may receive.

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?

Currently there are limited technically and economically feasible treatments capable of reducing nutrients to levels that meet increasingly stringent water quality criteria for nutrients. The proposed rule will allow municipal wastewater treatment facilities and other regulated point sources to continue their operations with less costly and more efficient compliance tools, while also preserving the water quality and the designated uses of receiving streams.

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

The compensation paid for credits generated by voluntary non-point source nutrient reductions will increase the implementation of best management practices in otherwise unregulated activities throughout the state, thereby improving water quality.

The utilization of Nutrient Credit Generating Project credits as permit offsets represents a market-based approach to achieving water quality goals more quickly and more efficiently. Moreover, any permit holder that relies on credits will be fully responsible for verifying, documenting, and reporting the success of the credit, and any default in a credit or offset will trigger traditional permit enforcement options and ensure the integrity of the permit program and protect the water quality concern.

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

None

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

The risks addressed by this proposed rule include the economic risk to municipal NPDES permit holders and their ratepayers should more stringent nutrient discharge limits require costly treatment system upgrades. Under this proposal the risks are reduced by authorizing a less costly nutrient reduction and permit compliance option.