



January 6, 2010

Mr. John Bailey
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317

RE: Comments of Draft Quality Assurance Project Plan for IRW

Dear Mr. Bailey:

Tyson Foods, Inc. (Tyson) appreciates the opportunity to review the Draft Quality Assurance Project Plan (QAPP) for the Illinois River Watershed (IRW). Tyson is providing the following comments for Arkansas Department of Environmental Quality's consideration:

Comment 1:

It is difficult to determine if the modeling plan is appropriate because specific information about what will be included in the modeling is not provided in this QAPP. At a minimum, Tyson believes the following issues should be addressed:

- a. Only current, accurate and available data should be used in the modeling. This includes water quality data, land-use data, agricultural census data and manure and fertilizer handling practices from the watershed.
- b. The model should simulate the movement and re-suspension of nutrients in soil/sediment from stream bank erosion.
- c. The model should evaluate stream bed sediments as a Phosphorus source below point sources. Research in the Eucha-Spavinaw watershed suggests that these sediments are an "important factor likely regulating dissolved P[hosphorus] concentrations in the stream water."

Comment 2:

The poultry litter application rates assumed in a previous model developed by Dan Storm were inaccurate. The proposed QAPP references the SWAT model which does provides a more detailed representation of the poultry litter sources of Phosphorus. However, neither the SWAT nor HSPF models provide information that supports assumptions made regarding the amount or transport of Phosphorus from poultry litter used as fertilizer.

Comment 3:

Previously, modeling attempts have been seriously flawed because not all observed Phosphorus sources have been accurately incorporated. The QAPP should contain more detail related to Water Quality Model Development since poultry litter is mentioned in the watershed model development section. Information on how the model will be developed to assess the following sources should be explained in detail:

- a. Phosphorus from forested areas in the watershed.
- b. Non-vegetated areas such as unpaved roads, riparian erosion sites, construction sites, and other sediment loading areas. In one previous model, the author stated, “some of these very small areas may contribute a thousand times more sediment than a pasture of the same area. Although significant, they cannot be simulated with the currently available data.” If these areas are “significant” it is invalid to assign these loads to other sources.
- c. Phosphorus from cattle in the watershed.

If you have any questions, please contact me at (479) 290-7541.

Sincerely,



Steve Patrick, P.E.
Operations Director – Environmental, Health, & Safety
Tyson Foods, Inc.

cc: Jimmy Mardis, Tyson
Kevin Igli, Tyson