ILLINOIS RIVER WATERSHED MODELING

QUESTION: What is the current status of the EPA's efforts to create environmental models of the Illinois River Watershed and Lake Tenkiller?

ANSWER:

- Since 2009, EPA has been funding, on-behalf of our regulatory partners from both Oklahoma and Arkansas, the development an agreed upon scientific model to use in developing TMDLs or other load reduction approaches where needed.
- There are two models under development for this effort – one for the Illinois River Watershed Basin and another for Lake Tenkiller.
- EPA Region 6 is finalizing the model to address nutrient impairment in the Illinois River Watershed Basin and plans to release it for a 90-day review as soon as possible.
- At the end of the informal comment period, a public meeting will be held to review the model, discuss next steps, and receive comments from all stakeholders.
- The model for Lake Tenkiller requires some additional refinements before it will be available for use. EPA has recently received updated calibrations of the Lake model and shared them with state and tribal partners for review.

BACKGROUND:

- EPA Region 6 in cooperation with Oklahoma, Arkansas and the Cherokee Nation have been working to address nutrient impairments in the Illinois River Watershed of northwest Arkansas and northeast Oklahoma since late 2009, and efforts have yielded preliminary models covering both rivers/streams and Lake Tenkiller.
- Since April 2016, EPA has convened a total of six Technical Workgroup Meetings with representatives from Arkansas and Oklahoma state and tribal agencies to refine the models. Oklahoma and Arkansas agencies have provided detailed comments on the modeling efforts.
- Region 6 has made modifications to the model calibrations in response to stakeholder comments and continues to build consensus among the regulatory partners in both Oklahoma and Arkansas regarding the benefits of these watershed and lake models.
- Oklahoma's Lake Tenkiller and portions of the Illinois River Watershed in Northwest Arkansas and Northeast Oklahoma are included on the states' Clean Water Act Section 303(d) lists of impaired waters.
- Phosphorus levels in the Illinois River are impacted by municipal discharges and nonpoint sources (i.e., runoff from poultry litter application sites). Downstream impacts to Lake Tenkiller are reflected by high chlorophyll-*a* and low dissolved oxygen levels in the water, which result from nutrients including phosphorus.
- Since the beginning of the project, the EPA has expended about $1.5M. The EPA has committed approximately 0.5 FTE to overseeing the project.

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May 3, 2017

ED_002032_00009349-00001