IN REPLY REFER TO

United States Department of the Interior

FISH AND WILDLIFE SERVICE
110 S. Amity Road, Suite 300
Conway, Arkansas 72032
Tel.: 501/513-4470 Fax: 501/513-4480

December 3, 2014

Doug Szenher
Arkansas Department of Environmental Quality
Public Outreach and Assistance Division
5301 Northshore Drive
North Little Rock, Arkansas 72118

Dear Mr. Szenher:

The U.S. Fish and Wildlife Service (Service) has reviewed the notice on a third-party proposal by the Southwestern Electric Power Company John W. Turk, Jr. Power Plant (SWEPCO facility) to change APC&E Regulation 2, the Arkansas Water Quality Standards, for the Little River from Millwood Lake to the Red River and for the Red River from the mouth of the Little River to the Arkansas/Louisiana state line.

The petition to initiate third-party rulemaking to amend Regulation No. 2 states the following: The SWEPCO facility discharges treated process wastewater under the provisions of NPDES Permit No. AR0051136 issued by ADEQ. The SWEPCO facility discharges treated wastewater from a wastewater pond containing primarily cooling tower blowdown and previously monitored low volume waste. The SWEPCO facility is requesting the following amendments to Regulation 2: (1) modification of the total dissolved solids (TDS) and temperature water quality criteria for the Little River from Millwood Lake to the mouth of the Little River as follows: modification of the Total Dissolved Solids (TDS) water quality criterion from 100 milligrams per liter (mg/L) to 138 mg/L and modification of the temperature criterion from 30° C (86° F) to 32° C (89.6° F); (2) modification of the TDS water quality criterion for the Red River from the mouth of the Little River to the Arkansas/Louisiana state line from 500 mg/L to 860 mg/L; and (3) removal of the designated, but not existing, domestic water supply use from the Red River from the mouth of the Little River to the Arkansas/Louisiana state line.

Southwestern Electric Power Company Use Attainability Analysis for Dissolved Minerals in Little and Red Rivers Hempstead & Little River Counties, Arkansas (Exhibit F) ES.4 states "Small numbers of Ouachita Rock Pocketbook (*Arcidens wheeleri*) have been documented in the upper reach of the Little River below Millwood Lake, but no live *A. wheeleri* have been collected from the lower reach, extending from a short distance above the SWEPCO plant's intake downstream past he discharge location to the confluence of Little River with the Red River. *A wheeleri* has not been documented in the Red River downstream from the confluence with the Little River. Suitable habitat and water quality to support *A. wheeleri* is not present in the described reaches of these waterbodies due to construction of the Millwood Lake on the Little River, which resulted in changes in flow, water temperature, and sedimentation. Additionally, although the rabbitsfoot, *Quadrula cylindrica cylindrica*, is known from some streams in southwest Arkansas, including the Little River upstream of Millwood Lake, it has not been documented in either the Little River downstream of the Millwood Lake dam or the Red River. The federally listed Interior Least Tern (*Sterna antillarum athalassos*) is known from a large sandbar at the confluence of the Red River and the Little River below Millwood Lake. Many aquatic species are particularly vulnerable to changes in flow and water temperature, but these parameters do not impact terrestrial species such as the Interior Least Tern."

The Service has no concerns with the proposal to increase the TDS water quality criterion for the Red River from the mouth of the Little River to the Arkansas/Louisiana state line from 500 mg/L

to 860 mg/L as this change will not affect any federally listed species

The Service has no concerns with the proposal to remove the designation of domestic water supply use from the Red River from the mouth of the Little River to the Arkansas/Louisiana state line or the proposal to modify TDS water quality criterion from 100 milligrams per liter (mg/L) to 138 mg/L in Little.

The Service has concerns regarding the proposal to modify the temperature criterion from 30° C (86° F) to 32° C (89.6° F). The increase in water temperature standards may not exceed the background low, summer temperatures. Ouachita Rock Pocketbook (*Arcidens wheeleri*; ORP) does occur in the Little River downstream of the outfall pipe, although the main population of concern occurs upstream of the effluent discharge. The trigger for *A. wheeleri* brooding is unknown at this time, but may be related to temperature, water flow, or both factors may contribute. As the ORP may be gravid from mid-November to early January, increased water temperature may have an effect on brooding and reproduction. The direct effect of temperature increase on ORP is not known as the species has not been determined to be thermally tolerant or intolerant, although many mussel species are sensitive to increased temperature.

Despite survey effort, no live *A. wheeleri* (only fresh dead specimens) have been located downstream of the outfall pipe in the Little River. However, the potential exists for small numbers of ORP to occur in this area. If the thermal regime is significantly altered, there is potential to affect *A. wheeleri*. The Service does not have sufficient information regarding the altered thermal regime surrounding the outfall pipe and downstream to make a decision at this time.

We appreciate the opportunity to provide comments. Please contact Chris Davidson at 501-513-4481 or chris_davidson@fws.gov with any questions or concerns.

Sincerely,

Jim Boggs
Field Supervisor

cc:

Arkansas Natural Heritage Commission, Little Rock, Arkansas
Arkansas Natural Resources Conservation Commission, Little Rock, Arkansas
Arkansas Game and Fish Commission, Little Rock, Arkansas
Arkansas Department of Environmental Quality, Little Rock, Arkansas
Environmental Protection Agency, Dallas, Texas

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