



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

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Ms. Jennifer Dodd, Director  
Division of Water Resources  
William R. Snodgrass - Tennessee Tower  
312 Rosa L. Parks Avenue  
Nashville, Tennessee 37243-1102

Dear Ms. Dodd

The Tennessee Department of Environment and Conservation (TDEC) has been a vital partner in conservation efforts for aquatic habitats and sensitive species in the Duck River watershed. Most notably, TDEC has been a leader in implementing a new adaptive management approach to water conservation efforts through the design and implementation of the Duck River Pilot Project. This project takes a regional approach in the planning and permitting of new and expanded water withdrawals proposed by multiple utility districts in the Duck River watershed.

The Service has been actively engaged with TDEC and other partners in addressing research needs towards enabling minimum in-stream flows that support fish and aquatic life. As you're aware, The Duck River is the most biologically diverse river in North America, supporting over 650 aquatic species (including 151 fishes, 75 mussels, 17 crayfish, and 22 snails). Native freshwater aquatic organisms are indicators of broader stream and river health, and vibrant freshwater mussel communities are particularly reflective of healthy conditions. In addition to being indicators of stream and river health, native freshwater mussels can also keep the water clean as they filter their food from the water, and with it, sediment, and other pollutants. The 75 species of freshwater mussels native to the Duck River represent 25% of all the mussel species that occur in North America. Despite this high amount of mussel diversity, more than 20 species occurring in the Duck River are currently listed as an endangered species or a threatened species under the ESA, and 150 miles of the Duck River have been designated as critical habitat. For several of these species, the Duck River is the only place where they exist.

The Duck River also provides drinking water for over 250,000 people and is facing

growing pressures from (1) urbanization within the watershed related to population growth in the Nashville metropolitan area, (2) increasing agricultural, municipal, and industrial water withdrawals from the river and contaminated effluents entering the river, (3) loss of riparian vegetation and associated erosion and sedimentation, and (4) a changing climate that is increasing the intensity and frequency of extreme weather events such as prolonged droughts and severe storms. The need for proactive, evidence-based planning is apparent, and we appreciate TDEC's recognition of, and commitment to, the essential role that regulation plays in the conservation of our Nation's heritage in fish, wildlife, and plants. This process resulted in the following proposed ARAP permitting actions in the Duck River:

- NRS19.148 - Lewisburg Water & Wastewater proposes the continued withdrawal of up to 4.57 million gallons per day from the Duck River in Marshall County for public water supply.
- NRS21.274 - Shelbyville Power, Water, and Sewerage Systems proposes the continued withdrawal of up to 8.35 million gallons of water per day from the Duck River in Shelbyville for public water supply.
- NRS22.201 - The Duck River Utility Commission proposes the continued withdrawal of up to 12.32 million gallons per day from Normandy Reservoir for public water supply.
- NRS22.288 - The City of Springhill proposes the continued withdrawal of up to 6.00 million gallons per day from the Duck River in Maury County for public water supply.
- NRS22.320 - Bedford County Utility District proposes the continued withdrawal of up to 4.07 million gallons of water per day from the Duck River in Bedford County for public water supply.
- NRS23.098 - Maury County Water Systems proposes construction of a raw water intake in the Duck River near Columbia and withdrawal of up to 3.00 million gallons of water per day from the Duck River for public water supply.

The proposed water withdrawals downstream of Normandy Dam represent an increase in water withdrawal from the Duck River compared to current withdrawal rates. The TDEC draft permits contain a special condition to cease withdrawal from the Duck River when the Milltown USGS Gage is at or below 175 cubic feet per second (cfs) effective five years from the effective date of the permit and, for Maury County Water Systems, withdrawal is prohibited at or below 100 cfs at Columbia. Withdrawing 26 million gallons per day from the Duck River without an immediate limit by which withdrawal should cease could impact listed species during drought conditions. This amount, however, is not significantly different than the current peak withdrawals and we support TDEC's efforts to minimize water withdrawal effects over time.

The Maury County Water Systems draft ARAP proposes to authorize withdrawal of 3 million gallons per day from the Duck River. The draft permit allows withdrawals down to 100 cfs, as measured at Columbia. This is a level far below the 175 cfs limit at Milltown that was determined to be protective of designated critical habitat in the Duck River. Although the Columbia Power and Water Systems (CPWS) draft ARAP states the same 100 cfs limit, CPWS is engaged in consultation with the Service to evaluate the effects of their withdrawal down to 100 cfs. To date, the Service has not received a request to consult on the effects of the Maury County withdrawal to listed species and designated critical habitat in the Duck River. Additional analyses are warranted to establish an ecologically relevant base flow in the Columbia reach of the river that is protective of the designated use of fish and aquatic life.

The Service supports the practical and adaptive management approach adopted by TDEC and we look forward to working with your staff on these and other important projects in the watershed going forward. If I can be of further assistance, please contact me at 931/528-6481 or via e-mail at [daniel\\_elbert@fws.gov](mailto:daniel_elbert@fws.gov).

Sincerely,

Field Supervisor