



STATE OF TENNESSEE
Department of Environment and Conservation
Division of Water Resources, Natural Resources Unit
Davy Crockett Tower, 9th Floor
500 James Robertson Parkway
Nashville, Tennessee 37243

NOTICE OF DETERMINATION

Necessity to Accommodate Economic or Social Development Degradation of Exceptional Tennessee Waters Aquatic Resource Alteration Permit Application NRS19.148 Lewisburg Water & Wastewater

Pursuant to *The Tennessee Water Quality Control Act of 1977*, and Tenn. Comp. R. & Regs. 0400-40-03-.06(4)(d), this notice sets out the Department of Environment and Conservation's determination that the degradation resulting from an increased withdrawal of drinking water by Lewisburg Water & Wastewater from the Duck River proposed in the Aquatic Resource Alteration Permit application NRS19.148 is necessary to accommodate important economic or social development in the area.

Background

Lewisburg Water & Wastewater has applied for an Aquatic Resource Alteration Permit (ARAP) for an increased withdrawal of up to six million gallons per day (MGD) from the Duck River near river mile 181. Additional information on the project proposal and supporting documents are available for review on the internet at the Division's Water Resources Permits Data viewer (<https://www.tn.gov/environment/about-tdec/tdec-dataviewers.html>) by entering the permit file number listed in the title of this Notice of Determination.

Public notice of a draft permit that would authorize the withdrawal of six MGD was issued on December 17, 2024, which announced the scheduling of a public hearing to be held on March 18, 2025, at Henry Horton State Park. The public comment period ended on March 28, 2025.

Pursuant to Tennessee's water quality standards, Rule 0400-40-03-.04, a single water withdrawal is considered de minimis if it removes less than five percent of the minimum 7-day average streamflow with a 10-year recurrence interval (7Q10) flow of the stream. The intake is located near Duck River mile 166 in river segment ID TN06040002001_1000.

Using the USGS Hydrologic Toolbox 1.0.0 for the period of record from April 1, 2004 – March 31, 2025, at the USGS Gage 03599240 DUCK RIVER ABOVE MILLTOWN, TN, the calculated 7Q10 in this river segment is 146.44 cubic feet per second (CFS).

The proposed withdrawal is six MGD (9.28 CFS). The new withdrawal is 6.34% of the 7Q10 flow. As defined in Rule 0400-40-03-.04(4) the withdrawal results in greater than de minimis degradation.

In waters identified as Exceptional Tennessee Waters, new or increased water withdrawals that would cause degradation of any available parameter above the level of de minimis will only be authorized if the applicant has demonstrated to the Department that there are no practicable alternatives to prevent or lessen degradation associated with the proposed activity and the degradation is necessary to accommodate important economic or social development in the area and will not violate the water quality criteria for uses existing in the receiving waters. If one or more practicable alternatives is identified, the Department shall only find that a lowering is necessary if those alternative(s) are selected for implementation.

Discussion

The proposed activity is the withdrawal of up to six million gallons per day from the Duck River near river mile 181.

The Department's drinking water rules (0400-45-01-.05(10)) state: "Whenever a public water system reaches eighty (80) per cent of the design capacity based on average day usage, the supplier of water shall immediately obtain the services of a competent engineer to prepare plan documents for expansion of said system."

The City of Lewisburg's Water Treatment Plant is located inside the City Limits and has a rated capacity of 4.0 million gallons per day. The treatment plant presently pumps 4.37 MGD during peak demand. The design of a new 6.0 MGD Water Treatment Plant is underway for the City of Lewisburg and is scheduled to bid in the summer of 2025. Because of the required infrastructure investment, the Department considers a 20-year water use projection. The proposed maximum withdrawal rate is 6.0 MGD.

Raw water for the Lewisburg Water Treatment Plant is supplied by a raw water intake in the Duck River. Lewisburg presently sells water to the Marshall County Board of Public Utilities, the Town of Cornersville, and the Fairview Utility District. The Marshall County Board of Public Utilities sells water to the Town of Chapel Hill when requested because Chapel Hill owns and operates a water treatment plant utilizing groundwater as a raw water source.

The City of Lewisburg reports 6,607 existing residential water customers and 1,429 permitted for construction. It also projects 1,317 residential units proposed to be presented to the Planning Commission.

Determinations

After taking into consideration the information received in support of the permit application and the comments received through public participation, the Department has determined that:

1. As defined in rule 0400-40-03-.04(4) the proposed withdrawal is greater than de minimis degradation of water quality parameters in waters identified as Exceptional Tennessee Waters.
2. The degradation of Exceptional Tennessee Waters is necessary to accommodate important economic or social development in the area.

Petition for Declaratory Order/Permit Issuance

Pursuant to the Antidegradation Statement, Tenn. Comp. R. & Regs. 0400-40-03-.06(4)(d), the

Department's determination that degradation above a de minimis level of the Exceptional Tennessee Waters is necessary to accommodate important economic or social development in the area is subject to review by the Board of Water Quality, Oil, and Gas.

Within 30 days after the date of this notification, any affected intergovernmental coordination agency or affected third person may petition the Board for a declaratory order under Tenn. Code Ann. § 4-5-223, and the Board shall convene a contested case. If a petition for declaratory order is timely filed, it will be processed in accordance with Tenn. Comp. R. & Regs. 0400-40-03-.06(4)(d) and rules governing contested case hearings. If no such petition is filed within 30 days after this notification, then the Department will proceed to its final determination of whether to issue the permit. A petition may be filed by electronic mail at TDEC.Appeals@tn.gov or by mail to Jenny Howard, TDEC General Counsel, 500 James Robertson Parkway, 5th Floor, Nashville, Tennessee 37243.