

**MARSHALL COUNTY BOARD OF PUBLIC UTILITIES**

624 West Commerce St.

Lewisburg, TN 37091

(931) 359-6905

January 10, 2020

Mr. Jim McAdoo  
Environmental Protection Specialist, Permit Section  
Division of Water Resources  
William R Snodgrass Building  
312 Rosa L. Parks Avenue, 11<sup>th</sup> Floor  
Nashville, TN 37243

**Re: Marshall County Board of Public Utilities  
Marshall County, TN  
Request for Inter-basin Transfer Permit  
Permit Fee**

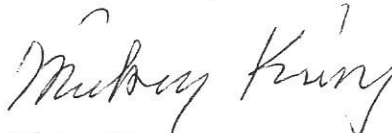
Mr. McAdoo,

In conjunction with our electronically submitted Inter-basin transfer permit, please find enclosed a review fee in the amount of \$500.00.

Should you have any questions or need anything additional to complete your review, please let me know.

Sincerely,

**Marshall County Board of Public Utilities**



Mickey King  
President

Enclosures

"This institution is an equal opportunity provider and employer.

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You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter to us by mail at U.S. Department of Agriculture, Director, Office Adjudication, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410,

by fax (202)690-7442 or email at [program.intake@usda.gov](mailto:program.intake@usda.gov)"

mailed 1/14/2020

# MARSHALL COUNTY BOARD OF PUBLIC UTILITIES

624 West Commerce St.

Lewisburg, TN 37091

(931) 359-6905

January 13, 2020

Mr. Jim McAdoo  
Environmental Protection Specialist, Permit Section  
Division of Water Resources  
William R Snodgrass Building  
312 Rosa L. Parks Avenue, 11<sup>th</sup> Floor  
Nashville, TN 37243

**Re: Marshall County Board of Public Utilities  
Marshall County, TN  
Request for Inter-basin Transfer Permit**

Mr. McAdoo,

Pursuant to Rule 0400-40-13 and on behalf of the Marshall County Board of Public Utilities (MCBPU), we submit the following information for consideration of an Inter-basin Transfer permit. Please find below a brief narrative as well as the information outlined as required for consideration of this permit.

## **Project Narrative**

The MCBPU is currently in the process of preparing for submission of a request for a new withdrawal permit along the Duck River which will be used to serve a new Water Treatment Plant to be constructed by the MCBPU on the northern end of Marshall County. MCBPU has experienced a significant amount of growth in the northern end of the county in and around the Chapel Hill Area. We expect that this growth is a direct result of the record growth which has been experienced by the neighboring counties (Williamson and Rutherford) in recent years. This growth has taxed the current system to the point that the need for a new WTP has been evaluated and determined to be necessary to ensure that the residents, current and future, are insured a consistent potable water supply. As the growth has continued and as the permit process and plant work is being conducted, growth continues and as such, MCBPU has found themselves in need of supply beyond their current abilities and have been looking to neighboring utilities for interim solutions. The Board has struck a tentative agreement with the City of Murfreesboro for the sale of water to the Utility via an existing emergency connection with the Consolidated Utility District of Rutherford County (CUD). The tentative agreement is to be a "stop-gap" measure to allow the Utility some breathing room during the permit and plant construction processes. The current proposed agreement has an initial term of 5-years with a potential for 5 additional years to be added should the plant and other infrastructure not be fully in operation at the end of the initial period. The contract as currently proposed has a 10 year maximum (initial five years, plus five year extension). By the end of this 10 year period it is anticipated that the new water treatment plant will be on line and there will not be any additional need for this connection as a continual basis. The connection which this water will be transferred thru will remain in place as an emergency connection between CUD and MCBPU.

1. What is the Volume of the proposed withdrawal in gallons per day requested by applicant?
  - MCBPU requests a total of 150 gallons per minute (216,000 gallons per day).
2. Identify the withdrawal, return and transfer points
  - The transfer point will be at the Rutherford Co./ Marshall Co. line. See attached map
3. Identify the amount of water that will be returned to the basin of origin or downstream basin.
  - The proposed transfer will have a direct return to the origin basin of zero. The downstream basin will (directly or indirectly) receive all the return. The proposed water will be used for residential consumption in northern Marshall County and will remain in the receiving basin and will be sent downstream as run-off or will be returned to the groundwater system via septic or sewer discharge.
4. Identify the peak capacity of each major component in the proposed withdrawal and transfer facility.
  - The governing peak capacity in the proposed scenario will be the flow from the water pump station located in Eagleville that is owned and maintained by CUD. As part of this proposed connection, CUD will be upgrading the station to provide the approximately 150 gpm flow which is proposed for this connection. The connection between the City of Murfreesboro and CUD and the connection between CUD and MCBPU are of such a size that they can handle greater volumes, however since the connection point in question is governed by a pump station, this station will dictate the volume of water able to be transferred and as noted, the station is being upgraded to provide the proposed 150 gpm.
5. Provide engineering and economic justification for the capacity of the major components of the proposed withdrawal and transfer facilities.
  - The pump station which is the governing factor in the transfer is being updated to provide the approximate volume of water as proposed, 150 GPM. The intention of this transfer is only to provide some "breathing room" for the MCBPU while they complete their withdrawal permit and construct a new WTP to serve this area. The engineering involved in sizing the facilities included an evaluation of the existing facilities and what was the maximum amount of flow that could be transferred at the point of connection without undertaking any major capital improvements. As this is not a long term solution, it was determined that large capital projects would not be beneficial for a short term solution. The existing pump station was evaluated and it was determined that with some minor changes the station could provide up to 150 GPM +/- of flow to the point of connection. This has been the basis for all discussions between the 3 parties involved.
6. Provide an assessment of the hydraulic and environmental impacts of the withdrawal on the losing river.
  - The losing river in this proposed scenario is the Stones River, also know as the J. Percy Priest Reservoir at the point of withdrawal. The City of Murfreesboro has a WTP with a capacity of 20 Million Gallons per day and are currently only treating approximately 12 million gallons per day. The City's current plant and withdrawal as compared to their total capacity are such that there should be a negligible impact hydraulically and environmentally on the J. Percy Priest Reservoir as a result of this transfer.
7. Provide an engineering, environmental and economic assessment of the feasibility of utilizing alternate water sources by the water system in the receiving basin.
  - As is noted previously, this is to be a temporary connection to provide some relief for MCBPU while they are in the process of permitting and construction their own WTP within the Duck River Basin. MCBPU has evaluated many options, however, their current primary supplier is not capable of supplying additional water to this area of the county currently, Chapel Hill does have a small water system in the area, however, they

depend on a spring and during certain times of the year, they also experience issues and have from time-to-time had to rely on MCBPU for additional water to supplement their supply. Upon completion of their new WTP, MCBPU will be able to assist it's neighbors in the area as needed and will be able to only utilize the current connection in an emergency situation. The MCBPU has assessed the feasibility and for a long term solution, have determined that utilizing the water in their current basin is the most viable long term solution, however, at this time, the Utility needs additional capacity and for the short term, the City of Murfreesboro and CUD have the resources readily available making this connection the most practical.

8. Provide a listing of conservation programs and practices occurring or proposed of the system in the receiving river basin.
  - MCBPU currently has in place a moratorium on new construction in the northern end of the County due to their concern over water availability. No new connections are being made at this time.
9. Identify the proposed date upon which the water transfer is to commence.
  - The agreements between the City of Murfreesboro, Consolidated Utility District and Marshall County Board of Public Utilities are currently being considered by each entities governing body. Upon approval of this proposed inter-basin Transfer permit, the three entities would be able to being sending water on a lesser scale, however the agreement for the full 150 GPM would be in full force at such time as upgrades to the existing pump station in Eagleville are completed. MCBPU would like to begin taking water under these agreements as soon as this permit is fully reviewed and approved, however at this time we are estimating that the agreement would be in full force on or before Memorial Day weekend of 2020 (May 22, 2020).
10. Identify the purpose and justify the proposed transfer.
  - The purpose of the proposed transfer is to supply MCBPU additional water in the northern portion of the County. Currently MCBPU is in the process of securing a withdrawal permit from the Duck River in order to build a new WTP. Upon completion of this new plant, the Utility will have adequate supply for their existing and future customers, however until such time as the new WTP is complete, the Utility finds itself in need of some additional water.

Sincerely,

**MARSHALL COUNTY BOARD  
OF PUBLIC UTILITIES**



Mickey King - President

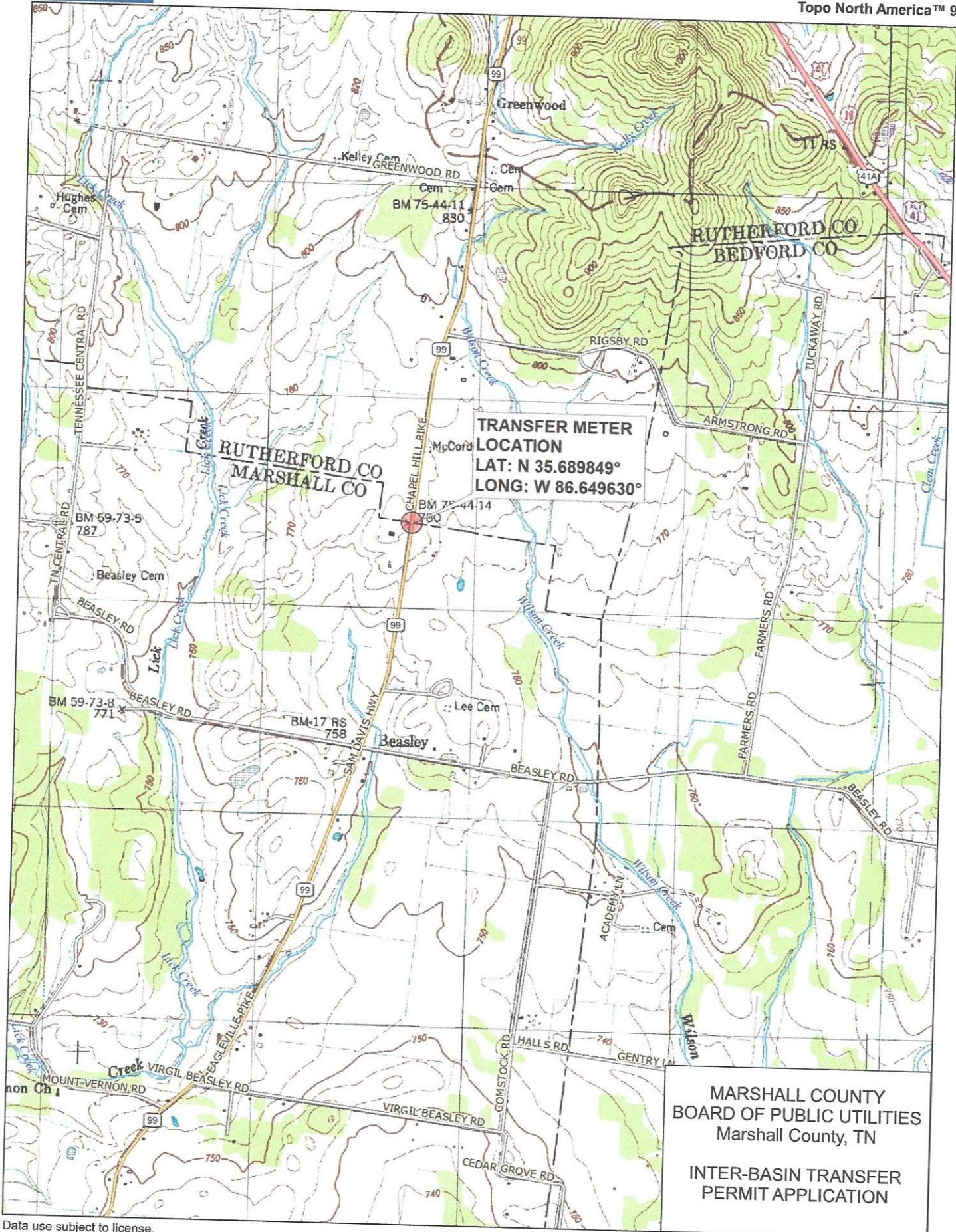
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by fax (202)690-7442 or email at [program.intake@usda.gov](mailto:program.intake@usda.gov)"



**TRANSFER METER  
LOCATION**  
 LAT: N 35.689849°  
 LONG: W 86.649630°

**MARSHALL COUNTY  
BOARD OF PUBLIC UTILITIES**  
 Marshall County, TN  
**INTER-BASIN TRANSFER  
PERMIT APPLICATION**

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