From: Vojin Janjic

To: Elizabeth Rorie

Subject: FW: [EXTERNAL] Fwd: FY2023 Inter-Basin Water Transfer Report

Date: Tuesday, February 20, 2024 5:26:43 PM

Please process. No acknowledgment necessary.

From: Jason Foster <jfoster@e-u.cc>

Sent: Tuesday, February 20, 2024 9:22 AM **To:** Vojin Janjic < Vojin.Janjic@tn.gov>

Cc: Dawn1 Taylor <Dawn1.Taylor@tn.gov>; Clay Hepburn <chepburn@e-u.cc>;

tom.bryant@unicoiwater.com

Subject: [EXTERNAL] Fwd: FY2023 Inter-Basin Water Transfer Report

*** This is an EXTERNAL email. Please exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email - STS-Security. ***

Mr. Janjic,

Please see attached. We had been communicating this report via email and letter to Mr. Jim McAdoo. I tried to email him our recent report illustrating a decrease from the previous year and it was returned. I was able to find your contact on the TDEC website for Water Based Systems and I am forwarding this to you for your records and review. We have not had an increase requiring a permit based on correspondence from Mr. McAdoo in January of 2023. This report covers July 2022 to June of 2023. I see on the website it now requests the information to be sent to the follow address;

Inter-Basin Transfer Documentation TDEC – Water Resources Division William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 11th Floor Nashville, Tennessee 37243

Do we need to make this to your attention or another person? Or will just the blanket address suffice? Thank you in advance for your assistance with this matter. We will mail a copy of this report asap and if you need any additional information please do not hesitate to contact me.

Sincerely,
Jason Foster, PE
Director of Water & Wastewater
Erwin Utilities
244 Love Street
Erwin, TN
423-735-4555

----- Forwarded message ------From: Jason Foster < ifoster@e-u.cc>

Date: Tue, Feb 20, 2024 at 10:02 AM

Subject: FY2023 Inter-Basin Water Transfer Report

To: Jim McAdoo < <u>Jim.McAdoo@tn.gov</u>>

Cc: Clay Hepburn < chepburn@e-u.cc>, Dawn1 Taylor < dawn1.taylor@tn.gov>,

<tom.bryant@unicoiwater.com>

Mr. McAdoo,

Please see our Inter-Basin water transfer report for FY2023. We are reporting a decrease of 7,291 gallons per day for this period. If you have any questions or need additional information please do not hesitate to contact me.

Sincerely,

Jason Foster, PE Director of Water & Wastewater Erwin Utilities 244 Love Street Erwin, TN 423-735-4555

ERWIN UTILITIES

ERWIN UTILITIES

244 LOVE STREET P.O. BOX 817 ERWIN, TENNESSEE 37650-0817 Telephone (423) 743-1820 Fax (423) 743-1833

October 12, 2001

Mr. Philip M. Simmons
Environmental Protection Specialist, Permit Section
Division of Water Pollution Control
L & C Annex, 6th Floor
401 Church Street
Nashville, Tennessee 37243-1534

Re: Inter-basin Water Transfer Report Erwin Utilities Erwin, Unicoi County, Tennessee

Dear Mr. Simmons:

Enclosed is our Inter-basin Water Transfer Report for the time period January 1, 2000, through June 30, 2001 (Exhibit A). This report indicates an increase of 10,587 gallons per day over the amount that was reported last year. At first it appears that this increase in inter-basin water transfer will require an Inter-basin Water Transfer Permit. However, the Inter-basin Water Transfer Rules seem to indicate otherwise.

Rule 1200-4-13-.01, paragraph (3), tells who must apply for a permit, and the last part of subparagraph (3), (a), 2. states that, "provided, however, that in the case of ground water withdrawal this section shall only apply if the loss of the ground water has a significant potential to adversely affect the flow of a Tennessee surface water".

Rule 1200-4-13-.02 defines: "Significant potential to adversely affect the flow" means, in the context of whether a ground water withdrawal is likely to affect a surface water, a withdrawal of ground water in a location that:

- (a) is in close proximity horizontally and vertically to a stream; and
- (b) has ground water with a significant degree of hydraulic connection to the surface water.

Based on these rules, we feel that our inter-basin water transfer should be approved without a permit for the following reasons:

- 1. Water for the inter-basin transfer comes from the Elks Club Well. This well is 305 feet deep and is located 300 feet horizontally across a four-lane highway from the nearest stream, which is North Indian Creek. The Division of Water Supply has determined that the Elks Club Well is not under the direct influence of surface water as defined in State Regulation 1200-5-1-.31. Copy of the approval letter from the Division of Water Supply is enclosed as Exhibit B.
- 2. The loss of ground water due to the increase in inter-basin water transfer has no significant potential to adversely affect the flow of a Tennessee surface water. This can be shown by increasing the amount of increase for this year by ten times to allow for future growth, and assuming that it is taken directly from the Nolichucky River, the losing river, during the time of minimum flow (3Q20 was used for this study). The 3Q20 low flow of the Nolichucky River at Erwin is 127 mgd. The reported increase in interbasin water transfer of 10,587 gpd increased ten times is approximately 0.11 mgd. This amount taken from the 3Q20 is equal to 126.89 mgd. Flow studies were done for two cross sections of the Nolichucky River near Erwin at river miles 92.5 (Exhibit C) and 94.93 (Exhibit D). From these studies, it was found that removing 0.11 mgd from the 3Q20 low flow changed the water surface elevation 0.001 of a foot at mile 94.93 and less than 0.001 of a foot at mile 92.5.

From these flow studies, it can be seen that the loss of ground water has no significant potential to adversely affect the flow of the Nolichucky River, the losing river, because:

- 1. The ground water has no direct connection to the river.
- 2. To emphasize the affect of the additional inter-basin water transfer, it was increased ten times to allow for future growth.
- 3. The flow calculations to determine the water surface elevation at river mile 94.93 had to be carried out to one thousandth of a foot to detect any change at all in the water surface elevation due to the direct removal from the Nolichucky River of ten times the amount of the increased inter-basin water transfer. Even at this minute degree of accuracy, at river mile 92.5 no change could be detected in the water surface elevation.

Even with the extremely liberal assumptions used above, there is no significant potential to affect the flow of the Nolichucky River.

Mr. Philip M. Simmons October 12, 2001 Page 3

Since it is my understanding that the Inter-basin Water Transfer Rule does not apply in the case of ground water withdrawal which has no significant potential to adversely affect the flow of a Tennessee surface water, we hereby respectfully request that the increase in inter-basin water transfer of 10,587 gpd be approved without a permit.

Very truly yours,

ERWIN UTILITIES

Howard C. Brown, P.E. General Manager

Enclosures (4)

C: Lee Bennett, Unicoi Water Utility District, w/Enclosures
Scotty Street, w/Enclosures
Charles McNabb, w/Enclosures
Andrew Tolley, Environmental Assistance Center-Johnson City, Division of
Water Pollution Control, w/Enclosures



February 20, 2024

F. .

11.

Mr. Jim McAdoo Water-Based Systems Division of Water Resources William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Ave., 11th Floor Nashville, Tennessee 37243

Re: Inter-Basin Water Transfer Report

Erwin Utilities

Erwin, Unicoi County, Tennessee

Dear Mr. McAdoo:

Enclosed is Erwin Utilities' Inter-Basin Water Transfer Report for the time period July 1, 2022, through June 30, 2023, which shows a decrease in the inter-basin water transfer of 7,291 gallons per day for this period.

According to Tennessee Rule 0400-40-13-.01(3), ground water withdrawals, which do not have potential to significantly impact the flow of a Tennessee surface water, are not required to apply for an Inter-Basin Water Transfer Permit. Please refer to the letter from Mr. Howard C. Brown, P.E. to Mr. Philip M. Simmons, P.E., dated October 12, 2001. Based on the flow studies submitted with the letter dated October 12, 2001, it was determined that Erwin Utilities is not required to apply for an Inter-Basin Water Transfer Permit.

We respectfully request that the decrease in inter-basin water transfer of 7,291 gallons per day be approved without a permit. If you have any questions about this, please feel free to contact me at (423) 735-4555 or by email at <u>ifoster@e-u.cc</u>.

Sincerely,

ERWIN UTILITIES

Richard Jason Foster, P.E.

Director of Water & Wastewater

RJF

Enclosure

C: Tom Bryant, Unicoi Water Utility District (email)

Clay Hepburn, Erwin Utilities (email)

Dawn Taylor, TDEC Environmental Field Office-Johnson City, DWR (email)

INTER-BASIN WATER TRANSFER FY2023 - FY2022

BASED ON 40% OF TOTAL WATER PUMPED

FROM ERWIN UTILITIES

TO UNICOI WATER UTILITY DISTRICT (206060)

					ROLLING 90-DAY AVERAGE		
<u>MONTH</u>	DAYS	USAGE	GALLONS	GAL/DAY	GALLONS PER DAY		
Jun-23	31	100050	10,005,000	322,742			
May-23	30	103785	10,378,500	345,950			
Apr-23	31	92512	9,251,200	298,426	322,373		
Mar-23	28	89911	8,991,100	321,111		321,829	
Feb-23	31	84442	8,444,200	272,394			297,310
Jan-23	31	97982	9,798,200	316,071	303,192		
Dec-22	30	1021844	10,218,440	340,615		309,693	
Nov-22	31	918459	9,184,590	296,277			317,654
Oct-22	30	931280	9,312,800	310,427	315,773		
Sep-22	31	933620	9,336,200	301,168		302,624	
Aug-22	31	1082510	10,825,100	349,197			320,264
Jul-22	30	1072000	10,720,000	357,333	335,899		

MAXIMUM -----> 335,899 321,829 320,264

MAXIMUM 90-DAY PERIOD = 335,899 GAL/DAY

40% INTER-BASIN TRANSFER - Jun-22 = 134,360 GAL/DAY

40% INTER-BASIN TRANSFER - Jun-21 = 141,651 GAL/DAY

INCREASE IN INTER-BASIN TRANSFER = (7,291) GAL/DAY

ORIGINATING WATERSHED:

FRENCH BROAD RIVER AND NOLICHUCKEY RIVER

RECEIVING WATERSHED:

HOLSTON RIVER AND WATAUGA RIVER

GENERAL NOTES:

(1) 40% INTER-BASIN TRANSFER BASED ON INFORMATION

FROM UNICOI WATER UTILITY DISTRICT METER FOR JUL-22 THRU JUN-23

(2) USAGE TAKEN FROM BILLING AMI RECORDS FROM JUL-22 THRU JUN-23.

CONNECTIONS

RESIDENTIAL 1860 COMMERCIAL 9 INDUSTRIAL 0