results matter

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Mr. Gregory T. Young Esq. Deputy Commissioner State of Tennessee 312 Rosa L. Parks Blvd. Second Floor Nashville, TN 37243

Re: Water Authority of Dickson County Application for Permit for Lick Creek

Dear Mr. Young:

Recently you forwarded me a letter dated March 17, 2022, from Hart Knight, attorney for certain citizens and residents of the Lick Creek watershed who oppose the Water Authority of Dickson County's ("WADC's") NPDES application. You specifically asked us to provide you with "our side of the story" so to speak. We realize that for some this is an emotional issue and we hope to clarify any misconceptions.

Mr. Knight's clients commented that the application did not clearly state the basis to support our contention that the project is necessary to accommodate important social and economic development in the area of the discharge.¹ A second charge was that the WADC did not provide a proper alternatives analysis.² Third, Mr. Knight argues that the permit limits themselves are not protective for e-coli and the discharges will result in more than a de minimis degradation.³

¹ Actually the general antidegradation statement for Exceptional Waters does not require development in the area of the discharge, but purposes of this response, it includes the area of the discharge.

² For purposes of the antidegradation statement, the permittee must show that degradation is necessary to accommodate important economic or social development in the area.

³ There is no dispute that the discharge is not deminimis. However, WADC disagrees that the waters will not be protective of e-coli.

Hickman County And WADC Have Agreed To Develop Sewer Service In The Area

The Hickman County Commission and WADC adopted an inter-local agreement dated May 19, 2005, which mandates that WADC provide a sewer service extension project to the East Hickman area, including along state routes 46, 7 and 100. The Agreement recognizes that WADC has the power and mandate to "plan, establish, acquire, construct, improve, and operate" wastewater collection, transmission and treatment systems, within or without the boundaries of Dickson County, Tennessee. While the Inter-local Agreement requires Hickman County to pay for or indemnify WADC for its services, the current project is being funded completely by WADC. The Inter-Local Agreement is still active.

In 2005 representatives of Hickman County also requested WADC to provide sewer services for East Hickman High School and several other Hickman County taps. Projected flows from Hickman County by 2045 are expected to increase 69% with a large industry and 29% without. The current NPDES application is a lengthy product of those discussions and agreements. In addition, the new wastewater treatment facility will allow WADC to equalize treatment of wastewater generated in Dickson and Hickman County so that Hickman County wastewater is discharged in Hickman County rather than Dickson County.

Alternative's Analysis Demonstrates That Lick Creek Is The Only Feasible Alternative

WADC evaluated several alternatives over the years. The growth corridor is south of I-40 along I-840 and State Route 46. Locating a treatment facility and discharge closer to the growth area is most desirable to reduce conveyance costs and long-term power costs. The following table shows the distances considered:

Stream	7-Day 10-year Low Flow mgd	Location	Approximate Distance from Jones Creek WWTP	Approximate Distance from I-40 & I-840
Cumberland	917	Downstream of	14	35
River		Cheatham Dam		
Harpeth River	19.8	Downstream of	15	25
		Petway Rd.		
Piney River	16.2	Just upstream of		18
		Piney River		
		Resort		
Lick Creek	13.6	At Hwy 7		9
		Bridge		

We are unaware of any other stream in Williamson County with a 7Q10 over 8 mgd. Other streams in the Harpeth River watershed are Exceptional Tennessee Waters and further away. Further, our review found the costs of transportation made the project infeasible for other alternatives:

Alternative	Cost to transport to	Cost for WRF	Cost for Discharge Line	Total Cost
	WRF	1	8	
Jones Creek to	\$40.6 M	\$25 M	\$26.3 M	\$91.9 M
Cumberland				
River				
East Hickman	\$16.3 M	\$25 M	\$66.2 M	\$107.5
WRF to				
Cumberland				
River				
East Hickman	\$16.3 M	\$25 M	\$28.8 M	\$70.1 M
WRF to Piney				
River				
East Hickman	\$16.3	\$25 M	\$9.2 M	\$50.5 M
WRF to Lick				
Creek				

Regarding the service area shown on the maps, this reflects the service area that will be afforded sewer service without extended lines to connect to the system. The actual service area will likely cover a larger area than shown because developed tracts typically pay for line extensions to serve the development. It is impractical to identify where these developments might happen, so the proposed service area does not include them. The population calculations do, however, account for these developments by assuming that more of the development that occurs in Hickman County will be served by the sewer system.

With regard to the interbasin transfer issue, note that many of the existing sewer customers in Hickman County get their water from Bon Aqua-Lyles Utility District, which withdraws water from the Piney River in the Tennessee River basin. The sewer service currently provided by WADC in Hickman County constitutes an interbasin transfer from the Tennessee River basin to the Cumberland River basin. This project will return the wastewater from those customers that receive their water from the Tennessee River basin to the river basin where the withdrawal occurs.

The costs of the East Hickman to Lick Creek preferred alternative will be 100% funded by the WADC. Higher costs could adversely affect rate payers. WADC provided to TDEC a drawing that was included in the letter from Mr. Knight. It shows the current WADC "service area." It does not at this time include the exact location of the wastewater treatment system, but it does

reflect the approximate discharge location. Additional service will be developed as the service area develops. The service area of the WADC is experiencing significant growth and it needs to plan for that growth.

Without a regional solution, developers will use smaller onsite application and drip irrigation systems, some of which have proven less reliable than a direct discharge. Industrial customers are not allowed to use drip irrigation. But even if drip irrigation were considered, the soils in the area are not suitable for land application. I would note that East Hickman Middle and Elementary schools have failing septic tanks and need sewer availability.

The Wastewater Discharge Provides An Important Social And Economic Benefit To Hickman County Including The Area Of The Discharge

Growth and development are not possible without sewer services. While some would point to that as a reason not to have the project, the fact is that the rest of the County will suffer from lack of tax revenue from property and sales tax that access to a sewer will provide. Hickman County is considered an economically transitional county by the State of Tennessee. Growth has been near zero in the last two decades, and the county has a poverty rate of 18.7%. Annual growth rate without sewer is expected to be 0.26%. It is anticipated that availability of sewer service in the northeastern portion of the county will likely result in significant growth. Moreover, WADC's current facilities do not have capacity to treat future growth as projected.

Obviously growth will generate jobs for home builders and additional property tax for Hickman County, among other things, and perhaps the need for an additional industrial park. Conservative estimates show Hickman County residential users will grow from 193 customers in 2020 to 1,720 customers in 2060. The current WADC wastewater plants do not have capacity to address Hickman County increases in addition increases in other counties served by WADC. To have sewer access is a tremendous advantage to the residents without which they would not be able to grow and develop, particularly around the I-40/I-840 and State Highway 46 corridor.

Note that the rules only require the applicant to identify the "important" economic or social benefits. The rules do not require "extraordinary" benefits or even that the benefit must outweigh the degradation. It simply means that, in this case, the project be of importance to the community. The case law and EPA guidance is silent on what "area of the discharge" means or even what constitutes important social or economic benefit. We understand that the wastewater discharge from Lick Creek is in the Tennessee River Basin, while the actual plant may service flows that would ordinarily flow to the Cumberland River Basin. We can find no authority that would require the economic or social benefit be parsed out by river basin. In this case, residents downstream of the discharge will likely enjoy the benefit of stores and other shops nearby without having to go into Dickson or Centerville. These benefits will assist not only those served by the sewer but

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those who may not be in the service area who will be recipients of the benefits and expanded tax base will bring to the County.

The Letter Conflates Many Issues Such as Suggesting that Lick Creek is a Naturally Occurring Trout Stream

WADC agrees that its discharge is not de minimis and that Lick Creek is an Exceptional Tennessee Water because of the presence of a threatened species.⁴ The requirement for the discharge to have an important economic or social benefit is not restricted to Exceptional Tennessee Waters. The entire basis for the Project provides an important economic and social benefit through provision of sewer.

We take issue with Mr. Knight's assertion that Lick Creek is a naturally reproducing trout stream or that any parameter including e-coli is not adequately addressed in the permit. The Board promulgates its water quality standards every three years and during the last iteration did not list Lick Creek as a naturally reproducing trout stream at TN Comp. R. and Regs. ch. 0400-40-04. A discussion of the water quality-based effluent limitations on Lick Creek will be addressed at the appropriate time, including limits on e-coli.

If you need additional information, please let me know.

Very truly you

William L. Penny

WLP

cc: Mike Adams

Karen Harrison

The Honorable Commissioner David Salvers

Stephanie Durman B. Hart Knight

⁴ The presence of the endangered species was not initially identified by either WADC or TDEC; however, the Application supports a discharge into an Exceptional Tennessee Water.