

BEFORE THE TENNESSEE BOARD OF WATER QUALITY, OIL & GAS

WATER AUTHORITY OF DICKSON)	
COUNTY,)	DIVISION OF WATER RESOURCES
Petitioner,)	
)	Case No. WPC22-00027
v.)	
)	Docket No. 04.30-241947J
TENNESSEE DEPARTMENT OF)	
ENVIRONMENT AND)	Judge Kim Summers
CONSERVATION,)	
Respondent.)	

**MEMORANDUM IN SUPPORT OF PETITION TO INTERVENE
BY FRIENDS OF LICK CREEK**

Friends of Lick Creek, a Tennessee nonprofit public benefit corporation, hereby submits this Petition to Intervene in the above-referenced matter. Pursuant to Tenn. Code Ann. § 4-5-310 and Tenn. Comp. R. & Regs. 1360-04-01-.12, Friends of Lick Creek should be allowed to intervene because this Petition is timely filed, will not disrupt the orderly proceeding of this matter, will not render the hearing unmanageable, and because Friends of Lick Creek has a direct interest in this matter that cannot be adequately protected without intervention.

FACTS AND BACKGROUND

A. Friends of Lick Creek’s Initial Involvement in the Water Authority of Dickson County’s Proposal to Discharge Treated Sewage to Lick Creek

On or about December 3, 2021, Petitioner Water Authority of Dickson County (“WADC”), a regional municipal water and wastewater provider serving customers in Dickson, Hickman, and Williamson Counties, applied for a National Pollutant Discharge Elimination System (“NPDES”) permit with the Tennessee Department of Environment and Conservation (“TDEC”). In its application, WADC proposed building a new wastewater facility in Hickman County, referred to as the East Hickman County Water Reclamation Facility (“East Hickman Facility”). The East

Hickman Facility would discharge treated sewage, mostly from Dickson and Williamson Counties, into Lick Creek, a tributary of the Duck River and an Exceptional Tennessee Water (“ETW”), as designated by TDEC.

Friends of Lick Creek formed as a direct result of WADC’s proposal. Its express purposes are to protect the Lick Creek watershed and raise awareness about the unknown adverse impacts to Lick Creek of accepting wastewater from Dickson and Williamson Counties. Friends of Lick Creek members have lived on Lick Creek for generations; they recreate, fish, and get baptized in Lick Creek. They farm and form their livelihoods on Lick Creek, and they consider its ETW status and superior water quality of the utmost importance.

As soon as WADC’s proposal to build the East Hickman Facility and discharge to Lick Creek was public knowledge, Friends of Lick Creek began to reach out to TDEC with its concerns. On or about January 31, 2022, Mr. Rodes Hart, a property owner near Lick Creek and currently the Board Chair of Friends of Lick Creek, sent a letter to TDEC regarding the proposed East Hickman Facility. *See Collective Exhibit (“Ex.”) 1*, Representative Sample of Opposition Letters to TDEC regarding WADC Project. Mr. Hart expressed concerns regarding the location of the proposed facility relative to the discharge location in Lick Creek and the inadequate public notice signs for the NPDES permit application. **Ex. 1.1**, Letter from R. Hart, dated Jan. 31, 2022 (“[the discharge location] is not near the proposed facility, understood to be...about 10 miles away”) (“signs were not legible from the public road”). Other members voiced concerns as well. “It should be obvious the many benefits we enjoy from the creek including recreation, swimming, hiking, fishing.” **Ex. 1.2**, Email from K. Fox, dated Feb. 12, 2022. “Lick Creek is rare, the people and communities along it are rare, it houses rare species, it flows into the Duck River...and I live there!

I fish and swim in the creek as do my children[.]” **Ex. 1.3**, Email from G.B. Spain, dated July 28, 2022.

On March 17, 2022, the undersigned counsel, on behalf of Friends of Lick Creek, sent a letter to TDEC outlining major concerns with WADC’s permit application and proposal. *See Ex. 2*, Butler Snow “Opposition to Proposed WADC Wastewater Discharge to Lick Creek” Letter to TDEC, dated March 17, 2022. Among the concerns described in the letter were the fact that (1) the Lick Creek watershed and discharge location were not in WADC’s current or future service area, such that even though the East Hickman Facility would discharge waste to that location, it would never serve it; (2) WADC failed to fully consider alternatives to discharging to Lick Creek, including an alternative with a much larger assimilative capacity, such as the Cumberland River, when compared to Lick Creek’s limited size and assimilative capacity; and (3) WADC’s proposal for a new discharge to Lick Creek was based on growth in Dickson and Williamson Counties, not Hickman County, and therefore WADC failed to show that the proposed degradation impacting Lick Creek was necessary to accommodate development in the area in which the waters are located; i.e., the Lick Creek area. *Id.*

On or about December 9, 2022, WADC submitted to TDEC Supplemental Information to its NPDES permit application. The purpose of the Supplemental Information was to evaluate the proposed facility and discharge in light of Lick Creek’s ETW status. In response, on March 3, 2023, the undersigned counsel, again on behalf of Friends of Lick Creek, sent a letter to TDEC outlining continuing concerns with the Supplemental Information. *See Ex. 3*, Butler Snow “Continued Opposition to Proposed WADC Wastewater Discharge to Lick Creek – Antidegradation Analysis” Letter to TDEC, dated March 3, 2023. These concerns included WADC’s continuing failure to show that no practicable alternatives to discharging to Lick Creek

exist, including its failure to again consider the Cumberland River as a realistic alternative; WADC's failure to consider the costs of growth to the Lick Creek area; and WADC's consideration that the discharge to Lick Creek would stimulate growth, not simply accommodate it. *Id.*

B. Friends of Lick Creek's Members' Involvement in the Public Participation Process for a Permit Application

When a NPDES permit application is submitted, the applicant is required to provide public notice, and a public comment process commences that culminates in a public hearing, where members of the public are given an opportunity to speak. Tenn. Comp. R. & Regs. 0400-40-05-.06. For the East Hickman Facility permit application, the period within which the public could submit comments ran from April 5, 2023, to June 5, 2023. Over that two-month period, members of Friends of Lick Creek repeatedly submitted comments to TDEC, raising their concerns regarding the proposed degradation to Lick Creek. *See Collective Ex. 4*, Representative Sample of Public Comments by Friends of Lick Creek. One member states, "I will not list but only ask [TDEC] to remain clear on the facts collected by Friends of Lick Creek...by expert bioengineers...to keep waters in the watersheds from which they come, to not disrupt natural creek and river capacities and to not entertain cheaper solutions at the expense of losing "exceptional" resources forever." **Ex. 4.1**, comment by L. Morgan, dated April 25, 2023.

Ms. Amanda Mathis, a property owner downstream from the proposed discharge point, provides, "I help farm the banks of Lick Creek with my significant other, on the farm that has been in his family over a century." **Ex. 4.2**, comment by A. Mathis, dated May 24, 2023. "I want my family to continue enjoy swimming and fishing in our unpolluted Lick Creek[.]" *Id.* Yet another member writes, "We believe that a regional approach with...a rational and fully discussed solution...can provide a good long term [sic] solution for the area." **Ex. 4.3**, comment by A.

Rebrovick, dated June 5, 2023. Towards the end of the public comment period, on May 25, 2023, TDEC held a public hearing on WADC's permit application. Friends of Lick Creek members were present and again voiced their concerns by speaking at the public hearing

C. TDEC's Denial of WADC's Permit Application on Grounds also Raised by Friends of Lick Creek

On December 21, 2023, TDEC issued a Notice of Determination officially denying WADC's permit application. The bases for the denial are outlined in the responses to public comments in the Notice of Determination, as well as in TDEC's Rationale (also known as a Notice of Intent to Deny) published on June 5, 2023. *See* **Ex. 5**, TDEC Rationale for Permit Denial; **Ex. 6**, TDEC Notice of Determination denying permit. The Department denied the permit because it did not meet the requirements of TDEC's Antidegradation Rule for ETWs, which states, in pertinent part:

In waters identified as Exceptional Tennessee Waters new or increased discharges that would cause degradation of any available parameter above the level of *de minimis* and new domestic wastewater discharges 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, the degradation is necessary to accommodate important economic or social development **in the area in which the waters are located**, and the discharge 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.

Tenn. Comp. R. & Regs. 0400-40-03-.06(4)(c)1 (emphasis added).

TDEC denied WADC's permit "on the grounds that WADC has not demonstrated greater than *de minimis* degradation of Exceptional Tennessee Waters is necessary to accommodate important economic or social development in the area of the discharge and has not demonstrated that less degrading alternatives are not practicable." **Ex. 6**, at R-2. A map depicting the distance from the proposed service area to the proposed discharge point (approximately 9 miles) is included

in the Rationale. *Id.*, at R-3. Furthermore, TDEC specifically stated that “discharg[ing] to the Cumberland River would result in significantly less degradation than the proposed discharge to Lick Creek. This option would also allow for future expansion.” *Id.*, at R-7.

In all of its correspondence to TDEC, Friends of Lick Creek expressed these exact concerns with WADC’s permit application. Specifically, Friends of Lick Creek stated that “the proposed discharge location is approximately 8 miles away from the service area boundary[;]” and “[the service] area is nowhere near the discharge point and clearly not inside the Lick Creek watershed.” **Ex. 2**, at 2. “The anticipated economic growth and related sewage processing needs are primarily in Dickson and Williamson Counties, not Hickman County.” **Ex. 4.4**, comment by R. Hart, dated April 14, 2023.

As to alternatives, Friends of Lick Creek provides, “WADC’s alternatives analysis is further flawed because it neglects to fully consider the alternative of discharging treated effluent to the Cumberland River. ... With regard to cost, WADC has not accounted for the long-term cost savings of not having to abandon an outdated Lick Creek alternative in future years when capacity there is exceeded and then having to implement yet another small stream discharge plan.” **Ex. 3**, at 4-5. Similarly, in their public comments, members of Lick Creek expressed, “WADC has not managed its growth and infrastructure [and] has urgent needs to keep pace with the unchecked growth and development from Dickson and Williamson Counties.” **Ex. 4.2**. “The long term, regional solution for economic growth in the tri-county region should include repairing and expanding existing WADC...infrastructure with effluent discharge to the Cumberland. The proposed [facility] and effluent discharge into Lick Creek would merely be another short-term solution.” **Ex. 4.4**.

RELEVANT LAW

Tennessee Code Annotated section 4-5-310(a) states that an Administrative Judge must grant a petition to intervene if:

- (1) The petition is submitted in writing to the administrative judge or hearing officer, with copies mailed to all parties named in the notice of the hearing, at least seven (7) days before the hearing;
- (2) The petition states facts demonstrating that the petitioner's legal rights, duties, privileges, immunities or other legal interest may be determined in the proceeding or that the petitioner qualifies as an intervenor under any law; and
- (3) The administrative judge or hearing officer determines that the interests of justice and the orderly and prompt conduct of the proceedings shall not be impaired by allowing the intervention.

Additionally, the rules governing intervention in contested cases, Tenn. Comp. R. & Regs.

1360-04-01-.12(2), describe the factors to consider when deciding a petition to intervene:

- (a) Whether the petitioner claims an interest relating to the case and that he or she is so situated that the disposition of the case may as a practical matter impair or impede his or her ability to protect that interest;
- (b) Whether the petitioner's claim and the main case have a question of law or fact in common;
- (c) Whether prospective intervenor interests are adequately represented; or
- (d) Whether admittance of a new party will render the hearing unmanageable or interfere with the interests of justice and the orderly and prompt conduct of the proceedings.

ARGUMENT

Friends of Lick Creek's Petition to Intervene should be granted because the Petition is timely filed and will not disrupt these proceedings or render the hearing unmanageable. Additionally, and importantly, Friends of Lick Creek has a direct interest in this matter that can only be protected by intervention in the case.

Friends of Lick Creek understands that the Scheduling Order in this matter contemplates a hearing date of March 18, 2025. Therefore, Friends of Lick Creek is well within the window to intervene. Furthermore, intervention in this matter will not disrupt the orderly and prompt conduct of these proceedings, or render the hearing unmanageable, as Friends of Lick Creek is prepared and able to comply with all deadlines and requirements of the Scheduling Order.

Additionally, Friends of Lick Creek has a substantial interest in this matter. As an organization formed to protect Lick Creek from adverse environmental impacts, its interests are wholly aligned with TDEC's denial of WADC's permit. Its members have participated every step of the way of WADC's permitting process, as well as expressed their concerns, again and again, with the proposed degradation to Lick Creek and the project's impact to their livelihoods. As soon as WADC established signs, albeit initially inadequate, to notify the public that a new treated sewage discharge point was proposed in Lick Creek, members of Friends of Lick Creek began to contact TDEC regulators, advocate within the community, and voice their concerns. Without allowance to intervene, Friends of Lick Creek has no other way to ensure their particular interest in protecting in Lick Creek and the denial to discharge wastewater into it.

CONCLUSION

Friends of Lick Creek timely files this Petition to Intervene so that its interest in this matter can be protected. For the foregoing reasons, Friends of Lick Creek respectfully requests that this Petition be granted.

Respectfully submitted this 11th day of July, 2024.



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Counsel for Friends of Lick Creek

CERTIFICATE OF SERVICE

I hereby certify that a true and exact copy of the foregoing Petition to Intervene was served by electronic mail upon the following counsel this 11th day of July, 2024:

William L. Penny, Esq.
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Emily B. Vann, Esq.
Tennessee Department of Environment and Conservation
Davy Crockett Tower, 5th Floor
500 James Robertson Parkway
Nashville, Tennessee 37243
Emily.Vann@tn.gov
Samantha.Buller-Young@tn.gov



Katherine Barnes, BPR No. 032456

Collective

Exhibit 1

Exhibit 1.1

Greg ; Jenny D. ; JH
January 31, 2022

Commissioner David W. Salyers
Tennessee Department of Environment and Conservation
312 Rosa L. Parks Ave
Nashville, TN 37243

RECEIVED

FEB - 3 2022

cc: Vojin Janjic Vojin.Janjic@tn.gov

Division of Water Resources, Manager Water-Bases Systems

**ENVIRONMENT AND CONSERVATION
COMMISSIONER'S OFFICE**

Dear Commissioner Salyers:

We are writing on behalf of residents and property owners in the vicinity of Lick Creek in Hickman regarding a proposal for a new sewage discharge in our area. Recently some of us noticed signs on the Highway 7 bridge over Lick Creek that has caused great concern and confusion. The signs appeared sometime in January, and after some investigation led us to a letter dated December 29, 2021 from Mr. Janjic of your department to Mr. Adams of the Water Authority of Dickson County.

That letter acknowledged receipt of a permit application and instructed the applicant to provide public notice per department rules at Chapter 0400-40-5-.06 (1) which require:

"For an individual application for a new or expanded discharge, the applicant shall notify the public of the application by posting a sign near the point of entrance to such facility and within view of a public road. The sign shall contain provisions as specified by the commissioner. The sign shall be of such size that is legible from the public road. Also the sign shall be maintained for at least thirty days following submittal of the application to the division."

Signs were placed at either end of the bridge over Lick Creek. As we have now determined, that is not near the proposed facility, understood to be somewhere along Highway 100 about 10 miles away. The signs were undated and did not contain the name of the applicant, only initials. The signs were not legible from the public road, and one could only read the contents by pulling over or getting out on a dangerous stretch of a narrow two-lane highway by a bridge.

Those who risked reading the sign saw that they could submit comments "...on or before the date of expiration of the comment period..." and request a public hearing "...within the comment period...", however the signs were undated and no comment period was specified. A few days ago, someone added a back-date to the signs with a black marker in an apparent attempt to try and remedy this shortcoming, but this doesn't not rectify the problems.

January 31, 2022

The letter to the applicant also attached "Instruction for the Public Notice of Application Sign" with further details and requirements, citing also to section of the rules at 0400-40-5-.06 (10). Some of the additional provision of this rule were also not complied with.

For these reasons, and in the interest of fairness and promotion of public participation in this important matter, we request that you take action to stop this process from going forward at this time, notify the applicant of the violations, and require compliance with the notice rules.

Please let me know as soon as possible what will be done on this so I can inform others in this community.

Sincerely,



H. Rodes Hart, Jr
Lick Creek Farm
425 Westview Ave
Nashville, TN 37205



Ronald C. Cate, esq
Supreme Court #038024
3622 Trimble Road
Nashville, TN 37215

Cc: Barry Sulkin
Environmental Consultant

**Please respond via email and mail*

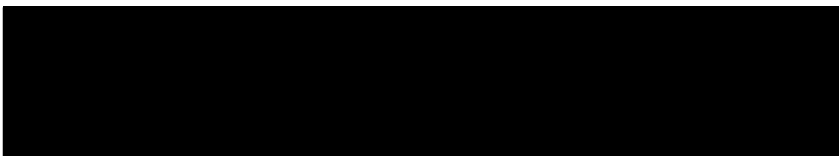
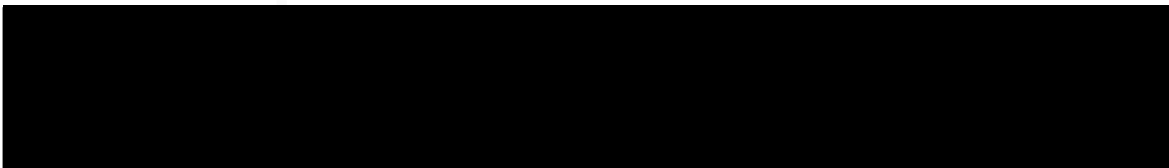


Exhibit 1.2

From: [Karen Fox](#)
To: [Water Permits](#)
Subject: [EXTERNAL] Ref: Permit # TN0082376
Date: Saturday, February 12, 2022 10:38:30 PM

Ref: Permit Applicant: WADC, 101 Cowan Rd. Dickson, TN 37055

Permit Tracking number: TN0082376

Greetings,

I am writing to oppose the proposed plan for a sewage treatment plant in the above referenced permit application. My family resides in Hickman county adjacent to Lick Creek and are strenuously opposed to the proposed wastewater treatment plant. It should be obvious the many benefits we enjoy from the creek including recreation, swimming, hiking, fishing. In addition, our drinking water being affected by the plant discharge is of grave concern. There is an abundance of wildlife that inhabits the area and we have seen no information about the potential environmental impact this plant might have on this precious water source and her natural inhabitants. Additionally, the creek empties into the Duck River which is arguably one of the most ecologically diverse river systems in the State of Tennessee.

To say that we have more than a few concerns is an understatement. We strongly oppose this plan and any other that utilizes Lick Creek as a conduit for wastewater.

Thank you for your consideration.

James & Karen Fox
6604 Shouse Cemetery Rd
Lyles, TN 37098
Phone: 615.939.6151
kfox@kfpimages.com

Exhibit 1.3

Maybelle Sparks

From: Maybelle Sparks
Sent: Wednesday, August 24, 2022 4:39 PM
To: Maybelle Sparks
Subject: FW: [EXTERNAL] WADC permit in Hickman Co

-----Original Message-----

From: gbspain59@icloud.com <gbspain59@icloud.com>
Sent: Thursday, July 28, 2022 4:33 PM
To: Water Permits <Water.Permits@tn.gov>
Cc: George B. Spain <gbspain59@icloud.com>
Subject: [EXTERNAL] WADC permit in Hickman Co

My name is George B Spain, I live in the Primm Springs Community in Williamson Co which is in the Lick Creek watershed. I'm writing you in reference to the Water Authority Dickson Counties desire to build a sewage treatment plant in Hickman County and dump the effluent into Lick Creek. The permit number is TN0082376. I am extremely outraged and opposed to this request for several reasons. Lick Creek is rare, the people and communities along it are rare, it houses rare species, it flows into the Duck River, which as you know, is among the rarest by virtue of species diversity in the world, and I live there! I fish and swim in the creek as do my children and I hope one day my grand children. The same goes for my neighbors. I DO NOT want this permit to be issued! None of my neighbors want it. Everyone I have spoken with is against it. Please, do not grant this request, DO NOT issue this permit. Thank you, Brad Spain

Exhibit 2

March 17, 2022

VIA EMAIL ONLY (greg.young@tn.gov)

Gregory T. Young, Esq., Deputy Commissioner
Bureau of Environment
Tennessee Dept. of Environment
312 Rosa L. Parks Avenue, 2nd Floor
Nashville, TN 37243

Re: Opposition to Proposed WADC Wastewater Discharge to Lick Creek

Dear Deputy Commissioner:

As you are aware, my firm has been asked to represent several concerned citizens of Hickman County and the Lick Creek watershed in opposition to the Water Authority of Dickson County's ("WADC") proposed effluent discharge on Lick Creek near Primm Springs, Tennessee. Thank you and your colleagues for taking the time to meet with our clients and representatives from BDY Environmental last week to discuss our concerns about the proposed project. At the conclusion of our meeting, you requested a letter memorializing the issues we discussed. Please consider this letter our first response to your request as we continue to work on gathering information that will demonstrate that the WADC application is woefully inadequate and the proposed project does not and cannot comply with Tennessee Department of Environment & Conservation's ("TDEC") antidegradation rules and regulations.

I. Background and Summary

The WADC recently submitted a National Pollutant Discharge Elimination System ("NPDES") application to the TDEC Division of Water Resources ("DWR") for a new discharge of treated sewage wastewater to Lick Creek near Mile 10.3 in Hickman County. Along with the permit application materials, WADC submitted their Preliminary Engineering Report ("PER"), our review of which guides the basis for the following analysis of why TDEC should deny WADC's request for a permit.¹

In summary, WADC has failed to demonstrate that the degradation that will occur as a result of the proposed discharge is necessary to accommodate important social and economic development in the area. It also failed to consider that the proposed effluent outfall would discharge to an Exceptional Tennessee Water ("ETW"). Furthermore, WADC failed to undertake

¹ Water Management Services, LLC, "East Hickman County Water Reclamation Facility Preliminary Engineering Report," December 2021, (33 pages).

a thorough and complete alternatives analysis.

II. Lack of Important Social or Economic Development

The antidegradation statement of the water quality criteria rules states, “[i]f the proposed activity will cause degradation above a de minimis level or if it is a new discharge of domestic wastewater, a complete application will: (ii) Demonstrate that the proposed degradation is necessary to accommodate important social or economic development in the area in which the waters are located.”²

WADC’s PER fails to adequately address the need for social or economic development in the area in which the waters are located. In fact, there is a significant disconnect in their report. The PER consistently refers to the WADC service area, rather than the area in which the waters are located, when discussing the necessity of additional treatment capacity.

The area in which the discharge point is located is not within the 75-year planned service area of WADC’s new system as demonstrated by its PER. (**Attached hereto as Figure 1**).³ Rather, the proposed discharge location is approximately 8 miles away from the service area boundary. Furthermore, the 75-year planned service area for WADC does not include the Lick Creek Watershed according to its own PER. WADC notes, “[i]t is anticipated that most of the growth will occur within the City of Dickson, the City of Fairview, and the area bounded by Interstate 40, Highway 46, Interstate 840, and Highway 100.”⁴ This area is nowhere near the discharge point and clearly not inside the Lick Creek watershed. (**Figure 2**).

Thus, based on the two most practical, common-sense definitions of “the area in which the waters are located,” WADC has not and cannot demonstrate that the proposed degradation is necessary to accommodate important social or economic development in the area in which the waters are located.

Simply stated, WADC neither identifies nor substantiates socio-economic benefits to the outfall area, instead relying only on its broad and unsupported estimate that “between 100 and 500 new jobs” will result (in an unspecified area) from the project in the “next five to ten years.”⁵

Although demographic growth may result from expanded discharges, growth also brings social and economic challenges, such as traffic congestion, higher demand for municipal services, and need for additional infrastructure, including schools, arterial transportation routes, etc. Not only has the Applicant failed to detail the “important social and economic development in the area,” that would result from the Lick Creek discharge, it has not weighed the social and economic costs.

² Tenn. Comp. R. & Regs. 0400-40-03-.06 (1)(b)(2)(ii).

³ For clarity, the map attached as Figure 1 to this letter is labeled “Figure 2” in the PER and found at p. 4 of the PER.

⁴ Water Management Services, LLC, “*East Hickman County Water Reclamation Facility Preliminary Engineering Report*,” December 2021, p. 3.

⁵*Id.* at 22.

Notwithstanding the burden of proof is upon the applicant, the citizens opposing this project have very eloquently, professionally, and in large numbers demonstrated many social and economic rationale *against* this project. As noted by the public comments and the concerns at the recent citizen meetings, the community has several legitimate concerns that will significantly impact farming operations and residences due to increased flooding as a result of doubling the volume of water in Lick Creek, organic farming on and near Lick Creek, recreational fishing and paddling, property values, tourism, and the intrinsic value of the natural resource. We will continue to develop information, facts, and supplementing documentation of the many other economic and social factors that should be considered in support of a permit denial.

III. WADC failed to Fully Consider Alternatives to the Proposed Discharge Location

A critical component of the antidegradation analysis should be examination of an alternative discharge location, such as the Cumberland River or another larger receiving stream. The primary consideration for this alternative is avoiding the future obsolescence of discharge to a small stream, such as WADC is now experiencing. Discharging to a receiving water with ample assimilative capacity and absence of ETW concerns would have greater longevity and be appropriate to the magnitude and duration of WADC's proposed 75-year expansion plan.

WADC considered only a limited range of alternatives that focused strictly on technological options for managing a projected increase in sewer service demand. None of the alternatives considered in the PER included examining options to the proposed Lick Creek outfall location that will discharge treated effluent to an ETW with limited assimilative capacity.

In its PER, WADC declared the only feasible alternative is to double-down on the past, exhausted strategy of discharging to small streams.⁶ The existing WADC discharge locations on Jones Creek, Trace Creek, and Flatrock Branch are approaching capacity on these effluent-dominated systems. Surprisingly, WADC's preferred alternative is to discharge to yet another small stream.

At the ultimate proposed discharge of 12 million gallons per day (mgd), the Lick Creek outfall would again result in a WADC creating an effluent-dominated flow, far exceeding the stream's 7Q10 of 8.5mgd. WADC's cursory analysis of its preferred alternative included no consideration for the quality or quantity of the proposed discharge's effects to Lick Creek as an ETW, its pollutant load, its value as a recreational fishery, its aquatic habitat, or diminishment of resource values.

A complete alternatives analysis would consider other discharge locations. These locations would best exclude ETWs or streams with current pollutant loads and limited assimilative capacities that would soon render their use as effluent receiving waters to be obsolete, leading to

⁶ "[a]ll three existing treatment facilities discharge into small streams in the Harpeth River Basin," *Supra*, PER, p. 18.

a repetition of WADC's current need for additional capacity.

The limitations of small streams to handle effluent loads in rapidly growing areas is intuitive, but also demonstrated by WADC's own experience. Other localities in intensive growth communities, such as Spring Hill, have encountered similar limitations. It is short-sighted for WADC not to consider a longer-term solution for their ambitious 75-year plan. In particular, a discharge location on the Cumberland River (on which WADC also has a water intake and water supply treatment plant) needs consideration as an alternative. This location would not encounter ETW restrictions or assimilative capacity limitations. Moreover, it would be more squarely within WADC's service area within which the social and economic benefits of the project might accrue.

IV. Lick Creek is an Exceptional Tennessee Water

Although apparently unrecognized by the Applicant, Lick Creek and its downstream reaches at which the effluent outfall location is proposed has been designated as an Exceptional Tennessee Water because of the presence of the coppercheek darter (*Etheostoma aquali*), a State-listed (threatened) species. Tennessee's Antidegradation Statement provides that a proposed activity resulting in more than *de minimis* degradation of aquatic habitat may only be justified by achieving "important economic or social development in the area."

Further, no violation of water quality criteria in the receiving waters is allowable. In addition to harboring a population of *E. aquali*, there is anecdotal evidence of naturally-reproducing trout (not stocked) occurring within Lick Creek. Local residents have reportedly caught and photographed both brown trout and rainbow trout from Lick Creek. **(See attached photographs).** A review of the Tennessee Wildlife Resources Agency (TWRA) trout stocking schedule confirms that the Agency only stocks two streams in Hickman County, Cane Creek and Mill Creek.⁷ WADC should have the burden of proving the lack of trout in Lick Creek in order to allow the proposed discharge of water with dissolved oxygen ("DO") of less than 6 and potentially 8. Currently, WADC's model indicates that the DO of the effluent *will be below* 6.

In its application materials, WADC fails to consider Lick Creek's status as an ETW, or the effects to aquatic habitat resulting from the proposed effluent discharge. Consequently, WADC's application is incomplete and illustrates its lack of concern for or accommodation of sensitive habitats and regulatory requirements.

V. WADC Discharges to Lick Creek Will Result in More than *de minimis* Degradation

Downstream of the WADC's proposed outfall location, Lick Creek receives flows from tributaries that are impaired by *Escherichia coli*, resulting from ubiquitous and intensive livestock production in the Lick Creek watershed **(Figure 3)**. TDEC has documented that *E. coli*

⁷ <https://www.tn.gov/content/dam/tn/twra/documents/fishing/trout/Trout-Stocking-Schedule-Complete.pdf>

concentrations in Lick Creek, both upstream and downstream of the proposed WADC outfall discharge, at times exceed the water quality criterion for recreation. During these conditions of high *E. coli* concentrations in Lick Creek, no assimilative capacity is available for additional *E. coli* loads.

Further, TDEC monitoring data include *E. coli* water quality exceedances downstream of two of WADC's existing effluent discharges (Jones Creek and Trace Creek) (**Figure 4**). TDEC monitoring data are not available from Flatrock Branch, to which WADC discharges from its Fairview WWTP, but we note that a moratorium previously has been imposed on additional sewage connections because of chronic system overflows that likely affected Flatrock Branch.

In their application materials, WADC does not address the level of degradation resulting from the proposed discharge to Lick Creek, nor consider the existing conditions in the stream, which will not accommodate system exceedances of *E. coli*.

VI. Additional Background Information

Currently, WADC operates three wastewater treatment plants ("WWTPs") that serve portions of Dickson and Williamson Counties, and which respectively discharge to Jones Creek, Trace Creek, and Flatrock Branch, all of which are tributaries to the Cumberland River (**Figure 4**). Each of these plants is approaching its design capacity and all of them discharge to small, effluent-dominated tributaries to the Harpeth River.

If approved, the proposed discharge to Lick Creek would be the first step of a planned overhaul and expansion of WADC's wastewater treatment system. The expansion is comprehensive, assumes an ambitious, 75-year planning horizon, and includes construction of multiple facilities, including:

- A proposed new treatment plant (East Hickman County Water Reclamation Facility), targeted to be located in Hickman County, and which would receive flows diverted from existing WADC facilities in Williamson and Dickson Counties;
- Construction of two new regional pump stations to convey raw sewage from Williamson and Dickson Counties to Hickman County;
- Construction of two new raw-sewage force mains, respectively flowing from Williamson and Dickson Counties to Hickman County;
- Construction of a proposed treatment plant in Hickman County (the prospective East Hickman Water Reclamation Facility) that will receive both new and diverted raw sewage from Williamson and Dickson Counties;

- Reversal of flow in an existing force main that would deliver raw sewage from the Dickson area to the proposed new Hickman plant;
- Construction of an effluent force main from the prospective new East Hickman treatment plant (location is yet to be determined) to a proposed outfall on Lick Creek;
- Future upgrades of the prospective East Hickman facility to an ultimate 12 million gallon per day (mgd) capacity.

It is important to note that the proposed new treatment plant in Hickman County and its discharge to Lick Creek are primarily intended to accommodate existing and projected capacity needed by Dickson and Williamson Counties (chiefly, the Dickson and Fairview communities, but also, more distant communities such as Burns and White Bluff). The estimated additional capacity needed to serve Hickman County is substantially less than the aggregate of the other served communities and includes the speculative demand from a hypothetical “large wet industry” that may someday locate in Hickman County. Accordingly, most of the additional projected capacity of the proposed WADC expansion, and its related discharge to Lick Creek, will benefit areas other than Hickman County, and certainly not areas within the Lick Creek watershed.

Lastly, as discussed during our meeting, residents in the Lick Creek watershed obtain their drinking water from springs adjacent to Lick Creek or from wells. Several citizens have expressed concerns, not only about contamination, but about the effluent discharge raising the water levels to the extent they no longer have access to their springs for drinking water.

VII. Conclusion

For all the foregoing discussions, frankly, it is outrageous for WADC to propose spending \$249,000,00.00 to build a sewer plant to dump *12 Million Gallons a Day* of effluent into Lick Creek, an Exceptional Tennessee Water with a low flow of 8mgd, thereby over doubling the volume of the creek with effluent. The discharge predominantly will service areas outside of Hickman County, while at the same time potentially devastating the lives and livelihoods of the local citizens in the Lick Creek area.

Thank you for advising us of your upcoming meeting with WADC, and we respectfully suggest that you consider just telling them outright that they should withdraw their woefully inadequate, pending application and go back to the drawing board and begin by performing a detailed and exhaustive alternatives analysis eliminating all practicable alternatives before wasting any more time and resources on a project that appears failed from the start.

Gregory T. Young, Esq.

March 17, 2022

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Yours truly,

BUTLER SNOW LLP

A handwritten signature in blue ink, appearing to read "B. Hart Knight", with a long horizontal flourish extending to the right.

B. Hart Knight

cc: Commissioner David Salyers, TDEC (*via email only*)

Jennifer Dodd, TDEC (*via email only*)

Stephanie Durman, Esq., TDEC (*via email only*)

David Jackson, BDY (*via email only*)

Sam Parish, BDY (*via email only*)

Glen Rohrbach, BDY (*via email only*)

J.W. Luna, Butler Snow (*via email only*)

Amanda Mathis (*via email only*)

Rodes Hart (*via email only*)

Exhibit 3

March 3, 2023

VIA EMAIL ONLY (greg.young@tn.gov)

Gregory T. Young, Esq., Deputy Commissioner
Bureau of Environment
Tennessee Dept. of Environment
312 Rosa L. Parks Avenue, 2nd Floor
Nashville, TN 37243

Re: Continued Opposition to Proposed WADC Wastewater Discharge to Lick Creek – Antidegradation Analysis

Dear Deputy Commissioner:

As you are aware, our firm has been asked to represent several concerned citizens of Hickman County and the Lick Creek watershed in opposition to the Water Authority of Dickson County's ("WADC" or "the Authority") proposed effluent discharge to Lick Creek near Primm Springs, Tennessee. Please consider this letter further memorialization of our continued opposition to WADC's proposed project.

In December 2022, WADC submitted to the Tennessee Department of Environment & Conservation's ("TDEC" or "the Department") a supplemental report ("Supplement")¹ and an accompanying economic and fiscal impact study,² which attempt to remedy WADC's failure to address the Exceptional Tennessee Waters designation of Lick Creek and to fully consider alternative discharge locations in its previous analysis of alternatives and the alleged social and economic importance of the project. Despite the Supplement, WADC *still* fails to demonstrate that the proposed degradation of Lick Creek complies with TDEC's antidegradation rules and regulations.

This letter will address WADC's continued failure to properly show that there are no practicable alternatives to prevent or lessen degradation associated with the proposed activity, the proposed degradation is necessary to accommodate important social or economic development in the area in which the waters are located, and the proposed discharge will not violate the water quality criteria for existing uses in receiving waters. For the reasons outlined in this letter, we respectfully request that WADC's permit for a new discharge be denied.

¹ "East Hickman County Water Reclamation Facility Supplemental Information for Water Authority of Dickson County," prepared for William L. Penny, Burr Forman LLP, December 2022.

² Livingston, Steven, and Arik, Murat, page 4, "Proposed East Hickman County Water Reclamation Facility: Direct and Indirect Economic and Fiscal Impact," Appendix to "Supplemental Information."

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I. WADC Failed to Demonstrate No Practicable Alternatives to Prevent or Lessen Degradation of Lick Creek

New domestic wastewater discharges to any Exceptional Tennessee Water can “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.” Tenn. Comp. R. & Regs. 0400-40-03-.06(4)(c)1. In its Preliminary Engineering Report (PER) and Supplement, WADC wholly failed to consider any practicable alternatives to a discharge to Lick Creek. WADC’s premise is that expansion of WADC’s system necessitates discharge to Lick Creek as the only practicable alternative. We contend that its analysis of alternatives selects the Lick Creek discharge by discounting the use of all other alternatives. This “straw-man” approach to favor a sole engineering alternative benefitting WADC’s ambitions not only fails to genuinely evaluate viable alternatives but also overlooks the social and economic value of the Lick Creek resource as it exists today and as it should be maintained as part of Tennessee’s important economic attributes.

A. *WADC Failed to Consider the Socio-Economic Importance of Tennessee’s Natural Assets*

An important basis of Tennessee’s economic success is its aesthetic appeal – scenery, open spaces, and reduced population density throughout large areas of countryside. These attributes are primary drivers that attract businesses, talent, and visitors to the state, including recent investments by electric vehicle manufacturing, technology, and other desirable industries.

Balancing economic interests and conservation is one of Tennessee’s virtues. Tennessee’s recognition of conservation as an inherent economic value has not only benefitted its citizens’ quality of life for decades, but has benefitted the state’s economy, as well (e.g., Great Smoky Mountains National Park, Big South Fork National River and Recreation Area, Land Between the Lakes National Recreation Area, and, of course, Tennessee’s award-winning state parks).

Tennessee’s ability to leverage its conservation values to accrue economic benefit rests with its continuing conservation of the State’s scenic character and the integrity of its natural resources. This challenge will become increasingly difficult as the state welcomes growth in industry and population.

Deliberative and rigorous evaluation of alternatives such as regionalization of supportive infrastructure, use of new technologies, and commitment to innovate beyond past practices, will be necessary to maintain Tennessee’s conservation-based economic values. The benefits and costs, including the socio-economic costs of reducing the State’s natural assets, should be carefully considered for projects driven by or resulting in population growth and rapid, drastic changes in a locality’s character. The Department already recognizes the inherent monetary value of natural resources through the Natural Resource Damage Assessment program, by which a dollar amount is calculated and assessed for injuries to natural resources of the State.

In many cases, projects' benefits will far outweigh those costs, by creating jobs, tax revenue, and other advantages that overcome negligible changes to many areas' existing conservation values. However, in all cases, the alternative of foregoing a proposed project, or modifying it to be less costly to an area's quality of life and its natural character, should be thoroughly evaluated. Such are the challenges of promoting Tennessee's burgeoning economy while retaining the State's ability to attract newcomers, and the values they bring to us.

B. WADC Failed to Consider a No-Action Alternative that would Prevent Degradation to Lick Creek

The purpose of Tennessee's antidegradation statement and standards is to "fully protect existing uses of all surface waters." Tenn. Comp. R. & Regs. 0400-40-03-.06(1)(a). WADC has not properly evaluated a No-Action alternative to its proposed discharge to Lick Creek to preserve its existing uses. The evaluation of a No-Action alternative is widely used as a base-case reference for alternatives analyses that weigh a project's purpose and need, socio-economic consequences, and environmentally damaging results. Consideration of a No-Action alternative is particularly important in contrasting a project's socio-economic costs and benefits against adverse environmental and social effects. It is a fundamental element of the National Environmental Policy Act's evaluation process incorporated in Environmental Assessment and Environmental Impact Statement documents.³ Likewise, TDEC is familiar with the merits of including No-Action alternatives as part of its permit review process, such as its Aquatic Resource Alteration Permit (ARAP) program.

In both the PER and the Supplement, WADC overlooks the social and economic value of the Lick Creek resource as it is today, with its current, existing uses as an Exceptional Tennessee Water and without a discharge of sewage effluent. Furthermore, the antidegradation regulations provide that an applicant's social and economic justification "should *demonstrate an overall benefit to the local community*, not just a benefit to the applicant." Tenn. Comp. R. & Regs. 0400-40-03-.06(1)(b)4. Here, there is a substantial benefit to the local community in not having a discharge to Lick Creek.

TDEC's antidegradation review is not limited to hard economic dollars such as jobs, tax revenue, or other economically related measures. To the contrary, the regulations specify that the applicant is to evaluate the "social/cultural impacts" of the proposed degradation. TDEC and WADC have heard from hundreds, if not thousands, of community members regarding the importance of Lick Creek as a natural resource to Hickman County.

As demonstrated by letters, voicemails, and other communications, there is an intrinsic value to having such a resource left undisturbed. Several members of the community have commented that they moved to rural Hickman County for the benefits associated with not having pollution, traffic congestion, overcrowded schools, and for the natural character of being away

³ 43 CFR 46.30: "the no action alternative looks at effects of not approving the action under consideration."

from unmitigated development. TDEC has heard from numerous citizens who were baptized in Lick Creek, who have family farms going back generation upon generation, and who grew up fishing and paddling on Lick Creek. Yet, WADC fails to consider the importance of these social and cultural attributes that result from an unimpacted Lick Creek. In addition to the intrinsic economic value, WADC failed to consider the social benefits, such as families traveling to the local Lick Creek community for camping, fishing, and other recreational activities.

Under a deliberative No-Action analysis, it could be determined that the proposed East Hickman Water Reclamation Facility (EHWRF) service area and Lick Creek discharge could encounter substantial costs associated with installing, operating, and maintaining a collection and transfer system in hilly terrain with a lack of sufficient customer density. As the location of the proposed EHWRF hasn't been identified, it is impossible to make this basic determination of comparative costs.

Similarly, inclusion of a No-Action alternative in WADC's analysis would consider the regulatory viability of WADC's removing large volumes of water from the Cumberland River (as it does currently), but then discharging substantial portions of it to Lick Creek in the Tennessee River basin (as is proposed). Does the proposed inter-basin transfer fail the antidegradation test of practicability as not being "able to put into practice", particularly over a long planning horizon of 75-plus years?^{4,5} WADC's analysis hasn't addressed this question.

In sum, WADC has failed to fully evaluate alternatives to a discharge to Lick Creek because it has not considered a No-Action alternative. Therefore, its alternatives analysis is flawed and does not meet the antidegradation requirements.

C. WADC Failed to Consider the Practicable Alternatives of Routing the Discharge to the Cumberland River and Adopting a Long-term, Regional Approach, Water Reuse and Reclamation, and Decentralized Systems

WADC's alternatives analysis is further flawed because it neglects to fully consider the alternative of discharging treated effluent to the Cumberland River. Without more detailed information to support the Authority's cost estimate, it is difficult to determine if estimated costs are realistic or instead serve to diminish the perceived practicability of this regional alternative to discharging to a small stream.

⁴ "As the population and demand for water resources grow, it is prudent to engage in planning for the future and to have an explicit mechanism in place to regulate proposals for the diversion of water from one river basin to another. By removing water from rivers, such inter-basin transfers raise issues of the protection of the public health, safety, welfare and the environment, as the water is no longer available for use in the original stream." Rule 0400-40-13.

⁵ The U.S. Army Corps of Engineers scrutinizes potable water withdrawals from reservoirs it controls, including Cheatham and Old Hickory Reservoirs on the Cumberland River. Withdrawals resulting in inter-basin transfers have been a topic of concern with regard to the Corps' reservoir management policy and ensuring sufficient supply for all users (e.g., City of Clarksville); *personal communication*, Gene C. Koonce, PE, and David E. Jackson, January 24, 2023.

With regard to cost, WADC has not accounted for the long-term cost savings of not having to abandon an outdated Lick Creek alternative in future years when capacity there is exceeded and then having to implement yet another small stream discharge plan. Regionalization of infrastructure for environmental management has been a successful tool to consolidate and limit environmental impacts and provide positive social and economic benefits to the local community. An example is the past practice of local municipal or county landfills that have now been largely replaced by regional facilities that receive and manage waste from many counties at a single facility where environmental, financial, and regulatory risk are consolidated under a single engineered design and permit. Such a regional approach should be reconsidered as a practical alternative here.

While routing the discharge to the Cumberland River and regionalizing service is the true long-term option, WADC must consider adding capacity, water reclamation, and water reuse at its existing treatment facilities as alternatives to building a new facility in Hickman County that will discharge to Lick Creek. For example, additional capacity could be found in reducing infiltration, i.e., approximately 0.73 million gallons per day (MGD) of capacity could be recovered if infiltration sources are eliminated, which would delay WADC's expansion of treatment facilities until 2030. No costs or savings for this option have been provided by WADC, however. Additionally, cost-benefit considerations for water reuse are missing from WADC's analysis. WADC's alternatives analysis fails to recognize neighboring communities such as Spring Hill, Smyrna, and Murfreesboro are incorporating this strategy into their systems.⁶ Particularly relevant is the possibility of using treated effluent from WADC's White Bluff plant to irrigate the golf course at TDEC's Montgomery Bell State Park. Furthermore, WADC hasn't provided a straightforward analysis of using decentralized systems as a viable alternative to a Lick Creek discharge. WADC could own and operate these systems and, if they were incorporated within the WADC service area, the need for centralized treatment would be reduced, eliminating the need for a discharge to Lick Creek.

WADC has failed to fully consider numerous alternatives, including routing to the Cumberland River and adopting a regional approach. It has also failed to consider use of its existing systems, water reuse, and water reclamation, all of which would prevent or reduce the level of degradation to Lick Creek, and all of which are practicable alternatives pursuant to Rule 0400-40-03-.06(1)(b)3(i).

II. WADC Failed to Demonstrate the Proposed Degradation is Necessary to Accommodate Important Social or Economic Development in the Lick Creek Area

Not only must an applicant for a new discharge to an Exceptional Tennessee Water demonstrate that no practicable alternatives exist, but the applicant must also show that "the degradation is necessary to accommodate important economic or social development in the

⁶ *Ibid.*

area.”⁷ Tenn. Comp. R. & Regs. 0400-40-03-.06(4)(c)1. WADC plans to construct the EHWRP at an unidentified location (somewhere within a ca. 1,400-acre area) and presumes that its system must be expanded. WADC claims that the discharge to Lick Creek is the only practicable alternative and is necessary to *accommodate* expected population growth (and the related demand for expanded sewer treatment facilities) in the “currently unsewered areas.” However, in the next breath, WADC also claims that the expansion and discharge to Lick Creek is needed to *stimulate* growth in these areas.⁸ Upon close inspection, neither of these claims are valid.

A. WADC Fails to Consider the Social and Economic Costs Resulting from a Sewage Effluent Discharge into Lick Creek

1. Costs Resulting from “Growth” Omitted from Social and Economic Analysis

WADC fails to consider the various costs to the local community of its proposal, including the growth that it claims will result from the proposed project. For WADC, “growth” entails such parameters as population and population density, median household income, home values, reduction of poverty rate, real gross domestic product (GDP) per capita, business establishment, and firms with over 100 employees. WADC assumes that all of these components of growth are desirable (certainly, many are), but have no concomitant adverse effects, such as increased costs of additional infrastructure for roads, landfill capacity, schools, and emergency services, the effects of sprawl, increased pollutant loading to air and water resources, diminishment of wildlife habitat, and the loss of Tennessee’s intrinsic conservation values.

These costs that would accrue from the growth stimulated by the EHWRP and its discharge to Lick Creek have not been considered or analyzed by WADC to determine if a net socio-economic benefit would result from the project’s approval. Rather, WADC has assumed that only benefits come with its proposed expansion in service to “growth.”

Anyone who has witnessed the changes (e.g., congested traffic, long commutes, spiraling costs of living and property taxes) brought to middle Tennessee in the last decades can attest that all growth is not all good. WADC’s presumption otherwise is simplistic and self-serving. In fact, Dickson and Hickman Counties’ more modest population and density increases over the past 20 years, as compared to the steeply inclining trends experienced by Williamson County and the Nashville Metropolitan Statistical Area (MSA), as has been documented by WADC, are considered by many to be preferable to the boom conditions in Williamson and the Nashville

⁷ We reiterate here, from our letter of opposition dated March 17, 2022, that WADC has failed to demonstrate the important socio-economic development in the area *in which the waters are located*, per Rule 0400-40-03-.06(1)(b)2(ii).

⁸ “For Williamson County, the question is how much additional infrastructure is needed to keep up with the evident growth. For Hickman County, alternatively the question is whether additional infrastructure is needed to keep the existing population let alone launch more economic growth”; Livingston, Steven., and Arik, Murat, page 4, “*Proposed East Hickman County Water Reclamation Facility: Direct and Indirect Economic and Fiscal Impact*,” page 4, Appendix to “*Supplemental Information*”, Supra.

MSA.⁹

2. *Environmental Costs of Growth: Non-compliant Discharges to Small Streams*

Through decades of mostly modest population growth, WADC has discharged treated sewage effluent to small streams, with invariable upsets and violations that have resulted in impaired water quality. Now, as part of a 75-year plan to expand its system, WADC proposes to continue this small-stream discharge strategy in yet another stream, Lick Creek, an Exceptional Tennessee Water, popular fishing stream, and habitat for the coppercheek darter (*Etheostoma aquali*) – a state-listed (Threatened) species. Moreover, Lick Creek is a major tributary to the Duck River, recognized by the U.S Geological Survey as one of the most biologically diverse rivers in North America.

Specifically, WADC currently discharges treated sewage effluent to Jones Creek, Flatrock Branch, and Trace Creek (all receiving streams are tributaries to the Harpeth River in the Cumberland River watershed). These relatively small streams, with 7Q10 flows ranging from approximately 0 to 0.82 MGD, have periodically received non-compliant discharges from their respective WADC treatment plants.¹⁰

Moreover, WADC has a history of overflows from sewage pump stations and lines used to move raw and treated sewage throughout its system. One such example is WADC's release of untreated sewage from a WADC pump station in the headwaters of Gin Branch in Dickson County, a tributary to Turnbull Creek. A break in a 10-inch force main resulted in the release to Gin Branch, and to a downstream private pond, of an unknown volume of raw sewage pumped at a rate of 200 gallons per minute (gpm) for an unknown duration.¹¹ Effects of the release persisted far downstream of the WADC pump station.

Non-compliant discharges and violations have a socio-economic cost that is commonly calculated by TDEC, the U.S. Environmental Protection Agency, the National Oceanic and Atmospheric Agency, and other agencies assessing Natural Resource Damages, using methods that quantify money damages for injury to streams, groundwater, wetlands, and other natural resources. Often, these claims are substantial and are indicative not only of the loss of socio-economic value held by the resources and to communities and users of resources, but also to the responsible entities, including shareholders and rate payers.

Despite its history of non-compliant discharges, WADC has not determined the costs of upsets and violations that could be reasonably expected to result from its proposed expansion, use of an EHWRP, and discharge to Lick Creek over WADC's proposed 75-year planning

⁹ *Ibid.*, Appendix, "Figure 1: Population Density, 2000 to 2020," p. 2.

¹⁰ Law, George, Tasker, Gary, and Ladd, David, "*Streamflow-Characteristic Estimation Methods for Unregulated Streams of Tennessee*," Scientific Investigations Report 2009-5158, U.S. Geological Survey, 2009. *See also* NPDES Permit No. TN0020460 issued to WADC.

¹¹ Water Authority of Dickson County, Permit #TN0066958, release record dated November 28, 2017.

horizon. The determination of anticipated Natural Resources Damage Assessment costs is an important factor to consider in a No-Action alternative, particularly with regard to Tennessee's antidegradation statement and Lick Creek's Exceptional Tennessee Water status. This consideration is in keeping with the essential need to recognize and assign intrinsic economic values to Tennessee's natural assets.

In its PER and Supplement, WADC assumes that the attributes of growth, which it claims are important from a socio-economic standpoint, can only be attained by directing sewage effluent to Lick Creek. However, as WADC's own research shows, growth *has* been occurring in the relevant portions of counties that WADC purports will benefit from a discharge of effluent to Lick Creek.

For instance, the Supplement's appendix illustrates that Dickson County's population growth rate has exceeded that of Tennessee's in the period from 2015 to 2020, and that Hickman County's growth rate, substantially similar to Tennessee's rate in previous years, has increased substantially as compared to the preceding 5-year interval (2010 to 2015).¹² These gains in population have occurred without discharging effluent to Lick Creek.

Particularly compelling is WADC's documentation that population growth occurs even during the imposition of a moratorium on use of sewage treatment facilities.¹³ Contradicting its own PER, WADC's Supplement appendix shows that, during the Fairview sewer moratorium (variably cited by WADC as beginning in 2004 or 2006, and ending in 2011, see footnote), the population growth rate in the Fairview community of Williamson County *exceeded or equaled Williamson County's rate* during the moratorium up until the disastrous collapse of the housing market caused by the Great Recession that began in the latter part of 2008.^{14,15} Even though recovery from the recession took years, WADC's Supplement shows that Fairview's population growth was strong during the moratorium (up until the Great Recession), and began to recover *prior* to the lifting of the sewer moratorium in 2011.

¹² Livingston and Murat, *Supra.*, Figure 3: Population Growth by Five Year Intervals, page 3.

¹³ *Ibid.*, Figure 12: Population Growth in Fairview vs. Williamson County Overall, page 13.

¹⁴ "It is important to note that growth in the City of Fairview has been impacted by a sewer moratorium that was in place from 2006 to 2011. ... In 2004, a moratorium was in effect due to chronic overflows... WADC acquired the Fairview system in 2006 and took immediate steps to resolve the issues with overflows, resulting in the lifting of the moratorium in 2011. The moratorium affected growth in Fairview during a significant boom within the mid-state; therefore, it is important to consider the growth within the other cities in Williamson County as a indicator of what the normal growth rate in Fairview should have been." *East Hickman County Water Reclamation Facility Preliminary Engineering Report, Supra.*, page 7.

¹⁵ "The stock market crash that heralded the arrival of the recession occurred on September 29, 2008... The recession lasted 18 months and was officially over by June 2009. However, the effects on the overall economy were felt for much longer. The unemployment rate did not return to pre-recession levels until 2014, and it took until 2016 for median household incomes to recover." "How Long Did the Great Recession Last in 2008?", Forbes, <https://www.forbes.com/sites/qai/2022/10/19/how-long-did-the-great-recession-last-in-2008/?sh=786388ba56b0>, accessed February 16, 2023.

WADC presumes that sewage effluent discharging to Lick Creek is necessary to improve the area's quality of life as measured by several categories. Again, WADC's own information refutes this presumption.

WADC has compared various economic statistics of Williamson, Dickson, and Hickman Counties that are within the proposed EHWRP service area and which WADC presumes will benefit from effluent discharge to Lick Creek. These statistics, comprising median household income, change in median home values, poverty rate, real GDP per capita growth, growth in business establishments, and number of firms with over 100 employees, are illustrated on graphs and tables in WADC's Supplement appendix,¹⁶ and further explored below.

a. Median Household Income

Looking closely at the median household income in Hickman County, we see that it has risen at similar rates as Dickson County's and Tennessee's state-wide increases of this important economic metric.¹⁷ In fact, census data indicate that median household income growth rate in both counties in recent years *exceeds* Tennessee's state-wide rate, without a sewer system expansion, or the "benefit" of discharging treated effluent to Lick Creek.

Also notable is WADC's analysis of the median income of those populations in the "currently unsewered areas south of I-40 in Dickson, Hickman, and Williamson Counties" that are targeted to be served in WADC's expanded service areas. Surprisingly, WADC's analysis shows that these populations in the Hickman and Dickson County portions of the referenced area *already enjoy median incomes that exceed those of their respective county-wide populations*, despite the absence of a discharge to Lick Creek, or that portions of the remaining, lower-income populations in those counties are now served by sewer facilities.¹⁸

b. Median Home Values

Similarly, WADC's data indicate that median home values have risen significantly in the period 2010 to 2020 in Hickman and Dickson Counties, along with those of Williamson County, the Nashville MSA, and Tennessee state-wide.¹⁹ In fact, although no discharge to Lick Creek was present to support these trends, Dickson's increase of this metric *exceeded* both

¹⁶ It should be noted that WADC's inclusion of Williamson County's statistics doesn't acknowledge that, as the wealthiest county in Tennessee ("*These are the Wealthiest Counties in Tennessee*," Chattanooga Times Free Press, June 14, 2022, <https://www.timesfreepress.com/news/2022/jun/14/wealthiest-counties/>, accessed February 18, 2023), and among the twenty wealthiest counties in the U.S. ("*Richest Counties in the U.S.*," Forbes, December 21, 2021, <https://www.forbes.com/sites/andrewdepietro/2021/12/21/richest-counties-in-the-us/?sh=77b0a1c32ecd>, accessed February 18, 2023), Williamson is hardly comparable to other counties in the proposed expanded WADC service area. Its comparison to Hickman and Dickson exaggerates Williamson's status among the three counties and supports the false implication that the proposed discharge to Lick Creek will similarly lift the socio-economic conditions of "unsewered areas" in Hickman, Dickson, and Williamson. Likewise, there can be no attributing Williamson County's good economic fortune to discharging effluent to small-stream systems.

¹⁷ Livingston and Murat, 2002, *Supra*, Figure 4d: Median Household Income Since 1995, page 5.

¹⁸ *Ibid.*, Table 4: Characteristics of those Areas Currently Unserved by a Wastewater Facility, page 11.

¹⁹ *Ibid.*, Figure 5: Change in Median Home Values 2010 to 2020, page 5.

Williamson's and Tennessee state-wide. Hickman's growth in median home values approached or equaled 20% during this period and will likely continue without the need for WADC to discharge sewage effluent into Lick Creek.

c. Poverty Rate

Poverty rate, perhaps the most important metric among the three counties, shows appreciable improvement for the years 2012 to 2020.²⁰ We reiterate that this socio-economic lift occurred despite no discharges of effluent to Lick Creek. In fact, among the compared jurisdictions (Hickman, Dickson, and Williamson Counties, and Tennessee state-wide), Hickman County shows the steepest decline in the percentage of impoverished people in the county. Hickman's rate is shown as recently approaching Tennessee's decreasing statewide rate. Moreover, Dickson's relatively steep decline in poverty rate surpassed Tennessee's state-wide rate. These important improvements would be expected to continue even without WADC's proposed Lick Creek discharge.

d. Business Establishments

WADC evaluated Growth in Business Establishments among Hickman, Dickson, and Williamson Counties, and the Nashville MSA, as well as Tennessee's state-wide numbers.²¹ Here again, positive trends in Hickman and Dickson Counties *exceeded* that cited for Tennessee across the state (although understandably far below those for Williamson and the Nashville MSA). Of course, no discharge to Lick Creek was present to account for this growth.

e. Number of Firms with Over 100 Employees

WADC's evaluation of the number of firms in each of the compared counties, the Nashville MSA, and Tennessee's state-wide metric, shows that all compared jurisdictions, including Hickman and Dickson Counties, have *added* firms of over 100 employees since recovering from the Great Recession.²² These data suggest that the proposed Lick Creek discharge is unnecessary to produce positive socio-economic benefits in the area.

f. Employment Change

WADC's analysis indicates that positive employment changes in the most recent 5-year interval (2015 to 2020) have exceeded 10% for Hickman, Dickson, and Williamson Counties, as well as for the Nashville MSA and Tennessee state-wide.²³ Of note is Hickman's and Dickson's rate of change that *exceeded* Tennessee's state-wide rate during the most recent 5-year period.

In sum, WADC has failed to demonstrate that the proposed discharge to Lick Creek is necessary to accommodate important social and economic development in the Lick Creek area.

²⁰ *Ibid.*, Figure 6: Poverty Rate Across Counties, page 6.

²¹ *Ibid.*, Table 1: Growth in Business Establishments, page 8.

²² *Ibid.*, Table 2: Number of Firms with Over 100 Employees, page 8.

²³ *Ibid.*, Figure 9: Employment Change over 5-year Intervals, page 9.

WADC fails to consider all the socio-economic costs of its proposal, and its own Supplement shows that the Lick Creek area has been growing, socially and economically, without the EHWRP or its discharge.

III. WADC's Failed to Demonstrate that the Proposed Degradation Will Not Violate Water Quality Criteria for Existing Uses of Lick Creek

It should be noted that WADC has not specifically identified the degradation it will cause to Lick Creek with its proposed discharge. Without specifying the type of degradation it seeks to cause, WADC cannot and did not fully consider whether such degradation will violate water quality criteria for the existing uses of an Exceptional Tennessee Water.

In an attempt to justify the proposed discharge, the Authority submitted modeling to TDEC. However, there was no narrative, field data, or any support whatsoever for assumptions and values used in the model. In our attempt to obtain supporting information and field data, we were denied access or informed that WADC did not have such information. Therefore, we retained a consulting firm to complete a detailed evaluation of the modeling effort and are providing their report with this letter. That analysis shows that WADC's model used unrealistic and unsupported values and assumptions to try and demonstrate that dissolved oxygen stays just above the minimum criterion. Furthermore, it did not address the impacts of nutrients in the discharge and only considered average effluent quality. As described in our report, the discharge, as proposed, will not protect Lick Creek.

Finally, in its Supplement, WADC concludes that the proposed discharge will not impact the coppercheek darter, a state-listed (Threatened) species. However, WADC provides no support for this conclusion. As stated in Rule 0400-40-03-.06(4)(c)3, "an activity that would cause degradation of habitat 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." Without any basis for its finding that the coppercheek darter and its habitat will not be impacted, and especially without an alternatives analysis that would prevent or lessen the degradation, WADC has not met the requirements of this rule.

IV. Other Considerations

The enabling statute for the Authority, specifically Section 14 in Chapter 124 of the Private Acts of 1990, states: "The [A]uthority shall exercise its responsibilities and authorities within the entirety of the territory of Dickson County that has not been specifically designated by the County Executive as the service area of an existing utility district. Additionally, *the authority may adopt areas for service in surrounding counties where authorized by the appropriate utility officials and other officials in those counties.* In the event the assets of the authority are ever sold into private or investor ownership, the cash generated shall be divided

equally between the governments of the City of Dickson and Dickson County.” (emphasis added). WADC has failed to comply with its own enabling statute by not obtaining authorization from Hickman County to adopt this area for service.

Furthermore, WADC’s approach is extremely short-sighted. They claim in the Supplement that this a 75-year approach, but simply building a new facility is only a “band-aid” approach. By its own admission, WADC plans to reroute some existing flow from the Jones Creek plant to the Lick Creek plant when it is built. Instead, WADC needs to seriously consider a regional approach, as well as investing in water reclamation and reuse at its existing facilities.

V. Conclusion

WADC has wholly failed to meet the requirements of antidegradation review necessary for a new wastewater discharge to an Exceptional Tennessee Water. Not only has it failed to consider an appropriate range of alternatives to the proposed discharge of treated sewage effluent to Lick Creek and failed to show that degradation is necessary for social and economic development, but, as importantly, it is also relying on a tired strategy of discharging effluent to small streams instead of embracing long-range alternatives and combinations of innovative approaches (e.g., regional solutions such as a discharge to the Cumberland River, water reuse, and water reclamation). It also does not recognize the intrinsic social and economic value of Tennessee’s natural resources, undisturbed. Therefore, for all of the reasons outlined above, we respectfully request that the Department deny WADC’s permit for a new discharge to Lick Creek.

Yours truly,

BUTLER SNOW LLP

A handwritten signature in blue ink, appearing to read "B. Hart Knight", is written over a faint, light blue circular stamp or watermark.

B. Hart Knight
Katherine Barnes

KB/jgl

Enclosure

cc: Commissioner David Salyers, TDEC (*via email only*)

Jennifer Dodd, TDEC (*via email only*)

Stephanie Durman, Esq., TDEC (*via email only*)

David Jackson, BDY (*via email only*)

Glen Rohrbach, BDY (*via email only*)

J.W. Luna, Butler Snow (*via email only*)

Amanda Mathis (*via email only*)

Rodes Hart (*via email only*)

Collective

Exhibit 4

Exhibit 4.1

From: [Lisa Morgan](#)
To: [Water Permits](#)
Cc: [Rodes Hart](#)
Subject: [EXTERNAL] DENY WADC's permit. Save Hickman County
Date: Tuesday, April 25, 2023 11:24:24 PM

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

Dear Public Servants of TDEC,

25 April 2023

We are so grateful for your efforts to hear the people of Hickman County while you do your jobs to safeguard Tennessee and to balance the pressures of growth. The people of Hickman County have not often been forced to gather a voice loud enough to speak against threats to their way of life, health, families' futures and GOD given resources. But now, their voice is shouting for your protection.

The way of life, profoundly held and quietly yet adamantly, maintained by the great majority of the residents here is built on rural, undeveloped landscapes watered by pure streams, springs and wells. Neighbors respect and help their neighbors. Generations of families live on connecting farms and in gentle, green neighborhoods. Natural resources are protected, enjoyed and shared with a sense of community ownership. (I could list on and on ideal freedoms flourishing where polish does not erase them.) (I could name families and tell stories of their character and values to make you weep with longing for even a Saturday in their company.). These practices and attitudes organically grow and reseed for generations in a place that is relatively left alone by intrusive, insensitive development.

The Water (Utility) of Dickson County proved from the start of their effort to get a hook into Hickman County, that their priorities were antithetical to all the above. Their refusal to even follow protocols in filing, notifying and being truthful about their plans and the failed science of their present projects is a nefarious footing we ask you to weigh strongly. The fact that they would consider abusing Hickman County to band-aid Williamson's and Dickson's sewage mismanagement, plus the Jones and Trace Creek problems, should alarm us all enough to call a halt to WADC being given stewardship over planning effluent release in TN.

I will not list but only ask you to remain clear on the facts collected by Friends of Lick Creek/Save Hickman, by expert bioengineers, reasonable attorneys, The Wildlife Federation and Harpeth Conservancy....reports from unchecked disastrous spills in other parts of the country and even in this area already.... and the template for TN to keep waters in the watersheds from which they come, to not disrupt natural creek and river capacities and to not entertain cheaper solutions at the expense of losing "exceptional" resources forever.

Recent stats prove that Hickman County has grown by 14% in industry without WADC, that neither Hickman's schools nor residential routes need that utility's water nor sewer for growth, for increased wages, or new businesses. People choose to live in "undeveloped" Hickman County on purpose. The best business is to meet your own needs, the way of your own community. And, Hickman County cannot and should not be forced to foot the bill for infrastructure which would be forced upon them in the wake of WADC's suspect plan, for its profit.

There has been little talk for the landowners, children and businesses which will be directly ruined in property value, health and in quality of life if WADC is allowed to build an ill-planned WWTP, take right-of-way for any lines and poison Lick Creek and the Duck River. Does TDEC look at a sparsely populated area and consider it to carry less value/less voting power so to speak, than a densely populated area? Surely TDEC has the vision and courage to save areas such as Bon Aqua, knowing that TN's future must have large tracts of land, wildlife and waters, and what only these naturally can provide to its rural people and visitors.

TN must lead in wise management. Direct the WADC to remedy and resize what they already have at the Jones Creek plant and right-of-way for lines to the Cumberland River. Don't let WADC bully a rural community. Don't let this county be gentrified, individuals be ruined while large utilities inflate. Keep sewage in the sewage lanes. Keep wildlife and humans free and clean. Conserve TN. Make the people believe that TN government will actually help you.

GOD bless you. GOD bless TN.
since 1969

Lisa Bouchard Morgan

family farming in Bon Aqua

Exhibit 4.2

From: [Amanda Mathis](#)
To: [Water Permits](#)
Subject: [EXTERNAL] Please Deny WADC Permit TN0082376
Date: Wednesday, May 24, 2023 10:48:07 AM

Commissioner Salyers,

I was born and raised in Hickman County and own a century farm in the Totty's Bend community along the banks of the Duck River. My great grandparents and my grandfather all grew up along the banks of Lick Creek, where they farmed the land. I spent many Sunday drives along the banks of Lick Creek hearing about its history and the importance of the creek to the community. My grandfather, who has passed, would be happy to know that today, I also help farm the banks of Lick Creek with my significant other, on the farm that has been in his family over a century. My roots run deep in Hickman County and its exceptional waters of Lick Creek and the Duck River. That is why I am passionate to Save Lick Creek and Save Hickman County.

The WADC should not use Hickman County as a dumping ground. The entity postures itself as "helping" Hickman County, but one can quickly cut through the façade. The WADC has not managed its growth and infrastructure, by not making appropriate investment in its existing plants, nor fixing its leaking pipes that create capacity constraints. Now, the WADC has urgent needs to keep pace with the unchecked growth and development from Dickson and Williamson counties. The lack of business management and forward thinking should not be the citizens of Hickman County's problem. The natural resources of Hickman County should not become a dumping ground for other counties waste. The best interest of Hickman County is NOT why the current proposal is on the table.

The WADC has operated for years, in secret, without input from the county in which they want to infiltrate. They have not engaged the citizens or their elected representatives. A county should have the right to control infrastructure investment, this should not be determined by a group of an unelected authority board with no representation from the impacted areas. Hickman County does need growth, but growth that matches the needs and desires of its citizens.

The WADC's proposal is flawed in its economic analysis and impact to Hickman County. The population growth contemplated is over 75 years, and in the later years is when county growth fully occurs. The useful life of a sewage plant is not even 75 years. The WADC claims "if you build it, [industry] will come". There has been sewer service in the East Hickman corridor for seventeen years, but to date only minimal hookups have occurred. In the initial submission by the WADC to TDEC, industry was not even contemplated in the need for the plant or discharge, until TDEC asked them to consider industry. Today, they tout that lack of sewer hooks ups is constraining Hickman County, and they have no capacity to hook into the existing line. However, they offered capacity to hook up the East Schools complex in Hickman County and route the wastewater back to Jones Creek.

The WADC, its board and its developer friends will be the only ones that profit from

this proposal and the political game. The average citizen from Hickman County will not benefit from the WADCs plan. Taxes will rise to support higher infrastructure costs from unchecked growth, which is not included in the WADC analysis. The county will become unaffordable to current citizens, forcing them from their homes, and destroying family heritage and legacies will be lost. Look at Williamson County today and see how many locals remain. That is not what Hickman County citizens want or need.

The WADC believes that Hickman County should be developed and grow into a suburban area. However, Hickman Countians disagree. I for one appreciate the rural lifestyle that Hickman County offers. I have had the privilege to travel the world, live in urban areas, and I will tell you there is no better place to be than Hickman County. People from all over the state flock to Hickman County to enjoy the natural, rural beauty. Our natural resources are a treasure. No more land, no more streams will ever be created, so we need to value and take care of what we have remaining.

I want my family to continue enjoy swimming and fishing in our unpolluted Lick Creek and the Duck River. I want them to see farmland and breathe clean air. I want to keep endangered species protected, like the Coppercheek Darter. There is economic and social value to this rural lifestyle and natural resources. The WADC does not contemplate the economic loss of environmental degradation in their proposal.

Further, there is no economic benefit to the areas impacted by the sewage plant and discharge. On the contrary, the impact can be detrimental to the citizens. Citizens along the proposed pipeline and discharge location rely on spring and well water.

There is not even “city” water in this area. In addition, at low flow the creek is at 8MGD, and floods regularly at those levels. Can the creek handle the proposed ultimate discharge up to 12MGD? Farmers and landowners cannot sustain more floods and the damage that creates. Crop land and wells will be impacted. Effluent contamination can cause severe health risks to those in the area.

The WADC failed to consider true regional alternatives. Ultimately, they would like to be in Lick Creek to gain access to the Duck River watershed. The Duck River provides significant growth opportunities, and Lick Creek is an “easy” solution, pulled from their textbook of polluting small streams. They ignored the true regional, long-term solution of taking the effluent to the Cumberland River, which can handle the current and future growth needs of the area.

The citizens of Hickman County deserve better. Our natural resources deserve better.

Please deny the WADC’s proposal.

Amanda Mathis

Exhibit 4.3

From: [Art Rebrovick](#)
To: [Water Permits](#)
Subject: [EXTERNAL] Dickson Water Authority and Lick Creek
Date: Monday, June 5, 2023 4:57:59 PM

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

Since 1976, we have had land and a home on Tatum Creek that feeds into Lick Creek. We believe that a regional approach with the area counties making a rational and fully discussed solution with equal input from the area citizens can provide a good long term solution for the area.

We appreciate the effort of the TEDEC team in working through this process.

Art Rebrovick

--

Thanks,

Art Rebrovick
615-352-3800

P.O. Box 50454, Nashville, TN 37205-0454

artrebrovick@compassexecutives.com
artrebrovick@gmail.com
www.compassexecutives.com

Exhibit 4.4

Elizabeth Rorie

From: Water Permits
Sent: Friday, April 14, 2023 9:46 AM
To: 'Rodes Hart'
Cc: Maybelle Sparks
Subject: RE: WADC Permit (TN0082376)- East Hickman County

Hello,

As of April 5, 2023, TDEC proposes denial of TN0082376 to WADC for the proposed East Hickman Water Reclamation Facility discharge to Lick Creek.

A public hearing on this topic will be held on May 25, 2023 at the Hickman County High School. Go to this website for details:

<https://www.tn.gov/environment/ppo-public-participation/ppo-public-participation/ppo-water.html>.

Kind regards,

**Beth Rorie**

William R. Snodgrass TN Tower, 11th Fl.
312 Rosa L. Parks Ave.
Nashville, TN 37243
Office: 615-532-1172
Elizabeth.Rorie@tn.gov
[customer satisfaction survey](#)

From: Rodes Hart <hrhart@brooksideproperties.com>
Sent: Friday, April 14, 2023 8:32 AM
To: Water Permits <Water.Permits@tn.gov>
Subject: [EXTERNAL] WADC Permit (TN0082376)- East Hickman County

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

Dear Commissioners Salyers and Young,

I am emailing you today in complete support of your proposed denial of the WADC permit application to build a WFR in East Hickman County with effluent sewage discharge into Lick Creek.

In brief, my primary reasons for supporting TDEC's proposed denial are as follows:

- The citizens of Hickman County have not been consulted about this proposed WFR, nor have its county leaders
- The majority of the citizens in Hickman County oppose this proposal
- The anticipated economic growth and related sewage processing needs are primarily in Dickson and Williamson Counties, not Hickman County
- The WADC proposes that Hickman County must have sewer to attain acceptable economic growth, but every objective growth metric indicates that Hickman County's growth meets or greatly exceeds statewide growth averages
- The necessary infrastructure costs of sewer-induced urban sprawl in Hickman County would be borne by all Hickman County residents, many of whom would not have sewer access and all of whom would not receive sewer fee revenue to offset said increased costs
- The fact that the WADC's existing sewage processing facilities are at or near capacity should not be the responsibility of Hickman County to remedy
- The long term, regional solution for economic growth in the tri-county region should include repairing and expanding existing WADC WFR infrastructure with effluent discharge to the Cumberland. The proposed WFR and effluent discharge into Lick Creek would merely be another short term solution
- The proposed effluent discharge would impair not only the water quality of Lick Creek, but also that of the Duck River
- Impairment of Lick Creek and the Duck River would significantly compromise one of Tennessee's greatest recruiting assets for new business and related economic prosperity – unspoiled natural resources

Thank you for your consideration of this message and for your efforts to protect Tennessee's environment.

Sincerely,

Rodes Hart



H. Rodes Hart, Jr.
Friends of Lick Creek
hrhart@brooksideproperties.com
www.SaveLickCreek.com

Disclaimer

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Exhibit 5

RATIONALE

Water Authority of Dickson County
East Hickman Water Reclamation Facility
NPDES Permit No. TN0082376

1. PERMIT STATUS & PUBLIC PARTICIPATION

Permit Type:	Municipal
Classification:	Major
Previous Issuance Date:	n/a
Previous Expiration Date:	n/a
Previous Effective Date:	n/a

This notice allows 60 days for public comment on the proposed permit action, which includes 30 days provided under Rule 0400-40-05-.06, and an additional 30 days extension due to the degree of interest in this application. Absent extraordinary circumstances, no additional extension will be provided. The 60-day public comment period begins the date this permit is placed on public notice. The public notice document for this permit can be found at the Division's [Water Notices and Hearings website](#) under "Permit Public Notices".

Public Notice Date:	Wednesday, April 5, 2023
Comment Period Ends:	Monday, June 5, 2023

Those wishing to make a formal comment on the proposed permit may submit comments electronically to Water.Permits@tn.gov, or by mail to:

Division of Water Resources - Water Based Systems Unit
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, TN 37243-1102

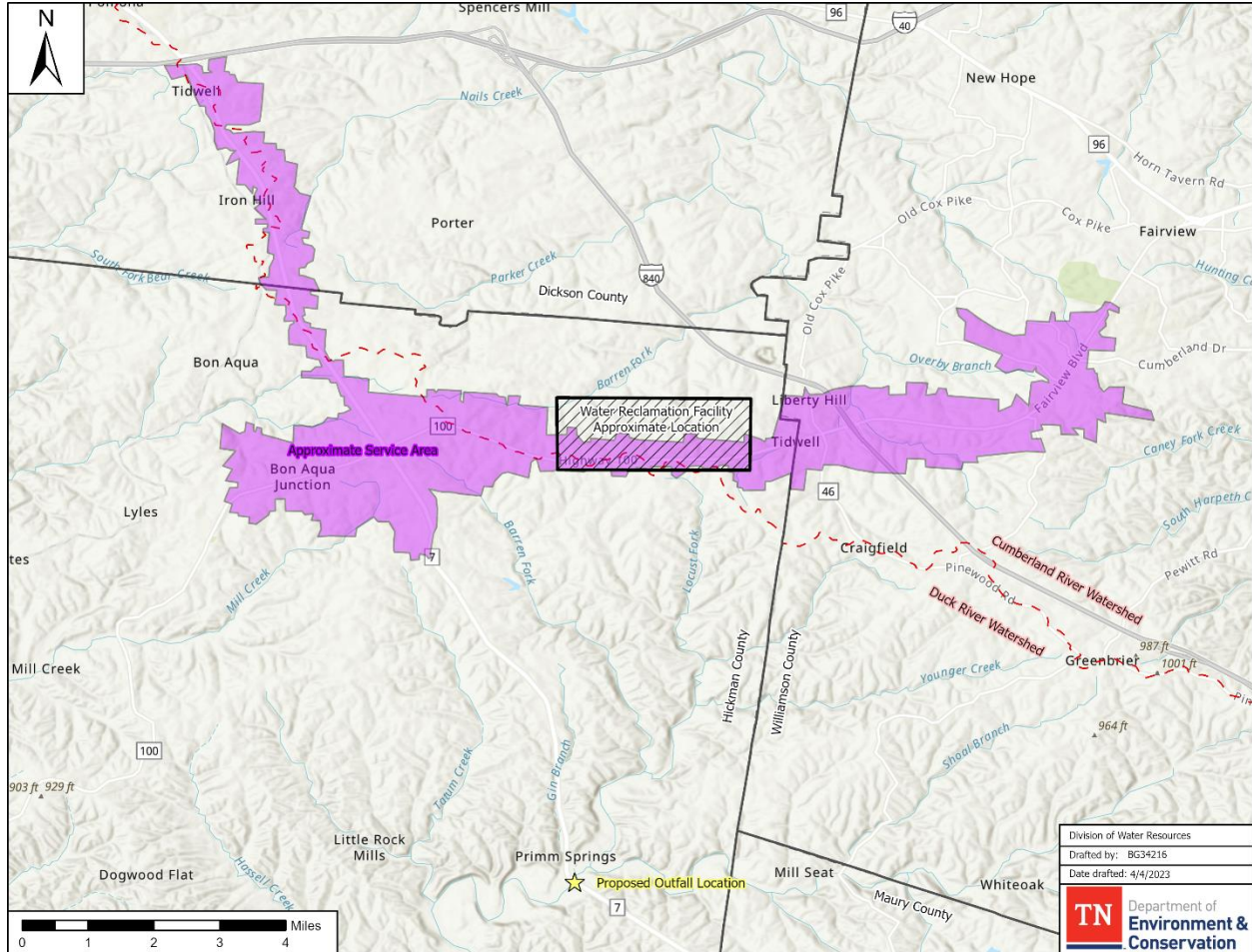
A public hearing has been scheduled for May 25, 2023 (see Appendix 1 for details).

2. FACILITY INFORMATION/SUMMARY

Applicant Name:	Water Authority of Dickson County
Project Name:	East Hickman Water Reclamation Facility
Location:	Hickman County, Tennessee
Contact:	Mr. Michael Adams, P.E. (615) 441-4188 madams@wadc.us
Design Flow Rate:	4 MGD
Percentage Industrial Flow:	50% (2 MGD proposed to serve an industrial client)
Certified Operator Grades:	n/a
Treatment Description:	WADC proposed advanced biological treatment with UV disinfection.

In December 2021, the Water Authority of Dickson County (WADC) applied to the Department of Environment and Conservation (Department) for a national pollutant discharge elimination system (NPDES) permit to authorize a new 4.0 million gallon per day (MGD) discharge of treated municipal wastewater to Lick Creek, including 2.0 MGD to support a new industry. The application indicates this discharge could be expanded to 8 MGD and then 12 MGD. WADC proposes to build the new East Hickman Water Reclamation Facility (EHWRF) in northeast Hickman County near Highway 100. The proposed service area for the new EHWRF includes portions of northwest Williamson County, southeast Dickson County, and northeast Hickman County. To create this service area, WADC would construct a new sewer line to connect a portion of its existing Fairview sewer system to its existing Jones Creek sewer system south of I-40. The new sewer line would be located along Highway 100, primarily in Hickman County but with a portion in Williamson County. The proposed discharge would be conveyed from the EHWRF via an approximately 9-mile, 18" force main to Lick Creek at river mile 10.6 just upstream of Highway 7 in Primm Springs, in Hickman County. The proposed service area, EHWRF, and discharge location are depicted on the map on page R-3.

As discussed in detail below, the Department proposes to deny this permit on the grounds that WADC has not demonstrated that greater than *de minimis* degradation of Exceptional Tennessee Waters is necessary to accommodate important economic or social development in the area of the discharge and has not demonstrated that less-degrading alternatives are not practicable. Accordingly, the Department has not prepared a draft permit for review, but instead explains the grounds for its preliminary determinations in this Rationale.



3. RECEIVING STREAM INFORMATION

Receiving Waterbody:	Lick Creek			
Watershed Group:	Duck River			
Hydrocode:	0604003041_001			
Low Flow:	7Q10 = 8.53 MGD (13.2 CFS)			
Low Flow Reference:	USGS StreamStats			
Stream Designated Uses:	Domestic Water Supply	Industrial	Fish & Aquatic Life	Recreation
			X	X
	Livestock & Wildlife	Irrigation	Navigation	Trout
	X	X		

Low flows on unregulated streams are estimated using guidance from the EPA document [Low Flow Statistics Tools: A How-To Handbook for NPDES Permit Writers](#). When sufficient and representative USGS gage data is available, [USGS SWToolbox](#) is used to analyze the flow data and calculate 7Q10 and 30Q5 values. Using these low flow values at the gage, the permit writer then determines the flow at the point of discharge using the following equation:

$$Q_{outfall} = Q_{gage} \times \frac{A_{outfall}}{A_{gage}}$$

Where:

- $Q_{outfall}$ = Low flow statistic at outfall location
- Q_{gage} = Low flow statistic at gage location
- $A_{outfall}$ = Area draining to outfall
- A_{gage} = Area draining to gage

In the absence of sufficient gage data, the Division relies on [USGS Streamstats](#) to calculate low flows statistics. In this case, no sufficient gage data is available to characterize the receiving stream. Thus, USGS Streamstats was used to delineate the critical low flow at the point of discharge. Appendix 2 shows the Streamstats output used for this estimation.

4. NEW PERMIT LIMITATIONS AND COMPLIANCE SCHEDULE SUMMARY

The Department has not developed effluent limitations because it does not propose to issue a permit. WADC proposed the following effluent limits:

Parameter	Units	4 MGD	8 MGD	12 MGD
CBOD5	mg/L	10	7	5
Total Suspended Solids	mg/L	10	10	10
Ammonia	mg/L	2.6	1.5	1
Nitrogen, total	mg/L	8	8	5

Phosphorus, total	mg/L	1	0.5	0.5
Dissolved Oxygen	mg/L	6	6	6

If the Department were to issue a permit, it would also limit, at a minimum, E. coli to ensure compliance with water quality criteria.

5. PREVIOUS PERMIT TERM REVIEW

N/A – the application is for a new permit.

6. COLLECTION SYSTEMS

WADC proposes to extend its existing collection system in Fairview by adding a sewer line along Highway 100 extending to Bon Aqua, and connecting to its existing sewer line on Highway 46 north to I-40.

7. ANTIDegradation

7.1. ANTIDegradation Statement / Water Quality Status

Tennessee's Antidegradation Statement is found in the Rules of the Tennessee Department of Environment and Conservation, Rule [0400-40-03-.06](#). It is the purpose of Tennessee's standards to fully protect existing uses of all surface waters as established under the Act.

Stream determinations for this permit action are associated with the waterbody segment identified by the Division as segment ID# TN06040003041_1000.

The Division has determined that Lick Creek from the Duck River to the confluence of Barren Fork constitutes Exceptional Tennessee Waters (ETW) due to the presence of the state-threatened Copperhead Darter. No degradation of water quality above the level of *de minimis* will be allowed unless the applicant demonstrates to the Division that there are no practicable alternatives to prevent or lessen degradation associated with the proposed activity, the degradation is necessary to accommodate important economic or social development in the area of the discharge, and the discharge will not violate the water quality criteria for uses existing in the receiving waters. The specific requirements for this demonstration are described in Rule 0400-40-03-.06.

Existing water quality in Lick Creek RM 10.6 fully supports its fish and aquatic life, irrigation, and livestock watering and wildlife designated uses. This segment is not assessed for recreation.

7.2. ALTERNATIVES ANALYSIS

In the alternatives analysis submitted in the December 2021 Preliminary Engineering Report (PER), WADC evaluated the following alternatives:

- No action,
- Increase or optimize capacity of existing treatment facilities,
- Land application,
- Water reuse,
- Decentralized systems, and
- New EHWRF.

The 2021 PER concludes that the new EHWRF would be the best alternative to enable growth and industrial development in the service area. Although WADC currently owns and operates three water reclamation facilities in the northern portion of WADC service area, Jones Creek WRF (JCWRF), Fairview WRF (FWRF) and White Bluff WRF, each one discharges to a low-flow stream with little available assimilative capacity. WADC asserts that NRCS soils data for the area identified no land within the service area that is “deemed not limited for slow rate land treatment.” WADC asserts there is no current demand for reused wastewater in the service area, and that decentralized systems are not economically efficient at this scale. The 2021 PER rejects the no action alternative, citing growth projections for the area.

At the Department’s request, WADC submitted a revised PER in December 2022, which evaluated alternative discharge locations. WADC conducted preliminary screening to identify all relatively close streams in Dickson, Williamson, and Hickman Counties with a ten-year, seven-day low flow (7Q10) of at least 12 cubic feet per second. Based on flow, WADC eliminated all streams in Williamson County, and included three in Dickson County (Harpeth River, Turnbull Creek, Cumberland River) and nine in Hickman County for further consideration. WADC then eliminated discharge locations upstream of public water intakes (Turnbull Creek, Big Swan Creek).

WADC summarized its alternatives analysis in terms of net present value in its Table 7, copied below:

Alternate	Description	Construction Cost	Annual Operating Cost	Net Present Value	Ran king
1	No Action	not feasible			
2	Treat New Flows at Existing Treatment Facilities				
2A	Treat All New Flows at JCWRF and Discharge to Harpeth River	\$92,590,000	\$781,000	\$101,548,070	4
2B	Treat All New Flows at JCWRF and Discharge to Cumberland River	\$97,990,000	\$797,000	\$107,131,590	6
3	Land Application	not feasible			
4	Water Reuse	not feasible			
5	Decentralized Systems	not feasible			
6	New Water Reclamation Facility				
6A	EHWRF Discharge to Turnbull Creek	not feasible			
6B	EHWRF Discharge to Harpeth River	\$94,455,960	\$947,000	\$105,318,050	5
6C	EHWRF Discharge to Cumberland River	\$113,495,000	\$996,000	\$124,919,120	8
6D	EHWRF Discharge to Beaverdam Creek	\$100,835,000	\$963,000	\$111,880,610	7
6E	EHWRF Discharge to Big Swan Creek	not feasible			
6F	EHWRF Discharge to Cane Creek	\$123,755,000	\$1,029,000	\$135,557,630	9
6G	EHWRF Discharge to Duck River	\$73,915,000	\$897,000	\$84,203,590	3
6H	EHWRF Discharge to Lick Creek	\$53,075,000	\$930,000	\$63,742,100	1
6I	EHWRF Discharge to Piney River	\$70,995,000	\$930,000	\$81,662,100	2

The Department preliminarily determines that WADC has not demonstrated that alternatives to the proposed degradation of Lick Creek are not practicable. Specifically, WADC rejected the no action alternative out-of-hand, without demonstrating that new sewer service is necessary, as discussed below.

In addition, although WADC's analysis demonstrates that the Lick Creek discharge is the least expensive option, WADC has not demonstrated that other discharge options that would result in less degradation, including Option 2B to discharge to the Cumberland River, are not practicable. Rule 0400-40-03-.06(1)(b)3 provides, "An alternative to degradation is practicable if it is technologically possible, able to be put into practice, and economically viable." Moving the existing Jones Creek discharge, and adding the new service area, to discharge to the Cumberland River would result in significantly less degradation than the proposed discharge to Lick Creek. This option would also allow for future expansion.

Although the Department has not conducted an in-depth water quality analysis of this option, the Cumberland River in the Barkley Reservoir, segment TN05130205015_2000, has

a 1Q10 (the low flow used for permitting in regulated streams) in the range of 700 MGD and is fully supporting of all designated uses. Accordingly, there is significant available assimilative capacity for treated municipal wastewater at this location. It is likely that any WADC discharge to this segment would result in only *de minimis* degradation.

Expanding the JCWRF and building a discharge pipeline to the Cumberland River are both technologically possible and capable of being put into practice. WADC has not demonstrated that this option is not economically viable, particularly in light of increased availability of federal funding for wastewater infrastructure.

7.3. ECONOMIC OR SOCIAL NECESSITY

a. WADC's Position

WADC's 2022 PER discusses socioeconomic impacts, and includes a report titled "Proposed East Hickman County Water Reclamation Facility: Direct and Indirect Economic and Fiscal Impact" prepared by Dr. Steven Livingston and Dr. Murat Arik ("Economic Report"). In the 2022 PER, WADC asserts:

By almost any indicator, Hickman County falls behind its neighboring counties in terms of wealth, median home values, median household income, and significantly has a much higher rate of poverty. Dickson County has a slightly lower poverty rate than that of Williamson County. Property values in Hickman County are substantially lower than in Williamson and Dickson Counties.

WADC argues that looking at the poverty rate alone, portions of the service area could be considered an environmental justice community. These rural areas are often left out and have not been included in major projects for infrastructure, negatively affecting those residents.

WADC argues that the proposed service area is attractive to residential, commercial, and industrial growth due to proximity to I-840. WADC notes, "[i]t is anticipated that most of the growth will occur within the City of Dickson, the City of Fairview, and the area bounded by Interstate 40, Highway 46, Interstate 840, and Highway 100." WADC argues, "The availability of sewer service will promote commercial and industrial growth and is expected to result in between 100 and 500 new jobs in the next five to ten years." Finally, WADC cites projections from the Economic Report, and concludes:

This new revenue will have a significant positive impact for Environmental Justice by bringing a means of additional tax and personal revenue to the

community. It is not designed to help one county over another as the WADC serves the entire three county service area.

The key findings of the Economic Report are:

- Construction of the new treatment facility is expected to generate a direct impact of 938 new jobs with wages of \$41,911,614, business revenue of \$84,946,149, and state and local taxes of \$2,379,898.
- Population growth is expected to generate, by the year 2045, a direct, indirect, and induced economic impact of 1,117 new jobs with wages of \$63,535,603, business revenue of \$170,214,216, and state and local taxes of \$9,739,200. By county:
 - o Dickson County: 471 jobs, \$15,274,827 in wages, \$51,704,622 in business revenue, and \$3,771,700 in state and local taxes (\$70.75 million)
 - o Hickman County: 88 jobs, \$3,167,523 in wages, \$12,937,130 in business revenue, and \$929,500 in state and local taxes (\$17 million)
 - o Williamson County: 558 jobs, \$45,093,253 in wages, \$105,572,464 in business revenue, and \$5,038,000 in state and local taxes (\$155.7 million).

The Economic Report also evaluates three possible new industries that could in theory be attracted to East Hickman County due to the availability of public sewer: a food manufacturer, a metal stamping plant, or an auto parts manufacturer. WADC estimates these would have a long-term (20-year) impact of 134 to 177 jobs and \$865,000 to \$1,431,000 in state and local taxes.

b. Friends of Lick Creek

On August 22, 2022, Friends of Lick Creek submitted a report to Governor Lee that compiled survey results, copies of letters opposing the project, quotes from elected officials and candidates, and newspaper articles. Key quotes from this report include:

- The path along the existing sewage line managed by Hickman County for the East Hickman High was deemed an industrial zone when installed. To date, only 3 industrial hookups have occurred in over seventeen years.
- Friends of Lick Creek supports smart growth that will benefit Hickman County, not urban sprawl that will leave our community with consequences of overdevelopment. In addition, we support Hickman County's sovereignty to control its own economic development destiny, and not have decisions forced upon its citizens.

c. Hickman County

Because WADC is a utility provider from Dickson County, not an entity of Hickman County government, the Department sought additional input from Hickman County officials concerning whether the proposed sewer service is necessary for important socioeconomic development in the area of the discharge. Deputy Commissioner Young met with Hickman County Mayor Jim Bates, ECD Director Brenda Brock, and County Commissioners from the affected districts. The Department also reviewed documents provided during these meetings, including the 2005 interlocal agreement between WADC and Hickman County¹ and the 2008-2025 Land Use and Transportation Policy Plan for Hickman County.

While local officials shared differing views with the Department,² the predominant opinion expressed by local officials is that the proposed sewer line is not necessary to support the type of economic development their constituents want. Specifically, several local officials shared the opinion that their constituents appreciate the rural character of Hickman County, and that people live there to get away from city life. Their constituents prefer to see growth that is similar in character to what Hickman County has now, large-lot homes and small-scale commercial enterprises employing 25-50 people. Minimal interest was expressed in recruiting larger industry. Several local officials explained that Hickman County residents do not mind driving to other counties for jobs and shopping, and that they want to come home to a quiet, less crowded place to live. Several officials expressed concerns about the cost of development in terms of increased demands on local infrastructures such as roads and schools. Some officials noted that the existing WADC sewer line in Hickman County only has about 32 customers, and has not been a source of significant economic growth.

Mayor Bates and others noted that the 2008-2025 land use and transportation plan is in the process of being updated. However, the plan currently identifies the corridor along Highway 100 in northeast Hickman County where WADC proposes to extend sewer service as a proposed growth area. The plan also states, "Where central sewage is available, most of this area can be used for residential and industrial development." The plan concludes that the Dickson soils in this area are not suitable for septic due to a restrictive layer at 20-30 inches. However, a Department soils scientist who works in the SSDS program states that northeast

¹ The 2005 Interlocal Agreement does not appear to authorize WADC to install a new sewer line, wastewater treatment plant, discharge pipeline, or outfall in Hickman County. WADC's private act requires that it obtain permission from local government prior to providing service outside of Dickson County. While this issue is beyond the scope of the Department's determination, it appears unlikely that Hickman County would give WADC the required permission to expand its service area.

² There was agreement, however, that WADC has failed to reach out to Hickman County officials in any meaningful way regarding its sewer plans for the area.

Hickman County has soils that are very suitable for septic, an opinion that is bolstered by the fact that there are numerous homes in the area served by septic. Local zoning currently requires a minimum one-acre lot size for homes, a density that can be supported by septic.³

d. Environmental Justice Data

Department personnel used EPA's EJ Screen tool, using the location of the discharge point to evaluate four different areas: one-mile radius, five-mile radius, 10-mile radius, and an approximation of the EHWRP potential service area at maximum build-out. The demographic data do not support an EJ community classification, and belie WADC's assertions regarding income and unemployment. In sum, these EJ Screen reports show:

	1-mile radius	5-mile radius	10-mile radius	Potential service area	Statewide Average
People of Color	0%	6%	6%	6%	27%
Low Income	19%	28%	33%	30%	34%
Unemployment Rate	3%	2%	2%	2%	5%
Limited English Speaking Households	3%	2%	0%	0%	1%

For people of color, percent of low-income residents, and unemployment, this area is measurably below statewide averages. There are marginally more limited English-speaking households within a one-mile radius of the discharge than the statewide average. Nothing in these data suggest an urgent need for economic development in the area of the discharge.

e. Department's Preliminary Determination of Economic or Social Necessity

The Department preliminarily determines that WADC has not demonstrated that the proposed degradation of Lick Creek is necessary for important social or economic development in the area of the discharge, for the following reasons:

- 1. Expanded sewer service is not necessary to support important local development goals.**

³ The Hickman County Commission is considering increasing the minimum lot size to five acres, but this change has not yet been made.

WADC's proposed sewer line along Highway 100 in Hickman County is not necessary for important economic development in the area. Residential and small-scale commercial development in northeast Hickman can continue to be supported by private septic systems. While the lack of public sewer would limit the density of future growth in this area, that limit is consistent with local zoning (currently no more than one home per acre) and development goals. Therefore, higher density development supported by public sewer is not important to local development goals.

2. Industrial development is speculative.

WADC has requested an initial 4 MGD discharge, but 2 MGD of this initial request is intended to support unidentified, hypothetical industrial development in northeast Hickman County. Greater than *de minimis* degradation is not justified by purely speculative development. WADC has no role in recruiting industry to Hickman County. While Hickman County's ECD agrees with WADC that the lack of sewer service is an impediment to recruiting an industry to northeast Hickman County, it does not have a specific prospective tenant. Moreover, there is an evident difference of opinion among Hickman County officials regarding whether industrial development is wanted in this area.

Although there are situations in which the Department has issued permits for state-sponsored economic development opportunities prior to having a specific tenant (e.g., Blue Oval City), these have been for projects that result in only *de minimis* degradation.

3. WADC does not address how Hickman County would fund other infrastructure.

WADC's proposed sewer service is just one element of the infrastructure that would be required to support high density growth in northeast Hickman County. The Bon Aqua & Lyles Utility District provides public water in this area, and is approaching the limits of its design capacity (approximately 74%). Higher density development would also require transportation improvements, additional school capacity, and other public infrastructure. WADC has not demonstrated that the modest potential increase in Hickman County tax revenue would be sufficient to support these public infrastructure needs. Nor has WADC demonstrated where the water supply to support higher density housing, commercial facilities, or industry would come from.

4. WADC's estimated economic benefits are geographically separated from the discharge location and degradation of water quality.

The Antidegradation Statement provides:

Where the quality of Tennessee waters is better than the level necessary to support propagation of fish, shellfish, and wildlife, or recreation in and on the water, that quality will be maintained and protected unless the Department finds, after intergovernmental coordination and public participation, that lowering water quality is necessary to accommodate important economic or social development ***in the area in which the waters are located*** as established herein.⁴

This provision derives from EPA's antidegradation rule, 40 C.F.R. § 131.12(a)(2), which requires a demonstration that degradation is "necessary to accommodate important economic or social development in the area in which the waters are located."

WADC's Economic Report shows that nearly 93% of the long-term economic benefit of its proposal would inure to Dickson County (\$70.75 million) and Williamson County (\$155.7 million). Comparatively little of WADC's asserted economic benefit would occur in Hickman County (\$17 million). Moreover, the area of Hickman County that WADC will serve (along Highway 100) would be separated by roughly nine miles from the area of the discharge, where the degradation of water quality begins.⁵ The degradation of Lick Creek would extend downstream and further away from WADC's proposed service area.

WADC has not demonstrated that its proposal would result in important social or economic development at or downstream from the discharge location, where the degradation of water quality will occur. Although the Department recognizes, and considers, the overall regional economic benefits WADC asserts in its application materials, in the Department's judgment these benefits are outweighed by the localized, greater than *de minimis* degradation of an ETW stream in a rural area.

f. Conclusion and Next Steps

Although the Department has not made a final determination, it proposes to deny NPDES permit on the grounds that WADC has failed to demonstrate that the proposed degradation is necessary for important economic or social development in the area of the discharge. The

⁴ Tenn. Comp. R. & Regs. 0400-40-03-.06(1)(a) (emphasis added).

⁵ In its 2002 PER, WADC included a map (Figure 2) showing a "potential service area" that extends near the proposed discharge location. However, this map does not accurately reflect WADC's proposed service area, which is limited to the area along Highway 100, Bon Aqua, and north along Highway 46. Nothing in WADC's application materials suggests that it would extend sewer service south from Highway 100 along Highway 7 to the Lick Creek discharge location, nor is there a demonstrated demand for sewer service in that area.

Department also preliminarily determines that WADC has failed to demonstrate a lack of practicable alternatives to the proposed degradation of Lick Creek.

The Department preliminarily determines, however, that at the proposed 2 MGD discharge,⁶ it could establish effluent limitations sufficient to protect water quality and prevent pollution if it were to issue a permit. WADC's proposed advanced biological treatment with UV disinfection would be sufficient to comply with such limits.

The Department is accepting comments regarding all aspects of the decision during the public notice period, including at the public hearing. After the close of the public comment period, the Department will review all comments received and issue a determination of economic or social necessity. Once that determination has been issued, the applicant or any affected person could file a petition for declaratory order regarding that determination in accordance with the Antidegradation Statement. Rule 0400-40-03-.06(4)(d).

⁶ Even if the Department could approve the 2 MGD discharge at this time, it is highly questionable that it could approve the additional 2 MGD discharge WADC proposes to accommodate a hypothetical industrial customer. Future water quality impacts at higher volumes would need to be addressed separately in future permitting decisions.

Appendix 1

Notice of Public Hearing

**TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)
DIVISION OF WATER RESOURCES (DWR)**

William R. Snodgrass - Tennessee
Tower 312 Rosa L. Parks Avenue, 11th
Floor Nashville, Tennessee 37243

NOTICE OF PUBLIC HEARING

NOPH23-001

April 5, 2023

NOTICE IS HEREBY GIVEN; the Division of Water Resources will hold a public hearing pursuant to Rule 0400-40-05-.06 (8) on the proposed denial of the National Pollutant Discharge Elimination System Permit (NPDES) requested by the Water Authority of Dickson County (WADC) for the East Hickman Water Reclamation Facility.

Date:	May 25, 2023
Time:	5:30-6:00 PM Central, Informal Questions and Answers 6:00-7:30 PM Central, Formal Public Hearing
Meeting Location: Hickman County High School 1645 Bulldog Blvd Centerville, TN 37033	
Ways to Participate: 1. In person (see above for the meeting location) 2. Log in online (see login info below) 3. Call in by phone (see call-in info below)	
Virtual Login Info: To access the meeting or join anytime during the Q&A session or the formal public hearing, click on the link or copy the URL to your web browser.	
Microsoft Teams meeting Join on your computer, mobile app or room device Click here to join the meeting Meeting ID: 290 511 872 245 Passcode: DSSmwY Download Teams Join on the web	
Or call in (audio only) +1 629-209-4396,,958334737#	

TDEC will receive public comments concerning the proposed permit action described below:

Permit Name:	East Hickman Water Reclamation Facility
Permit Number:	TN0082376
Assigned Permit Writer:	Maybelle Sparks
Permit Rating:	Major
County:	Hickman
EFO Name:	Columbia
Location:	101 Cowan Road
City:	Dickson, TN 37055

Description of Activity: The Department proposes to deny this permit on the grounds that WADC has not demonstrated that greater than de minimis degradation of Exceptional Tennessee Waters is necessary to accommodate important economic or social development in the area of the discharge and has not demonstrated that less-degrading alternatives are not practicable.

Receiving Stream: Lick Creek at mile 10.6

The meeting moderator may limit the length of oral comments to allow all parties an opportunity to speak and will require that all comments be relevant to the proposed permit action and the DWR issues. TDEC staff considers written comments accepted at the hearing and through June 5, 2023, to be part of the hearing record. Written comments can be emailed to water.permits@tn.gov.

Interested persons may obtain additional information, including a copy of the rationale by contacting water.permits@tn.gov. These documents may also be found on [TDEC's Water Resources Permits data viewer](#).

Individuals with disabilities who wish to participate in these proceedings (or review the file record) should contact TDEC to discuss any auxiliary aids or services needed to facilitate such participation. Contact may be in person, by writing, telephone, or other means, and should be made no later than Monday, May 15, 2023, to allow time to provide such aid or services. Contact the ADA Coordinator (1-866-253-5827) for further information. Hearing impaired callers may use the Tennessee Relay Service (1-800-848-0298). If it is hard for you to read, speak, or understand English, TDEC can provide translation or interpretation services free of charge by contacting Christa Morphew at 615-360-0382 or christa.morphew@tn.gov.

Si le resulta difícil leer, hablar o comprender inglés, TDEC puede proporcionarle servicios de traducción o interpretación sin cargo comunicándose con Christa Morphew al 615-360-0382 o christa.morphew@tn.gov.

For further information, you may reach Mr. Vojin Janjic, at 615-532-0670 or vojin.janjic@tn.gov.

Appendix 2

StreamStats Report

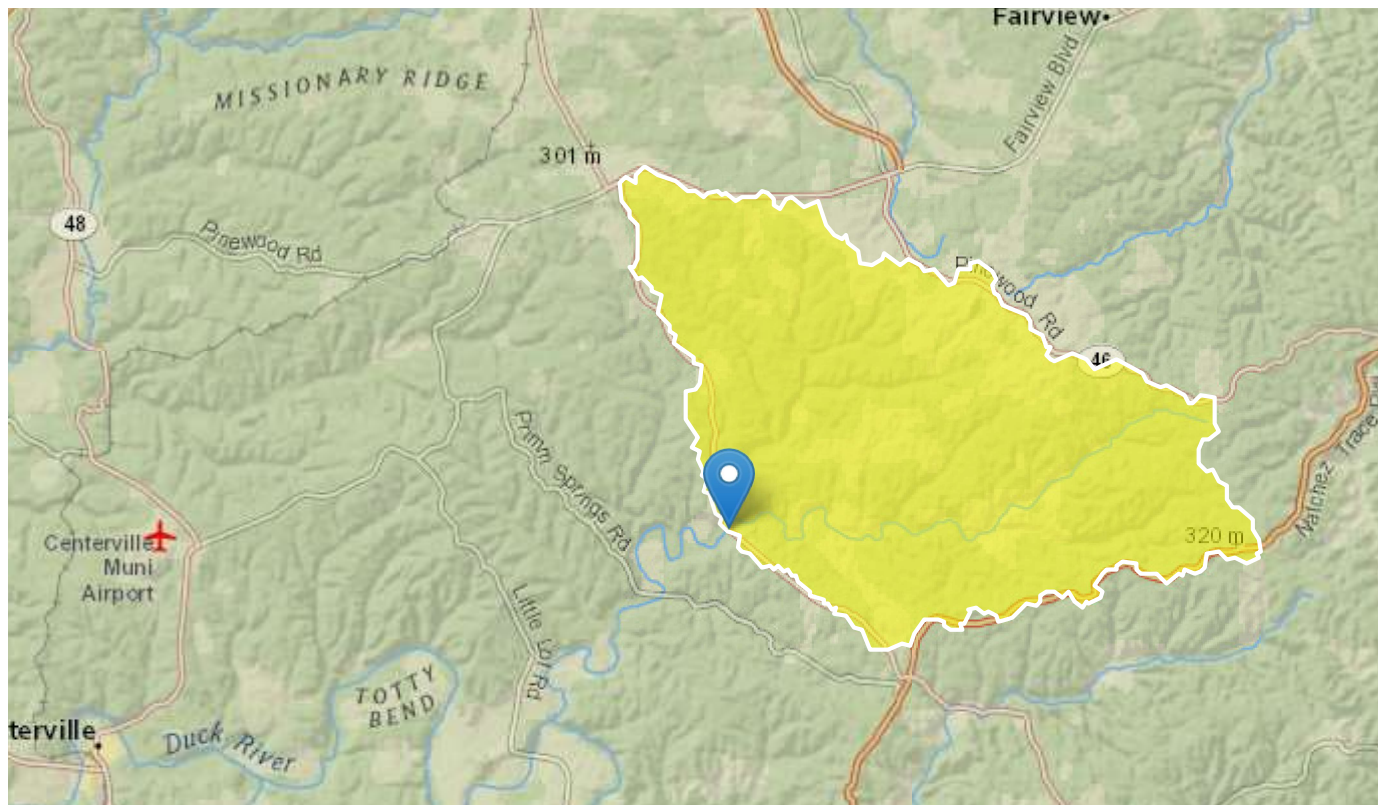
StreamStats Report

Region ID: TN

Workspace ID: TN20220225130455008000

Clicked Point (Latitude, Longitude): 35.83932, -87.25078

Time: 2022-02-25 07:05:15 -0600



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	61.98	square miles
RECESS	Number of days required for streamflow to recede one order of magnitude when hydrograph is plotted on logarithmic scale	134	days per log cycle
CLIMFAC2YR	Two-year climate factor from Lichy and Karlinger (1990)	2.372	dimensionless
SOILPERM	Average Soil Permeability	2.191	inches per hour

Parameter Code	Parameter Description	Value	Unit
PERMGTE2IN	Percent of area underlain by soils with permeability greater than or equal to 2 inches per hour	79.644	percent

Low-Flow Statistics Parameters [Low Flow Central and East Regions 2009 5159]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	61.98	square miles	1.3	14441
RECESS	Recession Index	134	days per log cycle	32	175
CLIMFAC2YR	Tennessee Climate Factor 2 Year	2.372	dimensionless	2.056	2.46
SOILPERM	Average Soil Permeability	2.191	inches per hour	0.45	9.72
PERMGTE2IN	Percent permeability gte 2 in per hr	79.644	percent	2	100

Low-Flow Statistics Flow Report [Low Flow Central and East Regions 2009 5159]

PIl: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	ASEp
7 Day 10 Year Low Flow	13.2	ft ³ /s	89
30 Day 5 Year Low Flow	17	ft ³ /s	70.2

Low-Flow Statistics Citations

Law, G.S., Tasker, G.D., and Ladd, D.E., 2009, Streamflow-characteristic estimation methods for unregulated streams of Tennessee: U.S. Geological Survey Scientific Investigations Report 2009–5159, 212 p., 1 pl. (<http://pubs.usgs.gov/sir/2009/5159/>)

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

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USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.7.0

StreamStats Services Version: 1.2.22

NSS Services Version: 2.1.2

Exhibit 6

NOTICE OF DETERMINATION

NPDES # TN0082376

Water Authority of Dickson County (WADC)

East Hickman Water Reclamation Facility (EHWRF)

December 21, 2023

This notice of determination (NOD) summarizes comments regarding WADC's proposal to build a new water reclamation facility in northeast Hickman County and to discharge treated wastewater to Lick Creek. WADC submitted the application in December 2021, and posted a notice at the proposed discharge location in January 2022. The Department of Environment and Conservation's (TDEC's) intent to deny the NPDES permit was public noticed on April 5, 2023. The public hearing was held on May 25, 2023. Written comments were accepted through June 5, 2023. This notice contains TDEC's response to comments, and TDEC's final determination to deny the proposed activity.

Note to Readers: To simplify this presentation, TDEC has summarized the lengthy comments received. TDEC does not intend to overlook or misrepresent any comment. TDEC has reviewed and considered all comments and supplemental documents received, and has posted these in their unedited forms in the file record for this permit. These documents may be viewed by querying for the permit number, TN0082376, in the "Permits" tab of TDEC's online Water Resources Permits Dataviewer. TDEC combined all comments and all supplemental materials into two documents available at this link:

https://dataviewers.tdec.tn.gov/dataviewers/f?p=2005:34051:16259091393666:::34051:P34_051_PERMIT_NUMBER:TN0082376

Due to the level of interest in this proposed permit action, this document presents comments and responses first followed by TDEC's final determinations.

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Post Hearing Comments and TDEC Responses Q24. – Q48.	9
TDEC Determination	17
Applicant's Appeal Rights	17

General Comments

Q1. Why did WADC select this site? Why should Hickman County be the dumping ground for these other counties?

A1.

Dickson, Fairview, and the surrounding areas continue to grow and the three existing treatment facilities are approaching their design capacities. WADC asserts that growth is currently limited by the availability of sewer service, and proposes to provide sewer service to the currently unserved area in Hickman and Williamson Counties along Hwy 100. WADC provided information about site selection in its supplemental application materials, asserting that no alternative locations were practicable. As stated in the Rationale for the proposed denial, TDEC does not agree that alternatives to the proposed degradation of Lick Creek are not practicable.

Q2. Where is the treatment plant going to be located?

A2.

The exact location of the proposed treatment facility was not identified in the application, but the February 17, 2022, supplement includes a map that indicates the general proposed location in the northeast quadrant of Hickman County. This area is depicted by the box labeled "Water Reclamation Facility Approximate Location" on page R-3 of the Rationale.

Q3. Where is the outfall location?

A3.

WADC proposed to locate the outfall at mile 10.6 of Lick Creek, near the Hwy 7 bridge. The proposed outfall location is depicted by a star on page R-3 of the Rationale.

Q4. Is there potential for land being seized via eminent domain for the plant or the transfer pipe right-of-way?

A4.

This question should be directed to the WADC.

Q5. Why are we just now hearing about this?

A5.

This question was posed shortly after the sign was posted in January 2022. At that time, discussions about this project with WADC and TDEC staff had been ongoing for several years. Public outreach would have been premature at that time as the scope of the project was not complete. State water quality standards required WADC to demonstrate that its proposed alternative could meet water quality standards as part of submitting a complete application. This water quality modeling work took several years.

WADC posted a notice when requested by TDEC. Between that time and the date of TDEC's formal public notice, WADC's proposal had been publicized for over a year.

Q6. What is TDEC going to do to ensure water quality is protected in perpetuity?

A6.

TDEC is denying this proposed action. However, if the permit had been issued, it would have included water quality-based effluent limitations sufficient to prevent condition of pollution.

Q7. Why would TDEC knowingly allow degradation of water quality?

A7.

Tennessee law prohibits pollution but allows degradation when properly justified. Degradation is the alteration of the property of waters by the addition of pollutants, while pollution involves harm such as violation of water quality criteria. Tennessee's Antidegradation Statement establishes what an applicant needs to demonstrate in order to justify greater than *de minimis* degradation of Exceptional Tennessee Waters such as Lick Creek. In this case, TDEC has determined that WADC did not make this required demonstration.

Q8. Is TDEC funding any of this project?

A8.

TDEC is not funding the proposed project. However, WADC may seek TDEC funding for an alternative proposal in the future.

Q9. Why did TDEC not require more for the public notice? This is regarding the poor placement/location of the public notice sign and the fact it did not provide much information for stakeholders to respond.

A9.

TDEC required WADC to comply with public notice rules, and the public was more than amply notified regarding this project. Per Rule 0400-40-5-.06(1) for an application for a new discharge, the applicant shall notify the public of the application by posting a sign near the point of entrance to such facility and within view of a public road. The exact location of the treatment facility has not been identified. Therefore, the sign was posted near the proposed new discharge location on January 10, 2022, and remained posted until February 25, 2022. The sign was visible from a public road, and fulfilled its intended role of ensuring that local residents were aware of the proposed new discharge. Moreover, in accordance with applicable rules, additional public notice of the draft permit decision was provided and TDEC hosted a well-attended public hearing.

Q10. Has TDEC conducted a study of Lick Creek? Conducted any independent sampling? I understand Tennessee Tech conducted a study within the past three years with a contractor working with the WADC. Has TDEC seen this study? If so, can you please share the information generated?

A10.

TDEC routinely samples reservoirs, rivers and streams by collecting biological, chemical, bacteriological, and physical data. Sampling is conducted according to the [Watershed Management Approach](#). Existing data and reports from appropriate agencies and organizations are compiled and used to describe the current conditions and status of rivers and streams. Review of all data and comparison of agency work plans guide the development of an effective monitoring strategy. According to TDEC's latest water quality assessment, Lick Creek is fully supporting of its fish and aquatic life, irrigation and livestock watering, and wildlife designated uses. You can also view current water quality assessment data on our website here: <https://tdeconline.tn.gov/dwr/> and on EPA's website here: <https://www.epa.gov/waterdata/how-my-waterway>. TDEC suggests contacting Tennessee Tech directly regarding any of their data, which has not been submitted to TDEC.

Q11. Has WADC had any spills/violations from the other three plants they operate?

A11.

You can view overflow reports and other documentation, including Notices of Violation, for each facility on TDEC's dataviewer here: [Fairview webpage](#); [White Bluff webpage](#); [Jones Creek](#)

[webpage](#). You can also review enforcement and compliance history on EPA's website here: [Fairview webpage](#); [White Bluff webpage](#); [Jones Creek webpage](#). Alternatively, these records may be viewed by querying respectively for TN0062332, TN0020460 and TN0066958 within the permits tab on the Division of Water Resources Data Viewer at <https://www.tn.gov/environment/about-tdec/tdec-dataviewers.html> and within the facility ID field in EPA's ECHO database at <https://echo.epa.gov>.

Q12. WADC's other three plants are reportedly near capacity. How did they get to this high level of capacity and what are they doing to keep in compliance so that spills do not occur?

A12.

Allocating capacity in a sewer system is the responsibility of the system owner, so WADC is the best source for this information.

Q13. In the alternative analysis, how was the creek valued in terms of its cost/benefit analysis? It seems like they have only assessed future value as a sewage discharge stream, not the current value as a community source for recreation, fishing, and drinking/irrigation water.

A13.

The demonstration of a lack of practicable alternatives to degradation is not a cost/benefit analysis. Rather, it is a showing that there are no other practicable ways to manage wastewater needs that would result in less degradation. A separate requirement is that the applicant must demonstrate that the degradation is necessary for important social or economic development in the area of the waters. In this second analysis, impacts to recreation and other uses may be considered. However, in no event may TDEC issue a permit for an activity that would impair any classified uses, which include fish and aquatic life and recreation.

Q14. Is there a 7Q10 for Lick Creek in Hickman County? What location was used?

A14.

According to StreamStats, a flow calculation tool developed by the United States Geological Survey, and the latitude and longitude at the proposed discharge location, the lowest 7-day average flow that occurs once every 10 years is approximately 13.2 CFS. A copy of the StreamStats report is included as Appendix 2 to the Rationale. This report was prepared based on the proposed outfall location in Lick Creek at Highway 7.

Q15. Does TDEC have data showing whether Lick Creek includes nonnatural products now, such as cattle waste and agricultural runoff?

A15.

TDEC samples rivers and streams statewide every five years to assess whether water quality standards are being met or not (see also A10). You can view current water quality assessment data on our website here: <https://tdeconline.tn.gov/dwr/> and on EPA's website here: <https://www.epa.gov/waterdata/how-my-waterway>. Lick Creek currently meets all applicable water quality criteria for its designated uses.

Q16. Are there any endangered or threatened species in Lick Creek?

A16.

Lick Creek, from the Duck River to the headwaters, is listed as an Exceptional Tennessee Waters. Previously, this listing was based on the presence of one listed species – the state threatened coppercheek darter (*Etheostoma aquali*). The Tennessee Wildlife Resources Agency conducted additional surveys in 2022, and also found the federally endangered pale lilliput and state threatened saddled madtom in Lick Creek upstream of Highway 7.

Q17. What does the presence of trout in Lick Creek indicate, and will TDEC's regulations protect them?

A17.

According to TDEC's most recent water quality assessment, Lick Creek is fully supporting of fish and aquatic life, irrigation and livestock watering, and wildlife designated uses. Lick Creek is not classified as a naturally reproducing trout stream, so water quality criteria specific to

trout are not applicable. Refer to Q23 and A23 for additional detail regarding use classifications.

Q18. WADC has asked for a 12 MGD permit – is that for treatment capacity at the proposed plant or actual release into the stream? Does any WWTF’s daily release permit ever exceed the 7Q10 of the receiving stream?

A18.

WADC proposes an advanced biological treatment facility with an initial design capacity of 2 MGD, which would then expand in 2-4 MGD increments up to the ultimate design capacity of 12 MGD. The 12 MGD is both the ultimate proposed treatment capacity and discharge to Lick Creek. Yes, there are a number of wastewater treatment plants where design flow exceeds receiving stream critical low flow. The Division does authorize discharges of treated effluent from facilities whose design flow rates exceed the 7Q10 of the receiving stream. All three of WADC’s sewage treatment works have design flow rates greater than the 7Q10 of the receiving streams. This scenario requires the permittee to meet more stringent effluent limits to maintain water quality suitable for designated uses.

Q19. Residents are concerned about how sewage placed in Lick Creek could end up on private property since the area is prone to flooding. Does TDEC plan on conducting an environmental study on how the facility could affect the waterway and its residents?

A19.

Environmental studies, such as Environmental Impact Statements, apply to federal actions pursuant to federal regulations. Tennessee permits are not federal activities subject to studies evaluating environmental, cultural and historical impacts. Additionally, the National Flood Insurance Program (NFIP), managed by the Federal Emergency Management Agency (FEMA), enables homeowners, business owners and renters in participating communities to purchase federally backed flood insurance. It is up to the local communities participating in NFIP to agree to adopt and enforce floodplain management ordinances to reduce future flood damage. Tennessee’s NPDES permitting rules requires that any discharge permit impose limits to ensure the treatment process is meeting minimum technology-based treatment standards as well as any more stringent limits necessary to protect water quality.

Q20. What regulations govern wastewater treatment facilities in one county and their ability to use resources in another, since in this case it's a populated county seeking to use a rural county for their wastewater services?

A20.

TDEC does not regulate utility service areas. However, the Antidegradation Statement requires that more than *de minimis* degradation of water quality be justified by important economic or social development in the area of the discharge.

Q21. How much water is pulled from Lick Creek, from how many locations, for what uses, and how frequently?

A21.

Per the TDEC's active permit files, there are no withdrawals permitted (ARAP permits) on Lick Creek. Withdrawals for agricultural uses and most withdrawals installed prior to July 25, 2000, are exempted from water quality permitting.

Q22. What are the potential impacts to the hydrology and geomorphology?

A22.

Because this permit is being denied, there will be no impacts to hydrology or geomorphology.

Q23. Which agency makes decisions on stream use classification, such as trout?

A23.

The Board of Water Quality, Oil, and Gas adopts stream classifications by rule. See Rule Chapter 0400-40-04.

Post Hearing Comments

Q24. How will the new water reclamation plant contribute to the preservation and protection of Lick Creek's exceptional biodiversity?

A24.

If a permit had been issued, it would have included water quality-based effluent limitations sufficient to protect fish and aquatic life (and other applicable designated uses) in Lick Creek.

Q25. Did WADC consider various alternatives, including inaction and discharging to the Cumberland River, to ensure the most sustainable approach?

A25.

WADC did consider alternatives to its proposed Lick Creek discharge. In the alternatives analysis submitted in the December 2021 Preliminary Engineering Report (PER), WADC evaluated the following alternatives:

- No action,
- Increase or optimize capacity of existing treatment facilities,
- Land application,
- Water reuse,
- Decentralized systems, and
- New EHWRF.

WADC's 2021 PER concludes that the new EHWRF would be the best alternative to enable growth and industrial development in the service area. WADC's 2021 PER rejects the no action alternative, citing growth projections for the area.

At TDEC's request, WADC submitted a revised PER in December 2022, which evaluated alternative discharge locations. WADC conducted preliminary screening to identify all relatively close streams in Dickson, Williamson, and Hickman Counties with a ten-year, seven-day low flow (7Q10) of at least 12 cubic feet per second. Based on flow, WADC eliminated all streams in Williamson County, and included three in Dickson County (Harpeth River, Turnbull Creek, Cumberland River) and nine in Hickman County for further consideration. WADC then eliminated discharge locations upstream of public water intakes (Turnbull Creek, Big Swan Creek). WADC asserted that due to increased cost of construction, the remaining alternative discharge locations, including to the Cumberland River, were not practicable. WADC's

alternatives analysis and TDEC's evaluation is discussed more fully on pages R-6 to R-8 of the Rationale.

Q26. In what ways has the planning process for the EHWRP considered the social and economic benefits for Hickman County?

A26.

Tennessee's Antidegradation Statement required that no degradation of water quality above the level of *de minimis* will be allowed unless the applicant demonstrates that there are no practicable alternatives to prevent or lessen degradation associated with the proposed activity, the degradation is necessary to accommodate important economic or social development in the area of the discharge, and the discharge will not violate the water quality criteria for uses existing in the receiving waters. See Rule 0400-40-03-.06. WADC's economic analysis, and TDEC's evaluation, are discussed in detail on pages R-8 to R-13 of the Rationale.

Q27. Hickman County will bear all of the burdens and none of the benefits.

A27.

WADC's proposal would have included a new service area in Hickman County along Highway 100, so some of the benefits would have inured to Hickman County. In its economics report, WADC asserted that Hickman County would see 88 jobs, \$3,167,523 in wages, \$12,937,130 in business revenue and \$929,500 in state and local taxes by 2045 as a result of its proposal. WADC's economic analysis, and TDEC's evaluation, are discussed in detail on pages R-8 to R-13 of the Rationale.

Q28. If TDEC approved this permit, it would set dangerous precedent for future water treatment plants.

A28.

TDEC's approval or denial of permit applications is based on the facts of each situation. Review under the Antidegradation Statement is very fact-specific, and each application is reviewed individually based on its own merits.

Q29. How does WADC plan to engage with the Hickman County community to build understanding and support, in light of the survey conducted by B. Hart Knight that showed 79% disapproval rating from Hickman County residents?

A29.

Questions about WADC's future community engagement plans should be directed to WADC.

Q30. Hickman County should be paid and have a say in how things grow.

A30.

There is no legal requirement for a discharger to pay a community to discharge pollutants there. However, TDEC agrees that Hickman County should have a say in local economic development, and accordingly interviewed a number of local officials as part of its review of the economic or social necessity for WADC's proposal.

Q31. How is WADC promoting cooperative decision-making to ensure all counties involved have a say in the process? How does the EHWRF project contribute to equitable growth and development across all involved counties?

A31.

This comment is beyond the scope of TDEC's permit review, and would better be directed to WADC. The Division's oversight responsibility over construction and operation of public water and sewerage systems is consistent with separate state law that makes design of public infrastructure the jurisdiction of persons licensed to practice engineering in the State of Tennessee. The Division coordinates water quality permitting with demonstration that a public sewer system has been designed by licensed engineers in accordance with accepted engineering practices detailed in state design criteria for sewage works. Licensed engineers have the fiduciary responsibility to provide work product that protects public welfare and safety. Entities such as WADC otherwise direct the scope of work provided by their engineers.

Q32. How will the new plant ensure the protection of local well water sources from potential pollution?

A32.

The proposed surface water discharge would not be expected to pose a threat to groundwater resources.

Q33. Can you discuss how WADC plans to uphold and even enhance Hickman County's agriculture and ecotourism industry?

A33.

WADC is not responsible for upholding or enhancing agriculture or ecotourism in association with a water-quality permit action seeking to discharge treated wastewater to public waters. Rather, it is required to demonstrate that the proposed degradation of Lick Creek is necessary for important social or economic development in the area of the discharge. WADC did not specifically address agriculture or ecotourism in its economic analysis.

Q34. How does the installation of the EHWRF align with the existing growth trends in Hickman County's economy?

A34.

Similarly to Question and Answer 31, this consideration is between WADC and its design consultants. WADC's economic report asserts that construction of the facility itself would be expected to generate a direct impact of 938 new jobs with wages of \$41,911,614, business revenue of \$84,946,149, and state and local taxes of \$2,379,898. WADC further asserts that by 2045, the project would add 88 jobs, \$3,167,523 in wages, \$12,937,130 in business revenue, and \$929,500 in state and local taxes in Hickman County.

Q35. What makes Lick Creek the preferred choice over other options like the Cumberland River or the Tennessee River?

A35.

WADC explained its selection of Lick Creek as its preferred alternative in the 2022 PER. In sum, the Lick Creek discharge was the least expensive option that WADC concluded was feasible. TDEC does not agree with WADC's conclusion that the Lick Creek option is the least degrading practicable alternative. This issue is addressed in more detail on pages R-6 to R-8 of the Rationale.

Q36. How is WADC balancing the need for development with the preservation of Hickman County's rural character?

A36.

WADC was required to demonstrate that the proposed degradation of Lick Creek was necessary for important social or economic development in the area of the discharge. TDEC has concluded that WADC did not satisfy this requirement.

Q37. WADC's argument that Hickman needs the sewage plant to support economic growth is flawed because Hickman County has already experienced adequate economic growth without the plant, the cost for installing the plant will be placed on the residents of Hickman County and many will not have access to the sewer lines.

A37.

TDEC concludes that WADC has not demonstrated that its proposed degradation is necessary for important economic or social development in the area of the proposed discharge.

Q38. The problems Williamson and Dickson County are experiencing with overfilled sewage lines should not be the responsibility of Hickman County and WADC should look to expand and improve current operations.

A38.

TDEC concludes that WADC has not demonstrated that its proposed degradation is necessary for important economic or social development in the area of the proposed discharge.

Q39. How will the water reclamation plant ensure the protection of Lick Creek for various local uses, and how does it plan to manage potentially harmful substances, specifically industrial waste and pharmaceuticals?

A39.

If a permit had been issued, it would have included water quality-based effluent limitations sufficient to protect water quality for all classified uses.

Q40. Can you speak to how WADC is aiming for regional growth without causing undue burden on any single county?

A40.

WADC's economic analysis and TDEC's evaluation is set out on pages R-8 to R-13 of the Rationale. Additionally, it should be noted that WADC is a regional water and wastewater utility, and already discharges wastewater – including from Hickman County – in other counties.

Q41. Lick Creek is prone to flooding and adding more water will only heighten the problem.

A41.

NPDES permits regulate the discharge of pollutants, not flooding.

Q42. The proposed project has created a political controversy. Without the water reclamation facility, economic development will become stunted. TDEC's decision is based on political motivations, not the objective facts of what is the best balance economically and environmentally.

A42.

TDEC agrees that the proposed discharge to Lick Creek has been controversial; however, the existence of controversy does not preclude the TDEC from working through the regulatory review and public participation processes and making an objective, fact-based determination as to whether the applications meet the requirements of the Antidegradation Statement. TDEC's conclusion to deny the permit is based on its objective review of the facts and the law, not politics.

Q43. The existing water reclamation facilities are reaching or at capacity right now. There is no practicable alternative because there is no economically feasible alternative based on an economic study done by MTSU.

A43.

TDEC reviewed and considered WADC's submissions, including the referenced economic study, and does not agree that alternatives to the proposed degradation of Lick Creek are

not practicable. Just because less degrading alternatives are more expensive does not mean they are not technologically possible, able to be put into practice, and economically viable. WADC had the burden of proving that these alternatives are not practicable, and has not done so.

Q44. The EHWRf is required to support economic growth, development, and affordable housing. Without the treatment facility, developers from outside the county will turn elsewhere. The three counties should be viewed together as a region instead of three distinct parts. The approval of the EHWRf will benefit the entire region of Hickman, Williamson, and Dickson Counties both economically and environmentally.

A44.

TDEC appreciates this comment, and while it supports regional approaches to water and wastewater management, the Antidegradation Statement requires a demonstration that the degradation is necessary for important economic or social development in the area of the discharge. Here, the impact would have been in a small ETW receiving stream located in a rural area that would not have been served by the new sewer line or the treatment plant. Although the discharge would not have caused pollution, it would have caused more than de minimis, in other words measurable, degradation of an ETW. WADC's own economic analysis showed disproportionate economic benefit in Dickson and Williamson Counties as compared to Hickman County, which would have hosted both the new treatment plant and a new discharge to an ETW stream. Given the facts of this situation, taken as a whole, the proposed level of degradation of a small, high-quality, rural stream is not justified by regional economic development goals. Moreover, in this case, regional economic development can be achieved through a less degrading and more sustainable long-term alternative.

Q45. There is an interlocal agreement between WADC and Hickman County where WADC provides sewer lines to the schools and surrounding area in East Hickman County. This indicates a symbiotic relationship between the three counties where one county benefits, the other counties feel the residual effect.

A45.

The commenter is correct that there is an interlocal agreement that enables WADC to provide sewer service to a limited area of Hickman County. The agreement indicates that unlike the current WADC proposal, that agreement for a Dickson County-based utility resulted from a need identified by Hickman County, which also paid for sewer line construction.

Q46. The regulations imposed by TDEC on WADC, and WADC's current operations, are enough to maintain the environmental quality in Lick Creek.

A46.

If TDEC had issued a permit, it would have imposed limits sufficient to protect water quality in Lick Creek. Given WADC's proposal to build an advanced treatment facility, TDEC has no reason to believe WADC could not have complied with these limits. This satisfies one prong of the Antidegradation Statement, which is that the proposed degradation must maintain water quality sufficient to protect existing uses.

However, TDEC's determination in this matter is based on two additional prongs of the Antidegradation Statement, which are that WADC must demonstrate that less degrading alternatives are not practicable and that the degradation is necessary for important economic or social development in the area of the discharge.

Q47. In addition to seeing the coppercheek darter (*Etheostoma aquali*), Lick Creek is also home to the federally endangered freshwater mussel, the Pale Lilliput. With the only known populations in Northern Alabama and Lick Creek, it is even more important to finalize the denial of WADC's permit.

A47.

TDEC acknowledges that TWRA found the Pale Lilliput upstream of the proposed discharge location in 2022. However, this is not the basis for TDEC's permit denial, which is instead based on the Antidegradation Statement.

Q48. WADC has not met the requirements for receiving a permit. WADC has not shown that there is the requisite need to have the site at Lick Creek because there would be a greater than *de minimis* amount of degradation. By granting the permit, TDEC would be setting dangerous precedent because the agency would be allowing WADC to dump most of its sewage from Dickson and Williamson Counties to Hickman County.

A48.

TDEC agrees that WADC has not demonstrated that less degrading alternatives are not practicable or that the degradation is necessary for important economic or social development in the area of the discharge. Again, however, antidegradation review is very

fact-specific, involving a variety of factors. There are other situations in which TDEC has approved, and likely will approve in the future, the discharge of pollutants via a pipeline to a different county.

FINAL DETERMINATION

TDEC concludes, in consideration that Lick Creek at the proposed discharge location constitutes Exceptional Tennessee Waters and also waters with available parameters, that WADC's proposed discharge would result in greater than *de minimis* degradation of these waters. For the reasons summarized in the Rationale and in this response to comments, TDEC determines that WADC has not demonstrated that greater than *de minimis* degradation of Exceptional Tennessee Waters is necessary to accommodate important economic or social development in the area of the discharge. Further, TDEC determines that WADC has not demonstrated that less degrading alternatives to the proposed discharge are not practicable. Accordingly, TDEC hereby denies the permit.

APPLICANT'S APPEAL RIGHTS

The applicant, WADC, may appeal this determination as follows:

Within 30 days after receiving notice of the final decision to deny the permit, the applicant may seek review of the decision that the degradation is not necessary to accommodate important economic or social development in the area in a contested case before the Board in accordance with T.C.A. § 69-3-105(i). Within five business days after the Department receives an applicant's written request for a contested case hearing before the Board, the Department shall transmit the written request to the Administrative Procedures Division of the Secretary of State so the contested case may be docketed and an administrative law judge may be assigned to the case. In the contested case, the applicant shall have the burden of proof, and the Department's determination shall carry no presumption of correctness before the Board. The federal and state intergovernmental coordination agencies, and third persons who requested notification of the Department's degradation determination will be notified by the Department of the applicant's permit appeal. The intergovernmental coordination agencies and third persons may seek to intervene in the contested case in accordance with T.C.A. § 4-5-310.

Tenn. Comp. R. & Regs. 0400-40-03-.06(4)(d)3.