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**VIA EMAIL WATER.PERMITS@TN.GOV**

The Honorable David Salyers  
Commissioner  
Tennessee Department of Environment and  
Conservation  
312 Rosa Parks Blvd, 2nd Floor  
Nashville, TN 37243

**Re: Water Authority of Dickson County Comments on Proposed Denial of NPDES  
Permit for Discharge to Lick Creek, Hickman County**

Dear Commissioner Salyers:

I am providing these comments on behalf of my client, Water Authority of Dickson County (“WADC”). The Tennessee Department of Environment and Conservation (“TDEC”) issued its Proposed Denial of WADC’s NPDES Permit Application for a new wastewater discharge into Lick Creek (the “Project”) on April 5, 2023.<sup>1</sup> WADC has complied with all requirements of the antidegradation rule for exceptional Tennessee waters, including providing a well-documented analysis of various options to discharge into Lick Creek, and requests that the Department reconsider its decision and continue processing the Permit Application.

The rules of the Board of Water Quality Oil and Gas require for discharges greater than *de minimis* that the degradation be *necessary to accommodate important economic or social development in the area*.

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

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<sup>1</sup> WADC has submitted additional comments as Attachment 3 to this letter and would appreciate TDEC’s response to those comments as well.

proposed activity, the degradation is *necessary to accommodate important economic or social development in the area.*

Tenn. Admin. Comp. 0400-40-03-.06(c)(1)

Providing sewer availability *accommodates* important economic or social development in the area by providing a catalyst for industry and residential development in the area and in particular East Hickman County. A well-funded opposition group has opposed the Project primarily by convincing citizens and TDEC that the Project will destroy the Hickman County way of life with uncontrolled growth and will pollute the stream. However, the Project serves only as a catalyst for development. Hickman County (and Dickson County) government controls growth through its land use ordinances. As such, it has the opportunity to impose land use restrictions for lot size, location of industry and other land use requirements—not WADC. WADC is simply providing the needed wastewater collection and treatment service. TDEC will not issue a permit that violates water quality and the Proposed Denial is not based on that evaluation.

The discharge to Lick Creek is to “waters of the state,” and not “waters of Hickman County.” WADC is a regional provider of wastewater treatment. The Project will benefit the entire service area not just those geographically located near the discharge.

WADC requests that TDEC reconsider its Proposed Denial and grant the Permit at this stage. We are also submitting a numerical list of comments. We hope that you will respond to this detailed comment letter as well as the individual comments.

## **I. INTRODUCTION.**

WADC strongly opposes the Proposed Denial of its application for a NPDES Permit for the Project. The Proposed Denial deprives a large growing area of Middle Tennessee the resources to take advantage of growth opportunities enjoyed by Davidson County and surrounding counties to the east, north and south of Nashville, which have access to sewer.

WADC submitted an application for a NPDES Permit to allow it to discharge treated wastewater into Lick Creek at Mile 10.6. The Department first deemed WADC’s application complete October 11, 2021. After the draft Permit was put on public notice by TDEC, TDEC staff discovered that Lick Creek was on the TDEC list of Exceptional Tennessee Waters (“ETW”) because of the presence of the Coppercheek Darter, a state threatened species.<sup>2</sup> As a result TDEC

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<sup>2</sup> TWRA conducted a fish study for Lick Creek in 2002 and did not find the presence of the Coppercheek Darter.

planned to evaluate the application's compliance with the Tenn. Admin. Comp. 0400-40-.03-.06 (4)(c)(1) and (d).

TDEC did not reject the application at that time, nor did TDEC ever request that WADC withdraw and resubmit the application; rather, TDEC suggested that WADC supplement the application to further address the antidegradation statement for ETWs.<sup>3</sup> WADC submitted the supplemental information on December 9, 2022, and the Department again deemed the application complete on January 22, 2023. On April 5, 2023, the Department provided its Proposed Denial of the application in a Rationale Statement.

Before preparing the supplemental information, WADC requested TDEC to provide it with forms or regulations that WADC could use to prepare the economic analysis. However, TDEC had none, and permit writers told WADC's engineers that TDEC staff had no business or economic expertise with which to evaluate the requested information.

WADC submitted a detailed alternatives analysis as part of its application and supplemented its December 2022 submission with additional information. The supplemental information also attached an economic report prepared by expert economists at the Middle Tennessee State University's Business and Economic Research Center, headed by Dr. Steven Livingston, Ph.D., entitled, "Proposed East Hickman County Water Reclamation Facility: Direct and Indirect Fiscal Impact" (the "Economic Report"). The Economic Report made it clear that sewer availability in the designated area was essential to *accommodate* business growth in the three county area served by the Project, including Hickman County.

The Economic Report contained detailed charts and graphs on economic and social data, which demonstrate that Hickman and Dickson Counties are economically or socially challenged with respect to poverty rate, median income, business generation and per capita gross national product. The Project will stimulate economic or social development in the three county area by accommodating new or expanded development, particularly in Hickman and Dickson Counties. Yet, curiously, TDEC chose not to rely on the findings of the Economic Report.

Moreover, the TDEC basis for the Proposed Denial is inconsistent as stated in the Rationale. For example, on page R-2 the basis for the denial is stated as WADC had 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. However, on page

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<sup>3</sup> TDEC made this suggestion in a meeting on March 23, 2022, despite the requirement in Tenn. Code Ann. § 69-3-141(b)(4) to notify permit applicants what further information is needed within thirty (30) days of submittal, which was more than a year. TDEC never requested additional information in writing.



R-13 the Rationale identifies four specific reasons for denial, none of which addresses specifically the requirements of the antidegradation statement.<sup>4</sup>

## **II. THE WADC IS A REGIONAL WASTEWATER SYSTEM THAT WILL ACCOMMODATE IMPORTANT SOCIAL OR ECONOMIC DEVELOPMENT TO THE AREA SERVED.**

### **A. Background**

The Water Authority of Dickson County is a regional water and wastewater service provider created in 2002 by the consolidation of the City of Dickson Water and Wastewater System, Turnbull-White Bluff Utility District, and Harpeth Utility District. Combining these entities resulted in centralized water service to approximately 75% of the land mass and population of Dickson County as well as portions of surrounding counties. WADC has been used a model throughout Tennessee for other utility districts interested in combining to provide regional services.

As an example, the Jones Creek Water Reclamation Facility (“JCWRF”) is a showcase facility, producing effluent that reliably meets discharge permit standards. This facility also treats East Hickman County wastewater as well as Fairview. A recently implemented sewer rehabilitation project has resulted in corrections of infiltration and inflow, reducing the wastewater flow to the Facility and extending its life.

As another example, in 2006, WADC consolidated with the City of Fairview Water and Wastewater Department. The WADC invested in capital and operational modifications of the Fairview Wastewater Treatment Plant that resulted in improved compliance, termination of the 2004 sewer moratorium on the Plant, and removal of Flat Rock Branch from the 303(d) list of impaired streams. This has allowed significant development to continue in that part of Williamson County.

In 2006 the WADC entered into an interlocal agreement with Hickman County to provide sewer services to East Hickman County High School and some 30 other additional taps in East Hickman County. Wastewater from those projects is treated at the JCWRF in Dickson County. If

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<sup>4</sup> The reasons for denial on page R-13 are “Expanded sewer service is not necessary to support important local development goals, Industrial development is speculative, WADC does not address how Hickman County would fund other infrastructure, and WADC’s estimated economic benefits are geographically separated from the discharge location and degradation of water quality.



each county were to accept wastewater only from the county of origin, Hickman would have no sewer service in those current areas and Fairview would still be on a moratorium.

WADC also distributes drinking water to the area. The Cumberland River Water Treatment Plant, a modern drinking water system, was completed in late 2003 as the first ultrafiltration membrane treatment facility in Tennessee, producing a highly pure drinking water. The Plant, nestled in the northeast corner of Dickson County, was designed using state-of-the-art technology and a vision to meet water supply needs for at least fifty years. As built, the Plant has a capacity of 5 million gallons per day (mgd) with options for upgrades to 15 mgd and water availability for additional expansions. Combined with the Dickson Water Plant capacity of 2.1 mgd and the Turnbull Water Plant capacity of 4.5 mgd, WADC is prepared to supply customers' long term water needs. Bon Aqua and Lyles have an agreement with the Water Authority to supply those towns with excess water as needed.

The City of Dickson and the Dickson County Commission each passed resolutions supporting the project even though wastewater from Williamson County and Hickman County will continue to be treated at the Jones Creek Water Treatment Facility located in Dickson County. Hickman County has not enacted a resolution supporting or opposing the facility as of the date of this comment letter.

## **B. Hickman County Controls Growth in Hickman County and Not WADC**

Beginning with an Interlocal Agreement with Hickman County, on May 19, 2005, WADC agreed to provide wastewater planning, construction and operation of wastewater services for sites in Hickman County. This initially allowed East Hickman High School, some industry and a few residential customers in the general vicinity of the School to tap on to the JCWRF, located in Dickson County. WADC and Hickman County officials continued to discuss sewer expansion since the JCWRF's capacity was limited due to stream size.<sup>5</sup> The former Hickman County Mayor and many, if not most, of the former Hickman County Commissioners with whom WADC had contact, are no longer in office.

In 2006 the Hickman County Commission identified the area on **Attachment 1** as the growth area for Hickman County.<sup>6</sup> When the WADC projected that the JCWRF was nearing

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<sup>5</sup> TDEC commented that the Interlocal Agreement together with WADC's private Act require WADC to obtain local approval to provide service outside of Dickson County. Since the Department acknowledges the issue is beyond the scope of the Department's determination, it is not clear why the footnote was included in the Rationale.

<sup>6</sup> As further discussed below, TDEC's Rationale is based on what appears to be an *existing* service area. As explained in the supplemental information, the map included in the original report is the area WADC reasonably expected to provide sewer service in the near future. WADC does not determine the extent of its service area and generally does not extend sewer lines to serve a larger area. WADC provides service to anyone who has local planning and zoning approval and pays for the sewer lines necessary to convey the wastewater to the treatment plant. As such,

capacity, it began developing a plan that would provide necessary sewer service from the Hickman County designated *growth area and beyond*.

In developing its Rationale, representatives of TDEC met privately with five Hickman County commissioners and the new County Mayor because, according to the Rationale, “the authority is located in Dickson County.”<sup>7</sup> From these private meetings TDEC concluded that the Project was not necessary to accommodate important economic development in the area since higher density development supported by public sewer is not important to local development goals. This very myopic view of the economic importance of a modern sewer system is a disservice to the people of Hickman County. The Project only *accommodates* important social or economic development. It does not in and of itself create it. In addition, the findings do not capture the any formal rulings of the County Commission and does not even purport to speak for all of the Commission, which is the governing body of Hickman County.

From these private meetings TDEC concluded the following:

1. Hickman County residents appreciate the rural character of Hickman County and that people live there to get away from city life.
2. Hickman County residents prefer growth similar to what the County has now, “large-lot homes and small-scale commercial enterprises employing 25-50 people.
3. Hickman County residents have minimal interest in larger industry
4. Hickman County residents do not mind driving to other counties for jobs and shopping.
5. An unnamed soil scientist concluded that soils were suitable for septic tanks in Hickman County with numerous homes in the area and local zoning requires a minimum one-acre to support septic tanks.

TDEC also stated that the Hickman County Mayor was concerned that the County does not want the additional tax money from wastewater improvements because it does not want to pay for any associated infrastructure not included in such tax. Of course, that ignores the fact that the project only accommodates important economic development much of which can be controlled by the County. Moreover, Hickman County has enacted a development tax to pay for infrastructure.

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the service area in the longer term 75-year planning period – the period upon which the 12 mgd future capacity was based - could potentially cover a much larger area, as shown in the Supplemental Report.

<sup>7</sup> Hickman County now has 14 County Commissioners. It appears that TDEC believes that physical location of the main office of WADC in Dickson County precludes a regional concept.

Any increased infrastructure needs will mean that the anticipated growth is occurring, and government entities will have the ability to enact impact fees and collect other such fee-generated revenue that will be budgeted as additional needs arise. Without sewer, however, there is no need to worry about the support for higher density housing, additional commercial facilities, or industry, because such growth cannot happen. We would also note that TDOT has planned widening of *SR46* and other infrastructure improvements planned for the area. Why are they making these improvements if they don't want growth?

**C. Alternatives Analysis Demonstrate the Best Alternative is a New Sewer With Discharge to Lick Creek.**

In 2006, the engineering firm of Brown and Caldwell, studied the feasibility of building a pipeline to the Cumberland River from Jones Creek or a new facility. This discharge point was cost-prohibitive. The WADC's only revenue source is through water and wastewater customers, and, even with available grants, the increase in rates from debt service on the bonds would not be economically viable.

WADC's engineering firm, Water Management Services, advised WADC that the JCWRF was nearing capacity and, even with removal of all extraneous infiltration and inflow, it would not be able to treat the wastewater demand in the future. The only way to accommodate existing and expected wastewater treatment demand would be to build a new water reclamation facility, which would require a new discharge point.

After consideration of a number of alternatives to a new facility and multiple discharge locations, Water Management Services recommended locating the discharge into Lick Creek at the Highway 7 Bridge. The following table from the supplemental information submitted shows a summary of alternatives and present value costs:



Alternate	Description	Construction Cost	Annual Operating Cost	Net Present Value	Ranking
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

While the table above only reflects costs, that is all that is required by Tenn. Admin. Comp. 0400-40-03-.06(3). If the alternative is not economically viable, it cannot be a practicable alternative. The summary table above shows the next least costly alternative at an additional nearly \$20 Million to the Duck or Piney River. Those areas also have their community interest groups, but the cost exceeds the amount that WADC believes the ratepayers will pay on the debt service.

Table 1 is an illustration of the cost of the Project as it relates to the effect on rate increases as between the Lick Creek Project and an outfall to the Cumberland River.

	<b>Original Project</b>	<b>Project with Lick Creek Outfall</b>	<b>Project with Cumberland River Outfall</b>
<b>Budget</b>	<b>\$35 M</b>	<b>\$63.7 M</b>	<b>\$124.9 M</b>
<b>Revenue Req'd for monthly debt service</b>	<b>\$157 k/mo</b>	<b>286 k/mo</b>	<b>561 k/mo</b>
<b>Required Rate Increase</b>	<b>\$2.62/ k-gal</b>	<b>\$3.97 / k-gal</b>	<b>\$7.33 / k-gal</b>
<b>New Rate</b>	<b>\$12.37</b>	<b>\$14.52</b>	<b>\$19.10</b>
<b>% Increase in Avg. Customer's Bill.</b>	<b>27%</b>	<b>49%</b>	<b>96%</b>

**Table 1. Effect on Average Sewer Rates with Cumberland River Outfall**

WADC is not a private business. It is a non-profit regional utility provider and has no source of income other than what its customers pay for water and sewer service. Every construction project is paid for by its customers. Any additional money spent on transporting treated effluent to the Cumberland River will come from the pockets of WADC customers. The ratepayers cannot afford the average of \$30 to \$40 more per month to discharge to the Cumberland, nor should they. Raising rates some 12% will be difficult enough, but a 70% increase would not be accepted by its ratepayers. Conveying treated wastewater to the Cumberland River is not economically viable, and, therefore, is not a practicable alternative. WADC has considerable expertise in locating federal and state funding sources. It is aware that some \$1.33 Billion of the federal American Recovery Act money has been allocated to TDEC, and TDEC is providing grants to communities for as much as \$20 Million. However, the difference between the amount that WADC's customers can afford and the cost of the required pipe to the Cumberland (at least \$60 Million) is not available from any program or law for which we are aware. If TDEC knows of such resources please advise.

After a full evaluation of all alternatives, including the no action alternative, land application, reuse and other combinations, the WADC applied for an NPDES Permit for a 2 mgd wastewater discharge at Lick Creek.<sup>8</sup>

#### **D. Revenue from the Project is Not Speculative From an Economic Standpoint**

TDEC recognized that building of the plant and associated infrastructure alone would yield some 88 jobs, \$3,167,523 in wages, \$12,937,130 in business revenue and \$929,500 in state and local taxes (\$17 million) for Hickman County. Like a lot of investment in infrastructure improvements, additional industry and residential development is expected. TDEC gave short shrift to the Economic Report's evaluation of potential new industry even though the WADC's Economic Report and its expert economists predicted revenue based on what was actually developed in other counties surrounding Nashville that had sewer. Such an assumption is based on sound economic judgment.

Additional revenue from the Project itself is not so speculative that it should be ignored. Consider the following comments submitted to TDEC concerning the Project during the comment period:<sup>9</sup>

- William Hostetler, H & D management. Will be limited to only 100 of 1,100 residential units without a new reclamation facility.
- Terry Malone, Dickson County Business alliance:
  - Economic Expansion: A well-functioning wastewater facility will provide a foundation for economic expansion by ensuring businesses have access to reliable and compliant wastewater treatment services. This will promote entrepreneurship, attract investment, and foster job creation in our community.
  - Business Attraction: Modern industries require adequate wastewater management infrastructure to meet environmental regulations and maintain sustainable practices. By establishing a new wastewater facility, we will enhance our appeal to businesses seeking locations with robust infrastructure, thereby attracting new enterprises, and generating additional revenue.
- Paula Y. Eleazar, owner of Lodging in Dickson County:
  - It seems to me that your management has focused on asking Hickman County authorities their opinion, but have not offered the same discussion platform to

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<sup>8</sup> Additionally, the Rationale misstates the discharge requested. WADC applied for a 2 mgd discharge, not 4 mgd. WADC believes the plant could be expanded, but the original request for 2 mgd is indisputable, and it is completely reasonable for WADC to plan for additional capacity. Further, TDEC acknowledges that it has issued permits in the past for speculative business opportunity. Thus, this "reason" misses the mark.

<sup>9</sup> Comments taken from TDEC DWR Dataviewer



Dickson and Williamson Counties. The Water Authority serves all three counties and this new water reclamation facility will benefit all, not just Hickman County. Currently, WADC is treating Hickman County sewage in Dickson County at the Jones Creek facility. I urge you to take a broader approach and understand that this is not a solution for one county, but for three.

- David McGowan, President of Regent Homes, LLC
  - Middle Tennessee now finds itself at an inflection point. WADC's existing water-treatment facilities are perilously close to their maximum capacity. Any further development in the area will depend entirely on the addition of water-treatment capacity. Without it, Regent will not be able to develop any more homes in this crucial community, which serves residents who work in Nashville's city center as well as those who work or plan to work in the fast-growing Dickson area.
  - Homebuilders are counting on this expansion for further growth in the area. Future workers are counting on having a place to live.
- Mike Rinker, President, Tennessee Electric Motor Company, et al.
  - Wants to have an industrial park in Hickman County consisting of several industries; however, WADC has capacity for only 2 additional taps. He wants to move his entire business from Davidson to Hickman County but without sewer it is not possible.

Finally, the Economic Report highlights improvements that would likely be the result of new industry achieved by other counties surrounding Nashville. It is sound economic judgment to include such prototype industries in determining the viability of a project such as this one.

**III. There are no practicable alternatives to prevent or lessen degradation associated with the proposed activity.**

The Rationale recognizes that WADC evaluated the following alternatives:

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

WADC evaluated each alternative appropriately as part of the initial evaluation of potential discharge points but did not include that information in the report since TDEC was not aware that the stream was classified as ETW at the time and it was not required. That information was

provided in the supplemental information. The alternatives analysis provided two alternatives for treating flows at the JCWRF with a discharge to the Cumberland River as well as discharges from the EHWRF discharge to the Cumberland and other streams in the area that could possibly accept the discharge. The cost of extending the sewer pipe to the Cumberland River from the EHWRF is simply not practicable because it is not economically viable (\$125 M for CR and \$63M for LC).

The rationale states that WADC rejected the no action alternative “out-of-hand.” WADC is puzzled by that finding, in that it is clear, as was stated, that without sewer no additional growth can occur even if excess infiltration/inflow is removed from the system. As TDEC stated during a February 15, 2023 workshop on engineering submittal, there would be no need to propose a project if the no action alternative was feasible.

WADC is also puzzled by TDEC’s statement that WADC did not demonstrate that other discharge options would result in less degradation. An alternative that is not economically viable is also not a practicable alternative. Tenn. Comp. R. & Regs. 0400-40-03-.06(1)(b)3. Therefore, a sewer pipe constructed to the Cumberland River is not a viable alternative based on cost alone. The cost shown on the previous summary table for the discharge to Lick Creek is estimated to be \$63 Million and the Cumberland River discharge pipe would be \$125 Million. Discharges to other streams were also low flow evaluated and would not likely be considered de minimis and would be much more expensive than Lick Creek. Discharges to other streams were also low flow evaluated and would not likely be considered de minimis and would be much more expensive than Lick Creek.

WADC has not applied for grants or loans to finance additional cost of the conveyance, because it is not aware of any grant program or law that would provide as much as \$60 million dollars needed to bridge the gap between the loan from bonds and the cost of the pipe to the Cumberland River (about \$60 Million). However, if the Department is aware of such financial assistance, please provide that information in response to comments.

#### **IV. WADC Demonstrated the Project is Necessary to Accommodate Important for Economic or Social Development<sup>10</sup>**

##### **A. The Economic Report Demonstrates Social and Economic Variables for Dickson and Hickman Counties Needs Sewer to Grow.**

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<sup>10</sup> Notably, the EPA stated that “antidegradation is not a “no growth” rule and was never designed nor intended to be one. It is a policy that allows the public to make decisions about important environmental actions.” *Interim Economic Guidance for Water Quality Standards* at 5-1 (60 FR 39393-01).



Having demonstrated that the only viable alternative is the discharge to Lick Creek, the antidegradation statement requires that the lowering of water quality be necessary to accommodate important social or economic development in the area.<sup>11</sup> Tenn. Admin. Comp. § 0400-40-03-.06 (d). WADC employed MTSU's Business and Economic Research Center to evaluate the economic and social importance to the area (the "Economic Report").<sup>12</sup> The Economic Report concluded that the provision of sewer resources would be of substantial assistance and could enable growth and development in the area. This fact is undisputed.<sup>13</sup>

Section 7.3.a., page R-9 of the Rationale provides a partial summation of the Economic Report, the findings of which are not rebutted by TDEC. Notably, however, the TDEC Rationale leaves out other important conclusions from the report such as:

- "Dickson and Hickman Counties are, simply put, not successful in growing or attracting . . . firms (over 100 employees)."
- "Dickson and Hickman are clearly more economically fragile."
- "Available work and economic opportunities make communities desirable."
- "Lack of sewer infrastructure blunts economic growth."

The Report also shows that Hickman County, in particular, is below the statewide average in a number of key social or economic indicators, but the Rationale disregards that point.

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<sup>11</sup> TDEC believes that the requirement includes the area "in which the waters are located as established herein," and interprets the rule to connote a geographical significance though the rule does not include that quoted extraneous language for exceptional Tennessee waters. Tenn. Admin. Comp. 0400-40-03-.06(d).

<sup>12</sup> The applicant considers the area the proposed service area for the Project. The economic benefit will be enjoyed by Dickson, Hickman and Williamson Counties. Neither the rule nor any authority of which WADC is aware requires the term "area" to be restricted to the area of the discharge. The discharge is being permitted into "waters of the state" not waters of Hickman County. Tenn. Admin. Comp. 044-40-03-.06(4) "The justification should demonstrate an overall benefit to the local community, not just a benefit to the applicant." implying that "area" is based on the community, not the watershed. Since economic development can impact areas far from the location of the development based on where people choose to live, work and shop, a broader interpretation of "area" is appropriate when evaluating economic impact

<sup>13</sup> According to EPA, Indicators such as increases in unemployment, losses to the local economy, changes in household income, decreases in tax revenues, indirect effects on other businesses, and increases in sewer fees should be taken into account. The term important is intended to convey a general concept regarding the level of social and economic development used to justify a change in high-quality waters. *Interim Economic Guidance for Water Quality Standards at 5-11.*



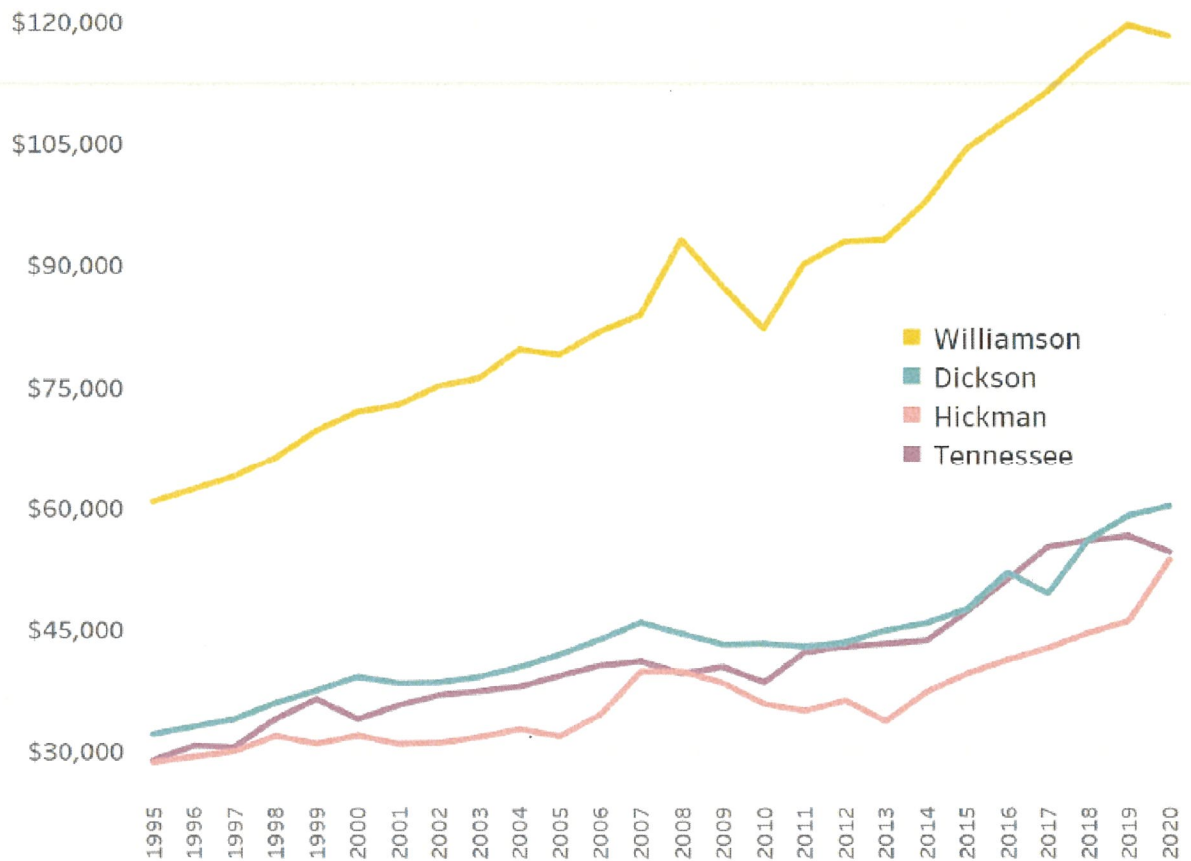
WADC's Economic Report states, "The county business environment is clearly a key determinant of a county's economic health." *See* Economic Report, Page 7. To evaluate the business environment, the Economic Report focuses on firms with more than 100 employees because of the positive attributes of larger firms – They are more robust to economic downturns, they are more likely to spin off new firms, as employees leave to start their own business, they pay better, and they create economic synergies with other local firms. Dickson and Hickman's numbers are so small that the Census cannot fully report them. This makes Dickson and Hickman Counties "more economically fragile" in terms of business activity, according to the Economic Report.

A look at certain economic indicators shows that both Dickson and Hickman Counties need more growth to maintain a viable economy. Both counties are almost at or slightly below the statewide poverty line, which is nothing to brag about. Both Counties are substantially below the statewide average in per capita gross domestic product. The Economic Report also provides data showing that comparable sewer upgrades that occurred after a moratorium was lifted led to a greater number of jobs and new private investment for those communities.<sup>14</sup>

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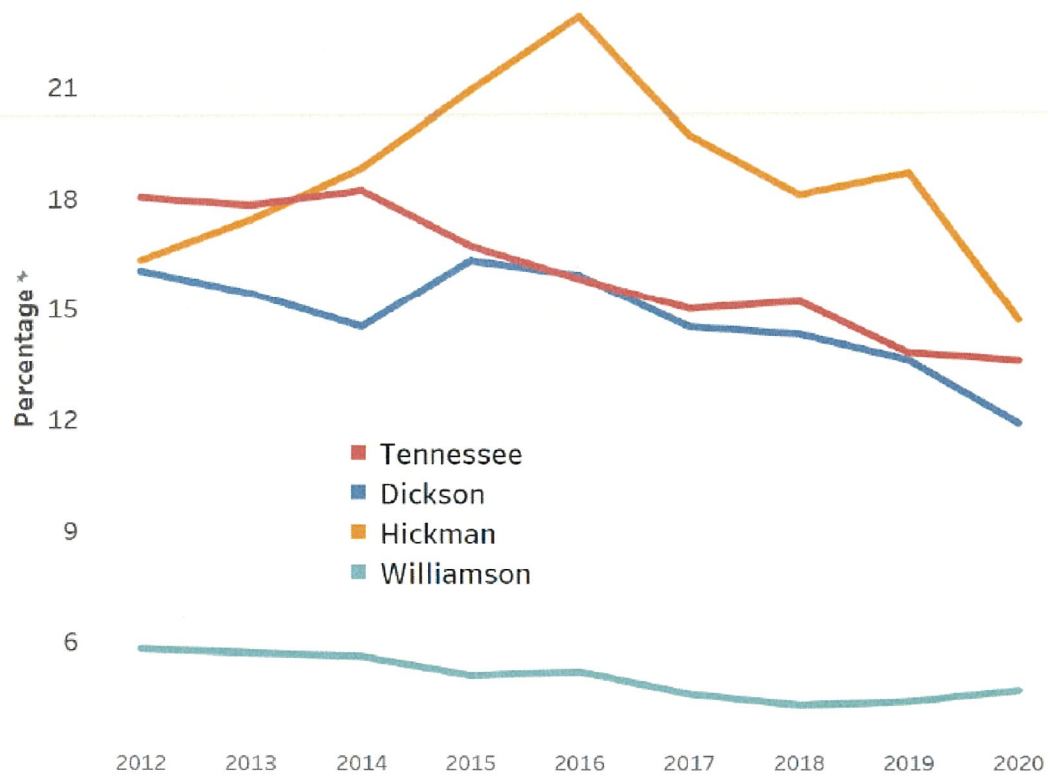
<sup>14</sup> Table numbers are from the Economic Report.

Figure 4: Median Household Income Since 1995



Source: U.S. Census, Table B25077 "Median Household Income." <https://data.census.gov/>.

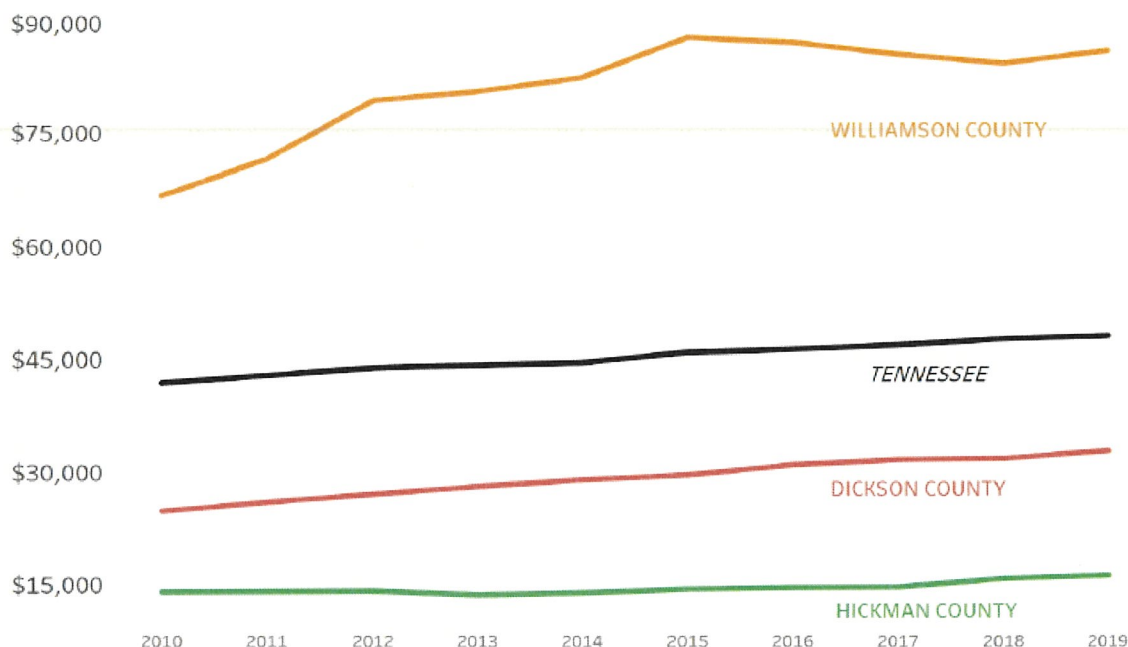
Figure 6: Poverty Rate Across Counties



Source: U.S. Census Bureau, Estimated Percent of People of All Ages in Poverty for Tennessee



Figure 7: Real GDP per Capita Growth: Dickson and Hickman Counties



Source: FRED Economic Data. Real Gross Domestic Product, Tennessee Counties.  
<https://fred.stlouisfed.org/searchresults/?st=counties&t=gdp%3Breal%3Btn&ob=sr&od=desc>

Table 1: Growth in Business Establishments

Year:	2010	2015	2020	Chg 2010 to 2020
Dickson County	923	921	1017	10.18 %
Hickman County	268	250	301	12.31%
Williamson County	6065	6584	7696	26.89%
Nashville MSA	37619	41609	46087	22.51%
Tennessee	131582	133344	140905	7.1%

Source: U.S. Census, County Business Patterns (selected years). <https://www.census.gov/programs-surveys/cbp/data/datasets.html>

Table 2: Number of Firms with Over 100 Employees

Year	2001	2005	2010	2015	2020
Dickson County	28	27	21	24	<26**
Hickman County	4	2	2	3	<5**
Williamson County	137	145	162	186	228
Nashville MSA	1079	1169	1106	1377	1529
Tennessee	3794	3838	3619	4025	4304

\*\*2020 number for Dickson County firms with over 499, and for Hickman County firms over 250, are suppressed by U.S. Census so as to not identify individual firms.

Source: U.S. Census, County Business Patterns (selected years). <https://www.census.gov/programs-surveys/cbp/data/datasets.html>

Table 7: Economic Impact: Dickson County

Year	Employment	Wages	Business Revenue	Total Taxes and Fees
2025	143	\$3,292,131	\$13,307,405	\$1,108,000
2030	199	\$5,245,199	\$19,684,786	\$1,520,000
2035	273	\$7,912,490	\$28,268,487	\$2,108,000
2040	363	\$11,226,316	\$38,855,017	\$2,730,000
2045	471	\$15,274,827	\$51,704,622	\$3,771,700

Estimates in 2020 dollars.

Table 8: Economic Impact: Hickman County

Year	Employment	Wages	Business Revenue	Total Taxes and Fees
2025	12	\$403,365	\$1,647,469	\$118,331
2030	28	\$1,039,523	\$4,245,732	\$304,800
2035	46	\$1,641,747	\$6,705,394	\$482,000
2040	66	\$2,360,001	\$9,638,964	\$692,400
2045	88	\$3,167,523	\$12,937,130	\$929,500

Estimates in 2020 dollars.

While both the opponents and TDEC are quick to point out that Hickman County has had a 12.31% increase in business establishments without sewer improvements, such statistics are meaningless to establish growth. That number, some 40 new workers, is substantially below the MSA average, and neither Hickman nor Dickson had any businesses that employed 100 or more employees, which MTSU considered a key indicator of growth.

**B. The Antidegradation Statement Does Not Limit the Important Development to the Geographic Area in which the Waters are Located.**

TDEC's interpretation of the antidegradation rule misstates and misapplies the antidegradation rule for exceptional Tennessee waters. As noted previously TDEC's interpretation of the antidegradation rule limits the important social or economic development to the geographic area "in which the discharge is located." The actual language of the rule does not reflect that the justification is for a geographic area. While the difference should not matter, TDEC's interpretation does not allow consideration of the importance of the discharge to the "service area" including Hickman and Dickson County. TDEC, has apparently concluded that Lick Creek is "waters of Hickman County" and not "waters of the state." The antidegradation rule was hotly

debated at the time it was approved by the Board, and all of the wording was carefully written and approved. The Board purposely left the additional wording out of the rule most likely to accommodate regional facilities that may discharge outside of their service area. For example, the following are NPDES wastewater permits authorizing discharges downstream of the respective service area:

- Waverly discharges to the Tennessee River
- Lebanon – discharges to the Cumberland River
- South Fulton (Obion County) – 0.49 mgd WWTP discharge to North Fork Obion River 6.5 miles from WWTP
- Brownsville North Plant (Lagoon)
- (Haywood County) – 2.28 mgd WWTP discharge to South Fork Forked Deer River 10 miles from WWTP
- Brownsville South Plant (Tricking Filter) (Haywood County) – 2.03 mgd discharges to Hatchie River at least 6 miles from WWTP
- Maury City (Crockett County) – 0.15 mgd WWTP discharge to South Fork Forked Deer River at least 4.5 miles away – and the discharge is in Haywood County
- Humboldt (Gibson County) – 5 mgd WWTP discharge to Middle Fork Forked Deer River

In addition, TDEC does not have authority to unilaterally amend the antidegradation rule to add “of the discharge” to the official rule which does not contain that language. Rulemaking must comply with Tenn. Code Ann. § 4-5-201 et seq. “Any agency rule not adopted in compliance with this chapter [the UAPA] shall be void and of no effect and shall not be effective against any person or party nor shall it be invoked by the agency for any purpose.” WADC is aware that TDEC recently attempted to have the Board readopt the rules to add those terms and submitted them for public comment. The Tennessee Supreme Court recently considered the status of an agency action that was applied a cap on Emergency Service Providers for certain TennCare services. The cap was not promulgated as a “rule” but the Court found it met the definition of a rule since it was a statement of general applicability that is not restricted to internal management of the agency. *See Emergency Medical Care Facilities, P.C. v. Division Of TennCare, (Slip)* (No. M2020-01358-sv-r11-cv Tenn.Sup. Ct. 2023). The Supreme Court stated that TennCare could not use the cap in that manner. Likewise, TDEC should not base its decision in whole or in part on the added language.

The Project will accommodate the development of new industry and residential construction in the area, including the geographic area. The proposed prototype industries described in the Economic Report are typical of what other counties surrounding Nashville have experienced. As the commenters in support have stated, a new wastewater treatment system is necessary for development in Hickman or Dickson Counties. Sewer service is merely an



accommodation for such development that is needed to raise the standard of living in the affected communities. The sewer itself does not generate growth—rather it accommodates such growth. County legislative bodies will control the type and amount of actual growth.

Nevertheless, the Economic Report calculated that construction of the proposed facility would generate a total state and local revenue of \$2,379,898, irrespective of any new business. Of that, Hickman County will realize some \$929,500 in new tax revenue over the 20-year period, even with no projected growth. Any increased infrastructure needs will mean that the anticipated growth is occurring, and government entities will have the ability to enact impact fees and collect other such fee-generated revenue that will be budgeted as additional needs arise.<sup>15</sup>

TDEC’s conclusion and the Hickman County Mayor’s concern about the Economic Report not demonstrating how it would afford to pay for new services from the new tax revenue is misplaced. The sewer only accommodates development as is required by the antidegradation statement. As the county experiences growth, the additional taxes from those homes and businesses will provide needed infrastructure revenue.

Section 3.b. of the Rationale mentions a so-called “report” from Friends of Lick Creek, sent to Governor Lee, which included an unscientific “push” poll by the organization’s public relations strategist to present opposition to the Project. It is not clear from the Rationale how TDEC used that information in considering WADC’s permit application. Such information provides no data to evaluate the economic and social benefit of the project and is irrelevant.

The Rationale also highlights that Hickman County opponents identified only three industrial hookups have been installed along the path of the existing sewage line for East Hickman High School in 17 years. Of course, this ignores the fact that the JCWRF has limited capacity, and WADC has actually turned down a number of tap requests for industrial users in that area.

Finally, the Rationale states that “Friends of Lick Creek” is concerned about overdevelopment and loss of control over the county’s sovereignty to control its own economic density, and about not having decisions forced upon its citizens. Such considerations regardless of how sincere, are not relevant as those are issues of zoning not under control of the WADC.

**C. It was Arbitrary and Capricious to Rely on a Minority of Hickman County officials and No Dickson County officials in discussing the Local need for sewer.**

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<sup>15</sup> The Hickman County Mayor told TDEC (and the public) that the County would have no way to afford the infrastructure to support the added benefits that come from additional taxes, and apparently has no interest in finding a way.

As discussed previously Representatives of TDEC met privately with five Hickman County commissioners on an individual basis and the new County Mayor since, “the authority is located in Dickson County.” From these private meetings TDEC concluded that the Project was not necessary for important economic development in the area since higher density development supported by public sewer is not important to local development goals. This very myopic view of the economic importance of a modern sewer system is a disservice to the people of Hickman County as it is not based on any accepted study, and completely ignores the people of Dickson County and perhaps Williamson County as TDEC did not meet with any contingent of local officials from those jurisdictions.

#### **D. TDEC’s Use Of The EJScreen Was Arbitrary And Capricious In Countering Social And Economic Data**

TDEC used an EPA Environmental Justice prescreening tool called EJScreen to evaluate income and unemployment rate in and around the area of the discharge. The EJScreen did not identify any specific Environmental Justice areas, but TDEC used the data to counter the MTSU economic data. The EJScreen showed unemployment and low income above the state-wide average. While being at or near the statewide average is nothing to brag about, MTSU’s more accurate data indicates a much *greater* level of poverty and unemployment in Hickman County than EJScreen. That is because EJScreen is a high level prescreening tool that EPA cautions against using to make decisions.

In describing limitations and caveats in using EJScreen, EPA states:

“ . . . EJScreen relies on demographic and environmental estimates that involve substantial uncertainty. This is especially true when looking at a small geographic area, such as a single Census block group. A single block group is often small and has uncertain estimates. Therefore, it is typically very useful and advisable to summarize EJScreen data within a larger area that may cover several block groups, in what is called a "buffer" report.

The demographic estimates, such as percent low-income, come from surveys, not a full census of all households. This means the Census Bureau may estimate that a block group is 30% low-income, for example, but it might actually be 20% or 40% in some cases.

In summary, as with any screening tool, EJScreen cannot address all the considerations that may be relevant to a given situation because of the factors described above. Therefore, it is generally not



appropriate to rely on any screening tool as the basis for a key decision.<sup>16</sup>

The EJScreen data is derived from census data documented on the American Community Survey. This data is collected by sending out an unscientific sample of surveys to residents in each separate census block. The information collected from each block is not truly representative of the block and has a very low precision rate. For example, one of the census blocks (out of 8) shows 123 people live below the poverty line. But this data has an estimation precision level of +/- 118. In other words, the survey would show that there are as low as 5 and as high as 241 people living in poverty. For this reason and others, EPA is very clear to advise caution in application of the data and to warn that decisions should not be based on the tool.

Nevertheless, TDEC apparently aggregated the EJScreen values across census blocks, each of which has a different precision level and a different census sample size. Also, by using latitude and longitude readings to obtain figures within a 1, 5 and 10 mile radius, TDEC only used a portion of some of the census blocks, which only adds to the imprecision. Finally, because EPA's EJScreen includes a numerical value of zero (0) when no data is reported for a block, the aggregated total will be skewed lower.

In relying on the inaccurate EJScreen data, TDEC has wrongly concluded that the demographic data "belie" WADC's assertions regarding income and unemployment. In fact, the opposite is true. The more accurate data used by MTSU found a much greater level of poverty and unemployment in Hickman County,

Finally, while the Economic Report provides much more robust indicators of poverty levels than the basic EJ screen relied upon by TDEC, WADC does not have to show an "urgent need" for economic development in the area."<sup>17</sup> Rather, WADC must show that degradation is necessary to accommodate important social or economic development in the area. WADC's data and conclusions in that regard are un rebutted.

## **V. Conclusion: TDEC Must Reconsider Its Decision and Grant the Permit**

WADC has demonstrated that the best if not only practicable alternative to the sewer capacity problem is a new wastewater treatment system located near the Hickman County growth area, the best if not only practicable discharge is to Lick Creek at river mile 10.6 and the

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<sup>16</sup> See <https://www.epa.gov/ejscreen/limitations-and-caveats-using-ejscreen>, last accessed May 8, 2023. (Emphasis added.)

<sup>17</sup> See page R-11 of the Rationale.

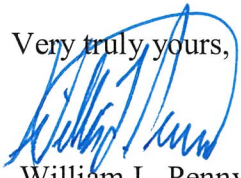


degradation of Lick Creek is necessary to accommodate important social or economic development.

WADC reviewed numerous alternatives including combining sewer plants, land disposal and reuse; it concluded the only practical alternative to accommodate additional future growth is a new sewer plant near the growth area of Hickman County. The only practicable alternative for the discharge is to Lick Creek at river Mile 10.6. WADC also evaluated alternative discharge locations, including the Cumberland River. A discharge to the Cumberland River may be considered *deminimis*; however, such a discharge is not economically viable, and therefore not a practicable alternative. Loans from WADC bonds will allow construction costs of approximately \$43 Million, but constructing a discharge pipe to the Cumberland River crossing some 31 streams will cost some \$125 Million. The ratepayers cannot afford such a large rate increase to accommodate that discharge. In addition, WADC is not aware of any federal or state grants that would pay the difference.

Finally, new sewer with its attendant discharge will accommodate new growth and development and is therefore necessary to accommodate important social or economic development. As some of the comments show, the development and industry sectors are chomping at the bit to begin new projects in the area that will provide needed economic relief to Hickman and Dickson County. Both of these Counties remain economically fragile without sewer treatment capability according to MTSU. The sewer will accommodate the needed development which will be controlled by the Counties through their zoning and land use laws. The Counties will exact new taxes from all of the new developments that will add revenue needed to add services. Therefore, the project is necessary to accommodate necessary economic or social development in the area, including the geographic area around the discharge.

We appreciate the opportunity to provide these comments. Please let us know if you have questions.

Very truly yours,  
  
William L. Penny

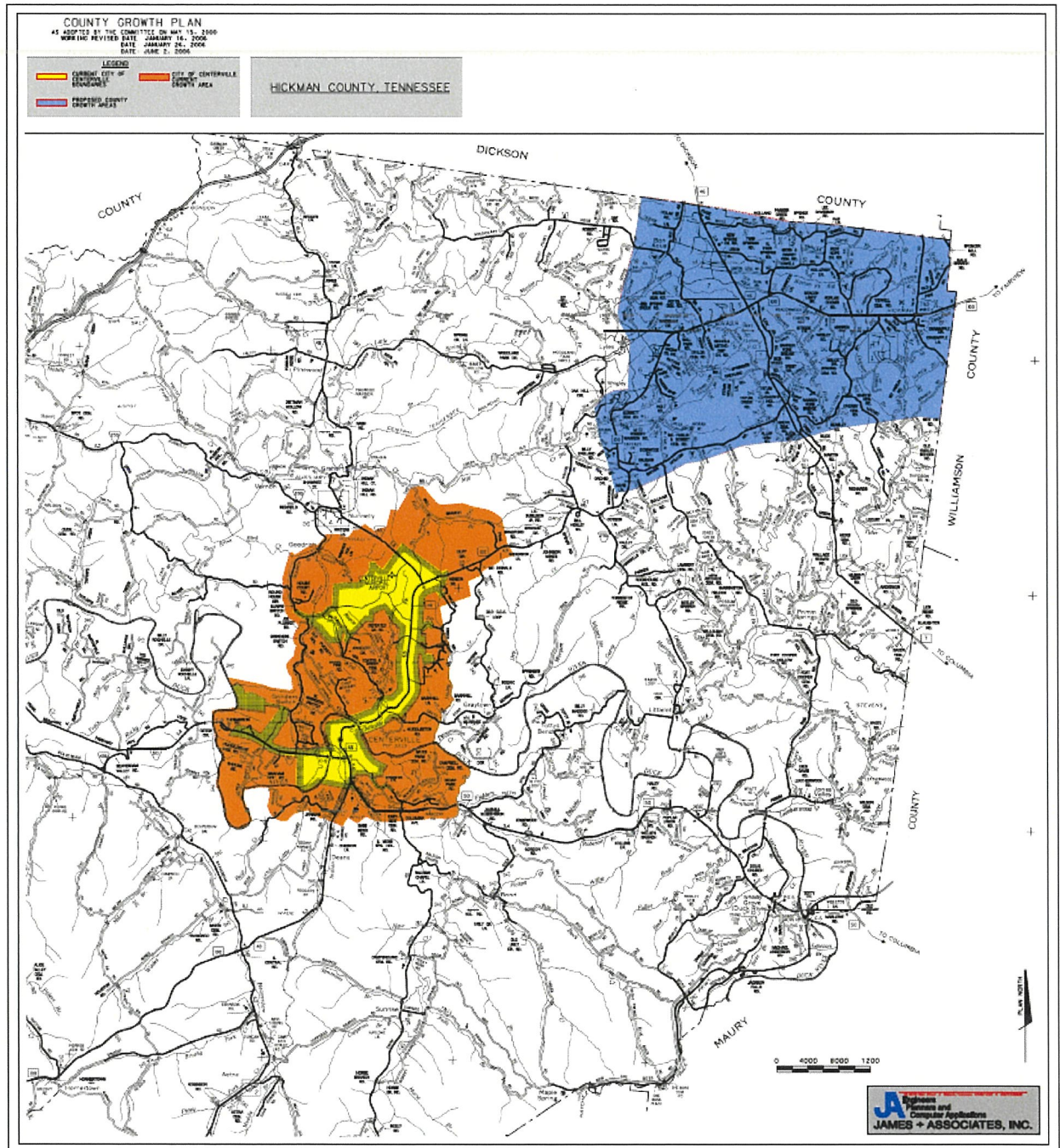
WLP

cc: Gregory T. Young  
Michael Adams

The Honorable David Salyers  
June 5, 2023  
Page 24

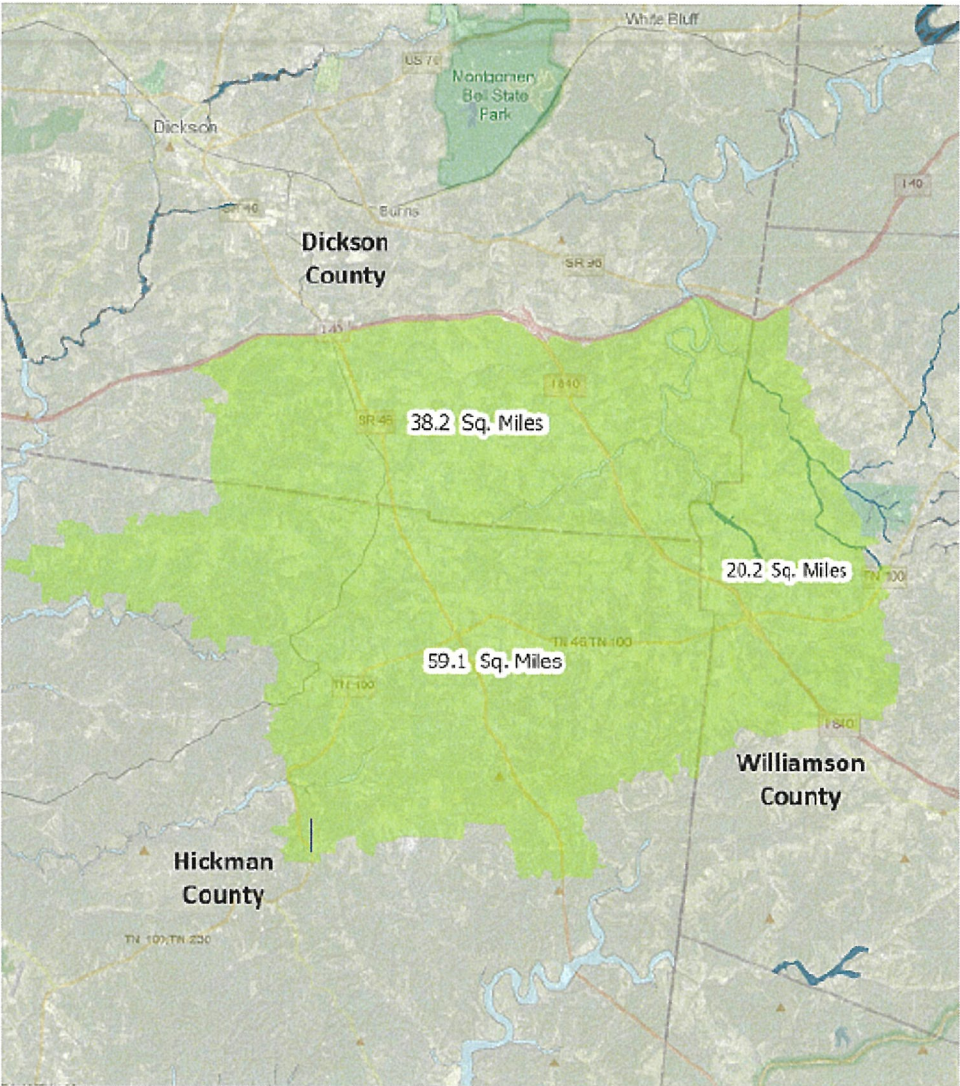
## **Attachment 1**

### **Hickman County Growth Area**





**ATTACHMENT 2**  
**PROPOSED SERVICE AREA**



East Hickman WWTP Potential Service Area





## ATTACHMENT 3

### ADDITIONAL COMMENTS

In addition to the comments expressed in my June 5, 2023 letter from WADC to Commissioner Salyers, please respond to these comments:

1. The time frame for processing the permit processing violated the bill of rights for permittees in 69-3-141, because a permit or denial was not issued within 365 days of the notice of complete application. Accordingly, its permit fee should be refunded. The department determined the application was complete on December 29, 2001 and the notice of denial on April 5, 2023.

2. Lick Creek is no longer an ETW. TWRA conducted a fish count in 2022 and found that the Coppercheek Darter is not present in Lick Creek. Therefore, WADC should not have been required to comply with antidegradation requirements for an ETW.

3. The Proposed Denial incorrectly used 4 mgd as the requested design flow rate rather than the 2 mgd.

4. Whether or not WADC has permission from Hickman County to install a wastewater treatment plant is not relevant to the Department's decision to issue the Permit.

5. The Proposed Denial was not supported by any recognized economic specialist or report. On the other hand WADC provided a detailed Economic Report providing social and economic justification for the discharge by the Business and Economic Research Center of the Middle Tennessee State University.

6. The Economic Report was supported with factual information showing Hickman County is at or near the state wide average for median household income and real gross domestic product. Failure to include these wealth indicators belies TDEC's assertions to the contrary.

7. The Proposed Denial was arbitrary and capricious because it failed to even consider the possibility of the type of industrial discharges described in the Economic Report as potential new businesses, particularly when it admits that it permitted at least one major facility permit without a tenant, even if the impact was de minimis.

8. The Proposed denial was arbitrary and capricious, as it has permitted numerous discharges where the impact is outside the county or service area or area "of the discharge."

9. An alternative must be economically viable to be a practical alternative.

10. Constructing a discharge to the Cumberland River is not economically viable, particularly in light of the lack of federal and state money available to fund the difference.

11. The Proposed Denial cannot be based in whole or in part on information obtained an unscientific survey described in paragraph 7.3b. of the Rationale which was not conducted or authorized by TDEC.

12. The TDEC proposed denial cannot be based in whole or in part on information obtained from private meetings individually with a minority of Hickman commissioners and the county mayor of Hickman County described in Paragraph 7.3.c. of the Rationale that generalize what Hickman County residents want or need from a land use perspective or whether the county has minimal interest in new industry.

13. The Proposed Denial cannot be based in whole or in part on information from an unnamed soil scientist described in the Rationale at 7.3.c. with no data provided to demonstrate the portion of northeast Hickman County and how that differs from the 2008-25 land use and transportation plan.

14. The Proposed Denial cannot be based in whole or in part based on county officials or citizen's desires to control growth or limit a certain type and amount of growth since Hickman County has zoning authority with which it can control growth by lot size, and location of commercial or industrial facilities.

15. The Proposed Denial cannot be based in whole or in part on lack of infrastructure stated in Paragraph 3.3. e. of the Rationale since Hickman County became authorized to implement impact fees or adequate facilities taxes that would pay for additional infrastructure. *See TACIR, No. 11, August 2004, Harry A. Green and Leah Eldridge.* Moreover, WADC supplies and can supply necessary drinking water to Lyles and Bon Aqua.

16. The Proposed Denial cannot be based in whole or in part on an administrative rewriting of the antidegradation rule at Tenn. Admin. Comp. R & R. 0400-40-.03-.06(3)(c) to include the words "in which the waters are located," following the words "in the area." Rulemaking must comply with Tenn. Code Ann. § 4-5-201 et seq. "Any agency rule not adopted in compliance with this chapter [the UAPA] shall be void and of no effect and shall not be effective against any person or party nor shall it be invoked by the agency for any purpose." WADC is aware that TDEC recently attempted to have the Board readopt the rules to add those terms, but it has not advanced.