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Preliminary Report

March 18, 2025

Dear Mayor Jackson and Mayor Eply:

The City of Madisonville owns and operates a sewage utility consisting of both a sewage collection system and a sewage treatment system. The cities of Hanson, Kentucky and Earlington, Kentucky both own and operate sewage collection systems and send their collected effluent to Madisonville for sewage treatment for a fee.

In January of 2024 the City of Madisonville, informed the cities of Hanson and Earlington that the wholesale sewage charge from Madisonville to Hanson and Earlington was increasing from \$1.04 per 1000 and \$0.81 per 1000 (respectively) to \$3.75 per 1000 (being a 360.5% and a 462.9% increase, respectively).

This was a very large increase and would require Hanson and Earlington to increase the sewage user fees to its customers. Due to the large amount of the increase, Hanson and Earlington engaged an attorney, Mr. Daniel Thomas, to investigate the sewage rate increase to determine if it was fair and reasonable and legally enacted. Mr. Thomas recommended the hiring of a financial rate consultant, Mr. Steven K. Brock, to assist in this investigation.

Over the past year Mr. Brock and Mr. Thomas have reviewed various documents requested from Madisonville as justification for their wholesale rate increase to \$3.75 per 1000. These documents include historic financial data as well as several previous rate studies by several engineering firms. What they were looking for was the report Madisonville relied on that calculates and supports the \$3.75 rate.

The information provided by Madisonville states that the Earlington and Hanson rates prior to 2018 were approximately \$1.60 per 1000 until 2018 when they were lowered to \$1.04 and \$0.79 (respectively). The calculation of the \$1.04 rate and \$0.79 rate are included in the appendices to the HDR reports. The \$1.04 rate and the \$0.79 rate continued to be billed until 2024.

Madisonville started charging the \$3.75 per 1000 rate in the May 2024 billing month.

In response to your open records requests and discovery requests, I was provided the following reports from Madisonville's consultants in support of the \$3.75 rate:

BerryKington & Utley - February 11, 2018 report recommending a \$1.04 per 1000 gallons rate

BerryKington & Utley - January 28, 2019 report recommending a \$2.05 per 1000 gallons rate

HDR – June 2019 report calculating a \$1.20 rate for Earlington and a \$1.11 rate for Hanson (page 17)

HDR - June 2019, Revised October 2019 report recommending (but not calculating) a either a \$1.95 or a \$2.50 per gallon rate (page 14) (depending on whether the existing wastewater treatment plant located at 1000 McCoy Avenue remains in service) (Appendix A of this report includes the agreement and the calculation of the \$0.81 per 1000 gallon rate which went into effect July 1, 2019).

The most recent document request response from Madisonville to earlier requests for production and documents produced “Item 1”, a water rate study (not sewer) by HDR, dated June 2019 and revised October 2019, and a Water and Sewer Technical Memorandum dated 7/25/2022 (the 2022 Memorandum). Important in this 2022 Memorandum is the establishment of the “cash needs” approach as the generally accepted approach to determining utility rates.

However, this 2022 Memorandum does not separate the wholesale customer (Hanson and Earlington) cash requirements from the retail customer (all other Madisonville customers) cash requirements. It also projects an annual percentage increases for inflation and projects a large increase in capital funding through rates instead of through debt. These assumptions are very fluid and in themselves could be a substantial reason for a rate increase – however, if these assumptions are not correct – a large portion of the justification for the increase is not justified. Additionally, no cost-of-service allocation is made between the wholesale and retail customers to account for the fact that the wholesale customers have either own collection systems to maintain and pay for and do not benefit from the retail customers collection system. This makes it impossible to determine the actual cost of serving the wholesale customers. Since rates are cost based, without accurate cost information no accurate rate to cover these costs can be calculated.

The 2022 Memorandum concludes (page 13) with a recommendation of an overall increase in rates by 50% and additional 2.5% increase in rates each year thereafter (years 2027 to 2032). This recommendation is not a finding. It is a 10-year projection of what costs could be in those years under certain assumptions.

To date, Madisonville has not provided a rate study or report that calculates the \$3.75 rate that is currently being charged to Hanson and Earlington.

Water and sewage utility rates for Cities and Towns in Kentucky, throughout the nation and throughout the world are based on what are called cash revenue requirements. There are 2 manuals of authority on ratemaking procedure currently in use today. These are the AWWA Manual M-1 and the WEF Manual 27. Both of these manuals are mentioned by Madisonville’s engineer, HDR, as authorities in ratemaking practice and procedures.

Additionally, each state (including Kentucky) and each country has a statute that describes these cash revenue requirements in detail and although these cash requirements can vary somewhat - they include at least the following items.

1. Operation and maintenance disbursements
2. Taxes
3. Replacement costs
4. Debt service costs (principal and interest on debt issues)
5. Debt service reserve payments
6. Debt service coverage requirements

The City's retail customers (defined as the customers served inside the corporate limits that are served by both the City's collection and treatment systems) pay a pro-rata portion of these total costs based on both their flow characteristics and their demand characteristics.

Wholesale customers - A sewage utility's operations can be conceptually broken down into 2 parts. The collection system and the treatment system. A wholesale customer is a customer that owns and operates its own collection system but pays another entity to treat the flows from its collection system. Wholesale customers pay lower rates to the treatment provider than the treatment providers retail customers because the wholesale customer does not use or benefit from the treatment providers collection system - but instead has constructed at their own expense their own collection system. The wholesale customer treats the annual treatment costs as one of the costs in its cash revenue requirements that it uses to set its rates to its customers. Wholesale customers pay a pro-rata portion of only the treatment costs (not the total costs).

There are three main areas of activity in the setting the utility rates and charges. These are:

1. Total revenue requirements (calculated either on a cash basis of a rate of return basis – this is the total annual cost of operating the utility).)
2. Cost of Service (the calculation of the actual cost of serving different customer classes (such as wholesale customers)
3. Rate design (the method by which revenue is collected through rates, (e.g. flat, rates, metered rates, increasing block rates, declining block rates, base charges vs minimum charges etc.)

When rates are increased, they can either be increased on an “across-the board” basis (every customer gets the same percentage increase) or a “non-across-the-board” basis (each customer class gets a different percentage increase).

Whenever a utility has different classes of customers it is recommended that a cost-of-service study be performed every 2 or 3 across-the-board rate increases or every non-across-the-board rate increase.

For the current Madisonville/Hanson/Earlington situation we have these facts:

1. Madisonville is the sewage treatment provider for Hanson and Earlington;
2. Hanson and Earlington are wholesale customers of Madisonville (and have their own collection systems and do not benefit from Madisonville's collection system);
3. In January 2024 Madisonville raised the treatment rate to Hanson and Earlington from \$1.04 per 1000 and \$0.81 per 1000 to \$3.75 per 1000;
4. No rate report or study calculating the \$3.75 rate has been given to Hanson and Earlington;

5. No cost-of-service study showing the allocation of total costs to the wholesale customer has been given either to Hanson or Earlington;
6. Hanson and Earlington are performing their due diligence to their customers by questioning the \$3.75 rate and asking to see how that rate was calculated and whether that calculation conforms to the body of knowledge customary in setting wholesale rates in use today and complies with Kentucky state law;
7. All Hanson and Earlington have been asking for is the rate study that calculates the \$3.75 rate so that Hanson and Earlington can review that calculation to ensure it complies with current ratemaking theory and procedures and state law;
8. Without a rate study that calculates the \$3.75 rate, Hanson and Earlington cannot determine if the \$3.75 rate is accurately calculated, fair and reasonable, and complies with Kentucky state law.

I have not addressed at this time whether Madisonville's reports provided meet the Kentucky statutory requirements and /or whether Madisonville has a legal duty to submit a filing with the Kentucky Public Service Commission (with notice to both Hanson and Earlington) requesting approval of the rate increase to its wholesale customers.

We recommend that Hanson and Earlington request that Madisonville stop and suspend all billing and collection efforts for the \$3.75 rate until such time as Madisonville can produce a rate study or report that calculates the \$3.75 per 1000 rate in a manner that complies with Kentucky state law and standard ratemaking practices and procedures.

Sincerely,

A handwritten signature in black ink that reads "Steven K. Brock". The signature is written in a cursive, slightly stylized font.

Steven K. Brock MBA CPA