COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF SIMPSON COUNTY WATER DISTRICT FOR A RATE ADJUSTMENT PURSUANT TO 807 KAR 5:076	)))	Case. No. 2024-00068

RESPONSE OF SIMPSON COUNTY WATER DISTRICT TO THE COMMMISSION STAFF'S SECOND REQUEST FOR INFORMATION DATED MAY 20, 2024

Simpson County Water District
Case No. 2024-00068
Commission Staff's Second Request for Information

Witness: Jeff Peeples

1. Refer to the Application, Attachment 4, 4_SAO_With_Attachments.pdf, References, Adjustment C. Using a table format, provide an Excel spreadsheet with all formulas, rows, and columns fully accessible and unprotected that lists each position (Position 1, Position 2, etc.) job title, hours worked, pay rate, total wages paid, and total FICA cost for each employee for the years ended December 31, 2022, and 2023. Include the date the employee was hired and, if applicable, the employee's termination date. The table should include a column for total wages by employee (regular and overtime) and a row for total wages for all employees. Employee names should be redacted from all documents.

   Response: This response includes schedules providing total employee wage data for Warren County Water District for years 2022 and 2023. Included in the Warren schedules are employment status, FICA, and allocation method. Schedules providing employee wage data for Simpson County are in separate schedules for years 2022 and 2023.

   See Files: 1_CY_2022_Warren_District
   1_CY_2022_Simpson_District
   1_CY_2023_Warren_District
   1_CY_2023_Simpson_District

   a. Provide calculations by employee that support pro forma wages of $281,272. This may be provided as a separate table or combined with the table above. If a position is recently vacated but the intent is to fill it, note the vacancy and the amount of time that it has been vacant.

      Response: See Files 1a._Pro_Forma_2023_Simpson_District

   b. Provide a summary of overtime hours worked and costs that were due to vacant positions and thus will be eliminated when the vacant positions are filled.

      Response: No significant overtime hours were incurred due to vacant positions. Most vacancies were short in duration and the flexibility of the Water Systems joint operations structure allows for personnel to be dispatched during regular working hours to cover short-term vacancies until replacements are selected.

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2. Refer to Simpson District's response to Commission Staff's First Request for Information (Staff's First Request), Item 9(b).

   a. State whether Stephen Snider has ever attended water commissioner training.

      Response: Stephen Snider has attended water commissioner training.

   b. State whether Larry Gomer has attended any water commissioner trainings other than July 11-23, 2023. If so, provide the dates of the training and whether that training was approved by the Public Service Commission.

      Response: Larry Gomer has not attended any water commissioner training other than July 11-23, 2023.

   c. State whether Corey Konow has attended any water commissioner trainings other than March 19-20, 2024. If so, provide the dates of the training and whether that training was approved by the Public Service commission.

      Response: Corey Konow has not attended any water commissioner training other than March 19-20, 2024.

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3. Refer to Simpson District's response to Staff's First Request, Item 9(a). Provide fiscal court minutes for Larry Gomer, Corey Konow, and Stephen Snider's initial appointments.

Response: See files: 3_Fiscal_Court_Minutes_Commissioner_Gomer
3_Fiscal_Court_Minutes_Commissioner_Konow
3_Fiscal_Court_Minutes_Commissioner_Snider

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4. Refer to Simpson District's response to Staff's First Request, Item 9(a).

   a. State the date when Raymond Mann completed his term.

   Response: Effective November 1, 2023, Mr. Raymond Mann resigned as commissioner on the board.

   b. State the date when Joseph Richards completed his term.

   Response: On April 14, 2023, Mr. Joseph Richards completed his term.

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5. Refer to the Application, Exhibit 4, Attachment 4_SAO_With_Attachments.pdf. Explain how Simpson District determined to decrease the useful lives of the Badger 5/8-Inch AMR meters from 20 years to 10 years. Provide any studies or reports that form the basis of this decision.

Response: Sample testing of Badger M25 Size 5/8" meters indicates meters approaching 10 years of service do not meet AWWA accuracy standards. These meters were purchased with a 15-year warranty and were recorded in Simpson's fixed assets with an estimated life of 20 years. The estimated life of 20-years was based upon the M25 meter performance at other utilities and the performance of a similar meter utilized by Warren, Butler, and Simpson, the Sensus SR II, which maintains accuracy beyond 20 years.

In March 2023, crews began removing Badger M25 meters that had been in service for 10 years. The accuracy testing of 48 meters resulted in 31 of the samples failing AWWA meter accuracy. Meters were tested at Warren's certified meter shop by a certified meter technician. The results of the sample testing are below:

Water System	Total	Passed	Failed	Failure %
Warren	39	12	27	69.2%
Butler	2	1	1	50.0%
Simpson	7	4	3	42.9%
Total	48	17	31	64.6%

Other Badger M25 meters removed from service throughout the months January and July 2023 were tested and showed several meters did not meet accuracy standards after 9 years of service. These results are below:

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Age	Total	Passed	Failed	Failure%
Less than 1	21	21	0	0.0%
1	41	41	0	0.0%
2	24	24	0	0.0%
3	30	30	0	0.0%
4	28	25	3	10.7%
5	16	15	1	6.3%
6	25	21	4	16.0%
7	34	34	0	0.0%
8	33	32	1	3.0%
9	155	75	80	51.6%
10	15	12	3	20.0%
	422	330	92	21.8%

Based upon the test results, the 20-year depreciation period is overstating the life expectancy of the Badger M25 meters. As a result, the estimated life was changed to 10 years which appropriately reflects the performance of the meters tested.

a. Explain how Simpson District proposes to recover the undepreciated balance for the Badger 5/8-Inch AMR meters.

Response: Based upon test results, the Badger 5/8" meters cannot be returned to service. The District consulted with certified public accountants on the proper accounting of the meters on the financial statements. Two methods were available: (1) write-off the meters as disposition losses when they were removed from service at the 10-year test interval, or (2) change the estimated life to 10 years based upon the test results. It was determined that maintaining these meters on the balance sheet with a 20-year depreciation period would be overstating the life expectancy. On January 1, 2023, the estimated life of the Badger 5/8" meters was changed to 10 years to appropriately reflect the performance of the meters.

Recovery of the undepreciated Badger 5/8" meters will be through depreciation expense. The change to the 10-year life resulted in an adjustment to depreciation expense of $41,654 (SAO. Adjustment J) and the remaining undepreciated balance of meters will be depreciated over the remaining life using the 10-year depreciation basis.

b. With the proposed change in depreciated useful life from 20 years to 10 years, provide the number of meters now past the end of the useful life, or will reach it within the next year or two.

Response: Approximately 1,006 Badger 5/8" meters will reach their 10-year useful life by December 31, 2025.

c. Explain and provide Simpson District's proposed long term plan regarding meter infrastructure.

Response: Most Simpson District meters in service now are either mechanical or turbo type meters. Typically, meters that reach their useful life, or upon failure, are replaced with an ultrasonic meter. Ultrasonic meters are becoming the industry standard because they provide greater accuracy and reduced maintenance. New meter installations also include ultrasonic meters. Currently, ultrasonic meters installed by the District include Master Meter Sonatas – Size 5/8" and Size 1"; Kamstrup 5/8" and Size 1"; and Master Meter Octave – Size 2" and larger. In some installations, the District will continue to use Sensus Omni – Size 1.5" or larger meters which are mechanical but maintain accuracy and dependability as they age.

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6. Refer to Simpson District's response to Staff's First Request, Item 15a, Attachment 15a_Nonrecurring_Charges_Justification.pdf. Reconcile and explain the difference between the total non-recurring charge expense and the tariff charge for the following charges:

a. Returned Check Fee;

Response: See File: 6.a_Returned_Check_Fee

b. Delinquent Service Fee;

Response: See File: 6.b_Delinquent_Service_Fee

c. Meter Reading Recheck Fee;

Response: See File: 6.c_Meter_Reading_Recheck_Fee

d. Service Connection Fee;

Response: See File: 6.d_Service_Connection_Fee

e. Service Connection- After Hours Fee;

Response: See File: 6.e_Service_Connection-After_Hours_Fee

f. Service Investigation Fee;

Response: See File: 6.f_Service_Investigation_Fee

g. Service Investigation After Hours Fee;

Response: See File: 6.g_Service_Investigation_After_Hours_Fee

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h. Service Line Inspection Fee;

Response: See File: 6.h_Service_Line_Inspection_Fee

i. Meter Test Request Fee;

Response: See File: 6.i_Meter_Test_Request_Fee

j. Meter Investigation Fee.

Response: See File: 6.j_Meter_Investigation_Fee

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7. Refer to 807 KAR 5:076 Section 5(1)(a). State whether Simpson District posted, at its place of business, a copy of the notice no later than the date the application was submitted to the Commission. If not, explain why not.

Response: Yes, a copy of the public notice was posted at the Simpson County Office and Warren County Office on March 20, 2024. The application was submitted to the Commission on March 21, 2024.

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8. Refer to 807 KAR 5:076 Section (5)(1)(b)(1) and (2). State whether Simpson District, within five business days of the date of the application was submitted to the Commission, posted on its website a copy of the public notice and a hyperlink to the location on the Commission's website where the case documents are available. If yes, submit any proof of notice on the website with instructions on where to locate said publication. If not, explain why not.

Response: Yes, Simpson County Water posted the public notice on its website within five business days of the application date. The notice was posted to the website on March 20th and the application was submitted to the Commission on March 21st. The notice can be located at: https://www.simpsonwater.com/wp-content/uploads/2024/03/Customer-Notice-Simpson-District-03-07-2024.pdf

The public notice contains instructions to the Commission's website, address, telephone number, and instructions on comments and written request for intervention.

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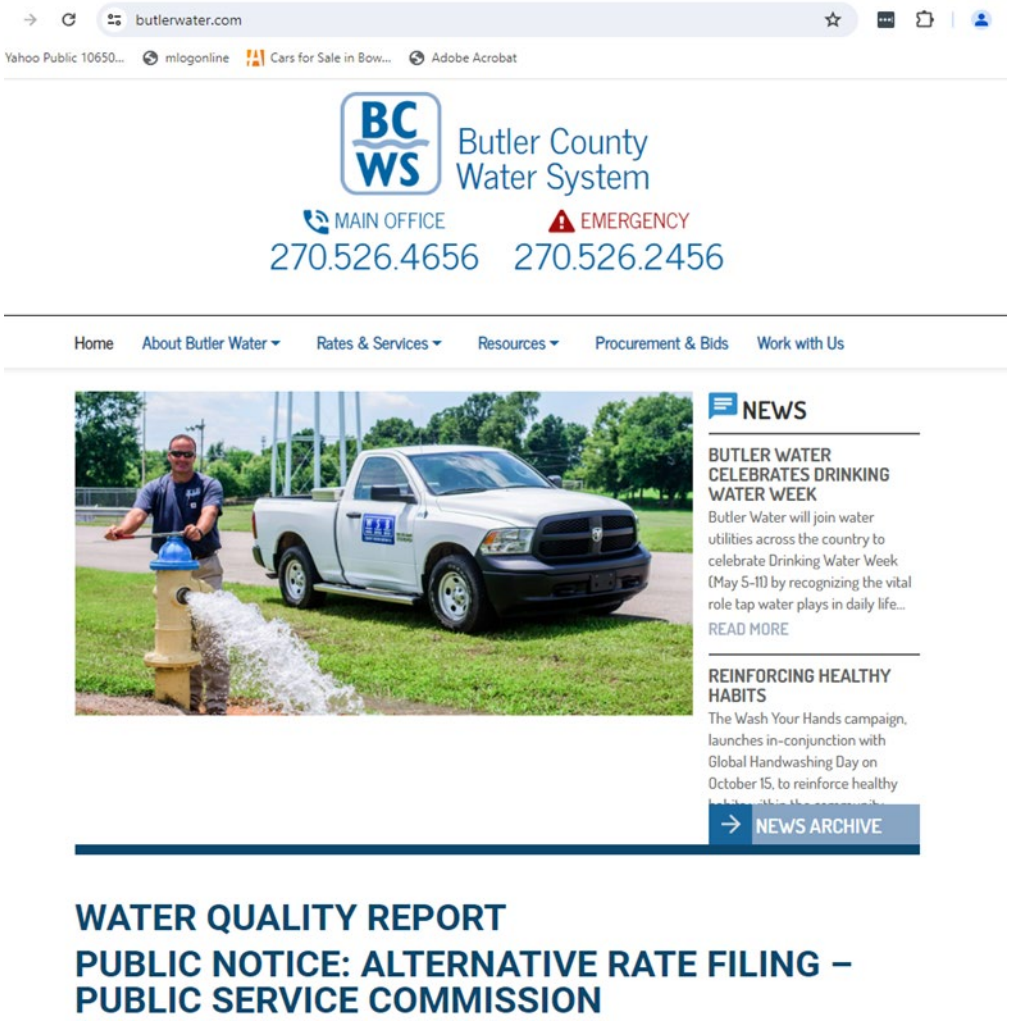

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9. Refer to 807 KAR 5:076 Section (5)(3). Provide the tear sheets showing the legal notice advertisement and any other documentation reflecting notice.

Response: See Files: 9_Affidavit
9_Tear_Sheet

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10. Provide a copy of the most recent invoice for Medical and Dental insurance Warren County Water District provides to employees.

Response: See File: 10_Medical_and_Dental_Invoice

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11. Provide the monthly unaccounted for water loss calculations for calendar years 2023 and 2024. If water loss is above 15 percent, explain what areas Simpson Water has identified in contributing to water loss and plans to reduce water loss.

Response: See Files: 11_2023_Monthly_Water_Loss_Reports
11_2024_Monthly_water_Loss_Reports

Identification of Water Loss Areas

Through the implementation of various advanced technologies and traditional methods, we have identified several key areas where water loss is prevalent. Our approach has included the following procedures:

1. **Supervisory Control and Data Acquisition (SCADA) Systems:**

   - **Implementation:** Our SCADA system continuously monitors water flow and pressure throughout the distribution network.

   - **Findings:** Data anomalies such as unexpected drops in pressure or unusual flow patterns have pinpointed potential leak locations and inefficiencies in the system.

2. **District Metering Areas (DMA):**

   - **Implementation:** We have subdivided our service area into 10 distinct DMAs, each monitored by precise flow meters.

   - **Findings:** Comparative analysis of water input versus consumption in these zones has highlighted areas with significant discrepancies, indicating potential leaks or unaccounted-for water usage. Currently, DMAs with high unaccounted-for water usage are: Hwy 31W North (Ky 1434); Hwy 31W South (Witt Road); and Blackjack (Roark Road, Kinnard Road, Phillips Lane). See list of line replacements in these areas in response to question 12.

3. **Flow Meters:**

   - **Implementation:** High-accuracy flow meters have been installed at strategic points within the distribution network.

- **Findings:** These meters provide granular data on flow rates, helping to identify both minor and major leaks in real-time. Recently, this meter was utilized to locate a line leaking 40 gallons per minute (57,600 per day) flowing underground on Old Nashville Road in the Hwy 31W North DMA.

4. **Leak Sensors:**

- **Implementation:** Acoustic leak detection sensors have been deployed across various parts of the network.

- **Findings:** These sensors detect sound waves generated by leaks, allowing us to locate even the smallest of leaks with high precision.

5. **Traditional Leak Detection Methods:**

- **Implementation:** Manual inspections and acoustic listening devices are used periodically to check for leaks in pipes and fittings.

- **Findings: These** methods, although labor-intensive, have been effective in identifying leaks that are not detectable by automated systems.

Plan to Reduce Water Loss

Based on our findings, we have developed a multifaceted plan to reduce water loss in the identified areas:

1. **Leak Repair and Infrastructure Upgrades:**

- **Immediate Repairs:** Prioritize and repair identified leaks promptly to minimize water loss.

- **Pipeline Replacement:** Replace aging and corroded pipes, especially in areas with recurrent leak issues.

- **Valve Replacement:** Upgrade old and malfunctioning valves to ensure proper control over water flow.

2. **Enhanced Monitoring and Maintenance:**

   - **Regular Inspections:** Increase the frequency of manual inspections and maintenance checks in high-risk areas.

   - **Real-Time Monitoring:** Expand the use of SCADA and DMA systems for continuous, real-time monitoring to quickly identify and address new leaks.

3. **Water Pressure Management:**

   - **Pressure Reducing Valves (PRVs):** Install PRVs in areas with high water pressure to reduce stress on pipes and lower the incidence of leaks.

   - **Pressure Management:** Continuously monitor and adjust pressure settings to maintain optimal levels across the distribution network.

4. **Community Engagement and Public Awareness:**

   - **Education Campaigns**: Launch public awareness campaigns to educate consumers on the importance of water conservation and encourage reporting of leaks.

5. **Advanced Leak Detection Technologies:**

   - **Smart Sensors:** Invest in more advanced leak detection technologies such as smart water meters that provide real-time data to both the utility and consumers.

   - **Remote Sensing:** Utilize satellite and drone technology for aerial surveys and thermal imaging to detect leaks in hard-to-reach areas.

6. **Data Analysis and Continuous Improvement:**

   - **Data Analytics:** Employ advanced data analytics to analyze trends and predict potential leak locations.

   - **Feedback Loop:** Establish a continuous improvement feedback loop where data from repairs and interventions are used to refine and improve our leak detection and prevention strategies.

7. Water Accountability Personnel:

Execution: As part of the water loss reduction plan, we want to highlight the collaborative efforts facilitated by our Joint Operations Agreement with the Warren County Water District. This partnership provides SCWD with access to a dedicated team of six highly trained water accountability professionals. These experts specialize in leak detection, meter testing, and the implementation of comprehensive water accountability programs. The team employs state-of-the-art technologies, including ground-sensing microphones, correlators, portable ultrasonic metering devices, and a network of acoustical loggers. Utilizing these advanced tools, the team conducts daily reviews of District Metered Area (DMA) data collected from the Supervisory Control and Data Acquisition (SCADA) system. By analyzing data for anomalies over the previous 24-hour period, they can promptly identify and address potential issues. Personnel are then strategically deployed to investigate and resolve any detected irregularities, ensuring efficient and effective water loss management.

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12. Refer to Simpson District's response to Staff's First Request Item 8, Attachment 8_Minutes_2023, at 2, paragraph 2.

a. State whether the grant funding represents the entirety of the projector if additional funding sources are required. If additional sources are required, provide each source, the amount, and the estimated approval date.

Response: Simpson County Water line replacement project includes the following roads due to high amounts of main breaks, leading to elevated water loss.

1. KY 1885 (Neosho/Prices Mill Rd)
2. Allen Road
3. KY 1434 (Salmons/Blackjack Rd)
4. Roark Road
5. Kinnard Road
6. Witt Road
7. Phillips Lane

The estimated project cost is $869,395 and will be funded by grants and internal funds as outlined below:

1. Cleaner Water Program Grants (WRIS Project Number WX21213052)
    a. Allocated grant funding 21CWW253: $180,174
    b. Allocated grant funding 22CWW040: $314,221

2. Simpson County Water estimated contribution from depreciation reserves: $375,000.

b. State when the project is expected to be started and completed.

Response: Simpson County Water projects the initiation of this project will occur in the fourth quarter of 2024. Following this commencement, the project is anticipated to reach completion by the fourth quarter of 2025. These timelines are projected based on current planning and funding availability assessments.

c. State if Simpson District sought Commission approval for the waterline replacement projects. If yes, provide the case number in which it was authorized.

Response: Simpson County Water did not seek prior approval from the Kentucky Public Service Commission for this project. The District did not consider filing for approval because the project did not fall within the requirements for a CPCN.

d. Provide copy of the executed agreement with Kentucky Infrastructure Authority for the grant referenced in the August 25, 2023, minutes.

Response: The above reference projects do not have executed agreements with the Kentucky Infrastructure Authority (KIA). Both Assistance Agreements are still in progress with KIA, but we have attached the commitment letters and signed agreements by SCWD for review.

See files: 12d KIA_Grant_Assistance_Agreement_22CWW040.
12d_KIA_Grant_Assistance_Agreement_21CWW253
12d_Commitment_21CWW253
12d_Commitment_22CWW040

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13. Refer to Simpson District's response Staff's First Request, Item 19. Explain if Simpson District's disposal of failed meters is a recurring event expected to recur annually or an unusual occurrence.

Response: Disposition of these meters are part of typical operations and maintenance of the water system and are expected to recur annually. Meters are removed from service for various reasons, including the following: accuracy failure; damage due to cold weather conditions, such as freezing temperatures; incidental damage caused by the customer; and intentional damage caused by the customer, such as tampering. Some meters can be repaired, tested, and returned to service. Disposition in these situations occur when the meter cannot be repaired.

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14. Refer to Simpson District's Current Tariff and Simpson District's response to Staff's First Request, Item 15, Attachment 15_Nonrecurring_Charges. Confirm whether the Delinquent Service to Reconnect and Delinquent Service to Reconnect - After Hours charges are components of the Delinquent Service charge. If so, explain why Simpson District separated the charges. If not, explain why they are listed as separate nonrecurring charges considering they are not listed in Simpson District's current tariff.

Response: Yes, the Delinquent Service to Reconnect and Delinquent Service to Reconnect After Hours are components of the Delinquent Service charge. These fees are associated with our collection process. The tariff states that the "Delinquent Service Charge is a charge of $25 made for a trip to collect a delinquent account or terminate service". This fee is referred to as Fee-Collection Trip in our billing system for a trip to collect a delinquent account or terminate service during regular business hours.

"Where a customer's service has been discontinued for nonpayment of bills and the delinquent customer has paid his or her outstanding bills for service and requested reconnection, the Water District shall assess a service connection charge in addition to a delinquent service charge to re-establish water service." The tariff states that the "Service Connection Charge is a charge of $25 made for all service reconnections made during regular working hours, except that there shall be no connection charge made for service on the original installation of facilities. If service is reconnected other than during regular working hours, the charge shall be $65". For purposes of tracking and reporting, we have named Fee-Reconnection Trip ($25) and Fee-Reconnection Trip-After Hours ($65) to use for reconnections in our collection process.