COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF	**)**	
MCCREARY COUNTY WATER DISTRICT	**)**	
FOR AUTHORIZATION TO EXECUTE	**)**	**CASE NO. 2018-00038**
LEASE-PURCHASE AGREEMENT AND	**)**	
RELATED RELIEF	**)**	

RESPONSE OF MCCREARY COUNTY WATER DISTRICT TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED MAY 23, 2018

FILED: JUNE 8, 2018

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF MCCREARY)

The undersigned, Stephen Whitaker, being duly sworn, deposes and states that he is the Superintendent of McCreary County Water District and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Stephen Whitaker

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 8 day of June 2018.

Notary Public (SEAL)

My Commission Expires: 7/13/18

Notary ID: 514600

MCCREARY COUNTY WATER DISTRICT

Response to Commission Staff's First Request for Information
May 23, 2018

Case No. 2018-00038

Question No. 1

Witness: Stephen Whitaker

Q-1. Refer to McCreary District's Application, Item 13, section B. McCreary District states that it is planning to reassign two of its current meter readers to new job duties: one to serve as an additional plant operator and another to perform system maintenance, including locating water leaks and other sources of water loss.

a. State whether McCreary District had planned to hire two additional employees to perform the job duties to which the meter readers are to be reassigned.

b. Provide the support for the need to make these additional hires.

c. If 1a above is confirmed, provide the proposed salary for each of the two employees McCreary District had planned to hire.

A-1. a. If the deployment of the proposed meters does not occur, McCreary District must hire two additional employees to perform the duties that two of the current meter readers would have reassigned to perform in lieu of reading meters.

b. Meter Reader #2 will be replacing a field crew employee who left McCreary District's employment in March 2018. This employee has advised McCreary District's management in Fall 2017 that he was actively seeking other employment opportunities.

Meter Reader #3 will be reassigned to McCreary District's water treatment plant as a water treatment plant operator. The Kentucky Division of Compliance Assistance recently certified him as a water treatment plant operator. McCreary District operates two water treatment plants, which are currently understaff. In 2017 McCreary District paid $38,322 in overtime paid to its water treatment plant operators because of a shortage of certified operators. This shortage is expected to worsen. McCreary District has been advised that its water treatment plant supervisor, who also serves as quality control officer for McCreary District's Bacteriological Laboratory, must devote more time to his quality control responsibilities if the Laboratory is to avoid deviations from Standard Operating Procedures. See Attachments 1A and 1B. Accordingly, he will have fewer hours available to work as a plant operator. The reassignment of Meter Reader #3 to the

water treatment plant is expected to ensure adequate personnel at the water treatment plant and to significantly lessen the need for overtime..

c. The starting hourly wage for all McCreary District is $10.50 per hour. Total hourly compensation is $17.34. (This amount uses the Kentucky Retirement System required employer contribution rate of 21.48 percent.) A breakdown of this compensation is shown below.

Wage	$10.50
Life Insurance	0.21
Health Insurance	3.82
Uniform	0.06
Retirement	2.26
Vacation	0.49
Total	$17.34

Please note that FICA employer taxes are not included in this breakdown.

MATTHEW G. BEVIN
GOVERNOR

CHARLES G. SNAVELY
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

AARON B. KEATLEY
COMMISSIONER

300 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40601

June 8, 2018

Mr. Stephen Whitaker
McCreary County Water District
158 Tom Roberts Roads
Whitley City, KY 42653

RE: Kentucky Drinking Water Laboratory Certification On-Site Evaluation – KY # 00255

Dear Mr. Whitaker,

After careful review of the KY DOW audit performed on April 25, 2018, it is my recommendation that the McCreary County Water District make changes in the staffing situation in the water treatment plant in order to provide John Canada with additional time to perform the necessary Qualtiy Assurrance and Quality Control responsibilities in the MCWD Bacteriological Laboratory to assure the lab maintains the high standards the KY DOW is accustom to seeing.

During the on-site audit it was obvious that John performing the duties of another half-time person. Therefore,providing John more time in the laboratory will help ensure future deviations from Standard Operating Procedures will be more unlikely to occur as well as allow the laboratory to run more efficiently.

If you have any questions regarding the above please contact me at **(606)356-6494** or (606) 783-8655 (MRO).

Sincerely,

Ted Pass II, PhD
Kentucky Drinking Water Program
Certification Officer
Morehead Regional Office
525 Hecks Plaza Drive
Morehead, KY 40351

MATTHEW G. BEVIN
GOVERNOR

CHARLES G. SNAVELY
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

AARON B. KEATLEY
COMMISSIONER

300 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40601

June 06, 2018

Mr. Stephen Whitaker
McCreary County Water District
158 Tom Roberts Road
Whitley City, Ky 42653

RE: Response to McCreay County Water District Laboratory's Corrective Action Plan - KY Lab #00255

Dear Mr. Whitaker:

Division of Water (DOW) received your laboratory's Corrective Action Plan (CAP) on June 01, 2018. After careful review of your laboratory's CAP, DOW has determined that your plan successfully addresses the deviations reported in the On-Site Evaluation Report.

Please note that once a corrective action plan has been accepted/approved by DOW, the laboratory is responsible to implement its CAP according to the completion dates specified by the laboratory and provide documentation to DOW. *DOW may revoke certification of an environmental laboratory in part or in total when the laboratory has failed to implement corrective actions specified in the corrective action plan.*

Also attached is your laboratory's Drinking Water Certification Audit Completion Certificate which documents the successful completion of the audit process. If you have any questions regarding the attached list, please contact me at (606) 356-6494 or by email at Ted.Pass@ky.gov.

Sincerely,

Ted Pass II
Kentucky Drinking Water Program
Microbiology Laboratory Auditor

Attachment

C Drinking Water File

Table 1. List of Deviations
McCreary County Water District Laboratory
KY Lab #00255
Audit Date: April 25, 2018

#	Deviation Description	Corrective Action/Necessary Change	Reference	Laboratory Response	DOW Response
1	**GENERAL:** The lab failed to perform the monthly QC of the Colilert PA and MPN methods for April 2017. A Corrective Action was not on file. .	In order for the laboratory to generate records that are thorough and legally defensible the lab must perform monthly QC of the Colilert PA and MPN methods as indicated in the Colilert Method SOP. Send auditor copy of the labs corrective action.	CM[1]; Chapter V, Section 8.1	The corrective action has been implemented. The Lab Director will review and sign all log books prior to the months end. This will allow time to complete any tasks that have not been completed.	Acceptable

1. EPA Manual for the Certification of Laboratories Analyzing Drinking Water: Criteria and Procedures Quality Assurance, 5th Edition, EPA 815-R-05-004 (January 2005).

MCCREARY COUNTY WATER DISTRICT

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Question No. 2

Witness: Stephen Whitaker

Q-2. Refer to page 7 of the Direct Testimony of Stephen Whitaker ("Whitaker Testimony"). Mr. Whitaker states that the savings in labor expense for meter readers will be approximately $105,406. Mr. Whitaker states that as a result of the proposed purchase and installation of the new meters, the portion of the annual compensation of the sole meter reader will become $7,392.

a. Confirm that this employee's total annual compensation will remain at $40,040 per year.

(1) If this employee is only devoting 32 hours per month towards meter reading, explain what other duties this employee will perform.

b. Confirm that the annual compensation of $28,329.60 and $44,428.80 for Reader #1 and Reader #2, respectively, will remain the same after the proposed purchase.

A-2. **a.** Mr. Whitaker testified:

> Currently McCreary District employs three employees to manually read its meters. Each employee devotes his entire work week to meter reading. After the proposed purchase and installation of the new meters, only one McCreary District employee will read meters. This employee will read all of McCreary District's meters within a four day period. Based upon the three employees' current wages and benefits, McCreary District annually expends approximately $112,798.40 for meter reading services. After the installation of the proposed metering equipment, this amount will be reduced to $7,392.

In his testimony Mr. Whitaker identified the McCreary District employee who will continue to perform meter reading duties after the purchase and deployment of the new meters as Meter Reader #1. Meter Reader #1's wage will remain the same after the purchase and deployment of the new meters. His total compensation will increase to $40,622.40 because of an increase in the required

employer contributions to the County Employees Retirement System that takes effect July 1, 2018. .

In addition to the 32 hours of each month devoted to meter reading, Meter Reader #1 will become responsible for all matters involving McCreary District's meters. He will be responsible for testing meters, maintaining meter records, marking meters in the routes on the highways, dealing with damaged meter boxes, testing meters that have been pulled for service due to non-payment, removing and reinstalling meters, and conducting annual inspections of meters and meter settings.

In addition, he will be trained to perform water line flushing and chlorine residual sampling. (McCreary District is currently required to flush its water lines and take water samples for chlorine residuals at four representative points in its water distribution system daily.) The McCreary District employee who currently performs these duties is scheduled to retire in July 2018. That employee will not be replaced. Meter Reader No. 1 will gradually be transitioned into performing those duties after the new meters are installed.

b. See page 7, footnote 4 of Mr. Whitaker's Testimony.

The hourly wage rate of Meter Reader #3 will not change. The hourly wage of Meter Reader #2 will increase to $12.00. The wage increase is due to Meter Reader #2's completion of water plant operator training and obtaining water treatment plant operator certification. McCreary District policy requires a wage increase when an employee achieves such certification. The total hourly compensation rate for Meter Readers #2 and #3 will also change as a result of an increase in the required employer retirement contribution to the County Employees Retirement System, which is effective July 1, 2018.

MCCREARY COUNTY WATER DISTRICT

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Question No. 3

Witness: Stephen Whitaker

Q-3. Refer to page 10 of the Whitaker Testimony. Provide an estimate for the savings that may occur due to the reduction in water loss.

A-3. McCreary District has no precise means of measuring the savings from the reduction in water loss that it anticipates will result from the proposed deployment of the metering equipment. However, it has estimated the increased revenue resulting from the more accurate measurement of water usage. (One source of water loss is unrecorded water usage because the usage flows are too low for the existing water meters to record.)

McCreary District purchased and installed approximately 591 Kamstrup meters in 2017 to test the meter's performance. Most were 5/8-inch x 3/4-inch flowIQ 2100 meters. McCreary District reviewed the billing data for the customers of one billing route whose older water meters had been replaced with a Kamstrup flowIQ 2100 meter. There were approximately 68 customers on this route. McCreary District compared these customers' water usage for the month of April 2017 (a period prior to the installation of the Kamstrup meters) with their water usage for the month of April 2018 (with the Kamstrup meters). The review showed that recorded water usage increased from 251,600 gallons to 281,800 gallons, or 12 percent. The average increase was 444 gallons per customer.

Based upon its review, McCreary District estimates an annual increase in water revenue of $203,736. The calculations for this estimate are shown below.

Increase in monthly recorded water usage: 281,800 gallons – 251,600 gallons = 30,200 gallons

Average Increase per customer: 30,200 gallons ÷ 68 customers = 444 gallons

Annual Increase in Billed Gallons: 444 x 12 months x 5,665 customers = 30,183,120 gallons

Annual Increase in Revenue: 30,183,120 gallons x $6.75 per 1,000 gallons = $203,736

MCCREARY COUNTY WATER DISTRICT

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Question No. 4

Witness: Stephen Whitaker

Q-4. Automatic meter reading ("AMR") technology is currently being phased out by electric utilities in favor of newer advanced metering infrastructure technology.

a. Explain whether McCreary District is concerned that the same might occur for water utilities that recently have switched to AMR meters.

b. Explain whether McCreary District has a contingency plan should AMR technology become obsolete before the end of the useful lives of the meters it is proposing to acquire.

A-4. a. The metering equipment that McCreary District proposes to purchase is advanced metering infrastructure ("AMI") technology. The Kamstrup flowIQ 2100 and flowIQ 3101 are two of the most advanced water meters currently available. Each meter has the capability of transmitting a significant amount of data every 16 seconds for a 20-year period. Each meter can easily be integrated into a fixed-base AMI network to allow the utility to receive real-time information about its water distribution system. The topography of McCreary County, Kentucky, with its numerous hills and valleys, would require the installation at least 10 fixed-base relay stations to enable the continuous transmission and relay of the meter information to a central office. The cost of one fixed-base relay station is approximately $80,000. Therefore, the construction of such network is currently uneconomical. For this reason, McCreary District will initially collect the data using a motor vehicle. If the cost of constructing fixed-base relay stations declines, McCreary District will investigate constructing a fixed AMI network.

A list of the data that these proposed meters collect and store is found at Exhibit 4, page 62 of McCreary District's Application. This data includes the daily minimum, maximum, and average water and ambient temperature; the maximum and minimum flows of water for a designated period; the date of the minimum and maximum flows. The meters have the capability of storing up to 460 days of daily information and 36 months of monthly information.

The meters have the ability to detect customer's leak. If the water meter has not registered a minimum of one continuous hour without water flow within the latest

24 hours, a sign of a leakage in the water installation, it will signal an alarm that continues until there is an hour without flow in the meter.

The meters will also report signs of a burst in pipe installations when the flow exceeds a given value for a continuous period of 30 minutes.

The meter will also report signs of tampering - when it has been exposed to unauthorized access and disassembled, when the water in the meter flows in the wrong direction, and when there has been air in the meter for an extended period of time.

b. See response to Item 4a. McCreary District is proposing to purchase advanced metering infrastructure equipment, not automatic meter reading equipment. Accordingly, McCreary District does not believe that a contingency plan to address the obsolescence of automatic meter reading equipment is necessary.

MCCREARY COUNTY WATER DISTRICT

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Question No. 5

Witness: Stephen Whitaker

Q-5. Refer to page 5 of the Whitaker Testimony. Mr. Whitaker states that the meters McCreary District proposes to replace are mechanical displacement meters that range in age from seven to ten years. For the meters that McCreary District proposes to replace, provide the following:

a. The original cost, accumulated depreciation, and depreciable life for each meter size that corresponds to McCreary District's current depreciation schedule.

b. The proposed journal entries that McCreary District intends to make (with proposed salvage value, if any) to reflect the removal of its current meters from service.

c. Information indicating the method by which McCreary District intends to account for the remaining depreciation on its mechanical meters when they are removed from service.

(1) If McCreary District intends to amortize the remaining depreciation on its mechanical meters, indicate the proposed number of years it will use in its calculation.

A-5. a. The original cost of the meters that McCreary District proposes to replace is $983,554. Accumulated Depreciation on these meters is $690,006. These meters have a remaining basis of $293,548. McCreary District currently uses a useful life of 40 years for its meters. McCreary District's recent experience with metering equipment, however, indicates that most water meters currently have a useful life of 20 years or less.

b. McCreary District's accountant advised Mr. Whitaker that to remove from fixed assets the salvage value of the replaced meters, McCreary District will make the following entry:

Inventory	21,300	
Acct 108 A/D Utility Plant		21,300

McCreary District's accountant advised Mr. Whitaker that to reflect the removal of the replaced meters from its books, McCreary District will make the following entry:

Acct 334 Meters		983,554
Acct 108 A/D Utility Plant	711,306	
Loss on Disposition of Asset	272,248	

c. McCreary District intends to sell the replaced meters. Therefore, there is no remaining depreciation to amortize.

MCCREARY COUNTY WATER DISTRICT

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Question No. 6

Witness: Stephen Whitaker

Q-6. Confirm that McCreary District's current water rates will not be increasing due to the purchase of the new metering equipment.

A-6. McCreary District has no plan to apply for any rate adjustment due to the proposed metering equipment purchase. McCreary District anticipates that the savings resulting from the proposed installation of the metering equipment will be equal to or exceed the metering equipment's purchase cost.

MCCREARY COUNTY WATER DISTRICT

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Question No. 7

Witness: Stephen Whitaker

Q-7. Provide a table detailing the costs and estimate savings and benefits for the proposed metering project.

A-7. See Attachment 7.

ANNUAL SAVINGS/BENEFITS

SALARY[1]		
$10.50/hour x 2,080 hours per year x 2 employees	$43,680.00	
BENEFITS[2]		
$6.84/hour x 2,080 hours per year x 2 employees	$28,454.40	
FICA EMPLOYER TAXES		
$43,680 x .0765	$ 3,341.52	
TRUCK EXPENSE		
Depreciation[3]	$ 6,000.00	
Fuel Cost[4]	$ 4,500.00	
TOTAL COST SAVINGS		$ 85,975.92
REVENUE FROM PREVIOUSLY UNMETERED SALES[5]		$203,736.00
ANNUAL TOTAL MONETARY SAVINGS		**$289,711.92**

ANNUAL COST

ANNUAL DEBT PAYMENT[6]	**$ 96,987.62**

[1] Starting salary for two additional employees needed if proposed metering equipment is not deployed. Analysis does not take into consideration the additional duties that the remaining meter reader will be assigned in addition to his meter reading duties.

[2] Includes health insurance, pension expense, life insurance, uniform, and vacation benefits, but not FICA Taxes.

[3] Depreciation on two trucks; calculated using a truck purchase price of $15,000 and a useful life of 5 years.

[4] Fuel cost per truck was calculated using 1,500 miles driven per month, fuel efficiency of 20 miles per gallon, and an average gas cost of $2.50 per gallon. Assumes elimination of two trucks.

[5] See Item 3, McCreary County Water District's Response to Commission Staff's First Request for Information,

NON-QUANTIFIABLE BENEFITS

1. Reduced non-revenue water;

2. Enhanced leak detection;

3. Safer work environment for McCreary County Water District employees

4. Reduced number of estimated bills. Meters can be more easily read in inclement weather or when located in a difficult to access location;

5. Reduced number of meter re-reads;

6. Elimination of human errors. Approximately two percent of all meter readings currently performed are misreads;

7. Enhanced customer service by responding to customer issues with near-real-time water usage data; and

8. Detect theft of service.

MCCREARY COUNTY WATER DISTRICT

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Question No. 8

Witness: Stephen Whitaker

Q-8. Confirm that McCreary District is in compliance with 807 KAR 5:066, Section 15(2). If so, state where in the Application this requirement has been addressed.

A-8. McCreary District is currently in compliance with 807 KAR 5:066, Section 15(2). As neither KRS 278.020, 807 KAR 5:001, or 807 KAR 5:066 requires an applicant to address the requirements of 807 KAR 5:066, Section 15(2) in an application for authorization to issue evidences of indebtedness or for a certificate of public convenience and necessity, McCreary District did not address the requirement in its Application.