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PUBLIC SERVICE COMMISSION

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

INVESTIGATION OF THE OPERATING)
CAPACITY OF MARTIN COUNTY WATER) CASE NO. 2016-00142
DISTRICT PURSUANT TO KRS 278.280)

SUPPLEMENT WITNESS & EXHIBIT LIST WITH ATTACHMENTS

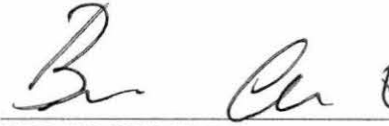
Comes the Martin County Water District (District), by counsel, and hereby state that they will call the following witnesses and introduce the following exhibits at the hearing in this matter.

WITNESS LIST

- 1. Joe Hammond
2. Kelly Callaham
3. Greg C. Heitzman of BlueWater Kentucky (CV previously provided).
4. The District reserves the right to amend this Witness List as necessary.

EXHIBIT LIST

- 1. Final draft of proposed Lease and Emergency Water Supply Agreement with PCUC.
2. Draft of report prepared by Blue Water Kentucky.
3. The District reserves the right to amend this Exhibit List as necessary.



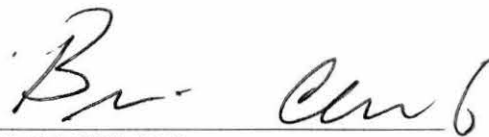
BRIAN CUMBO
COUNSEL FOR MARTIN COUNTY
WATER DISTRICT
P.O. BOX 1844
INEZ, KY 41224
TELEPHONE: (606) 298-0428
TELECOPIER: (606) 298-0316
EMAIL: cumbolaw@cumbolaw.com

CERTIFICATE OF SERVICE

This will certify that a true and correct copy of the foregoing was mailed, overnight mail, postage paid, on this the 9 day of January, 2018, to the following:

Public Service Commission
ATTN: Jeb Pinney
P.O. Box 615
Frankfort, KY 40602

Hon. Mary Varson Cromer
Appalachian Citizens' Law Center, Inc.
317 Main Street
Whitesburg, KY 41858



BRIAN CUMBO

TANK LEASE AND WATER SUPPLY AGREEMENT

THIS TANK LEASE AND WATER SUPPLY AGREEMENT (hereinafter “Agreement”) is made and entered into the 1st day of January, 2018, by and between the MARTIN COUNTY WATER DISTRICT (hereinafter referred to as “District”), of 387 Main Street, Suite 140, Inez, Martin County, Kentucky 41224, and PRESTONSBURG CITY’S UTILITIES COMMISSION (hereinafter referred to as “PCUC”), of 2560 South Lake Drive, Prestonsburg, Floyd County, Kentucky 41653.

RECITALS

WHEREAS, the Parties have entered into that certain Interlocal Cooperation Agreement for the Development of Utility Infrastructure dated the 15th day of January, 1998, recorded in Misc. Book 6, Page 12, in the office of the Floyd County Clerk, Floyd County, Kentucky (hereinafter the “Interlocal Agreement”);

WHEREAS, the Parties, pursuant to and consistent with the Interlocal Agreement, entered into the Joint Operation Agreement dated July 3, 2000 (hereinafter the “Joint Operation Agreement”) to develop the necessary water transmission lines, pumping station, tanks, and related appurtenances to jointly provide water services to the Big Sandy Federal Prison (“Federal Prison”) constructed by the Federal Bureau of Prisons (“Bureau”) at the Honey Branch Industrial Park (“Industrial Park”) in Martin County, Kentucky;

WHEREAS, pursuant to Section 3 of the Joint Operation Agreement, the District constructed and owns a water storage tank of approximately 1,040,000 gallons capacity including related appurtenances (hereinafter the “Honey Branch Storage Tank”);

WHEREAS, the parties hereto entered into that certain Tank Maintenance Agreement dated the 1st day of March, 2010;

WHEREAS, the parties hereto entered into the First Amendment to the Joint Operation Agreement on the 1st day of January, 2017, to adjust the respective water rates charged by each party.

**SECTION ONE
DESCRIPTION OF PREMISES**

District leases to PCUC, and PCUC hires from District, for any and all lawful purposes, that water storage tank, appurtenances, and equipment associated therewith (“Demised Premises”), owned by District, and situated at the Industrial Park.

**SECTION TWO
RENT**

PCUC agrees to pay, without demand, to District, as rent for the Demised Premises, \$15,000.00 per month, on the fifteenth (15th) of every month, which sum shall be paid to District by placing in the United States mail, payment to the District, at the address designated by District as 387 Main Street, Suite 140, Inez, Kentucky 41224. Said payments are past due if not received by the 20th, and PCUC shall pay a late fee equal to five percent (5%) of the rent due.

**SECTION THREE
WATER SERVICE**

As additional consideration, PCUC will provide, at no cost to District, up to 625,000 gallons per month of treated water, at such existing, or newly installed master meters in such locations as determined by mutual agreement between the parties with said meters to be AWWA compliant at all time. The locations bound by this Agreement

shall include the Industrial Park, and the main pump station operated by PCUC on Airport Road. It is clearly understood that all customers situated now, or in the future, at the Industrial Park, are District's customers, other than the Federal Prison and all responsibility for serving the District's customers shall remain the sole obligation of the District. The District shall be responsible for reading the meters of its customers, billing and collection, and shall receive all revenue therefrom.

In the event the District requires a supplemental treated water supply over and above the 625,000 gallons provided to the District by PCUC at no cost, PCUC will sell to the District and the District shall purchase, treated water at the rate of \$4.00 per thousand gallons. Payment for the supplemental water purchased from PCUC by the District shall be paid to PCUC by the fifteen (15th) of the month immediately following said sale of supplemental water. Payment shall be paid to PCUC by the District placing said payment in the United States mail to the address designated by PCUC as 2560 South Lake Drive, Prestonsburg, Floyd County, Kentucky 41653. Said payment shall be deemed past due if not received by the fifteenth (15th) of the next successive month, and PCUC shall add a late fee equal to five percent (5%) of the payment due. Further, if payment by the District is not made by the thirtieth (30th) of that month an additional five percent (5%) late fee will be added. Upon being sixty (60) days past due the late fee interest will increase an additional five percent (5%) on the first (1st) of every month thereafter until the payment is made in full.

The parties agree that, at any time hereafter, should PCUC be successful at renegotiating the rate charged to the Big Sandy Federal Prison, currently \$7.95 per

thousand, then the District shall also receive an increase in rent equal to the percentage increase paid to PCUC by the Federal Prison, and any successive increases.

SECTION FOUR TERM

This Lease shall be for a period of ten (10) years from the date of this Agreement, and may be extended by mutual agreement for three additional five (5) year periods. The monthly rental fee and water rates for each additional five (5) year period will be established in writing prior to the date of extension. Any notice of termination must be provided in writing at least ninety (90) days in advance of the termination date.

SECTION FIVE ALTERATIONS & IMPROVEMENTS

PCUC shall not be permitted to make alterations to the structures or equipment on the Demised Premises or construct any building or make other improvements on the Demised Premises, without prior written consent. All alterations, changes, and improvements built, constructed or placed on the premises by PCUC with the exception of fixtures removable without damage to the premises and moveable personal property, shall, unless otherwise provided by written agreement between District and PCUC, be the property of District and remain on the Demised Premises at the expiration or sooner termination of this Lease. However, the District expressly consents to the installation of master meters to meter water delivered to the District's distribution system and customers. Further, PCUC shall be responsible for all maintenance, repairs and upkeep relative to the storage tank, appurtenances and associated equipment, in accordance with all Kentucky drinking water regulations.

The District shall be responsible for all repairs and upkeep to its distribution system at Industrial Park, and from its distribution point in the existing main pump station located on Airport Road just off Ky. Route 3.

SECTION SIX RIGHT OF INSPECTION

District and its' agents shall have the right to make inspection of the Demised Premises and the improvements thereon, as reasonably necessary. The District shall have the unimpeded right to access, and read, the meters installed by PCUC identified in Sections Three. Provided, however, such right of inspection shall not any way interfere or impede the maintenance or operation of the Demised Premises, and the District shall provide reasonable notice of at least twenty-four (24) hours prior to making an inspection.

SECTION EIGHT SUBLETTING

PCUC may not sublet the premises or equipment, in whole or in part, without District's written consent.

SECTION NINE SURRENDER OF PREMISES

At the expiration of the Lease term or renewal term, PCUC shall quit and surrender the premises and equipment hereby demised in as good a state and condition as they were at the commencement of this Lease, reasonable use and wear thereof and damages is excepted.

SECTION TEN EARLY TERMINATION

This Agreement shall terminate immediately if at any time for any reason the Federal Prison is no longer a customer of PCUC.

SECTION ELEVEN DEFAULTS

Should any party to this Lease be in default, the other shall notify said party by certified mail of such default at the address recited herein. If said default is capable of cure, it shall be done within ten (10) days after such notice has been provided.

Nothing herein, however, shall preclude the parties claims for damages, should any default occur.

SECTION TWELVE BINDING EFFECT

The covenants and conditions herein contained shall apply to and bind the heirs, legal representatives, and assigns of the parties hereto, and all covenants are to be construed as conditions of this Lease.

SECTION THIRTEEN KENTUCKY LAW

That Kentucky law governs any dispute, and venue shall exclusively lie in Martin County, Kentucky.

SECTION FOURTEEN TERMINATION OF RELATED AGREEMENTS

This Agreement, as amendment of the Joint Operation Agreement, is entered into pursuant to Section 25(b) of the Joint Operation Agreement, and shall supersede said Joint Operation Agreement, which shall be hereinafter null and void, except for payments due for water delivered by the respective parties hereto prior to the execution of this Agreement. In addition, the First Amendment to the Joint Operation Agreement and the

Tank Maintenance Agreement be null and void at the same time as the Joint Operation Agreement.

**SECTION FIFTEEN
PSC JURISDICTION**

This Agreement shall be filed by PCUC with the Kentucky Public Service Commission (“Commission”), and shall be subject to the Commission’s jurisdiction.

**SECTION SIXTEEN
DAMAGE TO OR DESTRUCTION OF LEASED PREMISES**

A. If during the term of this Lease the Demised Premises are totally destroyed by any cause, the PCUC may, at its option, terminate this Lease by giving the District written notice thereof within thirty (30) days after such destruction.

B. In case the Demised Premises without the fault of PCUC, is damaged to the extent that it is unusable and if such damage is not repairable within sixty (60) days from the date of the damage, PCUC may, at its option, terminate this Lease by giving the District written notice thereof within thirty (30) days after such damage.

C. In case the Demised Premises, without the fault of PCUC, shall be destroyed or damaged, prepaid rent shall be refunded or credited in whole or in part, and future rent shall abate in whole or in part, as may be equitable under all the circumstances.

**SECTION SEVENTEEN
HOLDOVER**

If, at the expiration or termination of this Lease, PCUC shall hold over for any reason, the tenancy of PCUC thereafter shall be on a month-to-month basis only and shall be subject to all other terms and conditions of this Lease, in the absence of a written agreement to the contrary.

**SECTION EIGHTEEN
WARRANTIES OF DISTRICT; ENCUMBRANCES**

District covenants and warrants that it is lawfully seized in fee of the Demised Premises; that District has full right to lease the same as aforesaid; that so long as PCUC complies with the covenants and conditions herein contained, it shall have the quiet and peaceable possession and enjoyment thereof; that there are no zoning restrictions, easements, restrictive covenants, adverse possessions, or tenancies which will prevent the use of the Demised Premises for distribution of potable water and that said Demised Premises are free and clear of all liens and encumbrances, except for liens held by Kentucky Infrastructure Authority or by Rural Development, if any.

**SECTION NINETEEN
INSURANCE**

A. Fire and Extended Coverage. The District shall carry casualty insurance relating to the water storage tank and related facilities constructed upon the Leased Premises for the full cost of replacement thereof. In the event of damage or destruction of the water tank portion of the Leased Premises, this Lease shall terminate and thereafter be of no force and effect.

B. Public Liability Coverage. PCUC shall continually during the Term, carry public liability insurance with respect to the Premises. Such insurance policy shall have a combined single limit of liability of One Million Dollars (\$1,000,000.00) for bodily injury or death to any one person and for damage to property. A copy of the policy or a certificate of insurance shall be delivered to the District. The District, its successors and assigns, shall be named a coinsured thereon, and the policy shall contain a clause that the

insurer will not cancel or change the insurance without giving the District thirty (30) days prior written notice. The insurance shall be in an insurance company having a rating of "A" or better in Best's Insurance Reports.

C. Indemnification of the District. PCUC will indemnify the District, its heirs and assigns, and hold them harmless from and against any and all claims, actions, damages liability and expense in connection with loss of life, personal injury and/or damage to property arising from or out of any occurrence in, upon, or at the Leased Premises, or the occupancy or use by PCUC of the Leased Premises or any part thereof, or occasioned, in whole or in part, by any act or omission of PCUC, its agent, contractors, employees, servants, lessees or concessionaires, including, but not limited to, environmental contamination, unless the aforesaid injuries or damages are attributable to acts of the District or that of its servants, agents, licensees, invitees or contractees, for which the District is legally responsible, or to the acts of any third parties not under the control of PCUC.

D. Indemnification of PCUC. The District will indemnify PCUC, its successors and assigns, and hold them harmless from and against any and all claims, actions, damages liability and expense in connection with loss of life, personal injury and/or damage to property arising from or out of the District's failure to perform the District's obligations under the terms and conditions of this Lease or occasioned, in whole or in part, by any act or omission of the District, its agents, contractors, employees, servants, lessees or concessionaires, including, but not limited to, environmental contamination, unless the aforesaid injuries or damages are attributable to acts of PCUC

or that of its servants, agents, licenses, invitees or contractees, for which PCUC is legally responsible, or to the acts of any third parties not under the control of the District.

**SECTION TWENTY
EFFECTIVE DATE**

This Agreement shall become effective thirty (30) days after the date this Agreement is filed with the Commission, unless the Commission opens an investigation into the transaction contemplated by this Agreement.

This Agreement is entered into and made as of the day and year first above written, but shall be effective in accordance with the preceding Section without regard to the fact that execution hereof by the Parties shall have been effected at the same time or at other times.

ATTEST:

John P. Hendley
SECRETARY

MARTIN COUNTY WATER DISTRICT

BY: Jeff Howard
ITS: Business Manager

PRESTONSBURG CITY'S UTILITIES
COMMISSION

BY: _____
TURNER E. CAMPBELL,

SUPERINTENDENT

ATTEST:

JIM CALHOUN, CHAIRMAN
OF THE PRESTONSBURG
CITY'S UTILITIES COMMISSION

EMERGENCY WATER SUPPLY AGREEMENT

THIS AGREEMENT, made and entered into this 1st day of January, 2018, by and between the PRESTONSBURG CITY'S UTILITIES COMMISSION ("PCUC") and MARTIN COUNTY WATER DISTRICT ("District").

WITNESSETH:

That the parties hereto, for and in consideration of the covenants of this Agreement hereinafter set out, to be paid, kept and performed, hereby agree as follows:

1. Water Delivery Points. The District agrees to furnish emergency water supply service to PCUC during the term of this contract at a point of delivery located on Route 3, Davella, Kentucky near the Federal Prison (the "Delivery Point"), and PCUC agrees to purchase potable treated water meeting applicable purity standards of the Kentucky Department of Health.
2. Maximum and Minimum Quantities of Water. The District shall deliver and PCUC shall purchase quantities of water not to exceed 200,000 gallons per day of twenty-four hours, and not to exceed 6,000,000 gallons per month in the aggregate through the Delivery Point. PCUC shall not be required to take a minimum quantity at any time.
3. Metering Equipment and Testing. PCUC agrees to furnish, install, operate and maintain at its own expense at the Delivery Point, the necessary metering equipment, including a meter house or pit and required devices of standard type for properly measuring the quantity of water delivered to PCUC. PCUC shall calibrate the metering equipment at the Delivery Points whenever requested by the District, but not more frequently than four times

every twelve (12) months. A meter registering not more than two percent (2%) above or below the test result shall be deemed to be accurate. The previous readings of any meter disclosed by test to be inaccurate shall be corrected for the three (3) months previous to such test in accordance with the percentage of inaccuracy found by such tests. If any meter fails to register for any period, the amount of water delivered shall be adjusted to the amount delivered in the corresponding period immediately prior to the failure. An appropriate official of PCUC, at all reasonable times, shall have access to the meters for the purpose of verifying its readings. Likewise, an appropriate official of the District, at all reasonable times, shall have access to meters for the purpose of verifying its readings. The ownership of the meter and related equipment at the Delivery Point shall remain with PCUC.

4. Statement of Water Supplied. The District agrees to furnish PCUC, once each month, a statement of the quantity of water furnished, if any, PCUC during the applicable billing period.
5. Payment Policy. PCUC agrees to pay, upon receipt of a statement, to District, on the fifteenth (15th) of every month, which sum shall be paid to District by placing in the United States mail, payment to the District, at the address designated by District as 387 Main Street, Suite 140, Inez, Kentucky 41224. Said payments are past due if not received by the 15th, and PCUC shall pay a late fee equal to 5% of the payment due. If payment by PCUC is not made by the thirtieth (30th) of that month an additional five percent (5%) late fee will be added. Upon being sixty (60) days past due

the late fee interest will increase an additional five percent (5%) on the first (1st) of every month thereafter until the payment is made in full.

6. Rate Schedule. PCUC agrees to pay the District Four Dollars (\$4.00) per thousand gallons, for water delivered in accordance with this Agreement.
7. Rate Schedule Modifications. The rate set forth in this Agreement shall be adjusted in an amount equal to the rate modification set forth in Section 2 of the Tank Lease and Water Supply Agreement of even date, at such times provided for in such Agreement.
8. Termination. The term of this Agreement shall be for a period of ten (10) years from the date of this agreement, and may be extended by mutual agreement for three additional five year periods. The water rates for each additional five year period will be established in writing prior to the date of extension. Any notice of termination must be provided in writing at least 90 days in advance of the termination date.
9. Fire Protection and System Reliability. The District shall not be responsible in any way for the failure of PCUC to furnish sufficient water for fire protection purposes, or sufficient water storage tanks for system reliability purposes, and PCUC shall indemnify the District from any such claims related thereto.
10. Indemnification. Each party shall indemnify the other party, its employees, and agents from all claims, demands, and liabilities of any kind relating to or arising out of this Agreement, except to the extent such claims, demands, or liabilities result from or arise out of the negligence of party being indemnified, or for which the party has insurance coverage.

11. Chlorination. PCUC shall be responsible for any additional chlorination of the water furnished by the District if such chlorination is required by any Federal or State governmental policy.
12. Interruptible Service. If the District does not have a sufficient supply of water to supply its customers, then the District at its sole discretion, may reduce or terminate service hereunder at any time.
13. Force Majeure. All obligations of either party with respect to service hereunder shall be excused without liability during the pendency of any condition of force majeure. Force majeure shall include any act, event or condition beyond the reasonable control of the party claiming force majeure, and shall include, but not be limited to, any act of God, fire, storm, earthquake, freezing condition, wind, flood, drought, snow, water used to fight fires, line breaks, environmental release, breakage of or delay in receiving parts, equipment or supplies, or shortage thereof, strike or lockout, or any act, event or requirement of any governmental law, regulation or entity. Force majeure shall not include routine line leakage or financial inability to pay, and shall not excuse payment for services rendered by the District, including the payment of the District's bill, if any.
14. Notices. All notices and other communications provided hereunder shall be in writing and shall be delivered personally or transmitted by registered or certified mail, return receipt requested or by a recognized overnight courier service. Such notice shall be deemed to have been given at the time of personal delivery or upon receipt thereof, as reflected on the signed certificate or delivery statement of the courier service. Notice must be

delivered or sent to the party at the following address or to such other address as a party may have designated by notice:

TO PRESTONSBURG: Prestonsburg City's Utilities Commission
 2560 South Lake Drive
 Prestonsburg, Kentucky 41653

TO THE DISTRICT: Martin County Water District
 387 Main Street, Suite 140
 Inez, KY 41224

15. Amendment. This Agreement may be amended in writing only, duly signed by both parties, and will be governed by and construed in accordance with Kentucky law.
16. Binding Effect and Benefit. Upon execution, the Agreement will inure to the benefit of and be binding upon the parties hereto and their respective heirs, personal representatives, successors and assigns, subject to regulatory approval as set forth below; provided, however, neither this Agreement nor any rights and obligations hereunder may be assigned by PCUC without the written consent of the District.
17. Severability. The terms and provisions of this Agreement shall not be severable, and in the event that any term or provisions hereof is held to be invalid or unenforceable, the remaining terms or provisions hereof shall be invalid and unenforceable, and Prestonsburg shall have no further obligation hereunder.
18. Regulatory Jurisdiction. This Agreement is subject to the jurisdiction of the Kentucky Public Service Commission ("Commission"), and consequently, shall be filed by PCUC with the Commission.

19. Non-Waiver. The parties' failure to exercise any of its rights hereunder at any time will not operate as a waiver of its right to exercise same at any other time(s).
20. Counterparts. This Agreement may be executed in several counterparts with the same effect as if the parties executing the several counterparts had all executed one counterpart.

This Agreement shall become effective thirty (30) days after the date this Agreement is filed with the Commission, unless the Commission opens an investigation into the transaction contemplated by this Agreement.

This Agreement is entered into and made as of the day and year first above written, but shall be effective in accordance with the preceding Section without regard to the fact that execution hereof by the Parties shall have been effected at the same time or at other times.

MARTIN COUNTY WATER DISTRICT

ATTEST:


SECRETARY

BY: 
BUSINESS MANAGER

PRESTONSBURG CITY'S UTILITIES
COMMISSION

BY: _____
TURNER E. CAMPBELL,
SUPERINTENDENT

ATTEST:

JIM CALHOUN, CHAIRMAN

MCWD Recommendations
Prepared by BlueWater Kentucky

Presented to the
Martin County Water District Board of Commissioners

January 4, 2018

BACKGROUND

The Martin County Water District (MCWD or District) retained the services of BlueWater Kentucky beginning January 1, 2016. The scope of services includes a review of the District's management and operations; a review of the annual operating budget; a review of the adequacy of rates; and a review of the capital improvement program. This report provides a summary of the Observations and Recommendations for the District's Board to consider.

OBSERVATIONS

BlueWater Kentucky provides the following Observations following six months of reviewing the finance, management, operations and maintenance of the District. Various reports, including District Annual Reports to the Kentucky Public Service Commission (PSC), financial audits, and management audits were reviewed in preparation of these observations. These observations should be reviewed and validated by the MCWD Board and Management, prior to accepting the Recommendations and implementing corrective action.

1. MCWD did not comply with the EPA Stage 2 Disinfection By Products (DBP) Rule for the period July 2013 to July 2017, when the annual quarterly average of Trihalomethane (TTHM) and/or Haloacetic Acids (HAA5) levels exceeding 0.080 mg/l and .060 mg/l, respectfully. Changes to the water treatment process in 2017, including the relocation of the chlorine feed point, has improved water quality and as of the third quarter, MCWD is in compliance with the EPA Stage 2 DBP Rule.
2. MCWD has a very high rate of water loss, averaging 64 percent for 2016. The primary cause of the water loss includes service line leakage, water main breaks and leaks, inaccurate meters and water theft. With the assistance of Kentucky Rural Water Association (KRWA), District resources were able to reduce water loss below 55 percent

in 2017, however additional resources are needed to further reduce and sustain water loss to acceptable levels.

3. The last rate increase was implemented in 2011 and since that time, water sales (gallons) have declined and expenses have increased. Water consumption has declined due to the slow economy, a stagnation in customer growth, the use of low flow plumbing fixtures and customer changes in water use patterns. Expenses have grown much faster than revenue and in 2016 operating expenses of \$2,868,168 exceeded operating revenue of \$2,047,957 by \$820,211 or 40 percent. Accounts payable to creditors has grown to \$733,903 through September, 2017, with over 80 percent exceeding 30 days.
4. With the assistance of the Big Sandy Area Development District, the District has selected the Kentucky Engineering Group to assist with capital improvement planning, grant application assistance, engineering design and construction services. Kentucky Engineering Group has conducted a preliminary assessment of capital infrastructure needs for the district to improve water quality, system reliability, reduce water loss and replace aging infrastructure.
5. The District does not have a long range (5-10 year) Capital Improvement Plan and has not made any significant capital improvements to treatment plant, pumping, storage or distribution in the last five years. In June 2017, the Board approved a priority list of capital projects, with priority placed on service line replacement, water main replacement and system reliability.
6. The District applied for and has been approved for a \$1.2 million Appalachian Regional Commission (ARC) grant from Kentucky Department for Local Government. The grant will fund replacement of approximately 1,000 deficient service lines and underperforming meters with a goal to reduce leakage and associated water loss. The Kentucky Engineering Group has initiated permitting for the project and preliminary design. The project will be bid during the first quarter of 2018, with planned completion in 2019.
7. The District has applied for a \$4.8 million grant from the Abandoned Mine Land (AML) Economic and Community Development Pilot Program. The District submitted five capital projects to construct a new intake structure; install a new raw water transmission line and pumps; upgrade the SCADA controls system; replace failing water mains; and continue service line replacement. Any grant funds received will reduce the need for a rate increase to fund much needed capital improvements. AML grant awards are expected to be announced in the first quarter 2018.
8. The District covers a large geographic area with variable terrain and low customer density (3,550 customers served through 275 miles of pipeline and 230 square miles). This presents a significant challenge with managing water quality in the distribution

system and meeting EPA drinking water regulations. System water pressure varies significantly due to elevation changes. Some areas are supplied through booster pumps and/or pressure regulating valves (PRVs) that over pressurize the system. High water pressures and deficient piping contribute to a main breaks and service line leaks, resulting in high water loss and service disruptiin. Due to the coverage area and size of the distribution system, water flushing is extensive, leading to high non-revenue water.

9. The District's website (www.mcub.org) has limited capabilities and does not adequately provide customer information, water quality reports and activities of the District. The District does not have resources to effectively communicate to or receive input from customers (i.e. social media, survey, focus groups, etc.).
10. The management and labor resources of the District are currently under-resourced due to the combination of financial stress, failing infrastructure, water quality compliance, and not meeting customer service expectations. The current management and labor resources must rely extensively on external resources to manage and operate the District. This includes resources from Kentucky Rural Water, accounting and audit services, engineering services, legal services and vendor support.
11. The District is currently co-managed by an Office Manager and Operations Manager. Through November, 2017, the former Board Chair provided extensive leadership and daily managerial assistance in operating the District, without compensation.
12. Prior management reviews and audits have only been partially implemented due to lack of resources and the expertise needed to manage the managerial, financial, operational, and engineering challenges of the District. Essentially the District management is doing its best to maintain operations on a day-to-day basis, leaving little time and resources available to address long term financial, managerial and technical needs for sustainable operations.

Additional management and operational review is needed to assess the status of the following areas:

- Policy and procedures
- Safety procedures and performance
- Distribution mapping, operational and maintenance technology and software
- Office management practices, technology and business software
- Billing management practices and software
- Employee performance reviews and employee training
- Review and disposal of abandon or unused equipment and assets

RECOMMENDATIONS

BlueWater Kentucky provides the following recommendations to the Martin County Water District (MCWD) Board of Commissioners. These recommendations have been developed after six months of reviewing finance, management, operations and maintenance of the District. Previous management reports, KY PSC reports, financial audits, and management audits were also reviewed in preparation of these recommendations.

These recommendations will require significant resources (financial, human, equipment, tools, materials, methods) and time to implement. Currently, the District is under significant financial stress, with 2016 operating expenses of \$2,868,168 exceeding operating revenue of \$2,047,957 by \$820,211 or 40 percent. The revenue shortfall continued in 2017 and accounts payable backlog to creditors totaled \$733,903 through September 30, 17. Without additional income, the District can not provide adequate water service to the community. Declining water sales, high water loss (exceeding 60%) and rising expenses are the three primary contributors to the current financial condition of the District. Over the past three years, the District has worked to reduce expenses where possible and pursued additional revenue sources. Further reduction in expenses will lower service levels and impair water quality.

In light of the current financial conditions, a three to five year (2018 to 2023) period will be needed for for the District to transition from its current state of operations (reactive) to a position of stable operations (proactive). With completion of these recommendations, the District will be in a position to maintain consistent operations, providing reliable, high quality water to customers. Therefore, a priority and time frame is assigned to each recommendation, using the following general definitions:

High Priority – an immediate need to correct a deficiency to assure public health, regulatory compliance and/or the financial stability of the District. Corrective action should begin within 3 to 12 months.

Medium Priority – an intermediate need to address an issue that impacts the water quality or the managerial, financial, technical performance of the District. Corrective action should begin within 1 to 3 years.

Low Priority – an action recommended to improve the operating efficiency of the District. Corrective action should be taken in 3 to 5 years.

Ongoing – current practice of the District that should continue.

Overall, 41 recommendations are provided to the MCWD Board of Commissioners. This includes 13 High Priority, 22 Medium priority and 6 Low Priority. Four practices are identified as On-Going and should continue. Implementation of these recommendations will require

additional funds, currently not budgeted, and the timing and scope of work must be adjusted based upon available budget, revenues and grant funds.

Finance/Accounting/Rates:

1. Develop an aggressive plan to reduce the backlog of accounts payable (approximately \$734,000 as of Oct 1, 2017), including a rate increase/surcharge, short term loan, cost efficiencies, and other revenues opportunities. **High Priority, 3-12 months.**
2. Conduct a Cost-of-Service rate study, following AWWA Standards and Kentucky PSC regulations, using 2016 as a base year. Proforma adjustments should be made for various changes in income and expenses during 2017 and for items forecast for 2018. Upon completion, file a updated rate case to Kentucky PSC. The rate study should include fully funding depreciation and required debt reserves. **High Priority, 3-12 months.**

Consider these elements in the rate analysis, in order of priority:

- a. Emergency rate relief in the form of an interim rate increase and/or surcharge.
 - b. A five year surcharge to cover the current backlog of accounts payable of approximately \$734,000 owed to creditors. A dedicated reserve account for the accounts payable backlog should be established, and once accounts payable is current (less than 30 days) the surcharge should be removed.
 - c. A base rate increase to cover anticipated annual expenses, using 2016 as a base year and adjusting for revenue and expenses based on 2017/18 activities.
 - d. A 5 to 10 year surcharge to cover the needed capital investment to reduce water loss from 60 percent to 15 percent (if grant funding and depreciation funding is not adequate to fund capital improvements).
 - e. A formal request to the Kentucky PSC to allow a phased reduction of water loss from 60 percent to 15 percent over a five year period.
 - f. A review of current fee schedule for late payment, turn on/off, insufficient funds, electronic payment, etc. with revisions to cover the cost of service for these transactions.
3. Upon completion of the water rate increases, evaluate the sewer revenue and expenses and make appropriate adjustments in sewer rates to cover annual expenses. **High Priority, 3-12 months.**
 4. Pursue grants and low interest loans for critical capital projects from state and federal agencies, including: Kentucky Infrastructure Authority, Rural Development, Community Development Block Grants, Appalachian Regional Commission (ARC), Abandon Mine Land (AML). **High Priority, 3-12 months.**

5. Develop a monthly Board report of income and expense compared to budget and prior year on both a monthly and year-to-date basis. **High Priority, 3-12 months.**
6. Develop a 5 year pro-forma of income and expenses following completion of a 5 - 10 year capital improvement plan. Report pro-forma and capital plan annually to Board with approval of annual budget. **Medium Priority, 1-3 years.**
7. Once finances stabilize, establish a monthly stipend for Board members, acceptable to Kentucky PSC. **Medium Priority, 1-3 years.**
8. Continue to use the financial and managerial resources available from the Kentucky Rural Water Association, Big Sandy Area Development District (ADD), Kentucky Department for Local Government (DLG) and Kentucky Infrastructure Authority (KIA). **Ongoing.**

Capital Improvement/Asset Management:

1. Issue and RFP for Engineering Services and establish an engineer of record for the planning, design and construction of facilities. Evaluate engineer of record on a five year cycle. **High Priority, 3-12 months.**
2. Identify short term (1-3 year) critical capital projects and have MCWD Board approve the projects and direct staff to pursue grant and low interest loan funding. **High Priority, 3-12 months.**
3. Evaluate the opportunity to sell or lease the airport tank and related facilities to Prestonsburg City Utilities Commission. **High Priority, 3-12 months.**
4. Replace approximately 3,000 substandard service lines and approximately 3,500 underperforming meters, using AMR metering technology to reduce water loss, reduce maintenance expense and improve metering/billing accuracy. Implement service line/meter program over 3-5 years. **High Priority, begin within 12 months, complete within 5 years.**
5. Retain an engineering consultant to prepare a 10 year capital improvement plan (CIP) to upgrade the water system, including source water, treatment, pumping, storage, distribution, metering, SCADA, information technology, fleet and other district assets. Fund the CIP from multiple sources, including: depreciation, loans, grants and/or capital surcharge fee. **Medium Priority, 1-3 years.**
6. Evaluate current condition of vehicles and equipment and develop a plan to replace aging equipment and purchase new equipment to meet operational needs. **Medium Priority, 1-3 years.**

7. Evaluate current business hardware and software (billing, accounting, customer information, word processing, spreadsheet, etc) and upgrade as needed to improve efficiency and customer satisfaction. **Medium Priority, 1-3 years.**
8. Evaluate communication equipment, including land phone, mobile phone and radio equipment, for replacement as needed. **Medium Priority, 1-3 years.**
9. Evaluate unused assets and sell or lease to generate additional income. **Medium Priority, 1-3 years.**

Water Treatment and Delivery:

1. Evaluate water treatment alternatives to reduce disinfection by-products (TTHM and HAAS) below EPA MCL levels, including changing the chlorine feed point and evaluating alternative disinfectants (i.e. chlorine dioxide). **High Priority, 3-12 months.**
2. Evaluate the water source, treatment and pumping systems to identify process changes to achieve regulatory compliance on a consistent basis, assure reliable supply, improve aesthetic water quality (taste and odor) and improve operating efficient and safety. **High Priority, 3-12 months.**
3. Repair and/or replace existing SCADA system to allow reporting of real time data to plant and distribution operators. **Medium Priority, 1-3 years.**
4. Implement pressure management technology to reduce pressure surges and associated pipe line and service line breaks/leaks. **Medium Priority, 1-3 years.**
5. As water loss declines, begin implementation of a planned distribution flushing program to maintain distribution water quality. Purchase flushing and metering equipment as budget allows, to properly account for water distribution flushing. **Medium Priority, 1-3 years.**
6. Develop and budget an annual preventative maintenance program for plant, pump and storage facilities. **Low Priority, 3-5 years.**
7. Develop a system wide hydraulic model to evaluate the pressure zones and flow in the system. **Low Priority, 3-5 years.**
8. Continue to utilize the technical resources available from the Kentucky Rural Water Association and the Kentucky Division of Water to assist with plant operations and distribution water quality. **Ongoing.**

Water Loss, Metering, Billing:

1. Retain a qualified consultant to conduct a comprehensive water audit using IWA/AWWA water balance methodology defined in AWWA Manual M36 on Water Audits and Loss Control Programs. **High Priority, 3-12 months.**
2. Develop a specific action plan to achieve 15 percent water loss over a five year period (by 2022). **High Priority, begin within 12 months, implement over 5 years.**

Include the following actions:

- a. Develop a active leak detection program using internal or contract resources to assist with achieving 15 percent water loss.
 - b. Implement a fully functional AMR metering and monthly billing program for all metered customers over a 3 to 5 year period, as funding becomes available from rates, loans and/or grants.
 - c. Retain water loss consultant/contractor to test and calibrate source and finished water meters at production facilities to assure accuracy within AWWA standards.
 - d. Install zone meters (temporary or permanent) on large pressure zones to assist in identifying areas of large water loss.
 - e. Evaluate the pressure zones for excessive pressure (> 100 psi) and consider sub zones or storage to improve pressure management.
 - f. Install automatic controls on Pressure Regulating Valves to improve pressure management in pressure zones with large pressure variations.
 - g. Purchase digital pressure data loggers and support tools to assist with trouble shooting pressure variations.
 - h. Implement a meter testing program in accordance with PSC requirements and AWWA standards.
 - i. Investigate water theft and unauthorized water usage and take appropriate action to account for all water delivers to customers.
 - j. Establish Board policies for water theft and unauthorized use.
 - k. Develop performance metrics for water loss and report to Board monthly on the progress to achieve annual targets, including meter water ratio, cost of lost water, and infrastructure leak index.
3. Continue to utilize the technical resources available from the Kentucky Rural Water Association to assist with water loss, leak detection and pressure management in the distribution system. **Ongoing.**

Human Resources:

1. Evaluate staffing needs for operations and capital improvements. **Medium Priority, 1-3 years.**

Consider the following:

- a. Hire or Appoint a District General Manager that reports to the Board
 - b. Hire a Project Manager or Project Engineer to manage capital improvements.
 - c. Hire a book keeper to phase-in of accounts receivable/payable from external accounting firm.
 - d. Continue with external accounting to assure separation of duties and financial reporting to the Board.
 - e. Evaluate the current distribution and plant work backlog and add staff or contract work to reduce backlog of work to less than 90 days.
 - f. Evaluate the current staff and develop a succession plan for critical positions (i.e. Plant Manager, Office Administration).
2. Consider part time or seasonal employees to assist with operations, maintenance and capital work. **Medium Priority, 1-3 years.**
 3. Conduct informal semi-annual reviews and formal (written) annual performance reviews of all employees using a consistent standard methodology, including both competencies and measurable performance elements. **Medium Priority, 1-3 years.**
 4. Evaluate opportunities to share resources with other regional water providers, in areas of planning, preventative maintenance, emergency work, water loss, information systems, billing, engineering, construction management. **Low Priority, 3-5 years.**

Planning/Policy:

1. Review all Board policies and update as needed for the following areas: Procurement, Human Resources; Accounting/Finance; Metering/Billing. **Medium Priority, 1-3 years.**
2. Develop a GIS mapping system of distribution assets, including water mains, valves, hydrants, pressure regulating valves, storage tanks, pump stations and other major appurtenances. Begin building an asset management system of distribution assets, including install date, size, type, manufacturer. **Low Priority, 3-5 years.**
3. Develop a 5 year utility business plan to address current deficiencies in areas of water treatment, capital improvement, finance, customer satisfaction, administration and human resources. Establish performance metrics and 5 year goals for each area. Report progress annually to the Board. **Low Priority, 3-5 years.**

Training and Education:

1. Begin continuing education for Board members in accordance with Kentucky PSC regulations (if board member compensation exceeds \$300 per month).. **Medium Priority, 1-3 years.**
2. When the District's financial position improves, begin budgeting for staff and board members to attend professional and technical conferences offered by Kentucky Rural Water and Kentucky-Tennessee AWWA to learn best practices and new technology for operations of water and wastewater. **Medium Priority, 1-3 years.**
3. Budget annually and assure plant and distribution operators maintain Kentucky Drinking Water certifications and continuing education requirements. **Ongoing.**

Communications and Customer Service:

1. Review and update the website to include current business information, rates, service rules, etc and current projects to improve water quality and customer service. **Medium Priority, 1-3 years.**
2. Prepare quarterly communications to customers, by mail or bill stuffer, to communicate the activities of the MCWD. **Medium Priority, 1-3 years.**
3. Evaluate the benefits of establishing a social media account (Facebook or Twitter) to promote the activities of MCWD. **Medium Priority, 1-3 years.**
4. Conduct a periodic survey of customers (every 1-2 years) to gage the level of customer satisfaction with quality and service. **Medium Priority, 1-3 years.**
5. Develop an monthly employee newsletter to provide information to employees on operations, activities, and benefits. **Medium Priority, 1-3 years.**
6. Consider creating a volunteer Customer Advisory Group (8-12 Citizens) to provide input to the Board of service levels, quality, and policy. The CAG meets 3-4 times a year and provides observations and recommendations to the Board. **Medium Priority, 1-3 years.**
7. Use focus groups for select topic areas, including water quality, system reliability, customer service, water projects, etc. **Low Priority, 3-5 years.**

END OF REPORT