

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)

NOTICE OF FILING

Notice is given to all parties that the following materials have been filed into the record of this proceeding:

- The digital video recording of the evidentiary hearing conducted on June 1, 2017 in this proceeding;
- Certification of the accuracy and correctness of the digital video recording;
- All exhibits introduced at the evidentiary hearing conducted on June 1, 2017 in this proceeding;
- A written log listing, *inter alia*, the date and time of where each witness' testimony begins and ends on the digital video recording of the evidentiary hearing conducted on June 1, 2017.

A copy of this Notice, the certification of the digital video record, hearing log, and exhibits have been electronically served upon all persons listed at the end of this Notice. Parties desiring to view the digital video recording of the hearing may do so at http://www.psc.ky.gov/av_broadcast/2016-00142/2016-00142_01Jun17_Inter.asx.

Parties wishing an annotated digital video recording may submit a written request by electronic mail to pscfilings@ky.gov. A minimal fee will be assessed for a copy of this recording.

Done at Frankfort, Kentucky, this 5th day of June 2017.

Talina R. Mathews

Talina R. Mathews
Executive Director
Public Service Commission of Kentucky

Brian Cumbo
Attorney at Law
P.O. Box 1844
Inez, KENTUCKY 41224

Martin County Water District
387 East Main Street, Suite 140
Inez, KY 41224

Martin County Water District
Martin County Water District
387 East Main Street, Suite 140
Inez, KY 41224

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

CERTIFICATE

I, Pamela Hughes, hereby certify that:

1. The attached DVD contains a digital recording of the Hearing conducted in the above-styled proceeding on June 1, 2017. Hearing Log, Witness List, Exhibits, and Exhibit List are included with the recording on June 1, 2017.
2. I am responsible for the preparation of the digital recording.
3. The digital recording accurately and correctly depicts the Hearing of June 1, 2017.
4. The "Exhibit List" attached to this Certificate correctly lists all exhibits introduced at the hearing of June 1, 2017.
5. The "Hearing Log" attached to this Certificate, accurately and correctly states the events that occurred at the Hearing of June 1, 2017, and the time at which each occurred.

Signed this 2nd day of June, 2017.



Pamela Hughes, Notary Public
State at Large

My Commission Expires: April 22, 2019



Judge: Bob Cicero; Dan Logsdon

Witness: Joe Burns; Kelly Callahan; Joe Hammond; Greg Heitzman; Linda Sumpter

Clerk: Pam Hughes

Date:	Type:	Location:	Department:
6/1/2017	Other	Hearing Room 1	Hearing Room 1 (HR 1)

Event Time	Log Event
------------	-----------

8:26:42 AM	Session Started
8:26:44 AM	Session Paused
9:29:09 AM	Session Resumed
9:29:12 AM	Vice Chairman Cicero preliminary remarks Note: Hughes, Pam Calls Case No. 2016-00142 Martin Co Water District Note: Hughes, Pam Introduces Commissioner Logsdon and states that Chairman Schmitt has recused himself of all proceedings and decisions in this case.
9:30:27 AM	Atty Brian Cumbo introduces himself on behalf of Martin Co WD
9:30:42 AM	Atty's Spenard;Fell;and Park on behalf of the PSC
9:30:52 AM	Public Notice has been filed in the record
9:31:06 AM	Vice Chairman Cicero excuses witness William Harvey from today's hearing Note: Hughes, Pam Motion to continue is denied.
9:32:06 AM	Vice Chairman Cicero asks for outstanding motions. Note: Hughes, Pam No motions
9:32:30 AM	Public comment Note: Hughes, Pam Mary Cromer - Appalchian Citizens Law Center. On behalf of Martin County Concerned Citizens Group. Note: Hughes, Pam Public Commment Exhibit 1 - Letter dated May 31, 2017, to Executive Director Mathews and Secretary Snavely.
9:36:48 AM	Public Comment Note: Hughes, Pam Mickey McCoy from Inez, Ky. Notice of violations talking about drinking water contains by-products in excess and may lead to increased health problems.
9:39:52 AM	Public Comment Note: Hughes, Pam Nina McCoy of Inez, Ky. Talks about why a lot of people from the area are not coming to proceedings. Loss of faith in the system and not getting the help they feel they need...EPA, DOW, etc.
9:46:37 AM	Public Comment Note: Hughes, Pam Gary Ball - customer of Martin County Water District. Remarks about how bad the water is in the district and not getting the help needed to have safe water.
9:52:31 AM	Vice Chairman Cicero remarks about letters and correspondences sent in and made part of the record
9:52:54 AM	Atty Cumbo calls Greg Heitzman to the stand Note: Hughes, Pam Is sworn in by the VC. Cicero Note: Hughes, Pam Greg Heitzman - President of Bluewater Kentucky
9:53:54 AM	Atty Cumbo direct exam of Witness Heitzman Note: Hughes, Pam Witness talks about his experience and different jobs. Started Bluewater Kentucky in 2016, for water utilities. Note: Hughes, Pam States that Witness Heitzman has been hired to help with the situation in Martin County.
9:57:36 AM	Atty Cumbo direct exam of Witness Heitzman Note: Hughes, Pam Regarding the scope of work that he is contracted with Martin County Water. Contract starts today, June 1, 2017. He has put together a proposal which is a management review.

10:04:04 AM	Atty Cumbo direct exam of Witness Heitzman Note: Hughes, Pam	Questions Witness about timelines. Assesment over next 90 days then go to the leadership to review.
10:05:44 AM	Atty Fell cross- exam of Witness Heitzman Note: Hughes, Pam	Regarding if witness is aware of prior filings in this case, and up to speed with the case and why this investigation was initiated. - He has not went back and looked into prior filings and cases, but will look back at previous rulings made by the Commission.
	Note: Hughes, Pam	Regarding contract with Martin County. Regarding if he performed any other services to the district as of this date.
10:08:22 AM	Atty Fell cross- exam of Witness Heitzman Note: Hughes, Pam	Regarding audit and if he has looked at that.
10:08:47 AM	Atty Fell cross- exam of Witness Heitzman Note: Hughes, Pam	Regarding his contracted rate with Martin District. 6500.00 paid in advance for 6 months. Total work will be 13,000.00 and paid over a period of 6 months.
10:09:50 AM	Atty Fell cross- exam of Witness Heitzman Note: Hughes, Pam	Regarding who will be paying for his services. Martin District has agreed to pay him.
10:10:14 AM	Atty Fell cross- exam of Witness Heitzman Note: Hughes, Pam	Memos to be provided to the Cmmission as Witness Heitzman gives them to the District.
	Note: Hughes, Pam	Any meetings set up with Martin District staff or board.
10:11:51 AM	Vice Chairman Cicero Note: Hughes, Pam	States that Post Hearing Data Requests are needed on those Memos by Bluewater Kentucky.
10:12:14 AM	Atty Fell cross- exam of Witness Heitzman Note: Hughes, Pam	Regarding the scope of work with the district and steps that will be taken by Bluewater Kentucky. Witness reads from the contract with Martin County Board and goes over tasks listed.
10:21:33 AM	Atty Fell cross- exam of Witness Heitzman Note: Hughes, Pam	Regarding action plan within 90 to 120 days. Section 9 in contract
10:22:07 AM	Atty Fell cross- exam of Witness Heitzman Note: Hughes, Pam	Post Hearing Data Request to provide recommendations he has made to the District need to be sent to the Commission.
	Note: Hughes, Pam	Makes Witness aware that the Commission will be continuing hearings every 90 days.
10:23:00 AM	VC Cicero clarifies that any update report from Witness Heitzman to Commission staff	
10:23:27 AM	Atty Fell cross- exam of Witness Heitzman Note: Hughes, Pam	Issues identified are mostly due to the districts failing water lines. Water intake or improvements to treatment plant will need to be done by a licensed Engineer.
10:24:58 AM	Atty Fell cross- exam of Witness Heitzman Note: Hughes, Pam	Referencing the recommendations, reviews and final report. Is the 75 hours and 13,000.00 a realistic amount to finish.
10:26:40 AM	Atty Fell cross- exam of Witness Heitzman Note: Hughes, Pam	Any recommendations to improve any projects or financing? Witness states that he needs more time to look at the history and work.
10:27:49 AM	Comm Logsdon cross- exam of Witness Heitzman Note: Hughes, Pam	Water loss is above 65%, but some progress has been made to reduce some of the loss. Ultimate goal is to get it down to 15%
10:29:24 AM	Comm Logsdon cross-exam of Witness Heitzman Note: Hughes, Pam	Is it realistic to get to 40 to 20 to 15% for water loss?

	Note: Hughes, Pam	Have you ever worked with a system with water loss? Witness states No.
10:31:09 AM	Vice Chairman Cicero cross-exam of Witness Heitzman	
	Note: Hughes, Pam	Reports need to be submitted to the Commission as Witness gives them to the District.
	Note: Hughes, Pam	States that 60 % water loss is unacceptable and is glad Bluewater Kentucky is on board to assist. Revenue side is drying up because water is not useable and acceptable.
10:33:15 AM	Post Hearing Data Request	
	Note: Hughes, Pam	Continue to file water loss reports to the Commission going forward from January 2017.
10:34:32 AM	Atty Cumbo redirect to Witness Heitzman	
	Note: Hughes, Pam	Referring to a completely independent management audit for the district to use to correct failings.
10:35:29 AM	Witness Heitzman excused from the stand	
10:35:39 AM	Witness Joe Burns is called to the stand.	
	Note: Hughes, Pam	Joe Burns - KRWA advisor
	Note: Hughes, Pam	Is sworn in by Vice Chairman Cicero
10:36:26 AM	Atty Cumbo direct to Witness Burns	
	Note: Hughes, Pam	States his job duties and how he began to work with Martin district.
10:38:00 AM	Atty Cumbo direct to Witness Burns	
	Note: Hughes, Pam	Currently working on projects on additional valves for use in leak detection. Revised their Agreed Order for disenfection of by-products and get DOW approval of chloride dioxide to treat the water.
	Note: Hughes, Pam	Regarding the water loss issue and what KRWA has been doing to help remedy this. Implemented a mobile mapping system to track their leaks.
10:43:12 AM	Atty Cumbo direct to Witness Burns	
	Note: Hughes, Pam	Regarding timeline date to do the leak detection push. Within 2 weeks. Compliance with the THM's and DOW approved changing chemistry of plant has been installed and operational.
10:45:10 AM	Atty Spenard cross exam of Witness Burns	
	Note: Hughes, Pam	Regarding his work since February 2016 with the District.
10:46:05 AM	PSC exhibit 1	
	Note: Hughes, Pam	It is Exhibit 2 of Martin Districts filing- Work Schedule, timeline of May 17 - June 9, 2017
10:47:24 AM	Atty Spenard cross exam of Witness Burns	
	Note: Hughes, Pam	Referencing Leaks on service lines. Process when leak is located and estimate to calculate how much water-loss there is. A flow meter is used prior to repairing the leak.
10:48:43 AM	Atty Spenard cross exam of Witness Burns	
	Note: Hughes, Pam	Regarding if practical as leaks are being repaired on service order for assesment to be made.
10:50:20 AM	Atty Spenard cross exam of Witness Burns	
	Note: Hughes, Pam	Collecting data on efforts to repair and results of the repairs.
10:51:10 AM	Atty Spenard cross exam of Witness Burns	
	Note: Hughes, Pam	Diameters are different on lines. The larger diameter lines will have more water-loss.
	Note: Hughes, Pam	Any different methods to collect data on leaks on home lines ar service lines
10:52:31 AM	Atty Spenard cross exam of Witness Burns	
	Note: Hughes, Pam	Regarding PSC exhibit 1- work schedule. KRWA made this work schedule to complete this project

10:53:20 AM Atty Spenard cross exam of Witness Burns
Note: Hughes, Pam Regarding PSC exhibit 1 - Timeline of quadrants

10:54:10 AM Atty Spenard cross exam of Witness Burns
Note: Hughes, Pam Regarding PSC exhibit 1 - work schedule. Assistance to other quadrants to the Martin Co Water District.

10:55:06 AM Atty Spenard cross exam of Witness Burns
Note: Hughes, Pam Regarding KRWA still working with Martin District on it's mapping system.
Note: Hughes, Pam When will mapping process be completed. Witness can't give an exact estimate. Infastructure mapping.

10:58:01 AM Atty Spenard cross exam of Witness Burns
Note: Hughes, Pam Basic function of map sync project and how it fits into the leak repairs and water loss.

11:00:04 AM Atty Spenard cross exam of Witness Burns
Note: Hughes, Pam Regarding Martin District's response to Item 3.a. Staff's request for information. Difference between zone meter and monitor meter. Zone meter can be contracted out
Note: Hughes, Pam Estimated cost for different meters; monitor meters can be done by the Districts staff.

11:03:42 AM Atty Spenard cross exam of Witness Burns
Note: Hughes, Pam Ultrasonic flow meters are being purchased by the District to make a permanent monitoring point and measure water going through the line.
Note: Hughes, Pam Is KRWA working with the District to identify the placing of monitor and zone meters? Yes

11:05:39 AM Atty Spenard cross exam of Witness Burns
Note: Hughes, Pam Is KRWA working with the District on using equipment

11:06:09 AM Atty Spenard cross exam of Witness Burns
Note: Hughes, Pam Opinion as to when District will have meters installed in proper locations. "No timeline for that".

11:07:28 AM Atty Spenard cross exam of Witness Burns
Note: Hughes, Pam Opinion as to cost to Martin CO WD moving from current system to the zone, monitoring, and ultrasonic flow metering system.

11:09:15 AM Atty Spenard cross exam of Witness Burns
Note: Hughes, Pam Regarding permanent monitoring sites.

11:09:43 AM Atty Spenard cross exam of Witness Burns
Note: Hughes, Pam Item 6 of Staff's request for information. Water loss and repairing leaks, mapping system. What training is KRWA providing to the District in finding and repairing the leaks.

11:11:48 AM Atty Spenard cross exam of Witness Burns
Note: Hughes, Pam Witness is here today for Mr. Heitzman's testimony and will KRWA work with him.

11:13:07 AM Comm Logsdon cross exam of Witness Burns
Note: Hughes, Pam Appreciation for what Mr. Burns is doing. When will the Commission see some impact on water loss?

11:16:54 AM Vice Chairman cross exam of Witness Burns
Note: Hughes, Pam KRWA does not charge a fee to Martin District. How long will Mr. Burns be able to work with Martin District?

11:18:14 AM Vice Chairman cross exam of Witness Burns
Note: Hughes, Pam Identifying leaks and will mark them for future repairs. In work plan and will be taking place in next 2 weeks to locate leaks and calling other utilities to locate their lines, gas, electric, etc.
Note: Hughes, Pam Regarding what infrastructure is Martin Co water in at this time. Old service lines main problem. Putting new lines in.

11:20:33 AM Vice Chairman cross exam of Witness Burns
Note: Hughes, Pam Once KRWA pulls out will the Martin District crew be able to keep up with this work and managing leaks.

11:21:34 AM Atty Cumbo redirect of Witness Burns
Note: Hughes, Pam Lines installed in the 70's are brittle. Timing of the installation in the 1970's

11:24:18 AM Vice Chairman cross exam of Witness Burns
Note: Hughes, Pam Zone meters location and relocating them or new installation.

11:24:48 AM Atty Spenard cross exam of Witness Burns
Note: Hughes, Pam Are status reports being given to Martin District.
Note: Hughes, Pam Post Hearing Data Request for staus reports from KRWA

11:25:57 AM Witness Burns is excused

11:26:21 AM Break

11:26:56 AM Session Paused

11:38:16 AM Session Resumed

11:38:19 AM Atty Cumbo Calls Linda Sumptor to the stand
Note: Hughes, Pam Sworn in by VC Cicio
Note: Hughes, Pam CPA in Inez KY

11:39:07 AM Atty Cumbo direct exam of Witness Sumptor
Note: Hughes, Pam Affiliation for Martin Co WD. Contracted CPA for the District. Summer of 2003 and have RFP with the district.

11:40:41 AM Atty Cumbo direct exam of Witness Sumptor
Note: Hughes, Pam Witness hasn't been paid in 3 years by the District.
Note: Hughes, Pam Regarding financial condition of the District. Cash flow issues and accounts payable issues.

11:41:56 AM Atty Spenard crosst exam of Witness Sumptor
Note: Hughes, Pam This a paid position and Fiscal Court pays her salary.
Note: Hughes, Pam She is Treasurer of Martin County for 17 years and explains her duties.

11:43:37 AM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam Asking if her position as treasurer reqwuires her to help Martin CO WD.

11:44:19 AM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam Anyone supervise Witness in maintenance of the records she keeps for the District. Joe Hammond manager of finance does.

11:45:06 AM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam Regarding service and arrearages by the District to her.
Note: Hughes, Pam Who does she report to the Martin Co WD? Reports to the Board at monthly meetings and sees Joe Hammond on daily basis. She works for a firm that has other staff accountants

11:46:26 AM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam Reports to the Board monthly. Coordinateas her work with the Martin Co WD treasurer.

11:47:04 AM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam White and Assoc. provided audit service to the District

11:47:24 AM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam Asks if she ever needs to report to County Judge Executive.

11:47:44 AM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam Regarding budget for the District

11:48:18 AM PSC exhibit 2
Note: Hughes, Pam Report on the Audit of the Financial Statements for year ended , 2015. The 2015 exert is what is handed out. Prepared by White & Assoc

11:49:41 AM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam Familiar with reports by White & Assoc. Page 2 of PSC exhibit 2- what was operating loss for 2015.
Note: Hughes, Pam Depreciation- how close was the District not being able to cover its expenses.

11:51:29 AM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam PSC exhibit 2 - page 5- cash flows for year ended 2015. Cash and cash equivalents at beginning and ending of the year.

11:52:54 AM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam Referrals - Gasby 68, county employee retirement system
Note: Hughes, Pam Accrued liabilities. Reflecting \$47,917.00 increasing in amount of liability.

11:54:01 AM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam Increase of cash equivalents

11:54:21 AM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam Annual report to PSC was prepared by witness Sumptor.

11:54:58 AM PSC exhibit 3 -25000 Martin CO WD 1/1/2003 - 12/31/2003

11:55:42 AM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam Page 14 of 65 balance sheet assets and other debits. Year end balance total net utility plant is \$13,017,539.00
Note: Hughes, Pam PSC exhibit 3. Page 1 of 65

11:57:01 AM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam Page 16 of 65. Current year balance of Retained earnings from Income before contributions is \$3,530,892.00 (loss)
Note: Hughes, Pam Current year balance of Donated Capital is 14,197,636.00 What does this represent? What is Total Equity Capital amount- \$10,666,744.00

11:58:38 AM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam Page 24 of 65 - current year for Transmission and Distribution Mains is \$12,748,078.00 Page 26 of 65, End year balance \$2,901,227.00

11:59:54 AM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam Page 47 of 65. Water operating Revenue. Customer Total Metered Sales is &3,376.00

12:00:38 PM PSC exhibit 4- Martin District Title page 1/1/15-12/31/15

12:01:25 PM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam Reference to the 2003 amount, this had increased.
Note: Hughes, Pam Page 20 of 71- Total Net Utility Plant for current year of 2015

12:02:08 PM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam page 22 of 71 - Retained Earnings From Income Before Contributions is a loss of \$10,827,597.00
Note: Hughes, Pam Summarize what that means from 2003 to 2015

12:02:57 PM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam Current year for Donated Capital
Note: Hughes, Pam 2003 donated capital amount in 2015 reflects grants and other contributions made during that period.

12:03:44 PM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam Current year Total Equity Capital is \$18,350,498.00

12:03:58 PM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam Long term debt for 2015 is \$2,703,074.00
Note: Hughes, Pam 2003 and 2015 that long term date grew.

12:05:00 PM Atty Spenard cross exam of Witness Sumptor
Note: Hughes, Pam Page 30 of 71 current year balance of Transmission and Distribution Mains is \$20,060,075.00

12:05:26 PM	Atty Spenard cross exam of Witness Sumptor Note: Hughes, Pam	Subject to check Transmission and Distribution Mains is \$8,292,398.00
12:06:56 PM	Atty Spenard cross exam of Witness Sumptor Note: Hughes, Pam	Page 53 of 71- Customer metered sales is \$3,543.00
12:07:45 PM	Atty Spenard cross exam of Witness Sumptor Note: Hughes, Pam	2003 - 2015, how many rate increases did district file with the Commission - unaware. Last rate increase she is unaware of the date.
12:08:50 PM	Atty Spenard cross exam of Witness Sumptor Note: Hughes, Pam Note: Hughes, Pam	Questions if Martin Disatrick is a Self sustaining and viable district? What needs to happen for Martin district to become self sustained
12:09:29 PM	Atty Spenard cross exam of Witness Sumptor Note: Hughes, Pam	What is Martin District's plan to make this happen?
12:10:14 PM	Atty Spenard cross exam of Witness Sumptor Note: Hughes, Pam	In response to PostHearingDataRequest from February. Coal severence funds - has the district received anymore funds since March 2017?
12:11:13 PM	Post Hearing Data Request Note: Hughes, Pam	Coal severence funds to Martin County and transferred to Martin WD
12:11:50 PM	Atty Cumbo clarification question	
12:12:20 PM	Vice Chair Cicero cross exam of Witness Sumptor Note: Hughes, Pam Note: Hughes, Pam	Working with district since 2003. Not being paid by district but gets paid by the firm. Balance owed to the firm in excess of \$100 thousand. RFP is monthly rate- 3500.00 per month
12:14:12 PM	Vice Chair Cicero cross exam of Witness Sumptor Note: Hughes, Pam	District facing historical losses and cash flow issues. What actions are being taken to remedy this?
12:14:54 PM	Vice Chair Cicero cross exam of Witness Sumptor Note: Hughes, Pam	Prestonsburg contract would bring in 30,000 monthly
12:15:27 PM	Vice Chair Cicero cross exam of Witness Sumptor Note: Hughes, Pam Note: Hughes, Pam	Business plan is developed - capital projects the engineering firm does this. Management to reduce expenses but in those areas is where the district needs to spend money to fix and repair leaks.
12:17:04 PM	Vice Chair Cicero cross exam of Witness Sumptor Note: Hughes, Pam	Asks if she has any input to say no funds for this project?
12:17:53 PM	Vice Chair Cicero cross exam of Witness Sumptor Note: Hughes, Pam	Bond issues - 3 that she can think of. Used for Capital projects.
12:18:37 PM	Vice Chair Cicero cross exam of Witness Sumptor Note: Hughes, Pam	When rate increases were presented to the Commission. She can only recall 2, last one within 5 years but not certain.
12:19:30 PM	Vice Chair Cicero cross exam of Witness Sumptor Note: Hughes, Pam Note: Hughes, Pam	Funding from external sources are declining. Pressure on the budget. Funding comes from grants and other contributions other than rate payers. Grant & Bond issue. Referring to the O&M plan.
12:21:10 PM	Vice Chair Cicero cross exam of Witness Sumptor Note: Hughes, Pam Note: Hughes, Pam	Is there a Managemant committee that works with the CPA and Board Manangement audit and recommendations.

12:24:46 PM Atty Cumbo redirect of Witness Sumptor
Note: Hughes, Pam Plans to increase revenue. Reduce water loss and increase revenue.

12:25:37 PM VC remarks about water-loss

12:26:20 PM Witness Sumptor remark
Note: Hughes, Pam Electrical meter to do pumping at night to reduce rates

12:26:47 PM Witness Sumptor excused

12:27:13 PM Atty Cumbo call Witness Callaham
Note: Hughes, Pam Sworn in by Vice Chairman Cicero
Note: Hughes, Pam County Judge Executive of Martin County.

12:27:44 PM Atty Cumbo direct exm of Witness Callaham
Note: Hughes, Pam County Judge

12:28:18 PM Atty Cumbo direct exm of Witness Callaham
Note: Hughes, Pam Referring to when last rate case being filed.

12:28:27 PM Atty Cumbo direct exm of Witness Callaham
Note: Hughes, Pam Referring to coal severance

12:28:38 PM Atty Park cross exam of Witness Callaham
Note: Hughes, Pam What involvement with the district and the Board members and Engineers to come up with budget. Does not attend Board meetings.
Note: Hughes, Pam No vacancies on board since February.

12:29:59 PM Atty Park cross exam of Witness Callaham
Note: Hughes, Pam Coal severance and reduction of funding for the County.
Note: Hughes, Pam 32,000.00 was last amount of funding received.

12:30:50 PM Atty Park cross exam of Witness Callaham
Note: Hughes, Pam Response of district to Post Hearing Data Request of Feb. 2017. Coal funds were 2.6 million in 2014 and it went down to 608,00 in 2015. In February it was only 560 thousand.

12:31:57 PM Atty Park cross exam of Witness Callaham
Note: Hughes, Pam How funds are allocated based on the County's needs. State requirement

12:32:31 PM Atty Park cross exam of Witness Callaham
Note: Hughes, Pam Refers to any update on any funding that they have sought since last hearing in Feb 2017.

12:33:47 PM Atty Park cross exam of Witness Callaham
Note: Hughes, Pam Various needs of line loss and rate surcharge application. Any discussions for rate increase?

12:34:54 PM Atty Park cross exam of Witness Callaham
Note: Hughes, Pam In Witness's opinion would citizens pay higher rate if safe water available to them?
Note: Hughes, Pam Prison contract with prestonsburg.

12:36:33 PM VC Cicero cross exam of Witness Callaham
Note: Hughes, Pam Water-loss rate is 15%. Vice Chairman states to ratepayers that if water-loss is above that, costs can not recouped through a rate increase to ratepayers.

12:38:52 PM Atty Cumbo clarifies contract with Prestonsburg
Note: Hughes, Pam Came about with the Federal Prison. Martin Co Water District does not have that contract.

12:40:12 PM Witness Callaham excused

12:40:27 PM Witness Hammond called to the stand
Note: Hughes, Pam Joe Hammond - Martin District Manager of Finance
Note: Hughes, Pam Vice Chairman swears in witness.

12:41:14 PM Atty Cumbo direct exam of Witness Hammond
Note: Hughes, Pam Witness explains his job duties.

	Note: Hughes, Pam	DOW approved a new chlorination point to reduce the THM's and AHA's in the water.
12:43:31 PM	Atty Cumbo direct exam of Witness Hammond	
	Note: Hughes, Pam	TOC - total organic carbon
12:44:02 PM	Atty Cumbo direct exam of Witness Hammond	
	Note: Hughes, Pam	Water loss detection and leak repair is on going.
12:44:20 PM	Atty Cumbo direct exam of Witness Hammond	
	Note: Hughes, Pam	States that the sludge spill was not in the Martin Co watershed.
12:44:39 PM	Atty Spenard cross exam of Witness Hammond	
	Note: Hughes, Pam	Project rejuvenate update, not funded.
	Note: Hughes, Pam	Has Martin WD attempted to fund through a surcharge?
12:46:12 PM	Vice Chairman Cicero cross exam of Witness Hammond	
	Note: Hughes, Pam	Update on Project rejuvenate. Approved but not funded. Difficult to set a beginning and ending to this project. Big Sandy has no funds yet. Is there a timeline for when it will be available?
12:49:27 PM	Post Hearing Data Request	
	Note: Hughes, Pam	Submit actions reviewed to potentially fund the project and timeline
12:50:12 PM	Witness Hammond excused	
12:50:25 PM	Witness Callham statement	
	Note: Hughes, Pam	VC and Comm make there rebuttal statement
	Note: Hughes, Pam	Commission worried about water-loss. Should also be worried about capitol funding.
12:52:34 PM	Vice Chairman Cicero asks for any other motions- no motions	
12:53:14 PM	Post Hearing Data Request	
	Note: Hughes, Pam	Prestonsburg funding
12:53:37 PM	Post Hearing Data Request	
	Note: Hughes, Pam	Will be out by June 7, 2017, and Martin District has to July 15 to respond.
12:54:31 PM	Vice Chairman Cicero talks about next hearing in September.	
	Note: Hughes, Pam	Public meeting in Inez after first set of recommendations in August or Sept.
12:55:19 PM	Adjourned	
12:55:24 PM	Session Paused	
2:43:38 PM	Session Ended	



Name:	Description:
Public Comment Exhibit 01	Letter dated May 31, 2017 to Talina Mathews and Charles Snavelly from Appalchian CITizens' Law Center, Inc.
PSC Exhibit 01	Exhibit 2 of Martin Co WD filing - Work Schedule May 17. 2017 through June 9, 2017
PSC Exhibit 02	Martin District Report on the Audit of the Financial Statements for year ended December 31, 2015 prepared by White & Associates PSC
PSC Exhibit 03	25000 Martin County Water District 01/01/2003 - 12/31/2003 - 6 pages
PSC Exhibit 04	25000 Martin County Water District 01/01/2015 -12/31/2015 6 pages

EXHIBIT 2

**Martin County Water District
Work Schedule
May 17, 2017 through June 9, 2017**

Timeline for the Northeast to Northwest Quadrants:

Task # 1: Locate and Exercise Primary Isolation Valves and Main Lateral Valves

- **May 17 – May 26, 2017** - In preparation for the KRWA staff visit, (May 30 thru June 2) MCWD staff will locate valves and clean out all valve boxes in the Northeast and Northwest quadrants.
- **May 30, 2017** – A mid-afternoon planning meeting to coordinate activities for the week. Planning meeting to include: KRWA Staff - Tim Blanton; and MCWD Staff - Joe Hammond, Bill Harvey, John Mills, Rainbo Jude, and other selected MCWD staff.
- **May 31 – June 2, 2017**- Tim Blanton and two (2) assigned MCWD staff will focus on valve exercise and identification of portable flowmeter sites in preparation for future leak survey. KRWA will provide valve trailer and related tools to complete this task. The agreed upon portable flowmeter sites should be excavated and made ready for metering before the June 7 - 9 visit.

Task # 2: Leak Detection - Discovery

- **June 6, 2017** – KRWA Staff Travel Day.
- **June 7 – 9, 2017** - Leak detection will be performed by two 3-man crews. Crew #1 will be led by Tim Blanton, with Jarrod Moore and one other MCWD staff; Crew #2 will be led by Danny Stinson, Rainbo Jude and one additional MCWD staff.
- **June 9, 2017** – Afternoon wrap-up meeting to fully document the total discovery of leaks and their locations. Begin plans to assess the manpower and resources needed to begin the coordination of Task # 3 - Repair crews.

KRWA will provide portable flowmeters, acoustic leak detection devices, and digital correlation devices as needed.

MCWD must provide availability of two vehicles for transportation for staff and equipment: main valve T wrenches, meter wrenches, pressure gauges, shovels etc. and mapping as needed. MCWD staff should be prepared to use their acoustic devices.

MCWD should inform and coordinate with Tom Alley at the MCWD treatment plant to make sure that all water storage tanks are full the morning of the June 7 as leak detection begins, and that staffing is adequate for recovering tank levels overnight.

MARTIN COUNTY WATER DISTRICT
REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS
For the Year Ended December 31, 2015

Prepared by:

White & Associates PSC
CERTIFIED PUBLIC ACCOUNTANTS
1407 Lexington Road
Richmond, Kentucky 40475
Phone 859.624.3926
Fax 859.625.0227

Martin County Water District
STATEMENT OF REVENUES, EXPENSES and CHANGES in NET POSITION
For the Year Ended December 31, 2015

	2015
OPERATING REVENUES:	
Water sales:	
Residential	\$ 1,624,198
Commercial	361,679
Industrial	9,836
Martin Fire Department	2,270
Other	724
Unmetered	304
Other sales:	
Public authorities	4,540
Penalties	74,965
Other	3,073
Vendors	286
Miscellaneous	15,621
Total operating revenues	2,097,496
OPERATING EXPENSES:	
Salaries and wages	550,131
Employee benefits	249,646
Purchased water	426,314
Chemicals	114,987
Materials & supplies	223,500
Contractual services	182,458
Rental	126,831
Transportation	66,616
Insurance	55,847
Bad debt	53,516
Regulatory assess fees	4,298
Depreciation	773,303
Miscellaneous	38,324
Total operating expenses	2,865,772
OPERATIONS INCOME (LOSS)	(768,276)
NONOPERATING REVENUES (EXPENSES)	
Earnings on investments	284
Amortization of deferrals	470
Bond issuance costs	(67,250)
Interest expense	(102,016)
Total nonoperating revenues (expenses)	(168,512)
INCOME (LOSS) BEFORE CONTRIBUTIONS	(936,788)
Tap fees	14,352
Contributions	52,615
Total capital contributions	66,967
CHANGE IN NET POSITION	(869,821)
NET POSITION, BEGINNING	19,121,149
Prior period adjustment	(748,791)
RESTATED NET POSITION, BEGINNING	18,372,358
NET POSITION, ENDING	\$ 17,502,538

See the accompanying notes to the financial statements.

Martin County Water District
STATEMENT OF CASH FLOWS
For the Year Ended December 31, 2015

	2015
Cash flows from operating activities:	
Cash received from customers and other sources	\$ 2,097,496
Cash payments to suppliers for goods and services	(882,331)
Cash payments for employees and benefits	(852,729)
Net cash provided (used) by operating activities	362,436
Cash flows from capital and related financing activities:	
Purchases and construction of capital assets	(70,987)
Principal payments on long-term debt	(18,020)
Bond issuance costs	(67,250)
Amortization of deferral of resources	470
Interest paid on long-term debt	(102,016)
Net cash provided (used) by capital and related financing activities	(257,802)
Cash flows from investing activities:	
Interest on note	0
Other cash flows	1,209
Investment income received	284
Net cash provided (used) by investing activities	1,493
Net increase (decrease) in cash and cash equivalents	106,126
Cash and cash equivalents, beginning of year	276,328
Cash and cash equivalents, end of year	\$ 382,454
Reconciliation of operating income (loss) to net cash provided (used) by operating activities:	
Operating income (loss)	\$ (768,276)
Adjustments to reconcile operating income (loss) to net cash provided (used) by operating activities:	
Depreciation/Amortization	773,303
Accounts receivable	5,926
Inventory	2,205
Prepaid expenses	(5,495)
Accrued revenues	(14,546)
Deferrals	52,941
Accounts payable	261,812
Accrued liabilities	47,917
Customer deposits	6,649
Net cash provided (used) by operating activities	\$ 362,436
Noncash items:	
Capital contributions were \$66,967.	
Interest expense:	
Interest expense was \$102,016.	

See the accompanying notes to the financial statements.

Title Page

Name of Respondent	Addr Line 1	Addr Line 2	City	State	Zip
Water Districts/Associations					
Annual Report of					
Respondent	Martin County Water District	HC 69 Box 875	Inez	KY	41224

25000 Martin County Water District 01/01/2003 - 12/31/2003

Balance Sheet - Assets and Other Debits (Ref Page: 7)

	Previous Year	Current Year
UTILITY PLANT		
Utility Plant (101-106)	\$18,240,156.00	\$18,415,244.00
Less: Accumulated Depreciation and Amortization (108-110)	\$4,858,255.00	\$5,397,705.00
Net Plant	\$13,381,901.00	\$13,017,539.00
Utility Plant Acquisition Adjustments (Net) (114-115)		
Other Utility Plant Adjustments (116)		
Total Net Utility Plant	\$13,381,901.00	\$13,017,539.00
OTHER PROPERTY AND INVESTMENTS		
Nonutility Property (121)		
Less: Accumulated Depreciation and Amortization (122)		
Net Nonutility Property		
Investment in Associated Companies (123)		
Utility and Other Investments (124-125)		
Sinking Funds (126)	\$27,361.00	\$312.00
Other Special Funds (127)	\$243,552.00	\$193,941.00
Total Other Property and Investments	\$270,913.00	\$194,253.00
CURRENT AND ACCRUED ASSETS		
Cash (131)	\$129,376.00	\$86,868.00
Special Deposits (132)		
Other Special Deposits (133)		
Working Funds (134)		
Temporary Cash Investments (135)		
Accounts and Notes Receivable, Less Accumulated Provision for Uncollectible Accounts (141-144)	\$111,947.00	\$213,234.00
Accounts Receivable from Associated Companies (145)	\$1,660.00	\$3,707.00
Notes Receivable from Associated Companies (146)		
Materials and Supplies (151-153)	\$40,516.00	\$40,102.00

25000 Martin County Water District 01/01/2003 - 12/31/2003

Balance Sheet - Equity Capital and Liabilities (Ref Page: 9)

	Previous Year	Current Year
EQUITY CAPITAL		
Appropriated Retained Earnings (214)		
Retained Earnings From Income before contributions (215.1)	(\$3,050,193.00)	(\$3,530,892.00)
Donated Capital (215.2)	\$13,996,723.00	\$14,197,636.00
Total Equity Capital	\$10,946,530.00	\$10,666,744.00
LONG-TERM DEBT		
Bonds (221)	\$1,481,800.00	\$1,439,300.00
Reaquired Bonds (222)		
Advances from Associated Companies (223)		
Other Long-Term Debt (224)	\$1,133,053.00	\$1,099,255.00
Total Long Term Debt	\$2,614,853.00	\$2,538,555.00
CURRENT AND ACCRUED LIABILITIES		
Accounts Payable (231)	\$270,782.00	\$223,571.00
Notes Payable (232)		
Accounts Payable to Associated Co. (233)		
Notes Payable to Associated Co (234)		
Customer Deposits (235)	\$31,413.00	\$39,298.00
Accrued Taxes (236)	\$7,063.00	
Accrued Interest (237)	\$12,404.00	\$37,598.00
Matured Long-Term Debt (239)	\$60,806.00	\$76,298.00
Matured Interest (240)		
Tax Collections Payable (241)	\$26,073.00	\$16,478.00
Misc. Current and Accrued Liabilities (242)	\$4,770.00	
Total Current and Accrued Liabilities	\$413,311.00	\$393,243.00
DEFERRED CREDITS		
Unamortized Premium on Debt (251)		
Advances for Construction (252)		

25000 Martin County Water District 01/01/2003 - 12/31/2003

Water Utility Plant Accounts (Ref Page: 14)

	Prev Year (c)	Additions (d)	Retirement (e)	Current Yr(f)	Intngble. Plant (g)	Supply & Pump.	Water Treatmnt.	Trans. and Distr.	General Plant
Organization (301)									
Franchises (302)									
Land and Land Rights (303)	\$170,357.00	\$3,168.00		\$173,525.00		\$60,147.00	\$350.00	\$63,028.00	\$50,000.00
Structures and Improvements (304)	\$66,031.00			\$66,031.00		\$32,275.00			\$33,756.00
Collecting and Impounding Reservoirs (305)	\$282,668.00	\$5,535.00		\$288,203.00		\$288,203.00			
Lakes, Rivers and Other Intakes (306)	\$774,564.00			\$774,564.00		\$774,564.00			
Wells and Springs (307)									
Infiltration Galleries and Tunnels (308)									
Supply Mains (309)									
Power Generation Equipment (310)									
Pumping Equipment (311)	\$27,139.00	\$29,768.00		\$56,907.00		\$56,907.00			
Water Treatment Equipment (320)	\$1,304,880.00	\$5,640.00		\$1,310,520.00			\$1,310,520.00		
Distribution Reservoirs and Standpipes (330)	\$1,566,178.00	\$68,163.00		\$1,634,341.00				\$1,634,341.00	
Transmission and Distribution Mains (331)	\$12,696,356.00	\$51,722.00		\$12,748,078.00				\$12,748,078.00	

25000 Martin County Water District 01/01/2003 - 12/31/2003

Analysis of Accumulated Depreciation and Amortization by Primary Acct (Ref Page: 15)

	Balance Beg	Yr(c)	Cr-Chg Dep Exp(d)	Other Credits (e)	Charges-Plant Ret(f)	Other Charges (g)	Balance End Yr (h)
Organization (301)							
Franchises (302)							
Land and Land Rights (303)							
Structures and Improvements (304)	\$33,556.00		\$1,500.00				\$35,056.00
Collecting and Impounding Reservoirs (305)	\$46,919.00		\$1,490.00				\$48,409.00
Lake, River and Other Intakes (306)	\$333,745.00		\$15,491.00				\$349,236.00
Wells and Springs (307)							
Infiltration Galleries and Tunnells (308)							
Supply Mains (309)							
Power Generating Equipment (310)							
Pumping Equipment (311)	\$3,103.00		\$7,916.00				\$11,019.00
Water Treatment Equipment (320)	\$817,038.00		\$22,157.00				\$839,195.00
Distributions Reservoirs and Standpipes (330)	\$313,074.00		\$31,791.00				\$344,865.00
Transmission and Distribution Mains (331)	\$2,571,630.00		\$329,597.00				\$2,901,227.00
Services (333)							
Meters and Meter Installations (334)	\$60,979.00		\$6,845.00				\$67,824.00
Hydrants (335)	\$864.00		\$89.00				\$953.00
Backflow Prevention Devices (336)							

25000 Martin County Water District 01/01/2003 - 12/31/2003

Water Operating Revenue (Ref Page: 27)

	Beginning Year Customers	Year End Customers	Amount
Operating Revenues			
Unmetered Water Revenue (460)	0	0	\$0.00
Metered Water Revenue (461)			
Sales to Residential Customers (461.1)	3,173	3,191	\$942,184.00
Sales to Commercial Customers (461.2)	184	181	\$146,729.00
Sales to Industrial Customers (461.3)	3	3	\$32,868.00
Sales to Public Authorities (461.4)	0	1	\$5,673.00
Sales to Multiple Family Dwellings (461.5)	0	0	\$0.00
Sales through Bulk Loading Stations (461.6)	0	0	\$0.00
Total Metered Sales	3,360	3,376	\$1,127,454.00
Fire Protection Revenue (462)			
Public Fire Protection (462.1)	0	0	\$0.00
Private Fire Protection (462.2)	0	0	\$0.00
Total Fire Protection Revenue	0	0	\$0.00
Other Sales to Public Authorities (464)	0	0	\$0.00
Sales to Irrigation Customers (465)	0	0	\$0.00
Sales for Resale (466)	0	0	\$0.00
Interdepartmental Sales (467)	0	0	\$0.00
Total Sales of Water	3,360	3,376	\$1,127,454.00
Other Water Revenues			
Guaranteed Revenues (469)	0	0	\$0.00
Forfeited Discounts (470)			\$0.00
Miscellaneous Service Revenues (471)			\$4,770.00
Rents from Water Property (472)			\$0.00
Interdepartments Rents (473)			\$0.00
Other Water Revenues (474)			\$23,935.00
Total Other Water Revenues			\$28,705.00

Title Page

Name of Respondent	Addr Line 1	Addr Line 2	City	State	Zip
Water Districts/Associations					
Annual Report of					
Respondent	Martin County Water District	387 East Main Street, Suite 140	Inez	KY	41224

25000 Martin County Water District 01/01/2015 - 12/31/2015

Balance Sheet - Assets and Other Debits (Ref Page: 7)

	Previous Year	Current Year
UTILITY PLANT		
Utility Plant (101-106)	\$34,363,677.00	\$34,501,631.00
Less: Accumulated Depreciation and Amortization (108-110)	\$12,703,006.00	\$13,476,309.00
Net Plant	\$21,660,671.00	\$21,025,322.00
Utility Plant Acquisition Adjustments (Net) (114-115)		\$0.00
Other Utility Plant Adjustments (116)		
Total Net Utility Plant	\$21,660,671.00	\$21,025,322.00
OTHER PROPERTY AND INVESTMENTS		
Nonutility Property (121)		
Less: Accumulated Depreciation and Amortization (122)		
Net Nonutility Property		\$0.00
Investment in Associated Companies (123)		
Utility and Other Investments (124-125)		
Sinking Funds (126)	\$6,442.00	\$94,766.00
Other Special Funds (127)	\$38,234.00	\$38,240.00
Total Other Property and Investments	\$44,676.00	\$133,006.00
CURRENT AND ACCRUED ASSETS		
Cash (131)	\$82,395.00	\$95,214.00
Special Deposits (132)	\$148,432.00	\$155,206.00
Other Special Deposits (133)	\$825.00	\$105.00
Working Funds (134)		
Temporary Cash Investments (135)		
Accounts and Notes Receivable, Less Accumulated Provision for Uncollectible Accounts (141-144)	\$251,056.00	\$235,876.00
Accounts Receivable from Associated Companies (145)	\$3,227.00	\$12,481.00
Notes Receivable from Associated Companies (146)		
Materials and Supplies (151-153)	\$26,272.00	\$24,067.00
Stores Expense (161)		
Prepayments (162)	\$18,990.00	\$24,484.00
Accrued Interest and Dividends Receivable (171)		
Rents Receivable (172)		
Accrued Utility Revenues (173)	\$243,652.00	\$258,199.00

25000 Martin County Water District 01/01/2015 - 12/31/2015

Balance Sheet - Equity Capital and Liabilities (Ref Page: 9)

	Previous Year	Current Year
EQUITY CAPITAL		
Appropriated Retained Earnings (214)		
Retained Earnings From Income before contributions (215.1)	(\$9,989,978.00)	(\$10,827,597.00)
Donated Capital (215.2)	\$29,111,128.00	\$29,178,095.00
Total Equity Capital	\$19,121,150.00	\$18,350,498.00
LONG-TERM DEBT		
Bonds (221)	\$1,971,000.00	\$1,980,000.00
Reaquired Bonds (222)		
Advances from Associated Companies (223)		
Other Long-Term Debt (224)	\$781,524.00	\$723,074.00
Total Long Term Debt	\$2,752,524.00	\$2,703,074.00
CURRENT AND ACCRUED LIABILITIES		
Accounts Payable (231)	\$347,722.00	\$609,532.00
Notes Payable (232)		
Accounts Payable to Associated Co. (233)		
Notes Payable to Associated Co (234)		
Customer Deposits (235)	\$133,348.00	\$139,998.00
Accrued Taxes (236)	\$2,075.00	\$2,566.00
Accrued Interest (237)	\$4,977.00	\$52,860.00
Matured Long-Term Debt (239)	\$57,020.00	\$88,450.00
Matured Interest (240)		
Tax Collections Payable (241)	\$13,124.00	\$11,610.00
Misc. Current and Accrued Liabilities (242)	\$48,256.00	\$49,314.00
Total Current and Accrued Liabilities	\$606,522.00	\$954,330.00
DEFFERRED CREDITS		
Unamortized Premium on Debt (251)		\$21,893.00
Advances for Construction (252)		
Other Deferred Credits (253)		
Total Deferred Credits	\$0.00	\$21,893.00
OPERATING RESERVES		
Accumulated Provision For:		
Property Insurance (261)		

25000 Martin County Water District 01/01/2015 - 12/31/2015

Water Utility Plant Accounts (Ref Page: 14)

	Prev Year (c)	Additions (d)	Retirement (e)	Current Yr(f)	Intngble. Plant (g)	Supply & Pump.	Water Treatmnt.	Trans. and Distr.	General Plant
Organization (301)									
Franchises (302)									
Land and Land Rights (303)	\$214,714.00	\$0.00	\$0.00	\$214,714.00	\$0.00	\$83,722.00	\$350.00	\$80,642.00	\$50,000.00
Structures and Improvements (304)	\$500,264.00	\$0.00	\$0.00	\$500,264.00	\$0.00	\$32,275.00	\$147,439.00	\$286,794.00	\$33,756.00
Collecting and Impounding Reservoirs (305)	\$288,203.00	\$0.00	\$0.00	\$288,203.00	\$0.00	\$288,203.00	\$0.00	\$0.00	\$0.00
Lakes, Rivers and Other Intakes (306)	\$2,153,752.00	\$0.00	\$0.00	\$2,153,752.00	\$0.00	\$2,153,752.00	\$0.00	\$0.00	\$0.00
Wells and Springs (307)									
Infiltration Galleries and Tunnels (308)									
Supply Mains (309)									
Power Generation Equipment (310)		\$15,000.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$15,000.00
Pumping Equipment (311)	\$309,468.00	\$1,300.00	\$0.00	\$310,768.00	\$0.00	\$309,468.00	\$0.00	\$1,300.00	\$0.00
Water Treatment Equipment (320)	\$4,812,970.00	\$64,449.00	\$0.00	\$4,877,419.00	\$0.00	\$4,877,419.00	\$0.00	\$0.00	\$0.00
Distribution Reservoirs and Standpipes (330)	\$4,071,502.00	\$0.00	\$0.00	\$4,071,502.00	\$0.00	\$0.00	\$0.00	\$4,071,502.00	\$0.00
Transmission and Distribution Mains (331)	\$20,060,075.00	\$0.00	\$0.00	\$20,060,075.00	\$0.00	\$0.00	\$0.00	\$20,060,075.00	\$0.00
Services (333)									
Meters and Meter Installations (334)	\$483,949.00	\$20,553.00	\$0.00	\$504,502.00	\$0.00	\$0.00	\$0.00	\$504,502.00	\$0.00
Hydrants (335)	\$2,969.00	\$0.00	\$0.00	\$2,969.00	\$0.00	\$0.00	\$0.00	\$2,969.00	\$0.00
Backflow Prevention Devices (336)									

25000 Martin County Water District 01/01/2015 - 12/31/2015

Analysis of Accumulated Depreciation and Amortization by Primary Acct (Ref Page: 15)

	Balance Beg Yr(c)	Cr-Chg Dep Exp(d)	Other Credits (e)	Charges-Plant Ret(f)	Other Charges (g)	Balance End Yr (h)
Organization (301)						
Franchises (302)						
Land and Land Rights (303)						
Structures and Improvements (304)	\$108,075.00	\$10,183.00	\$0.00	\$0.00	\$0.00	\$118,258.00
Collecting and Impounding Reservoirs (305)	\$65,514.00	\$1,555.00	\$0.00	\$0.00	\$0.00	\$67,069.00
Lake, River and Other Intakes (306)	\$554,533.00	\$43,076.00	\$0.00	\$0.00	\$0.00	\$597,609.00
Wells and Springs (307)						
Infiltration Galleries and Tunnels (308)						
Supply Mains (309)						
Power Generating Equipment (310)		\$1,500.00	\$0.00	\$0.00	\$0.00	\$1,500.00
Pumping Equipment (311)	\$290,367.00	\$10,694.00	\$0.00	\$0.00	\$0.00	\$301,061.00
Water Treatment Equipment (320)	\$1,383,560.00	\$92,575.00	\$0.00	\$0.00	\$0.00	\$1,476,135.00
Distributions Reservoirs and Standpipes (330)	\$935,897.00	\$81,505.00	\$0.00	\$0.00	\$0.00	\$1,017,402.00
Transmission and Distribution Mains (331)	\$7,798,403.00	\$493,995.00	\$0.00	\$0.00	\$0.00	\$8,292,398.00
Services (333)						
Meters and Meter Installations (334)	\$199,201.00	\$13,837.00	\$0.00	\$0.00	\$0.00	\$213,038.00
Hydrants (335)	\$1,932.00	\$89.00	\$0.00	\$0.00	\$0.00	\$2,021.00
Backflow Prevention Devices (336)						
Other Plant and Miscellaneous Equipment (339)	\$770,150.00	\$17,361.00	\$0.00	\$0.00	\$0.00	\$787,511.00
Office Furniture and Equip. (340)	\$173,319.00	\$1,070.00	\$0.00	\$0.00	\$0.00	\$174,389.00
Transportation Equipment (341)	\$318,669.00	\$5,433.00	\$0.00	\$0.00	\$0.00	\$324,102.00
Stores Equipment (342)						

25000 Martin County Water District 01/01/2015 - 12/31/2015

Water Operating Revenue (Ref Page: 27)

	Beginning Year Customers	Year End Customers	Amount
Operating Revenues			
Unmetered Water Revenue (460)	5	0	\$304.00
Metered Water Revenue (461)			
Sales to Residential Customers (461.1)	3,257	3,264	\$1,624,198.00
Sales to Commercial Customers (461.2)	263	263	\$361,679.00
Sales to Industrial Customers (461.3)	3	6	\$9,836.00
Sales to Public Authorities (461.4)	0	5	\$4,540.00
Sales to Multiple Family Dwellings (461.5)	2	4	\$2,270.00
Sales through Bulk Loading Stations (461.6)			
Total Metered Sales	3,525	3,542	\$2,002,523.00
Fire Protection Revenue (462)			
Public Fire Protection (462.1)			
Private Fire Protection (462.2)			
Total Fire Protection Revenue	0	0	\$0.00
Other Sales to Public Authorities (464)	3	1	\$724.00
Sales to Irrigation Customers (465)			
Sales for Resale (466)			
Interdepartmental Sales (467)			
Total Sales of Water	3,533	3,543	\$2,003,551.00
Other Water Revenues			
Guaranteed Revenues (469)			
Forfeited Discounts (470)			
Miscellaneous Service Revenues (471)			\$15,621.00
Rents from Water Property (472)			
Interdepartments Rents (473)			
Other Water Revenues (474)			\$78,324.00
Total Other Water Revenues			\$93,945.00
Total Water Operating Revenues			\$2,097,496.00

APPALACHIAN CITIZENS' LAW CENTER, INC.

317 MAIN STREET
WHITESBURG, KENTUCKY 41858
606-633-3929 1-877-637-3929
FAX 606-633-3925
www.appalachianlawcenter.org

STEPHEN A. SANDERS
Director
steve@appalachianlawcenter.org

WES ADDINGTON
Deputy Director
wes@appalachianlawcenter.org

MARY CROMER
Staff Attorney
mary@appalachianlawcenter.org
*Also Admitted in VA

EVAN B. SMITH
Staff Attorney
evan@appalachianlawcenter.org

May 31, 2017

Dr. Talina R. Mathews
Executive Director
Public Service Commission
211 Sower Boulevard
P.O. Box 615
Frankfort, KY 40602-0615

Charles G. Snavely, Secretary
Energy and Environment Cabinet
300 Sower Blvd., 3rd Floor
Frankfort, KY 40601

HAND-DELIVERED ON ~~MAY 31, 2017~~ *June 1, 2017* ^{mvc}

RE: Martin County Concerned Citizens' comments in
PSC Case No. 2016-142 and Case No. DOW-150292

Dear Dr. Matthews and Secretary Snavely,

Recently a group of residents of Martin County who are customers of Martin County Water District ("MCWD") came together to form the Martin County Concerned Citizens ("MCCC"). I represent the citizens group. The purpose of the group is to give voice to the citizens' concerns regarding the adequacy and safety of the water supplied by the water district and to engage in the regulatory processes that are underway to address problems with the system.

I provide here comments on behalf of MCCC regarding the PSC's investigation of MCWD's high water loss rates, lack of performance of routine maintenance and testing, and failure to follow acceptable management practices. In addition to the five comments of MCWD customers I submitted on May 26, 2017, I provide here three additional comments from MCWD customers. (ATT 1-3.)

MCCC recognizes that the PSC and EEC perform separate and independent functions in overseeing MCWD's provision of adequate and reasonable water to its customers and the water district's compliance with the Safe Drinking Water Act. However, from the point of view of a water customer dealing with recurring water outages, water that alternates between smelling like sewage and smelling of harsh chemicals, and monthly notices of the water district's noncompliance with the Safe Drinking Water Act's disinfection byproduct ("DBP") standards, the issues addressed by PSC and EEC and the compliance orders issued by your two agencies are interdependent.

It is for that reason that MCCC sends these comments, not only to the PSC to be considered in Case No. 2016-142, but also to the EEC to be considered in assessing MCWD's compliance with the Agreed Order entered on October 3, 2016.

In his testimony to the Commission on February 22, Joe Hammond asserted again and again that MCWD lacks the funds necessary to address many of the water loss issues in the distribution lines. He also asserted that the first priority of the district as funds are available is to do what is necessary to come into compliance with the Division of Water Agreed Order. Joe Burns testified that to comply with that Agreed Order, MCWD would first adjust the disinfectants used. If that did not work, he testified that the district would need to consider more expensive measures like the clear well aeration system. Mr. Burns also testified that the projects that reduce DBPs would not address the water loss issues

MCCC believes that the important inquiry is not whether the DBP project would address the water loss issues, but whether projects that lessen water loss would, in turn allow MCWD to more affordably and effectively address the DBP issues. In particular, based on recent reporting by MCWD, it appears that the much of the DBP formation may be occurring in the water lines. This could be a combined result of the likely intrusion of contaminants into the lines due to negative pressure and the fact that MCWD is unable to flush the lines because of the significant water loss. It seems reasonable then that a better solution may be to try to come to a global resolution that addresses both problems. We recognize that there may be no specific authority under which the PSC and the EEC can negotiate a joint resolution of the issues. Regardless, MCCC asks that EEC and PSC consider creative ways of working together to arrive at the best solution for Martin County residents.

In addition, we have another specific request. MCCC asks that the EEC and PSC jointly hold a community forum in Inez, Kentucky in the near future so that those MCWD customers can speak about their concerns with the water service provided by MCWD and so that EEC and PSC can explain to the public what each agency is doing to address the problems with the water district.

Citizens' Concerns

It is MCCC's position that the failure of MCWD to adequately address the serious problems in its water service and failure to comply with the November 17, 2003 and April 2, 2008 Orders has resulted in serious and imminent threats to the health and safety of a significant portion of MCWD's customers.

One of the primary complaints of MCCC members is that they are forced to deal with water shut offs on a regular basis. The 62-63% loss rate is apparently causing MCWD to regularly shut off water to portions of its service area. As a result of these water shut offs and the inability to bathe, MCCC members report having to keep their children home from school. In some instances, school has closed because of lack of water. In an extreme instance, MCCC member and Warfield Fire Department volunteer Donald York reports that a house in Warfield burned down because MCWD had shut off Warfield's water supply and the local fire department

was forced to get water from Kermit, WV to fight the fire.

The unannounced water outages are therefore more than a mere inconvenience to MCWD's customers. But there are also related problems. MCCC members also state that often when the water is turned back on, it is brown and smells. Members also consistently report that they are not notified of a boiled water advisory after the water service is restored. Further, members complain of ongoing problems with water pressure.

In addition to the problems caused by water outages and low water pressure, the resultant low or negative pressure in the distribution lines can allow the intrusion of harmful contaminants into the water system. These can include chemical contaminants, like pesticides and petroleum products, that are likely to be found near the roads where much of MCWD's distribution lines are laid. Microbial contamination by total and fecal coliforms is also likely. Given the regularity at which negative pressure occurs or exists in MCWD's distribution lines, the possibility of such intrusions is particularly high.

The intrusion of harmful contaminants into the distribution lines is, of course, a significant health and safety concern as these contaminants can cause gastrointestinal illnesses as well as acute and long-term reactions to exposures to chemical contaminants.

Disinfection Byproducts

The other major area of concern for MCCC members is the water district's persistent violations of the Safe Drinking Water Act DBP standards. It is particularly concerning to MCCC members that water has regularly had unsafe DBP levels since at least 2002 and that the risks, including cancer, that are warned of from DBP exposure are based on long-term exposure. Any long-term customer of MCWD has, at this point, had long-term exposure. It is MCCC's position that the long-term exposure to water with high DBP levels constitutes serious and imminent threat to the health and safety of a significant portion of MCWD's customers.

Because MCWD's issues with DBP compliance may be interconnected to the problems with the district's distribution lines, MCCC asks the PSC to consider the following eight attachments related to MCWD's compliance with the October 2016 DOW Agreed Order, reporting violations from fourth quarter 2014 to fourth quarter 2015, and other records I have received from the Division of Water through the Open Records Act that relate to MCWD's Safe Drinking Water Act compliance. Specifically, I provide here the following attachments:

1. Attachment 4: IDSE map showing the location of the four monitoring points for MCWD's Safe Drinking Water Act reporting (118, 119, SM7, SM8).
2. Attachment 5: MCWD's draft flushing plan submitted to DOW on November 15, 2016.
3. Attachment 6: MCWD's corrective action plan ("CAP") submitted to DOW on January 17, 2017.
4. Attachment 7: DOW's response to MCWD's January 17, 2017 CAP.
5. Attachment 8: DOW's demand letter issued to MCWD on April 20, 2017.

6. Attachment 9: MCWD's CAP submitted to DOW on May 10, 2017 (excerpt).
7. Attachment 10: MCWD's first quarter progress report submitted to DOW on April 13, 2017.
8. Attachment 11: A graph showing MCWD's DBP violations since fourth quarter 2013 as reported by monitoring location and DBP parameter.

In particular, MCCC wishes to call your attention to Attachment 10, MCWD's first quarter progress report. On page one, in the second section of the report, MCWD notes that for location SM8, the district is out of compliance for both DBP parameters. MCWD reports that location SM7 is out of compliance for trihalomethanes. MCWD further states, "DBP sample projections for the second quarter 2017 show that compliance cannot be achieved."¹ What is particularly interesting here is that on the next page of the report, MCWD reports that the "plant tap" is in compliance for both parameters. Because of the failure to report during the third quarter of 2016, it is impossible to determine locational running annual average compliance for the "plant tap." However, based on the trend of values presented, it appears that DBPs at the "plant tap" will likely remain below the maximum contaminant levels for those parameters.

Additionally, in the same report, MCWD states that, despite the submittal of a flushing plan that was to begin in early spring 2017 (see ATT 5), "There was no significant flushing performed this quarter. System wide maintenance flushing cannot be performed due to excessive water loss." (ATT 10, p. 2). PSC reports that during an informal conference with MCWD on May 18, 2016, MCWD stated that the flushing is part of its response to issues associated with DBP formation.

MCCC calls this to your attention to demonstrate that the most significant DBP compliance issues in the water system may be due to formation of DBPs in the distribution lines. With negative pressure allowing the intrusion of organic contaminants into the distribution lines and the fact that those lines are not being flushed because of a lack of water, the potential for DBP formation in the distribution lines is particularly high.

This is the point at which the regulatory purviews of your two agencies intersect. Because of this, MCCC asks that (1) your agencies engage the community through a community forum in Inez and (2) your agencies work together and with MCCC to arrive at a global resolution to the MCWD's problems.

Thank you for your time and attention to this matter.

Sincerely,

Mary Varson Cromer

¹ It is unclear why values are not given for monitoring locations 118 and 119.

ATTACHMENT 1



Mary Cromer <mary@appalachianlawcenter.org>

Samuel Lee Sumpter & Ella Rose Sumpter

1 message

rita stafford <ritastafford@bellsouth.net>
Reply-To: rita stafford <ritastafford@bellsouth.net>
To: mary@appalachianlawcenter.org

Sat, May 27, 2017 at 9:27 PM

Again, I'm emailing for my neighbors. They are in their 80's and in poor health (cancer) They have the complaint to send to you of no water pressure and the fact of having to pay high water bill and have to purchase drinking water. Address is 24 Blackburn Lane, Inez, KY 41224

ATTACHMENT 2



Mary Cromer <mary@appalachianlawcenter.org>

Don & Greta Backbun

1 message

rita stafford <ritastafford@bellsouth.net>

Sat, May 27, 2017 at 9:24 PM

Reply-To: rita stafford <ritastafford@bellsouth.net>

To: mary@appalachianlawcenter.org

I am emailing this for m neighbor as they do not have email access. Don & Greta Blackburn. Their address 25 Blackburn Lane, Inez, KY 41224. The issues they wanted me to email was the low water pressure and the fact they have to purchase drinking water and have to still pay a large water bill

ATTACHMENT 3



Mary Cromer <mary@appalachianlawcenter.org>

comments to be read before Thursday's PSC hearing

1 message

giball <giball@bellsouth.net>

Tue, May 30, 2017 at 5:13 PM

Reply-To: giball <giball@bellsouth.net>

To: Mary Cromer <mary@appalachianlawcenter.org>

Mary, I'm not sure I can make it to Thursday's hearing. I realize it's important for me to do so, and I will try. If I cannot, here is my comment.

As editor of the local newspaper, I don't write articles to raise awareness of our water problems. Everyone is aware. Even the Kentucky Public Service Commission is aware of our plight. The water district hasn't fully complied with PSC orders issued over a decade ago. If they refuse to comply with state regulatory agencies, you can imagine how they respond to our complaints. I just want to make this point. Water customers in Martin County have put up with this problem for far too long. One of the disturbing aspects of poor water quality and service is that inmates at the U.S. Penitentiary — Big Sandy, a maximum federal prison located in Martin County, have access to better water than children in our schools, residents in our nursing home and many elderly folks who cannot afford to buy bottled water. The prison has been supplied in large part by Prestonsburg City Utilities. Another potential problem I see is our district furnishing water to the federal prison after going so long — at one time, roughly a year — without supplying any water. I'm aware that the PSC in its last data request inquired about how much water MCWD was supplying to the Honey Branch Tank, which supplies the federal prison as well as other MCWD customers. After a new contract was signed between Prestonsburg City Utilities and MCWD where PCU will remit from its monthly bill to the prison water supplied by MCWD at a rate of \$7.75 per 1,000 gallon unit the last of January, for the months of March and April, MCWD has received roughly \$20,000 per month for water supplied to the Honey Branch Tank. My question is, how are they accomplishing this with their water rate loss of 63 percent? That's a valid question. Many customers here have complained about low water pressure recently. Could it be that the water district is valving off other tanks to ensure the Honey Branch Tank has an ample supply? I want good water -- safe drinking water. I'm tired of constantly fighting this battle. I realize the PSC can consider the water district as abandoned simply by a past refusals to comply with PSC orders. I'm also aware that placing it in receivership will last only 60 days after it is presented in Franklin Circuit Court. I've looked at ways the water district could simply be dissolved and customers reapportioned among adjacent water utilities that don't have the problems we've experienced. I simply don't have the answers — with possible exception of making this an issue in the next county election — posing a question of if a new county judge would agree to dissolve the water district. That's strong, but what options do we have? Years of investigations and orders have netted us nothing. I have no confidence in the water board and even less confidence in the fiscal court that oversees the water district. We need help.

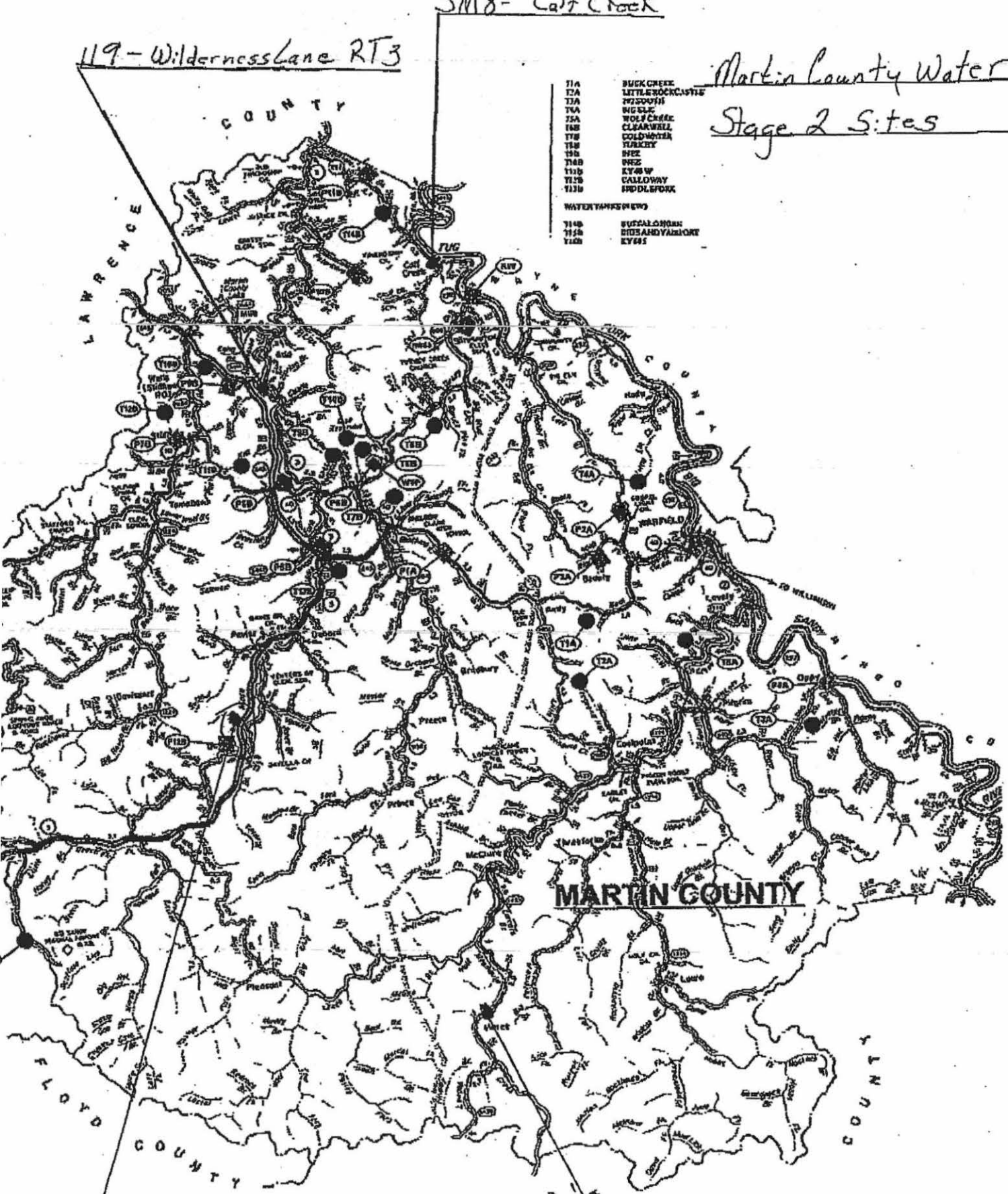
ATTACHMENT 4

SM8- Wolf Creek

119- Wilderness Lane RT3

Martin County Water
Stage 2 Sites

- T1A BUCK CREEK
 - T1A LITTLE ROCK CASTLE
 - T1A T2500711
 - T1A WIGGINS
 - T1A WOLF CREEK
 - T1B CLEARWELL
 - T1B COLDWATER
 - T1B TURKEY
 - T1B WEE
 - T1B WEE
 - T1B KY 48 W
 - T1B CALDWAY
 - T1B SPIDLE CREEK
- WATER TANKS (NEW)
- T14B SUGALONGAN
 - T14B HISSANDYALMONT
 - T14B KY 641



118- Babe Delong Rd RT3

SM7- Meat House

Martin County Water District Treatment Plant
14 Flat Hollow, Inez KY 41224
606 - 298 - 7439

Revised Stage 2 Monitoring Sites

1. SM7 - Booster Pump on RT 1439, Meathouse
2. SM8 - Hydrant on Rt 292 North , Calf Creek
3. 118 - Hydrant on Babe DeLong Road , Rt 3 South
4. 119 - Hydrant at Wilderness Lane , Rt 3 North

ATTACHMENT 5

Response to Agreed Order

Philip Kejzlar

MARTIN COUNTY WATER DISTRICT

387 East Main Street, Suite 140
INEZ, KY 41224

606-298-3885 OFFICE

606-298-4913 FAX

November 15, 2016

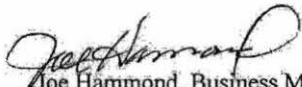
Division of Enforcement
ATTN: Mr. Philip Kejzlar
Environmental Enforcement Specialist
300 Sowers Blvd
Frankfort, KY 40601

Dear Mr. Kejzlar:

Please find enclosed the Flushing Plan for Martin County Water District. Sorry it took so long.

If you have questions regarding the Plan, please call me at 606-626-7748.

Sincerely,


Joe Hammond, Business Manager
Martin County Water District

1 Attachment: System Flushing Plan

Response to: 2016 Agreed Order 82616

- I. Within thirty (30) days of execution of the Agreed Order, Martin Co. shall develop and submit to the Cabinet for review and acceptance a flushing plan for its system. Martin Co. shall maintain a schedule of unidirectional flushing and conduct this action in accordance to the flushing plan submitted to the Cabinet.
- **RESPONSE:** The District with assistance from Kentucky Rural Water has completed a Zone Map to enhance the District's goals for Leak Detection and begin our flushing plan to reduce the District's Disinfection By-Products in the system. The District will need to address a schedule and notifications to our customers in the Zones. The flushing plan should begin early Spring of 2017.
 - See Exhibit #1 – System Map
 - See Exhibit #2 – Zone Map

SYSTEM FLUSHING PLAN

The goal of the flushing program is to maintain infrastructure integrity and water quality. Martin County Water District operates over 275 miles of distribution line; 13 storage tanks and 15 pump stations in order to provide safe drinking water to over 3550 customers. Proactive flushing is a form of preventative maintenance necessary to preserve system stability with minimal service interruption.

Over time debris will enter the water distribution system and accumulate in pipes, tanks, control valves and meters. Debris also encourages the formation of scale, biofilm and tuberculation on the pipe wall. If left unchecked this buildup will adversely affect system hydraulics and water quality leading to service interruptions and boil water advisories. Disinfectant residuals can deplete due to low usage and disinfectants may combine with materials in the system to form disinfection by-products. Each of these situations may be corrected by the appropriate flushing strategy.

1) Process

A systematic flushing of the entire distribution system will be conducted biannually in the spring and fall under the guidance of a certified distribution operator; however drought conditions may preclude the fall flushing. This will be accomplished by flushing from the treatment plant to the storage tanks, then downstream to the ends of lines by utilizing hydrants / blow-offs and valves. Flushing crews will take steps to protect pavement and property to reduce potential damage during flushing. Customers will be notified prior to system wide flushing. The notification will include expected date and time of the areas to be flushed. The method of notification may include any of the following: local media, door hangers, bill card messages, phone calls and signs. The flushing program will ensure that:

- 1) Drinking water standards are met;
- 2) Dead end and low demand areas are flushed periodically;
- 3) Sediment and air are removed;
- 4) The optimal free chlorine residual is maintained;
- 5) Reduce water age and disinfection by-product formation;
- 6) Maintain fire protection; and
- 7) Maintain mechanical devices

Maintenance Flushing: The goal of maintenance flushing is to improve water quality and hydraulic stability by removing silt, sediment, biofilm and other deposits from the distribution system. This is an intensive system-wide flushing performed biannually (spring & fall) that should be conducted at off-peak times and must be coordinated with the water treatment plant.

Routine Flushing: The goal of routine flushing is to maintain water quality by decreasing water age which reduces chlorine demand and disinfection by-product formation. This type of flushing occurs on an as needed basis based upon customer complaints of taste, odor, discolored water, or when indicated by water quality monitoring. Routine flushing will commence in response to disinfection by-product results and daily disinfectant residual monitoring shows free chlorine

<0.5 mg/l or when the ratio of free chlorine to total chlorine is less than 85%. Flushing can be performed manually or automated with the use of flushing devices to maintain disinfectant residual and reduce water age in portions of the distribution system that have known stagnation or circulation issues.

Repair Flushing: Water lines will be flushed following repairs to remove air and sediment from the repaired section of line. Flushing will cease when the optimal chlorine residual can be maintained. If "shock" disinfection is necessary due to possible contamination, the line will be flushed to remove the high chlorine content after sufficient contact time has passed. During flushing, water containing high chlorine concentrations will be directed to the sanitary sewer system or flushed on relatively flat ground so as not to contaminate a receiving stream or body of water. Sodium Thiosulfate will be used at the discretion of the certified distribution operator to de-chlorinate flushed water when deemed necessary to protect the environment.

2) Record Keeping

Records of each flushing will be maintained by the Chief Distribution Operator. These records will include the following for each flush point:

- | | |
|------------------------|------------------------------------|
| 1) Date/time | 5) Static and dynamic pressure |
| 2) Location | 6) Gallons flushed |
| 3) Persons responsible | 7) Free / total chlorine |
| 4) Length of flushing | 8) Other information deemed useful |

3) Flushing Methodology

Unidirectional Flushing (UDF) is the most efficient method of cleaning water distribution pipes to improve water quality, restore capacity and maintain infrastructure. Beginning at the storage tank; water is flushed from the source through a pipe segment and discharged through single or multiple hydrants depending upon the flow required to achieve the target velocity. By isolating each pipeline to create flow in a single direction reduces flushing time and minimizes impact on utility customers. Concentrating flow in this manner creates higher velocities that are better able to clean the pipe. Scouring velocities of > 5 ft/s can be achieved as compared to 1 to 3 ft/s with conventional flushing. At these velocities, UDF scours out sediment, biofilm, corrosion products, and tuberculation.

Not only is UDF a more effective way of cleaning than conventional flushing, but it uses on average about 40 percent less water. Equally important, the sediment and other debris are flushed out and not just moved to another pipe segment which often occurs with conventional flushing. Removing debris and other organic sources from the system greatly reduces the potential to form trihalomethanes.

➤ **General guidelines for UDF**

- Always flush from larger to smaller mains to avoid flow and velocity restrictions;
- Use line valves to isolate flushing zones and to keep flushing lengths as short as possible in order to maximize velocity;
- Close isolation valves before opening hydrant(s);
- Open isolation valves before or simultaneous to closing the hydrant(s) to reduce water hammer and remove slugs of poor quality water trapped behind the valve;
- Monitor system pressure and maintain >20 psi during flushing.

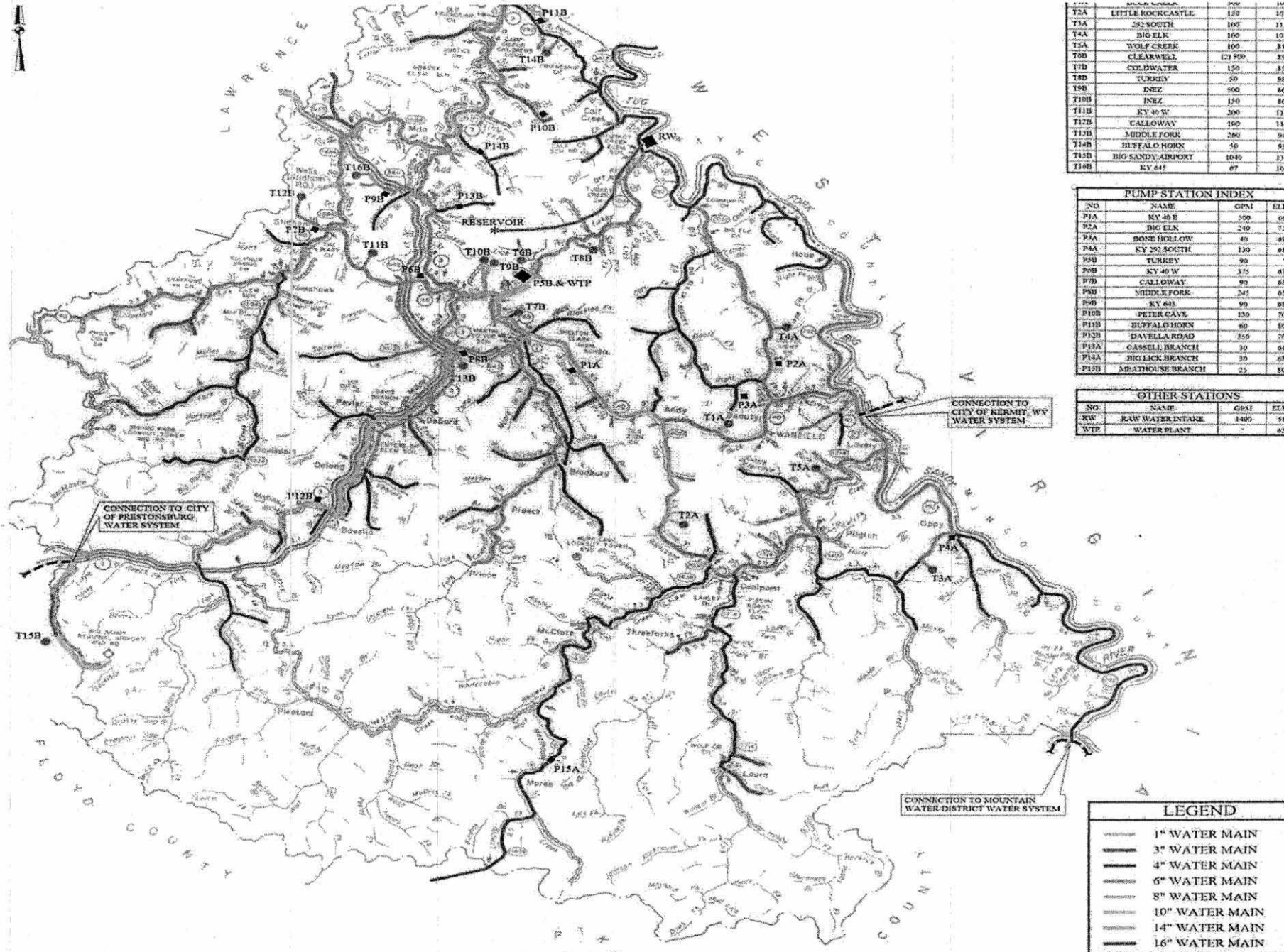
4) Flushing Procedure

System flushing begins at the source of water and proceeds throughout the distribution system to the end of each line.

1. Notify customers at least one week in advance of scheduled flushing.
2. Stand to the side and carefully remove one of the nozzle caps. Always assume that the hydrant barrel is pressurized. Use a hydrant operating wrench.
3. If flow control is necessary, attach a valve to the nozzle. Attach a hose, deflector, or diffuser to prevent damage to the surrounding area.
4. Open the hydrant slowly to prevent an excessive surge in the distribution system. Using the operating nut or nozzle valve open the hydrant to a full open position.
5. Continue flushing until the water becomes clear and the desired disinfectant residual is obtained.
6. Close the hydrant slowly. Avoid damage to the main valve or stem coupler by over-tightening or use of excessive force.
7. Replace the nozzle cap hand tight plus ¼ turn.
8. Complete appropriate records.

**Martin County Water District
Distribution Hydraulic Map**

Exhibit #1



STATION	NAME	POP	IMP
T2A	LITTLE ROCKCASTLE	130	101
T3A	262 SOUTH	105	111
T4A	BIG ELK	160	104
T5A	WOLF CREEK	105	81
T8B	CLEARWELL	(2) 500	89
T7B	COLDWATER	150	85
T8B	TURKEY	50	58
T10B	INEZ	300	86
T11B	INEZ	150	86
T12B	KY 40 W	200	11
T13B	CALLOWAY	100	14
T14B	MIDDLE FORK	200	84
T15B	BUFFALO HORN	50	82
T11B	BIG SANDY AIRPORT	1040	13
T10B	KY 647	87	10

PUMP STATION INDEX			
NO	NAME	GPM	ELF
P1A	KY 40 E	500	60
P2A	BIG ELK	240	72
P3A	BONE HOLLOW	40	89
P4A	KY 292 SOUTH	130	68
P5B	TURKEY	90	77
P6B	KY 40 W	375	63
P7B	CALLOWAY	90	65
P8B	MIDDLE FORK	243	65
P9B	KY 647	93	68
P10B	PETER CAVE	130	70
P11B	BUFFALO HORN	80	80
P13B	DAVELLA ROAD	350	70
P13A	CASSELL BRANCH	30	64
P14A	BIG LACK BRANCH	30	83
P15B	BRATHOUSE BRANCH	25	80

OTHER STATIONS			
NO	NAME	GPM	ELF
RW	RAW WATER INTAKE	1400	56
WTP	WATER PLANT	-	82

LEGEND	
	1" WATER MAIN
	3" WATER MAIN
	4" WATER MAIN
	6" WATER MAIN
	8" WATER MAIN
	10" WATER MAIN
	14" WATER MAIN
	16" WATER MAIN

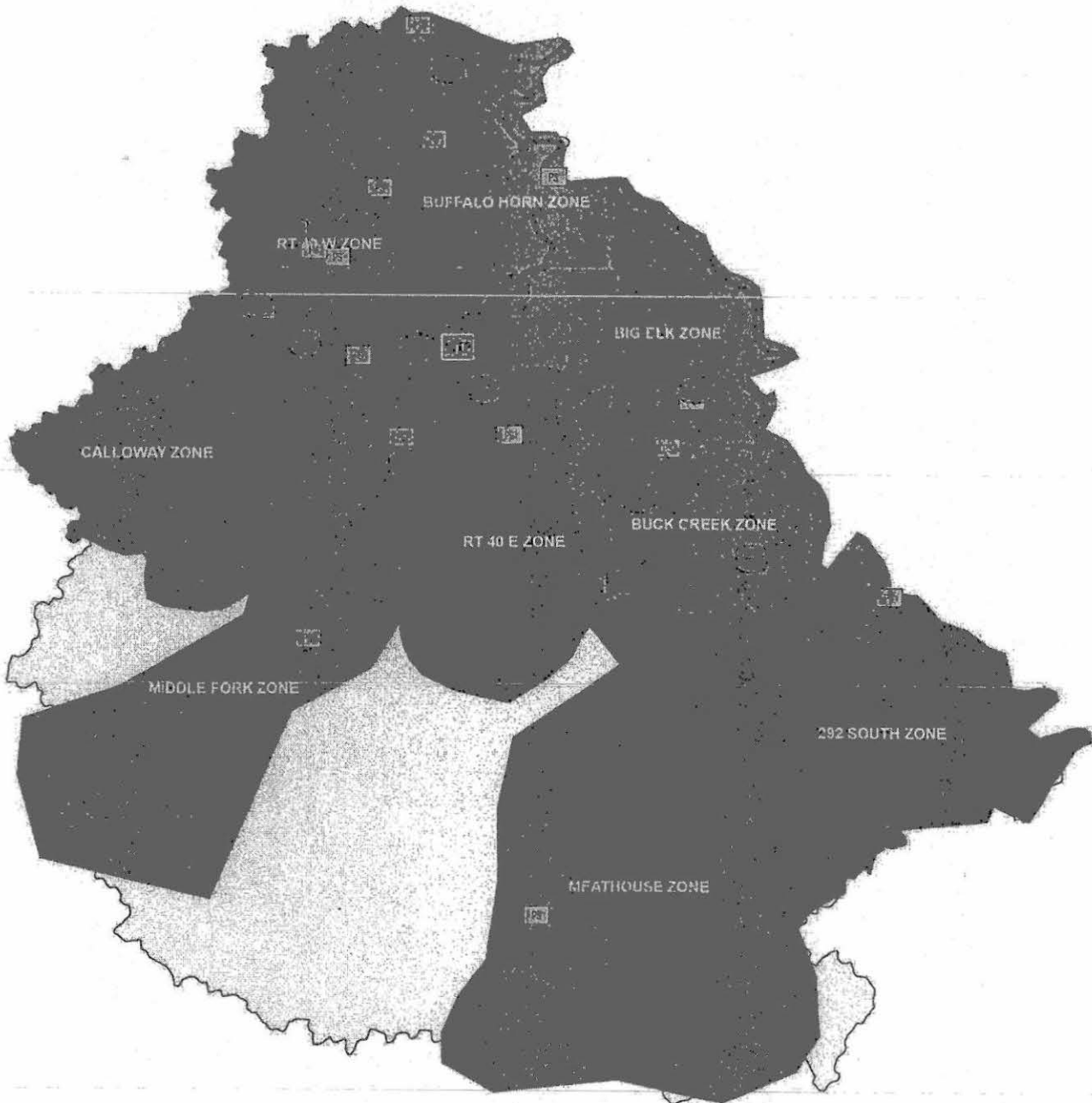


WATER SYSTEM MAP



**Martin County Water District
Distribution Hydraulic Zone Map**

Exhibit #2



Infrastructure		Distribution Zone	
WTP	WaterLine	No Infrastructure	CALLOWAY
WaterTank	FINISHED	292 SOUTH	MEATHOUSE
PumpStation	RAW	BIG ELK	MIDDLE FORK
		BUCK CREEK	RT 40 E
		BUFFALO HORN	RT 40 W

ATTACHMENT 6

Martin County Water District

387 East Main Street, Suite 140
Inez, KY41224

Office 606-298-3885

Fax 606-298-4913

January 17, 2017

Division of Enforcement
ATTN: Mr. Philip Kejzlar
Environmental Enforcement Specialist
300 Fair Oaks Lane
Frankfort, KY 40601

RE: DOW-150292
PWSID# KY0800273

Dear Mr. Kejzlar,

Please find enclosed the Corrective Action Plan (CAP) for the Martin County Water District to address non-compliance issues with Disinfection By-Products (DBP) and to comply with required remedial measures as they appear in a DENF Agreed Order dated October 3, 2016. The CAP was amended from the draft submitted in June 2016 to better reflect the specific remedial measures and to update the deliverables.

We continue to take advantage of the Small Water System Assistance Program, which is a partnership between Kentucky Division of Water and Kentucky Rural Water Association (KRWA) to provide utilities with compliance assistance in solving DBP issues. KRWA technical assistance staff have evaluated the water treatment plant and made several recommendations that is reflected in the CAP. Their primary recommendations include; moving the chlorine feed to "top of filter;" evaluate different chemicals to improve organic carbon removal; and train our operational staff in process control methodology and leak detection.

The Martin County Utility Board leaders and staff are committed to solving this problem and returning to compliance as soon as possible. We look forward to working with the Cabinet in complying with the terms of the Agreed Order.

Feel free to contact me anytime if you have questions.

Sincerely,

Joe Hammond
Joe Hammond, Business Manager
Martin County Water District

Martin County Water District

**Disinfection By-Product
Revised Corrective Action Plan
January 20, 2017**

Corrective Action:

This revised Corrective Action Plan is to replace the draft CAP submitted in June 2016 and is designed to take advantage of all available resources to address disinfection by-product issues from the source to distribution. Following is a list of actions that will be taken by Martin County personnel to comply with required remedial measures in the Executed Agreed Order.

Determine if Disinfection By-Products (DBP) are being formed in distribution or if the DBPs are elevated at the treatment plant.

Action Item:

TTHMs and HAA5s are being formed during the water treatment plant process and concentrations vary throughout the Martin County distribution system due to expected water age. This determination is based upon compliance monitoring and special sampling. The Stage 2 sample results and compliance history is summarized in the tables below.

Martin Co Water District								
TTHMs								
	2015				2016			
	Qrt 1	Qrt 2	Qrt 3	Qrt 4	Qrt 1	Qrt 2	Qrt 3	Qrt 4
SM8	0.039	0.049	0.121	0.098	0.045	0.076	0.132	0.100
SM7	0.036	0.064	0.144	0.101	0.054	0.088	0.121	0.129
TPA	0.022	0.010	0.080	0.052	0.026	0.036		0.028
LRAA	Qrt 1	Qrt 2	Qrt 3	Qrt 4	Qrt 1	Qrt 2	Qrt 3	Qrt 4
SM8	0.047	0.040	0.066	0.077	0.078	0.085	0.088	0.088
SM7	0.094	0.088	0.081	0.086	0.091	0.097	0.091	0.098
HAA5s								
	2015				2016			
	Qrt 1	Qrt 2	Qrt 3	Qrt 4	Qrt 1	Qrt 2	Qrt 3	Qrt 4
SM8	0.057	0.056	0.067	0.058	0.066	0.103	0.076	0.063
SM7	0.062	0.066	0.022	0.038	0.063	0.102	0.040	0.014
TPA	0.038	0.034	0.036	0.043	0.030	0.057		0.058
LRAA	Qrt 1	Qrt 2	Qrt 3	Qrt 4	Qrt 1	Qrt 2	Qrt 3	Qrt 4
SM8	0.099	0.077	0.070	0.060	0.062	0.074	0.076	0.077
SM7	0.104	0.076	0.070	0.047	0.047	0.056	0.061	0.055

Additional sampling will be needed in the distribution system to better determine locations of increased DBP formation.

Submit a Corrective Action Plan (CAP) based upon monitoring data. The CAP shall outline steps Martin County shall take to return to compliance with DBP parameters and shall include implementation dates for the corrective actions and a date by which the facility shall be in compliance with DBP parameters for four consecutive quarters.

Action Item:

Additional sampling will be needed in the distribution system to better determine locations of increased DBP formation. DBP concentrations vary throughout the distribution system as shown above. Martin County tank operations and system zones need to be analyzed to determine the critical points for sampling.

- 1) The following projects are being evaluated or determined to be feasible for reducing DBPs but are dependent upon acquisition of funding:
 - a. Clearwell aeration (estimated cost - \$10,000)
 - b. Clearwell diffusion pipe repair (estimated cost - \$5,000)
 - c. Clarifier cover (estimated cost - \$200,000)
 - d. Filter at reservoir intake to control organics/siltation - \$20,000)

Updates will be provided in the quarterly reports.

- 2) Collect special samples at the plant tap to coincide with Stage 2 compliance sample collection. This has been ongoing since Stage 2 began. Special samples will continue as a measure of improvement until the system is consistently in compliance with DBPs.
- 3) CT Values have been revised and indicate that the first point of chlorination can be moved to filtration. A revised CT evaluation will be submitted to the Cabinet by February 1, 2017.
- 4) Perform process control methodology training for our operational staff by March 31, 2017.
- 5) Jar testing alternate chemical treatment processes with chemical suppliers began in November 2016. This allows treatment operators to evaluate the cost/benefit of different programs and schedule 30-day pilot trials beginning in the second quarter of 2017. A pilot test is expected to begin April 1, 2017.
- 6) The final pilot results should be received early June 2017 and the effectiveness of each treatment program will be evaluated by the end of the month results are actually received. The selected process will be implemented within 30 days of the final evaluation of the pilot results.
- 7) An initial DBP profile assessment was performed in September 2016 (copies included). A request for assistance from the Compliance & Technical Assistance Branch will be submitted no later than 60 days from initiation of the treatment process changes following the pilot studies implementation. This data will be used to assess the effectiveness of the treatment process changes.

- 8) Booster chlorination is not utilized.
- 9) A system map will be generated designating critical points in distribution processes. Special samples will be taken to assess the critical storage tanks. These sample results along with evaluating tank turnover (use of chart recorders) to assess water age will be used to design for future special sample protocol and improve the effectiveness of our flushing program. This will be completed by August 31, 2017.
- 10) Martin County will consider the Targeted Technical Assistance or DBP Performance Based Training.
- 11) Martin County expects to return to compliance by December 31, 2019.

ATTACHMENT 7

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

March 8, 2017

Joe Hammond
Martin Co. Water Dist.
HC 69 BOX 875
Inez, KY 41224

Re: AI Name: Martin Co. Water District
AI No. 2987
Case No. DOW 150292
Activity No. ERF20150001
Facility ID: KY0800273
Martin County

Dear Mr. Hammond:

The Division of Water has reviewed the Corrective Action Plan (CAP) submitted on January 23, 2017, and provided the following comments. Please make any necessary revisions and resubmit the CAP to me within 30 days.

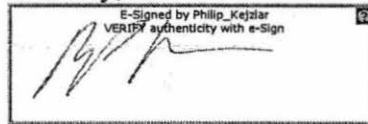
The CAP does little to address DBP concerns. It gives a broad overview of how Martin Co. is going to address the problem but specifics are lacking. It indicates that DBPs are being formed in the treatment process, and a review of recent sampling results by the Drinking Water section confirms this determination.

1. The source point of DBP formation is the treatment process and it is not detailed in the CAP.
 - This should be noted and the actions necessary to fix the issue detailed.
2. MCWD states additional sampling needs to be conducted in the distribution system.
 - Timelines of this sampling plan should be included in the CAP.
3. Facility projects are listed but are dependent on funding.
 - Plans to seek funding and types of funding should be outlined in the CAP.
4. CT evaluation was to be submitted by February 1, 2017.
 - No submission has been received.

5. By March 31, 2017, MCWD is to perform a process control methodology training for their operators.
 - Details on this training should be provided in the quarterly update.
6. Jar Testing.
 - The CAP should outline what they are jar testing for (TOC reduction?)
 - Results/data of jar testing that began in November 2016, should be submitted with the quarterly report.
7. Pilot test.
 - Results should be submitted with the quarterly report.
8. TOC reduction.
 - MCWD has not detailed anything in the CAP concerning TOC reduction. This action should be evaluated as part of the process of their DBP evaluation.
 - The DW section review indicates that a simple coagulant and chlorination point change proposed by MCWD may not be effective if TOC reduction is not addressed.

If you have any questions regarding the comments above please contact Joseph Uliasz (502-782-6291) with the Drinking Water section. As always, feel free to contact me at 502-782-6862 or Philip.Kejzlar@ky.gov.

Sincerely,



Philip Kejzlar,
Environmental Enforcement Specialist IV
Division of Enforcement

E-Cc: Joe Hammond
jhammond58@bellsouth.net

ATTACHMENT 8

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

April 20, 2017

Certified No. 7012 3460 0002 3647 5736

Joe Hammond
Martin Co. Water Dist.
HC 69 BOX 875
Inez, KY 41224

Re: AI Name: Martin Co. Water District
AI No. 2987
Case No. DOW-150292
Activity No. ERF20150001
Facility ID: KY0800273
Martin County

DEMAND FOR REMEDIAL MEASURE AND CIVIL PENALTY

Dear Mr. Hammond:

The Kentucky Department for Environmental Protection has determined that Martin Co. Water District has failed to meet the terms of Agreed Order DOW-150292, executed on October 3, 2016. Per the terms of the Agreed Order, in order to resolve outstanding violations, Martin Co. Water District was to complete remedial measures for violations cited to Martin Co. Water District. As of the date of this mailing, the following remedial measure has not been completed.

1. **Paragraph 28-(3)A** – Submittal of a revised Corrective Action Plan within thirty (30) days of receipt of comment from the Cabinet.

REMEDIAL MEASURES

To resolve the above violations, the following remedial measures must be completed within fifteen (15) days of receipt of this letter:

1. Martin Co. Water District shall submit to the Cabinet a revised Corrective Action Plan.

STIPULATED PENALTY

In accordance with paragraph thirty one (31) of Agreed Order Case No. DOW-150292, the Division requires payment of the stipulated penalty in the amount of **five hundred dollars (\$500.00)**. Full payment of the stipulated penalty must be received by the Cabinet within **thirty (30) days** of receipt of this letter. Failure to comply with the Cabinet's request for payment of the stipulated penalty may result in the Cabinet filing a complaint in Franklin Circuit Court.

In addition to the stipulated penalty, the Cabinet requires completion of all remedial measures as listed above. Martin Co. Water District shall demonstrate compliance with the Agreed Order and completion of all the remedial measures outlined within **fifteen (15) days** of receipt of this letter. Failure to comply with the Cabinet's request may result in the Cabinet filing a complaint in Franklin Circuit Court. In that event, the Cabinet will seek additional penalties for violation of the Agreed Order, up to the maximum amount allowed under Kentucky Revised Statutes.

GENERAL INFORMATION

The penalty shall be paid by certified check, cashier's check, or money order payable to the "**Kentucky State Treasurer**". Note "**Case No. DOW-150292**" on the instrument of payment. All correspondence, reports, cost recovery payments, and penalty payments shall be submitted to the following address:


ATTN: Philip Kejzlar
Division of Enforcement
300 Sower Blvd.
Frankfort, Kentucky 40601

The Department accepts conformance with the items listed above to satisfy its claims, charges and demands for the violations specified herein. Failure to comply fully with all the terms of this Demand Letter may result in additional enforcement action, which could include the assessment of the maximum civil penalties allowed under Kentucky Revised Statutes. This Demand Letter addresses only those matters specifically referred to in this document, and in no way waives any obligations or liabilities that may result from any other activities.

If you have any questions, please contact Philip Kejzlar of my staff at 502-782-6862 or Philip.Kejzlar@ky.gov.

Sincerely,

E-Signed by Cummins, Jeff
VERIFY authenticity with e-Sign



Jeffrey A. Cummins, Director
Division of Enforcement

JAC/pek

ATTACHMENT 9

Martin County Utility Board

387 East Main Street, Suite 140
Inez, KY41224

Office 606-298-3885

Fax 606-298-4913

May 10, 2017

Division of Enforcement
ATTN: Mr. Philip Kejzlar
Environmental Enforcement Specialist
300 Fair Oaks Lane
Frankfort, KY 40601

RE: DOW-150292
PWSID# KY0800273

Dear Mr. Kejzlar,

Please find enclosed the 1st revised Corrective Action Plan (CAP) for the Martin County Water District to address non-compliance issues with Disinfection By-Products (DBP) and to comply with required remedial measures as they appear in a DENF Agreed Order dated October 3, 2016. The CAP was amended from the CAP submitted on January 23, 2017 to better reflect the specific remedial measures and to update the deliverables.

We continue to take advantage of the Small Water System Assistance Program, which is a partnership between Kentucky Division of Water and Kentucky Rural Water Association (KRWA) to provide utilities with compliance assistance in solving DBP issues. KRWA technical assistance staff have evaluated the water treatment plant and made several recommendations that is reflected in the CAP. Their primary recommendations include; moving the chlorine feed to "top of filter;" evaluate different chemicals to improve organic carbon removal; and train our operational staff in process control methodology and leak detection.

The Martin County Utility Board leaders and staff are committed to solving this problem and returning to compliance as soon as possible. We look forward to working with the Cabinet in complying with the terms of the Agreed Order.

Feel free to contact me anytime if you have questions.

Sincerely,

Joe Hammond

Joe Hammond, Business Manager

Martin County Water District
 Disinfection By-Product
 1st Revised Corrective Action Plan
 May 10, 2017
 Case No. DOW 150292

Corrective Action:

This 1st revised Corrective Action Plan (CAP) replaces the CAP submitted in January 23, 2017. It is designed to take advantage of all available resources to address disinfection by-product issues from the source to distribution. Following is a list of actions that will be taken by Martin County personnel to comply with required remedial measures in the Executed Agreed Order.

Determine if Disinfection By-Products (DBP) are being formed in distribution or if the DBPs are elevated at the treatment plant.

Action Item:

TTHMs and HAA5s are being formed during the water treatment plant process and concentrations vary throughout the Martin County distribution system due to expected water age. This determination is based upon compliance monitoring and special sampling. The Stage 2 sample results and compliance history is summarized in the tables below.

Martin Co Water District								
TTHMs								
	2015				2016			
	Qrt 1	Qrt 2	Qrt 3	Qrt 4	Qrt 1	Qrt 2	Qrt 3	Qrt 4
SM8	0.039	0.049	0.121	0.098	0.045	0.076	0.132	0.100
SM7	0.036	0.064	0.144	0.101	0.054	0.088	0.121	0.129
TPA	0.022	0.010	0.080	0.052	0.026	0.036		0.028
LRAA	Qrt 1	Qrt 2	Qrt 3	Qrt 4	Qrt 1	Qrt 2	Qrt 3	Qrt 4
SM8	0.047	0.040	0.066	0.077	0.078	0.085	0.088	0.088
SM7	0.094	0.088	0.081	0.086	0.091	0.097	0.091	0.098
HAA5s								
	2015				2016			
	Qrt 1	Qrt 2	Qrt 3	Qrt 4	Qrt 1	Qrt 2	Qrt 3	Qrt 4
SM8	0.057	0.056	0.067	0.058	0.066	0.103	0.076	0.063
SM7	0.062	0.066	0.022	0.038	0.063	0.102	0.040	0.014
TPA	0.038	0.034	0.036	0.043	0.030	0.057		0.058
LRAA	Qrt 1	Qrt 2	Qrt 3	Qrt 4	Qrt 1	Qrt 2	Qrt 3	Qrt 4
SM8	0.099	0.077	0.070	0.060	0.062	0.074	0.076	0.077
SM7	0.104	0.076	0.070	0.047	0.047	0.056	0.061	0.055

Submit a Corrective Action Plan (CAP) based upon monitoring data. The CAP shall outline steps Martin County shall take to return to compliance with DBP parameters and shall include implementation dates for the corrective actions and a date by which the facility shall be in compliance with DBP parameters for four consecutive quarters.

Action Item:

Additional sampling will be needed in the distribution system to better determine locations of increased DBP formation. DBP concentrations vary throughout the distribution system as shown above. Martin County tank operations and system zones need to be analyzed to determine the critical points for sampling.

The District will request assistance from the Division of Water Compliance & Technical Assistance Program (CTAP) to perform additional DBP profile monitoring. This data will be used to assess the effectiveness of the correction action items. An official request for assistance will be sent to the Division of Water within 15 days of the Corrective Action Plan being approved.

In addition to the sampling assistance request, the district will initiate a Biofilm Investigation: Biofilms are non-pathogenic bacteria that are not uncommon to water distribution systems. These bacteria create a medium which promotes secondary THM formation. Many of the problems bacteria cause can be categorized under two broad headings: (1) corrosion and (2) bio-fouling. Biological Activity Reaction Test kits (BART) are semi-quantitative tests that allow determination of the presence and aggressiveness of certain nuisance bacteria in samples. Samples will be collected by June 30, 2017. Test results will be included in the quarterly progress report.

- 1) The following projects are being evaluated or determined to be feasible for reducing DBPs but are dependent upon acquisition of funding. Funding sources being sought include SRF, CDBG and ARC.
 - a. Clearwell aeration (estimated cost - \$10,000)
 - b. Clearwell diffusion pipe repair (estimated cost - \$5,000)
 - c. Clarifier cover (estimated cost - \$200,000)
 - d. Filter at reservoir intake to control organics/siltation - \$20,000)

Updates will be provided in the quarterly reports.

- 2) Collect special samples at the plant tap to coincide with Stage 2 compliance sample collection. This has been ongoing since Stage 2 began. Special samples will continue as a measure of improvement until the system is consistently in compliance with DBPs.
- 3) CT Values have been revised and indicate that the first point of chlorination can be moved to filtration. A revised CT evaluation was submitted to the Cabinet March 8, 2017. On March 14, 2107 the Top of Filter (TOF) chlorination was tentatively approved pending submittal of a feed system sketch. The rationale is to ensure that TOF chlorine is thoroughly mixed in the hydro-treater. C.I. Thornburg has been retained to design the feed system. The sketch is expected by May 31, 2017.

- 4) Perform process control methodology training for our operational staff by August 31, 2017.
- 5) Jar testing alternate chemical treatment processes with chemical suppliers began in November 2016. As of May 2017 two water treatment consultants have submitted proposals. Martin County requests that the attached proposals be reviewed for approval to conduct pilot testing as soon as possible. Ideally, testing would begin June 1, 2017. Both proposals address DBP formation in the treatment process and corrosion control for distribution. Each of these strategies has proven successful at other drinking water utilities in Kentucky.
- 6) The final pilot results from two 90 day trials should be received by mid December 2017. The effectiveness of each treatment program will be evaluated by the end of the month and the selected process will be implemented February 1, 2018.
- 7) An initial DBP profile assessment was performed in September 2016 (copies included). A request for assistance from the Compliance & Technical Assistance Branch will be submitted no later than 60 days from initiation of the treatment process changes following the pilot studies implementation. This data will be used to assess the effectiveness of the treatment process changes.
- 8) Booster chlorination is not utilized.
- 9) A system map will be generated designating critical points in distribution processes. Special samples will be taken to assess the critical storage tanks. These sample results along with evaluating tank turnover (use of chart recorders) to assess water age will be used to design for future special sample protocol and improve the effectiveness of our flushing program. This will be completed by August 31, 2017.
- 10) Martin County will consider the Targeted Technical Assistance or DBP Performance Based Training.
- 11) Martin County expects to return to compliance by December 31, 2019.

ATTACHMENT 10

**Martin County Water District
Disinfection By-Product
First Quarter 2017
Progress Report
Case No. - DOW 150292**

April 13, 2017

1) Submittal(s) for Agreed Order:

Corrective action plan (CAP) was submitted on January 23, 2017.

Division of Water reviewed the CAP and provided comments on March 8, 2017. We are in process of responding to the request. The revised CAP will be submitted by May 10, 2107

2) Disinfection By-Product Monitoring Data (results enclosed):

The local running annual average for both Trihalomethane and Haloacetic Acids remain above the MCL in this quarter at 0.101 mg/L and 0.081 mg/L, respectively. DBP sample projections for the second quarter 2017 show that compliance cannot be achieved.

THM Routine Sample Results								
Site	2Q15	3Q15	4Q15	1Q16	2Q16	3Q16	4Q16	1Q17
SM7	0.064	0.144	0.101	0.054	0.088	0.121	0.129	0.064
LRAA	0.050	0.081	0.086	0.091	0.097	0.091	0.098	0.101
SM8	0.049	0.121	0.098	0.045	0.076	0.132	0.100	0.053
LRAA	0.044	0.070	0.077	0.078	0.085	0.088	0.088	0.090
Non-compliance shown in red.								

HAA Routine Sample Results								
Site	2Q15	3Q15	4Q15	1Q16	2Q16	3Q16	4Q16	1Q17
SM7	0.066	0.022	0.038	0.063	0.102	0.040	0.014	0.072
LRAA	0.064	0.050	0.047	0.047	0.056	0.061	0.055	0.057
SM8	0.056	0.067	0.058	0.066	0.103	0.076	0.063	0.081
LRAA	0.057	0.060	0.060	0.062	0.074	0.076	0.077	0.081
Non-compliance shown in red.								

Special Sample Results									
Site	Parameter	2Q15	3Q15	4Q15	1Q16	2Q16	3Q16	4Q16	1Q17
Plant Tap	THM	0.010	0.080	0.052	0.026	0.036	Missed	0.028	0.031
	HAA	0.034	0.036	0.043	0.03	0.057	Missed	0.058	0.039

3) Distribution Flushing :

There was no significant flushing performed this quarter. System wide maintenance flushing cannot be performed due to excessive water loss.

4) Tank Turnover:

The District operates 12 storage tanks, but cannot lower water levels due to system demand and water loss.

5) Remedial Measures:

- a. Top of Filter Chlorination: CT was revised for 2016 benchmark and worst case scenario. The data was submitted with the request to move the first point of chlorination to the top of filter on March 8, 2017. Comments were received on March 14, 2017 from David Messer. Mr. Messer requested that prior to final approval that the district submits a diagram of the proposed piping will deliver chlorine to each filter. C.I. Thornburg, Inc. has been retained to design the chlorine feed plan.

6) Anticipated First Quarter 2017 Actions

- a. Submit revised CAP by May 10, 2017.
- b. Submit top of filter chlorine diagram by June 30, 2017
- c. Request approval for pilot testing alternate chemicals.

**DBP Routine and Special
Sample Results**



APPALACHIAN STATES ANALYTICAL, L.L.C.

Certifications: KY00080

WV295

PO Box 520
Shelbiana, KY 41562

Martin County Water Dist Plant
14 Flat Hollow
Inez, KY 41224

Date Received 2/20/17
Date Reported 3/07/17
Order Number 2017-02408

ATTN: Tom Alley

TEST DESCRIPTION	RESULT	UNITS	METHOD	MRL	DATE/TIME	TECH
Fraction	2017-02408001					
Sample I.D.	TPA					
	KY0800273					
Date/Time Sampled	2/20/2017	10:20				
HAA			737			
Monochloroacetic Acid (MCAA)	<0.0005	mg/l	737	0.0005	3/02/2017 19:11	NAF
Monobromoacetic Acid (MBAA)	<0.0005	mg/l	737	0.0005	3/02/2017 19:11	NAF
Dichloroacetic Acid (DCAA)	0.0195	mg/l	737	0.0005	3/02/2017 19:11	NAF
Trichloroacetic Acid (TCAA)	0.0193	mg/l	737	0.0005	3/02/2017 19:11	NAF
Dibromoacetic Acid (DBAA)	<0.0005	mg/l	737	0.0005	3/02/2017 19:11	NAF
Total Haloacetic Acids	0.0388	mg/l	737	0.0005	3/02/2017 19:11	NAF
TTHM			721			
Chloroform	0.0209	mg/l	721	0.0005	2/28/2017 17:36	NAF
Bromodichloromethane	0.0083	mg/l	721	0.0005	2/28/2017 17:36	NAF
Chlorodibromomethane	0.0018	mg/l	721	0.0005	2/28/2017 17:36	NAF
Bromoform	<0.0005	mg/l	721	0.0005	2/28/2017 17:36	NAF
Total Trihalomethanes	0.0310	mg/l	721	0.0005	2/28/2017 17:36	NAF
Fraction	2017-02408002					
Sample I.D.	SM7					
	KY0800273					
Date/Time Sampled	2/20/2017	8:40				
HAA			737			
Monochloroacetic Acid (MCAA)	<0.0005	mg/l	737	0.0005	3/02/2017 20:33	NAF
Monobromoacetic Acid (MBAA)	<0.0005	mg/l	737	0.0005	3/02/2017 20:33	NAF
Dichloroacetic Acid (DCAA)	0.0298	mg/l	737	0.0005	3/02/2017 20:33	NAF
Trichloroacetic Acid (TCAA)	0.0422	mg/l	737	0.0005	3/02/2017 20:33	NAF
Dibromoacetic Acid (DBAA)	<0.0005	mg/l	737	0.0005	3/02/2017 20:33	NAF
Total Haloacetic Acids	0.0720	mg/l	737	0.0005	3/02/2017 20:33	NAF
TTHM			721			
Chloroform	0.0472	mg/l	721	0.0005	2/28/2017 18:22	NAF
Bromodichloromethane	0.0144	mg/l	721	0.0005	2/28/2017 18:22	NAF
Chlorodibromomethane	0.0025	mg/l	721	0.0005	2/28/2017 18:22	NAF
Bromoform	<0.0005	mg/l	721	0.0005	2/28/2017 18:22	NAF
Total Trihalomethanes	0.0641	mg/l	721	0.0005	2/28/2017 18:22	NAF



APPALACHIAN STATES ANALYTICAL, L.L.C.

Certifications: KY00080

WV295

PO Box 520

Shelbiana, KY 41562

Martin County Water Dist Plant
14 Flat Hollow
Inez, KY 41224

Date Received 2/20/17
Date Reported 3/07/17
Order Number 2017-02408

ATTN: Tom Alley

TEST DESCRIPTION	RESULT	UNITS	METHOD	MRL	DATE/TIME	TECH
Fraction	2017-02408003					
Sample I.D	SM8					
	KY0800273					
Date/Time Sampled	2/20/2017	9:50				
HAA			737			
Monochloroacetic Acid(MCAA)	<0.0005	mg/l	737	0.0005	3/02/2017 21:55	NAF
Monobromoacetic Acid (MBAA)	<0.0005	mg/l	737	0.0005	3/02/2017 21:55	NAF
Dichloroacetic Acid (DCAA)	0.0326	mg/l	737	0.0005	3/02/2017 21:55	NAF
Trichloroacetic Acid (TCAA)	0.0484	mg/l	737	0.0005	3/02/2017 21:55	NAF
Dibromoacetic Acid (DBAA)	<0.0005	mg/l	737	0.0005	3/02/2017 21:55	NAF
Total Haloacetic Acids	0.0810	mg/l	737	0.0005	3/02/2017 21:55	NAF
THM			721			
Chloroform	0.0372	mg/l	721	0.0005	2/28/2017 19:08	NAF
Bromodichloromethane	0.0128	mg/l	721	0.0005	2/28/2017 19:08	NAF
Chlorodibromomethane	0.0026	mg/l	721	0.0005	2/28/2017 19:08	NAF
Bromoform	<0.0005	mg/l	721	0.0005	2/28/2017 19:08	NAF
Total Trihalomethanes	0.0526	mg/l	721	0.0005	2/28/2017 19:08	NAF

*May not be within monthly permit requirements.

CLT(TECH) = Client

Submitted By:

Franklin C. Hall, Jr.

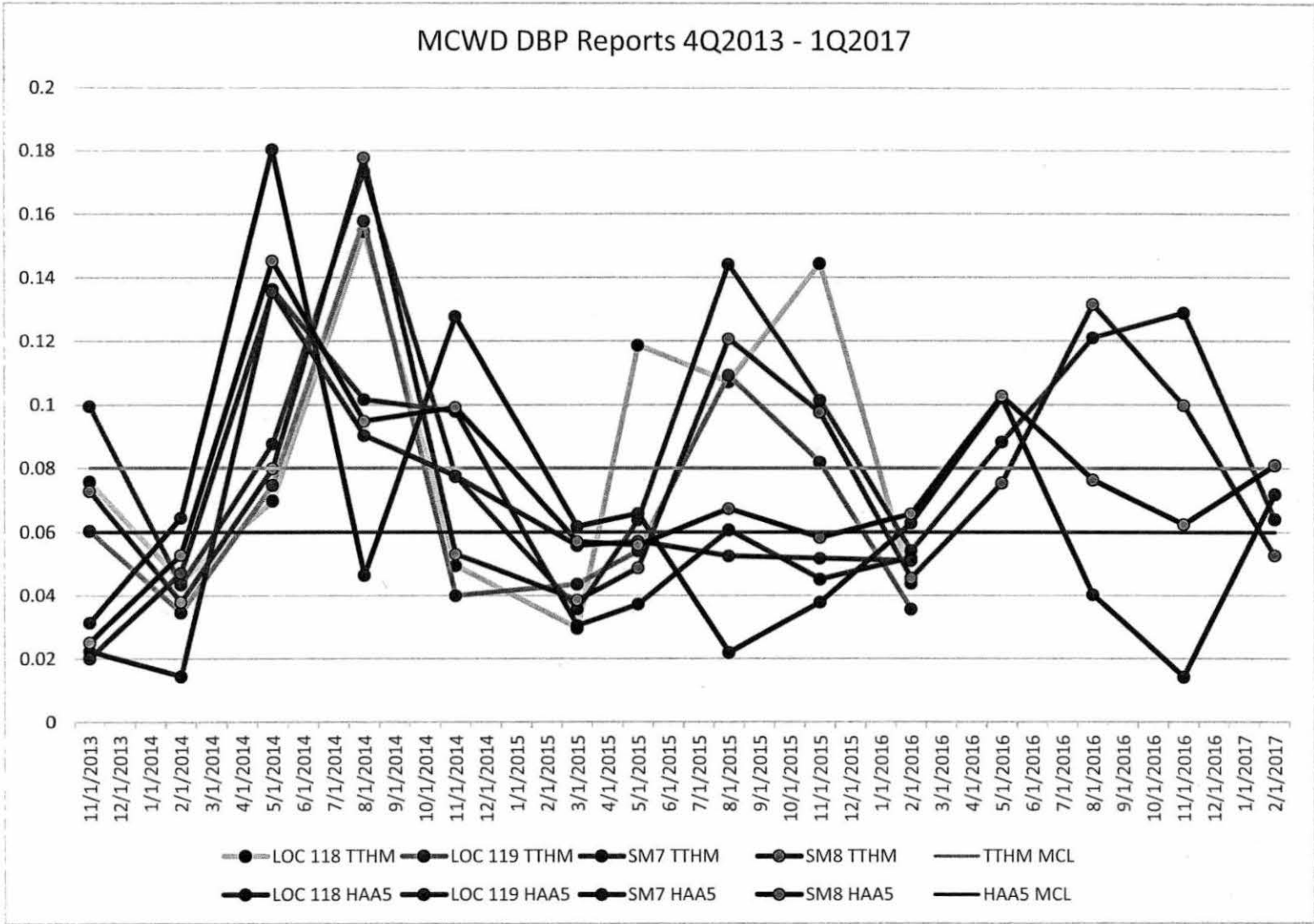
ATTACHMENT 11

MCWD DBP Reports 4Q2013 - 1Q2017

TTHM MCL
= .08 Mg/L

HAA5 MCL
= .06 Mg/L

Mg/L



*Brian Cumbo
Attorney at Law
P.O. Box 1844
Inez, KENTUCKY 41224

*Martin County Water District
387 East Main Street, Suite 140
Inez, KY 41224

*Martin County Water District
Martin County Water District
387 East Main Street, Suite 140
Inez, KY 41224