



BRIAN CUMBO

ATTORNEY AT LAW

86 W. Main St., Suite 100
P.O. Box 1844
Inez, KY 41224
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FAX: (606) 298-0316
cumbolaw@cumbolaw.com

ADMITTED IN KY AND WV

October 14, 2020

Public Service Commission
P.O. Box 615
Frankfort, KY 40602

RE: Martin County Water District
PSC Case No. 2020-00154

To Whom It May Concern:

Enclosed please find Martin County Water District's Quarterly Activity Report in compliance with the Order of July 22, 2020.

Thank you for your attention to this matter.

Very truly yours,

BRIAN CUMBO

BC/ld

Enclosure

cc: Martin County Water District
Hon. Mary Varson Cromer

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC MARTIN COUNTY WATER)
DISTRICT MANAGEMENT AND OPERATION)
MONITORING PURSUANT TO KRS 278.250)

CASE NO. 2020-00154

**MARTIN COUNTY WATER
DISTRICT'S QUARTERLY
ACTIVITY REPORT IN
COMPLIANCE WITH ORDER OF
JULY 22, 2020**

On a quarterly basis, beginning October 15, 2020, Martin District shall provide quarterly activity reports with the Commission that include a statement of quarterly Debt Service Surcharge billings and collections, the monthly surcharge bank statements for that quarter, a list of each payment from the account, its payee, and a description of the purpose; schedule of amounts due on the past due debts for each vendor receiving payment from the Debt Service Surcharge, and an update regarding the status of the Infrastructure Replacement Plan.

Quarterly debt service surcharge billing see Exhibit #1.

Quarterly debt service surcharge collections see Exhibit #2.

Monthly surcharge bank statements see Exhibit #3.

Quarterly list of payments from surcharge account see Exhibit #4.

Infrastructure Replacement Plan see Exhibit #5.

CERTIFICATE OF SERVICE

This will certify that a true and correct copy of the foregoing was emailed on this the 14 day of October, 2020, to the following:

Public Service Commission
ATTN: Nancy Vinsel
P.O. Box 615
Frankfort, KY 40602
nancy.vinsel@ky.gov

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

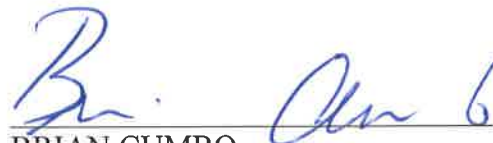

BRIAN CUMBO

EXHIBIT #1

REVENUE CODE TOTALS BY ZONE										
ZONE	REVENUE CODE	TYPE	COUNT	AMOUNT	TYPE	COUNT	AMOUNT	TYPE	COUNT	AMOUNT
1	100 - WATER	Adj	1,262	14,508.23CR	Pay	8,063	458,015.86CR	Bill	9,761	493,969.49
		D-Rtn	37	1,349.02CR						
	101 - WATER	Pay	601	58,905.53CR	Adj	95	6,933.37CR	Bill	734	77,487.77
	102 - WATER	Pay	107	10,924.06CR	Adj	13	349.13CR	Bill	128	15,103.25
	150 - WATER	Bill	28	2,553.86	Pay	3	290.69CR	Adj	5	311.27CR
	200 - SEWER	Pay	2,355	179,420.29CR	Adj	462	12,717.76CR	Bill	2,714	198,618.56
		D-Rtn	11	422.91CR						
	300 - DSS	Adj	1,101	787.06CR	Pay	8,305	22,002.56CR	Bill	10,612	27,160.27
		D-Rtn	38	66.68CR						
	310 - MIS	Pay	8,307	37,786.03CR	Adj	1,129	2,942.89CR	Bill	10,614	48,750.44
		D-Rtn	38	118.11CR						
	360 - S DSS	Pay	2,204	10,666.36CR	Bill	2,726	13,266.06	Adj	355	403.44CR
		D-Rtn	12	26.80CR						
	500 - FEE	Pay	15	240.24CR	Adj	17	203.25			
	501 - FEE	Adj	74	8,495.76	Pay	14	8,495.76CR			
	600 - OSWR	Pay	4	65.00CR	Adj	1	40.00			
	601 - FEE	Adj	2	3,170.00	Pay	6	3,170.00CR			
	800 - SLSTX	Pay	601	3,656.88CR	Bill	734	4,649.31	Adj	91	414.75CR
	850 - SCT	Pay	601	1,828.58CR	Bill	734	2,324.95	Adj	90	207.52CR
	851 - SCTR	Pay	7,714	12,407.93CR	Bill	9,889	15,273.94	Adj	1,015	430.34CR
		D-Rtn	36	34.13CR						
	996 - UAC	Pay	991	28,373.28CR	Adj	1,158	29,085.38	D-Rtn	5	103.77
	999 - RFC	D-Rtn	22	651.12CR	RF-CK	14	524.92			
								ZONE TOTAL		61,857.40
	Deposit		147	12,110.00				ZONE TOTAL		12,110.00

GRAND TOTAL FOR PERIOD 61,857.40

DEPOSIT TOTAL FOR PERIOD 12,110.00

EXHIBIT #2

REVENUE CODE TOTALS BY ZONE

ZONE	REVENUE CODE	TYPE	COUNT	AMOUNT	TYPE	COUNT	AMOUNT	TYPE	COUNT	AMOUNT
1	100 - WATER	Adj	1,262	14,508.23CR	Pay	8,063	458,015.86CR	Bill	9,761	493,969.49
		D-Rtn	37	1,349.02CR						
	101 - WATER	Pay	601	58,905.53CR	Adj	95	6,933.37CR	Bill	734	77,487.77
	102 - WATER	Pay	107	10,924.06CR	Adj	13	349.13CR	Bill	128	15,103.25
	150 - WATER	Bill	28	2,553.86	Pay	3	290.69CR	Adj	5	311.27CR
	200 - SEWER	Pay	2,355	179,420.29CR	Adj	462	12,717.76CR	Bill	2,714	198,618.56
		D-Rtn	11	422.91CR						
	300 - DSS	Adj	1,101	787.06CR	Pay	8,305	22,002.56CR	Bill	10,612	27,160.27
		D-Rtn	38	66.68CR						
	310 - MIS	Pay	8,307	37,786.03CR	Adj	1,129	2,942.89CR	Bill	10,614	48,750.44
		D-Rtn	38	118.11CR						
	360 - S DSS	Pay	2,204	10,666.36CR	Bill	2,726	13,266.06	Adj	355	403.44CR
		D-Rtn	12	26.80CR						
	500 - FEE	Pay	15	240.24CR	Adj	17	203.25			
	501 - FEE	Adj	74	8,495.76	Pay	14	8,495.76CR			
	600 - OSWR	Pay	4	65.00CR	Adj	1	40.00			
	601 - FEE	Adj	2	3,170.00	Pay	6	3,170.00CR			
	800 - SLSTK	Pay	601	3,656.88CR	Bill	734	4,649.31	Adj	91	414.75CR
	850 - SCT	Pay	601	1,828.58CR	Bill	734	2,324.95	Adj	90	207.52CR
	851 - SCTR	Pay	7,714	12,407.93CR	Bill	9,889	15,273.94	Adj	1,015	430.34CR
		D-Rtn	36	34.13CR						
	996 - UAC	Pay	991	28,373.28CR	Adj	1,158	29,085.38	D-Rtn	5	103.77
	999 - RFC	D-Rtn	22	651.12CR	RF-CK	14	524.92			
								ZONE TOTAL		61,857.40
Deposit			147	12,110.00				ZONE TOTAL		12,110.00

GRAND TOTAL FOR PERIOD 61,857.40
 DEPOSIT TOTAL FOR PERIOD 12,110.00

EXHIBIT #3

Inez Deposit Bank

Inez - Warfield - Louisa

P.O. Box 365
Inez, Kentucky 41224-0365
(606) 298-3511



MARTIN COUNTY WATER DISTRICT
DEBT SERVICE SURCHARGE
387 EAST MAIN STREET, SUITE 14
INEZ KY 41224
HOLD



Member
FDIC

FINANCIAL SERVICES STATEMENT

Statement Date: **06/30/2020** Enclosures: (2)

Account No.:

Page: 1

IDB BUSINESS INT CHECKING SUMMARY

Category	Type :	REG	Status :	Active	Number	Amount
Balance Forward From 05/29/20						27,081.96
Debits					2	26,998.40
Automatic Deposits					3	15,961.56+
Interest Added This Statement						0.25+
Ending Balance On 06/30/20						16,045.37
Annual Percentage Yield Earned					0.02%	
Interest Paid This Year					0.53	
Interest Paid Last Year					4.48	
Average Balance (Ledger)					11,480.08+	

Direct Inquiries About Electronic Entries To:
Phone: (606) 298 - 3511

ALL CREDIT ACTIVITY

Date	Description	Amount
06/03/20	INTERNET TRANSFER FROM DDA 41343	916.54
06/30/20	INTEREST PAID	0.25
06/30/20	INTERNET TRANSFER FROM DDA 41343	6,109.45
06/30/20	INTERNET TRANSFER FROM DDA 41343	8,935.57

CHECKS AND OTHER DEBITS

* indicates a gap in the check numbers

Date	Check #	Amount	Date	Check #	Amount	Date	Check #	Amount
06/11/20	1101	8,400.49	06/11/20	1102	18,597.91			

DAILY BALANCE SUMMARY

Beginning Ledger Balance on 05/29/20 was 27,081.96

Date	Balance	Date	Balance	Date	Balance
06/03/20	27,998.50	06/11/20	1,000.10	06/30/20	16,045.37





Member
FDIC

FINANCIAL SERVICES STATEMENT

Statement Date: **06/30/2020** Enclosures: **(2)**

Account No.:

Page: **2**

OVERDRAFT FEE SUMMARY

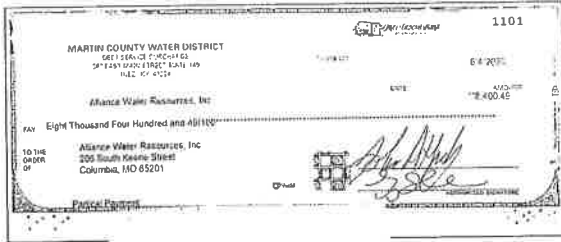
	Total For This Period	Total Year-To-Date
Total Overdraft Fees	\$0.00	\$0.00
Total Returned Item Fees	\$0.00	\$0.00
Fees Refunded	\$0.00	\$0.00
Fees Waived	\$0.00	\$0.00

This Statement Cycle Reflects 32 Days

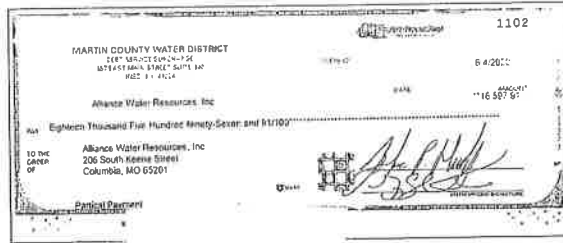
**The Interest Earned And The Annual Percentage Yield Earned
Are Based On The Period 05/30/2020 Through 06/30/2020**



IMAGE STATEMENT



AM: 8,400.49 CK: 1101 DT: 06/11 SQ: 80000480 Paid



AM: 18,597.91 CK: 1102 DT: 06/11 SQ: 80000490 Paid



MARTIN COUNTY WATER DISTRICT
DEBT SERVICE SURCHARGE
387 EAST MAIN STREET, SUITE 14
INEZ KY 41224
HOLD



Member
FDIC

FINANCIAL SERVICES STATEMENT

Statement Date: **07/31/2020** Enclosures: (1)

Account No.:

Page: 1

IDB BUSINESS INT CHECKING SUMMARY

Category	Number	Type :	REG	Status :	Active	Amount
Balance Forward From 06/30/20						16,045.37
Debits	1					15,045.02
Automatic Deposits	3					439.13+
Interest Added This Statement						0.09+
Ending Balance On 07/31/20						1,439.57
Annual Percentage Yield Earned			0.02%			
Interest Paid This Year			0.62			
Interest Paid Last Year			4.48			
Average Balance (Ledger)			4,539.26+			

Direct Inquiries About Electronic Entries To:
Phone: (606) 298 - 3511

ALL CREDIT ACTIVITY

Date	Description	Amount
07/22/20	INTERNET TRANSFER FROM DDA 41343	17.40
07/22/20	INTERNET TRANSFER FROM DDA 41343	167.39
07/22/20	INTERNET TRANSFER FROM DDA 41343	254.34
07/31/20	INTEREST PAID	0.09

CHECKS AND OTHER DEBITS

* indicates a gap in the check numbers

Date	Check #	Amount	Date	Check #	Amount	Date	Check #	Amount
07/08/20	1103	15,045.02						

DAILY BALANCE SUMMARY

Beginning Ledger Balance on 06/30/20 was 16,045.37

Date	Balance	Date	Balance
07/08/20	1,000.35	07/22/20	1,439.48
		07/31/20	1,439.57



FINANCIAL SERVICES STATEMENT

Statement Date: **07/31/2020** Enclosures: (1)

Account No.:

Page: 2

OVERDRAFT FEE SUMMARY

	Total For This Period	Total Year-To-Date
Total Overdraft Fees	\$0.00	\$0.00
Total Returned Item Fees	\$0.00	\$0.00
Fees Refunded	\$0.00	\$0.00
Fees Waived	\$0.00	\$0.00

This Statement Cycle Reflects 31 Days

**The Interest Earned And The Annual Percentage Yield Earned
Are Based On The Period 07/01/2020 Through 07/31/2020**



IMAGE STATEMENT



AM: 15,045.02 CK: 1103 DT: 07/08 SQ: 80002590 Paid

Inez Deposit Bank

Inez - Warfield - Louisa

P.O. Box 365
Inez, Kentucky 41224-0365
(606) 298-3511



MARTIN COUNTY WATER DISTRICT
DEBT SERVICE SURCHARGE
387 EAST MAIN STREET, SUITE 14
INEZ KY 41224
HOLD



Member
FDIC

FINANCIAL SERVICES STATEMENT

Statement Date: 08/31/2020 Enclosures: (1)

Account No.:

Page: 1

IDB BUSINESS INT CHECKING SUMMARY

Category	Number	Type :	REG	Status :	Active	Amount
Balance Forward From 07/31/20						1,439.57
Debits	1					7,053.08
Automatic Deposits	1					6,613.51+
Interest Added This Statement						0.03+
Ending Balance On 08/31/20						1,000.03
Annual Percentage Yield Earned					0.01%	
Interest Paid This Year					0.65	
Interest Paid Last Year					4.48	
Average Balance (Ledger)					2,421.83+	

Direct Inquiries About Electronic Entries To:
Phone: (606) 298 - 3511

ALL CREDIT ACTIVITY

Date	Description	Amount
08/05/20	INTERNET TRANSFER FROM DDA 41343	6,613.51
08/31/20	INTEREST PAID	0.03

CHECKS AND OTHER DEBITS

* indicates a gap in the check numbers

Date	Check #	Amount	Date	Check #	Amount	Date	Check #	Amount
08/11/20	1104	7,053.08						

DAILY BALANCE SUMMARY

Beginning Ledger Balance on 07/31/20 was 1,439.57

Date	Balance	Date	Balance	Date	Balance
08/05/20	8,053.08	08/11/20	1,000.00	08/31/20	1,000.03





FINANCIAL SERVICES STATEMENT

Statement Date: **08/31/2020** Enclosures: **(1)**

Account No.:

Page: **2**

OVERDRAFT FEE SUMMARY

	Total For This Period	Total Year-To-Date
Total Overdraft Fees	\$0.00	\$0.00
Total Returned Item Fees	\$0.00	\$0.00
Fees Refunded	\$0.00	\$0.00
Fees Waived	\$0.00	\$0.00

This Statement Cycle Reflects 31 Days

**The Interest Earned And The Annual Percentage Yield Earned
Are Based On The Period 08/01/2020 Through 08/31/2020**



IMAGE STATEMENT



MARTIN COUNTY WATER DISTRICT
SEW SERVICE FUNDING
30 EAST MAIN STREET SUITE 140
INEZ, KY 40324

73-410421 1104

DATE 05/2020

AMOUNT **7,053.08

ALLIANCE WATER RESOURCES, INC

PAY Seven Thousand Five-Three and 00/100

TO THE ORDER OF Alliance Water Resources, Inc
205 South Kenne Street
Columbia, MO 65201

July 1, 2020 to July 15, 2020

Ally H. H. H.

AM: 7,053.08 CK: 1104 DT: 08/11 SQ: 80101340 Paid



MARTIN COUNTY WATER DISTRICT
DEBT SERVICE SURCHARGE
387 EAST MAIN STREET, SUITE 14
INEZ KY 41224
HOLD



FINANCIAL SERVICES STATEMENT

Statement Date: **09/30/2020** Enclosures: (1)

Account No.:

Page: 1

IDB BUSINESS INT CHECKING SUMMARY

Category	Number	Type :	REG	Status :	Active	Amount
Balance Forward From 08/31/20						1,000.03
Debits	1					8,986.65
Automatic Withdrawals	1					2,118.60
Automatic Deposits	2					18,613.68+
Interest Added This Statement						0.05+
Ending Balance On 09/30/20						8,508.51
Annual Percentage Yield Earned	0.02%					
Interest Paid This Year	0.70					
Interest Paid Last Year	4.48					
Average Balance (Ledger)	3,967.65+					

Direct Inquiries About Electronic Entries To:
Phone: (606) 298 - 3511

ALL CREDIT ACTIVITY

Date	Description	Amount
09/02/20	INTERNET TRANSFER FROM DDA 41343	8,986.65
09/29/20	INTERNET TRANSFER FROM DDA 41343	9,627.03
09/30/20	INTEREST PAID	0.05

ELECTRONIC DEBITS

Date	Description	Amount
09/30/20	INTERNET TRANSFER TO DDA 41343	2,118.60

CHECKS AND OTHER DEBITS

* indicates a gap in the check numbers

Date	Check #	Amount	Date	Check #	Amount	Date	Check #	Amount
09/10/20	1105	8,986.65						

DAILY BALANCE SUMMARY

Beginning Ledger Balance on 08/31/20 was 1,000.03

Date	Balance	Date	Balance	Date	Balance
09/02/20	9,986.68	09/10/20	1,000.03	09/29/20	10,627.06



Member
FDIC

FINANCIAL SERVICES STATEMENT

Statement Date: **09/30/2020** Enclosures: (1)

Account No.:

Page: 2

DAILY BALANCE SUMMARY (cont.)

Beginning Ledger Balance on 08/31/20 was 1,000.03

Date	Balance	Date	Balance	Date	Balance
09/30/20	8,508.51				

OVERDRAFT FEE SUMMARY

	Total For This Period	Total Year-To-Date
Total Overdraft Fees	\$0.00	\$0.00
Total Returned Item Fees	\$0.00	\$0.00
Fees Refunded	\$0.00	\$0.00
Fees Waived	\$0.00	\$0.00

This Statement Cycle Reflects 30 Days

**The Interest Earned And The Annual Percentage Yield Earned
Are Based On The Period 09/01/2020 Through 09/30/2020**



IMAGE STATEMENT



MARTIN COUNTY WATER DISTRICT DEPT SPACE 8020980 301 EAST MAIN STREET SUITE 140 PAZ, KY 40324		1105
Alliance Water Resources, Inc		DATE 09/2/2020
PAY TO THE ORDER OF Eight Thousand Nine Hundred Eighty Six and 65/100		AMOUNT \$8,986.65
Alliance Water Resources, Inc 206 South Kane Street Columbia, MO 65201		
AUGUST 1 TO AUGUST 15, 2020		

AM: 8,986.65 CK: 1105 DT: 09/10 SQ: 80200980 Paid

EXHIBIT #4

3rd Quarter 2020

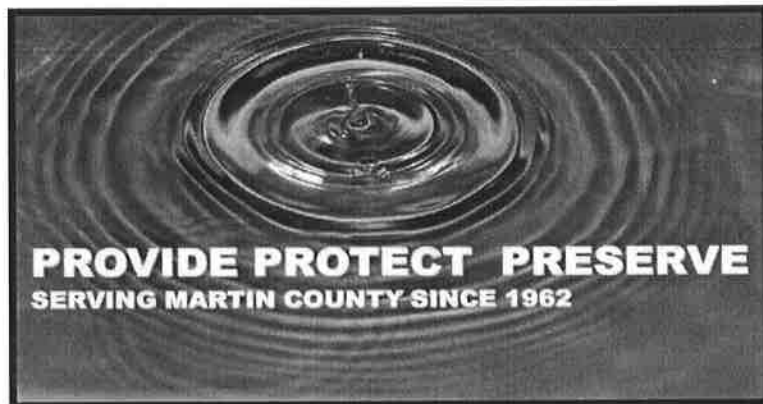
<u>Payee</u>	<u>Amount</u>	<u>Purpose</u>
Alliance Water Resources	\$18,591.91	Management Services
Alliance Water Resources	\$8,400.49	Management Services
Alliance Water Resources	\$15,045.02	Management Services
Alliance Water Resources	\$7,053.08	Management Services
Alliance Water Resources	\$8,986.65	Management Services
TOTAL:	\$58,077.15	

3rd Quarter 2020

<u>DSS Account Past Due Vendor</u>	<u>Amount</u>
Evans Hardware	\$30,362.72
CI Thornburg	\$36,345.26
Linda Sumpter CPA	\$151,942.35
<u>Zip Zone</u>	<u>\$256,726.95</u>
TOTAL:	\$475,377.28

EXHIBIT #5

**Martin County Water District
387 East Main St.
Inez, KY 41224**



Infrastructure Replacement Plan

**Updated by Alliance Water Resources, Inc.
October 2020**



Contents

SECTION I

Introduction
Approach
Executive Summary

SECTION II

Water Treatment Plant
Detailed Issues & Recommended Solutions
Priority Needs Cost Spreadsheet

SECTION III

Distribution System
Detailed Issues & Recommended Solutions
Water Loss Process Flowchart
Priority Needs Cost Spreadsheet

ATTACHMENT

Bell Capital Project Summary



SECTION I

Introduction, Approach, Executive Summary

Introduction

Effective January 1, 2020, the Martin County Water District (District) contracted with Alliance Water Resources, Inc. (AWR), to manage and operate the utility. The Water District Board maintains decision making authority and sets policy. Alliance carries out the Board's policies and manages the day-to-day operation of the utility, reporting progress and making recommendations for improvements back to the Board for their consideration. There are currently in excess of \$8,000,000 of Capital Projects underway through the Big Sandy Area Development District with funding from the AML, and other sources. These projects are being designed and managed by Bell Engineering. (See Attachment A)

The Public Service Commission (PSC) has required that AWR submit a Quarterly Infrastructure Replacement Plan for review by the PSC by 15 October 2020 and each subsequent quarter hereafter.

Approach

Alliance is focused on work force development and building a sustainable management team for the District. To that end, existing staff was heavily involved in determining priority needs for the system. The assembling of this report was a composite effort of the leadership team and included the following:

- Identifying critical needs from an Operator's perspective
- Reviewing Capital projects that are already identified and funded
- Bringing Operators & Engineers together to discuss overlap
- Obtaining High Level Cost Estimates
- Photographing & Documenting Priority Needs.
- Developing a Summary Sheet
- Developing and Action Plan
- Develop a High- Level Cost Estimate
- Identify Funding Source
- Identify Estimated Schedule

In addition, this approach focused on the identification of needs that should be addressed within the next 36 months and should be given higher priority to improve redundancy and sustainability of the existing infrastructure.



Executive Summary

Three primary concerns that should be focused on while evaluating needs and conducting the infrastructure replacement plan are: 1) Water Quality, 2) Water Loss, and 3) Affordability.

The water quality issue will be greatly improved when two of the three clarifiers have been rehabilitated and are functioning as designed. These items are being addressed through the Big Sandy Area Development Projects primarily funded through the AML. (See Attachment A)

AWR is in the process of implementing a Water Loss Control Program at the District. We are setting up internal systems and training the staff on program implementation. This program will identify problem areas with the largest contribution to the water loss issue. The initial 90 days has involved data acquisition and integrity checks. A leak detection program has been running in parallel, and a correlation of data and detection efforts will allow for focused infrastructure replacement planning.

Affordability is directly impacted by the extra expense due to excessive water loss and debt load that may be required to repair aging infrastructure. Therefore, it is critical that system knowledge be gathered, stored, and evaluated so that dollars spent on rehabilitation yield the greatest impact on water loss or other costly system integrity issues.

While it is the intent of AWR to develop a more detailed 5- year Capital Improvement Plan, there first needs to be a clear understanding of the District's overall financial situation, as well as time to work through a cycle of the Water Loss Control Program. Currently, there simply is no surplus operational revenue to address all routine repairs or smaller, capital projects. Therefore, although the contract between AWR and the District includes a "Repair Limit" of \$125,000 for routine repairs costing less than \$2,500, AWR is aiming much of the Repair Limit funds, with the District Board's approval, to perform routine O&M projects and smaller capital projects above \$2,500 to address critical priority needs where possible. The following table is a snapshot of currently identified priority needs funding requirements. The "AWR Repair Funds" column consists of capital projects potentially funded from the AWR Repair Limit.

	AML/ ARC FUNDS	OP REVENUE/ UNFUNDED	AWR REPAIR FUNDS
DISTRIBUTION	\$2,461,000	\$3,050,000	\$57,750
WATER TREATMENT	\$1,227,500	\$10,000	\$45,286
TOTALS	\$3,688,500	\$3,060,000	\$103,036

AML/ARC	Abandoned Mine Lands
AWR RC	Contract Repair Cap Funds
UF	Unfunded
OR	Operating Revenues

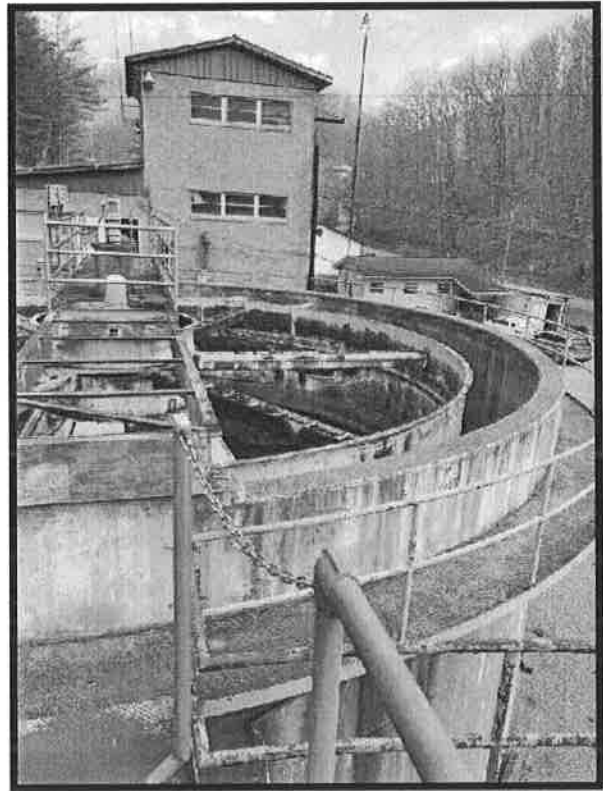


SECTION II

Water Treatment Plant

Detailed Issues & Recommended Solutions

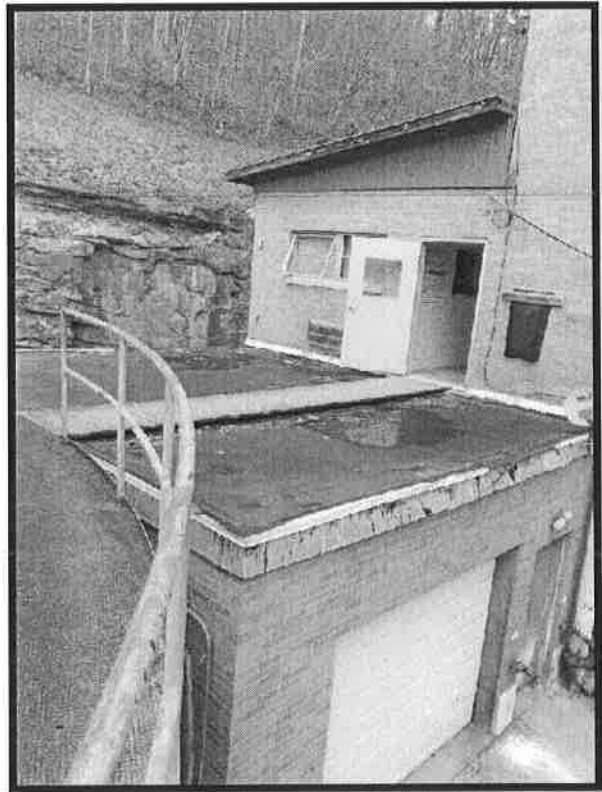
1. **Refurbish Treatment Unit # 1.** Construct new valve vault; refurbish all piping, tube settlers, tank exterior and many other components; paint. The filters are also part of the Treatment Unit and must also be refurbished. This Unit #1 (shown here) has not been in operation for many years and has seen significant deterioration in the years since it became inoperable. Two of the three treatment units are required to run 24/7 to meet the distribution system's current demand for water. Therefore, in order to clean and/or rehab the plant's other two clarifiers (also overdue), this unit must be put into operation. The clarifiers are a critical component in the treatment process and are necessary for maintaining good water quality. This project is the highest priority of the recommended plant improvements.



2. **Refurbish Treatment Unit #3** including pair of filter beds, filter divider walls, repair rake; replace all filter media; install tube settlers; paint. Check all bearings, motors and gear boxes and repair/replace as needed. The clarifiers are a critical component in the treatment process and are necessary for maintaining good water quality.
3. **Control Upgrades/Replacements:** Install 2 new filter level indicator probes, one for filter #4 and one for filter #6; replace level indicator for the clearwell; replace ethernet card for high service pump #2. These replacements will allow for additional automation and more consistent operation of various plant processes. This project may be included with the Treatment Unit projects. In case the control upgrades cannot be included in those projects, Southern Flow from Alpharetta, GA has provided a quote for parts and installation.
4. **Repair #3 Filter Drain Valve** in order to allow proper filter-to-waste for newly washed filters and to drain the filters properly for any needed ongoing maintenance. A repair quote has been provided by CI Thornburg.



5. **Replace all online turbidimeters**, total of 5, along with software. Filter turbidimeters measure water clarity and are necessary for maintaining good water quality. Hach has provided a quote for the equipment.
6. **Provide new lab equipment**, an online CL17 chlorine analyzer and a bench turbidimeter. Good working lab equipment is needed in order to ensure water quality and to adjust chemical additions and other treatment process on an ongoing basis. Hach has provided a quote for the equipment.
7. **Repair roof** over the chemical storage room (shown to the right) which leaks badly when it rains. Roof repairs will help prevent deterioration of plant equipment, extending their useful lives. This project is likely to be included with another plant project.
8. **Replace at least seven chemical metering pumps** for chlorine, caustic and sodium permanganate. Good working, reliable chemical metering pumps help ensure water quality and dose chemicals efficiently.
9. **Install better, safer access into the valve vaults** for Units #2 and #3 to better protect employees entering the vaults for routine and emergency operations and maintenance. This project may be included with another plant project.
10. **Add a Turkey pump and motor** for redundancy/reliability. *(Completed 3/18/2020)*



A summary of these projects is shown on the table on the following page.



**PRIORITY NEEDS
MARTIN COUNTY WATER DISTRICT
WATER TREATMENT PLANT**

ITEM 1	NAME	DESCRIPTION	COST EST	FUNDING SOURCE	PROJ COMP DATE	COMMENTS
1	UNIT 1 REFURB	Refurbish treatment unit # 1, constructing new valve vault, also all required piping.	\$850,000	USACE & AML	3RD QUARTER 2021	
2	FILTERS	Repair filter beds treatment unit # 3	\$350,000	USACE & AML	3RD QUARTER 2021	Evaluate actual needs
3	PROBES	Need #4 and #5 filter level indicator probes, also 1 plant clearwell level probe	\$11,480	AWR RC	3RD QUARTER 2021	Southern Flow did the original install and setup
4	DRAIN VALVE	Repair #3 filter drain valve.	\$3,097	AWR RC	Feb-21	CI Thornburgh did the original install and set up
5	ONLINE TURBS	Replace 5 online turbidimeters, plus 1 controller, Hach Equipment	\$18,150	AWR RC	2ND QUARTER 2021	Annual \$4,478.55 is for calibrating and maintenance
6	LAB EQUIPMENT	New lab equipment, CL17 chlorine analyzer, bench turbidimeter	\$6,605	AWR RC	2ND QUARTER 2021	Separate pricing from Hach
7	ROOF REPAIR	Construct new roof over chemical room	\$27,500	USACE & AML	3RD QUARTER 2021	Might be under-estimated
8	CHEM FEED PUMPS	New chemical feed pumps	\$3,800	AWR RC	Jun-21	7 Peristaltic pumps, USA BlueBook
9	DOORS	Install doors that will lead into the valve vaults for unit #2 and unit #3, or a better ladder system	\$10,000	UF	4TH QUARTER 2021	Estimated costs
10	TURKEY PUMP	Replace turkey tank pump and motor	\$2,154	AWR RC	COMPLETE	Repaired and then installed 3/18/20
Total			\$1,282,786	AML	Abandoned Mine Lands	
AML/ARC			\$1,227,500	AWR RC	Contract Repair Cap Funds	
AWR			\$45,286	UF	Unfunded	
UF/OR			\$10,000	OR	Operating Revenues	

SECTION III

Distribution System

Detailed Issues & Recommended Solutions

The District's water storage tanks at the plant and throughout the distribution system need regular cleaning and inspection. The staff has been unable to determine the last time the tanks were last inspected and/or cleaned or what the results of the inspections were. This will be further investigated, and recommendations will be developed for implementation of a tank maintenance plan.



Distribution system improvements that have been investigated and evaluated to date are described in the following list. A summary of these projects follows the project descriptions.

1. **Excessive Water Loss.** The District has excessive water loss causing inefficient operation, high user rates and financial instability. A water loss management plan has been put in place to address the issue. (See flowchart on the following page)

2. **Meters.** Locating, reading, and testing meters are critical to proper billing. Old or improperly functioning meters must be repaired or replaced. Causes of metering issues include:
 - Some meter locations were unknown
 - Previous estimates/incorrect reads
 - Lack of staff training/standard practices
 - Poor scheduling/inefficiency
 - Lack of meter testing
 - Little or no meter repair or replacement

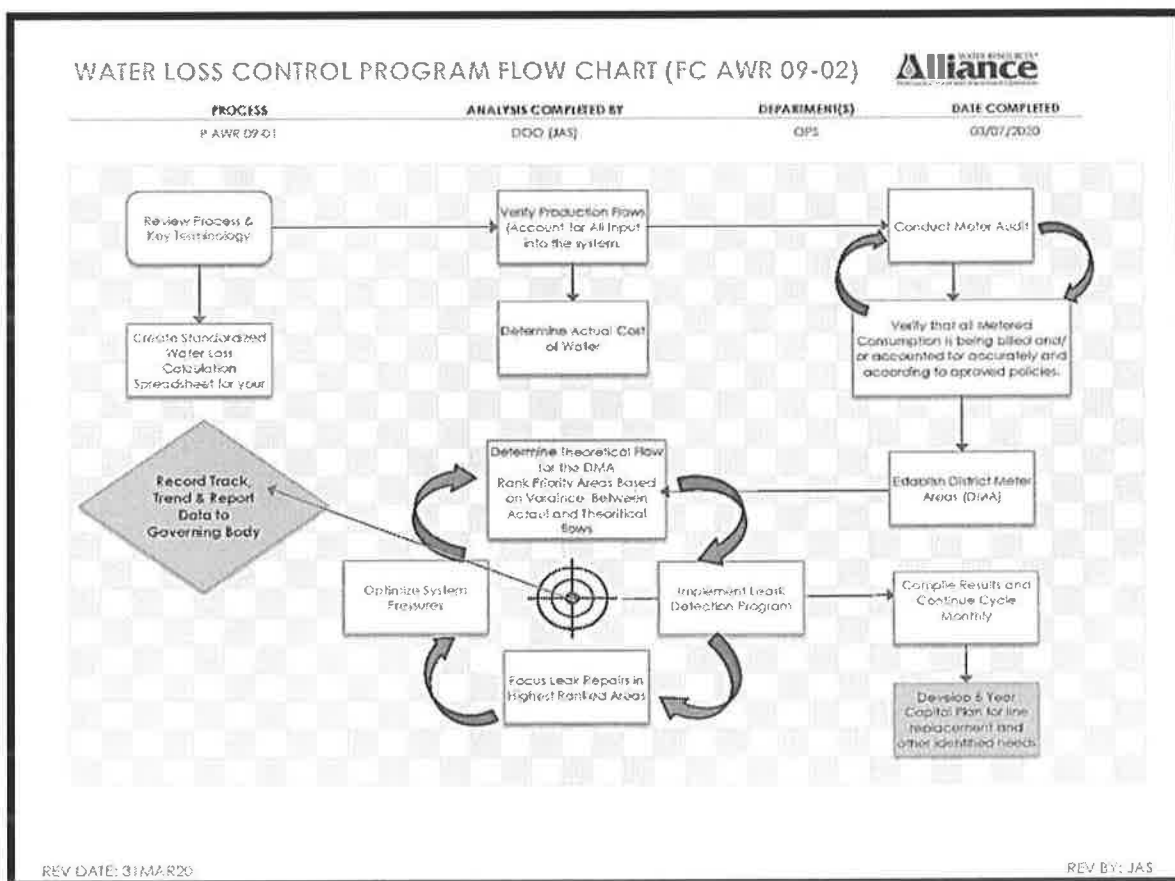
A plan was set in place in January 2020 to correct these issues. The plan is currently being implemented including identification and location of every customer meter as well as direct communication with the District's customers.

3. **Substandard Billing Software.** The billing software for the District is substandard. The software's key deficiencies include:
 - Unsecured data including customer information
 - Inadequate management reporting functions
 - Single point of failure with proprietary software

New billing software "INCODE" has been installed and is operational. This new software ensures data security, accurate billing and management systems for better identification and tracking of customers, bills, work orders and collections.



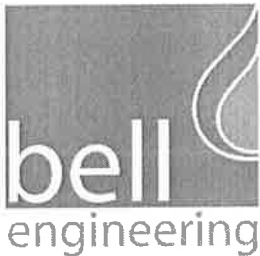
4. **Lack of Scada.** The lack of supervisory control and data acquisition (SCADA), specifically at water storage facilities limits efficient operation of those facilities. SCADA allows system operators to more quickly troubleshoot problems and minimize water loss at remote locations. SCADA projects have been identified and will be constructed as funds (including capital funds) become available.
5. **Pressure Management.** Improper operation of maintenance of pressure reducing valves (PRV's) has led to inefficient water pressure management. Excessively high pressures often lead to leaks and excessively low pressures lead to customer dissatisfaction and/or cross connections. The staff is currently locating and maintaining each PRV to ensure proper pressure settings and continuing operation.
6. **Failing distribution mains and services.** Poorly constructed lines along with poor operating practices & repair methods have led to a distribution system riddled with leaks. A leak detection program is now in place including identification of the most critical areas for capital main replacement projects. The previously identified Warfield/Beauty main replacement project is currently underway. To address historically poor construction methods and materials, the District is writing standard construction specifications for water mains and service lines. These standards will be provided to contractors beginning January 1st.



PRIORITY NEEDS
MARTIN COUNTY WATER DISTRICT
DISTRIBUTION SYSTEM

ITEM 1	NAME	DESCRIPTION	COST EST	FUNDING SOURCE	PROJ COMP DATE	COMMENTS
1	RR Meters	3000 RR Meters Software & Installation	\$1,000,000	UF	* 6 Months from Award	ASAP When Funding Identified (Estimate on Recent BSADD quotes)
2	RR Meters	ALTERNATE _AWR INSTALLS_3000 RR Meters Software & Installation	\$630,000	UF**	18 Month From Award	AWR Staff Installs (increased time - reduced project costs) **
3	Scada	Scada at all Booster Stations and Tanks	\$50,000	UF		Estimate based on recent quotes from SAMSA Equip & 6year license
4	Main Replacement	Warfield Beauty	\$1,261,000	AML	Apr-21	9,600 ft and appurtenances
5	4"	400 ft Main Replacement Town Point Curve	\$5,500	AWR RC	COMPLETE	Materials Only (AWR Staff Replaced)
6	4" Main Replacement	Various Locations as Identified by Need	\$41,250	AWR RC	18 Months	Repair/ Replace as identified (materials only)
7	Incode	New Billing Software	\$11,000	AWR/OR	COMPLETE	To be reimbursed by District-Annual Fee
8	Main Replacement	Priority Areas to be Totally Rehabbed Following Water Loss Program identification of Critical Areas	\$2,000,000	UF	36 Months	Project to be identified and ready when funding acquired
9	Lovely Main Replacement	Areas identified earlier and currently funded through ARC funds	\$1,200,000	ARC	UNDERWAY	ARC Grant-11,975 ft – This project began Sept 21, 2020.
Total			\$5,568,750			
AML/ARC			\$2,461,000			
AWR			\$57,750			
UF/OR			\$3,050,000			

AML/ARC	Abandoned Mine Lands
AWR RC	Contract Repair Cap Funds
UF	Unfunded
OR	Operating Revenues



MEETING AGENDA
ENGINEERING DESIGN - PROGRESS MTG #16
MARTIN COUNTY WATER DISTRICT
MARTIN COUNTY, KENTUCKY
September 16, 2020

LOCATION: Via ZOOM
TIME: 3:00 PM
Present: Announcement of Those Present

SUMMARY OF PROJECT FUNDING:

<u>Source</u>	<u>Amount</u>	<u>Associated Project(s)</u>
AML Pilot NEXUS Grant (2017)	\$3,450,000	A,B,C,D
COE 531 Partnership (25% Match)	\$1,869,718	B,C
ARC Grant	\$1,200,000	F
AML Pilot NEXUS Grant (2018)	<u>\$2,000,000</u>	I
TOTAL GRANT	\$8,519,718	

A. CONTRACT 113-19-01

RAW WATER INTAKE IMPROVEMENTS (PUMP PURCHASE ONLY)

1. AML provided clearance to advertise for bids on June 13, 2019.
2. Bids were opened at BSADD at 11:00 AM Wednesday July 3. Xylem Dewatering Solutions was the only bid received in the amount of \$470,286.07, compared to Bell's opinion of cost of \$500,000.00.
3. Bell made recommendation to award to BSADD and they along with MCWD agreed to accept the bid.
4. On July 29th, Bell received the AML Contractor/Subcontractor Information, Campaign Finance Law Compliance and Affidavit for Bidders Forms from Xylem. These were forwarded to AML.
5. On August 9th, AML advised Xylem had cleared the AVS check and the contract could be signed. Contract documents were forwarded to Xylem.
6. Contract documents were executed by both Xylem and the BSADD. A Notice to Proceed was issued to Xylem after the contracts were executed.
7. The 2 MG pump, 4 MG pump, 2MG variable speed drive, 4 MG variable speed drive and the river screen are complete.
8. MCWD is currently using the new 2 MG pump. The 4 MG pump will be placed into service upon the completion of Contract 113-19-03.

**B. CONTRACT 113-19-02
RWI&WTP IMPROVEMENTS**

1. The WTP and RWI sites were surveyed.
2. Basins were documented for condition assessment.
3. The Preliminary Engineering Report for the project is complete and has been distributed.
4. The Phase I Environmental Site Assessment required by the Corps of Engineers is complete and has been submitted.
5. Vendor proposals for replacement equipment were requested and reviewed.
6. Plans and specifications have been developed.
7. Project mapping for NEPA purposes was submitted to AML on February 6th.
8. Project description and Opinion of Probable Construction Costs were submitted to AML on February 17th.
9. Project was submitted for DOW review on March 13, 2020. DOW Construction Permit issued on June 3, 2020.
10. Project was submitted for a COE 4345 Permit Application review on March 20, 2020. Permit was issued on June 8, 2020.
11. The AML Authorization to Proceed was granted on July 31, 2020.
12. The Project was submitted to DOW for a Permit to Construct Along or Across a Stream on April 14, 2020. The DOW requested a public notice be run in the Mountain Citizen newspaper. The notice ran on June 24th, July 1st and July 8th. The period for public comments or objections related to the project ran through July 29th. The permit was issued on August 13, 2021.
13. Project was submitted to Corps of Engineers for Plan and Specification Review March 20, 2020. Corps provided review comments on April 28, 2020. Final plans and specifications including all electrical and structural components of the project were forwarded to the Corps of Engineers for final review during the week of July 13th. The Corps of Engineers has completed its review of the final plans / specifications including the opinion of probable cost and certified the package.
14. The Corps of Engineers advertised the Draft Environmental Assessment (DEA) and Finding of No Significant Impact (FONSI) for the project on August 4, 2020 for the 30-day public comment period. KY SHPO requested further consultation. The Corps of Engineer's archeologist is working with KY SHPO in an effort to resolve any issues. The impact of consultation on the schedule for the FONSI signing is unknown at this time.

**C. CONTRACT 113-19-03
LINE IMPROVEMENTS**

1. Bell was able to locate several sets of As-Built Drawings of the water distribution system. Bell scanned copies of all plan sets and returned to MCWD with digital copies of plan sets for MCWD future use.
2. Bell and MCWD personnel have been in the field multiple times locating existing lines, surveying existing meters, valves and fire hydrants and determining routing of new water lines.
3. Location of all the features affecting alignment of the waterline has been completed including gas lines.
4. The Phase I Environmental Site Assessment required by the Corps of Engineers is complete and has been submitted.
5. Plans and specifications have been developed.
6. Project mapping for NEPA purposes was submitted to AML on February 10th.
7. Project description and Opinion of Probable Construction Costs were submitted to AML on February 17th.
8. Project was submitted for DOW review on March 13, 2020. DOW Construction Permit was issued on April 27th.
9. Project submitted to Corps of Engineers Plan and Specification Review March 20, 2020. Corps provided review comments on April 28, 2020. Bell responded to comments and resubmitted plans/specifications on May 7, 2020. The Corps of Engineers has completed its review of the final plans / specifications including the opinion of probable cost and certified the package.
10. Project was submitted to KYTC on April 6 for review. KYTC Encroachment Permit was issued on May 13, 2020.
11. Submitted to DOW for Permit to Construct Along or Across a Stream April 14, 2020. The permit was issued on June 17, 2020.
12. The AML Authorization to Proceed was granted on July 31, 2020.
13. The Corps of Engineers advertised the Draft Environmental Assessment (DEA) and Finding of No Significant Impact (FONSI) for the project on August 4, 2020 for the 30-day public comment period. KY SHPO requested further consultation. The Corps of Engineer's archeologist is working with KY SHPO in an effort to resolve any issues. The impact of consultation on the schedule for the FONSI signing is unknown at this time.

D. WATER SYSTEM CAPITAL IMPROVEMENT PLAN / HYDRAULIC MODELING

1. Document is required by PSC
2. Bell has completed field review of RWI, WTP, Storage Tanks, Pumping Stations and PRV's.

3. Bell & UK met in Martin County on June 21, 2019 to coordinate collection of field data the week of July 8th. This effort is for calibration of the Hydraulic Model.
4. UK professors and 3 students traveled to Martin County on July 8th to begin effort of collecting field data (pressures and flows) at key points throughout the water distribution system. Bell had a team of four individuals that were to join the UK team on July 10th; however, MCWD had some major line breaks on July 9th and were unable to recover water supply during the week to allow flowing water from hydrants.
5. The effort to collect flow data was rescheduled for August 6th and 7th, however, on August 5th MCWD has a failure of a PRV which would not allow the flowing of the hydrants.
6. The collection of the field data was rescheduled and occurred on August 14th and 15th.
7. Field data has been reviewed. UK returned to the field in an effort to repeat two tests for the Hazen Williams coefficient that appeared suspect.
8. Money is in place to pay for the Hydraulic Model through AML 2017 Grant. OSM refused to allow for payment of the CIP through the 2018 Grant. The funds associated with that have been realigned toward additional waterline replacement.
9. UK delivered has delivered testing forms to Bell.
10. PRVs, tanks, lines, etc. have been input into the model.
11. Alliance Resources provided usage data and address information for each customer to effectively distribute demand throughout the system.
12. Model was calibrated using field collected data.
13. Bell has been working with UK to coordinate modeling efforts.
14. A Zoom meeting was held between the Kentucky Division of Water, University of Kentucky and Bell on July 1st to discuss the modeling. A second Zoom meeting was held on July 7th between UK and Bell to further discuss items that are needed.
15. Data has been shared between UK and Bell.
16. A trip to obtain additional field data was made in mid-July.
17. The hydraulic model is operational and has been checked against previously recorded field observations. The results being output by the model are consistent with the observations obtained in the field.

E. COE 531 AGREEMENT

1. Bell provided a Scope of Work to the COE on May 15, 2019.
2. Bell and COE agreed on an O&M cost of \$250,000.
3. COE asked for a PER with Alternative Analysis. Bell is modified the original PER to incorporate the COE funding. COE dollars will not be utilized for the

10-Yr CIP or RWI pump purchase. The requested Alternative Analysis was provided to COE on July 10, 2019.

4. The Project Partnering Agreement (PPA). This agreement was executed on September 13, 2019.
5. Funds from the COE are being utilized for the RWI, WTP and Line Improvements (Items B & C).

F. CONTRACT 113-19-04

ARC WATERLINE REPLACEMENT PROJECT

1. Bell received the signed contract on August 2nd.
2. Bell and MCWD personnel have been in the field multiple times locating existing lines, surveying existing meters, valves and fire hydrants and determining routing of new water lines.
3. Location of all features affecting alignment of the waterline has been completed including gas lines.
4. Plans and specifications have been developed.
5. Project was submitted for DOW review on March 27, 2020. DOW Construction Permit issued April 27th.
6. Project was submitted to KYTC on April 6, 2020 for review. KYTC Encroachment Permit was issued April 24.
7. Bids for the project were opened on May 29, 2020. Three bids were received for the project. The low bid in the amount of \$390,725.00 was submitted by Boco Enterprises, Inc.
8. A conversation was held with DLG representative on June 8, 2020 concerning using the remaining funds to continue laying additional mainline & service lines, along with, installing new meters in the Lovely area. An analysis of the project indicates that by using all funds approximately 23,435 LF of mainline, 67 meters/service lines and associated appurtenances can be replaced. ARC approved allowing the funds to be used to replace additional mainline, service line and water meters.
9. Issues were resolved with the Contractor concerning contract time associated with the additional construction activities.
10. The Contract has been executed and the Contractor has submitted the required performance and payment bonds.
11. A preconstruction meeting was held on September 9, 2020 at the offices of Alliance Water Resources.
12. The Notice to Proceed was issued at the conclusion of the preconstruction meeting advising the contractor the contract time will begin on September 21, 2020. The substantial completion date for the project is February 18, 2020 with final completion being March 20, 2021.

13. Design of the additional mainline, service line and meters approved by ARC must be completed and approved by DOW and KYTC prior to their construction. Alignment plans are currently being finished. Plans will be submitted to DOW and KYTC within the next month.

G. CONTRACT 695-19-01

**HIGH SCHOOL WATER STORAGE TANK & BOOSTER PUMP STATION
TELEMETRY**

1. Bell received the signed contract on August 14 2019.
2. The project was advertised for bids on August 21st and was advertised a second time on September 11th.
3. Bids for the project were opened September 26th @ 5:00 p.m. at the offices of the Martin County Fiscal Court.
4. The low (and only) bid was submitted by Micro-Comm. The base bid submitted was in the amount of \$48,921.00 and included the installation of an electrically powered telemetry unit at the pumping station and a solar powered unit at the tank site. A deductive alternate of \$5,400.00 was offered if the Fiscal Court ran electric to the tank site and Micro-Comm could also use an electrically powered unit at this location. Cost would then be \$43,521.00.
5. Bell provided a letter of recommendation to the Martin County Fiscal Court concerning the award of the project to Micro-Comm.
6. Martin County Fiscal Court has awarded the project to the low bidder.
7. Contract documents have been executed by both the Contractor and Fiscal Court. The executed documents were received from the Fiscal Court on Friday, February 28th. They were forwarded to the contractor along with the Notice to Proceed with construction on March 3, 2020.
8. Information from the Contractor concerning the FCC licensing process has been received.
9. The Contractor has submitted shop drawings of the equipment to be used as part of the project. Bell Engineering has reviewed the equipment for conformance with the contract requirements and returned to the Contractor.
10. Everything is complete at the sites with the exception of the tap for the transducer at the tank site. That work is being coordinated with Alliance Water Resources and will likely be complete within the next couple of weeks.

H. WASTEWATER TREATMENT PLANT/COLLECTION SYSTEM REVIEW

1. Bell and MCWD personnel reviewed the Inez and Warfield WWTPs.
2. Proposed work at the Inez facility includes: a redundant oxidation ditch, septage receiving station, belt filter press, solids processing building, sludge hauling equipment, influent flow meter, yard piping , upgraded electrical, sludge storage and drainage pad, replacement of the influent pumping

- station, clarifier rehabilitation of unit that is out of service, existing oxidation ditch metal work, covers for the aerators/gearboxes for existing oxidation ditch, entry road repairs, rehabilitating two system pumping stations, replacing floats/adding transducers at the two stations, replacing ten grinder pumps and rehabilitating the inoperable plant generator. OPPC: \$4,836,550.
3. Proposed work at the Warfield facility includes a septage receiving station, mechanical screen for trash, demolition of the Dempsey WWTP, rehabilitating two system pumping stations, replacing floats/adding transducers at the two stations and replacing ten grinder pumps. OPCC \$1,138,563.
 4. An RFQ for engineering services was published requiring a submission by interested firms by October 5, 2019. The RFQ was in conformance with EDA requirements so that EDA funding may be sought for the project.
 5. Bell Engineering was selected to provide engineering services for the project at the last MCUD meeting.
 7. A meeting was held with a representative of the Economic Development Administration (EDA) to discuss the project.
 8. A conference call was held on July 7th to discuss the plant and its needs. Since Alliance Water Resources has been operating the Inez Wastewater Treatment Plant for several months, the scope of work originally outlined for the facility was reviewed to determine if modifications should be made.
 9. A Kentucky Division of Abandoned Mine Lands Economic and Community Development Pilot Program 2020 Application in the amount of \$4,000,000 for improvements to the Wastewater Treatment at Inez was submitted at the end of July.

I. USP BIG SANDY, EASTERN KENTUCKY BUSINESS PARK & BIG SANDY AIRPORT WATER PROJECT

1. Project budget was revised and sent to AML on September 19, 2019.
2. The Memorandum of Agreement between AML and BSADD was signed by BSADD on September 25th. The MOA was signed by AML on October 1, 2019.
3. A contract for engineering services has been executed by the Big Sandy Area Development District.
4. Bell and MCWD personnel went to the field to review potential tank and pump station sites.
5. The Preliminary Engineering Report for the project is complete and has been distributed.
6. Plans have been prepared for the 250,000-gallon water storage tank.
7. Bell, Alliance and MCWD coordinated with the mineral lease holder and the surface owner concerning location of the proposed tank and pump station.

BSADD, Bell and Alliance representatives met with the property owner on January 30, 2020.

8. On March 3rd, the property owner advised most of the property is permitted with only a phase one bond release.
9. Bell and Alliance met on-site with the property owner on May 5th and permission to move forward was granted.
10. The site was surveyed on May 27, 2020 and topographic mapping was developed.
11. Due to issues with utilizing AML Pilot funds on this tank site, a new site is being sought.

J. CONTRACT 113-20-01

WATER LINE RELOCATION WILLIS DIALS/DAN'S BRANCH ROAD

1. Met on-site with Bizzack Construction, Alliance Water Resources and representatives of other utilities on May 28, 2020.
2. Plans and specifications have been prepared.
3. At the request of Bizzack Construction, the project has been forwarded to a utility contractor (Akins Excavation) for pricing.
4. Pricing and plans were forwarded to Bizzack Construction for approval by KYTC.
5. The project has been approved for construction by the Kentucky Division of Water.
6. Bell Engineering will stake the proposed waterline alignment on Thursday, September 17, 2020.
7. Relocation of the waterline should begin within the next seven days.

K. CONTRACT 113-20-02 and 113-20-03

WATER LINE RELOCATION HUNTER'S LANE AND ROCKHOUSE CREEK

1. Met on-site with Bizzack construction, Alliance Water Resources and representatives of other utilities on May 28, 2020.
2. A scope of work for these projects is being developed.
3. Projects are currently scheduled by KYTC and Bizzack Construction for Summer 2021.

Progress Meeting #17 will be held October 14, 2020 at 3:00 PM.