

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

APR 26 2017

PUBLIC SERVICE
COMMISSION

IN THE MATTER OF:

THE PETITION OF)
JACKSON COUNTY WATER ASSOCIATION) Case No. 2017-00182
FOR A CERTIFICATE OF CONVENIENCE)
AND NECESSITY, FINANCING)
AND ADJUSTMENT OF RATES)
PURSUANT TO KRS 278.023)

PETITION

Jackson County Water Association, by counsel, petitions for an order granting approval of construction, financing and rates pursuant to KRS 278.023.

1. Jackson County is a Kentucky non-profit corporation doing business in Kentucky operating a water distribution system in Jackson and Rockcastle counties. Its contact information is:

Dallas Cox, President
Highway 421 South,
Box 232
Tyner, KY 40486
606 278 7000 Ph
606 278 7003 Fax
jcwa@prctnet.org

2. It seeks approval pursuant to KRS 278.023 to construct and finance the improvements described in the Engineering Report and Addendum, which are attached as exhibit 1. An adjustment of rates as specified by RD is also proposed.

3. The following information is provided as required by 807 KAR 5:069 (1):

a. The certified articles of incorporation were filed in Case No. 93-120. The Association attests that it was incorporated in Kentucky on October 23, 1970 and that it is currently in good standing to operate. The association is not a partnership and has no assumed name.

b. A copy of the documents from the USDA with terms and conditions is

attached as exhibit 2;

c. The RD Letter of Concurrence in Bid Award is attached as exhibit 3;

d. The preliminary and final engineering reports are attached as exhibit 1.

One paper copy and one PDF copy of the plans are provided. The Association does not expect that the project will deviate from the minimum construction standards of the Commission.

e. A certified statement that the plans and specifications meet all applicable regulations; that all state approvals have been obtained; that the proposed rates will produce the calculated rates; and providing the beginning date and completion date of construction is attached as exhibit 4.

f. Notice of proposed rates is being published as required by 807 KAR 5:069 and a copy is attached as exhibit 5. A copy of the affidavit of publication will be filed within 15 days.

For these reasons, Jackson County requests that its application for the construction, financing and adjustment of rates be approved.

SUBMITTED BY:

John N. Hughes
124 W. Todd St.
Frankfort, Ky. 40601
jnhughes@johnnhughespsc.com
(502) 227-7270

ATTORNEY FOR JACKSON
COUNTY WATER ASSOCIATION

COMMONWEALTH OF KENTUCKY)

COUNTY OF JACKSON)

The undersigned, Dallas Cox, being duly sworn, deposes and states that he is the President of the Board of Directors of the Jackson County Water Association, Inc., the Applicant, in this proceeding; that he has read the foregoing Application and has noted the contents; that the same are true of his own knowledge, except as to matters which are stated on information or belief, and as to those matters, he believes same to be true.

IN TESTIMONY WHEREOF, witness the signature of the undersigned on this 26 day of April, 2017.

Dallas Cox

Dallas Cox

Subscribed, sworn and acknowledged to before me by Dallas Cox, President of the Board of Directors of the Jackson County Water Association, Inc., on this 26 day of April, 2017.

Samuel Creech

Notary Public

Registration Number: 408426

My Commission expires: 5-13-2019

EXHIBIT 1

Final Engineering Report and Addendum

One paper copy and on PDF copy of Plans and Specifications
filed separately

PUBLIC CONVENIENCE AND NECESSITY

The project will provide safe and reliable potable water service to majority of the existing customer base and future growth. Many of the existing residents without water service through Jackson County Water Association currently rely on contaminated wells for their potable water source. Use of water from these wells for domestic consumption can pose serious health hazards and economic burdens as residents must rely on alternate water sources such as bottled water or purchasing expensive filtering systems. With this project, the Water Association will now be able to extend its distribution system to these residents in the future.

FINAL ENGINEERING REPORT

for

JACKSON COUNTY WATER ASSOCIATION

TRANSMISSION MAIN FROM MCKEE TO SAND GAP AND MORRILL WATER LINE IMPROVEMENTS

prepared by:

KENVIRONS, INC.
452 VERSAILLES ROAD
FRANKFORT, KENTUCKY 40601

PROJECT No. 2013077

MARCH 2017



INTRODUCTION

The Jackson County Water Association made applications for financial assistance to Rural Development for the Transmission Main from McKee to Sand Gap and Morrill Waterline Improvements. A Preliminary Engineering Report dated September 2014 was prepared describing the need and scope of this project and is included herewith by reference.

BIDS

Bids were opened and read aloud at 2:00 P.M. on February 28, 2017 at the Jackson County Water Association Office. The two lowest bids for each contract are as follows:

Contract 1	
Frederick & May Construction Co.	\$1,296,128.00
Akins Excavating Co. Inc.	\$1,300,000.00
Contract 2	
Phoenix Fabricators & Erectors, Inc.	\$827,807.00
Caldwell Tanks, Inc.	\$841,800.00
Contract 3	
Phoenix Fabricators & Erectors, Inc.	\$459,402.00
Caldwell Tanks, Inc.	\$498,500.00

Certified bid tabulations are contained in Appendix A.

PROJECT COST

The Jackson County Water Association has actively pursued funding for the proposed project. Table 1 is a summary of the Letter of Conditions from Rural Development.

TABLE 1 – Project Funding

Construction	\$ 4,293,000
Contingency	\$ 430,000
Legal Fees	\$ 20,000
Engineering Design and Inspection	\$ 461,000
Interest	\$ 70,000
Environmental	\$ 6,000
Geotechnical Report	\$ 20,000
Total Funding Available	\$5,300,000

Table 2 outlines the project budget, based upon the bids received for Contract(s) 1, 2, and 3, assuming the Association accepts the bids.

TABLE 2 – Project Budget

Construction	\$ 2,583,337
Contingency (6.2%)	\$ 159,663
Legal Fees	\$ 20,000
Engineering Design and Inspection	\$ 311,000
Interest	\$ 42,000
Environmental	\$ 6,000
Geotechnical Report	\$ 20,000
Total Funding Available	\$3,142,000

An additional project has been developed by Jackson County Water Association called Contract 4: County Line Extensions & System Upgrades to be able to use the remaining funds from Rural Development. This project would consist of the extension of approximately 19.1 mile of 3" and 4" PVC, SDR-17 waterline along 18 roads in the county serving an estimated 92 customers. Specific roads, footage, and number of customers follows:

Alum Cave Branch Road -1.1 miles, 9 homes; Anna Chestnut Road - 0.25 miles, 4 homes; Baldwin Branch Road - 2.3 miles, 9 homes; Ball Road - 0.45 miles, 2 homes; Black Lick Road - 1.5 miles, 5 homes; Cedar Tree Road - 1.1 miles, 3 homes; Duke Powell Road - 0.85 miles, 3 homes; Elisha Branch Road - 0.8 miles, 6 homes; Gray Road - 0.65 miles, 12 homes; Happy Top Road - 0.75 miles, 3 homes; Hollin Road - 1.8 miles, 7 homes; John Cast Road - 1.2 miles, 7 homes; Kirby Road - 0.45 miles, 4 homes; Morrill-Kirby Knob Loop - 0.85 miles, 1 home; Sinking Valley School Road - 1.15 miles, 3 homes; Walkers Branch Road - 1.55 miles, 5 homes; Wilson Cemetery Road - 0.75 miles, 4 homes; Wind Cave Road - 1.6 miles, 5 homes

This project will also consist of the replacement of 2 miles of 8" transmission main to 10" D.I., CL350 waterline from the water treatment plant to Kelly Road along US 421. Approximately 500 L.F. of existing 6" waterline along KY 290 west of Annville will be raised to a depth accessible for maintenance with the current depth being over 10'. Alternate No. 1 for this project consists of Mildred Pump Station being replaced and Alternate No. 2 consists of the demolition of Birch Lick Tank. If funds still remain at the completion of Contract 4, either Alternate No. 1 or Alternate No. 2, or both will be constructed. Table 3 outlines the cost estimate for Contract 4, without the alternates, to use the remaining funding.

TABLE 3 – Proposed Project Budget

Construction	\$ 1,774,650
Contingency (5%)	\$ 89,350
Legal Fees	\$ 20,000
Engineering Design and Inspection	\$ 236,000
Interest	\$ 28,000
Environmental	\$ 20,000
Total Funding Available	\$2,158,000

RECOMMENDATIONS

1. It is recommended that Contract 1: Transmission Main from McKee to Sandgap be awarded to Frederick & May Construction Co. in the amount of \$1,296,128.00. The contractor has provided a list of similar completed projects and references. All responses were extremely positive in regard to quality of work and.
2. It is recommended that Contract 2: 500,000 Gallon McCammon Ridge Road W.S.T. be awarded to Phoenix Fabricators & Erectors, Inc. in the amount of \$827,807.00. It is also recommended that Contract 3: 100,000 Gallon Morrill W.S.T. be awarded to Phoenix Fabricators & Erectors, Inc. in the amount of \$459,402.00. The contractor has provided a list of similar completed projects and references. All responses were extremely positive in regard to their quality of work and professionalism.
3. It is recommended that the remaining funds approved for this project be used to cover the proposed Contract 4. User rates have already been adjusted to generate the revenue required to pay the debt service, coverage, and depreciation cost associated with the original project. Thus, the rates calculated in the Preliminary Engineering Report and the RD Letter of Conditions will not need to be adjusted.

APPENDIX A
CERTIFIED BID TABULATIONS

BID TABULATIONS

KENVIRONS, INC.
452 Versailles Road
Frankfort, KY 40601

Owner: Jackson County Water Association
Project: Contract 1: Transmission Main from McKee to Sandgap
Bid Date: February 28, 2017 at 2:00 P.M. Local Time

Project No. 2013077

Base Bid				Frederick & May Construction Co. P.O. Box 337 West Liberty, KY 41472		Akins Excavating Company, Inc. 182 Busy Lane Corbin, KY 40701		G&W Construction Co., Inc. 6730 Flemingsburg Road Corbin, KY 40701	
Item No.	Item Description	Unit	Quantity	Unit Cost	Cost	Unit Cost	Cost	Unit Cost	Cost
1	8" PVC, C900, DR-14 Pipe	LF	26,750	\$18.50	\$494,875.00	\$15.00	\$401,250.00	\$15.85	\$423,987.50
2	8" D.I., CL 350 Pipe	LF	70	40.00	2,800.00	40.75	2,852.50	38.75	2,712.50
3	6" PVC, DR-17 Pipe	LF	7,900	13.00	102,700.00	9.75	77,025.00	10.95	86,505.00
4	6" PVC, C900, DR-14 Pipe	LF	70	20.00	1,400.00	17.25	1,207.50	18.00	1,260.00
5	6" D.I., CL 350 Pipe	LF	80	45.00	3,600.00	27.00	2,160.00	32.00	2,560.00
6	4" PVC, C900, DR-14 Pipe	LF	60	14.00	840.00	11.00	660.00	16.00	960.00
7	4" D.I., CL 350 Pipe	LF	80	35.00	2,800.00	32.00	2,560.00	29.85	2,388.00
8	Bored Encasement for 8" Pipe	LF	130	150.00	19,500.00	145.00	18,850.00	160.00	20,800.00
9	Bored Encasement for 6" Pipe	LF	160	125.00	20,000.00	136.00	22,080.00	130.00	20,800.00
10	Open Cut Encasement for 8" Pipe	LF	170	85.00	14,450.00	46.00	7,820.00	48.45	8,236.50
11	Open Cut Encasement for 6" Pipe	LF	80	71.00	5,680.00	38.00	3,040.00	43.57	3,485.60
12	8" Gate Valve	EA	9	1,300.00	11,700.00	1,445.00	13,005.00	1,248.70	11,238.30
13	6" Gate Valve	EA	5	938.00	4,690.00	1,025.00	5,125.00	858.38	4,291.90
14	4" Gate Valve	EA	2	820.00	1,640.00	870.00	1,740.00	726.45	1,452.90
15	6" Insertion Valve	EA	1	6,500.00	6,500.00	5,740.00	5,740.00	7,415.42	7,415.42
16	4" Insertion Valve	EA	1	5,800.00	5,800.00	4,955.00	4,955.00	7,104.49	7,104.49
17	Air Release Valve	EA	1	1,000.00	1,000.00	945.00	945.00	717.71	717.71
18	Directional Bore No. 1 (8" Pipe) (Pigeon Roost Creek)	LS	1	38,200.00	38,200.00	27,000.00	27,000.00	47,394.63	47,394.63
19	Directional Bore No. 2-8 (Creek Crossing, 8" Pipe)	EA	7	5,000.00	35,000.00	13,300.00	93,100.00	23,494.00	164,458.00
20	Directional Bore No. 9 (6" Pipe)	LS	1	35,000.00	35,000.00	18,300.00	18,300.00	16,500.00	16,500.00
21	6" Blowoff Assembly	EA	10	1,820.00	18,200.00	1,700.00	17,000.00	1,796.58	17,965.80
22	4" Blowoff Assembly	EA	4	1,485.00	5,940.00	1,325.00	5,300.00	1,470.56	5,882.24
23	3" Blowoff Assembly	EA	1	1,400.00	1,400.00	1,220.00	1,220.00	1,330.51	1,330.51
24	8" x 8" Tapping Sleeve & Valve	EA	1	4,500.00	4,500.00	3,100.00	3,100.00	5,213.18	5,213.18
25	6" x 6" Tapping Sleeve & Valve	EA	5	3,922.00	19,610.00	2,535.00	12,675.00	3,200.00	16,000.00
26	4" x 4" Tapping Sleeve & Valve	EA	1	3,600.00	3,600.00	2,270.00	2,270.00	2,500.00	2,500.00
27	Fire Hydrant	EA	3	3,800.00	11,400.00	3,815.00	11,445.00	3,900.00	11,700.00
28	Cut and Cap Existing Line	EA	3	1,000.00	3,000.00	1,200.00	3,600.00	850.00	1,950.00
29	Master Meter Station	EA	1	18,000.00	18,000.00	32,200.00	32,200.00	22,500.00	22,500.00
30	450 GPM Pump Station	LS	1	165,959.00	165,959.00	193,200.00	193,200.00	275,000.00	275,000.00
31	120 GPM Pump Station	LS	1	122,344.00	122,344.00	148,565.00	148,565.00	165,000.00	165,000.00
32	Pressure Reducing Station	EA	1	18,000.00	18,000.00	20,830.00	20,830.00	15,500.00	15,500.00
33	Leak Detection Meter	EA	8	4,500.00	36,000.00	1,850.00	14,800.00	1,950.00	15,600.00
34	Gray Hawk Solenoid Valve	EA	1	9,000.00	9,000.00	12,580.00	12,580.00	7,000.00	7,000.00
35	Free Bore	LF	1,000	15.00	15,000.00	22.00	22,000.00	18.00	18,000.00
36	Crushed Stone	LF	2,000	5.00	10,000.00	8.50	17,000.00	10.00	20,000.00
37	Light Duty Bituminous	LF	2,600	10.00	26,000.00	28.00	72,800.00	20.00	52,000.00
TOTAL BASE BID					\$1,296,128.00		\$1,300,000.00		\$1,487,410.18

Alternate No. 1				Frederick & May Construction Co. P.O. Box 337 West Liberty, KY 41472		Akins Excavating Company, Inc. 182 Busy Lane Corbin, KY 40701		G&W Construction Co., Inc. 6730 Flemingsburg Road Morehead, KY 40351	
Item No.	Item Description	Unit	Quantity	Unit Cost	Cost	Unit Cost	Cost	Unit Cost	Cost
1	Birch Lick Tank Demolition	LS	1	\$250,000.00	\$250,000.00	\$30,000.00	\$30,000.00	\$27,500.00	\$27,500.00

The above is a true and complete tabulation of the Bids received by Jackson County Water Association at their office located at US 421 South, Tyner, KY, on February 28, 2017 at 2:00 P.M. Local Time.

By:  3-8-17
Eddie W. Brown, P.E. Date



BID TABULATIONS

KENVIRONS, INC.
452 Versailles Road
Frankfort, KY 40601

Owner: Jackson County Water Association
Project: Contract 1: Transmission Main from McKee to Sandgap
Bid Date: February 28, 2017 at 2:00 P.M. Local Time

Project No. 2013077

Base Bid				B.P. Pipeline, LLC 269 Pebbles Lane Quincy, KY 41166		Weddle Enterprises, Inc. 25 Shanes Lane Somerset, KY 42501		Norris Bros. Excavating 1007 Rodgers Road Crossville, TN 38572	
Item No.	Item Description	Unit	Quantity	Unit Cost	Cost	Unit Cost	Cost	Unit Cost	Cost
1	8" PVC, C900, DR-14 Pipe	LF	26,750	\$28.00	\$749,000.00	\$23.00	\$615,250.00	\$50.44	\$1,349,270.00
2	8" D.I., CL 350 Pipe	LF	70	30.00	2,100.00	48.80	3,416.00	77.60	5,432.00
3	6" PVC, DR-17 Pipe	LF	7,900	20.00	158,000.00	21.00	165,900.00	46.56	367,824.00
4	6" PVC, C900, DR-14 Pipe	LF	70	30.00	2,100.00	28.00	1,960.00	67.90	4,753.00
5	6" D.I., CL 350 Pipe	LF	80	45.00	3,600.00	39.40	3,152.00	77.60	6,208.00
6	4" PVC, C900, DR-14 Pipe	LF	60	30.00	1,800.00	14.20	852.00	43.85	2,619.00
7	4" D.I., CL 350 Pipe	LF	80	35.00	2,800.00	42.80	3,424.00	58.20	4,656.00
8	Bored Encasement for 8" Pipe	LF	130	200.00	26,000.00	110.00	14,300.00	291.00	37,830.00
9	Bored Encasement for 6" Pipe	LF	180	200.00	36,000.00	101.00	18,180.00	271.60	49,456.00
10	Open Cut Encasement for 8" Pipe	LF	170	100.00	17,000.00	65.00	11,050.00	271.60	46,172.00
11	Open Cut Encasement for 6" Pipe	LF	80	100.00	8,000.00	50.00	4,000.00	252.20	20,176.00
12	8" Gate Valve	EA	9	1,200.00	10,800.00	1,380.00	12,420.00	1,261.00	11,349.00
13	6" Gate Valve	EA	5	900.00	4,500.00	910.00	4,550.00	1,164.00	5,820.00
14	4" Gate Valve	EA	2	700.00	1,400.00	790.00	1,580.00	776.00	1,552.00
15	6" Insertion Valve	EA	1	10,000.00	10,000.00	7,050.00	7,050.00	3,880.00	3,880.00
16	4" Insertion Valve	EA	1	8,000.00	8,000.00	7,050.00	7,050.00	3,395.00	3,395.00
17	Air Release Valve	EA	1	750.00	750.00	950.00	950.00	3,395.00	3,395.00
18	Directional Bore No. 1 (8" Pipe) (Pigeon Roost Creek)	LS	1	45,000.00	45,000.00	48,000.00	48,000.00	33,950.00	33,950.00
19	Directional Bore No. 2-8 (Creek Crossing, 8" Pipe)	EA	7	30,000.00	210,000.00	26,700.00	186,900.00	33,950.00	237,650.00
20	Directional Bore No. 9 (6" Pipe)	LS	1	25,000.00	25,000.00	65,500.00	65,500.00	33,950.00	33,950.00
21	8" Blowoff Assembly	EA	10	1,800.00	18,000.00	2,250.00	22,500.00	3,104.00	31,040.00
22	4" Blowoff Assembly	EA	4	1,500.00	6,000.00	1,950.00	7,800.00	2,910.00	11,640.00
23	3" Blowoff Assembly	EA	1	1,500.00	1,500.00	1,770.00	1,770.00	2,716.00	2,716.00
24	8" x 8" Tapping Sleeve & Valve	EA	1	1,500.00	1,500.00	3,510.00	3,510.00	3,880.00	3,880.00
25	6" x 6" Tapping Sleeve & Valve	EA	5	3,000.00	15,000.00	2,960.00	14,800.00	3,686.00	18,430.00
26	4" x 4" Tapping Sleeve & Valve	EA	1	2,500.00	2,500.00	2,850.00	2,850.00	3,395.00	3,395.00
27	Fire Hydrant	EA	3	4,200.00	12,600.00	3,750.00	11,250.00	3,298.00	9,894.00
28	Cut and Cap Existing Line	EA	3	1,500.00	4,500.00	1,550.00	4,650.00	2,716.00	8,148.00
29	Master Meter Station	EA	1	15,000.00	15,000.00	45,000.00	45,000.00	34,920.00	34,920.00
30	450 GPM Pump Station	LS	1	120,000.00	120,000.00	200,000.00	200,000.00	436,500.00	436,500.00
31	120 GPM Pump Station	LS	1	110,000.00	110,000.00	150,000.00	150,000.00	213,400.00	213,400.00
32	Pressure Reducing Station	EA	1	22,000.00	22,000.00	24,000.00	24,000.00	26,190.00	26,190.00
33	Leak Detection Meter	EA	8	1,000.00	8,000.00	960.00	7,680.00	2,910.00	23,280.00
34	Gray Hawk Solenoid Valve	EA	1	35,000.00	35,000.00	11,000.00	11,000.00	4,365.00	4,365.00
35	Free Bore	LF	1,000	25.00	25,000.00	36.00	36,000.00	291.00	291,000.00
36	Crushed Stone	LF	2,000	15.00	30,000.00	7.50	15,000.00	29.10	58,200.00
37	Light Duty Bituminous	LF	2,600	20.00	52,000.00	35.00	91,000.00	19.40	50,440.00
TOTAL BASE BID					\$1,796,450.00		\$1,822,274.00		\$3,450,775.00

Alternate No. 1				B.P. Pipeline, LLC 269 Pebbles Lane Quincy, KY 41166		Weddle Enterprises, Inc. 25 Shanes Lane Somerset, KY 42501		Norris Bros. Excavating 1007 Rodgers Road Crossville, TN 38572	
Item No.	Item Description	Unit	Quantity	Unit Cost	Cost	Unit Cost	Cost	Unit Cost	Cost
1	Birch Lick Tank Demolition	LS	1	\$60,000.00	\$60,000.00	\$15,000.00	\$15,000.00	\$145,500.00	\$145,500.00

The above is a true and complete tabulation of the Bids received by Jackson County Water Association at their office located at US 421 South, Tyner, KY, on February 28, 2017 at 2:00 P.M. Local Time.

BID TABULATIONS

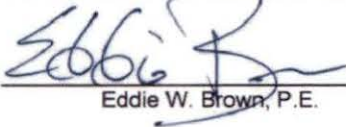
KENVIRONS, INC.
452 Versailles Road
Frankfort, KY 40601

Owner: Jackson County Water Association
Project: Contract 2: 500,000 Gallon McCammon Ridge Road W.S.T.
Bid Date: February 28, 2017 at 2:00 P.M. Local Time

Project No. 2013077

Base Bid				Phoenix Fabricators & Erectors, Inc. 182 South County Road 900 E Avon, IN 46123		Caldwell Tanks, Inc. P.O. Box 35770 Louisville, KY 40232	
Item No.	Item Description	Unit	Quantity	Unit Cost	Cost	Unit Cost	Cost
1	500,000 Gallon Elevated Water Storage Tank	LS	1	\$560,967.00	\$560,967.00	\$462,340.00	\$462,340.00
2	Earthwork	LS	1	13,600.00	13,600.00	2,230.00	2,230.00
3	Foundation	LS	1	72,100.00	72,100.00	160,340.00	160,340.00
4	Painting	LS	1	84,400.00	84,400.00	153,750.00	153,750.00
5	Yard Work including lined channels & site restoration	LS	1	29,000.00	29,000.00	8,340.00	8,340.00
6	Yard Piping	LS	1	35,500.00	35,500.00	33,230.00	33,230.00
7	Check Valve Station	LS	1	15,000.00	15,000.00	11,450.00	11,450.00
8	Fencing	LF	360	21.50	7,740.00	25.00	9,000.00
9	Access Road	LS	1	9,500.00	9,500.00	1,120.00	1,120.00
TOTAL BASE BID					\$827,807.00		\$841,800.00

The above is a true and complete tabulation of the Bids received by Jackson County Water Association at their office located at US 421 South, Tyner, KY, on February 28, 2017 at 2:00 P.M. Local Time.

By: 
Eddie W. Brown, P.E.

3-8-17
Date



BID TABULATIONS

KENVIRONS, INC.
452 Versailles Road
Frankfort, KY 40601

Owner: Jackson County Water Association
Project: Contract 3: 100,000 Gallon Morrill W.S.T.
Bid Date: February 28, 2017 at 2:00 P.M. Local Time

Project No. 2013077

Base Bid				Phoenix Fabricators & Erectors, Inc. 182 South County Road 900 E Avon, IN 46123		Caldwell Tanks, Inc. P.O. Box 35770 Louisville, KY 40232	
Item No.	Item Description	Unit	Quantity	Unit Cost	Cost	Unit Cost	Cost
1	100,000 Gallon Elevated Water Storage Tank	LS	1	\$279,522.00	\$279,522.00	\$244,540.00	\$244,540.00
2	Earthwork	LS	1	5,600.00	5,600.00	2,230.00	2,230.00
3	Foundation	LS	1	27,260.00	27,260.00	108,560.00	108,560.00
4	Painting	LS	1	51,100.00	51,100.00	66,630.00	66,630.00
5	Yard Work including lined channels & site restoration	LS	1	24,000.00	24,000.00	7,780.00	7,780.00
6	Yard Piping	LS	1	25,300.00	25,300.00	21,120.00	21,120.00
7	Check Valve Station	LS	1	15,000.00	15,000.00	9,230.00	9,230.00
8	Fencing	LF	280	24.00	6,720.00	30.00	8,400.00
9	Access Road	LS	1	4,500.00	4,500.00	1,120.00	1,120.00
10	Tank Demolition	LS	1	20,400.00	20,400.00	28,890.00	28,890.00
TOTAL BASE BID					\$459,402.00		\$498,500.00

The above is a true and complete tabulation of the Bids received by Jackson County Water Association at their office located at US 421 South, Tyner, KY on February 28, 2017 at 2:00 P.M. Local Time.

By: 
Eddie W. Brown, P.E.

3-8-17
Date





ADDENDUM
To
PRELIMINARY ENGINEERING REPORT

**CONTRACT 4: COUNTY LINE EXTENSIONS
& SYSTEM UPGRADES**

PREPARED BY:

**KENVIRONS, INC.
452 VERSAILLES ROAD
FRANKFORT, KENTUCKY 40601**

PROJECT No. 2013077

MARCH 2017



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- EXHIBIT 4: SITE MAPS
- EXHIBIT 5: BID TABULATIONS

1. INTRODUCTION

A Preliminary Engineering Report dated September 2014 (PER) describes, in detail, the scope and need for a new transmission main and two new water storage tanks to account for the increased demand in the existing system. That report is included herewith by reference.

Bids were received on February 28, 2017. The current project was bid in three (3) contracts. The number of bids submitted for each contract are as follows:

- Contract 1: Transmission Main from McKee to Sandgap (6)
- Contract 2: 500,000 Gallon McCammon Ridge Road W.S.T. (2)
- Contract 3: 100,000 Gallon Morrill W.S.T. (2)

The low bidder for Contract 1 was Frederick & May Construction Co., West Liberty, Kentucky in the amount of \$1,296,128. The low bidder for Contract 2 was Phoenix Fabricators & Erectors, Inc., Avon, Indiana in the amount of \$827,807. The low bidder for Contract 3 was also Phoenix Fabricators & Erectors, Inc., Avon, Indiana in the amount of \$459,402. A copy of the certified bid tabulations is included in the Appendix to this report.

The project funding, per the Rural Development Letter of Conditions, is \$5,300,000. The funding sources available for this project are as follows:

RUS Loan	\$ 3,907,000
RUS Grant	\$ 905,000
Applicant Contribution	\$ 488,000
Total per RD Letter of Conditions	\$ 5,300,000

A summary of the funding listed in the Letter of Conditions is detailed below in Table 1.

TABLE 1 – Project Funding

Construction	\$ 4,293,000
Contingency	\$ 430,000
Legal Fees	\$ 20,000
Engineering Design and Inspection	\$ 461,000
Interest	\$ 70,000
Environmental	\$ 6,000
Geotechnical Report	\$ 20,000
Total Funding Available	\$5,300,000

Table 2 outlines the project budget, based upon the bids received for Contract(s) 1, 2, and 3, assuming the Association accepts the bids.

TABLE 2 – Project Budget

Construction	\$ 2,583,337
Contingency (6.2%)	\$ 159,663
Legal Fees	\$ 20,000
Engineering Design and Inspection	\$ 311,000
Interest	\$ 42,000
Environmental	\$ 6,000
Geotechnical Report	\$ 20,000
Total Project Cost	\$3,142,000

The difference of the estimated and actual construction costs in Tables 1 and 2 is \$1,709,663. This difference is apparently due to the bidding environment, i.e. the lack of projects being advertised for bids, the unusually low prices for PVC and steel at the time of bidding, and the elimination of state wage rates prior to the bidding of this project.

Regarding the total funding available and actual cost for the current project, there is a difference of \$2,158,000. This Addendum to the initial PER includes additional construction for Rural Development's review and approval to fund the additional construction with left over funds after the current project is substantially complete.

The plan for utilizing the existing project funding is herein segregated into Project Phases to clearly identify the project construction and sequence for implementation. Site maps are included as Exhibit 4 in the Appendix delineating the additional construction to be funded.

2. PROJECT PHASES

Phase 1 – Current Project

Phase 1 is the current project described in the initial PER and for which bids were received on February 28, 2017. Bid tabulations are contained in Exhibit 5 of the Appendix to this report.

a. Contract 1: Transmission Main from McKee to Sandgap	\$1,296,128
b. Contract 2: 500,000 Gallon McCammon Ridge Road W.S.T.	\$ 827,807
c. Contract 3: 100,000 Gallon Morrill W.S.T.	\$ 459,402
Total Construction Cost	\$2,583,337

Phase 2 – Additional Construction

a. Waterline Extensions

Previously, Jackson County Water Association had expressed desire to extend water service to various roads across the county. Using a portion of the remaining funds from the current project, a list of roads was developed to extend service to that would benefit both the Association and customers. This new project will include the extension of approximately 19.1 miles of 3" and 4" PVC, SDR-17 waterline along 18 roads in the

county serving an estimated 92 customers. Specific roads, footage, and number of customers follows:

Alum Cave Branch Road - 1.1 miles, 9 homes; Anna Chestnut Road - 0.25 miles, 4 homes; Baldwin Branch Road - 2.3 miles, 9 homes; Ball Road - 0.45 miles, 2 homes; Black Lick Road - 1.5 miles, 5 homes; Cedar Tree Road - 1.1 miles, 3 homes; Duke Powell Road - 0.85 miles, 3 homes; Elisha Branch Road - 0.8 miles, 6 homes; Gray Road - 0.65 miles, 12 homes; Happy Top Road - 0.75 miles, 3 homes; Hollin Road - 1.8 miles, 7 homes; John Cast Road - 1.2 miles, 7 homes; Kirby Road - 0.45 miles, 4 homes; Morrill-Kirby Knob Loop - 0.85 miles, 1 home; Sinking Valley School Road - 1.15 miles, 3 homes; Walkers Branch Road - 1.55 miles, 5 homes; Wilson Cemetery Road - 0.75 miles, 4 homes; Wind Cave Road - 1.6 miles, 5 homes.

Exhibit 3 in the Appendix breaks down the estimated costs for extending water service to each road listed above. Exhibit 4 contains site maps for each individual road location.

b. Waterline Replacements

Along with the line extensions that are detailed above, the Association will still have funds to be spent from the original project. A section of waterline that runs from the water treatment plant north along U.S. 421 to Kelly Road has given the Association problems with leaks and breaks occurring frequently with the increased demand in the system. The transmission main is an 8" PVC, SDR-21 waterline and has reached its maximum pressure classification near 130 psi due to its age and increased demand over the years. The waterline was installed as one of the original transmission mains from the water treatment plant back in the 1970's when the demand on the system was much less. The Association would like to upgrade approximately 10,500 L.F. of 8" PVC, SDR-21 waterline to a 10" D.I., CL 350 waterline from the treatment plant to Kelly Road, where an existing 10" line stops and runs north to the new tank at McCammon Ridge Road being constructed in Contract 2. This new transmission main will improve the overall efficiency and will be able to provide reliability for future growth and demand in the system.

Although the transmission main will be the major part of the replacement work constructed in this project, a small portion of line will also be replaced at the intersection of KY 290 and KY 3630. A portion of 6" waterline has been filled in over putting the depth of the line at over 10 feet which makes that section line inaccessible for maintenance. While the section of line has been taken out of operation, the Association would like to recreate the loop by connecting an approximately 400 L.F. section between the two lines at normal depth along KY 290 and KY 3630 to improve flow in this area.

Exhibit 2 in the Appendix shows a detailed breakdown of the estimated costs for the waterline replacement along U.S. 421 and KY 290/KY 3630. Exhibit 4 contains site maps of the locations of these waterline replacements.

Phase 3 - Alternates

If funds still remain after the completion of both the line extension and replacement construction detailed above, then two alternates have been considered to use the rest of the available funding. Alternate No. 1 includes constructing a new pump station at the site

of the existing Mildred Pump Station along Mildred Road. This new pump station will replace the aging Mildred Pump Station and improve efficiency in the system. Alternate No. 2 includes the demolition of Birch Lick Tank. Either Alternate No. 1 or Alternate No. 2, or both will be constructed at the completion of the proposed Contract 4, if funds remain.

Exhibit 2 in the Appendix shows a detailed breakdown of the estimated costs for both Alternates No. 1 and No. 2. Exhibit 4 contains site maps for each alternate listed.

3. SUMMARY OF DEVELOPMENT COSTS

A summary of the development costs for the construction described herein and submitted for Rural Development approval to be included in the present project funding is as follows:

Phase 1 – Current Project

a. Contract 1: Transmission Main from McKee to Sandgap	\$1,296,128
b. Contract 2: 500,000 Gallon McCammon Ridge Road W.S.T.	\$ 827,807
c. Contract 3: 100,000 Gallon Morrill W.S.T.	<u>\$ 459,402</u>
Total Construction Cost	\$2,583,337

Exhibit 5 includes the bid tabulations for Contracts 1, 2, and 3.

Phase 2 – Additional Construction

a. Contract 4: County Line Extensions & System Upgrades	<u>\$1,774,650</u>
Total Construction Cost	\$1,774,650

Exhibit 1 shows a summarized total of all additional construction to be funded by the left over funds from the original project.

Phase 3 – Alternates*

a. Alternate No. 1: Mildred P.S. Replacement	\$160,000
b. Alternate No. 2: Birch Lick Tank Demolition	<u>\$ 25,000</u>
Total Construction Cost	\$185,000

*Alternate costs are not included in total development cost below.

TOTAL DEVELOPMENT COST (Phase 1 + Phase 2) \$4,357,987

Table 3 below outlines the estimated cost of the additional construction described in Phase 2. This cost will equal the difference between total funding available and actual cost of the original project of \$2,158,000 in order for all remaining funds to be spent.

TABLE 3 – Proposed Project Budget (Contract 4)

Construction	\$ 1,774,650
Contingency (5%)	\$ 89,350
Legal Fees	\$ 20,000
Engineering Design and Inspection	\$ 236,000
Interest	\$ 28,000
Environmental	\$ 20,000
Total Proposed Project Cost (Contract 4)	\$2,158,000

4. CONCLUSIONS AND RECOMMENDATIONS

The additional construction described herein is necessary for the continued excellent service, present and future reliability and continued sound financial condition of Jackson County Water Association. The existing project funding is sufficient to include the additional projects. Contingent on Rural Development's approval, it is hereby recommended to include the additional projects in the present project funding.

APPENDIX

**EXHIBIT 1:
TOTAL ADDITIONAL CONSTRUCTION COST ESTIMATE**

Jackson County Water Association
Contract 4: County Line Extensions & Transmission
Main Replacement

Opinion of Probable Cost

March 13, 2017

Item No.	Road Name	Homes	Unit Cost
1	Alum Cave Branch	9	\$71,500
2	Anna Chesnut	4	\$20,200
3	Baldwin Branch	9	\$169,900
4	Ball	2	\$34,150
5	Black Lick	5	\$89,400
6	Cedar Tree	3	\$72,500
7	Duke Powell	3	\$52,950
8	Elisha Branch	6	\$64,750
9	Gray Road	12	\$51,750
10	Happy Top	3	\$51,100
11	Hollin	7	\$133,100
12	John Cast	7	\$77,900
13	Kirby	4	\$30,950
14	Morrill Kirby Knob	1	\$65,400
15	Sinking Valley	3	\$72,400
16	Walkers Branch	5	\$93,400
17	Wilson Cemetery	4	\$49,050
18	Wind Cave	5	\$100,800
19	US 421 Transmission Main Replacement	0	\$445,950
20	KY 290 Replacement	0	\$27,500
Total Construction Cost:			\$1,774,650

**EXHIBIT 2:
WATERLINE REPLACEMENTS AND ALTERNATE COST
ESTIMATES**

**Jackson County Water Association
US 421 Transmission Main Replacement**

Opinion of Probable Cost

March 13, 2017

No.	Item	Unit	Quantity	Unit Price	Item Price
1	10" D.I., CL350 Pipe	LF	10,500	\$ 30.00	\$315,000.00
2	Bore and Case for 10" Pipe	LF	150	\$ 180.00	\$ 27,000.00
3	10" Gate Valve	EA	1	\$ 2,000.00	\$ 2,000.00
4	8" Gate Valve	EA	1	\$ 1,500.00	\$ 1,500.00
5	6" Gate Valve	EA	2	\$ 1,000.00	\$ 2,000.00
6	3" Gate Valve	EA	2	\$ 800.00	\$ 1,600.00
7	2" Ball Valve	EA	3	\$ 600.00	\$ 1,800.00
8	1" Ball Valve	EA	1	\$ 200.00	\$ 200.00
9	10" Tie-In	EA	1	\$ 4,500.00	\$ 4,500.00
10	8" Tie-In	EA	1	\$ 3,500.00	\$ 3,500.00
11	6" Tie-In	EA	2	\$ 2,500.00	\$ 5,000.00
12	3" Tie-In	EA	2	\$ 1,500.00	\$ 3,000.00
13	2" Tie-In	EA	3	\$ 850.00	\$ 2,550.00
14	1" Tie-In	EA	1	\$ 600.00	\$ 600.00
15	12" x 10" Tapping Sleeve & Valve	EA	1	\$ 8,500.00	\$ 8,500.00
16	6" Blow-Off Assembly	EA	1	\$ 2,000.00	\$ 2,000.00
17	Reconnect Meter Service	EA	60	\$ 500.00	\$ 30,000.00
18	Service Tubing	LF	2,000	\$ 7.00	\$ 14,000.00
19	Cut & Cap Existing Line	EA	2	\$ 1,000.00	\$ 2,000.00
	Pavement Replacement				
20	Crushed Stone	LF	600	\$ 12.00	\$ 7,200.00
21	Light Duty Bituminous	LF	400	\$ 30.00	\$ 12,000.00
Total Construction Cost					\$445,950.00

KY 290 Waterline Replacement

No.	Item	Unit	Quantity	Unit Price	Item Price
1	6" PVC, SDR-17 Pipe w/Restrained Joints	LF	400	\$ 40.00	\$ 16,000.00
2	Bore and Case for 6" Pipe	LF	30	\$ 150.00	\$ 4,500.00
3	6" Gate Valve	EA	2	\$ 1,000.00	\$ 2,000.00
4	6" Tie-In	EA	2	\$ 2,500.00	\$ 5,000.00
Total Construction Cost					\$ 27,500.00

Alternate No. 1: Mildred P.S. Replacement

No.	Item	Unit	Quantity	Unit Price	Item Price
1	Mildred P.S. Replacement	LS	1	\$ 160,000.00	\$160,000.00
Total Construction Cost					\$160,000.00

Alternate No. 2: Birch Lick Tank Demolition

No.	Item	Unit	Quantity	Unit Price	Item Price
1	Birch Lick Tank Demolition	LS	1	\$ 25,000.00	\$ 25,000.00
Total Construction Cost					\$ 25,000.00

EXHIBIT 3:
INDIVIDUAL ROAD LINE EXTENSIONS COST ESTIMATES

Jackson County Water Association
Contract 4: Line Extensions

Item No.	Description	Units	Unit Price	Alum Cave Branch Rd.		Anna Chestnut Rd.		Baldwin Branch Rd.		Bail Rd.		Black Lick Rd.		Cedar Tree Rd.	
				Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost
1	4" PVC, SDR-17 Pipe	LF	\$12.00		\$0.00		\$0.00	12,300	\$147,600.00		\$0.00		\$0.00		\$0.00
2	3" PVC, SDR-17 Pipe	LF	\$10.00	5,800	\$58,000.00	1,275	\$12,750.00		\$0.00	2,400	\$24,000.00	8,000	\$80,000.00	5,950	\$59,500.00
3	Bore and Case for 4" Pipe	LF	\$90.00		\$0.00		\$0.00	30	\$2,700.00		\$0.00		\$0.00		\$0.00
4	Bore and Case for 3" Pipe	LF	\$80.00		\$0.00		\$0.00		\$0.00	40	\$3,200.00		\$0.00	50	\$4,000.00
5	4" Gate Valve	EA	\$1,000.00		\$0.00		\$0.00	2	\$2,000.00		\$0.00		\$0.00		\$0.00
6	3" Gate Valve	EA	\$800.00		\$0.00	1	\$800.00		\$0.00		\$0.00	2	\$1,600.00	1	\$800.00
7	4" x 4" Tie-In	EA	\$1,400.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
8	4" x 3" Tie-In	EA	\$1,200.00		\$0.00	1	\$1,200.00		\$0.00		\$0.00	1	\$1,200.00		\$0.00
9	3" x 3" Tie-In	EA	\$1,000.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
10	6" x 4" Tapping Sleeve & Valve	EA	\$3,500.00		\$0.00		\$0.00	1	\$3,500.00		\$0.00		\$0.00		\$0.00
11	6" x 3" Tapping Sleeve & Valve	EA	\$3,500.00	1	\$3,500.00		\$0.00		\$0.00	1	\$3,500.00		\$0.00		\$0.00
12	4" x 4" Tapping Sleeve & Valve	EA	\$3,200.00		\$0.00		\$0.00	1	\$3,200.00		\$0.00		\$0.00		\$0.00
13	4" x 3" Tapping Sleeve & Valve	EA	\$3,000.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	1	\$3,000.00
14	3" Blow-Off Assembly	EA	\$1,000.00	1	\$1,000.00	1	\$1,000.00	1	\$1,000.00	1	\$1,000.00	1	\$1,000.00	1	\$1,000.00
15	Air Release Valve	EA	\$450.00	1	\$450.00	1	\$450.00	1	\$450.00	1	\$450.00	1	\$450.00	1	\$450.00
16	Creek Crossing	LS	\$10,000.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
17	Crushed Stone	LF	\$12.00	75	\$900.00	50	\$600.00	150	\$1,800.00	25	\$300.00	75	\$900.00	100	\$1,200.00
18	Light Duty Bituminous	LF	\$30.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
19	Meter Service	EA	\$500.00	9	\$4,500.00	4	\$2,000.00	9	\$4,500.00	2	\$1,000.00	5	\$2,500.00	3	\$1,500.00
20	Service Tubing	LF	\$7.00	450	\$3,150.00	200	\$1,400.00	450	\$3,150.00	100	\$700.00	250	\$1,750.00	150	\$1,050.00
					\$71,500.00		\$20,200.00		\$169,900.00		\$34,150.00		\$89,400.00		\$72,500.00

Jackson County Water Association
Contract 4: Line Extensions

Item No.	Description	Units	Unit Price	Duke Powell Rd.		Elisha Branch Rd.		Gray Rd.		Happy Top Rd.		Hollin Rd.		John Cast Rd.	
				Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost
1	4" PVC, SDR-17 Pipe	LF	\$12.00		\$0.00		\$0.00		\$0.00		\$0.00	9,350	\$112,200.00		\$0.00
2	3" PVC, SDR-17 Pipe	LF	\$10.00	4,425	\$44,250.00	4,250	\$42,500.00	3,450	\$34,500.00	4,000	\$40,000.00		\$0.00	6,500	\$65,000.00
3	Bore and Case for 4" Pipe	LF	\$90.00		\$0.00		\$0.00		\$0.00		\$0.00	30	\$2,700.00		\$0.00
4	Bore and Case for 3" Pipe	LF	\$80.00		\$0.00	25	\$2,000.00	25	\$2,000.00	40	\$3,200.00		\$0.00		\$0.00
5	4" Gate Valve	EA	\$1,000.00		\$0.00		\$0.00		\$0.00		\$0.00	2	\$2,000.00		\$0.00
6	3" Gate Valve	EA	\$800.00	1	\$800.00	1	\$800.00	1	\$800.00		\$0.00		\$0.00	2	\$1,600.00
7	4" x 4" Tie-In	EA	\$1,400.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
8	4" x 3" Tie-In	EA	\$1,200.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
9	3" x 3" Tie-In	EA	\$1,000.00		\$0.00	1	\$1,000.00	1	\$1,000.00		\$0.00		\$0.00		\$0.00
10	6" x 4" Tapping Sleeve & Valve	EA	\$3,500.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
11	6" x 3" Tapping Sleeve & Valve	EA	\$3,500.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
12	4" x 4" Tapping Sleeve & Valve	EA	\$3,200.00		\$0.00		\$0.00		\$0.00		\$0.00	2	\$6,400.00		\$0.00
13	4" x 3" Tapping Sleeve & Valve	EA	\$3,000.00	1	\$3,000.00		\$0.00		\$0.00	1	\$3,000.00		\$0.00	1	\$3,000.00
14	3" Blow-Off Assembly	EA	\$1,000.00	1	\$1,000.00	2	\$2,000.00	1	\$1,000.00	1	\$1,000.00	1	\$1,000.00	1	\$1,000.00
15	Air Release Valve	EA	\$450.00	1	\$450.00	1	\$450.00	1	\$450.00	1	\$450.00	1	\$450.00	1	\$450.00
16	Creek Crossing	LS	\$10,000.00		\$0.00	1	\$10,000.00		\$0.00		\$0.00		\$0.00		\$0.00
17	Crushed Stone	LF	\$12.00	75	\$900.00	75	\$900.00	150	\$1,800.00	75	\$900.00	200	\$2,400.00	75	\$900.00
18	Light Duty Bituminous	LF	\$30.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
19	Meter Service	EA	\$500.00	3	\$1,500.00	6	\$3,000.00	12	\$6,000.00	3	\$1,500.00	7	\$3,500.00	7	\$3,500.00
20	Service Tubing	LF	\$7.00	150	\$1,050.00	300	\$2,100.00	600	\$4,200.00	150	\$1,050.00	350	\$2,450.00	350	\$2,450.00
					\$52,950.00		\$64,750.00		\$51,750.00		\$51,100.00		\$133,100.00		\$77,900.00

Jackson County Water Association
Contract 4: Line Extensions

Item No.	Description	Units	Unit Price	Kirby Rd.		Morril-Kirby Knob Loop		Sinking Valley School Rd.		Walkers Branch Rd.		Wilson Cemetery Rd.		Wind Cave Rd.	
				Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost
1	4" PVC, SDR-17 Pipe	LF	\$12.00		\$0.00	4,500	\$54,000.00		\$0.00		\$0.00		\$0.00		\$0.00
2	3" PVC, SDR-17 Pipe	LF	\$10.00	2,250	\$22,500.00		\$0.00	6,100	\$61,000.00	8,150	\$81,500.00	4,000	\$40,000.00	8,550	\$85,500.00
3	Bore and Case for 4" Pipe	LF	\$90.00		\$0.00	40	\$3,600.00		\$0.00		\$0.00		\$0.00		\$0.00
4	Bore and Case for 3" Pipe	LF	\$80.00		\$0.00		\$0.00	30	\$2,400.00	30	\$2,400.00		\$0.00	50	\$4,000.00
5	4" Gate Valve	EA	\$1,000.00		\$0.00	1	\$1,000.00		\$0.00		\$0.00		\$0.00		\$0.00
6	3" Gate Valve	EA	\$800.00		\$0.00		\$0.00	1	\$800.00	2	\$1,600.00		\$0.00	1	\$800.00
7	4" x 4" Tie-In	EA	\$1,400.00		\$0.00	1	\$1,400.00		\$0.00		\$0.00		\$0.00		\$0.00
8	4" x 3" Tie-In	EA	\$1,200.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
9	3" x 3" Tie-In	EA	\$1,000.00		\$0.00		\$0.00		\$0.00	1	\$1,000.00		\$0.00		\$0.00
10	6" x 4" Tapping Sleeve & Valve	EA	\$3,500.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
11	6" x 3" Tapping Sleeve & Valve	EA	\$3,500.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
12	4" x 4" Tapping Sleeve & Valve	EA	\$3,200.00		\$0.00	1	\$3,200.00		\$0.00		\$0.00		\$0.00		\$0.00
13	4" x 3" Tapping Sleeve & Valve	EA	\$3,000.00	1	\$3,000.00		\$0.00	1	\$3,000.00		\$0.00	1	\$3,000.00	1	\$3,000.00
14	3" Blow-Off Assembly	EA	\$1,000.00	1	\$1,000.00		\$0.00	1	\$1,000.00	1	\$1,000.00	1	\$1,000.00	1	\$1,000.00
15	Air Release Valve	EA	\$450.00	1	\$450.00	1	\$450.00	1	\$450.00	1	\$450.00	1	\$450.00	1	\$450.00
16	Creek Crossing	LS	\$10,000.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
17	Crushed Stone	LF	\$12.00	50	\$600.00		\$0.00	100	\$1,200.00	100	\$1,200.00	100	\$1,200.00	150	\$1,800.00
18	Light Duty Bituminous	LF	\$30.00		\$0.00	30	\$900.00		\$0.00		\$0.00		\$0.00		\$0.00
19	Meter Service	EA	\$500.00	4	\$2,000.00	1	\$500.00	3	\$1,500.00	5	\$2,500.00	4	\$2,000.00	5	\$2,500.00
20	Service Tubing	LF	\$7.00	200	\$1,400.00	50	\$350.00	150	\$1,050.00	250	\$1,750.00	200	\$1,400.00	250	\$1,750.00
					\$30,950.00		\$65,400.00		\$72,400.00		\$93,400.00		\$49,050.00		\$100,800.00

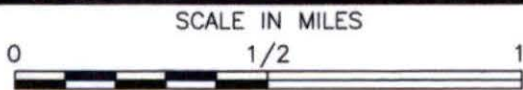
**EXHIBIT 4:
SITE MAPS**

N:\P\2013077\Contract 4\Project Profiles\Alum Cave Road.dwg, 3/7/2017 2:15:07 PM, JKP



TYNER, KY. QUADRANGLE

JACKSON COUNTY WATER ASSOCIATION
ALUM CAVE ROAD WATERLINE EXTENSION
JACKSON COUNTY, KENTUCKY



SCALE: 1"=2,000'



KENVIRONS, INC.

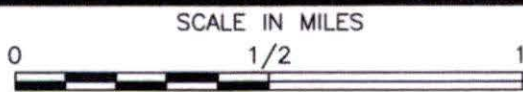
452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
(502) 695-4357

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TYNER, KY. QUADRANGLE

**JACKSON COUNTY WATER ASSOCIATION
ANNA CHESTNUT ROAD WATERLINE EXTENSION
JACKSON COUNTY, KENTUCKY**



SCALE: 1"=2,000'



KENVIRONS, INC.

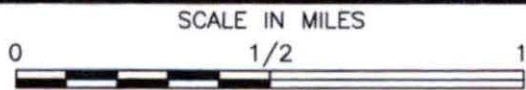
452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
(502) 695-4357

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TYNER, KY. QUADRANGLE

**JACKSON COUNTY WATER ASSOCIATION
BALDWIN BRANCH ROAD WATERLINE EXTENSION
JACKSON COUNTY, KENTUCKY**



SCALE: 1"=2,000'



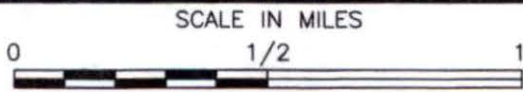
KENVIRONS, INC.

452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
(502) 695-4357



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TYNER, KY. QUADRANGLE



SCALE: 1"=2,000'

**JACKSON COUNTY WATER ASSOCIATION
BALL ROAD WATERLINE EXTENSION
JACKSON COUNTY, KENTUCKY**



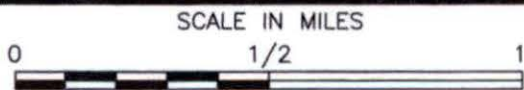
KENVIRONS, INC.

452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
(502) 695-4357

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PARROT, KY. QUADRANGLE



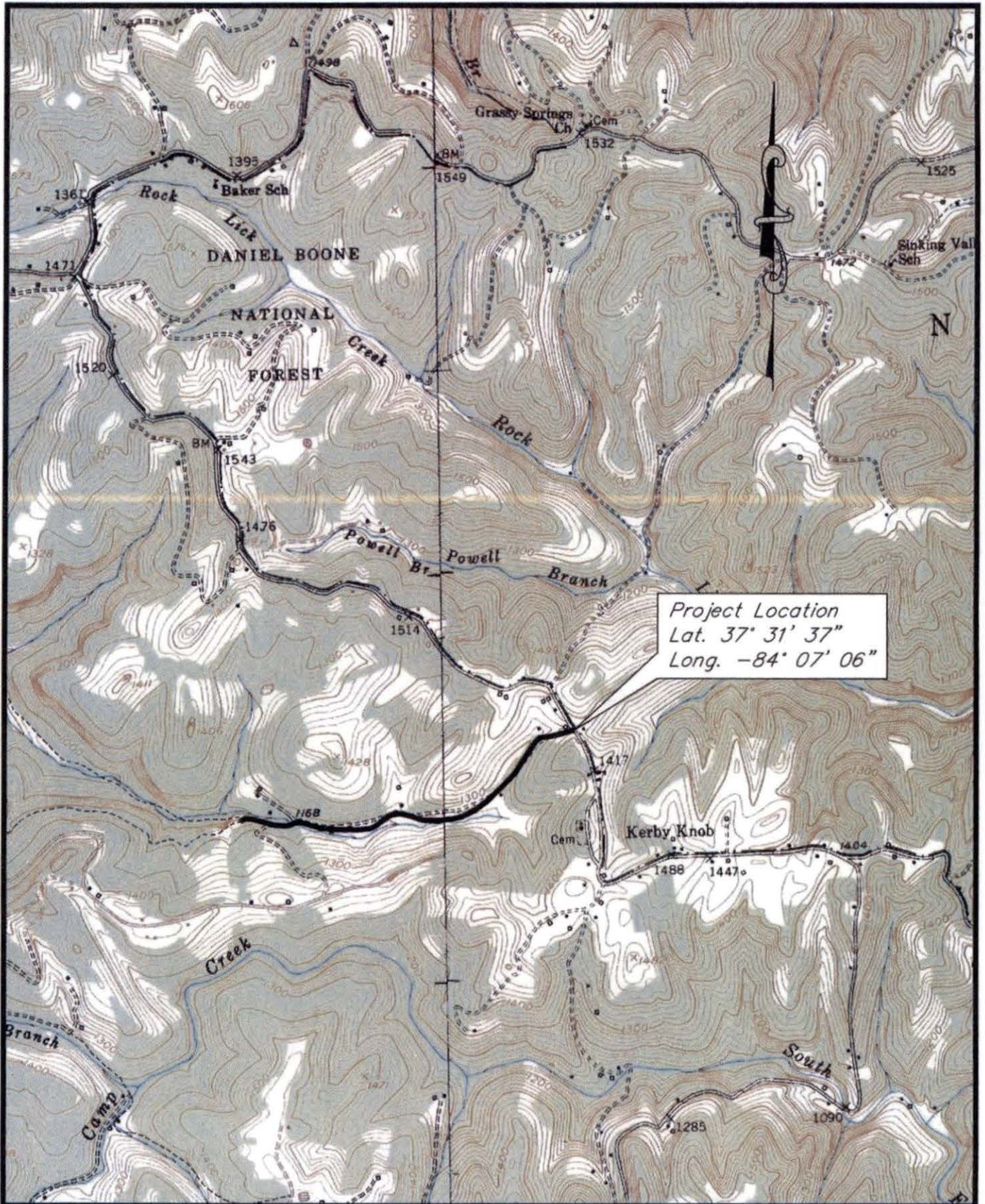
**JACKSON COUNTY WATER ASSOCIATION
BLACK LICK ROAD WATERLINE EXTENSION
JACKSON COUNTY, KENTUCKY**



KENVIRONS, INC.

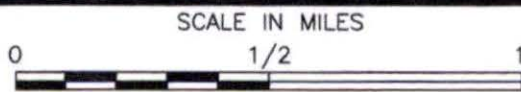
452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
(502) 695-4357

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BIGHILL & ALCORN, KY. QUADRANGLES

**JACKSON COUNTY WATER ASSOCIATION
CEDAR TREE ROAD WATERLINE EXTENSION
JACKSON COUNTY, KENTUCKY**



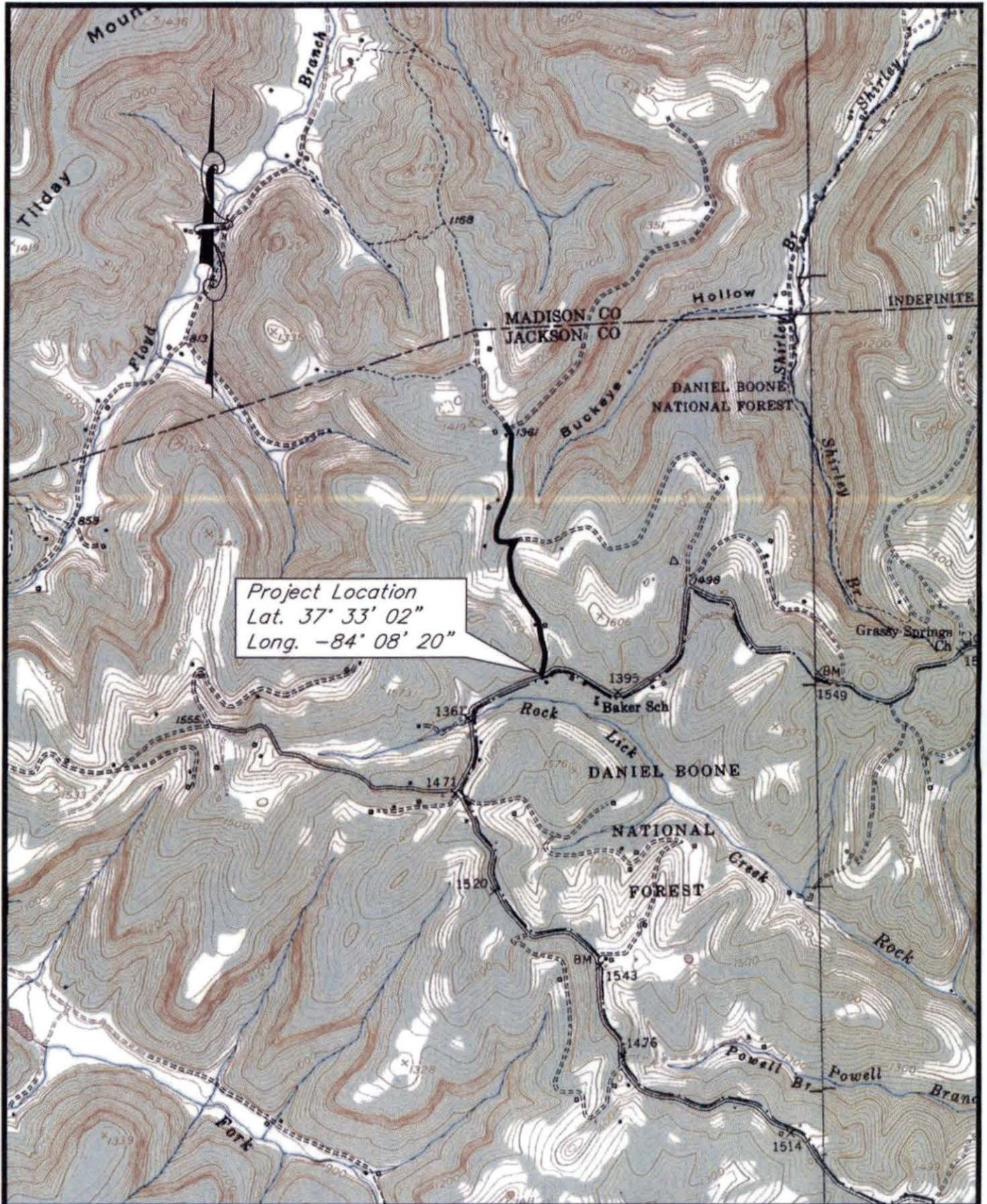
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KENVIRONS, INC.

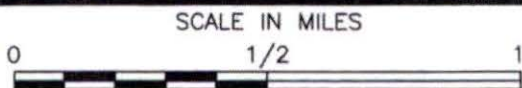
452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
(502) 695-4357

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BIGHILL, KY. QUADRANGLE

JACKSON COUNTY WATER ASSOCIATION
DUKE POWELL ROAD WATERLINE EXTENSION
JACKSON COUNTY, KENTUCKY



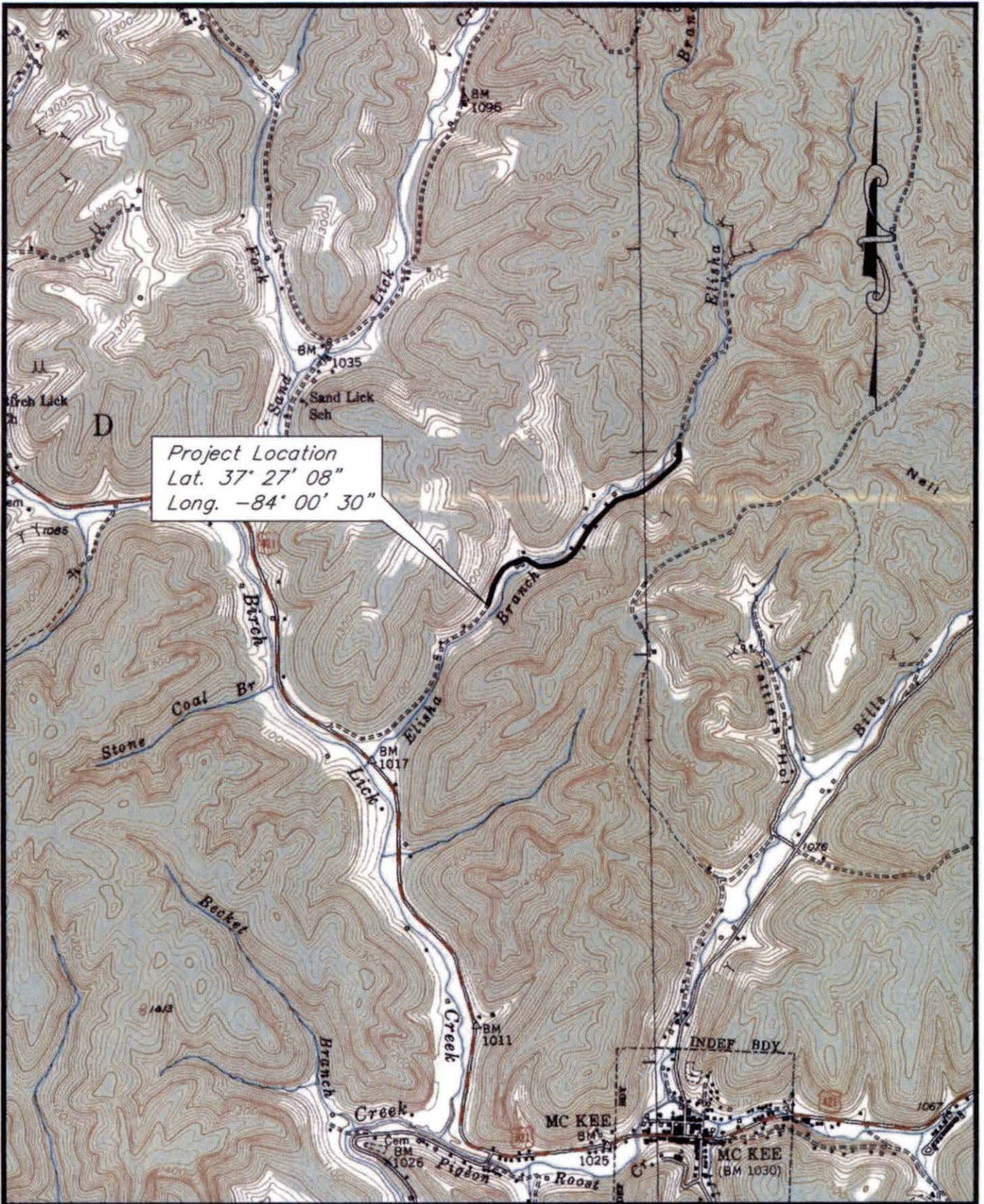
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KENVIRONS, INC.

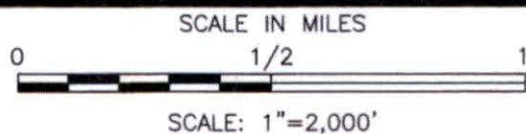
452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
(502) 695-4357

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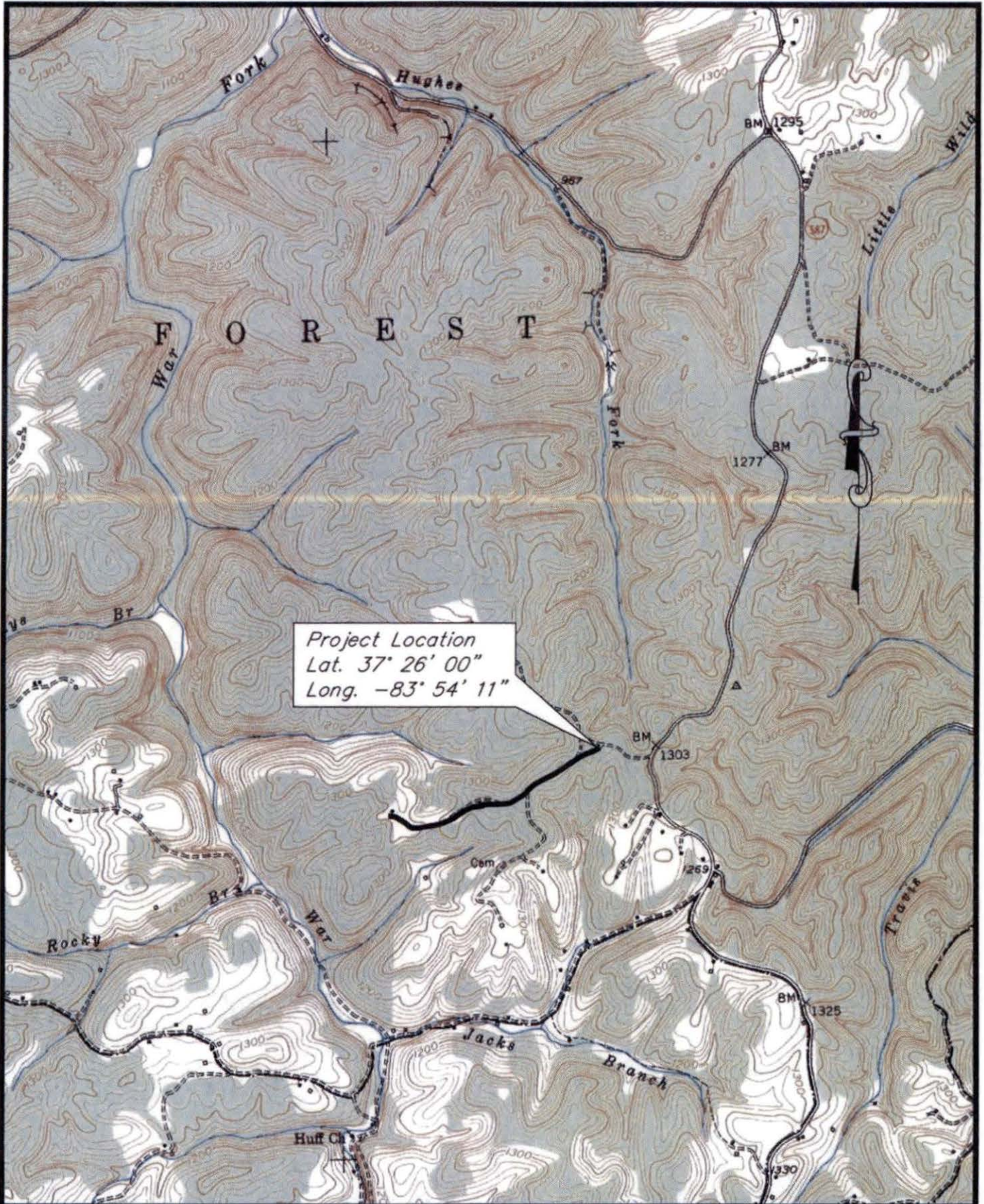
SANDGAP & McKEE, KY. QUADRANGLES

**JACKSON COUNTY WATER ASSOCIATION
ELISHA BRANCH ROAD WATERLINE EXTENSION
JACKSON COUNTY, KENTUCKY**



KENVIRONS, INC.

452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
(502) 695-4357

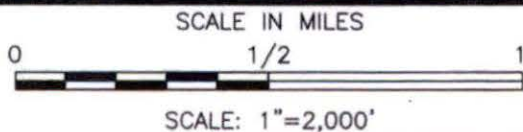


Project Location
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 Long. -83° 54' 11"

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McKEE, KY. QUADRANGLE

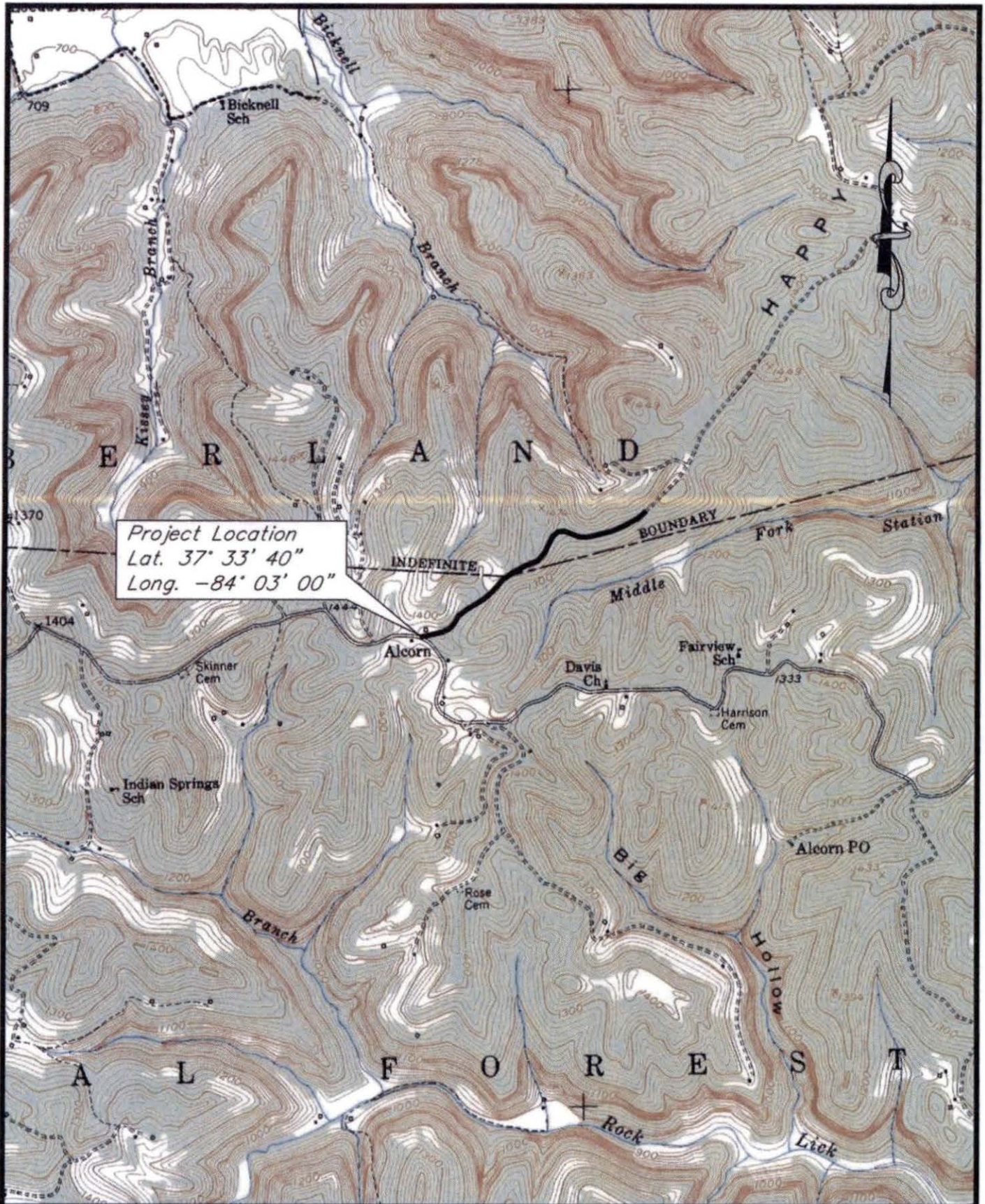
JACKSON COUNTY WATER ASSOCIATION
 GRAY ROAD WATERLINE EXTENSION
 JACKSON COUNTY, KENTUCKY



KENVIRONS, INC.

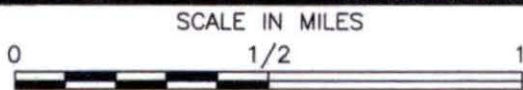
452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
 (502) 695-4357

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ALCORN, KY. QUADRANGLE

**JACKSON COUNTY WATER ASSOCIATION
HAPPY TOP ROAD WATERLINE EXTENSION
JACKSON COUNTY, KENTUCKY**



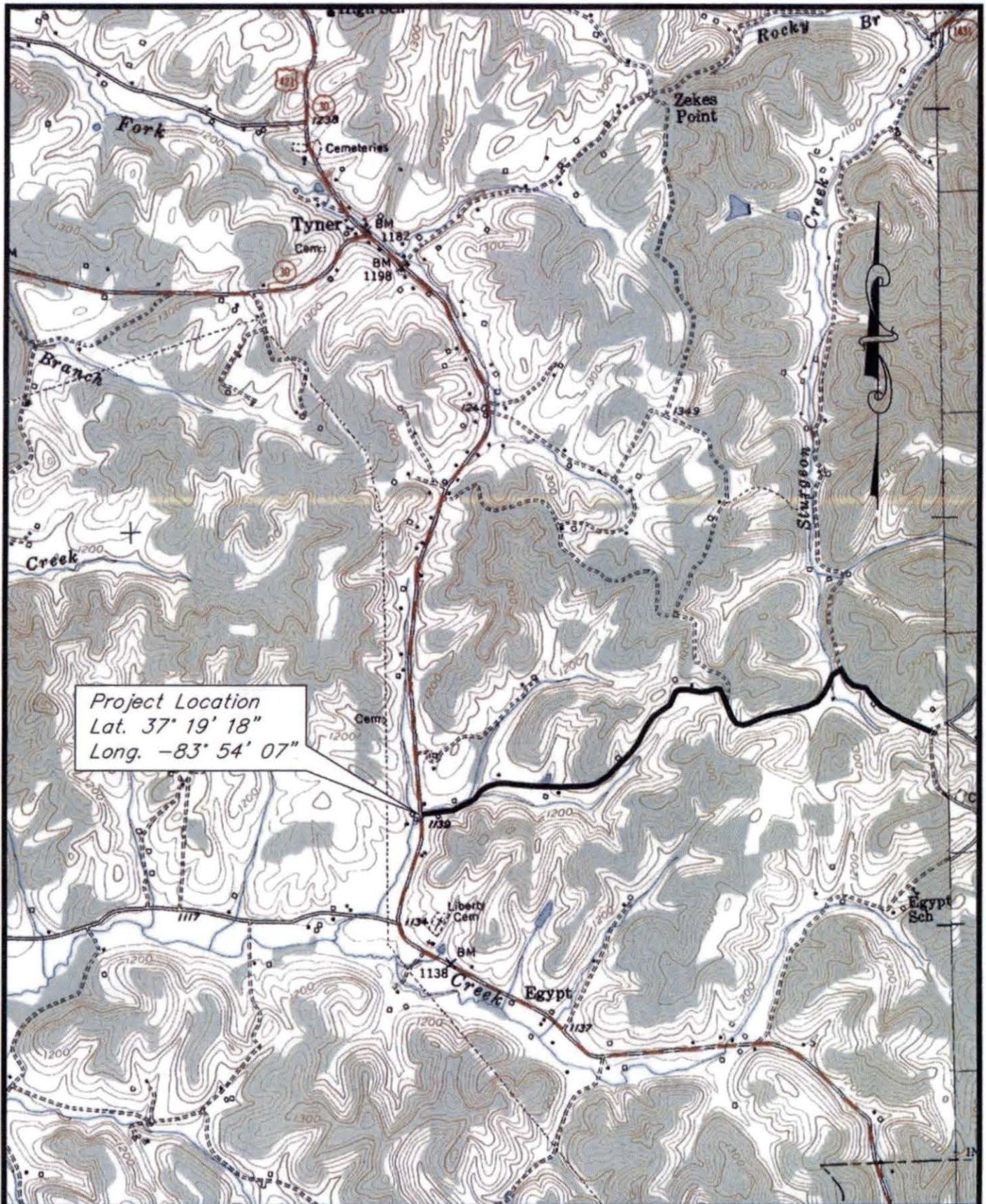
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KENVIRONS, INC.

452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
(502) 695-4357

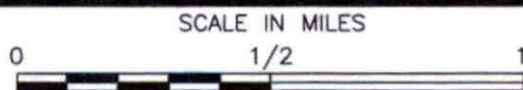
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Project Location
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Long. -83° 54' 07"

TYNER, KY. QUADRANGLE

**JACKSON COUNTY WATER ASSOCIATION
HOLLIN ROAD WATERLINE EXTENSION
JACKSON COUNTY, KENTUCKY**



SCALE: 1"=2,000'



KENVIRONS, INC.

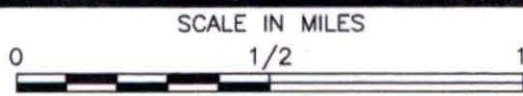
452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
(502) 695-4357

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TYNER, KY. QUADRANGLE

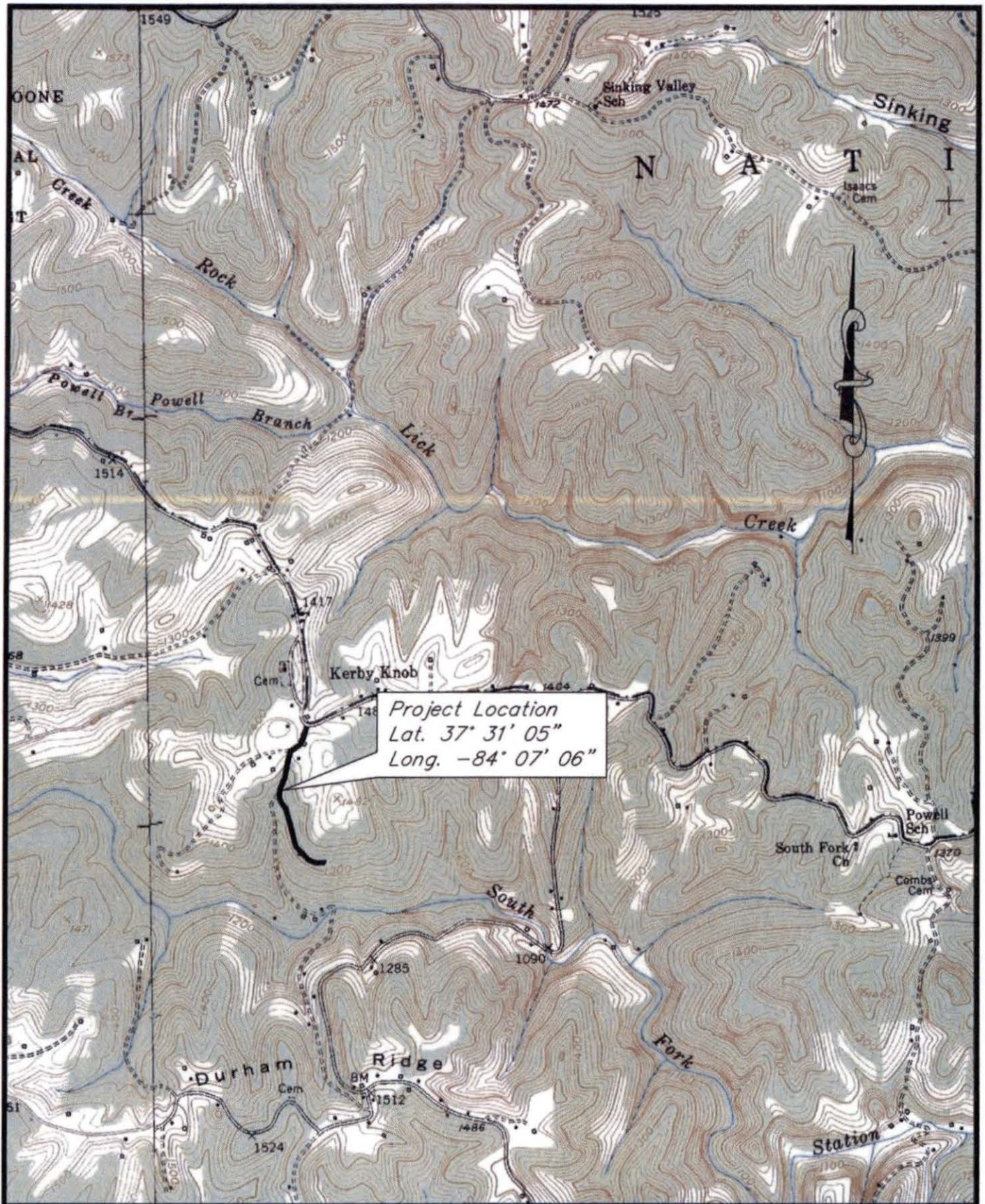
JACKSON COUNTY WATER ASSOCIATION
JOHN CAST ROAD WATERLINE EXTENSION
JACKSON COUNTY, KENTUCKY



KENVIRONS, INC.

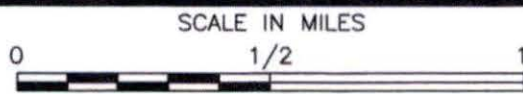
452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
(502) 695-4357

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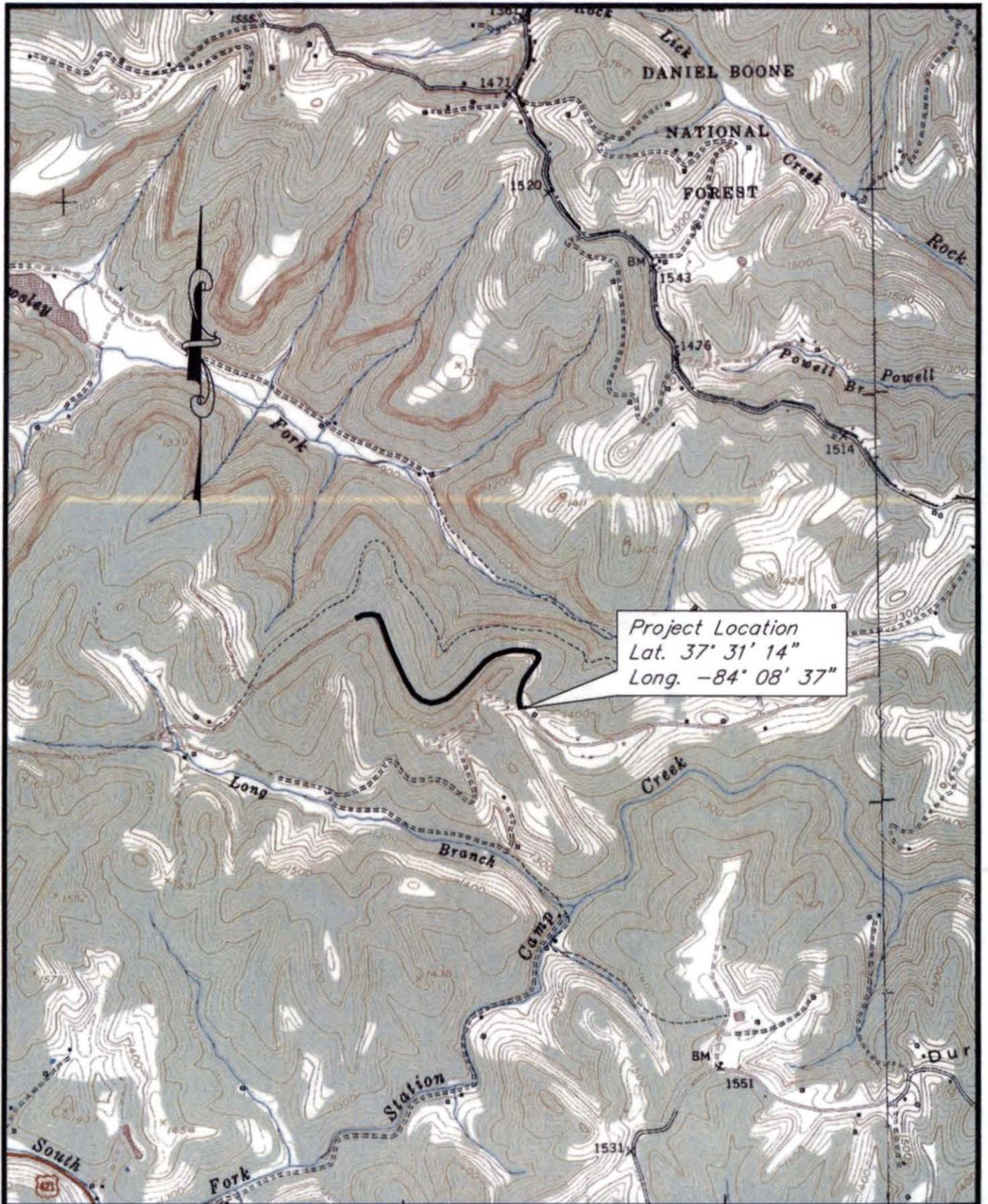
ALCORN, KY. QUADRANGLE

JACKSON COUNTY WATER ASSOCIATION
KIRBY ROAD WATERLINE EXTENSION
JACKSON COUNTY, KENTUCKY



KENVIRONS, INC.

452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
(502) 695-4357

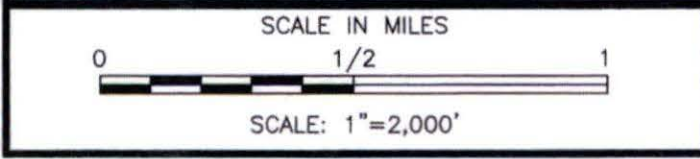


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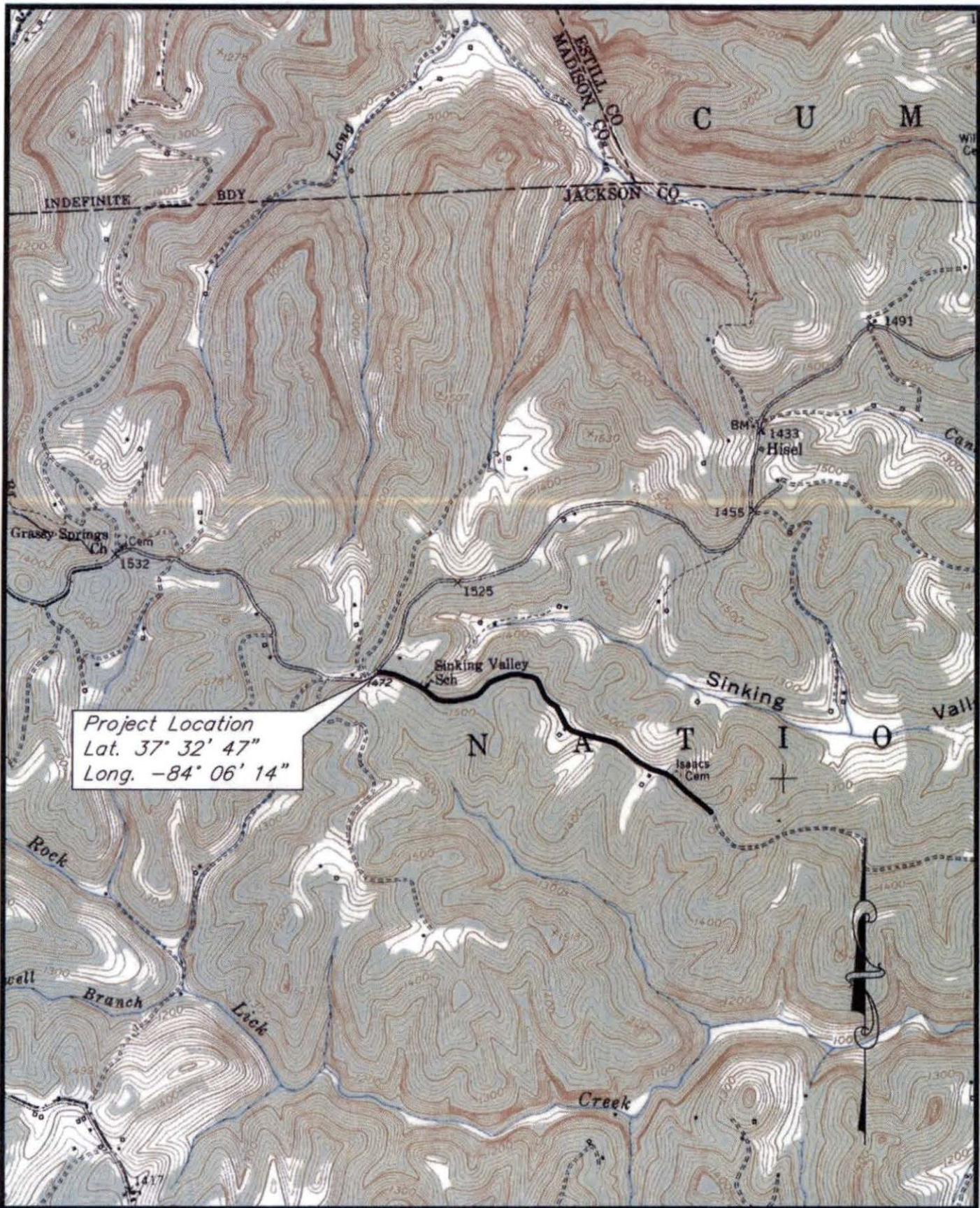
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BIGHILL, KY. QUADRANGLE

**JACKSON COUNTY WATER ASSOCIATION
 MORRILL-KIRBY KNOB LOOP WATERLINE EXTENSION
 JACKSON COUNTY, KENTUCKY**



 **KENVIRONS, INC.**
 452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
 (502) 695-4357

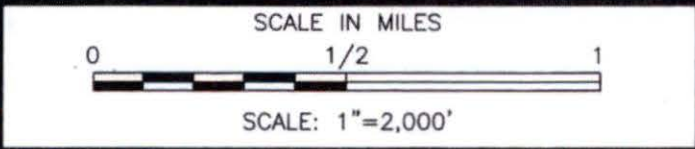


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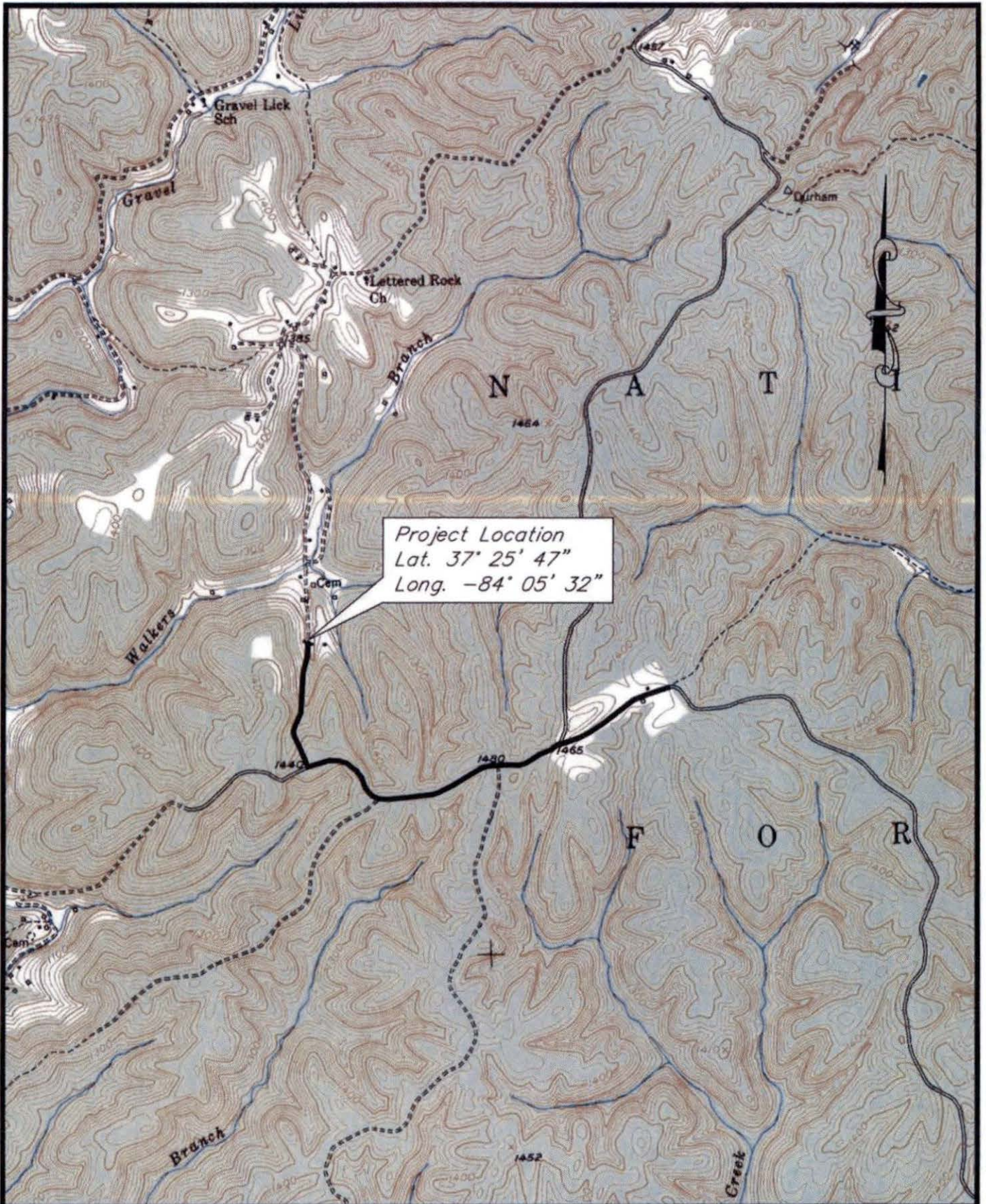
ALCORN, KY. QUADRANGLE

JACKSON COUNTY WATER ASSOCIATION
 SINKING VALLEY SCHOOL ROAD WATERLINE EXTENSION
 JACKSON COUNTY, KENTUCKY



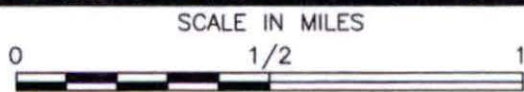

KENVIRONS, INC.
 452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
 (502) 695-4357

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SANDGAP, KY. QUADRANGLE

JACKSON COUNTY WATER ASSOCIATION
WALKERS BRANCH ROAD WATERLINE EXTENSION
JACKSON COUNTY, KENTUCKY



SCALE: 1"=2,000'



KENVIRONS, INC.

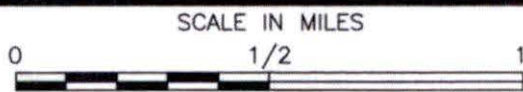
452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
(502) 695-4357

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MAULDEN, KY. QUADRANGLE

**JACKSON COUNTY WATER ASSOCIATION
WILSON CEMETERY ROAD WATERLINE EXTENSION
JACKSON COUNTY, KENTUCKY**



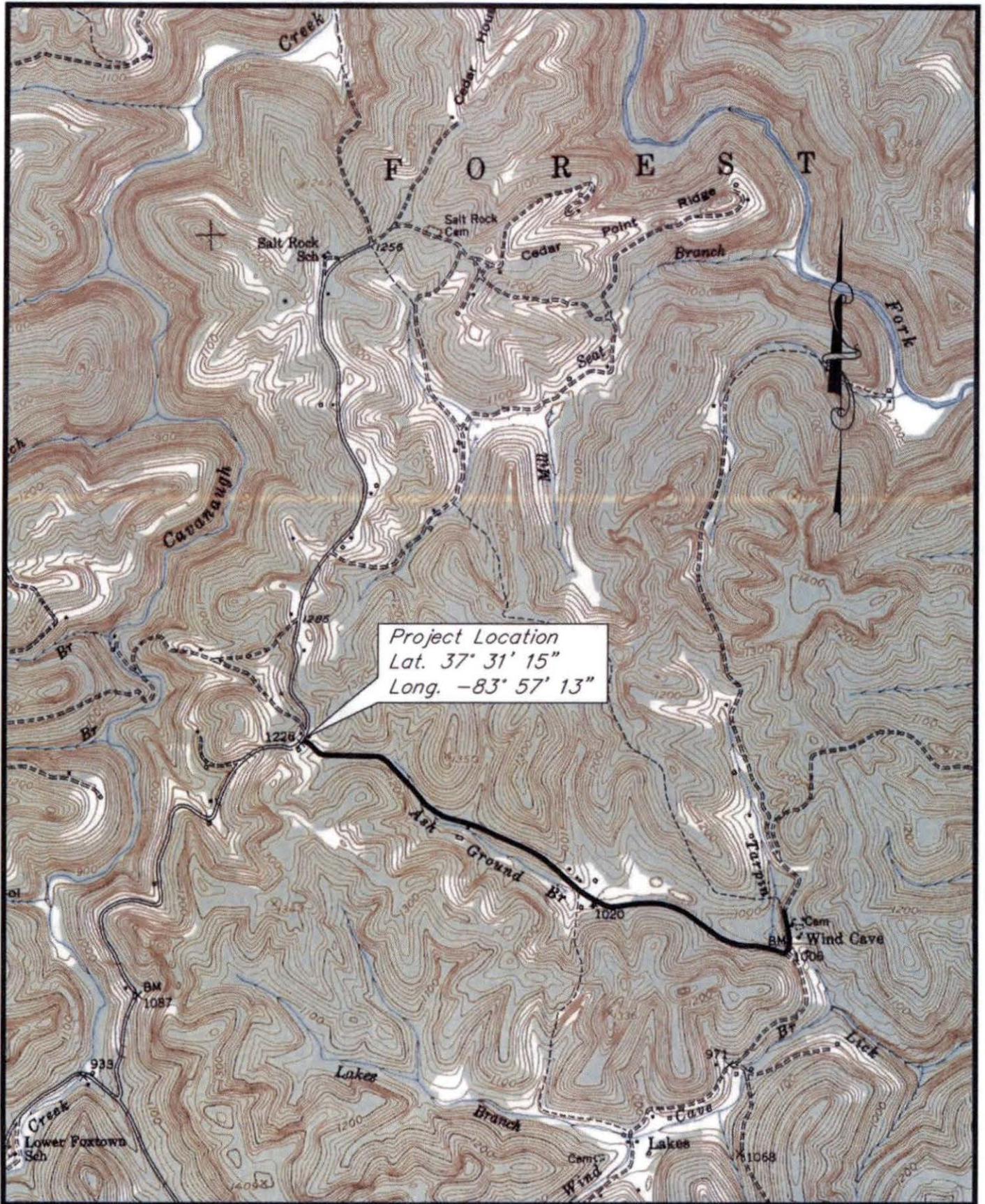
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KENVIRONS, INC.

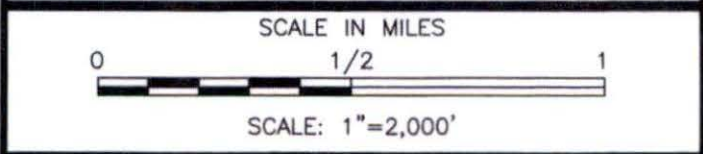
452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
(502) 695-4357

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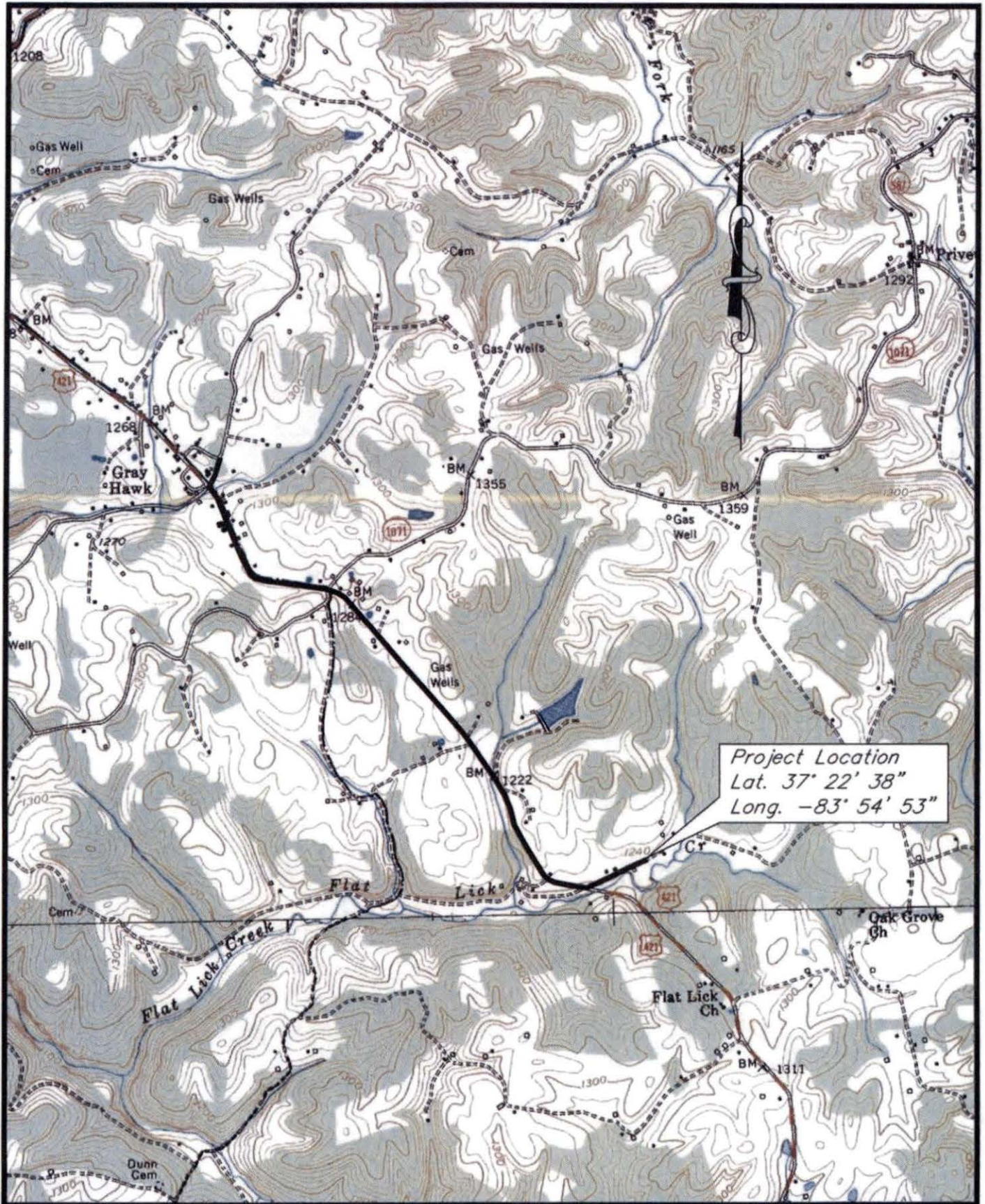
LEIGHTON, KY. QUADRANGLE

JACKSON COUNTY WATER ASSOCIATION
WIND CAVE ROAD WATERLINE EXTENSION
JACKSON COUNTY, KENTUCKY



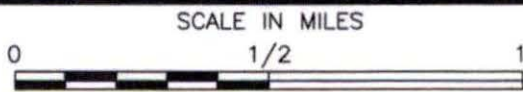
KENVIRONS, INC.
452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
(502) 695-4357

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McKEE, KY. QUADRANGLE

JACKSON COUNTY WATER ASSOCIATION
US 421 TRANSMISSION MAIN REPLACEMENT
JACKSON COUNTY, KENTUCKY



SCALE: 1"=2,000'



KENVIRONS, INC.

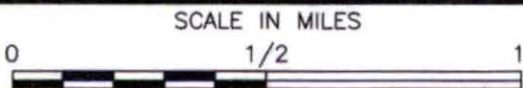
452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
(502) 695-4357

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TYNER, KY. QUADRANGLE

**JACKSON COUNTY WATER ASSOCIATION
KY 290 WATERLINE REPLACEMENT
JACKSON COUNTY, KENTUCKY**



SCALE: 1"=2,000'



KENVIRONS, INC.

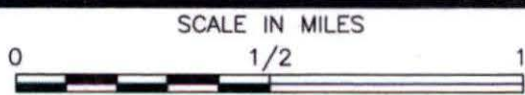
452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
(502) 695-4357

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TYNER, KY. QUADRANGLE

JACKSON COUNTY WATER ASSOCIATION
ALTERNATE NO. 1 - MILDRED ROAD PUMP STATION
JACKSON COUNTY, KENTUCKY



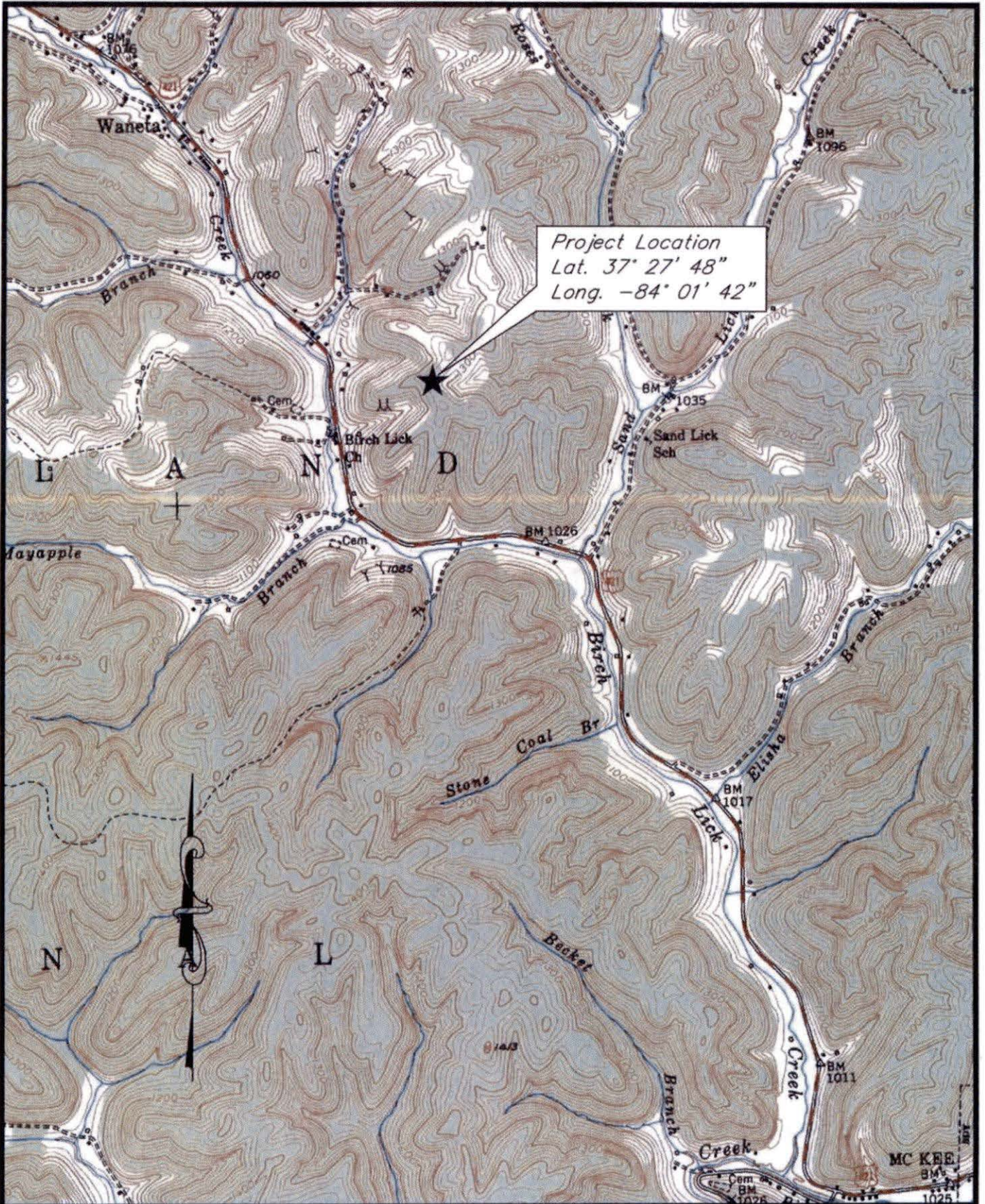
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KENVIRONS, INC.

452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
(502) 695-4357

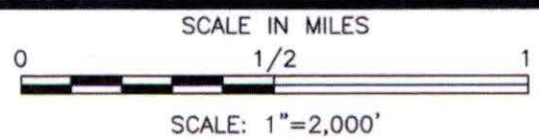
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Project Location
 Lat. 37° 27' 48"
 Long. -84° 01' 42"

SANDGAP, KY. QUADRANGLE

**JACKSON COUNTY WATER ASSOCIATION
 BIRCH LICK WATER STORAGE TANK DEMOLITION
 JACKSON COUNTY, KENTUCKY**



KENVIRONS, INC.

452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
 (502) 695-4357

**EXHIBIT 5:
BID TABULATIONS**

BID TABULATIONS

KENVIRONS, INC.
452 Versailles Road
Frankfort, KY 40601

Owner: Jackson County Water Association
Project: Contract 1: Transmission Main from McKee to Sandgap
Bid Date: February 28, 2017 at 2:00 P.M. Local Time

Project No. 2013077

Base Bid				Frederick & May Construction Co. P.O. Box 337 West Liberty, KY 41472		Akins Excavating Company, Inc. 182 Busy Lane Corbin, KY 40701		G&W Construction Co., Inc. 6730 Flemingsburg Road Corbin, KY 40701	
1	8" PVC, C900, DR-14 Pipe	LF	28,750	\$18.50	\$494,875.00	\$15.00	\$401,250.00	\$15.85	\$423,987.50
2	8" D.I., CL 350 Pipe	LF	70	40.00	2,800.00	40.75	2,852.50	38.75	2,712.50
3	6" PVC, DR-17 Pipe	LF	7,900	13.00	102,700.00	9.75	77,025.00	10.95	86,505.00
4	6" PVC, C900, DR-14 Pipe	LF	70	20.00	1,400.00	17.25	1,207.50	18.00	1,260.00
5	6" D.I., CL 350 Pipe	LF	80	45.00	3,600.00	27.00	2,160.00	32.00	2,560.00
6	4" PVC, C900, DR-14 Pipe	LF	60	14.00	840.00	11.00	660.00	16.00	960.00
7	4" D.I., CL 350 Pipe	LF	80	35.00	2,800.00	32.00	2,560.00	29.85	2,388.00
8	Bored Encasement for 8" Pipe	LF	130	150.00	19,500.00	145.00	18,850.00	160.00	20,800.00
9	Bored Encasement for 6" Pipe	LF	160	125.00	20,000.00	138.00	22,080.00	130.00	20,800.00
10	Open Cut Encasement for 8" Pipe	LF	170	85.00	14,450.00	46.00	7,820.00	48.45	8,236.50
11	Open Cut Encasement for 6" Pipe	LF	80	71.00	5,680.00	38.00	3,040.00	43.57	3,485.60
12	8" Gate Valve	EA	9	1,300.00	11,700.00	1,445.00	13,005.00	1,248.70	11,238.30
13	6" Gate Valve	EA	5	938.00	4,690.00	1,025.00	5,125.00	858.38	4,291.80
14	4" Gate Valve	EA	2	820.00	1,640.00	870.00	1,740.00	726.45	1,452.90
15	8" Insertion Valve	EA	1	6,500.00	6,500.00	5,740.00	5,740.00	7,415.42	7,415.42
16	4" Insertion Valve	EA	1	5,800.00	5,800.00	4,955.00	4,955.00	7,104.49	7,104.49
17	Air Release Valve	EA	1	1,000.00	1,000.00	945.00	945.00	717.71	717.71
18	Directional Bore No. 1 (8" Pipe) (Pigeon Rocst Creek)	LS	1	38,200.00	38,200.00	27,000.00	27,000.00	47,394.63	47,394.63
19	Directional Bore No. 2-8 (Creek Crossing, 8" Pipe)	EA	7	5,000.00	35,000.00	13,300.00	93,100.00	23,494.00	164,458.00
20	Directional Bore No. 9 (8" Pipe)	LS	1	35,000.00	35,000.00	18,300.00	18,300.00	16,500.00	16,500.00
21	8" Blowoff Assembly	EA	10	1,820.00	18,200.00	1,700.00	17,000.00	1,796.58	17,965.80
22	4" Blowoff Assembly	EA	4	1,485.00	5,940.00	1,325.00	5,300.00	1,470.56	5,882.24
23	3" Blowoff Assembly	EA	1	1,400.00	1,400.00	1,220.00	1,220.00	1,330.51	1,330.51
24	8" x 8" Tapping Sleeve & Valve	EA	1	4,500.00	4,500.00	3,100.00	3,100.00	5,213.18	5,213.18
25	6" x 6" Tapping Sleeve & Valve	EA	5	3,922.00	19,610.00	2,535.00	12,675.00	3,200.00	16,000.00
26	4" x 4" Tapping Sleeve & Valve	EA	1	3,600.00	3,600.00	2,270.00	2,270.00	2,500.00	2,500.00
27	Fire Hydrant	EA	3	3,800.00	11,400.00	3,815.00	11,445.00	3,900.00	11,700.00
28	Cut and Cap Existing Line	EA	3	1,000.00	3,000.00	1,200.00	3,600.00	850.00	1,950.00
29	Master Meter Station	EA	1	18,000.00	18,000.00	32,200.00	32,200.00	22,500.00	22,500.00
30	450 GPM Pump Station	LS	1	165,959.00	165,959.00	193,200.00	193,200.00	275,000.00	275,000.00
31	120 GPM Pump Station	LS	1	122,344.00	122,344.00	148,565.00	148,565.00	165,000.00	165,000.00
32	Pressure Reducing Station	EA	1	18,000.00	18,000.00	20,830.00	20,830.00	15,500.00	15,500.00
33	Leak Detection Meter	EA	8	4,500.00	36,000.00	1,850.00	14,800.00	1,950.00	15,800.00
34	Gray Hawk Solenoid Valve	EA	1	9,000.00	9,000.00	12,580.00	12,580.00	7,000.00	7,000.00
35	Free Bore	LF	1,000	15.00	15,000.00	22.00	22,000.00	18.00	18,000.00
36	Crushed Stone	LF	2,000	5.00	10,000.00	8.50	17,000.00	10.00	20,000.00
37	Light Duty Bituminous	LF	2,800	10.00	28,000.00	28.00	72,800.00	20.00	52,000.00
TOTAL BASE BID					\$1,296,126.00		\$1,300,000.00		\$1,487,410.18

Alternate No. 1				Frederick & May Construction Co. P.O. Box 337 West Liberty, KY 41472		Akins Excavating Company, Inc. 182 Busy Lane Corbin, KY 40701		G&W Construction Co., Inc. 6730 Flemingsburg Road Morehead, KY 48351	
1	Birch Lick Tank Demolition	LS	1	\$250,000.00	\$250,000.00	\$30,000.00	\$30,000.00	\$27,500.00	\$27,500.00

The above is a true and complete tabulation of the Bids received by Jackson County Water Association at their office located at US 421 South, Tyner, KY, on February 28, 2017 at 2:00 P.M. Local Time.

By:  3-8-17
Eddie W. Brown, P.E. Date



BID TABULATIONS

KENVIRONS, INC.
452 Versailles Road
Frankfort, KY 40601

Owner: Jackson County Water Association
Project: Contract 1: Transmission Main from McKee to Sandgap
Bid Date: February 28, 2017 at 2:00 P.M. Local Time

Project No 2013077

Base Bid				B.P. Pipeline, LLC 269 Pebbles Lane Quincy, KY 41166		Weddle Enterprises, Inc. 25 Shanes Lane Somerset, KY 42501		Norris Bros. Excavating 1007 Rodgers Road Crossville, TN 38572	
Item No.	Item Description	Unit	Quantity	Unit Cost	Cost	Unit Cost	Cost	Unit Cost	Cost
1	8" PVC, C900, DR-14 Pipe	LF	26,750	\$28.00	\$749,000.00	\$23.00	\$615,250.00	\$50.44	\$1,349,270.00
2	8" D.I., CL 350 Pipe	LF	70	30.00	2,100.00	48.80	3,416.00	77.60	5,432.00
3	6" PVC, DR-17 Pipe	LF	7,900	20.00	158,000.00	21.00	165,900.00	46.56	367,824.00
4	6" PVC, C900, DR-14 Pipe	LF	70	30.00	2,100.00	28.00	1,960.00	67.90	4,753.00
5	6" D.I., CL 350 Pipe	LF	80	45.00	3,600.00	39.40	3,152.00	77.80	6,208.00
6	4" PVC, C900, DR-14 Pipe	LF	80	30.00	2,400.00	14.20	1,136.00	43.65	3,492.00
7	4" D.I., CL 350 Pipe	LF	80	35.00	2,800.00	42.80	3,424.00	58.20	4,656.00
8	Bored Encasement for 8" Pipe	LF	130	200.00	26,000.00	110.00	14,300.00	291.00	37,830.00
9	Bored Encasement for 6" Pipe	LF	160	200.00	32,000.00	101.00	16,160.00	271.60	43,456.00
10	Open Cut Encasement for 8" Pipe	LF	170	100.00	17,000.00	85.00	14,450.00	271.60	46,172.00
11	Open Cut Encasement for 6" Pipe	LF	80	100.00	8,000.00	50.00	4,000.00	252.20	20,176.00
12	8" Gate Valve	EA	9	1,200.00	10,800.00	1,380.00	12,420.00	1,261.00	11,349.00
13	6" Gate Valve	EA	5	900.00	4,500.00	910.00	4,550.00	1,164.00	5,820.00
14	4" Gate Valve	EA	2	700.00	1,400.00	790.00	1,580.00	776.00	1,552.00
15	6" Insertion Valve	EA	1	10,000.00	10,000.00	7,050.00	7,050.00	3,880.00	3,880.00
16	4" Insertion Valve	EA	1	8,000.00	8,000.00	7,050.00	7,050.00	3,395.00	3,395.00
17	Air Release Valve	EA	1	750.00	750.00	950.00	950.00	3,395.00	3,395.00
18	Directional Bore No. 1 (8" Pipe) (Pigeon Roost Creek)	LS	1	45,000.00	45,000.00	48,000.00	48,000.00	33,950.00	33,950.00
19	Directional Bore No. 2-8 (Creek Crossing, 8" Pipe)	EA	7	30,000.00	210,000.00	28,700.00	186,900.00	33,950.00	237,850.00
20	Directional Bore No. 9 (6" Pipe)	LS	1	25,000.00	25,000.00	65,500.00	65,500.00	33,950.00	33,950.00
21	6" Blowoff Assembly	EA	10	1,800.00	18,000.00	2,250.00	22,500.00	3,104.00	31,040.00
22	4" Blowoff Assembly	EA	4	1,500.00	6,000.00	1,950.00	7,800.00	2,910.00	11,640.00
23	3" Blowoff Assembly	EA	1	1,500.00	1,500.00	1,770.00	1,770.00	2,716.00	2,716.00
24	8" x 8" Tapping Sleeve & Valve	EA	1	1,500.00	1,500.00	3,510.00	3,510.00	3,880.00	3,880.00
25	6" x 6" Tapping Sleeve & Valve	EA	5	3,000.00	15,000.00	2,960.00	14,800.00	3,886.00	19,430.00
26	4" x 4" Tapping Sleeve & Valve	EA	1	2,500.00	2,500.00	2,850.00	2,850.00	3,395.00	3,395.00
27	Fire Hydrant	EA	3	4,200.00	12,600.00	3,750.00	11,250.00	3,298.00	9,894.00
28	Cut and Cap Existing Line	EA	3	1,500.00	4,500.00	1,550.00	4,650.00	2,716.00	8,148.00
29	Master Meter Station	EA	1	15,000.00	15,000.00	45,000.00	45,000.00	34,920.00	34,920.00
30	450 GPM Pump Station	LS	1	120,000.00	120,000.00	200,000.00	200,000.00	436,500.00	436,500.00
31	120 GPM Pump Station	LS	1	110,000.00	110,000.00	150,000.00	150,000.00	213,400.00	213,400.00
32	Pressure Reducing Station	EA	1	22,000.00	22,000.00	24,000.00	24,000.00	26,190.00	26,190.00
33	Leak Detection Meter	EA	8	1,000.00	8,000.00	960.00	7,680.00	2,910.00	23,280.00
34	Gray Hawk Solenoid Valve	EA	1	35,000.00	35,000.00	11,000.00	11,000.00	4,365.00	4,365.00
35	Free Bore	LF	1,000	25.00	25,000.00	36.00	36,000.00	291.00	291,000.00
36	Crushed Stone	LF	2,000	15.00	30,000.00	7.50	15,000.00	29.10	58,200.00
37	Light Duty Bituminous	LF	2,800	20.00	56,000.00	35.00	98,000.00	19.40	54,440.00
TOTAL BASE BID					\$1,796,450.00		\$1,822,274.00		\$3,450,775.00

Alternate No. 1				B.P. Pipeline, LLC 269 Pebbles Lane Quincy, KY 41166		Weddle Enterprises, Inc. 25 Shanes Lane Somerset, KY 42501		Norris Bros. Excavating 1007 Rodgers Road Crossville, TN 38572	
Item No.	Item Description	Unit	Quantity	Unit Cost	Cost	Unit Cost	Cost	Unit Cost	Cost
1	Birch Lick Tank Demolition	LS	1	\$60,000.00	\$60,000.00	\$15,000.00	\$15,000.00	\$145,500.00	\$145,500.00

The above is a true and complete tabulation of the Bids received by Jackson County Water Association at their office located at US 421 South, Tyner, KY, on February 28, 2017 at 2:00 P.M. Local Time.

BID TABULATIONS

KENVIRONS, INC.
452 Versailles Road
Frankfort, KY 40601

Owner: Jackson County Water Association
Project: Contract 2: 500,000 Gallon McCammon Ridge Road W.S.T.
Bid Date: February 28, 2017 at 2:00 P.M. Local Time

Project No. 2013077

Base Bid				Phoenix Fabricators & Erectors, Inc. 182 South County Road 900 E Avon, IN 46123		Caldwell Tanks, Inc. P.O. Box 35770 Louisville, KY 40232	
Item No.	Item Description	Unit	Quantity	Unit Cost	Cost	Unit Cost	Cost
1	500,000 Gallon Elevated Water Storage Tank	LS	1	\$560,967.00	\$560,967.00	\$462,340.00	\$462,340.00
2	Earthwork	LS	1	13,600.00	13,600.00	2,230.00	2,230.00
3	Foundation	LS	1	72,100.00	72,100.00	160,340.00	160,340.00
4	Painting	LS	1	84,400.00	84,400.00	153,750.00	153,750.00
5	Yard Work including lined channels & site restoration	LS	1	29,000.00	29,000.00	8,340.00	8,340.00
6	Yard Piping	LS	1	35,500.00	35,500.00	33,230.00	33,230.00
7	Check Valve Station	LS	1	15,000.00	15,000.00	11,450.00	11,450.00
8	Fencing	LF	360	21.50	7,740.00	25.00	9,000.00
9	Access Road	LS	1	9,500.00	9,500.00	1,120.00	1,120.00
TOTAL BASE BID					\$827,807.00		\$841,800.00

The above is a true and complete tabulation of the Bids received by Jackson County Water Association at their office located at US 421 South, Tyner, KY, on February 28, 2017 at 2:00 P.M. Local Time.

By: _____

Eddie W. Brown, P.E.

3-8-17
Date



F:\PROJECTS\2013\2013077\Bid Tab Contract 2 & 3

BID TABULATIONS

KENVIRONS, INC.
452 Versailles Road
Frankfort, KY 40601


Owner: Jackson County Water Association
Project: Contract 3: 100,000 Gallon Morrill W.S.T.
Bid Date: February 28, 2017 at 2:00 P.M. Local Time

Project No. 2013077

Base Bid				Phoenix Fabricators & Erectors, Inc. 182 South County Road 900 E Avon, IN 46123		Caldwell Tanks, Inc. P.O. Box 35770 Louisville, KY 40232	
Item No.	Item Description	Unit	Quantity	Unit Cost	Cost	Unit Cost	Cost
1	100,000 Gallon Elevated Water Storage Tank	LS	1	\$279,522.00	\$279,522.00	\$244,540.00	\$244,540.00
2	Earthwork	LS	1	5,600.00	5,600.00	2,230.00	2,230.00
3	Foundation	LS	1	27,260.00	27,260.00	108,560.00	108,560.00
4	Painting	LS	1	51,100.00	51,100.00	66,630.00	66,630.00
5	Yard Work including lined channels & site restoration	LS	1	24,000.00	24,000.00	7,780.00	7,780.00
6	Yard Piping	LS	1	25,300.00	25,300.00	21,120.00	21,120.00
7	Check Valve Station	LS	1	15,000.00	15,000.00	9,230.00	9,230.00
8	Fencing	LF	280	24.00	6,720.00	30.00	8,400.00
9	Access Road	LS	1	4,500.00	4,500.00	1,120.00	1,120.00
10	Tank Demolition	LS	1	20,400.00	20,400.00	28,890.00	28,890.00
TOTAL BASE BID					\$459,402.00		\$498,500.00

The above is a true and complete tabulation of the Bids received by Jackson County Water Association at their office located at US 421 South, Tyner, KY, on February 28, 2017 at 2:00 P.M. Local Time.

By:


Eddie W. Brown, P.E.

3-8-17
Date



PRELIMINARY ENGINEERING REPORT
FOR THE
JACKSON COUNTY WATER ASSOCIATION

**TRANSMISSION MAIN FROM MCKEE TO SANDGAP AND
MORRILL WATER LINE IMPROVEMENTS**

PROJECT NO. 2013077

SEPTEMBER 2014

TABLE OF CONTENTS

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5.0 ALTERNATIVE CONSIDERED	3
6.0 SELECTED ALTERNATIVE	3
7.0 PROPOSED PROJECT	3-4
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EXHIBITS

- EXHIBIT 1 – OPINION OF PROBABLE CONSTRUCTION COSTS
- EXHIBIT 2 – OPINION OF PROBABLE PROJECT COST AND FUNDING
- EXHIBIT 3 – PROJECT MAPS

1.0 INTRODUCTION

The Jackson County Water Association (JCWA) was formed in 1970 to provide a dependable supply of potable water to the rural areas of Jackson County. In 1973 the initial facilities of JCWA consisted of a 0.50 million gallons per day (mgd) water treatment plant (WTP), approximately 45 miles of distribution lines, two water storage tanks and approximately 500 customers. Since its inception, JCWA has grown steadily and the water system now includes over 300 miles of lines, nine storage tanks and 4,578 customers. In 2012, the average daily production from the Association's expanded WTP was 0.93 mgd.

The primary raw water supply for JCWA is Tyner Lake, which is also referred to as Lake Beulah. The reservoir has an adequate storage volume, 550,000,000 gallons, but the drainage area, or watershed, only encompasses a one square mile area. The small watershed severely limits the reservoir's sustainable yield to 0.70 mgd, which is less than Water Association's current average demand. In 2004, a supplemental intake was constructed along a small stream approximately 1.5 miles from Tyner Lake which increased the sustainable yield of the raw water supply to approximately 1.0 mgd. Even though the raw water supply infrastructure was adequate for current demands, the additional capacity provided by the supplemental intake was only a short-term solution and continued growth of JCWA's system would eventually surpass its safe yield.

A project implemented in 2011 increased the safe yield of the raw water supply to 2.25 mgd, the rated capacity of JCWA's water treatment plant. The project consisted of a new intake located on the South Fork of the Rockcastle River, two booster pump stations, and approximately 70,000 feet of 16" transmission main. The transmission main followed existing roads from the proposed intake site and connected to the existing raw water main installed for the current supplemental intake.

2.0 PROJECT PLANNING AREA

Jackson County is located in the heart of the Daniel Boone National Forest in eastern Kentucky. The county seat is the City of McKee, which is located near the geographic center of the county. McKee is approximately 47 miles southeast of Lexington and 20 miles north of London. The Water Association's service area covers the majority of Jackson County, except for the immediate area in and around the City of McKee and a small portion in the southern part of the county. These two areas are served by the City of McKee and the Wood Creek Water District, respectively. Approximately 75 percent of the County's population is connected to a public water system with the remaining residents relying on groundwater or cisterns for drinking water. JCWA wholesales potable water to

the City of McKee, City of Beattyville, and the Eastern Rockcastle County Water Association. Figure 1 shows the service boundaries of the water service providers in Jackson County.

The Water Association's treatment plant and raw water supply reservoir are located 5.7 miles southeast of McKee and 2.3 miles north of Tyner, Kentucky.

The proposed project is generally located in the northern portion of Jackson County. According to the Soil Survey of Jackson and Owsley Counties, Kentucky, prepared by the USDA Soil Conservation Service, the major natural resources in the area are soil, water, timber, coal, and limestone. Within the proposed project's area, soil, water, and timber are the primary natural resources. The terrain is typically hilly rather than steep in the northern portion of the county and beef cattle and dairy cattle farms are common. An Environmental Report for the proposed project contains a more detailed discussion of the environmental resources within the project planning area.

3.0 EXISTING FACILITIES

JCWA owns and operates a water treatment plant and potable water distribution system in Jackson County, Kentucky. The original 0.50 mgd WTP was constructed in 1973 and is located at the toe of dam impounding Tyner Lake. In 2005, a new 2.25 mgd WTP was constructed next to the old facility. The WTP is in excellent condition and the quality of the water produced exceeds the current drinking water regulations. During 2012, the plant produced an average of 0.93 mgd which equates to 41% of the design capacity.

Tyner Lake is the primary raw water source for JCWA. The earthen dam was constructed in 1969 through the Kentucky Department of Natural Resources. The impoundment has a usable storage volume of 550,000,000 gallons, and the drainage area into the reservoir is 670 acres, or roughly one square mile. The earthen dam is in satisfactory condition, but the concrete riser is experiencing leaks and some accumulation of sediment has occurred over the years.

The project facilities installed during 2010-2011 increased the safe yield of the raw water supply to 2.25 MGD which is the rated capacity of the JCWA treatment facility. The Preliminary Engineering Report entitled Supplemental Raw Water Intake on the South Fork of the Rockcastle River and dated March, 2009 is incorporated herein by reference.

4.0 NEED FOR PROJECT

The primary transmission main for the northern portion of the county is a 6-inch pipeline constructed in the early 1970's to serve 145 customers. Presently this 6-inch main serves almost 2,000 existing customers in Jackson, Rockcastle and Estill counties and an industry. The increased demands in the northern areas of Jackson County has rendered the existing 6-inch main and associated facilities inadequate. Reinforcements for the facilities are needed for continued reliable and adequate service. The proposed storage tank in the Tyner area will be needed to provide adequate storage and pressure to transport water to the northern area of the system and enhance the pressure in the Tyner area and southern portion of the system when necessary. The new 6-inch C900 water line installed to the Morrill tank will act as a transmission main and no customers will be connected. The existing 6-inch will continue to serve the existing customers. This will allow more flow to the area without increasing the customer's pressure or over pressurizing the existing line. A new 100,000 gallon elevated water storage tank will be included in the Morrill Area to accommodate growth.

5.0 ALTERNATIVES CONSIDERED

The alternatives for remediation of the current supply and pressure problems are:

- (1) Provide system reinforcements for the transmission and distribution of the increase demands in the northern areas of the system. This alternative will eliminate the existing problem.
- (2) Continue operation of the inadequate system which will ultimately result in sanctions and required action by the PSC and/or KDOW.
- (3) Purchased water quantities from other utilities is always a consideration but no other adequate water supplies exist in the subject area.

6.0 SELECTED ALTERNATIVE

The selected alternative is the construction of the reinforcement facilities described hereinafter in Section 7.0 PROPOSED PROJECT.

7.0 PROPOSED PROJECT

The proposed project will consist of 42,000 LF of 8-inch PVC transmission pipeline from McKee to Sand Gap. A new 500,000 gallon elevated tank is

proposed at Tyner. The existing 6-inch pipeline will be converted to a distribution pipeline and will back feed from the Sand Gap and Birch Lick tanks to serve existing customers. Included also is a new solenoid controlled valve installation in the Birch Lick pump station which will replace the existing pumps allowing the proposed tank at Tyner to gravity feed the Birch Lick tank. A new pump station is proposed at Sand Gap on the new 8-inch transmission main which will be fed from the proposed new tank at Tyner and pump to the existing tanks at Sand Gap. Also included is approximately 12,500 feet of 6-inch C900 transmission main, pump station and a 100,000 gallon elevated water storage tank in the Morrill Area. Extensions into unserved areas with new customer additions are not included in this project.

8.0 LAND, RIGHTS, AND PERMITS

The tanks and booster pump stations will be constructed on permanent easements which are being obtained by JCWA. Easements will also be obtained for instances where the pipeline is proposed on private property. The majority of the transmission main is planned to be constructed on public right-of-way and will require encroachment permits from the County and Kentucky Department of Highways.

Submittal to the Public Service Commission will be required for a "*Certificate of Public Convenience and Necessity*". Final plans and specifications will be submitted for approval to the Kentucky Division of Water (KDOW).

9.0 CONCLUSIONS AND RECOMMENDATIONS

It is the conclusion and recommendation of this report that the water association implement the proposed project as described herein in Section 7 PROPOSED PROJECT. It is further recommendation that JCWA proceed with its "Applications for Federal Assistance" to fund the project, and preparation of final plans and specifications for KDOW approval.

An evaluation of the Water Association's current operating budget and the proposed project's capital, operating and maintenance costs was conducted to determine the project's impact on the water user rates. Based on the information contained in the Water Association's 2012 Annual Report to the Public Service Commission and the funding scenario outlined in Exhibit 2, the user rates need to be increased by ___% to finance the proposed project.

A Summary Addendum To Preliminary Engineering Report, Kentucky Guide 7 will be completed at a later date. The Summary Addendum outlines the project's feasibility.

EXHIBITS

EXHIBIT 1

**Jackson County Water Association
Transmission Main from McKee to Sandgap and
Morrill Water Line Improvements**

Opinion of Probable Cost

August 11, 2014

Transmission Main from McKee to Sandgap

Item No.	Item	Unit	Quantity	Unit Price	Item Price
1	8" PVC Transmission Main	LF	42,000	\$40.00	\$1,680,000.00
2	Bored Encasement for 8" Pipe	LF	120	150.00	18,000.00
3	Open Cut Encasement for 8" Pipe	LF	300	100.00	30,000.00
4	8" Gate Valve	EA	20	2,000.00	40,000.00
5	8" Directional Creek Crossing	LF	300	110.00	33,000.00
6	Tie-In to Existing Water Line	EA	4	3,000.00	12,000.00
7	400 GPM Pump Station	EA	1	200,000.00	200,000.00
8	500,000 Gallon Elevated Water Storage Tank	EA	1	1,000,000.00	1,000,000.00
9	New Solenoid Station	EA	1	50,000.00	50,000.00
10	Crushed Stone	LF	1,600	10.00	16,000.00
11	Light Duty Bituminous	LF	3,500	30.00	105,000.00
Transmission Main Estimated Construction Cost					\$3,184,000.00

Morrill Water Line Improvements

Item No.	Item	Unit	Quantity	Unit Price	Item Price
1	6" C900 Water Line	LF	12,500	\$20.00	\$250,000.00
2	Bored Encasement for 6" Pipe	LF	150	120.00	18,000.00
3	Open Cut Encasement for 6" Pipe	LF	350	80.00	28,000.00
4	6" Gate Valve	EA	20	1,500.00	30,000.00
5	6" Directional Creek Crossing	LF	40	100.00	4,000.00
6	Tie-In to Existing Water Line	EA	2	3,000.00	6,000.00
7	150 GPM Pump Station	EA	1	200,000.00	200,000.00
8	100,000 Gallon Elevated Water Storage Tank	EA	1	500,000.00	500,000.00
9	Crushed Stone	LF	500	10.00	5,000.00
10	Light Duty Bituminous	LF	500	30.00	15,000.00
Morell Improvements Estimated Construction Cost					\$1,056,000.00

Estimated Project Budget

Total Estimated Construction Cost	\$4,240,000.00
Contingency	424,000.00
Engineering Design	291,000.00
Construction Observation	155,000.00
Preliminary Engineering Report	15,000.00
Geotechnical Report	20,000.00
Environmental Study	15,000.00
Administration	50,000.00
Legal	15,000.00
Land	50,000.00
Interest	25,000.00

Total Estimated Project Cost

\$5,300,000.00

EXHIBIT 2

OPINION OF PROBABLE PROJECT COST AND FUNDING

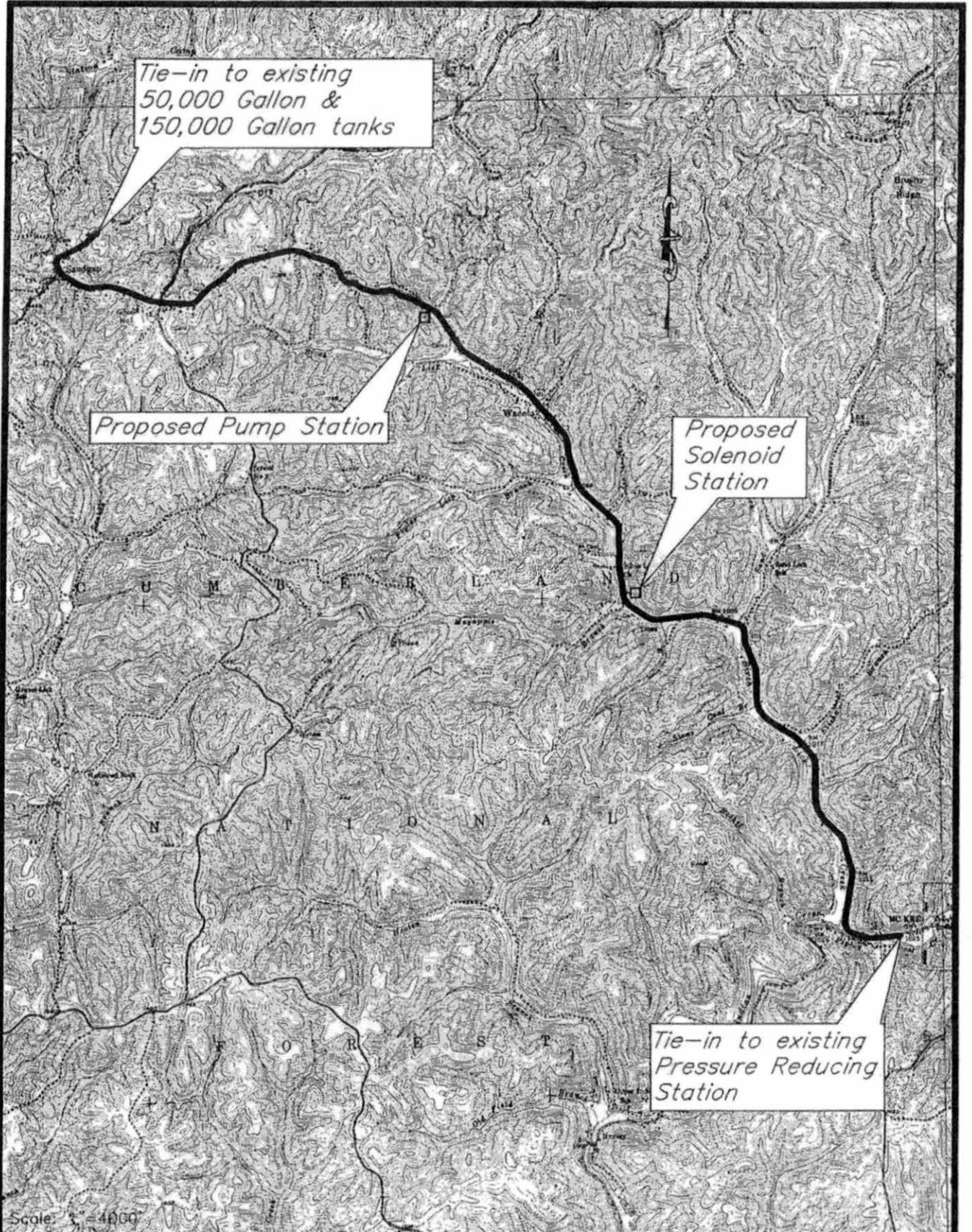
Project Cost

1. CONSTRUCTION COST		\$4,240,000
2. ENGINEERING		
Preliminary Engineering Report	\$15,000	
Design	291,000	
Construction Observation	155,000	
Environmental	15,000	
Geotechnical Investigation	<u>20,000</u>	
		\$496,000
3. LEGAL		
Local Counsel	\$5,000	
Bond Counsel	<u>10,000</u>	
		\$15,000
4. CAPITALIZED INTEREST		25,000
5. CONTINGENCIES		424,000
6. ADMINISTRATION		50,000
7. LAND AND RIGHTS-OF-WAY		<u>50,000</u>
TOTAL PROJECT COST		\$5,300,000

Project Funding

Rural Development Loan	\$3,367,419
Rural Development Grant @ 30%	1,443,180
Owner Contribution	<u>489,401</u>
TOTAL PROJECT FUNDING	\$5,300,000

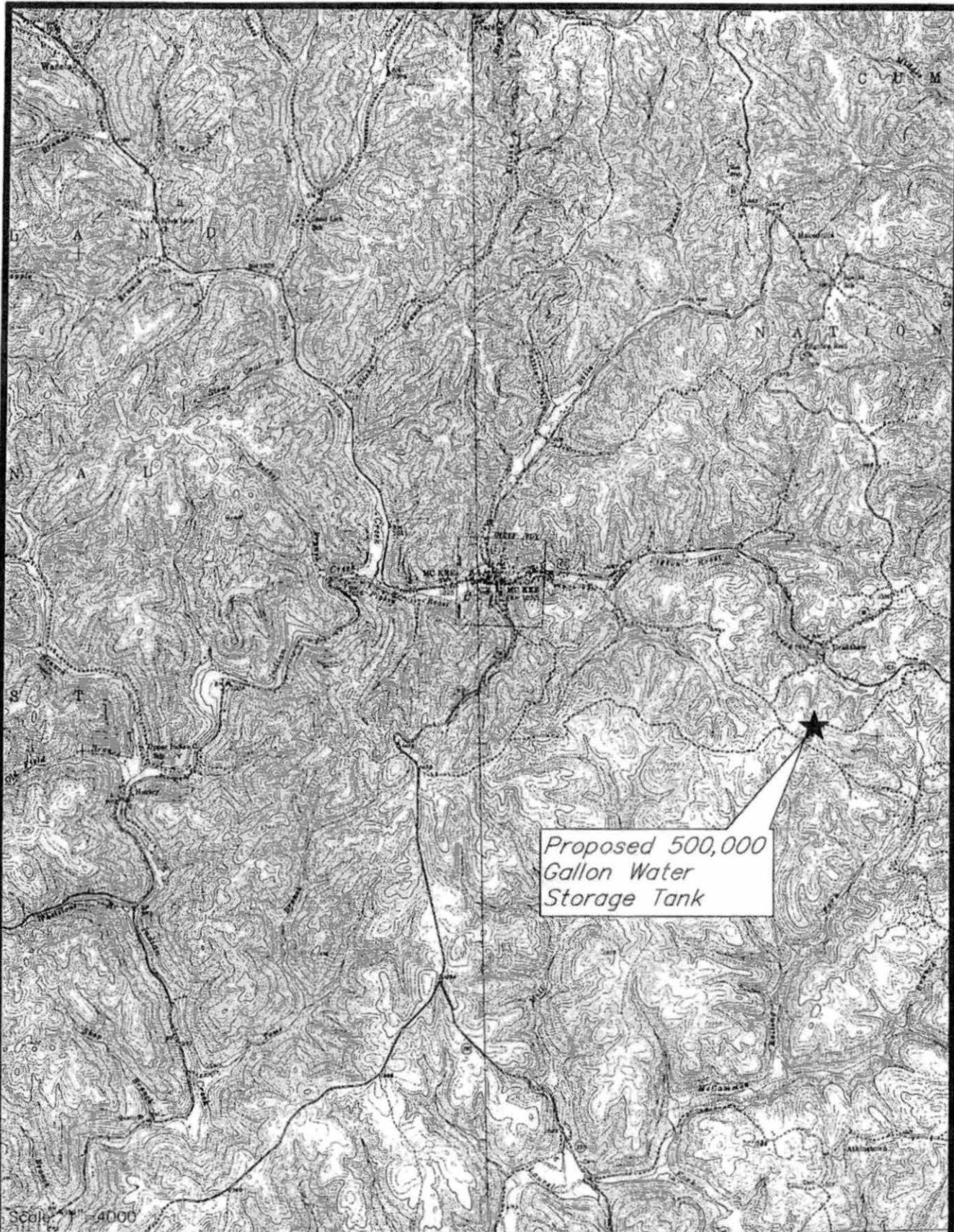
EXHIBIT 3



KENVIRONS, INC.

452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
(502) 695-4357

JACKSON COUNTY WATER ASSOCIATION
TRANSMISSION MAIN FROM MCKEE TO SANDGAP AND
MORRILL WATER LINE IMPROVEMENTS
JACKSON COUNTY, KENTUCKY
SHEET 1 OF 3



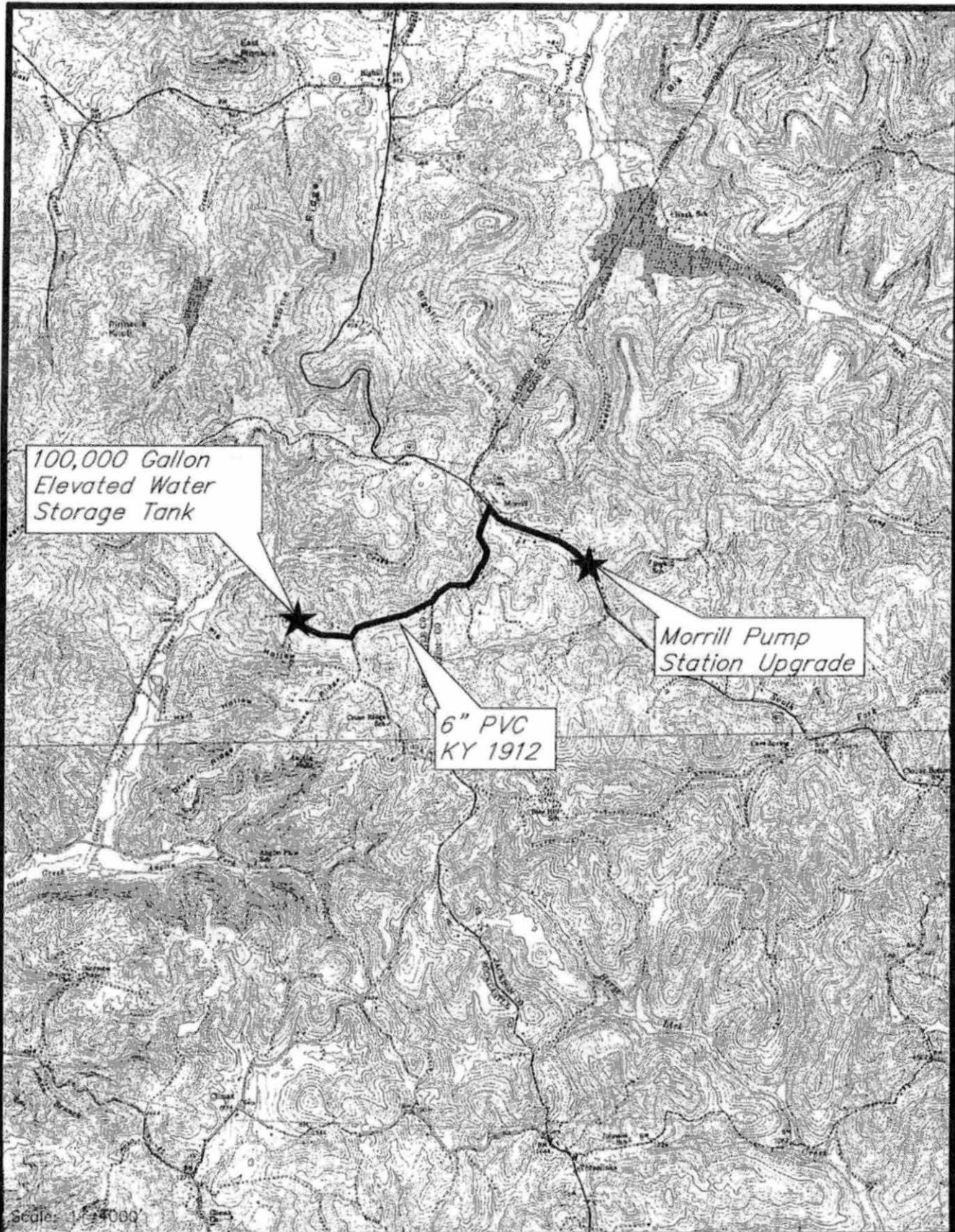
Proposed 500,000
Gallon Water
Storage Tank



KENVIRONS, INC.

452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
(502) 896-4357

JACKSON COUNTY WATER ASSOCIATION
TRANSMISSION MAIN FROM MCKEE TO SANDGAP AND
MORRILL WATER LINE IMPROVEMENTS
JACKSON COUNTY, KENTUCKY
SHEET 2 OF 3



Scale: 1" = 4000'



KENVIRONS, INC.

452 VERSAILLES ROAD, FRANKFORT, KENTUCKY
(502) 695-4367

JACKSON COUNTY WATER ASSOCIATION
TRANSMISSION MAIN FROM MCKEE TO SANDGAP AND
MORRILL WATER LINE IMPROVEMENTS
JACKSON COUNTY, KENTUCKY
SHEET 3 OF 3

EXHIBIT 2



August 7, 2015

Mr. Howard Williams, President
Jackson County Water Association, Inc.
P. O. Box 232
Tyner, Kentucky 40486

COPY

Dear Mr. Williams:

This letter establishes conditions which must be understood and agreed to by you before further consideration may be given to the application. The loan and grant will be administered on behalf of the Rural Utilities Service (RUS) by the State and Area office staff of USDA Rural Development. Any changes in project cost, source of funds, scope of services or any other significant changes in the project or applicant must be reported to and approved by USDA Rural Development, by written amendment to this letter. Any changes not approved by Rural Development shall be cause for discontinuing processing of the application. It should also be understood that Rural Development is under no obligation to provide additional funds to meet an overrun in construction costs.

This letter is not to be considered as loan or grant approval or as a representation as to the availability of funds. The docket may be completed on the basis of a RUS loan not to exceed \$3,907,000; a RUS grant not to exceed \$905,000; and an applicant cash contribution in the amount of \$488,000.

If Rural Development makes the loan, the interest rate will be the lower of the rate in effect at the time of loan approval or the rate in effect at the time of loan closing, unless the applicant otherwise chooses. The loan will be considered approved on the date a signed copy of Form RD 1940-1, "Request for Obligation of Funds," is mailed to you.

Please complete and return the attached Form RD 1942-46, "Letter of Intent to Meet Conditions," if you desire that further consideration be given to your application.

The "Letter of Intent to Meet Conditions" must be executed within three weeks from the date of this letter or it becomes invalid unless a time extension is granted by Rural Development.

If the conditions set forth in this letter are not met within 240 days from the date hereof, Rural Development reserves the right to discontinue the processing of the application.

In signing Form RD 1942-46, "Letter of Intent to Meet Conditions," you are agreeing to complete the following as expeditiously as possible:

Rural Development • Kentucky State Office
771 Corporate Drive, Suite 200, Lexington, Kentucky 40502
Voice (859) 224-7300 • Fax (859) 224-4748 • TTY (859) 224-7422

USDA is an equal opportunity provider and employer.

1. Number of Users and Their Contribution:

There shall be 4,592 water users, all of which are existing users. The Area Director will review and authenticate the number of users and amount of connection fees prior to advertising for construction bids.

2. Grant Agreement:

Attached is a copy of RUS Bulletin 1780-12, "Water and Waste System Grant Agreement," for your review. You will be required to execute a completed form at the time of grant closing.

3. Drug-Free Work Place:

Prior to grant closing, the Association will be required to execute Form AD-1049, "Certification Regarding Drug-Free Workplace Requirements (Grants) Alternative 1 - For Grantees Other Than Individuals."

4. Repayment Period:

The loan will be scheduled for repayment over a period not to exceed 40 years from the date of the Promissory Note. Principal payment will not be deferred for a period in excess of two years from the date of the Promissory Note. The Association may be required to adopt a supplemental payment agreement providing for monthly payments of principal and interest so long as the Promissory Note is held or insured by RUS. Monthly payments will be approximate amortized installments.

5. Recommended Repayment Method:

Payments on this loan shall be made using the Preauthorized Debit (PAD) payment method. This procedure eliminates the need for paper checks and ensures timely receipt of RD loan payments. To initiate PAD payments, Form RD 3550-28, "Authorization Agreement for Preauthorized Payments," should be signed by the Association to authorize the electronic withdrawal of funds from your designated bank account on the exact installment payment due date. The Area Director will furnish the necessary forms and further guidance on the PAD procedure.

6. Reserve Accounts:

Reserves must be properly budgeted to maintain the financial viability of any operation. Reserves are important to fund unanticipated emergency maintenance, pay for repairs, and assist with debt service should the need arise.

The Association will be required to deposit \$1,260 per month into a "Funded Debt Reserve Account" until the account reaches \$151,200. The deposits are to be resumed any time the account falls below the \$151,200.

The required monthly deposits to the Reserve Account and required Reserve Account levels are in addition to the requirements of the Association's prior loan resolutions.

The monthly deposits to the Reserve Account are required to commence with the first month of the first full fiscal year after the facility becomes operational.

The Association also needs to fund an account for short-lived assets by depositing a sum of \$20,251 monthly to the account. The funds in the short-lived asset account may be used by the Association as needed to replace or add short-lived assets in the Association's water system.

7. Security Requirements:

The loan will be secured by a real estate mortgage, a financing statement, and a pledge of gross water revenue, in the Loan Resolution and Financing Statement.

8. Land Rights and Real Property:

The Association will be required to furnish satisfactory title, easements, etc., necessary to install, maintain and operate the facility to serve the intended users. The pipelines will be on private rights-of-way where feasible. Easements and options are to be secured prior to advertising for construction bids.

9. Organization:

The Association will be legally organized under applicable KRS, which will permit them to perform this service, borrow, or repay money.

The Association must maintain a current registration of their Dun and Bradstreet Data Universal Numbering System (DUNS) number in SAM.gov (System for Award Management) in order to receive federal loan and/or grant financial assistance. This registration must be updated/renewed at least annually.

10. Business Operations:

The Association will be required to operate the system under a well-established set of resolutions, rules and regulations. A budget must be established annually and adopted by the Association after review by Rural Development. At no later than loan pre-closing, the Association will be required to furnish a prior approved management plan to include, as a minimum, provisions for management, maintenance, meter reading, miscellaneous services, billing, collecting, delayed payment penalties, disconnect/reconnect fees, bookkeeping, making and delivering required reports and audits.

11. Accounts, Records and Audits:

The Association will be required to maintain adequate records and accounts and submit annual budgets and year-end reports (annual audits)/statistical and financial reports, quarterly and annually, in accordance with subsection 1780.47 of RUS Instruction 1780.

12. Accomplish Audits for Years in Which Federal Financial Assistance is Received:

The Association will accomplish audits in accordance with OMB Circular A-133, during the years in which federal funds are received. The Association will provide copies of the audits to the Area Office and the appropriate Federal cognizant agency as designated by OMB Circular A-133.

13. Insurance and Bonding:

The following insurance and bonding will be required:

- A. Adequate Liability and Property Damage Insurance including vehicular coverage, if applicable, must be obtained and maintained by the Association. The Association should obtain amounts of coverage as recommended by its attorney, consulting engineer and/or insurance provider.
- B. Worker's Compensation - The Association will carry worker's compensation insurance for employees in accordance with applicable state laws.
- C. Fidelity Bond - The Association will provide Fidelity Bond Coverage for all persons who have access to funds. Coverage may be provided either for all individual positions or persons, or through "blanket" coverage providing protection for all appropriate employees and/or officials. The amount of coverage required for all RUS loans is \$560,000.
- D. Real Property Insurance - The Association will obtain and maintain adequate fire and extended coverage on all structures including major items of equipment or machinery located in the structures. The amounts of coverage should be based on recommendations obtained by the Association from its attorney, consulting engineer and/or insurance provider. Subsurface lift stations do not have to be covered except for the value of electrical and pumping equipment therein.
- E. Flood Insurance - The Association will obtain and maintain adequate coverage on any facilities located in special flood and mudslide prone areas.

14. Planning and Performing Development:

- A. The engineer should not be authorized to commence work on final plans and specifications until a determination has been made that the project can be planned and constructed within the estimated cost shown in paragraph "24" of this letter. The engineer may then proceed to develop final plans and specifications to be completed no later than 210 days from this date, and prepare bid documents. The Area Director is prepared to furnish the necessary guide to follow so as to keep the project plans and documents within our guidelines and requirements. The project should not be advertised for construction bids until all easements and enforceable options have been obtained, and total funds are committed or available for the project.
- B. The following documents will be submitted to Rural Development for review and must be concurred in by Rural Development prior to advertisement for construction bids:
 - 1. Final plans, specifications and bid documents.
 - 2. Applicant's letter on efforts to encourage small business and minority - owned business participation.
 - 3. Legal Service Agreements.
 - 4. Engineering Agreements.

Revision in these documents will be subject to Rural Development concurrence. Any agreements, contracts, etc. not reviewed and approved by Rural Development will not be eligible for payment from project funds or revenues from facilities financed by this Agency.

15. Civil Rights & Equal Opportunity:

You should be aware of and will be required to comply with other federal statute requirements including but not limited to:

A. Section 504 of the Rehabilitation Act of 1973:

Under Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), no handicapped individual in the United States shall, solely by reason of their handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Rural Development financial assistance.

B. Civil Rights Act of 1964:

All borrowers are subject to, and facilities must be operated in accordance with, Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d *et seq.*) and Subpart E of Part 1901 of this Title, particularly as it relates to conducting and reporting of compliance reviews. Instruments of conveyance for loans and/or grants subject to the Act must contain the covenant required by paragraph 1901.202(e) of this Title.

C. The Americans with Disabilities Act (ADA) of 1990:

This Act (42 U.S.C. 12101 *et seq.*) prohibits discrimination on the basis of disability in employment, state and local government services, public transportation, public accommodations, facilities, and telecommunications. Title II of the Act applies to facilities operated by state and local public entities that provide services, programs, and activities. Title III of the Act applies to facilities owned, leased, or operated by private entities that accommodate the public.

D. Age Discrimination Act of 1975:

This Act (42 U.S.C. 6101 *et seq.*) provides that no person in the United States shall, on the basis of age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.

Rural Development financial programs must be extended without regard to race, color, religion, sex, national origin, marital status, age, or physical or mental handicap.

16. Closing Instructions:

The Office of General Counsel, our Regional Attorney, will be required to write closing instructions in connection with this loan. Conditions listed therein must be met by the Association.

17. Compliance with Special Laws and Regulations:

The Association will be required to conform to any and all state and local laws and regulations affecting this type project.

18. Treatment Plant and System Operator:

The Association is reminded that the treatment plant and system operator must have an Operator's Certificate issued by the State.

19. Prior to Pre-Closing the Loan, the Association Will Be Required to Adopt:

- A. Form RD 1942-8, "Resolution of Members or Stockholders."
- B. Form RUS Bulletin 1780-28, "Loan Resolution Security Agreement."
- C. Form RD 400-1, "Equal Opportunity Agreement."
- D. Form RD 400-4, "Assurance Agreement."
- E. Form AD-1047, "Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transaction."
- F. Form RD 1910-11, "Applicant Certification Federal Collection Policies for Consumer or Commercial Debts."
- G. RD-Instruction-1940-Q, Exhibit-A-1, "Certification for Contracts, Grants and Loans."
- H. RUS Bulletin 1780-22, "Eligibility Certification."

20. Refinancing and Graduation Requirements:

The Association is reminded that if at any time it shall appear to the Government that the Association is able to refinance the amount of the RUS indebtedness then outstanding, in whole or in part, by obtaining a loan from commercial sources at reasonable rates and terms, upon the request of the Government, the Association will apply for and accept such loan in sufficient amount to repay the Government.

21. Commercial Interim Financing:

The Association will be required to use commercial interim financing for the project during construction for the RUS loan portion of the financing, if available at reasonable rates and terms.

Before the loan is closed, the Association will be required to provide Rural Development with statements from the contractor, engineer and attorneys that they have been paid to date in accordance with their contract or other agreements and, in the case of the contractor, that he has paid his suppliers and sub-contractors.

22. Disbursement of Project Funds:

A construction account for the purpose of disbursement of project funds (RUS) will be established by the Association prior to start of construction. The position of officials entrusted with the receipt and disbursement of RUS project funds will be covered by a "Fidelity Bond," with USDA Rural Development as Co-Obligee, in the amount of construction funds on hand at any one time during the construction phase.

For each "construction account" as established, if the amount of RUS loan and grant funds plus any applicant contributions or funds from other sources to be deposited into the account are expected to exceed \$250,000 at any time, the financial institution will secure the amount in excess of \$250,000 by pledging collateral with the Federal Reserve Bank in an amount not less than the excess in accordance with 7 CFR, 1902.7(a).

During construction, the Association shall disburse project funds in a manner consistent with subsection 1780.76 (e) of RUS Instruction 1780: Form RD 1924-18, "Partial Payment Estimate," or similar form approved by Rural Development, shall be used for the purpose of documenting periodic construction estimates, and shall be submitted to Rural Development for review and acceptance. Prior to disbursement of funds by the Association, the Board of Directors shall review and approve each payment estimate. All bills and vouchers must be approved by Rural Development prior to payment by the Association.

Form RD 440-11, "Estimate of Funds Needed for 30-Day Period Commencing _____," will be prepared by the Association and submitted to Rural Development in order that a periodic advance of federal cash may be requested.

Borrowers receiving federal loan and/or grant funds by EFT will have funds directly deposited to a specified account at a financial institution with funds being available to the recipient on the date of payment. The borrower should complete Form SF-3881, "Electronic Funds Transfer Payment Enrollment Form," for each account where funds will be electronically received. The completed form(s) must be received by Rural Development at least thirty (30) days prior to the first advance of funds.

Monthly audits of the Association's construction account records shall be made by Rural Development.

23. Disbursement of Grant Funds:

The RUS funds will be advanced as they are needed in the amount(s) necessary to cover the RUS proportionate share of obligations due and payable by the Association. Grant funds, upon receipt, must be deposited in an interest bearing account in accordance with 7 CFR part 3019 (as applicable). Interest earned on grant funds in excess of \$250 (as applicable) per year will be submitted to RUS at least quarterly.

24. Cost of Facility:

Breakdown of Costs:

Development	\$ 4,293,000
Legal and Administrative	20,000
Engineering	461,000
Interest	70,000
Environmental	6,000
Geotechnical Exploration	20,000
Contingencies	<u>430,000</u>
TOTAL	\$ 5,300,000

Financing:

RUS Loan	\$ 3,907,000
RUS Grant	905,000
Applicant Contribution/Connection Fees	<u>488,000</u>
TOTAL	\$ 5,300,000

25. Commitment of Other Project Funds:

This Letter of Conditions is issued contingent upon a firm commitment being in effect prior to advertising for the applicant contribution in the amount of \$488,000.

26. Use of Remaining Project Funds:

The applicant contribution fees shall be considered as the first funds expended. After providing for all authorized costs, any remaining project funds will be considered to be RUS grant funds and refunded in proportion to participation in the project. If the amount of unused project funds exceeds the grants, that part would be RUS loan funds.

27. Proposed Operating Budget:

You will be required to submit to Rural Development a copy of your proposed annual operating budget that supports the proposed loan repayment prior to this agency giving you written authorization to proceed with the bidding phase. The operating budget should be based on a typical year cash flow, subject to completion of this project in the first full year of operation. Form RD 442-7, Operating Budget, or similar form may be utilized for this purpose.

28. Rates and Charges:

Rates and charges for facilities and services rendered by the Association must be at least adequate to meet cost of maintaining, repairing and operating the water system and meeting required principal and interest payments and the required deposits to debt service and/or depreciation reserve.

Water rates (5/8" x 3/4" meters) will be at least:

First	2,000	gallons @ \$	24.05. - Minimum Bill.
Next	18,000	gallons @ \$	10.55. - per 1,000 gallons.
Next	30,000	gallons @ \$	8.74. - per 1,000 gallons.
All Over	50,000	gallons @ \$	6.84. - per 1,000 gallons.

Water rates (1" meters) will be at least:

First	5,000	gallons @ \$	55.70. - Minimum Bill.
Next	15,000	gallons @ \$	10.55. - per 1,000 gallons.
Next	30,000	gallons @ \$	8.74. - per 1,000 gallons.
All Over	50,000	gallons @ \$	6.84. - per 1,000 gallons.

Water rates (1 1/2" meters) will be at least:

First	10,000	gallons @ \$	108.45. - Minimum Bill.
Next	10,000	gallons @ \$	10.55. - per 1,000 gallons.
Next	30,000	gallons @ \$	8.74. - per 1,000 gallons.
All Over	50,000	gallons @ \$	6.84. - per 1,000 gallons.

Water rates (2" meters) will be at least:

First	20,000	gallons @ \$	213.95. - Minimum Bill.
Next	30,000	gallons @ \$	8.74. - per 1,000 gallons.
All Over	50,000	gallons @ \$	6.84. - per 1,000 gallons.

Water rates (3" meters) will be at least:

First	30,000	gallons @ \$	301.35. - Minimum Bill.
Next	20,000	gallons @ \$	8.74. - per 1,000 gallons.
All Over	50,000	gallons @ \$	6.84. - per 1,000 gallons.

Water rates (4" meters) will be at least:

First	40,000	gallons @ \$	388.75. - Minimum Bill.
Next	10,000	gallons @ \$	8.74. - per 1,000 gallons.
All Over	50,000	gallons @ \$	6.84. - per 1,000 gallons.

Wholesale rates will be in accordance with proposed and existing rate agreements.

29. Compliance with the Bioterrorism Act:

Prior to pre-closing, the Association will provide a certification they have completed a Vulnerability Assessment (VA) and prepared an emergency response plan (ERP) as required by the Safe Drinking Water Act (SDWA).

30. Floodplain Construction:

The Association will be required to pass and adopt a Resolution or amend its By-Laws whereby the Association will deny any water service to any future customer wishing to

build on or develop property located within a designated floodplain. If a customer or developer requests service for construction in a designated floodplain, the customer or developer must provide evidence and a justification for approval by the Association and Rural Development officials that there are no other alternatives to construction or development within the designated floodplain. The community must be a participant in the National Flood Insurance Program (NFIP) and the customer or developer must obtain the required permits prior to the tap on restrictions being waived.

31. Water Withdrawal Permit:

The Association will be required to obtain satisfactory evidence that a revised water withdrawal permit has been secured from the Division of Water. The permit must be obtained prior to the commencement of construction on the water project.

32. Division of Water (DOW) Health & Sanitary Certification:

The Median Household Income (MHI) for the Association's service area qualifies this project for the poverty interest rate. A certification from the Division of Water stating this project will remove a health or sanitary problem will be required. This certification must be obtained prior to loan pre-closing.

33. Mitigation Measures:

- A. The project shall be in compliance with all requirements noted in the Governor's Office for Local Development letter dated September 15, 2014, from Ms. Lee Nalley.
- B. The design and construction shall be in compliance with the requirements of the U.S. Fish and Wildlife Service as requested by letter dated June 13, 2015, and signed by Virgil Lee Andrews, Jr., Field Supervisor.
- C. The line design and construction shall be accomplished in a way that will leave flood plains and farmland without effect after construction is complete. The Army Corps of Engineers Nationwide Permit No. 12 applies to all floodplain and wetland utility line construction.
- D. Any excavation by Contractor that uncovers a historical or archaeological artifact shall be immediately reported to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the State Historic Preservation Officer (SHPO).
- E. The design and construction shall be in compliance with all local, state and federal environmental statutes, regulations and executive orders applicable to the project.
- F. Best Management Practices shall be incorporated into the project design, construction, and maintenance.

34. Final Approval Conditions:

Final approval of this assistance will depend on your willingness, with the assistance of all your co-workers, to meet the conditions of this letter in an orderly and systematic manner. Then too, final approval will depend on funds being available.

If you desire to proceed with your application, the Area Director will allot a reasonable portion of time to provide guidance in application processing.

Sincerely,

A handwritten signature in black ink, appearing to read 'Thomas G. Fern', is written over a large, light-colored oval shape.

THOMAS G. FERN
State Director

Enclosures

cc: Area Director - London, Kentucky
Cumberland Valley ADD - London, Kentucky
Jerome Fish - Mt. Vernon, Kentucky
Kenvirons - Frankfort, Kentucky
PSC - ATTN: Jeff Derouen - Frankfort, Kentucky

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All Over	50,000	gallons @ \$	6.84. - per 1,000 gallons.

Water rates (1" meters) will be at least:

First	5,000	gallons @ \$	55.70. - Minimum Bill.
Next	15,000	gallons @ \$	10.55. - per 1,000 gallons.
Next	30,000	gallons @ \$	8.74. - per 1,000 gallons.
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Water rates (3" meters) will be at least:

First	30,000	gallons @ \$	301.35. - Minimum Bill.
Next	20,000	gallons @ \$	8.74. - per 1,000 gallons.
All Over	50,000	gallons @ \$	6.84. - per 1,000 gallons.

Water rates (4" meters) will be at least:

First	40,000	gallons @ \$	388.75. - Minimum Bill.
Next	10,000	gallons @ \$	8.74. - per 1,000 gallons.
All Over	50,000	gallons @ \$	6.84. - per 1,000 gallons.

Wholesale rates will be in accordance with proposed and existing rate agreements.

29. Compliance with the Bioterrorism Act:

Prior to pre-closing, the Association will provide a certification they have completed a Vulnerability Assessment (VA) and prepared an emergency response plan (ERP) as required by the Safe Drinking Water Act (SDWA).

30. Floodplain Construction:

The Association will be required to pass and adopt a Resolution or amend its By-Laws whereby the Association will deny any water service to any future customer wishing to

EXHIBIT 3



Rural Development

April 14, 2017

Kentucky State Office

771 Corporate Drive,
Suite 200
Lexington, KY
40503


Voice 859.224.7300
Fax 859.224.7425
TTY 859.224.7422

SUBJECT: Jackson Co. Water Association
Water Line Improvements
Contract Award Concurrence

TO: Area Office
London, Kentucky

Based on the bids received and the recommendation of the consulting engineer, Rural Development concurs in the award of subject contract to the low bidder on Contract 1, Frederick and May construction Co., in the amount of \$ 1,296,128, the low bidder on Contract 2, Phoenix Fabricators and Erectors, Inc., in the amount of \$827,807, and the low bidder on Contract 3, Phoenix Fabricators and Erectors, Inc., in the amount of \$459,402. An additional Contract 4 is being designed to expend additional funds as well but has not been bid at this time.

If you have any questions, please contact Julie Anderson, State Engineer, at (859) 224-7348.



Jeff Jones
Acting State Director
Rural Development

cc: Kenvirons, Inc.
Frankfort, Kentucky

USDA is an equal opportunity provider and employer.

If you wish to file a Civil Rights program complaint of discrimination, complete the USDA Program Discrimination Complaint Form (PDF), found online at http://www.ascr.usda.gov/complaint_filing_cust.html, or at any USDA office, or call (866) 632-9992 to request the form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter to us by mail at U.S. Department of Agriculture, Director, Office of Adjudication, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, by fax (202) 690-7442 or email at program.intake@usda.gov.

EXHIBIT 4

April 10, 2017

Talina Mathews
Executive Director
Kentucky Public Service Commission
P.O. Box 615
Frankfort, KY 40602

SUBJECT: Jackson County Water Association Application for Approval pursuant to KRS 278.023

Dear Dr. Mathews:

As the Manager of Jackson County Water Association, I certify that I am the authorized utility official to provide this certification:

1. The proposed plans and specifications for the water transmission/distribution project have been designed to meet the applicable minimum construction and operating requirements set out in 807 KAR 5:066, Section 4(3) and (4), Section 5(1), Sections 6 and 7, Section 8(1) through (3), Section 9(l) and Section 10.
2. All other state approvals and permits have been obtained. Permits and approvals obtained which include:
 - A. KY Division of Water
 - B. KDOT/county encroachment permits
3. The proposed rates match the proposed rates in the PER and as required by Rural Development in the Letter of Conditions and will produce the total revenue requirements recommended in the engineering reports.
4. The anticipated beginning of construction is July, 2017 and the anticipated end of construction is April, 2018.

Should you need more information, please contact me.

Very truly yours,



Dallas Cox, President



MATTHEW G. BEVIN
GOVERNOR

CHARLES G. SNAVELY
SECRETARY

ENERGY AND ENVIRONMENT CABINET
Department for Environmental Protection

R. Bruce Scott
COMMISSIONER

300 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40601

June 29, 2016

Mr. John H Powell
Jackson Co Water Association
US 421 S
Tyner, KY 40486

RE: Jackson Co Water Association
AI # 1924, APE20160002
PWSID # 0550209-16-002
500,000 Gallon McCammon Ridge Rd WST
& 100,000 Gallon Morrill WST
Jackson County, KY

Dear Mr. Powell:

We have reviewed the plans and specifications for the above referenced project. The plans include the construction of a 500,000 gallon elevated water storage tank and a 100,000 gallon elevated water storage tank with related appurtenances. This is to advise that plans and specifications for the above referenced project are APPROVED with respect to sanitary features of design, as of this date with the requirements contained in the attached construction permit.

If you have any questions concerning this project, please contact Mr. Abbas Pourghasemi at 502-564-3410 extension 4833.

Sincerely,

Terry Humphries, P.E.
Supervisor, Engineering Section
Water Infrastructure Branch
Division of Water

TH:AP

Enclosures

C: Kenvirons Inc
Jackson County Health Department
Public Service Commission
Division of Plumbing

Distribution-Major Construction

Jackson Co Water Association

Facility Requirements

Activity ID No.:APE20160002

Page 1 of 5

GACT0000000021 (500K gal McCammon Ridge Rd & 100K Gal Morrill WST) 500,000 gallon McCammon Ridge Road and 100,000 gallon Morrill water storage tanks:

Narrative Requirements:

Condition No.	Condition
T-1	Construction of this project shall not result in the water system's inability to supply consistent water service in compliance with 401 KAR 8:010 through 8:600. [401 KAR 8:100 Section 5]
T-2	The public water system shall not implement a change to the approved plans without the prior written approval of the cabinet. [401 KAR 8:100 Section 4(3)]
T-3	A proposed change to the approved plans affecting sanitary features of design shall be submitted to the cabinet for approval in accordance with Section 2 of this administrative regulation. [401 KAR 8:100 Section 4(2)]
T-4	During construction, a set of approved plans and specifications shall be available at the job site. Construction shall be performed in accordance with the approved plans and specifications. [401 KAR 8:100 Section 3(1)]
T-5	Unless construction begins within two (2) years from the date of approval of the final plans and specifications, the approval shall expire. [401 KAR 8:100 Section 3(3)]
T-6	Upon completion of construction, a professional engineer shall certify in writing that the project has been completed in accordance with the approved plans and specifications. [401 KAR 8:100 Section 4(1)]
T-7	The system shall be designed to maintain a minimum pressure of 20 psi at ground level at all points in the distribution system under all conditions of flow. [Recommended Standards for Water Works 8.2.1, Drinking Water General Design Criteria IV.1.a]
T-8	Water storage tanks shall have a minimum 100% turnover rate of once per 72 hours. [Drinking Water General Design Criteria IV.6.a]
T-9	Minimum water level for all gravity storage tanks shall maintain a minimum design pressure of 30 psi for all potential points of use supplied by the tank. [Drinking Water General Design Criteria IV.6.b]
T-10	Separate inlet and outlet is required on storage tanks; and the inlet has to be in the upper half of the tank (unless there is a separate mixing system). [Drinking Water General Design Criteria IV.6.c]
T-11	The maximum variation between high and low levels in storage structures providing pressure to a distribution system should not exceed 30 feet. [Recommended Standards for Water Works 7.3.1]

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GACT0000000021 (500K gal McCammon Ridge Rd & 100K Gal Morrill WST) 500,000 gallon McCammon Ridge Road and 100,000 gallon Morrill water storage tanks:

Narrative Requirements:

Condition No.	Condition
T-12	Finished water storage structures which provide pressure directly to the distribution system shall be designed so they can be isolated from the distribution system and drained for cleaning or maintenance without causing a loss of pressure in the distribution system. [Recommended Standards for Water Works 7.3.2]
T-13	The storage structure drain shall discharge to the ground surface with no direct connection to a sewer or storm drain. [Recommended Standards for Water Works 7.3.2]
T-14	Adequate controls shall be provided to maintain levels in distribution system storage structures. Level indicating devices should be provided at a central location. [Recommended Standards for Water Works 7.3.3]
T-15	The minimum storage capacity (or equivalent capacity) for systems not providing fire protection shall be equal to the average daily consumption. [Recommended Standards for Water Works 7.0.1.b]
T-16	The system should be designed to facilitate turnover of water in the reservoir. [Recommended Standards for Water Works 7.0.6]
T-17	Excessive storage capacity should be avoided to prevent potential water quality deterioration problems. [Recommended Standards for Water Works 7.0.1.c]
T-18	The overflow pipe shall be of sufficient diameter to permit waste of water in excess of the filling rate. [Recommended Standards for Water Works 7.0.7.d]
T-19	Finished water storage structures shall be designed with reasonably convenient access to the interior for cleaning and maintenance. [Recommended Standards for Water Works 7.0.8]
T-20	Finished water storage structures shall be vented. Vents shall prevent the entrance of surface water, rainwater, bird, and animals. The overflow pipe shall not be considered a vent. Open construction between the sidewall and roof is not permissible. [Recommended Standards for Water Works 7.0.9]
T-21	Finished water storage structures and their appurtenances, especially the riser pipes, overflows, and vents, shall be designed to prevent freezing. Equipment used for freeze protection that will come into contact with the potable water shall meet ANSI/NSF Standard 61. [Recommended Standards for Water Works 7.0.13]
T-22	If a flapper valve is utilized, a screen shall be provide inside the valve. Provisions must be included to prevent the flapper from freezing shut. [Recommended Standards for Water Works 7.0.7.e]
T-23	The roof and sidewalls of all water storage structures must be watertight with no openings except properly constructed vents, manholes, overflows, risers, drains, pump mountings, control ports, or piping for inflow and outflow. [Recommended Standards for Water Works 7.0.10]

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GACT000000021 (500K gal McCammon Ridge Rd & 100K Gal Morrill WST) 500,000 gallon McCammon Ridge Road and 100,000 gallon Morrill water storage tanks:

Narrative Requirements:

Condition No.	Condition
T-24	Any pipes running through the roof or sidewall of a metal storage structure must be welded, or properly gasketed. In concrete tanks, these pipes shall be connected to standard wall castings which were poured in place during the forming of the concrete. [Recommended Standards for Water Works 7.0.10.a]
T-25	Openings in the roof of a storage structure designed to accommodate control apparatus or pump columns, shall be curbed and sleeved with proper additional shielding to prevent contamination from surface or floor drainage. [Recommended Standards for Water Works 7.0.10.b]
T-26	Valves and controls should be located outside the storage structure so that the valve stems and similar projections will not pass through the roof or top of the reservoir. [Recommended Standards for Water Works 7.0.10.c]
T-27	Every catwalk over finished water in a storage structure shall have a solid floor with sealed raised edges, designed to prevent contamination from shoe scrapings and dirt. [Recommended Standards for Water Works 7.0.14]
T-28	The discharge pipes from water storage structures shall be located in a manner that will prevent the flow of sediment into the distribution system. [Recommended Standards for Water Works 7.0.15]
T-29	Smooth-nosed sampling tap(s) shall be provided to facilitate collection of water samples for both bacteriological and chemical analyses. The sample tap(s) shall be easily accessible. [Recommended Standards for Water Works 7.0.19]
T-30	Sewers, drains, standing water, and similar sources of possible contamination must be kept at least 50 feet from water storage facilities. Gravity sewers constructed of water main quality pipe, pressure tested in place without leakage, may be used at distances greater than 20 feet but less than 50 feet. [Recommended Standards for Water Works 7.0.2.c]
T-31	The roof of the storage structure shall be well drained. Downspout pipes shall not enter or pass through the reservoir. [Recommended Standards for Water Works 7.0.10.d]
T-32	Porous material, including wood and concrete block shall not be used for potable water contact applications. [Recommended Standards for Water Works 7.0.11]
T-33	All finished water storage structures shall have suitable watertight roofs which exclude birds, animals, insects, and excessive dust. [Recommended Standards for Water Works 7.0.3]
T-34	Fencing, locks on access manholes, and other necessary precautions shall be provided to prevent trespassing, vandalism, and sabotage. [Recommended Standards for Water Works 7.0.4]

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GACT0000000021 (500K gal McCammon Ridge Rd & 100K Gal Morrill WST) 500,000 gallon McCammon Ridge Road and 100,000 gallon Morrill water storage tanks:

Narrative Requirements:

Condition No.	Condition
T-35	Ladders, ladder guards, balcony railings, and safely located entrance hatches shall be provided where applicable. [Recommended Standards for Water Works 7.0.12.a]
T-36	All water storage structures shall be provided with an overflow which is brought down to an elevation between 12 and 24 inches above the ground surface, and discharges over a drainage inlet structure or a splash plate. All overflow pipes shall be located so that any discharge is visible. [Recommended Standards for Water Works 7.0.7]
T-37	No drain on a water storage structure may have a direct connection to a sewer or storm drain. [Recommended Standards for Water Works 7.0.5]
T-38	The design shall allow draining the storage facility for cleaning or maintenance without causing loss of pressure in the distribution system. [Recommended Standards for Water Works 7.0.5]
T-39	No overflow may be connected directly to a sewer or a storm drain. [Recommended Standards for Water Works 7.0.7]
T-40	Proper protection shall be given to metal surfaces by paints or other protective coatings, by cathodic protective devices, or by both. [Recommended Standards for Water Works 7.0.17]
T-41	Paint systems shall meet ANSI/NSF standard 61. [Recommended Standards for Water Works 7.0.17.a]
T-42	Interior paint must be applied, cured, and used in a manner consistent with the ANSI/NSF approval. [Recommended Standards for Water Works 7.0.17.a]
T-43	After curing, the coating shall not transfer any substance to the water which will be toxic or cause taste or odor problems. [Recommended Standards for Water Works 7.0.17.a]
T-44	Wax coatings for the tank interior shall not be used on new tanks. [Recommended Standards for Water Works 7.0.17.b]
T-45	Old wax coating must be completely removed before using another tank coating. [Recommended Standards for Water Works 7.0.17.b]
T-46	Finished water storage structures shall be disinfected in accordance with AWWA Standard C652. Two or more successive sets of samples, taken at 24-hour intervals, shall indicate microbiologically satisfactory water before the facility is placed into operation. [Recommended Standards for Water Works 7.0.18.a]

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GACT0000000021 (500K gal McCammon Ridge Rd & 100K Gal Morrill WST) 500,000 gallon McCammon Ridge Road and 100,000 gallon Morrill water storage tanks:

Narrative Requirements:

Condition No.	Condition
T-47	The disinfection procedure specified in AWWA Standard C652 chlorination method 3, section 4.3 which allows use of the highly chlorinated water held in the storage tank for disinfection purposes, is prohibited unless the initial heavily chlorinated water is properly disposed. [Recommended Standards for Water Works 7.0.18.c]
T-48	The overflow for an elevated tank shall open downward and be screened with a four mesh, non-corrodible screen. [Recommended Standards for Water Works 7.0.7.c]
T-49	Elevated storage tanks shall have at least one of the access manholes framed at least four inches above the surface of the roof at the opening. All other manholes or access ways shall be bolted and gasketed. [Recommended Standards for Water Works 7.0.8.1]
T-50	Elevated storage tank vents shall open downward, and be fitted with either four mesh non-corrodible screen, or with finer mesh non-corrodible screen in combination with an automatically resetting pressure-vacuum relief mechanism. [Recommended Standards for Water Works 7.0.9.e]
T-51	Elevated tanks with riser pipes over eight inches in diameter shall have protective bars over the riser openings inside the tank. [Recommended Standards for Water Works 7.0.12.b]
T-52	Railings or handholds shall be provided on elevated tanks where persons must transfer from the access tube to the water compartment. [Recommended Standards for Water Works 7.0.12.c]
T-53	When an internal overflow pipe is used on elevated tanks, it should be located in the access tube. For vertical drops on other types of storage facilities, the overflow pipe should be located on the outside of the structure. [Recommended Standards for Water Works 7.0.7.a]
T-54	If a water circulation system is used, it is recommended that the circulation pipe be located separately from the riser pipe. [Recommended Standards for Water Works 7.0.13]
T-55	Reservoirs with pre-cast concrete roof structures must be made watertight with the use of a waterproof membrane or similar product. [Recommended Standards for Water Works 7.0.10.f]



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

August 17, 2016

John Powell
Jackson Co Water Association
P.O. Box 232
Tyner, KY 40486

RE: Contract 1: Transmission Main from Mckee
To Sandgap
Jackson Co Water Association
AI # 1924, APE20160003
PWSID # 0550209-16-003
Jackson County, KY

Dear Mr. Powell:

We have reviewed the plans and specifications for the above referenced project. The plans include the construction of approximately 26,700 linear feet of 8 inch PVC waterline, 70 linear feet of 8 inch DI waterline, and 8,325 linear feet of 6 inch PVC water line with a duplex pump station with pumps capable of 450 gpm at 325 ft TDH and a second duplex pump station with pumps capable of 100 gpm at 70 ft TDH. This is to advise that plans and specifications for the above referenced project are APPROVED with respect to sanitary features of design, as of this date with the requirements contained in the attached construction permit.

If you have any questions concerning this project, please contact Daniel Kulik at 502-782-6998.

Sincerely,

A handwritten signature in black ink, appearing to read "T. Humphries".

Terry Humphries, P.E.
Supervisor, Engineering Section
Water Infrastructure Branch
Division of Water

TH:DK

Enclosures

C: Kenvirons, Inc.
Jackson County Health Department
Division of Plumbing
Public Service Commission



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FACT0000000022 (Contract1: Transmission Main from McKee to Sandgap) duplex pump station with pumps capable of 450 gpm and 325 ft TDH; duplex pump station with pumps capable of 100 gpm and 70 ft TDH; 26,700 linear feet of 8 inch PVC, 70 linear feet of 8 inch DI, and 8,325 linear feet of 6 inch PVC water line:

Narrative Requirements:

Condition No.	Condition
T-1	Construction of this project shall not result in the water system's inability to supply consistent water service in compliance with 401 KAR 8:010 through 8:600. [401 KAR 8:100 Section 5]
T-2	The public water system shall not implement a change to the approved plans without the prior written approval of the cabinet. [401 KAR 8:100 Section 4(3)]
T-3	A proposed change to the approved plans affecting sanitary features of design shall be submitted to the cabinet for approval in accordance with Section 2 of this administrative regulation. [401 KAR 8:100 Section 4(2)]
T-4	During construction, a set of approved plans and specifications shall be available at the job site. Construction shall be performed in accordance with the approved plans and specifications. [401 KAR 8:100 Section 3(1)]
T-5	Unless construction begins within two (2) years from the date of approval of the final plans and specifications, the approval shall expire. [401 KAR 8:100 Section 3(3)]
T-6	Upon completion of construction, a professional engineer shall certify in writing that the project has been completed in accordance with the approved plans and specifications. [401 KAR 8:100 Section 4(1)]
T-7	The system shall be designed to maintain a minimum pressure of 20 psi at ground level at all points in the distribution system under all conditions of flow. [Recommended Standards for Water Works 8.2.1, Drinking Water General Design Criteria IV.1.a]
T-8	Water lines should be hydraulically capable of a flow velocity of 2.5 ft/s while maintaining a pressure of at least 20 psi. [Drinking Water General Design Criteria IV.1.b]
T-9	The normal working pressure in the distribution system at the service connection shall not be less than 30 psi under peak demand flow conditions. Peak demand is defined as the maximum customer water usage rate, expressed in gallons per minute (gpm), in the pressure zone of interest during a 24 hour (diurnal) time period. [Drinking Water General Design Criteria IV.1.d]
T-10	When static pressure exceeds 150 psi, pressure reducing devices shall be provided on mains or as part of the meter setting on individual service lines in the distribution system. [Drinking Water General Design Criteria IV.1.c]

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FACT000000022 (Contract1: Transmission Main from McKee to Sandgap) duplex pump station with pumps capable of 450 gpm and 325 ft TDH; duplex pump station with pumps capable of 100 gpm and 70 ft TDH; 26,700 linear feet of 8 inch PVC, 70 linear feet of 8 inch DI, and 8,325 linear feet of 6 inch PVC water line:

Narrative Requirements:

Condition No.	Condition
T-11	The minimum size of water main in the distribution system where fire protection is not to be provided should be a minimum of three (3) inch diameter. Any departure from minimum requirements shall be justified by hydraulic analysis and future water use, and can be considered only in special circumstances. [Recommended Standards for Water Works 8.2.2, Drinking Water General Design Criteria IV.2.b]
T-12	Water mains not designed to carry fire-flows shall not have fire hydrants connected to them. [Recommended Standards for Water Works 8.4.1.b]
T-13	Flushing devices should be sized to provide flows which will give a velocity of at least 2.5 feet per second in the water main being flushed. [Recommended Standards for Water Works 8.2.4.b, Recommended Standards for Water Works 8.4.1.b]
T-14	No flushing device shall be directly connected to any sewer. [Recommended Standards for Water Works 8.2.4.b, Recommended Standards for Water Works 8.4.1.b]
T-15	Pipe shall be constructed to a depth providing a minimum cover of 30 inches to top of pipe. [Drinking Water General Design Criteria IV.3.a]
T-16	Water mains shall be covered with sufficient earth or other insulation to prevent freezing. [Recommended Standards for Water Works 8.7]
T-17	A continuous and uniform bedding shall be provided in the trench for all buried pipe. Backfill material shall be tamped in layers around the pipe and to a sufficient height above the pipe to adequately support and protect the pipe. Stones found in the trench shall be removed for a depth of at least six inches below the bottom of the pipe. [Recommended Standards for Water Works 8.7]
T-18	Water line installation shall incorporate the provisions of the AWWA standards and/or manufacturer's recommended installation procedures. [Recommended Standards for Water Works 8.7]
T-19	All materials used for the rehabilitation of water mains shall meet ANSI/NSF standards. [Recommended Standards for Water Works 8.1]
T-20	Packing and jointing materials used in the joints of pipe shall meet the standards of AWWA and the reviewing authority. [Recommended Standards for Water Works 8.1]
T-21	All tees, bends, plugs and hydrants shall be provided with reaction blocking, tie rods or joints designed to prevent movement. [Recommended Standards for Water Works 8.7]

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TRACT000000022 (Contract1: Transmission Main from McKee to Sandgap) duplex pump station with pumps capable of 450 gpm and 325 ft TDH; duplex pump station with pumps capable of 100 gpm and 70 ft TDH; 26,700 linear feet of 8 inch PVC, 70 linear feet of 8 inch DI, and 8,325 linear feet of 6 inch PVC water line:

Narrative Requirements:

Condition No.	Condition
T-22	All materials including pipe, fittings, valves and fire hydrants shall conform to the latest standards issued by the ASTM, AWWA and ANSI/NSF, where such standards exist, and be acceptable to the Division of Water. [Recommended Standards for Water Works 8.1]
T-23	Water mains which have been used previously for conveying potable water may be reused provided they meet the above standards and have been restored practically to their original condition. [Recommended Standards for Water Works 8.1]
T-24	Manufacturer approved transition joints shall be used between dissimilar piping materials. [Recommended Standards for Water Works 8.1]
T-25	The minimum size of water main which provides for fire protection and serving fire hydrants shall be six inch diameter. [Recommended Standards for Water Works 8.2, Drinking Water General Design Criteria IV.2.a]
T-26	Pipes and pipe fittings containing more than 8% lead shall not be used. All products shall comply with ANSI/NSF standards. [Recommended Standards for Water Works 8.1]
T-27	Gaskets containing lead shall not be used. Repairs to lead joint pipe shall be made using alternative methods. [Recommended Standards for Water Works 8.1]
T-28	Pipe materials shall be selected to protect against both internal and external pipe corrosion. [Recommended Standards for Water Works 8.1]
T-29	Dead end mains shall be equipped with a means to provide adequate flushing. [Recommended Standards for Water Works 8.2]
T-30	The hydrant lead shall be a minimum of six inches in diameter. Auxiliary valves shall be installed on all hydrant leads. [Recommended Standards for Water Works 8.4.3]
T-31	A sufficient number of valves shall be provided on water mains to minimize inconvenience and sanitary hazards during repairs. [Recommended Standards for Water Works 8.3]
T-32	Wherever possible, chambers, pits or manholes containing valves, blow-offs, meters, or other such appurtenances to a distribution system, shall not be located in areas subject to flooding or in areas of high groundwater. Such chambers or pits should drain to the ground surface, or to absorption pits underground. The chambers, pits and manholes shall not connect directly to any storm drain or sanitary sewer. Blow-offs shall not connect directly to any storm drain or sanitary sewer. [Recommended Standards for Water Works 8.6]

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FACT0000000022 (Contract1: Transmission Main from McKee to Sandgap) duplex pump station with pumps capable of 450 gpm and 325 ft TDH; duplex pump station with pumps capable of 100 gpm and 70 ft TDH; 26,700 linear feet of 8 inch PVC, 70 linear feet of 8 inch DI, and 8,325 linear feet of 6 inch PVC water line:

Narrative Requirements:

Condition No.	Condition
T-33	At high points in water mains where air can accumulate provisions shall be made to remove the air by means of air relief valves. [Recommended Standards for Water Works 8.5.1]
T-34	Automatic air relief valves shall not be used in situations where flooding of the manhole or chamber may occur. [Recommended Standards for Water Works 8.5.1]
T-35	The open end of an air relief pipe from automatic valves shall be extended to at least one foot above grade and provided with a screened, downward-facing elbow. [Recommended Standards for Water Works 8.5.2.c]
T-36	Discharge piping from air relief valves shall not connect directly to any storm drain, storm sewer, or sanitary sewer. [Recommended Standards for Water Works 8.5.2.d]
T-37	Water pipe shall be constructed with a lateral separation of 10 feet or more from any gravity sanitary or combined sewer measured edge to edge where practical. If not practical a variance may be requested to allow the water pipe to be installed closer to the gravity sanitary or combined sewer provided the water pipe is laid in a separate trench or undisturbed shelf located on one side of the sewer with the bottom of the pipe at least 18 inches above the top of the gravity sanitary or combined sewer pipe. [Drinking Water General Design Criteria IV.3.b]
T-38	Water lines crossing sanitary, combined or storm sewers shall be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the outside of the sanitary, combined or storm sewer with preference to the water main located above the sanitary, combined or storm sewer. [Drinking Water General Design Criteria IV.3.c]
T-39	At crossings, one full length of water pipe shall be located so both joints will be as far from the sewer as possible. [Recommended Standards for Water Works 8.8.3.b]
T-40	There shall be no connection between the distribution system and any pipes, pumps, hydrants, or tanks whereby unsafe water or other contaminating materials may be discharged or drawn into the system. [Recommended Standards for Water Works 8.10.1]
T-41	Water utilities shall have a cross connection program conforming to 401 KAR 8. [Recommended Standards for Water Works 8.10.1]
T-42	Installed pipe shall be pressure tested and leakage tested in accordance with the appropriate AWWA Standards. [Recommended Standards for Water Works 8.7.6]

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FACT000000022 (Contract1: Transmission Main from McKee to Sandgap) duplex pump station with pumps capable of 450 gpm and 325 ft TDH; duplex pump station with pumps capable of 100 gpm and 70 ft TDH; 26,700 linear feet of 8 inch PVC, 70 linear feet of 8 inch DI, and 8,325 linear feet of 6 inch PVC water line:

Narrative Requirements:

Condition No.	Condition
T-43	New, cleaned and repaired water mains shall be disinfected in accordance with AWWA Standard C651. The specifications shall include detailed procedures for the adequate flushing, disinfection, and microbiological testing of all water mains. In an emergency or unusual situation, the disinfection procedure shall be discussed with the Division of Water. [Recommended Standards for Water Works 8.7.7]
T-44	A minimum cover of five feet shall be provided over pipe crossing underwater. [Recommended Standards for Water Works 8.9.2]
T-45	Valves shall be provided at both ends of water crossings so that the section can be isolated for testing or repair; the valves shall be easily accessible, and not subject to flooding for pipes crossing underwater. [Recommended Standards for Water Works 8.9.2.b]
T-46	Permanent taps or other provisions to allow insertion of a small meter to determine leakage and obtain water samples on each side of the valve closest to the supply source for pipes crossing. [Recommended Standards for Water Works 8.9.2.c]
T-47	Pumping facilities shall be elevated to a minimum of three feet above the 100-year flood elevation, or three feet above the highest recorded flood elevation, whichever is higher, or protected to such elevations. [Recommended Standards for Water Works 6.1.1.a]
T-48	Pumping facilities shall be readily accessible at all times. [Recommended Standards for Water Works 6.1.1.b]
T-49	Pumping facilities shall be graded around the station so as to lead surface drainage away from the station. [Recommended Standards for Water Works 6.1.1.c]
T-50	Pumping facilities shall be protected to prevent vandalism and entrance by animals or unauthorized persons. [Recommended Standards for Water Works 6.1.1.d]
T-51	Raw and finished pump stations shall have adequate space for the installation of additional units if needed, and for the safe servicing of all equipment. [Recommended Standards for Water Works 6.2.a]
T-52	Raw and finished pump stations shall have floors that slope to a suitable drain. [Recommended Standards for Water Works 6.2.e]
T-53	Raw and finished pump stations shall provide a suitable outlet for drainage from pump glands without discharging onto the floor. [Recommended Standards for Water Works 6.2.f]

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FACT000000022 (Contract1: Transmission Main from McKee to Sandgap) duplex pump station with pumps capable of 450 gpm and 325 ft TDH; duplex pump station with pumps capable of 100 gpm and 70 ft TDH; 26,700 linear feet of 8 inch PVC, 70 linear feet of 8 inch DI, and 8,325 linear feet of 6 inch PVC water line:

Narrative Requirements:

Condition No.	Condition
T-54	At least two pumping units shall be provided. With any pump out of service, the remaining pump or pumps shall be capable of providing the maximum pumping demand of the system. [Recommended Standards for Water Works 6.3]
T-55	Pumps shall have ample capacity to supply the peak demand against the required distribution system pressure without dangerous overloading, [Recommended Standards for Water Works 6.3.a]
T-56	Pumps shall be driven by prime movers able to meet the maximum horsepower condition of the pumps. [Recommended Standards for Water Works 6.3.b]
T-57	Pumps shall be provided with readily available spare parts and tools. [Recommended Standards for Water Works 6.3.c]
T-58	Pump stations shall have indicating, totalizing, and recording metering of the total water pumped. [Recommended Standards for Water Works 6.6.3]
T-59	Each pump shall have a standard pressure gauge on its discharge line. [Recommended Standards for Water Works 6.6.3.a]
T-60	Each pump shall have a compound gauge on its suction line. [Recommended Standards for Water Works 6.6.3.b]
T-61	Where two or more pumps are installed, provision shall be made for alternation. [Recommended Standards for Water Works 6.6.5]
T-62	Provisions shall be made to prevent energizing the pump motor in the event of a backspin cycle. [Recommended Standards for Water Works 6.6.5]
T-63	Electrical controls shall be located above grade. [Recommended Standards for Water Works 6.6.5]
T-64	Equipment shall be provided or other arrangements made to prevent surge pressures from activating controls which switch on pumps or activate other equipment outside the normal design cycle of operation. [Recommended Standards for Water Works 6.6.5]
T-65	Pump stations shall have a power supply provided from at least two independent sources or a standby or an auxiliary source. [Recommended Standards for Water Works 6.6.6]

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FACT000000022 (Contract1: Transmission Main from McKee to Sandgap) duplex pump station with pumps capable of 450 gpm and 325 ft TDH; duplex pump station with pumps capable of 100 gpm and 70 ft TDH; 26,700 linear feet of 8 inch PVC, 70 linear feet of 8 inch DI, and 8,325 linear feet of 6 inch PVC water line:

Narrative Requirements:

Condition No.	Condition
T-66	If standby power is provided by onsite generators or engines, the fuel storage and fuel line must be designed to protect the water supply from contamination. [Recommended Standards for Water Works 6.6.6]
T-67	All lubricants which come into contact with the potable water shall be certified for conformance to ANSI/NSF Standard 60. [Recommended Standards for Water Works 6.6.8]
T-68	Booster pumps stations shall have a bypass available. [Recommended Standards for Water Works 6.4.e]
T-69	Each booster pumping station shall contain not less than two pumps with capacities such that peak demand can be satisfied with the largest pump out of service. [Recommended Standards for Water Works 6.4.1]
T-70	All booster pumping stations shall be fitted with a flow rate indicating and totalizer meter. [Recommended Standards for Water Works 6.4.2]
T-71	Inline booster pumps shall be accessible for servicing and repairs. [Recommended Standards for Water Works 6.4.3]
T-72	Each pump must have an isolation valve on the intake and discharge side of the pump to permit satisfactory operation, maintenance and repair of the equipment. [Recommended Standards for Water Works 6.6.1]
T-73	Each pump shall have a positive acting check valve on the discharge side between the pump and the shut off valve. [Recommended Standards for Water Works 6.6.1]
T-74	Pump station piping shall be designed so that the friction losses will be minimized, not be subject to contamination, have watertight joints, be protected against surge or water hammer with suitable restraints when necessary, and be such that each pump has an individual suction line or the lines shall be manifolded that they will insure similar hydraulic and operating conditions. [Recommended Standards for Water Works 6.6.2]
T-75	Booster pumps taking suction from storage tanks shall be provided adequate net positive suction head. [Recommended Standards for Water Works 6.4.b]
T-76	Booster pumps shall be controlled so that automatic shutoff or low pressure controllers maintain at least 20 psi in the suction line under all operating conditions. [Recommended Standards for Water Works 6.4.c]

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FACT0000000022 (Contract1: Transmission Main from McKee to Sandgap) duplex pump station with pumps capable of 450 gpm and 325 ft TDH; duplex pump station with pumps capable of 100 gpm and 70 ft TDH; 26,700 linear feet of 8 inch PVC, 70 linear feet of 8 inch DI, and 8,325 linear feet of 6 inch PVC water line:

Narrative Requirements:

Condition No.	Condition
T-77	Booster pumps taking suction from ground storage tanks shall be equipped with automatic shutoffs or low pressure controllers. [Recommended Standards for Water Works 6.4.c]
T-78	All automatic pump stations should be provided with automatic signaling apparatus which will report when the station is out of service. [Recommended Standards for Water Works 6.5]
T-79	All remote controlled stations shall be electrically operated and controlled and shall have signaling apparatus of proven performance. [Recommended Standards for Water Works 6.5]
T-80	Raw and finished pump stations shall have a floor elevation of at least six inches above finished grade. [Recommended Standards for Water Works 6.2.c]



ENCROACHMENT PERMIT

KEPTS No.: A11-2016-00010

Permittee: Jackson County Water Association

Latitude: 37.486215

Longitude: -84.091700

Completion Date: 1/11/2017

Coordinates provided on the TC 99-1(B) are the approved location for this permit

Indemnities		
Type	Amount Required	Tracking Number
Performance Bond	0	
Payment Bond	0	
Liability Insurance	0	

APPROVED

This permit has been:

APPROVED DENIED

Joel Holcomb	Engineer Branch Manager
<hr/>	
NAME	TITLE
Joel Holcomb	1/12/2016
<hr/>	
SIGNATURE	DATE

The TC 99-1(B), including the application TC-99 1(A) and all related and accompanying documents and drawings make up the permit. It is not a permit unless both the TC 99-1(A) and TC 99-1(B) are both present.

NOTICE OF COMPLETION OF ENCROACHMENT PERMIT WORK

PERMITEE

Name: Jackson County Water Association
Contact Person:
Address: P.O. Box 232
City: Tyner
State: Kentucky
Zip: 40486
Telephone:

PROJECT IDENTIFICATION

Permit Number: 11-2016-00010

I wish to notify the Department of Highways that the above mentioned permit work and any necessary right-of-way restoration have been completed and are ready for final inspection.

Applicant

Please return this form to the address below when work is completed and ready for final inspection.

Please Return to: Permit Engineer
Department of Highways, District 11 Office
603 Railroad Avenue
Manchester, Kentucky 40962
(606) 598-2145

LOCATION(S)			
Description	County - Route	Latitude	Longitude
Jackson Co - KY 2004 - Mp 0.03	Jackson - KY 2004	37.486215	-84.091700



MAILED
1-12-16

RESERVE

APPLICATION FOR ENCROACHMENT PERMIT

Permittee Information		KYTC No. <u>11-2016-00010</u>	
Name	Jackson County Water Association	Permit Information	
Address	P.O. Box 232	Address	KY 2004
City	Tyner	City	McKee
State	KY	State	KY
Zip	40486	Zip	40486
Phone#	606-287-7000	County	Jackson
Contact	John Powell, Manager	Route No.	KY 2004
Phone	606-287-7000	Mile Point	0.03
Cell		Longitude (X)	84° 05' 31.9" - <u>84.091700</u>
Email	jcwa@prtcnet.org	Latitude (Y)	37° 29' 13.1" <u>37.486215</u>
Contact		<i>Information below to be filled out by KYTC</i>	
Phone		<input type="checkbox"/> Air Right	<input type="checkbox"/> Entrance
Cell		<input checked="" type="checkbox"/> Utilities	<input type="checkbox"/> Other: _____
Email		<input type="checkbox"/> Left	<input type="checkbox"/> Right
		<input type="checkbox"/> Full	<input type="checkbox"/> Partial
			<input checked="" type="checkbox"/> by Permit

APPROVED

General Description of Work:

MP. 0.03: Crossing. Bore and jack 12" steel encasement pipe across KY 2004 to install 6" PVC waterline.
MP. 0.03 to MP 0.15: Installation of 6" PVC WL parallel to and on N side of KY 2004.
MP. 0.15: Crossing. Bore and jack 12" steel encasement pipe across KY 2004 to install 6" PVC waterline.

THE UNDERSIGNED PERMITTEE(s) (being duly authorized representative(s) or owner(s)) DO AGREE TO ALL TERMS AND CONDITIONS ON THE TC 99-1 (A).

Signature

Date 12-30-2015

This is not a permit unless and until the permittee(s) receives an approved TC 99-1(B) from KYTC. This application will become void if not approved by the cancellation date. The cancellation date will be one year from the date the permittee submits their application.



APPLICATION FOR ENCROACHMENT PERMIT

TERMS AND CONDITIONS

1. The permit, including this application and all related and accompanying documents and drawings making up the permit, remains in effect and is binding upon the Applicant/Permittee, its successors and assigns, as long as the encroachment(s) exists and also until the permittee is finally relieved by the Department of Highways from all its obligations.
2. Applicant shall meet all requirements of the Clean Water Act if the project will disturb one acre or more, the applicant shall obtain a KPDES KYR10 Permit from the Kentucky Division of Water. All disturbed areas shall meet the requirements of the Department of Highway's Standard Specifications, Sections 212 and 213, as amended.
3. **INDEMNITY:**
 - A. **PERFORMANCE BOND:** The permittee shall provide to the Department a performance bond according to the Permits Manual, Section PE-203 as a guarantee of conformance with the Department's Encroachment Permit requirements.
 - B. **PAYMENT BOND:** At the discretion of the department, a payment bond will be required of the permittee to ensure payment of liquidated damages assessed to the permittee.
 - C. **LIABILITY INSURANCE:** Liability insurance will be required of the permittee (in an amount approved by the department) to cover all liabilities associated with the encroachment.
 - D. It shall be the responsibility of the permittee, its successors and assigns, to maintain all indemnities in full force and effect until the permittee is authorized to release the indemnity by the Department.
4. A copy of this application and all related documents making up the approved permit will be given to the applicant and shall be made readily available for review at the work site at all times.
5. Perpetual maintenance of the encroachment is the responsibility of the permittee, its successors and assigns, with the approval of the Department as required, unless otherwise stated.
6. Permittee, its successors and assigns, shall comply with and agrees to be bound by the requirements and terms of (a) this application and all related documents making up the approved permit, (b) by the Department's Permits Manual, and (c) by the Manual on Uniform Traffic Control Devices, both manuals as revised to and in effect on the date of issuance of the permit, all of which documents are made a part thereof by this reference. Compliance by the permittee, its successors and assigns, with subsequent revisions to applicable provisions of either manual or other policy of the Department may be made a condition of allowing the encroachment to persist under the permit.
7. Permittee agrees that this and any encroachment may be ordered removed by the Department at any time, and for any reason, upon thirty days written notice to the last known address of the applicant or to the address at the location of the encroachment. The permittee agrees that the cost of removing and of restoring the associated right-of-way is the responsibility of the permittee, its successors and assigns.
8. Permittee, its successors and assigns, agree that if the Department determines that motor vehicular safety deficiencies develop as a result of the installation or use of the encroachment, the permittee, its successors and assigns, shall provide and bear the expenses to adjust, relocate, or reconstruct the facilities, and/or add signs, auxiliary lanes, or other corrective measures reasonably deemed necessary by the Department within a reasonable time after receipt of a written notice of such deficiency. The period within which such adjustments, relocations, additions, modifications, and/or other corrective measures must be completed will be specified in the notice.
9. Where traffic signals are required as a condition of granting the requested permit or are thereafter required to correct motor vehicular safety deficiencies, as determined by the Department, the costs for signal equipment and



APPLICATION FOR ENCROACHMENT PERMIT

installation(s) shall be borne by the permittee, its successors and assigns, and/or the Department in its reasonable discretion and only in accordance with the Department's current policy set forth in the Traffic Operations Manual and Permits Manual. Any modifications to the permittee's entrance necessary to accommodate signalization (including necessary easement(s) on private property) shall be the responsibility of the permittee, its successors and assigns, at no expense to the Department.

10. The requested encroachment shall not infringe on the frontage rights of an abutting owner without their written consent as hereinafter described. Each abutting owner shall express their consent, which shall be binding on their successors and assigns, by the submission of a notarized statement as follows, "I _____ (we), _____, hereby consent to the granting of the permit requested by the applicant along Route _____, which permit does affect frontage rights along my (our) adjacent real property." By signature(s) _____, subscribed and sworn by _____, on this date _____.

11. The permit, if approved, is subject to the agreement that it shall not interfere with any similar rights or permit(s) previously granted to any other party, except as otherwise provided by law.

12. Permittee shall include documentation which describes the facilities to be constructed. Permittee, its successors and assigns, agrees as a condition of the granting of the permit to construct and maintain any and all permitted facilities or other encroachments in strict accordance with the submitted and approved permit documentation and the policies and procedures of the Department. Permittee, its successors and assigns, shall not use facilities authorized herein in any manner contrary to that prescribed by the approved permit. Only normal usage as contemplated by the parties and by this application and routine maintenance are authorized by the permit.

13. Permittee, its successors and assigns, at all times from the date permitted work is commenced until such time as all permitted facilities or other encroachments are removed from the right-of-way and the right-of-way restored, shall defend, protect, indemnify and save harmless the Department from any and all liability claims and demands arising out of the work, encroachment, maintenance, or other undertaking by the permittee, its successors and assigns, related or undertaken pursuant to the granted permit, due to any claimed act or omission by the permittee, its servants, agents, employees, or contractors. This provision shall not inure to the benefit of any third party nor operate to enlarge any liability of the Department beyond that existing at common law or otherwise if this right to indemnity did not exist.

14. Upon a violation of any provision of the permit, or otherwise in its reasonable discretion, the Department may require additional action by the permittee, its successors and assigns, up to and including the removal of the encroachment and restoration of the right-of-way. In the event additional actions required by the Department under the permit are not undertaken as ordered and within a reasonable time, the Department may in its discretion cause those or other additional corrective actions to be undertaken and the Department may and shall recover the reasonable costs of those corrective actions from the permittee, its successors and assigns.

15. Permittee, its successors and assigns, shall use the encroachment premises in compliance with all requirements of federal law and regulation, including those imposed pursuant to Title VI of the Civil Right Act of 1964 (42 U.S.C. § 2000d et seq.) and the related regulations of the U.S. Department of Transportation in Title 49 C.F.R. Part 21, all as amended.

16. Permittee, its successors and assigns, agree that if the Department determines it is necessary for the facilities or other encroachment authorized by the permit to be removed, relocated or reconstructed in connection with the reconstruction, relocation or improvement of a highway, the Department may revoke permission for the



APPLICATION FOR ENCROACHMENT PERMIT

encroachment to remain under the permit and may order its removal, relocation or reconstruction by the permittee, its successors and assigns, at the expense of the permittee, except where the Department is required by law to pay any or all of those costs.

17. Permittee agrees that the authorized permit is personal to the permittee and shall remain in effect until such time as (a) the permittee's rights to the adjoining real property to have benefitted from the requested encroachment have been relinquished, (b) until all permit obligations have been assumed by appropriate successors and assigns, and (c) unless and until a written release from permit obligations has been granted by the Department. The permit and its requirements shall also bind the real property to have benefitted from the requested encroachment to the extent permitted by law. The permit and the related encroachment become the responsibility of the successors and assigns of the permittee and the successors and assigns of each property owner benefitting from the encroachment, or the encroachment may not otherwise permissibly continue to be maintained on the right-of-way. (Does not apply to utility encroachments serving the general public.)

18. If work authorized by the permit is within a highway construction project in the construction phase, it shall be the responsibility of the permittee to make personal contact with the Department's Engineer on the project in order to coordinate all permitted work with the Department's prime contractor on the project.

19. This permit is not intended to, nor shall it, affect, alter or alleviate any requirement imposed upon the permittee, its successors and assigns, by any other agency.

20. Permittee, its successors and assigns, agrees to contain and maintain all dirt, mud, and other debris emanating from the encroachment away from the surrounding right-of-way and the travel way of the highway hereafter and at all times that its obligations under the permit remain in effect.



ENCROACHMENT PERMIT

KEPTS No.: A11-2016-00011

Permittee: Jackson County Water Association

Latitude: 37.429629

Longitude: -84.007182

Completion Date: 1/11/2017

Coordinates provided on the TC 99-1(B) are the approved location for this permit.

APPROVED

Indemnities		
Type	Amount Required	Tracking Number
Performance Bond	0	
Payment Bond	0	
Liability Insurance	0	

This permit has been:

APPROVED DENIED

Joel Holcomb Engineer Branch Manager

NAME **TITLE**

Joel Holcomb 1/12/2016

SIGNATURE **DATE**

The TC 99-1(B), including the application TC-99 1(A) and all related and accompanying documents and drawings make up the permit. It is not a permit unless both the TC 99-1(A) and TC 99-1(B) are both present.

NOTICE OF COMPLETION OF ENCROACHMENT PERMIT WORK

PERMITEE

Name: Jackson County Water Association
Contact Person:
Address: P.O. Box 232
City: Tyner
State: Kentucky
Zip: 40486
Telephone:

PROJECT IDENTIFICATION

Permit Number: 11-2016-00011

I wish to notify the Department of Highways that the above mentioned permit work and any necessary right-of-way restoration have been completed and are ready for final inspection.

Applicant

Please return this form to the address below when work is completed and ready for final inspection.

Please Return to: Permit Engineer
Department of Highways, District 11 Office
603 Railroad Avenue
Manchester, Kentucky 40962
(606) 598-2145

LOCATION(S)			
Description	County - Route	Latitude	Longitude
Jackson Co - US 421 - Mp 14.73	Jackson - US 421	37.429629	-84.007182



MAILED
 1-12-14

APPLICATION FOR ENCROACHMENT PERMIT

Permittee Information		KYTC No. <u>11-2016-00011</u>	
Name	Jackson County Water Association	Permit Information	
Address	P.O. Box 232	Address	US 421
City	Tyner	City	McKee
State	KY	State	KY
Zip	40486	Zip	40486
Phone#	606-287-7000	County	
Contact	John Powell, Manager	Route No.	US 421
Phone	606-287-7000	Mile Point	14.73
Email	jcwa@prtcnet.org	Longitude (X)	84° 0' 25.9" - 84.007182
Contact		Latitude (Y)	37° 25' 46.6" 37.429629
Phone	Cell	APPROVED	
Email		Information below to be filled out by KYTC	
Phone	Cell	<input type="checkbox"/> Air Right	<input type="checkbox"/> Entrance
Email		<input checked="" type="checkbox"/> Utilities	<input type="checkbox"/> Other: <u>Various Locations</u>
		<input type="checkbox"/> Left	<input type="checkbox"/> Right
		<input type="checkbox"/> X-ing	
		Access:	<input type="checkbox"/> Full
			<input type="checkbox"/> Partial
			<input checked="" type="checkbox"/> by Permit

General Description of Work:

See Attachment No. 1 for General Description of Work:

THE UNDERSIGNED PERMITTEE(S) (being duly authorized representative(s) or owner(s)) DO AGREE TO ALL TERMS AND CONDITIONS ON THE TC 99-1 (A).

Signature

Date 12-30-2015

This is not a permit unless and until the permittee(s) receives an approved TC 99-1(B) from KYTC. This application will become void if not approved by the cancellation date. The cancellation date will be one year from the date the permittee submits their application.



APPLICATION FOR ENCROACHMENT PERMIT

TERMS AND CONDITIONS

1. The permit, including this application and all related and accompanying documents and drawings making up the permit, remains in effect and is binding upon the Applicant/Permittee, its successors and assigns, as long as the encroachment(s) exists and also until the permittee is finally relieved by the Department of Highways from all its obligations.
2. Applicant shall meet all requirements of the Clean Water Act if the project will disturb one acre or more, the applicant shall obtain a KPDES KYR10 Permit from the Kentucky Division of Water. All disturbed areas shall meet the requirements of the Department of Highway's Standard Specifications, Sections 212 and 213, as amended.
3. **INDEMNITY:**
 - A. **PERFORMANCE BOND:** The permittee shall provide to the Department a performance bond according to the Permits Manual, Section PE-203 as a guarantee of conformance with the Department's Encroachment Permit requirements.
 - B. **PAYMENT BOND:** At the discretion of the department, a payment bond will be required of the permittee to ensure payment of liquidated damages assessed to the permittee.
 - C. **LIABILITY INSURANCE:** Liability insurance will be required of the permittee (in an amount approved by the department) to cover all liabilities associated with the encroachment.
 - D. It shall be the responsibility of the permittee, its successors and assigns, to maintain all indemnities in full force and effect until the permittee is authorized to release the indemnity by the Department.
4. A copy of this application and all related documents making up the approved permit will be given to the applicant and shall be made readily available for review at the work site at all times.
5. Perpetual maintenance of the encroachment is the responsibility of the permittee, its successors and assigns, with the approval of the Department as required, unless otherwise stated.
6. Permittee, its successors and assigns, shall comply with and agrees to be bound by the requirements and terms of (a) this application and all related documents making up the approved permit, (b) by the Department's Permits Manual, and (c) by the Manual on Uniform Traffic Control Devices, both manuals as revised to and in effect on the date of issuance of the permit, all of which documents are made a part thereof by this reference. Compliance by the permittee, its successors and assigns, with subsequent revisions to applicable provisions of either manual or other policy of the Department may be made a condition of allowing the encroachment to persist under the permit.
7. Permittee agrees that this and any encroachment may be ordered removed by the Department at any time, and for any reason, upon thirty days written notice to the last known address of the applicant or to the address at the location of the encroachment. The permittee agrees that the cost of removing and of restoring the associated right-of-way is the responsibility of the permittee, its successors and assigns.
8. Permittee, its successors and assigns, agree that if the Department determines that motor vehicular safety deficiencies develop as a result of the installation or use of the encroachment, the permittee, its successors and assigns, shall provide and bear the expenses to adjust, relocate, or reconstruct the facilities, and/or add signs, auxiliary lanes, or other corrective measures reasonably deemed necessary by the Department within a reasonable time after receipt of a written notice of such deficiency. The period within which such adjustments, relocations, additions, modifications, and/or other corrective measures must be completed will be specified in the notice.
9. Where traffic signals are required as a condition of granting the requested permit or are thereafter required to correct motor vehicular safety deficiencies, as determined by the Department, the costs for signal equipment and



APPLICATION FOR ENCROACHMENT PERMIT

installation(s) shall be borne by the permittee, its successors and assigns, and/or the Department in its reasonable discretion and only in accordance with the Department's current policy set forth in the Traffic Operations Manual and Permits Manual. Any modifications to the permittee's entrance necessary to accommodate signalization (including necessary easement(s) on private property) shall be the responsibility of the permittee, its successors and assigns, at no expense to the Department.

10. The requested encroachment shall not infringe on the frontage rights of an abutting owner without their written consent as hereinafter described. Each abutting owner shall express their consent, which shall be binding on their successors and assigns, by the submission of a notarized statement as follows, "I _____ (we), _____, hereby consent to the granting of the permit requested by the applicant along Route _____, which permit does affect frontage rights along my (our) adjacent real property." By signature(s) _____ subscribed and sworn by _____, on this date _____.

11. The permit, if approved, is subject to the agreement that it shall not interfere with any similar rights or permit(s) previously granted to any other party, except as otherwise provided by law.

12. Permittee shall include documentation which describes the facilities to be constructed. Permittee, its successors and assigns, agrees as a condition of the granting of the permit to construct and maintain any and all permitted facilities or other encroachments in strict accordance with the submitted and approved permit documentation and the policies and procedures of the Department. Permittee, its successors and assigns, shall not use facilities authorized herein in any manner contrary to that prescribed by the approved permit. Only normal usage as contemplated by the parties and by this application and routine maintenance are authorized by the permit.

13. Permittee, its successors and assigns, at all times from the date permitted work is commenced until such time as all permitted facilities or other encroachments are removed from the right-of-way and the right-of-way restored, shall defend, protect, indemnify and save harmless the Department from any and all liability claims and demands arising out of the work, encroachment, maintenance, or other undertaking by the permittee, its successors and assigns, related or undertaken pursuant to the granted permit, due to any claimed act or omission by the permittee, its servants, agents, employees, or contractors. This provision shall not inure to the benefit of any third party nor operate to enlarge any liability of the Department beyond that existing at common law or otherwise if this right to indemnity did not exist.

14. Upon a violation of any provision of the permit, or otherwise in its reasonable discretion, the Department may require additional action by the permittee, its successors and assigns, up to and including the removal of the encroachment and restoration of the right-of-way. In the event additional actions required by the Department under the permit are not undertaken as ordered and within a reasonable time, the Department may in its discretion cause those or other additional corrective actions to be undertaken and the Department may and shall recover the reasonable costs of those corrective actions from the permittee, its successors and assigns.

15. Permittee, its successors and assigns, shall use the encroachment premises in compliance with all requirements of federal law and regulation, including those imposed pursuant to Title VI of the Civil Right Act of 1964 (42 U.S.C. § 2000d et seq.) and the related regulations of the U.S. Department of Transportation in Title 49 C.F.R. Part 21, all as amended.

16. Permittee, its successors and assigns, agree that if the Department determines it is necessary for the facilities or other encroachment authorized by the permit to be removed, relocated or reconstructed in connection with the reconstruction, relocation or improvement of a highway, the Department may revoke permission for the



APPLICATION FOR ENCROACHMENT PERMIT

encroachment to remain under the permit and may order its removal, relocation or reconstruction by the permittee, its successors and assigns, at the expense of the permittee, except where the Department is required by law to pay any or all of those costs.

17. Permittee agrees that the authorized permit is personal to the permittee and shall remain in effect until such time as (a) the permittee's rights to the adjoining real property to have benefitted from the requested encroachment have been relinquished, (b) until all permit obligations have been assumed by appropriate successors and assigns, and (c) unless and until a written release from permit obligations has been granted by the Department. The permit and its requirements shall also bind the real property to have benefitted from the requested encroachment to the extent permitted by law. The permit and the related encroachment become the responsibility of the successors and assigns of the permittee and the successors and assigns of each property owner benefitting from the encroachment, or the encroachment may not otherwise permissibly continue to be maintained on the right-of-way. (Does not apply to utility encroachments serving the general public.)

18. If work authorized by the permit is within a highway construction project in the construction phase, it shall be the responsibility of the permittee to make personal contact with the Department's Engineer on the project in order to coordinate all permitted work with the Department's prime contractor on the project.

19. This permit is not intended to, nor shall it, affect, alter or alleviate any requirement imposed upon the permittee, its successors and assigns, by any other agency.

20. Permittee, its successors and assigns, agrees to contain and maintain all dirt, mud, and other debris emanating from the encroachment away from the surrounding right-of-way and the travel way of the highway hereafter and at all times that its obligations under the permit remain in effect.

EXHIBIT 5

NOTICE OF PROPOSED CHANGES IN WATER RATES

Notice is hereby given that Jackson County Water Association, a public utility furnishing water service within the Commonwealth of Kentucky, on or about the 26th day of April, 2017 pursuant to Kentucky Revised Statute 278.180 and KRS 278.023 and the Rules of the Public Service Commission of Kentucky filed its notice with the Kentucky Public Service Commission ("KPSC"), proposing to change its rates.

Water rates will be at least:	PROPOSED	CURRENT RATES	% Increase
5/8x3/4 meter			
First 2,000 gallons @ \$	24.05. - Minimum Bill.	\$20.58	16.85
Next 18,000 gallons @ \$	10.55. - per 1,000 gallons.	9.03	16.85
Next 30,000 gallons @ \$	8.74. - per 1,000 gallons.	7.48	16.85
All Over 50,000 gallons @ \$	6.84. - per 1,000 gallons.	5.85	16.85
1" meter			
First 5,000 gallons @ \$	55.70. - Minimum Bill.	\$47.67	16.85
Next 15,000 gallons @ \$	10.55. - per 1,000 gallons.	9.03	16.85
Next 30,000 gallons @ \$	8.74 - per 1,000 gallons.	7.48	16.85
All Over 50,000 gallons @ \$	6.84. - per 1,000 gallons.	5.85	16.85
1 ½ " meter			
First 10,000 gallons @ \$	108.45 - Minimum Bill.	\$92.82	16.85
Next 10,000 gallons @ \$	10.55. - per 1,000 gallons.	9.03	16.85
Next 30,000 gallons @ \$	8.74 - per 1,000 gallons.	7.48	16.85
All Over 50,000 gallons @ \$	6.84. - per 1,000 gallons.	5.85	16.85
2" meter			
First 20,000 gallons @ \$	213.95 - Minimum Bill.	\$183.12	16.85
Next 30,000 gallons @ \$	8.74 - per 1,000 gallons.	7.48	16.85
All Over 50,000 gallons @ \$	6.84. - per 1,000 gallons.	5.85	16.85
3" meter			
First 30,000 gallons @ \$	301.35 - Minimum Bill.	\$257.92	16.85
Next 20,000 gallons @ \$	8.74 - per 1,000 gallons.	7.48	16.85
All Over 50,000 gallons @ \$	6.84. - per 1,000 gallons.	5.85	16.85
4" meter			
First 40,000 gallons @ \$	388.75 - Minimum Bill.	\$332.92	16.85
Next 10,000 gallons @ \$	8.74 - per 1,000 gallons.	7.48	16.85
All Over 50,000 gallons @ \$	6.84. - per 1,000 gallons.	5.85	16.85

Wholesale rates will be in accordance with proposed and existing rates

Customer Class	Average Monthly Usage	Average Monthly Bill (Present Rates)	Average Monthly Bill (Proposed Rates)	Increase in Average Monthly Bill (\$)	Increase in Average Monthly Bill (%)
5/8 x3/4 meter	2,880	\$28.53	\$33.33	\$4.80	16.82%
1" meter	6,610	\$62.21	\$72.69	\$10.48	16.85%
1 1/2:" meter	55,555	\$440.02	\$514.15	\$74.13	16.85%
2" meter	48,225	\$394.24	\$460.64	\$66.40	16.84%
3" meter	No customers	n/a	n/a	n/a	n/a
4" meter	110,690	\$762.76	\$891.27	\$128.51	16.84%

Wholesale rates will be in accordance with proposed and existing rate agreements.

The impact on each customer's average bill will vary according to individual consumption levels. However, this impact can be determined by each customer by applying the proposed rates listed above to their respective average consumption levels.

The rates contained in this notice are the rates proposed by Jackson County Water Association under the terms of an agreement with the U.S. Department of Agriculture, Rural Development and KRS 278.023 does not grant the Public Service Commission any discretionary authority to modify or reject any portion of the agreement among the USDA - RD and Jackson County Water Association or to defer the issuance of all necessary orders to implement the terms of the agreement.

This application for rate adjustment is available for examination at its offices listed below. Any person may obtain a copy of the application, testimony or other documents or examine the rate application and any related filings at the offices of Jackson County Water Association listed below or at its website jcwaco.com or the Commission office or its website listed below.

A person may also examine the application at the Public Service Commission's offices at 211 Sower Boulevard, Frankfort, Kentucky, Monday through Friday, 8:00 a.m. to 4:30 p.m., or through the Public Service Commission's Web site at <http://psc.ky.gov>. Comments regarding the application may be submitted to the Public Service Commission through its Web site or by mail to Public Service Commission, Post Office Box 615, Frankfort, Kentucky 40602.

Dallas Cox, President
Highway 421 South,
Box 232
Tyner, KY 40486
606 278 7000 Ph
606 278 7003 Fax
jcwa@prctnet.org

Public Service Commission of Kentucky
211 Sower Blvd.
P.O. Box 615
Frankfort, KY 40602
(502) 564-3940
www.psc.ky.gov

Application
CONTAINS
LARGE OR OVERSIZED
MAP(S)

RECEIVED ON:
04/26/2017