

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC INVESTIGATION INTO EXCESSIVE)	CASE NO.
WATER LOSS BY KENTUCKY'S JURISDICTIONAL)	2019-00041
WATER UTILITIES)	

**RESPONSE OF MORGAN COUNTY WATER DISTRICT
TO COMMISSION ORDER OF July 25, 2019**

Morgan County Water District submits its Response to the Commission's Order of July 25, 2019.

Dated: August 7, 2019

Respectfully submitted,



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erica.stacy.stegman@outlook.com

Counsel for Morgan County Water District

CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, I certify that Morgan County Water District's electronic filing of this Response is a true and accurate copy of the same document being filed in paper medium; that the electronic filing was transmitted to the Public Service Commission on Aug. 7, 2019; that there are currently no parties that the Public Service Commission has excused from participation by electronic means in this proceeding; and that on or before Aug. 9, 2019 this Application in paper medium will be delivered to the Public Service Commission.

A handwritten signature in blue ink, appearing to read "Erin Stephens", is written over a horizontal line.

COMMONWEALTH OF KENTUCKY
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RESPONSE OF
MORGAN COUNTY WATER DISTRICT
TO
COMMISSION ORDER OF July 25, 2019

FILED: August 7, 2019

MORGAN COUNTY WATER DISTRICT

**Response to Commission's Order of July 25, 2019
Case No. 2019-00041**

Request No. 1

Responding Witness: Chernell Holbrook & Paul Nesbitt

R-1. Provide a copy of the utility's most recent loan application to the United States Department of Agriculture – Rural Development (USDA-RD) with all supporting documents and attachments.

A-1. Morgan County Water District's last USDA-RD loan application was submitted in 2009. In March 2012 Morgan County suffered a natural disaster in the form of a tornado. Morgan County Water District lost its office building, including a total loss of all contents of the building. Due to this disaster Morgan County Water District no longer has documentation of the District's most recent USDA-RD loan application and supporting documentation.

In an effort to be fully cooperative with the Commission, Morgan Co. Water District contacted USDA-RD. Mr. Douglas Hoff, the USDA-RD Area Specialist that typically works with Morgan Co., was out of the office. However, the District was able to contact Ms. Teresa Shields who was able to provide some limited documentation; said documentation has been attached below.

Additionally, Morgan Co. Water District is currently working on a new loan application with USDA-RD and the District's engineer anticipates that it will be complete in approximately three weeks. The Preliminary Engineering Report for the new application is complete and has been attached for the Commission's review.

**PRELIMINARY ENGINEERING REPORT
PHASE 12 WATER LINE EXTENSION PROJECT**

Prepared For

**MORGAN COUNTY WATER DISTRICT
450 Prestonsburg Street
West Liberty, Kentucky 41472
Phone (606) 743-1204**

Prepared By:



**201 South Main Street
Lawrenceburg, Kentucky 40342
Phone (502) 859-0907
Fax (502) 859-5580**

JULY 2006

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I. Introduction

The Morgan County Water District is a water utility controlled by five board members. These board members control the Morgan County Water District by voting on issues concerning the District at their monthly meeting. The District is regulated by the Kentucky Division of Water (DOW) and the Public Service Commission (PSC).

Through the proposed Phase 12 Water Line Extension Project, the District will extend water service into un-served areas of Morgan County. Presently, water in the project area is supplied by wells and cisterns. The Morgan County Health Department has performed tests on water samples from the project area. It was found that many of the samples were contaminated and considered unsafe for human consumption. Lisa Cantrell of the Morgan County Health Department stated (See Appendix A) that harmful bacteria are especially hard on the very young, elderly and those with lowered immunity to disease. The proposed project should eliminate these existing health and sanitation hazards for those persons currently living in the proposed service area.

II. Existing Water System

The Morgan County Water District (MCWD) operates a water distribution system that is classified by the Division of Water as Class II-D. This classification means that the system serves a population of at least 500 but not more than 3,000.

The original portion of the MCWD system was constructed in 1990 and initially served approximately 270 customers. The distribution system has continued to grow and now serves about 1845 customers through approximately 360 miles of water main ranging in size from 2-inch through 8-inch diameter. The MCWD also has five (5) water storage tanks with a combined storage capacity of 656,000 gallons.

The Morgan County Water District currently has one project (Phase 11) under construction and two projects (Phase 11A and 11B) in the design stage. The phase 11 project is anticipated to be complete by January 2007. This project is being funded by a Rural Development Grant / Loan and an ARC grant. It is estimated that this project will serve approximately 238 new customers. Phase 11A and 11B are estimated to serve 105 and 87 new customers respectively.

The MCWD currently has three sources of water supply; the City of West Liberty, the Caverun Water Commission and City of Paintsville. This should allow the water district ample supply of water and greatly increase the flexibility of the water district.

The MCWD takes great pride in its ability to supply quality water to its customers and is continually trying to extend its service to rural areas and provide safe potable water to the residents.

III. The Proposed Project

The MCWD proposes to extend water services to rural areas of Morgan County in need of safe, potable water. The proposed water project will serve approximately 193 of 297 potential customers along the roads listed in Table 1 below (See Appendix B Project maps). A general breakdown of the project by road is also shown in Table 1. The proposed project will require approximately 42.6 miles of water line ranging in size from 3-inch to 6-inch diameter.

IV. Cost Summary

TABLE 1 - BREAKDOWN OF PROJECT BY ROADS

Road Name	Estimated Construction Cost, \$	Water Line Length Miles	Potential Customers	Line Size, Inches
Assembly of Faith Church Rd.	20,500	0.40	6	3
Wilson Cemetery Road	27,800	0.75	5	3
Right Fork Pleasant Road	26,800	0.50	5	3
Old Loop 519	32,100	0.95	2	3
Kendall Hill Road	15,500	0.40	3	3
Hwy. 1161	311,600	6.15	25	6
Coon Hollow Road	16,500	0.55	1	3
Rube Branch	12,800	0.25	4	3
Mortica Branch	30,000	0.75	6	3
Indian Branch	27,800	0.75	6	3
Gevedon Branch	63,700	1.38	10	3
Trace Fork	13,800	0.25	1	3
Steele Branch	31,300	0.75	7	3
Barker Branch	30,300	0.60	7	3
Benton Branch	25,000	0.30	5	3
Seller Phipps Road	21,000	0.40	5	3
Perkins Hollow Road	15,000	0.20	4	3
Perkins Cemetery Road	78,400	1.10	6	3
Hwy. 205	88,500	1.40	6	6
Demund Loop	56,600	1.10	8	4
Halsey Branch	81,200	2.15	8	4
Halsey Fork	72,400	1.60	12	4
R. Stacey Road	20,800	0.45	4	4
Nickels Branch	70,100	1.90	8	4
Walters Branch	52,600	1.35	8	4
Caskey Branch	19,800	0.55	2	3
Robinson Branch	22,000	0.45	2	3

**Preliminary Engineering Report
Phase 12 Water Line Extension Project**

Glen Lawson Road	32,000	0.75	4	3
Woody Cantrell	9,000	0.15	4	3
Pelfry Branch	22,300	0.50	6	3
Big Branch	25,920	0.25	7	3
Conley Branch	21,700	0.55	11	3
Muddy Branch	26,500	0.65	2	3
Old House Branch	53,600	1.25	5	3
Dedman Branch	56,500	1.05	18	4
Hinson Branch	19,400	0.30	6	3
Piney Branch	24,800	0.55	5	3
Splitwood Branch	32,100	0.95	1	3
Pasture Branch	21,200	0.45	2	3
Wheeler Raod	19,000	0.20	4	3
Keeton Branch	24,000	0.30	10	3
Little Caney Branch	76,200	1.65	10	4
Hwy.1715	310,380	1.35	15	4
Doc Ison Branch	11,900	0.25	2	3
Fyfee Branch	40,000	0.80	12	4
Left Fyfee Branch	19,600	0.45	7	3
TOTALS	2,130,000	42.6	297	

**TABLE 2 - MORGAN COUNTY WATER DISTRICT
PHASE 12 WATER LINE EXTENSIONS
ESTIMATED CONSTRUCTION COST**

NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	6" PVC Water Line	62,000	LF	\$8.00	\$496,000
2	4" PVC Water Line	75,000	LF	\$6.00	\$450,000
3	3" PVC Water Line	90,000	LF	\$5.00	\$450,000
4	10" Steel Casing, Bore & Jack	600	LF	\$90.00	\$54,000
5	8" Steel Casing, Bore & Jack	1,400	LF	\$85.00	\$119,000
6	6" Gate Valve	35	EA	\$700.00	\$24,500
7	4" Gate Valve	22	EA	\$650.00	\$14,300
8	3" Gate Valve	18	EA	\$450.00	\$8,100
9	Flush Hydrant	11	EA	\$2,700.00	\$29,700
10	4" Blow Off Assembly	10	EA	\$750.00	\$7,500
11	3" Blow Off Assembly	34	EA	\$700.00	\$23,800
12	Air Release Valve	10	EA	\$1,000.00	\$10,000
13	Creek Crossing	1,200	LF	\$80.00	\$96,000
14	Meter Setting	193	EA	\$700.00	\$135,100
15	Connection	46	EA	\$2,000.00	\$92,000

**Preliminary Engineering Report
Phase 12 Water Line Extension Project**

Page 4

16	Pressure Regulating Valve with Vault	2	EA	\$5,000.00	\$10,000
17	Relocate Existing Pump Station	1	EA	\$45,000.00	\$45,000
18	Hydropneumatic Pump Station	1	EA	\$75,000.00	\$75,000

TOTAL **\$2,140,000**

TABLE 3 - ESTIMATED PROJECT COST

Construction Cost	\$2,140,000
Contingencies	214,000
Engineering	162,000
Inspection	97,000
Legal and Administrative	32,000
Miscellaneous (PE Report, Archeological, PSC, Environmental Ass.)	25,000
Land and/or Rights	50,000
<u>Interest During Construction</u>	<u>30,000</u>

TOTAL ESTIMATED PROJECT COST **\$2,750,000**

V. Funding

Proposed funding for this project is being made available as shown in Table 4.

TABLE 4 - FUNDING SOURCES

ARC Grant	\$500,000
Rural Development Grant	\$780,000
Rural Development Loan	\$1,420,000
<u>Tap Fees</u>	<u>\$50,000</u>

TOTAL FUNDING **\$2,750,000**

VI. Rate Analysis

A. Expenses

1. General

There are normally three components to be considered in calculating a system's total expenses. They are Operation and Maintenance Costs (O&M), Annual Debt Service (payment for principal and interest on the bonded indebtedness) and Coverage (monthly "set aside" from revenues to insure payment of Debt Service in "lean" times).

2. Operation and Maintenance Costs

The Operation and Maintenance costs are the largest and most variable portion of the budget. With historical data, a very good estimate of these costs can be made. Table 5 shows: the O&M costs for 2005; the estimated O&M costs for the three projects that the water district is undertaking, the proposed project; and the Total O&M costs for the existing, current and proposed projects.

TABLE 5 - PROPOSED O&M EXPENSES

<u>Expense Description(3)</u>	<u>Existing System(1)</u>	<u>Current Projects(4)</u>	<u>Proposed Project (2)</u>	<u>Total</u>
Water Purchase	\$269,230	\$35,588	\$15,973	\$320,791
Transmission & Distribution	\$305,057	\$12,000	\$10,000	\$327,057
Administrative	\$36,942	\$2,500	\$2,000	\$41,442
<u>Pumping Expense</u>	<u>\$6,000</u>	<u>\$1,000</u>	<u>\$0</u>	<u>\$7,000</u>
TOTAL O&M EXPENSES	\$617,229	\$51,088	\$27,973	\$696,290

(1) The values listed are based on the 2005 fiscal year audit.

(2) Assumes 193 customers using 3300 gallons per month (Phase 12). Cost of water purchase is \$2.09 per 1000 gallons (Average From City of West Liberty, Paintsville, and Caverun Water Commission)

(3) Does not include depreciation.

(4) Assumes 430 customers using 3300 gallons per month (Phase 11, 11A and 11B). Cost of water purchase \$2.09 per 1000 gallons (Average From City of West Liberty, Paintsville, and Caverun Water Commission).

3. Debt Service

The annual debt service (payment for principal and interest) is established in the bond ordinance for each bond issue. The actual payment is dependent on the interest rate and term of the bond issue. The RD's bonds are for a term of 40 years with principal payments deferred for the first two years. Based on the 2005 audit, the Morgan County Water District will have an annual P&I payment of approximately \$96,668 in existing bonds for the year 2007. In 2008, the annual P&I payment in bonds will be \$96,358.

The RD loan on the current projects as listed above is proposed to be \$1,000,000. The annual P&I for the project is estimated to be \$54,000, at the RD interest rate of 4.5%. The proposed project will have a bond issue of \$1,620,000 at an estimated interest rate of 4.5% interest. The annual P&I Payment is estimated to be \$87,500.

4. Coverage

Coverage is RD's requirement for establishing a monthly "set aside" to ensure payment of debt service should the utility have a "lean" year or some major unexpected cost. This money is a percent of the monthly revenues with a pre-established "cap." It is normally placed in a reserve account and is not available to the Utility for O&M Expenses without RD's approval.

The normal percent used by RD's for Coverage is 10% on each bond issue. That was the percent that was used in the following rate analysis for the MCWD.

5. Summary of Expenses

TABLE 6 - SUMMARY OF EXPENSES

<u>Service Area</u>	<u>Annual O&M Expenses</u>	<u>Debt Service</u>	<u>Coverage At 10%</u>	<u>Total</u>
Existing System	\$617,229	\$96,358 ⁽¹⁾	\$9,666	\$723,253
Current Projects	\$51,000	\$54,000	\$5,400	\$110,400
Proposed Project	\$28,000	\$87,500	\$8,750	\$124,250
TOTAL	\$696,229	\$237,858	\$23,816	\$957,903

(1) Debt Service due in 2008 according to 2005 audit.

Therefore, the MCWD needs to collect a minimum of \$957,903 annually to break even. Any amount in excess of that figure is surplus and can be used to make additional capital improvements to the water system and/or make repairs to the existing system.

B. Income Required

1. General

Income for a utility comes from several sources: the sale of water, interest income on investments; fees received from disconnect/reconnect/late charges and surcharges. The latter is an attempt to extend service into new areas by letting those that receive the service pay a more proportionate share of the cost. It also is an attempt at not making the first customers in a utility continually pay for expansion for that system.

The MCWD has not previously used a surcharge and it is felt that a surcharge will not be required for the proposed project.

2. Customers and Average Usage

The customer count and usage were provided by the MCWD.

TABLE 7 - SUMMARY OF CUSTOMER COUNT AND USAGE

<u>Service Area</u>	<u>Number of Customers</u>	<u>Average Monthly Usage, Gallons</u>
Existing System	1845	4000
Current Projects	430	3400
Proposed Project	190	3400

(1) Assumed same monthly usage since the socio-economic makeup of the proposed customers is equal to the existing customers.

3. Estimated Income

Based on the audited financial statements for the year ending 2005, operating income from water sales alone was \$728,976. Based on adding 430 new customers on the current project and 193 on the proposed project, at an average water usage rate of approximately \$32.79, the new customers should generate an additional \$171,964 and \$73,163 respectively in income by 2008 year end. Table

8 includes a summary of the estimated income calculations from water sales alone. Please see the Actual Water Usage Analysis and Forecasts in Appendix C.

TABLE 8 - ESTIMATED INCOME FROM WATER SALES ALONE

Service Area	Year End 2005	Year End⁽¹⁾ 2006	Year End⁽¹⁾ 2007	Projected⁽¹⁾ 2008
Existing System	\$728,976	\$745,950	\$763,450	\$780,949
Current Projects	---	\$165,141	\$168,552	\$171,964
Proposed Project	---	---	\$72,063	\$73,163
TOTAL ESTIMATED ANNUAL INCOME				\$1,026,076

(1) Project income includes 2.5% growth in system per year.

C. Summary of Rate Analysis

TABLE 9 - SUMMARY OF RATE ANALYSIS

Estimated Annual Expenses for Entire System (Including Proposed Project)	\$957,903
Estimated Income for Entire System (Including Proposed Project)	\$1,026,076
Estimated Surplus	\$68,173

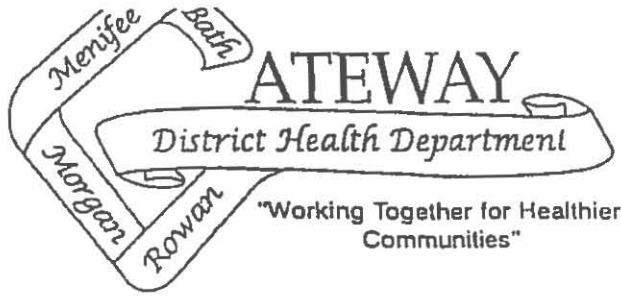
VII. Recommendation

It is recommended that the project be funded by a Rural Development Loan and Grant and a letter of conditions be issued as soon as possible.

Based on the above calculations, the proposed rates, along with the assumptions made, RD should allow the MCWD to construct the proposed project. It appears they can meet all current and proposed debts and expenses, and still have a surplus of funds.

APPENDIX A

HEALTH DEPARTMENT LETTER CONCERNING WATER QUALITY



Morgan Co. Health Center
493 Riverside Drive
West Liberty, KY 41472
(606) 768-2151
Fax: (606) 768-2153

January 27, 2006

Monty Rhody, P.E.
Cann-Tech, LLC
201 S. Main Street
Lawrenceburg, KY 40342

Received

JAN 30 2006

Re: Phase 11 Water Line Extensions
Morgan County Water District

Cann - Tech, LLC

Dear Mr. Rhody:

Many of the wells tested in Morgan County have been found to be contaminated with coliform bacteria or e-coli. These are organisms that indicate that the water supply may be contaminated with harmful bacteria. These harmful bacteria are especially hard on the very young, the very old and those with lowered immunity to disease. It is my opinion that the addition of public water, to any part of Morgan County, would most certainly be beneficial to the health of the people living in that area.

Sincerely,

Lisa A. Cantrell
Sr. Health Environmentalist

BATH

MENIFEE

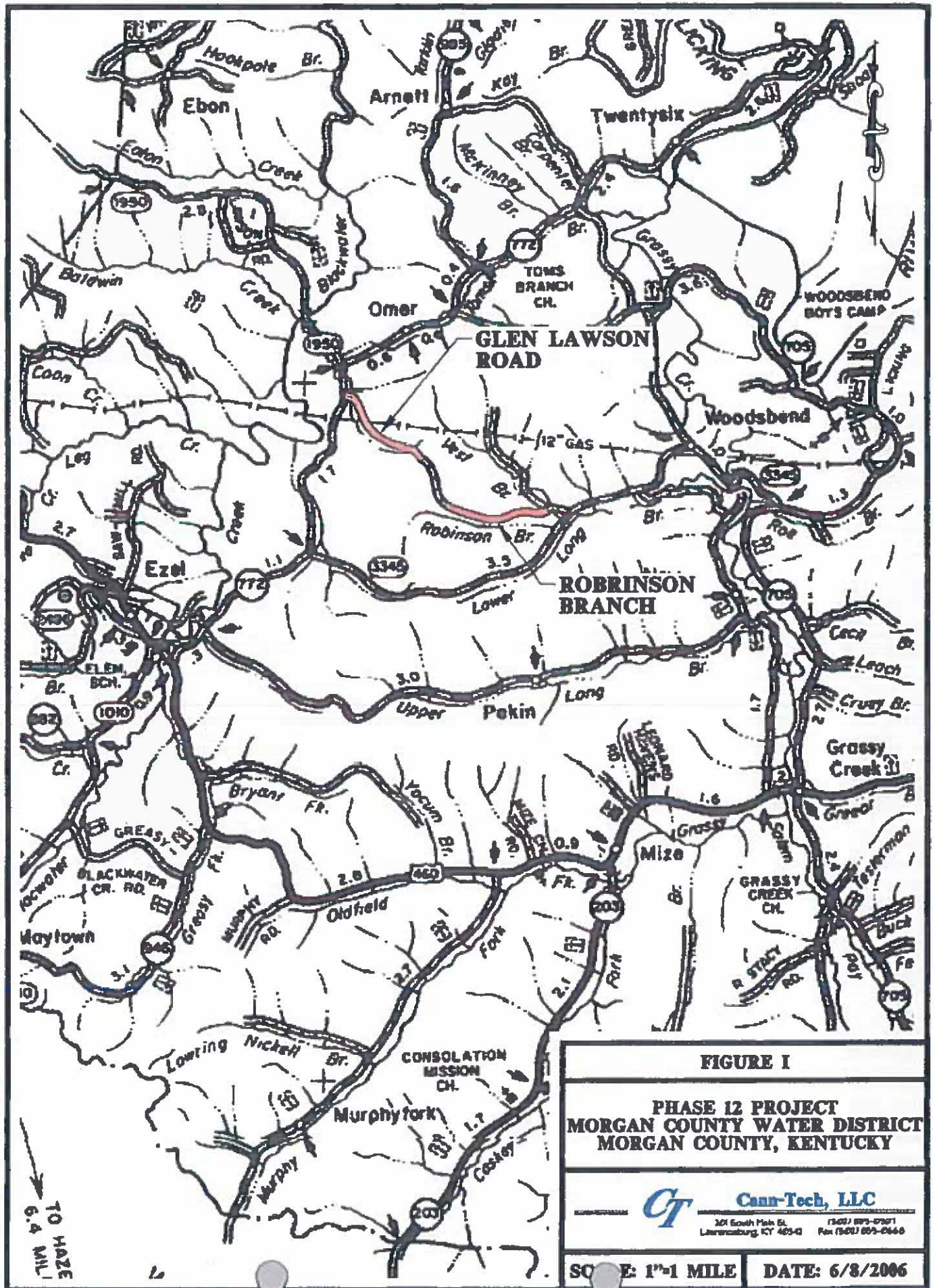


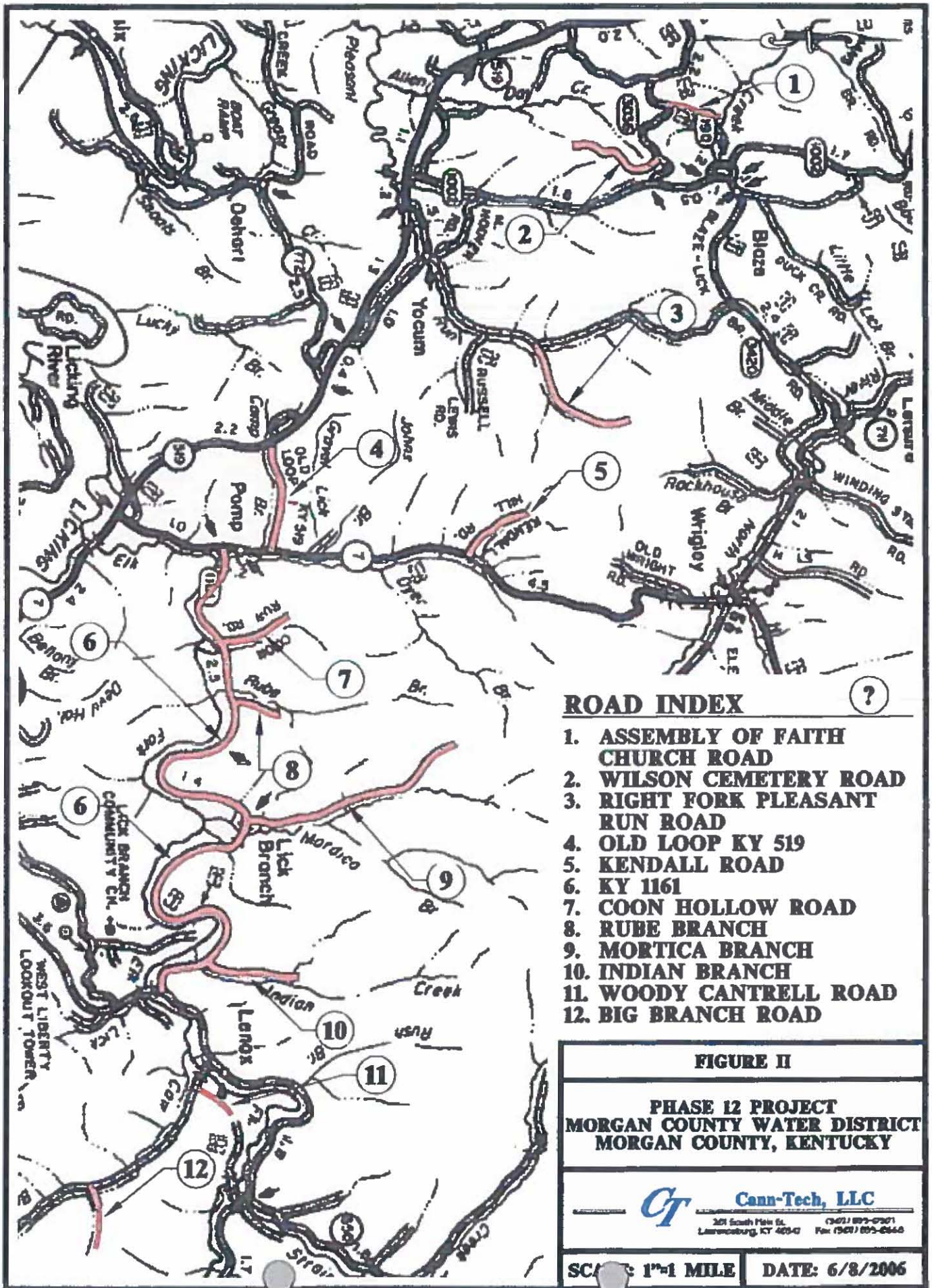
MORGAN

ROWAN

Working Together for Healthier Communities

APPENDIX B
PROJECTS MAPS





ROAD INDEX

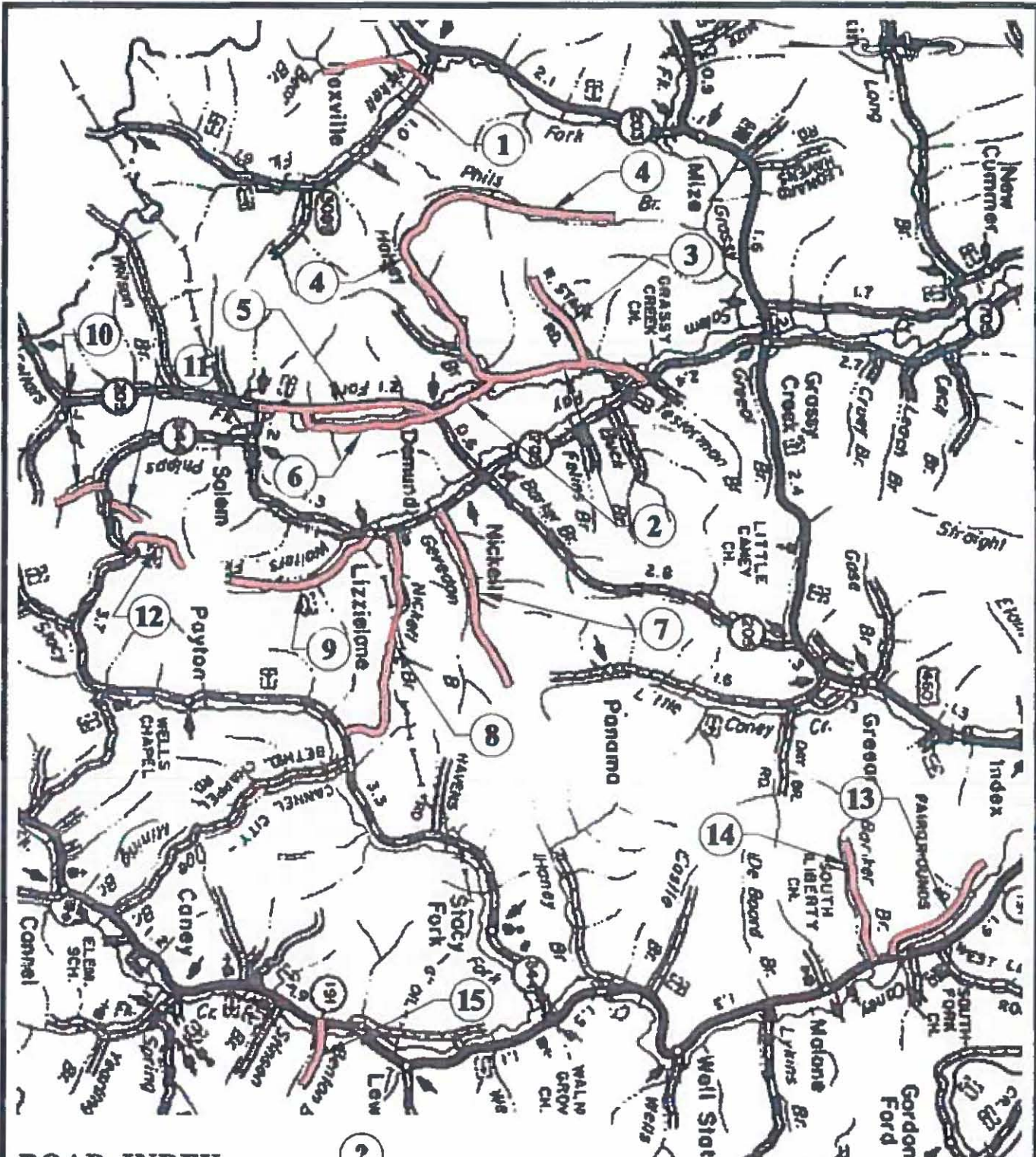
1. ASSEMBLY OF FAITH CHURCH ROAD
2. WILSON CEMETERY ROAD
3. RIGHT FORK PLEASANT RUN ROAD
4. OLD LOOP KY 519
5. KENDALL ROAD
6. KY 1161
7. COON HOLLOW ROAD
8. RUBE BRANCH
9. MORTICA BRANCH
10. INDIAN BRANCH
11. WOODY CANTRELL ROAD
12. BIG BRANCH ROAD

FIGURE II

**PHASE 12 PROJECT
MORGAN COUNTY WATER DISTRICT
MORGAN COUNTY, KENTUCKY**

CT **Cann-Tech, LLC**
201 South Main St. (767) 895-0701
 Lawrenceburg, KY 40340 Fax (767) 895-0840

SCALE: 1"=1 MILE **DATE: 6/8/2006**



ROAD INDEX

- | | |
|-------------------|---------------------------|
| 1. CASKEY BRANCH | 10. SELLERS PHIPP BRANCH |
| 2. R. STACEY ROAD | 11. PERKINS HOLLOW ROAD |
| 3. HALSEY BRANCH | 12. PERKINS CEMETERY ROAD |
| 4. HALSEY FORK | 13. STEELE BRANCH |
| 5. KY. 205 | 14. BARKER BRANCH |
| 6. DEMUND LOOP | 15. BENTON BRANCH |
| 7. GEVEDON BRANCH | |
| 8. NICKELL BRANCH | |
| 9. WALTERS BRANCH | |

FIGURE III

**PHASE 12 PROJECT
MORGAN COUNTY WATER DISTRICT
MORGAN COUNTY, KENTUCKY**

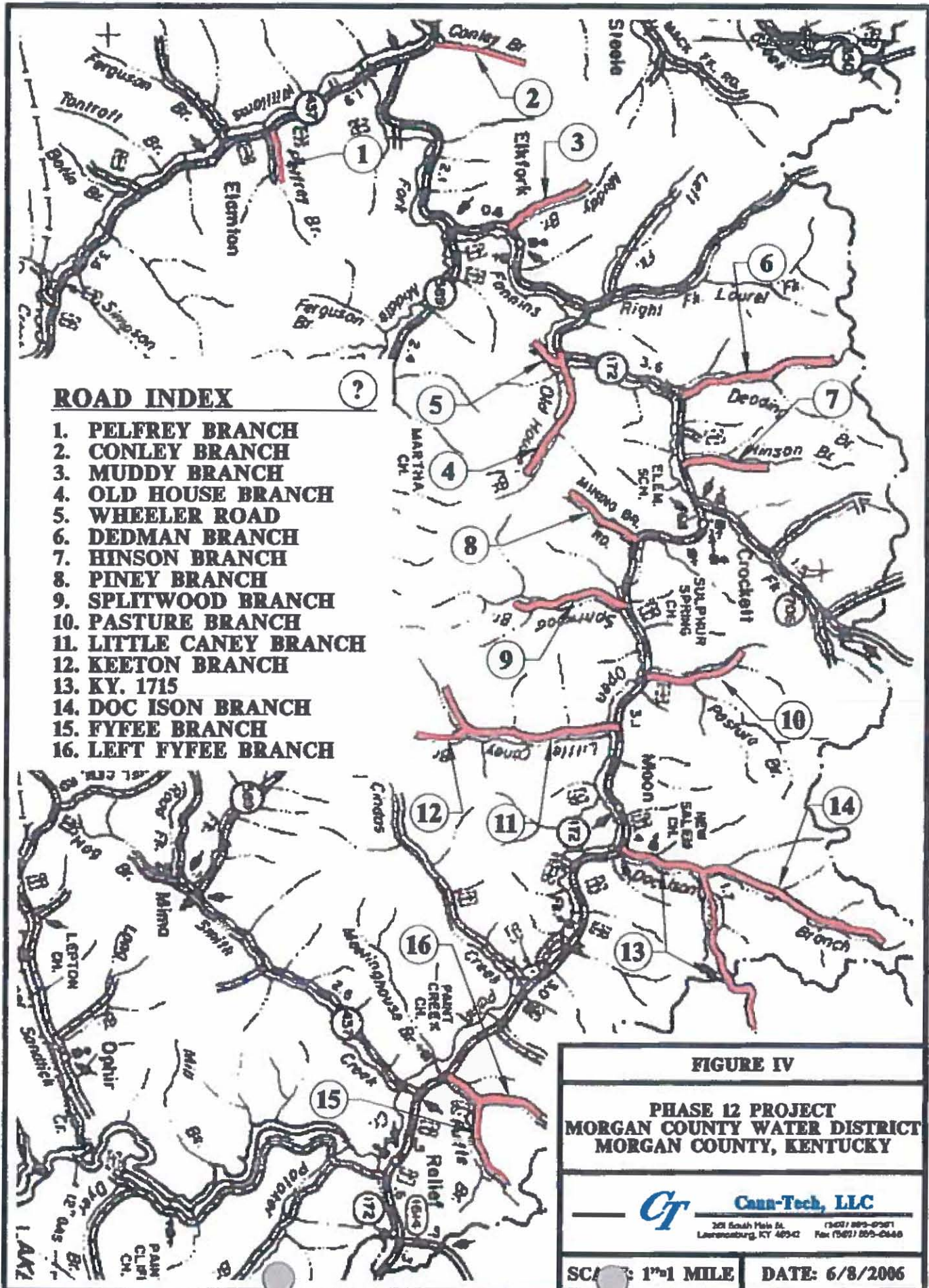


Cann-Tech, LLC

201 South Pike St. Lawrenceburg, KY 40342 (502) 895-0787 Fax (502) 895-0666

SCALE: 1"=1 MILE

DATE: 6/8/2006




ROAD INDEX

- 1. PELFREY BRANCH
- 2. CONLEY BRANCH
- 3. MUDDY BRANCH
- 4. OLD HOUSE BRANCH
- 5. WHEELER ROAD
- 6. DEDMAN BRANCH
- 7. HINSON BRANCH
- 8. PINEY BRANCH
- 9. SPLITWOOD BRANCH
- 10. PASTURE BRANCH
- 11. LITTLE CANEY BRANCH
- 12. KEETON BRANCH
- 13. KY. 1715
- 14. DOC ISON BRANCH
- 15. FYFEE BRANCH
- 16. LEFT FYFEE BRANCH

FIGURE IV

**PHASE 12 PROJECT
MORGAN COUNTY WATER DISTRICT
MORGAN COUNTY, KENTUCKY**


Cann-Tech, LLC
201 South Main St. Lawrenceburg, KY 40342 (502) 895-0201 Fax (502) 895-0440

SCALE: 1"=1 MILE **DATE: 6/8/2006**

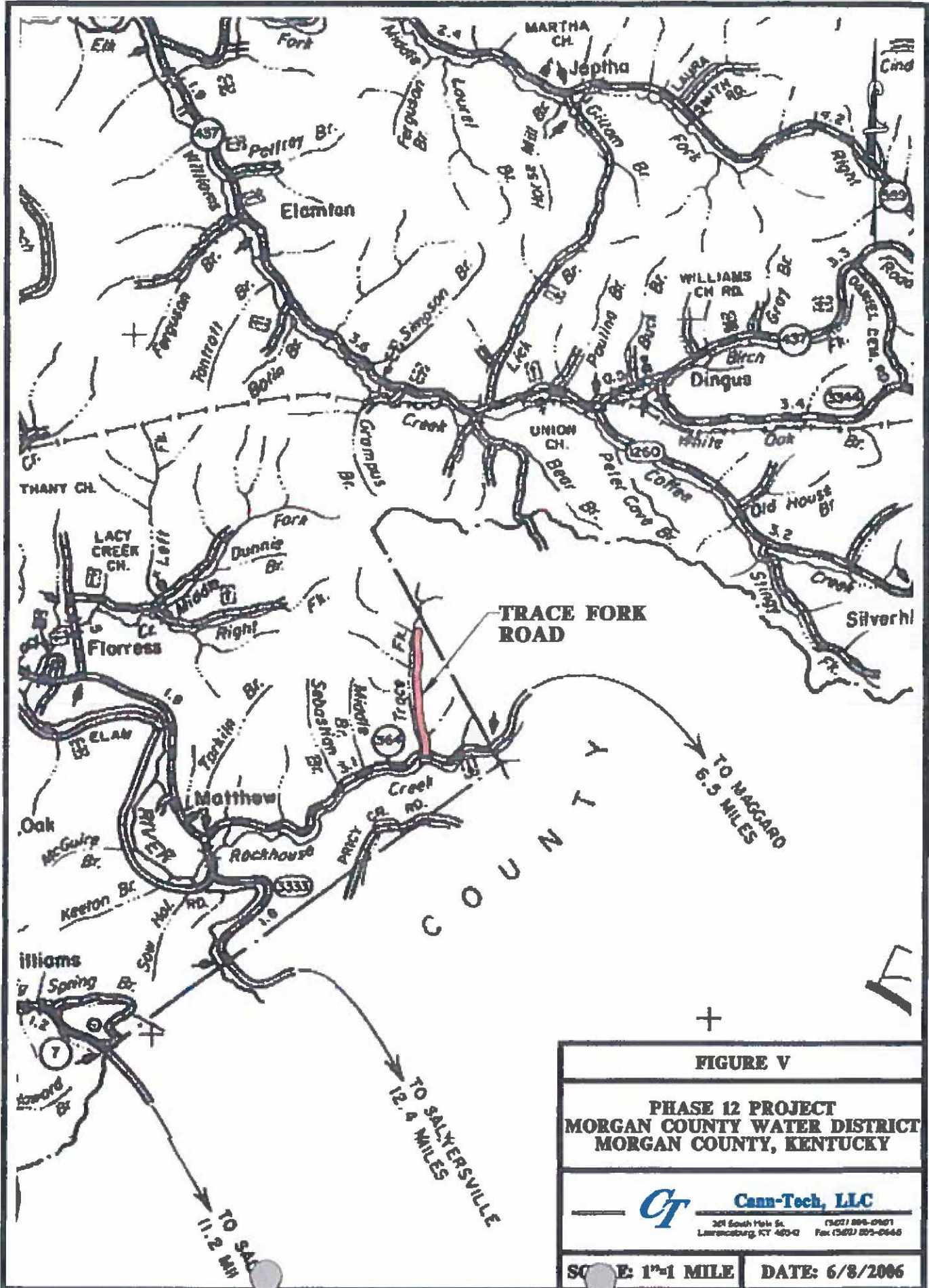
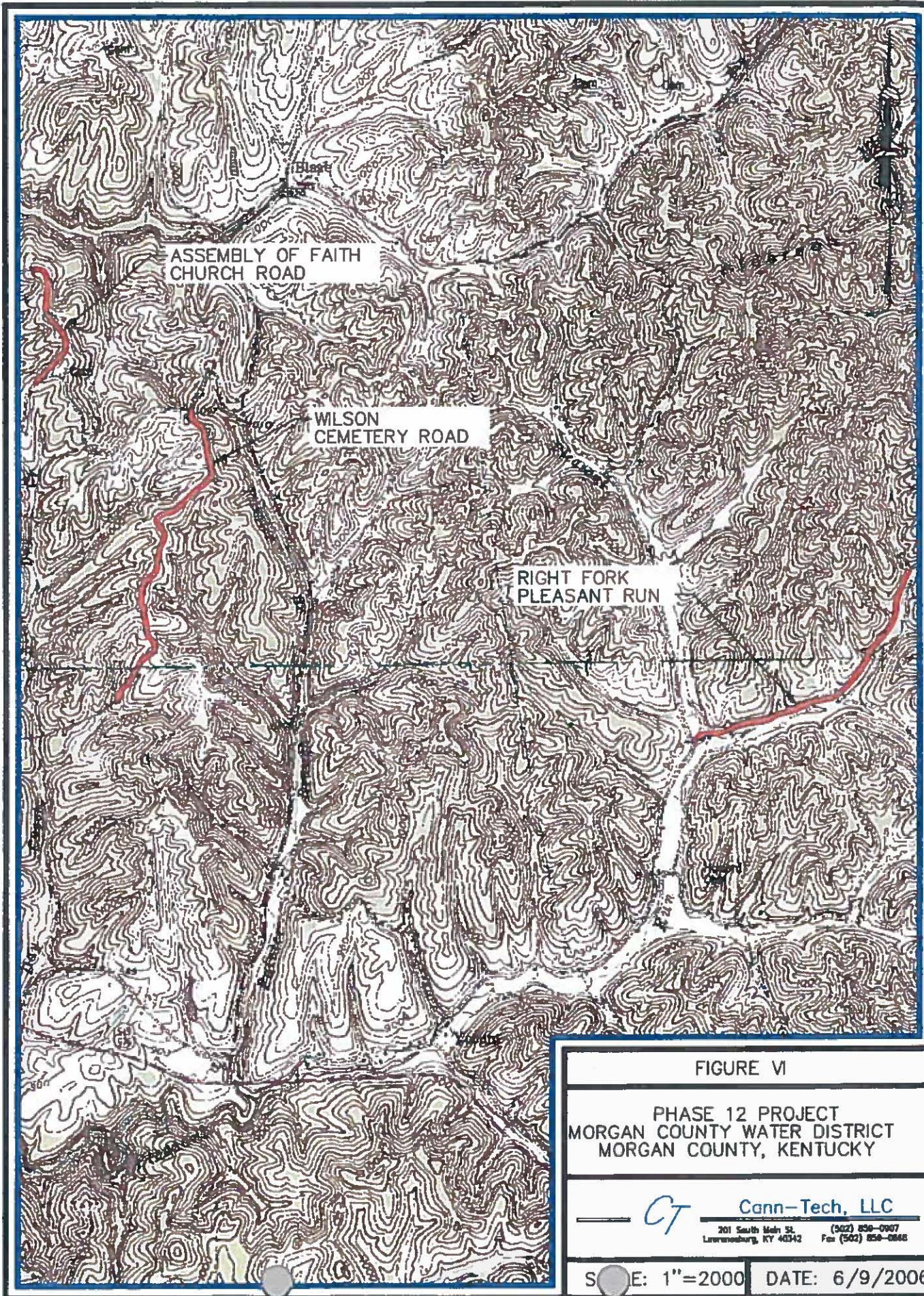


FIGURE V

PHASE 12 PROJECT
MORGAN COUNTY WATER DISTRICT
MORGAN COUNTY, KENTUCKY

CT **Cann-Tech, LLC**
 201 South Main St. (502) 896-0907
 Lawrenceburg, KY 40342 Fax (502) 895-0646

SCALE: 1"=1 MILE | **DATE: 6/8/2006**



ASSEMBLY OF FAITH
CHURCH ROAD

WILSON
CEMETERY ROAD

RIGHT FORK
PLEASANT RUN

FIGURE VI

PHASE 12 PROJECT
MORGAN COUNTY WATER DISTRICT
MORGAN COUNTY, KENTUCKY

CT Cann-Tech, LLC
201 South Main St. (502) 856-0907
Lawrenceburg, KY 40342 Fax (502) 856-0848

Scale: 1"=2000 DATE: 6/9/2006

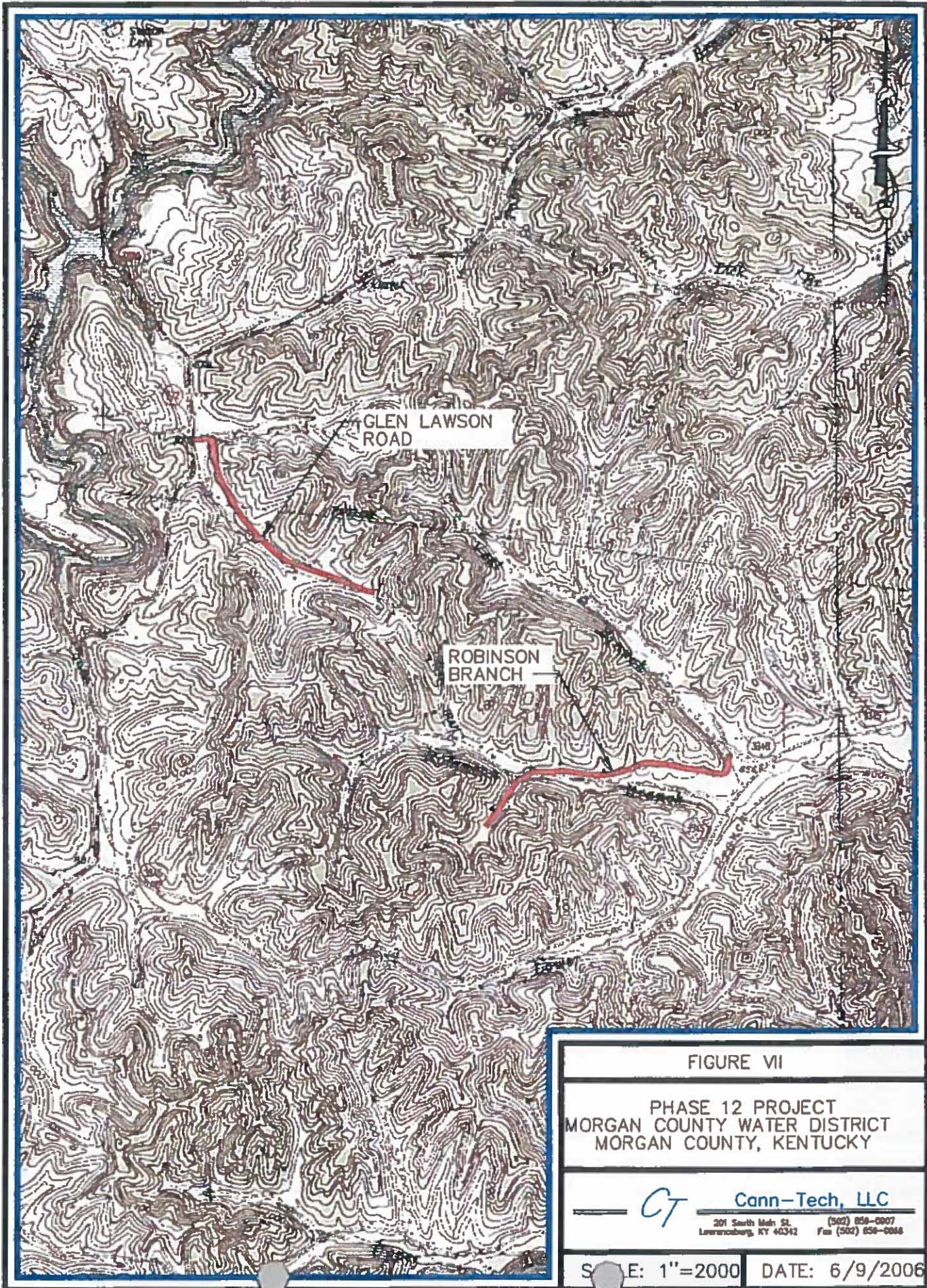


FIGURE VII

PHASE 12 PROJECT
MORGAN COUNTY WATER DISTRICT
MORGAN COUNTY, KENTUCKY

CT **Cann-Tech, LLC**
201 South Main St. (502) 858-0907
Lawrenceburg, KY 40342 Fax (502) 858-0888

SCALE: 1"=2000 DATE: 6/9/2006

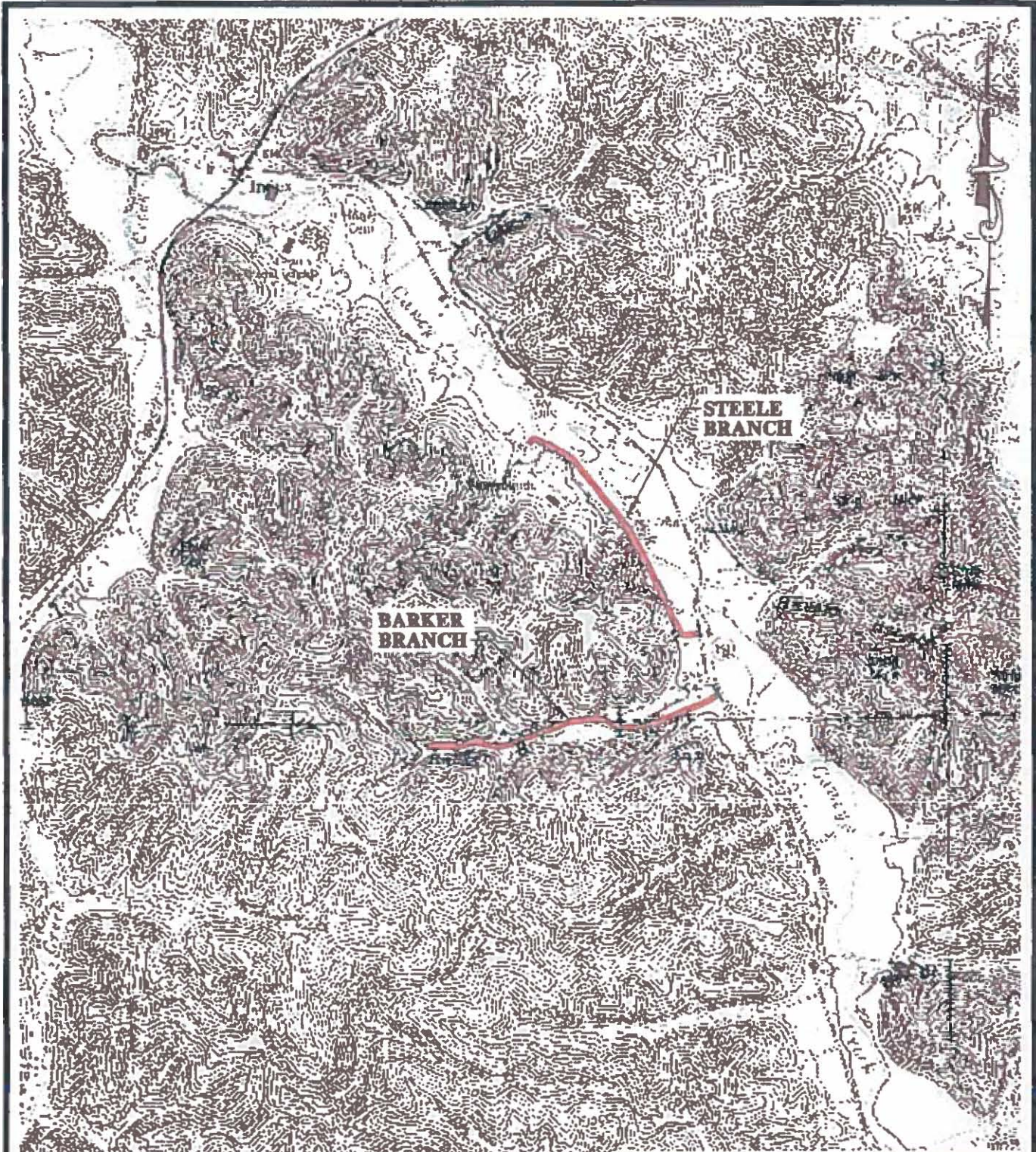


FIGURE VIII

**PHASE 12 PROJECT
MORGAN COUNTY WATER DISTRICT
MORGAN COUNTY, KENTUCKY**



Cann-Tech, LLC

328 South Main St. Lawrenceburg, KY 40342
 (502) 885-8901 Fax (502) 885-8888

SCALE: 1"=2000'

DATE: 6/9/2006

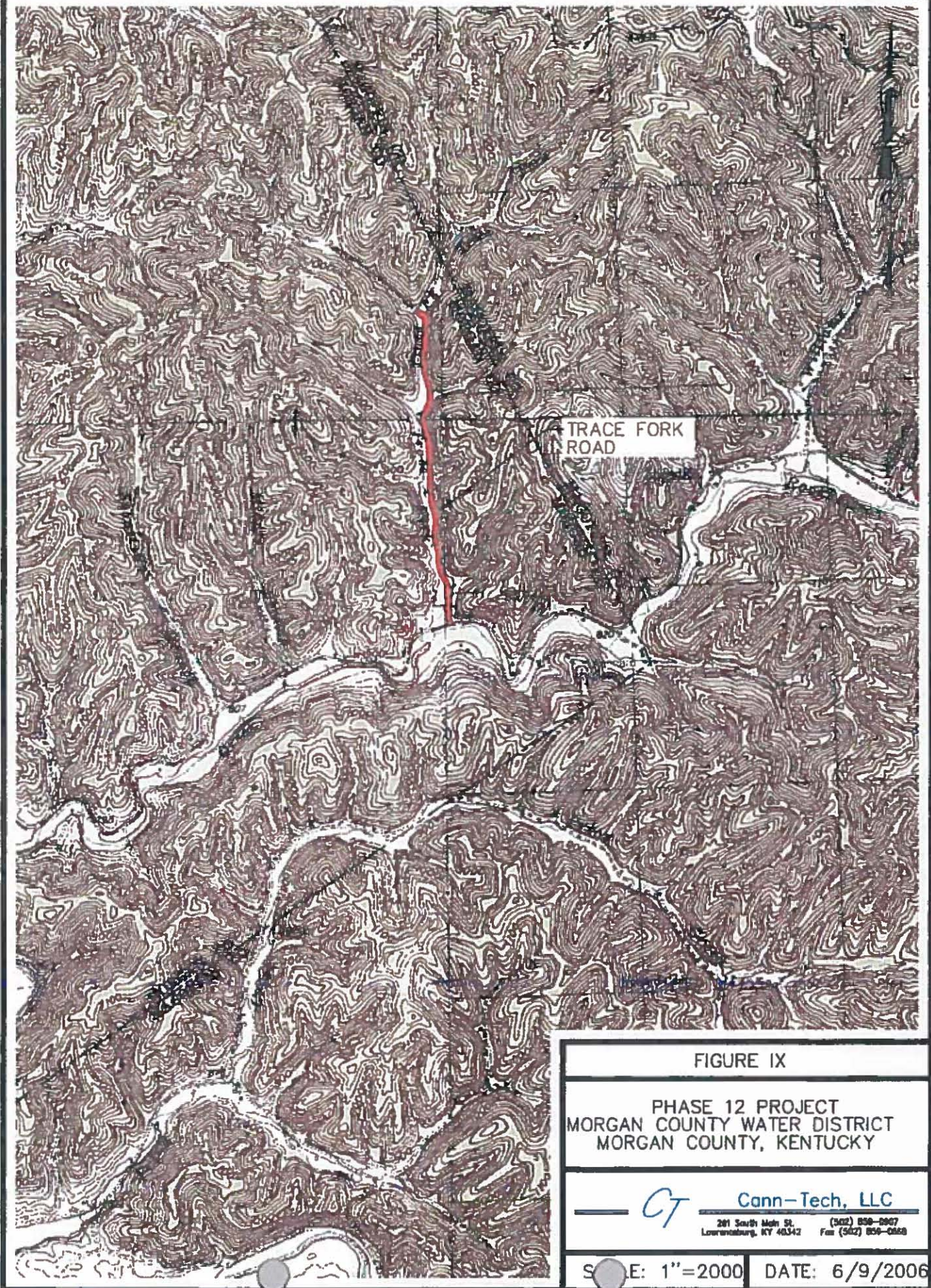
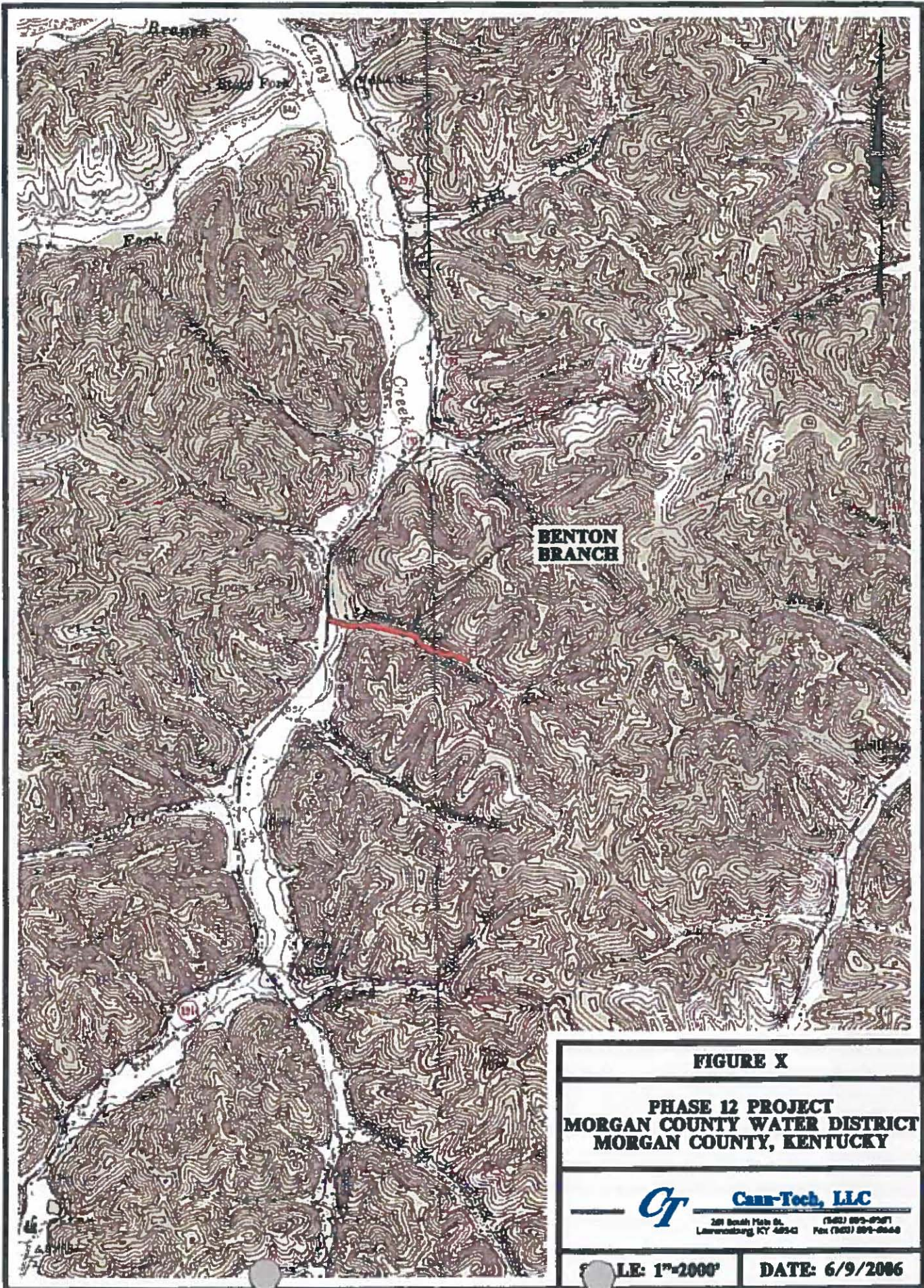


FIGURE IX

PHASE 12 PROJECT
MORGAN COUNTY WATER DISTRICT
MORGAN COUNTY, KENTUCKY

 **Cann-Tech, LLC**
281 South Main St. (502) 859-0907
Lowmireburg, KY 40342 Fax (502) 859-0468

SCALE: 1"=2000 DATE: 6/9/2006



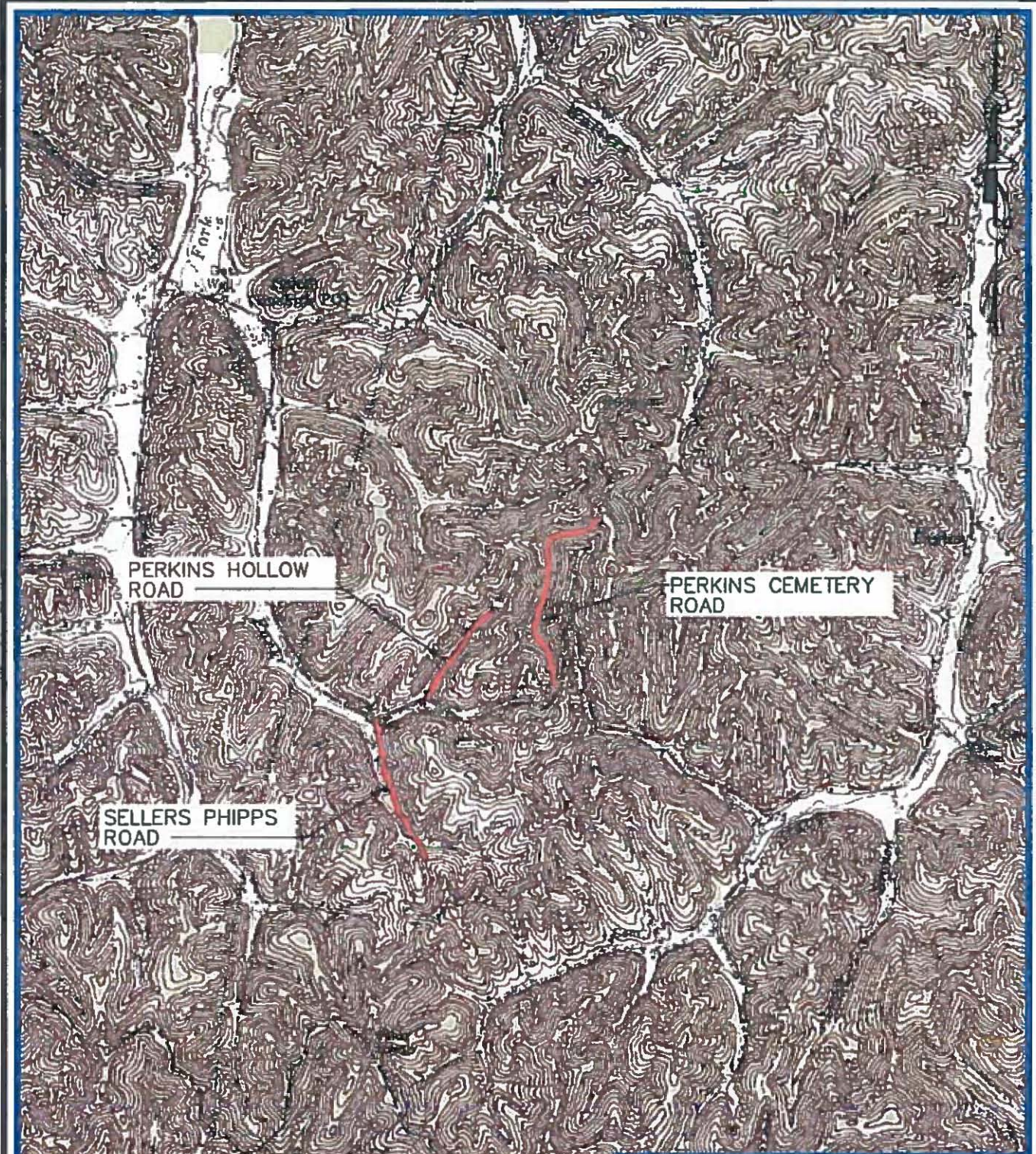


FIGURE XI

PHASE 12 PROJECT
MORGAN COUNTY WATER DISTRICT
MORGAN COUNTY, KENTUCKY



Cann-Tech, LLC

201 South Main St. (502) 859-0807
Lawrenceburg, KY 40342 Fax (502) 859-0868

SCALE: 1"=2000

DATE: 6/9/2006

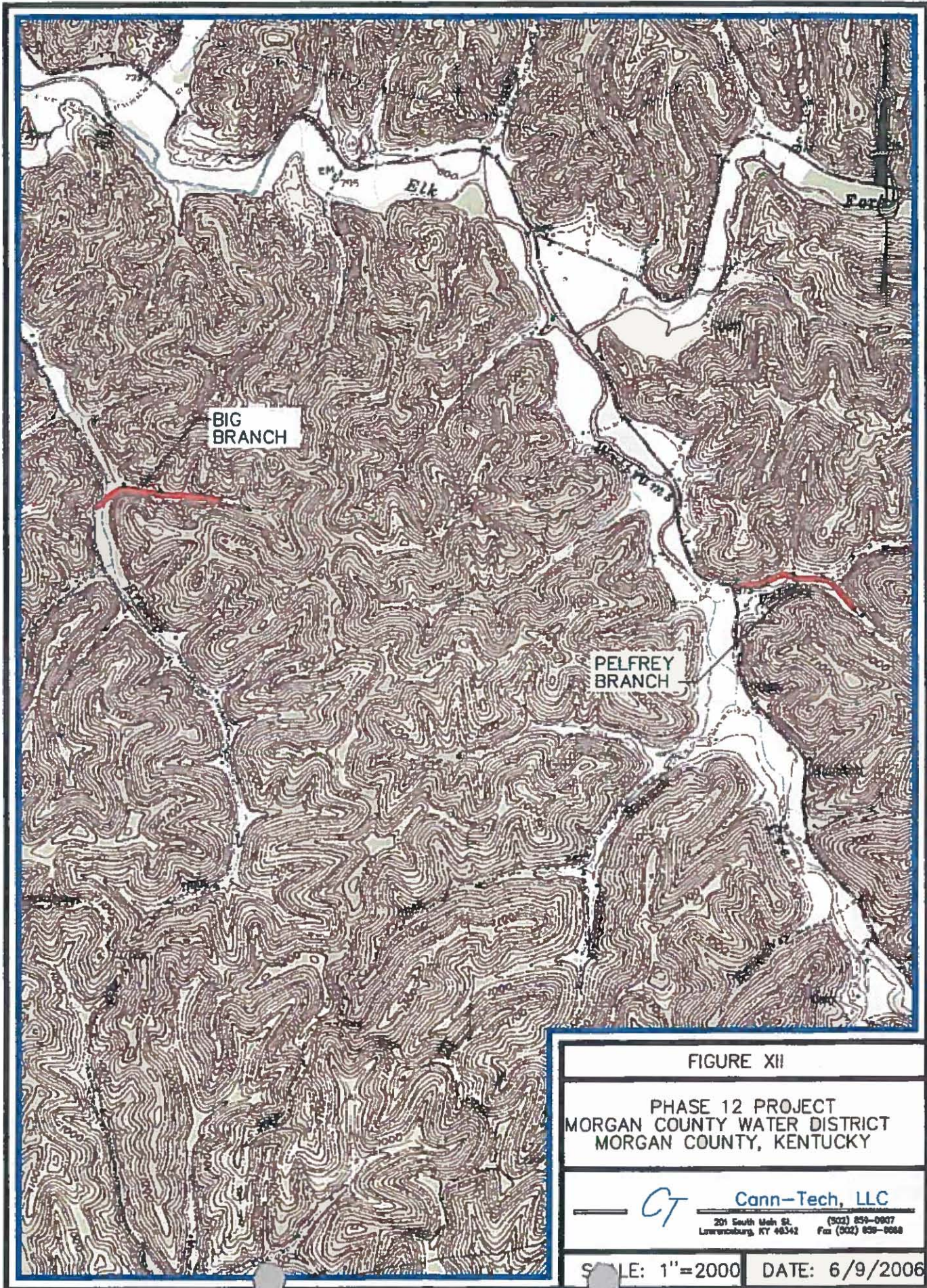


FIGURE XII

PHASE 12 PROJECT
MORGAN COUNTY WATER DISTRICT
MORGAN COUNTY, KENTUCKY

 **Cann-Tech, LLC**
201 South Main St. (502) 859-0907
Lawrenceburg, KY 40342 Fax (502) 859-9888

SCALE: 1"=2000 DATE: 6/9/2006

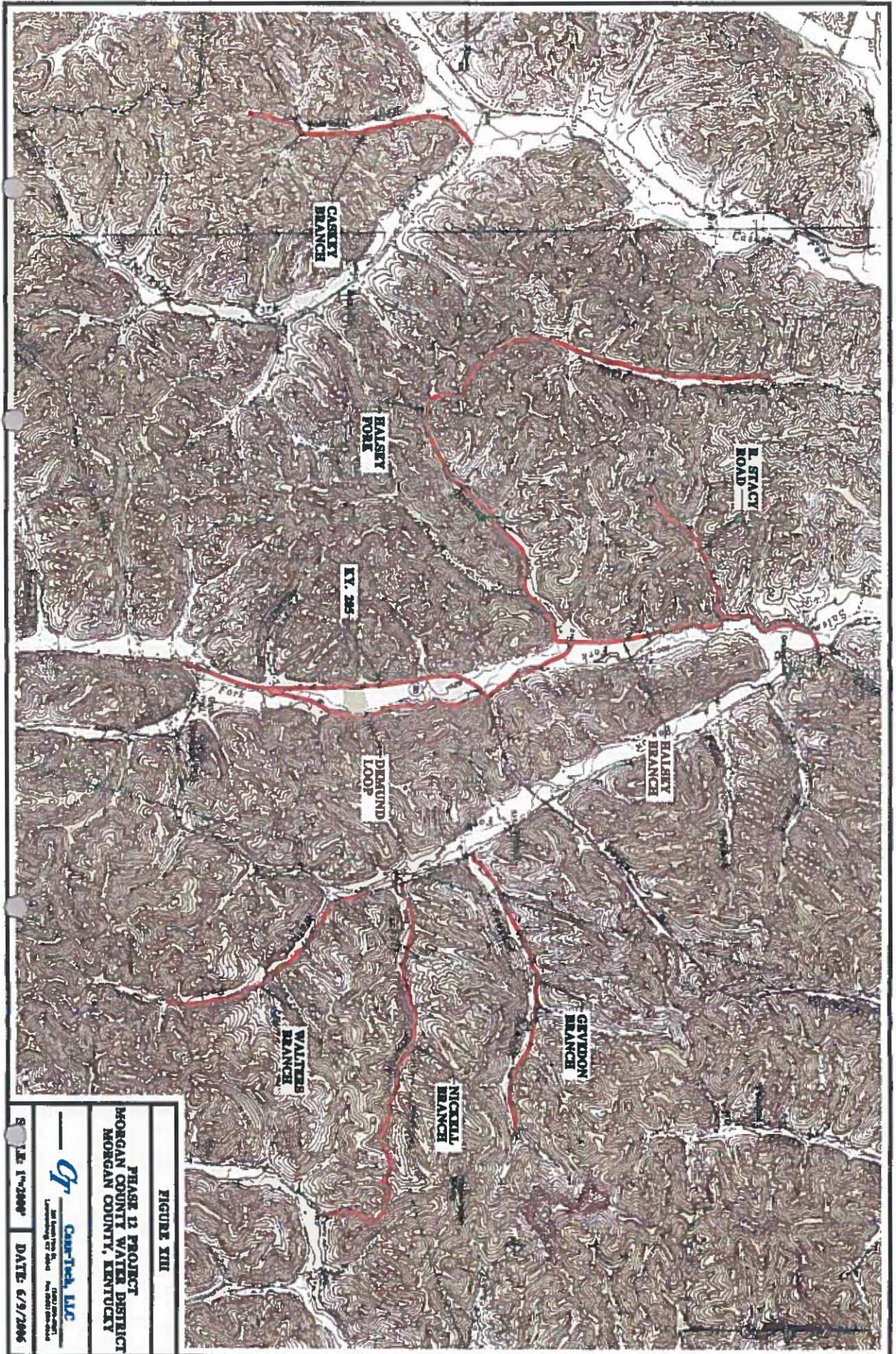


FIGURE XIII
 PHASE 12 PROJECT
 MORGAN COUNTY WATER DISTRICT
 MORGAN COUNTY, KENTUCKY

Q **ONE-TEN, LLC**
200 South Dixie Blvd. (East of KY-265)
 Lexington, KY 40502

SCALE 1"=2000' DATE: 6/9/2005

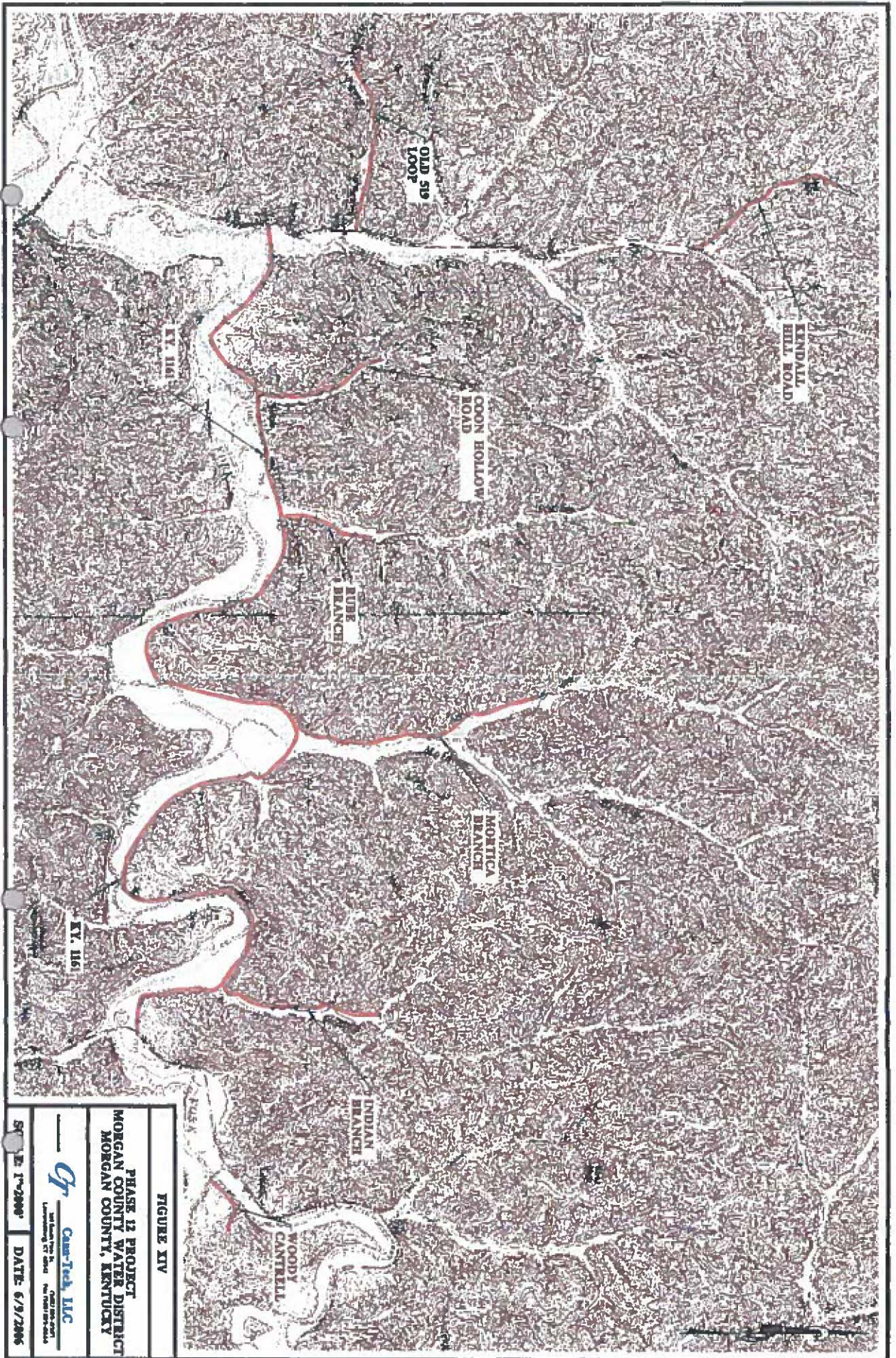
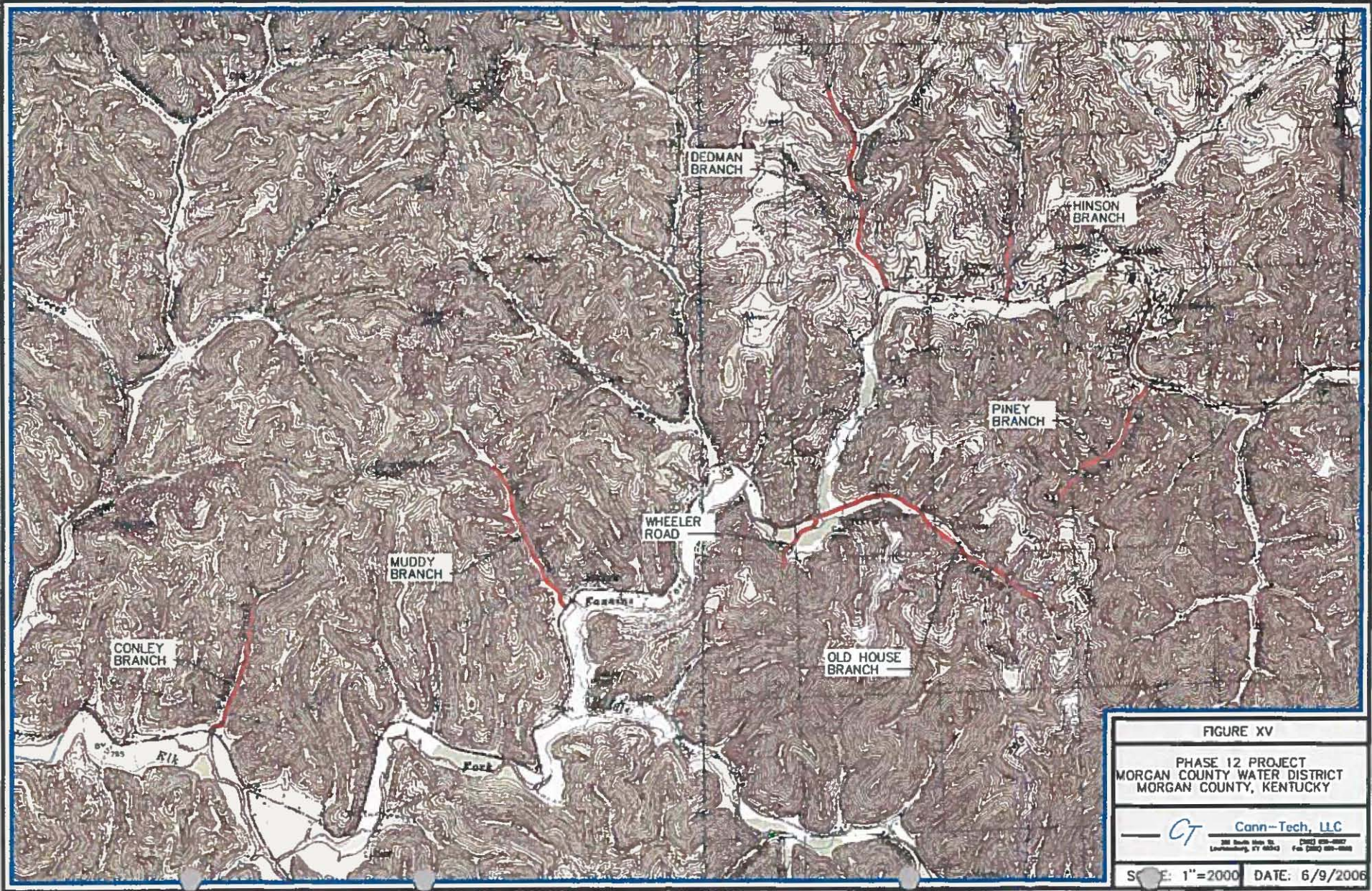


FIGURE XIV
PHASE 12 PROJECT
MORGAN COUNTY WATER DISTRICT
MORGAN COUNTY, KENTUCKY

Cam-Tek LLC
 2000 South Dixie Blvd.
 Lexington, KY 40504
 (606) 253-0771
 Fax: (606) 253-0444

SCALE: 1"=2000' DATE: 6/9/2006



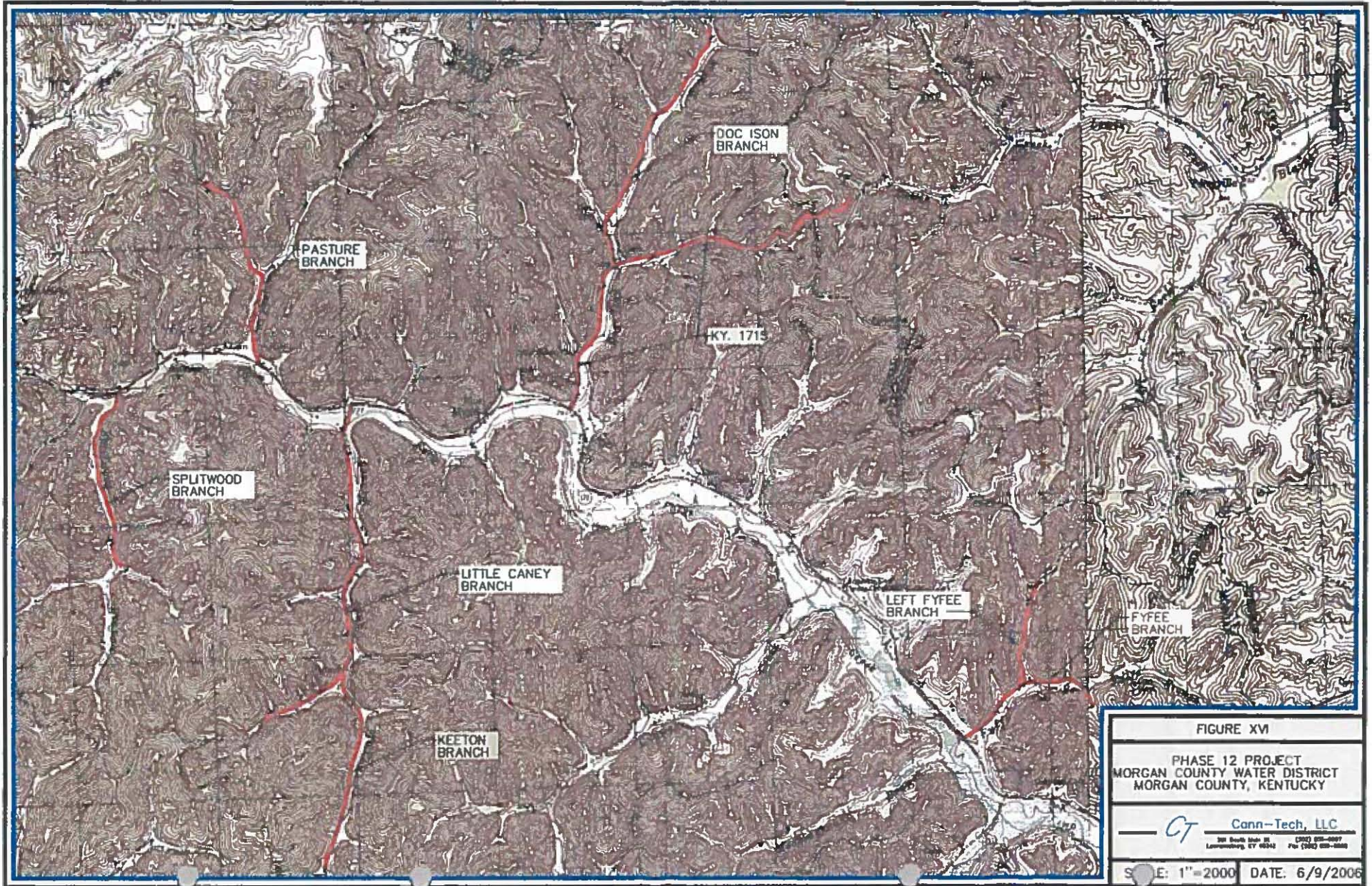


FIGURE XVI

PHASE 12 PROJECT
MORGAN COUNTY WATER DISTRICT
MORGAN COUNTY, KENTUCKY



Cann-Tech, LLC

200 South Main St
Lexington, KY 40502
(502) 253-0097
Fax: (502) 253-0088

SCALE: 1"=2000 DATE: 6/9/2006

APPENDIX C

ACTUAL WATER USAGE ANALYSIS AND FORECASTS

Forecast of Actual Water Usage - Existing System

For the period, January 1, 2005 to December 31, 2005

Residential

First 2,000 Gal. at	\$19.41	minimum
Next 3,000 Gal. at	\$7.08	per Thousand Gallons.
Next 5,000 Gal. at	\$6.43	per Thousand Gallons.
Next 5,000 Gal. at	\$5.88	per Thousand Gallons.
All Over 15,000 Gal. at	\$5.23	per Thousand Gallons.

Monthly Usage Gallons		Average Monthly Usage	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To				
0	1,000	500	350	175.00	6,793.50
1,000	2,000	1,500	311	466.50	6,036.51
2,000	3,000	2,500	270	675.00	6,189.75
3,000	4,000	3,500	242	847.00	7,249.11
4,000	5,000	4,500	182	819.00	6,731.27
5,000	6,000	5,500	138	759.00	6,032.67
6,000	7,000	6,500	90	585.00	4,513.05
7,000	8,000	7,500	76	570.00	4,299.70
8,000	9,000	8,500	60	510.00	3,780.30
9,000	10,000	9,500	34	323.00	2,360.79
10,000	11,000	10,500	16	168.00	1,209.04
11,000	12,000	11,500	7	80.50	569.77
12,000	13,000	12,500	5	62.50	436.13
13,000	14,000	13,500	5	67.50	465.28
14,000	15,000	14,500	6	87.00	593.31
15,000	over	45,375	5	226.88	1,303.31
TOTALS			1797	6,421.88	58,563.47

Annual Residential Water Sales \$702,761.66

Total Water Purchased and/or Produced (Gallons) 104,384,592

Total Water Sold (Gallons) 80,295,840

RESIDENTIAL AND NON-RESIDENTIAL COMBINED	
Total Users	1845
Total Annual Water Sales	\$728,976.16
Average Monthly Bill	\$32.93
Average Monthly Usage (Gallons)	3,627

Non-Residential

First 2,000 Gal. at	\$19.41	minimum
Next 3,000 Gal. at	\$7.08	per Thousand Gallons.
Next 5,000 Gal. at	\$6.43	per Thousand Gallons.
Next 5,000 Gal. at	\$5.88	per Thousand Gallons.
All Over 15,000 Gal. at	\$5.23	per Thousand Gallons.

Monthly Usage Gallons		Average Monthly Usage	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To				
0	1,000	500	26	13.00	504.66
1,000	2,000	1,500	5	7.50	97.05
2,000	3,000	2,500	3	7.50	68.78
3,000	4,000	3,500	3	10.50	89.87
4,000	5,000	4,500	0	0.00	0.00
5,000	6,000	5,500	1	5.50	43.72
6,000	7,000	6,500	4	26.00	200.58
7,000	8,000	7,500	0	0.00	0.00
8,000	9,000	8,500	0	0.00	0.00
9,000	10,000	9,500	0	0.00	0.00
10,000	11,000	10,500	0	0.00	0.00
11,000	12,000	11,500	1	11.50	81.40
12,000	13,000	12,500	0	0.00	0.00
13,000	14,000	13,500	1	13.50	93.06
14,000	15,000	14,500	1	14.50	98.89
15,000	over	53,315	3	159.95	906.56
TOTALS			48	269.45	2,184.54

Annual Non Residential Water Sales \$26,214.51

Forecast of Actual Water Usage - Existing System

For the period, January 1, 2006 to December 31, 2006

Residential

First 2,000 Gal. at		\$19.42	minimum		
Next 3,000 Gal. at		\$7.03	per Thousand Gallons.		
Next 5,000 Gal. at		\$6.43	per Thousand Gallons.		
Next 5,000 Gal. at		\$5.88	per Thousand Gallons.		
All Over 15,000 Gal. at		\$5.28	per Thousand Gallons.		
Monthly Usage Gallons		Average Monthly Usage	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To				
0	1,000	500	359	179.50	6,968.19
1,000	2,000	1,500	319	478.50	6,191.79
2,000	3,000	2,500	277	692.50	6,350.23
3,000	4,000	3,500	248	868.00	7,428.84
4,000	5,000	4,500	187	841.50	6,916.20
5,000	6,000	5,500	141	775.50	6,163.82
6,000	7,000	6,500	92	598.00	4,613.34
7,000	8,000	7,500	78	585.00	4,412.85
8,000	9,000	8,500	62	527.00	3,906.31
9,000	10,000	9,500	35	332.50	2,430.23
10,000	11,000	10,500	16	168.00	1,209.04
11,000	12,000	11,500	7	80.50	569.77
12,000	13,000	12,500	5	62.50	436.13
13,000	14,000	13,500	5	67.50	465.28
14,000	15,000	14,500	6	87.00	593.31
15,000	over	45,375	5	226.88	1,303.31
TOTALS			1842	6,570.38	59,958.60

Annual Residential Water Sales \$719,503.22

Total Water Purchased and/or Produced (Gallons) 106,708,992

Total Water Sold (Gallons) 82,083,840

RESIDENTIAL AND NON-RESIDENTIAL COMBINED	
Total Users	1891
Total Annual Water Sales	\$745,950.64
Average Monthly Bill	\$32.87
Average Monthly Usage (Gallons)	3,617

Non-Residential

First 2,000 Gal. at		\$19.41	minimum		
Next 3,000 Gal. at		\$7.08	per Thousand Gallons.		
Next 5,000 Gal. at		\$6.43	per Thousand Gallons.		
Next 5,000 Gal. at		\$5.88	per Thousand Gallons.		
All Over 15,000 Gal. at		\$5.28	per Thousand Gallons.		
Monthly Usage Gallons		Average Monthly Usage	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To				
0	1,000	500	27	13.50	524.07
1,000	2,000	1,500	5	7.50	97.05
2,000	3,000	2,500	3	7.50	68.78
3,000	4,000	3,500	3	10.50	89.87
4,000	5,000	4,500	0	0.00	0.00
5,000	6,000	5,500	1	5.50	43.72
6,000	7,000	6,500	4	26.00	200.58
7,000	8,000	7,500	0	0.00	0.00
8,000	9,000	8,500	0	0.00	0.00
9,000	10,000	9,500	0	0.00	0.00
10,000	11,000	10,500	0	0.00	0.00
11,000	12,000	11,500	1	11.50	81.40
12,000	13,000	12,500	0	0.00	0.00
13,000	14,000	13,500	1	13.50	93.06
14,000	15,000	14,500	1	14.50	98.89
15,000	over	53,315	3	159.95	906.56
TOTALS			49	269.95	2,203.95

Annual Non Residential Water Sales \$26,447.43

Forecast of Actual Water Usage - Existing System

For the period, January 1, 2007 to December 31, 2007

Residential

First 2,000 Gal. at		\$19.41	minimum
Next 3,000 Gal. at		\$7.03	per Thousand Gallons.
Next 5,000 Gal. at		\$5.49	per Thousand Gallons.
Next 5,000 Gal. at		\$5.83	per Thousand Gallons.
All Over 15,000 Gal. at		\$5.23	per Thousand Gallons.

Monthly Usage Gallons		Average Monthly Usage	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To				
0	1,000	500	368	184.00	7,142.88
1,000	2,000	1,500	327	490.50	6,347.07
2,000	3,000	2,500	284	710.00	6,510.70
3,000	4,000	3,500	254	889.00	7,608.57
4,000	5,000	4,500	192	864.00	7,101.12
5,000	6,000	5,500	145	797.50	6,338.68
6,000	7,000	6,500	94	611.00	4,713.63
7,000	8,000	7,500	80	600.00	4,526.00
8,000	9,000	8,500	64	544.00	4,032.32
9,000	10,000	9,500	36	342.00	2,499.66
10,000	11,000	10,500	16	168.00	1,209.04
11,000	12,000	11,500	7	80.50	569.77
12,000	13,000	12,500	5	62.50	436.13
13,000	14,000	13,500	5	67.50	465.28
14,000	15,000	14,500	6	87.00	593.31
15,000	over	45,375	5	226.88	1,303.31
TOTALS			1888	6,724.38	61,397.45

Annual Residential Water Sales \$736,769.36

Total Water Purchased and/or Produced (Gallons) 109,119,192

Total Water Sold (Gallons) 83,937,840

RESIDENTIAL AND NON-RESIDENTIAL COMBINED	
Total Users	1938
Total Annual Water Sales	\$763,449.70
Average Monthly Bill	\$32.83
Average Monthly Usage (Gallons)	3,609

Non-Residential

First 2,000 Gal. at		\$19.41	minimum
Next 3,000 Gal. at		\$7.03	per Thousand Gallons.
Next 5,000 Gal. at		\$5.49	per Thousand Gallons.
Next 5,000 Gal. at		\$5.83	per Thousand Gallons.
All Over 15,000 Gal. at		\$5.23	per Thousand Gallons.

Monthly Usage Gallons		Average Monthly Usage	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To				
0	1,000	500	28	14.00	543.48
1,000	2,000	1,500	5	7.50	97.05
2,000	3,000	2,500	3	7.50	68.78
3,000	4,000	3,500	3	10.50	89.87
4,000	5,000	4,500	0	0.00	0.00
5,000	6,000	5,500	1	5.50	43.72
6,000	7,000	6,500	4	26.00	200.58
7,000	8,000	7,500	0	0.00	0.00
8,000	9,000	8,500	0	0.00	0.00
9,000	10,000	9,500	0	0.00	0.00
10,000	11,000	10,500	0	0.00	0.00
11,000	12,000	11,500	1	11.50	81.40
12,000	13,000	12,500	0	0.00	0.00
13,000	14,000	13,500	1	13.50	93.06
14,000	15,000	14,500	1	14.50	98.89
15,000	over	53,315	3	159.95	906.56
TOTALS			50	270.45	2,223.36

Annual Non Residential Water Sales \$26,680.35

Forecast of Actual Water Usage - Existing System

For the period, January 1, 2008 to December 31, 2008

Residential

First 2,000 Gal. at	\$19.41	minimum
Next 3,000 Gal. at	\$7.05	per Thousand Gallons.
Next 5,000 Gal. at	\$7.43	per Thousand Gallons.
Next 5,000 Gal. at	\$5.83	per Thousand Gallons.
All Over 15,000 Gal. at	\$5.23	per Thousand Gallons.

Monthly Usage Gallons		Average Monthly Usage	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To				
0	1,000	500	377	188.50	7,317.57
1,000	2,000	1,500	335	502.50	6,502.35
2,000	3,000	2,500	291	727.50	6,671.18
3,000	4,000	3,500	260	910.00	7,788.30
4,000	5,000	4,500	197	886.50	7,286.05
5,000	6,000	5,500	149	819.50	6,513.54
6,000	7,000	6,500	96	624.00	4,813.92
7,000	8,000	7,500	82	615.00	4,639.15
8,000	9,000	8,500	66	561.00	4,158.33
9,000	10,000	9,500	37	351.50	2,569.10
10,000	11,000	10,500	16	168.00	1,209.04
11,000	12,000	11,500	7	80.50	569.77
12,000	13,000	12,500	5	62.50	436.13
13,000	14,000	13,500	5	67.50	465.28
14,000	15,000	14,500	6	87.00	593.31
15,000	over	45,375	5	226.88	1,303.31
TOTALS			1934	6,878.38	62,836.29

Annual Residential Water Sales \$754,035.50

Total Water Purchased and/or Produced (Gallons) 111,529,392

Total Water Sold (Gallons) 85,791,840

RESIDENTIAL AND NON-RESIDENTIAL COMBINED

Total Users	1985
Total Annual Water Sales	\$780,948.76
Average Monthly Bill	\$32.79
Average Monthly Usage (Gallons)	3,602

Non-Residential

First 2,000 Gal. at	\$19.41	minimum
Next 3,000 Gal. at	\$7.05	per Thousand Gallons.
Next 5,000 Gal. at	\$7.43	per Thousand Gallons.
Next 5,000 Gal. at	\$5.83	per Thousand Gallons.
All Over 15,000 Gal. at	\$5.23	per Thousand Gallons.

Monthly Usage Gallons		Average Monthly Usage	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To				
0	1,000	500	29	14.50	562.89
1,000	2,000	1,500	5	7.50	97.05
2,000	3,000	2,500	3	7.50	68.78
3,000	4,000	3,500	3	10.50	89.87
4,000	5,000	4,500	0	0.00	0.00
5,000	6,000	5,500	1	5.50	43.72
6,000	7,000	6,500	4	26.00	200.58
7,000	8,000	7,500	0	0.00	0.00
8,000	9,000	8,500	0	0.00	0.00
9,000	10,000	9,500	0	0.00	0.00
10,000	11,000	10,500	0	0.00	0.00
11,000	12,000	11,500	1	11.50	81.40
12,000	13,000	12,500	0	0.00	0.00
13,000	14,000	13,500	1	13.50	93.06
14,000	15,000	14,500	1	14.50	98.89
15,000	over	53,315	3	159.95	906.56
TOTALS			51	270.95	2,242.77

Annual Non Residential Water Sales \$26,913.27

Forecast of Actual Water Usage - Current Projects

For the period, January 1, 2006 to December 31, 2006

Residential

First 2,000 Gal. at	\$19.41	minimum
Next 3,000 Gal. at	\$7.03	per Thousand Gallons.
Next 5,000 Gal. at	\$6.43	per Thousand Gallons.
Next 5,000 Gal. at	\$5.43	per Thousand Gallons.
All Over 15,000 Gal. at	\$5.23	per Thousand Gallons.

Monthly Usage Gallons		Average Monthly Usage	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To				
0	1,000	500	87	43.50	1,688.67
1,000	2,000	1,500	75	112.50	1,455.75
2,000	3,000	2,500	65	162.50	1,490.13
3,000	4,000	3,500	58	203.00	1,737.39
4,000	5,000	4,500	43	193.50	1,590.36
5,000	6,000	5,500	33	181.50	1,442.60
6,000	7,000	6,500	21	136.50	1,053.05
7,000	8,000	7,500	18	135.00	1,018.35
8,000	9,000	8,500	14	119.00	882.07
9,000	10,000	9,500	8	76.00	555.48
10,000	11,000	10,500	3	31.50	226.70
11,000	12,000	11,500	1	11.50	81.40
12,000	13,000	12,500	1	12.50	87.23
13,000	14,000	13,500	1	13.50	93.06
14,000	15,000	14,500	1	14.50	98.89
15,000	over	45,375	1	45.38	260.66
TOTALS			430	1,491.88	13,761.75

Annual Residential Water Sales \$165,140.96

Total Water Purchased and/or Produced (Gallons) 23,273,250

Total Water Sold (Gallons) 17,982,500

RESIDENTIAL AND NON-RESIDENTIAL COMBINED

Total Users	430
Total Annual Water Sales	\$165,140.96
Average Monthly Bill	\$32.00
Average Monthly Usage (Gallons)	3,469

Non-Residential

First 2,000 Gal. at	\$19.41	minimum
Next 3,000 Gal. at	\$7.03	per Thousand Gallons.
Next 5,000 Gal. at	\$6.43	per Thousand Gallons.
Next 5,000 Gal. at	\$5.43	per Thousand Gallons.
All Over 15,000 Gal. at	\$5.23	per Thousand Gallons.

Monthly Usage Gallons		Average Monthly Usage	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To				
0	1,000	500	0	0.00	0.00
1,000	2,000	1,500	0	0.00	0.00
2,000	3,000	2,500	0	0.00	0.00
3,000	4,000	3,500	0	0.00	0.00
4,000	5,000	4,500	0	0.00	0.00
5,000	6,000	5,500	0	0.00	0.00
6,000	7,000	6,500	0	0.00	0.00
7,000	8,000	7,500	0	0.00	0.00
8,000	9,000	8,500	0	0.00	0.00
9,000	10,000	9,500	0	0.00	0.00
10,000	11,000	10,500	0	0.00	0.00
11,000	12,000	11,500	0	0.00	0.00
12,000	13,000	12,500	0	0.00	0.00
13,000	14,000	13,500	0	0.00	0.00
14,000	15,000	14,500	0	0.00	0.00
15,000	over	53,315	0	0.00	0.00
TOTALS			0	0.00	0.00

Annual Non Residential Water Sales \$0.00

Forecast of Actual Water Usage - Current Projects

For the period, January 1, 2007 to December 31, 2007

Residential

First 2,000 Gal. at		\$19.41	minimum		
Next 3,000 Gal. at		\$7.03	per Thousand Gallons.		
Next 5,000 Gal. at		\$6.43	per Thousand Gallons.		
Next 5,000 Gal. at		\$5.83	per Thousand Gallons.		
All Over 15,000 Gal. at		\$5.23	per Thousand Gallons.		
Monthly Usage Gallons		Average Monthly Usage	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To				
0	1,000	500	89	44.50	1,727.49
1,000	2,000	1,500	77	115.50	1,494.57
2,000	3,000	2,500	67	167.50	1,535.98
3,000	4,000	3,500	59	206.50	1,767.35
4,000	5,000	4,500	44	198.00	1,627.34
5,000	6,000	5,500	34	187.00	1,486.31
6,000	7,000	6,500	22	143.00	1,103.19
7,000	8,000	7,500	18	135.00	1,018.35
8,000	9,000	8,500	14	119.00	882.07
9,000	10,000	9,500	8	76.00	555.48
10,000	11,000	10,500	3	31.50	226.70
11,000	12,000	11,500	1	11.50	81.40
12,000	13,000	12,500	1	12.50	87.23
13,000	14,000	13,500	1	13.50	93.06
14,000	15,000	14,500	1	14.50	98.89
15,000	over	45,375	1	45.38	260.66
TOTALS			440	1,520.88	14,046.04

Annual Residential Water Sales \$168,552.44

Total Water Purchased and/or Produced (Gallons) 23,725,650

Total Water Sold (Gallons) 18,250,500

RESIDENTIAL AND NON-RESIDENTIAL COMBINED

Total Users	440
Total Annual Water Sales	\$168,552.44
Average Monthly Bill	\$31.92
Average Monthly Usage (Gallons)	3,457

Non-Residential

First 2,000 Gal. at		\$19.41	minimum		
Next 3,000 Gal. at		\$7.03	per Thousand Gallons.		
Next 5,000 Gal. at		\$6.43	per Thousand Gallons.		
Next 5,000 Gal. at		\$5.83	per Thousand Gallons.		
All Over 15,000 Gal. at		\$5.23	per Thousand Gallons.		
Monthly Usage Gallons		Average Monthly Usage	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To				
0	1,000	500	0	0.00	0.00
1,000	2,000	1,500	0	0.00	0.00
2,000	3,000	2,500	0	0.00	0.00
3,000	4,000	3,500	0	0.00	0.00
4,000	5,000	4,500	0	0.00	0.00
5,000	6,000	5,500	0	0.00	0.00
6,000	7,000	6,500	0	0.00	0.00
7,000	8,000	7,500	0	0.00	0.00
8,000	9,000	8,500	0	0.00	0.00
9,000	10,000	9,500	0	0.00	0.00
10,000	11,000	10,500	0	0.00	0.00
11,000	12,000	11,500	0	0.00	0.00
12,000	13,000	12,500	0	0.00	0.00
13,000	14,000	13,500	0	0.00	0.00
14,000	15,000	14,500	0	0.00	0.00
15,000	over	53,315	0	0.00	0.00
TOTALS			0	0.00	0.00

Annual Non Residential Water Sales \$0.00

Forecast of Actual Water Usage - Current Projects

For the period, January 1, 2008 to December 31, 2008

Residential

First 2,000 Gal. at	\$19.41	minimum
Next 3,000 Gal. at	\$7.68	per Thousand Gallons.
Next 5,000 Gal. at	\$6.48	per Thousand Gallons.
Next 5,000 Gal. at	\$5.83	per Thousand Gallons.
All Over 15,000 Gal. at	\$5.23	per Thousand Gallons.

Monthly Usage Gallons		Average Monthly Usage	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To				
0	1,000	500	91	45.50	1,766.31
1,000	2,000	1,500	79	118.50	1,533.39
2,000	3,000	2,500	69	172.50	1,581.83
3,000	4,000	3,500	60	210.00	1,797.30
4,000	5,000	4,500	45	202.50	1,664.33
5,000	6,000	5,500	35	192.50	1,530.03
6,000	7,000	6,500	23	149.50	1,153.34
7,000	8,000	7,500	18	135.00	1,018.35
8,000	9,000	8,500	14	119.00	882.07
9,000	10,000	9,500	8	76.00	555.48
10,000	11,000	10,500	3	31.50	226.70
11,000	12,000	11,500	1	11.50	81.40
12,000	13,000	12,500	1	12.50	87.23
13,000	14,000	13,500	1	13.50	93.06
14,000	15,000	14,500	1	14.50	98.89
15,000	over	45,375	1	45.38	260.66
TOTALS			450	1,549.88	14,330.33

Annual Residential Water Sales \$171,963.92

Total Water Purchased and/or Produced (Gallons) 24,178,050

Total Water Sold (Gallons) 18,598,500

RESIDENTIAL AND NON-RESIDENTIAL COMBINED	
Total Users	450
Total Annual Water Sales	\$171,963.92
Average Monthly Bill	\$31.85
Average Monthly Usage (Gallons)	3,444

Non-Residential

First 2,000 Gal. at	\$19.41	minimum
Next 3,000 Gal. at	\$7.68	per Thousand Gallons.
Next 5,000 Gal. at	\$6.48	per Thousand Gallons.
Next 5,000 Gal. at	\$5.83	per Thousand Gallons.
All Over 15,000 Gal. at	\$5.23	per Thousand Gallons.

Monthly Usage Gallons		Average Monthly Usage	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To				
0	1,000	500	0	0.00	0.00
1,000	2,000	1,500	0	0.00	0.00
2,000	3,000	2,500	0	0.00	0.00
3,000	4,000	3,500	0	0.00	0.00
4,000	5,000	4,500	0	0.00	0.00
5,000	6,000	5,500	0	0.00	0.00
6,000	7,000	6,500	0	0.00	0.00
7,000	8,000	7,500	0	0.00	0.00
8,000	9,000	8,500	0	0.00	0.00
9,000	10,000	9,500	0	0.00	0.00
10,000	11,000	10,500	0	0.00	0.00
11,000	12,000	11,500	0	0.00	0.00
12,000	13,000	12,500	0	0.00	0.00
13,000	14,000	13,500	0	0.00	0.00
14,000	15,000	14,500	0	0.00	0.00
15,000	over	53,315	0	0.00	0.00
TOTALS			0	0.00	0.00

Annual Non Residential Water Sales \$0.00

Forecast of Actual Water Usage - Proposed Phase 12 Project

For the period, January 1, 2007 to December 31, 2007

Residential

First 2,000 Gal. at		\$19.41	minimum		
Next 3,000 Gal. at		\$7.08	per Thousand Gallons.		
Next 5,000 Gal. at		\$6.49	per Thousand Gallons.		
Next 5,000 Gal. at		\$5.83	per Thousand Gallons.		
All Over 15,000 Gal. at		\$5.23	per Thousand Gallons.		
Monthly Usage Gallons		Average Monthly Usage	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To				
0	1,000	500	39	19.50	756.99
1,000	2,000	1,500	35	52.50	679.35
2,000	3,000	2,500	29	72.50	664.83
3,000	4,000	3,500	26	91.00	778.83
4,000	5,000	4,500	19	85.50	702.72
5,000	6,000	5,500	15	82.50	655.73
6,000	7,000	6,500	10	65.00	501.45
7,000	8,000	7,500	8	60.00	452.60
8,000	9,000	8,500	6	51.00	378.03
9,000	10,000	9,500	4	38.00	277.74
10,000	11,000	10,500	1	10.50	75.57
11,000	12,000	11,500	1	11.50	81.40
12,000	13,000	12,500	0	0.00	0.00
13,000	14,000	13,500	0	0.00	0.00
14,000	15,000	14,500	0	0.00	0.00
15,000	over	45,375	0	0.00	0.00
TOTALS			193	639.50	6,005.22

Annual Residential Water Sales \$72,062.58

Total Water Purchased and/or Produced (Gallons) 9,976,200

Total Water Sold (Gallons) 7,674,000

RESIDENTIAL AND NON-RESIDENTIAL COMBINED	
Total Users	193
Total Annual Water Sales	\$72,062.58
Average Monthly Bill	\$31.12
Average Monthly Usage (Gallons)	3,313

Non-Residential

First 2,000 Gal. at		\$19.41	minimum		
Next 3,000 Gal. at		\$7.08	per Thousand Gallons.		
Next 5,000 Gal. at		\$6.49	per Thousand Gallons.		
Next 5,000 Gal. at		\$5.83	per Thousand Gallons.		
All Over 15,000 Gal. at		\$5.23	per Thousand Gallons.		
Monthly Usage Gallons		Average Monthly Usage	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To				
0	1,000	500	0	0.00	0.00
1,000	2,000	1,500	0	0.00	0.00
2,000	3,000	2,500	0	0.00	0.00
3,000	4,000	3,500	0	0.00	0.00
4,000	5,000	4,500	0	0.00	0.00
5,000	6,000	5,500	0	0.00	0.00
6,000	7,000	6,500	0	0.00	0.00
7,000	8,000	7,500	0	0.00	0.00
8,000	9,000	8,500	0	0.00	0.00
9,000	10,000	9,500	0	0.00	0.00
10,000	11,000	10,500	0	0.00	0.00
11,000	12,000	11,500	0	0.00	0.00
12,000	13,000	12,500	0	0.00	0.00
13,000	14,000	13,500	0	0.00	0.00
14,000	15,000	14,500	0	0.00	0.00
15,000	over	53,315	0	0.00	0.00
TOTALS			0	0.00	0.00

Annual Non Residential Water Sales \$0.00

Forecast of Actual Water Usage - Proposed Phase 12 Project
For the period, January 1, 2008 to December 31, 2008

Residential

First 2,000 Gal. at		\$19.41	minimum		
Next 3,000 Gal. at		\$7.09	per Thousand Gallons.		
Next 5,000 Gal. at		\$6.43	per Thousand Gallons.		
Next 5,000 Gal. at		\$5.85	per Thousand Gallons.		
All Over 15,000 Gal. at		\$5.23	per Thousand Gallons.		
Monthly Usage Gallons		Average Monthly Usage	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To				
0	1,000	500	41	20.50	795.81
1,000	2,000	1,500	35	52.50	679.35
2,000	3,000	2,500	30	75.00	687.75
3,000	4,000	3,500	27	94.50	808.79
4,000	5,000	4,500	19	85.50	702.72
5,000	6,000	5,500	15	82.50	655.73
6,000	7,000	6,500	10	65.00	501.45
7,000	8,000	7,500	8	60.00	452.60
8,000	9,000	8,500	6	51.00	378.03
9,000	10,000	9,500	4	38.00	277.74
10,000	11,000	10,500	1	10.50	75.57
11,000	12,000	11,500	1	11.50	81.40
12,000	13,000	12,500	0	0.00	0.00
13,000	14,000	13,500	0	0.00	0.00
14,000	15,000	14,500	0	0.00	0.00
15,000	over	45,375	0	0.00	0.00
TOTALS			197	646.50	6,096.92

Annual Residential Water Sales \$73,162.98

Total Water Purchased and/or Produced (Gallons) 10,085,400

Total Water Sold (Gallons) 7,758,000

RESIDENTIAL AND NON-RESIDENTIAL COMBINED	
Total Users	197
Total Annual Water Sales	\$73,162.98
Average Monthly Bill	\$30.95
Average Monthly Usage (Gallons)	3,282

Non-Residential

First 2,000 Gal. at		\$19.41	minimum		
Next 3,000 Gal. at		\$7.09	per Thousand Gallons.		
Next 5,000 Gal. at		\$6.43	per Thousand Gallons.		
Next 5,000 Gal. at		\$5.85	per Thousand Gallons.		
All Over 15,000 Gal. at		\$5.23	per Thousand Gallons.		
Monthly Usage Gallons		Average Monthly Usage	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To				
0	1,000	500	0	0.00	0.00
1,000	2,000	1,500	0	0.00	0.00
2,000	3,000	2,500	0	0.00	0.00
3,000	4,000	3,500	0	0.00	0.00
4,000	5,000	4,500	0	0.00	0.00
5,000	6,000	5,500	0	0.00	0.00
6,000	7,000	6,500	0	0.00	0.00
7,000	8,000	7,500	0	0.00	0.00
8,000	9,000	8,500	0	0.00	0.00
9,000	10,000	9,500	0	0.00	0.00
10,000	11,000	10,500	0	0.00	0.00
11,000	12,000	11,500	0	0.00	0.00
12,000	13,000	12,500	0	0.00	0.00
13,000	14,000	13,500	0	0.00	0.00
14,000	15,000	14,500	0	0.00	0.00
15,000	over	53,315	0	0.00	0.00
TOTALS			0	0.00	0.00

Annual Non Residential Water Sales \$0.00

REQUEST FOR OBLIGATION OF FUNDS
RD Loan & RD Grant

2/5

INSTRUCTIONS-TYPE IN CAPITALIZED ELITE TYPE IN SPACES MARKED			
Complete Items 1 through 30 and applicable Items 31 through 43. See FMI.			
1. CASE NUMBER ST CO BORROWER ID 20 088 621470536		LOAN NUMBER	FISCAL YEAR
2. BORROWER NAME Morgan County Water District		3. NUMBER NAME FIELDS 1 1, 2, or 3 from Item 2)	
		4. STATE NAME Kentucky	
		5. COUNTY NAME 088 Morgan	
GENERAL BORROWER/LOAN INFORMATION			
6. RACE/ETHNIC CLASSIFICATION 1-WHITE 4-HISPANIC 2-BLACK 5-API 3-ASIAN	7. TYPE OF APPLICANT 1-INDIVIDUAL 2-PARTNERSHIP 3-CORPORATION 4-PUBLIC BODY 5-ASSOC. OF FARMERS 6-ORG. OF FARM WORKERS 7-OTHER	8. COLLATERAL CODE 1-REAL ESTATE SECURED 2-REAL ESTATE AND CHATTEL 3-NOTE ONLY OR CHATTEL ONLY 4-MACHINERY OR LIVESTOCK ONLY 5-CROPS ONLY 6-SECURED BY BONDS	9. EMPLOYEE RELATIONSHIP CODE 1-EMPLOYER 2-MEMBER OF FAMILY 3-CLOSE RELATIVE 4-ASSOC.
10. SEX CODE 6 1-MALE 2-FEMALE 3-FAMILY UNIT 4-ORGAN MALE OWNED 5-ORGAN FEMALE OWNED 6-PUBLIC BODY	11. MARITAL STATUS 1-MARRIED 3-UNMARRIED (INCLUDES WIDOWED/DIVORCED) 2-SEPARATE	12. VETERAN CODE 1-YES 2-NO	13. CREDIT REPORT 2 1-YES 2-NO
14. DIRECT PAYMENT 0 (See FMI)	15. TYPE OF PAYMENT 2 1-MONTHLY 3-SEMI-ANNUALLY 2-ANNUALLY 4-QUARTERLY	16. FEE INSPECTION 2 1-YES 2-NO	17. INTEREST CREDIT 1-YES (FRO SFH ONLY) 2-NO
18. COMMUNITY SIZE 1-10,000 OR LESS (FOR SFH AND HFO ONLY) 2-OVER 10,000		19. DWELLING TYPE/USE OF FUNDS CODE (See FMI)	
COMPLETE FOR OBLIGATION OF FUNDS			
20. TYPE OF ASSISTANCE 067 (See FMI)	21. PURPOSE CODE 2	22. SOURCE OF FUNDS 2	23. TYPE OF ACTION 1 1-OBLIGATION ONLY 2-OBLIGATION/CHECK REQUEST 3-CORRECTION OF OBLIGATION
24. TYPE OF SUBMISSION 2 1-INITIAL 2-SUBSEQUENT	25. AMOUNT OF LOAN \$ 1,446,000.00	26. AMOUNT OF GRANT \$ 754,000.00	
27. AMOUNT OF IMMEDIATE ADVANCE \$ 0.00	28. DATE OF APPROVAL MO DA YR 014-124-1071	29. INTEREST RATE 4.1250%	30. REPAYMENT TERMS 40
COMPLETE FOR SINGLE FAMILY HOUSING ONLY			
31. INCOME CATEGORY CODES 1-VERY LOW 3-MODERATE 2-LOW 4-ABOVE MODERATE		32. LOW INCOME LIMIT-MAX.	33. ADJUSTED FAMILY INCOME
34. R.E. INSURANCE	35. R.E. TAXES 1st year	36. R.E. TAXES 2nd year	37. NOTE INSTALLMENT INELIGIBLE
38. TYPE OF UNIT 1-FARM TRACT 2-NON-FARM TRACT			
COMPLETE FOR COMMUNITY PROGRAM AND CERTAIN MULTIPLE-FAMILY HOUSING LOANS			
39. PROFIT TYPE 3 1-FULL PROFIT 3-NONPROFIT 2-LIMITED PROFIT			
COMPLETE FOR EM LOANS ONLY		COMPLETE FOR CREDIT SALE-ASSUMPTION	
40. DISASTER DESIGNATION NUMBER (See FMI)		41. TYPE OF SALE 1-CREDIT SALE ONLY 2-ASSUMPTION ONLY 4-ASSUMPTION W/ SUBSEQUENT LOAN 3-CREDIT SALE WITH SLB LOAN	
FINANCE OFFICE USE ONLY		COMPLETE FOR FP LOANS ONLY	
42. OBLIGATION DATE MO DA YR		43. BEGINNING FARMER/RANCHER (See FMI)	

If the decision contained above on this form results in denial, reduction or cancellation of SDA assistance, you may appeal this decision and have a hearing or you may request a review in lieu of a hearing. Please use the forms we have included for this purpose.

Position 2

ORIGINAL - Borrower's Case Folder COPY 1 - Finance Office COPY 2 - Applicant/Lender COPY 3 - State Office

CERTIFICATION APPROVAL

For All Farmer Programs

EM, OL, FO, and SW Loans

This loan is approved subject to the availability of funds. If this loan does not close for any reason within 90 days from the date of approval on this document, the approval official will request updated eligibility information. The undersigned loan applicant agrees that the approval official will have 14 working days to review any updated information prior to submitting this document for obligation of funds. If there have been significant changes that may affect eligibility, a decision as to eligibility and feasibility will be made within 30 days from the time the applicant provides the necessary information.

If this is a loan approval for which a lien and/or title search is necessary, the undersigned applicant agrees that the 15-working-day loan closing requirement may be exceeded for the purposes of the applicant's legal representatives completing title work and completing loan closing.

44. COMMENTS AND REQUIREMENTS OF CERTIFYING OFFICIAL

Approval of financial assistance is subject to the provisions of the Letter of Conditions dated 4/25/07 and any amendments thereto.

45. 4/26/07 Obligation entered over terminal @ 9:37 am
 I HEREBY CERTIFY that I am unable to obtain sufficient credit elsewhere to finance my actual needs at reasonable rates and terms, taking into consideration prevailing private and cooperative rates and terms in or near my community for loans for similar purposes and periods of time. I agree to use the sum specified herein, subject to and in accordance with regulations applicable to the type of assistance indicated above, and requested payment of such sum. I agree to report to USDA any material adverse changes, financial or otherwise, that occur prior to loan closing. I certify that no part of the sum specified herein has been received. I have reviewed the loan approval requirements and comments associated with this loan request and agree to comply with these provisions.

(For SFH & FP loans at eligible terms only) If this loan is approved, I elect the interest rate to be charged on my loan to be the lower of the interest rate in effect at the time of approval or loan closing. If I check "NO", the interest rate charged on my loan will be the rate specified in Item 29 of this form.

YES NO

WARNING: Whoever, in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals or covers up by any trick, scheme, or device a material fact, or makes any false, fictitious or fraudulent statements or representations, or makes or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry, shall be fined under this title or imprisoned not more five years, or both."

Date _____

Morgan County Water District

Date 4/26/07

By: Roy Collett
Roy Collett
Chairman

46. I HEREBY CERTIFY that all of the committee and administrative determinations and certifications required by regulations prerequisite to providing assistance of the type indicated above have been made and that evidence thereof is in the docket, and that all requirements of pertinent regulations have been complied with. I hereby approve the above-described assistance in the amount set forth above, and by this document, subject to the availability of funds, the Government agrees to advance such amount to the applicant for the purpose of and subject to the availability prescribed by regulations applicable to this type of assistance.

Date Approved: 4/26/07

Kenneth Slone
(Signature of Approving Official)
Title KENNETH SLONE, State Director

47. TO THE APPLICANT: As of this date 5/4/07 am this is notice that your application for financial assistance from the USDA has been approved, as indicated above, subject to the availability of funds and other conditions required by the USDA. If you have any questions contact the County Supervisor or District Director.



United States Department of Agriculture
Rural Development
Kentucky State Office

June 19, 2008

Mr. Roy Collett, Chairman
Morgan County Water District
408 Prestonsburg Street
West Liberty, Kentucky 41472

Re: Letter of Conditions Dated April 25, 2007

Dear Mr. Collett:

This letter shall serve as Amendment No. 1 to the Letter of Conditions dated April 25, 2007. The purpose of this amendment is to revise the number of existing and new users, revise the rates and charges, and make other editorial changes in accordance with RUS Instructions.

Paragraph numbered "1" is revised to read as follows:

" 1. Number of Users and Their Contribution:

There shall be 2,380 water users, of which 2,272 are existing users and 108 are new users contributing \$50,000 in connection fees toward the cost of the project. The connection fees will be collected prior to advertising for construction bids and will be placed in the construction account at loan pre-closing, unless spent for authorized purposes prior to loan pre-closing. The Area Director will review and authenticate the number of users and amount of connection fees prior to advertising for construction bids. "

Paragraph numbered "29" is revised to read as follows:

" 29. Rates and Charges:

Rates and charges for facilities and services rendered by the District 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.

771 Corporate Drive • Suite 200 • Lexington, KY 40503
Phone: (859) 224-7336 • Fax: (859) 224-7444 • TDD: (859) 224-7422 • Web: <http://www.rurdev.usda.gov/ky>

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"USDA is an equal opportunity provider, employer and lender."
To file a complaint of discrimination write USDA, Director, Office of Civil Rights,
1400 Independence Avenue, SW, Washington, DC 20250-9410
or call (800) 795-3272 (voice) or (202) 720-8382 (TDD).

Water rates will be at least:

5/8- and 3/4-Inch Meters:

First	2,000	gallons @ \$	20.41 - Minimum
Next	3,000	gallons @ \$	7.33 - per 1,000 gallons.
Next	5,000	gallons @ \$	6.73 - per 1,000 gallons.
Next	5,000	gallons @ \$	6.13 - per 1,000 gallons.
All Over	15,000	gallons @ \$	5.53 - per 1,000 gallons.

1-Inch Meter:

First	5,000	gallons @ \$	42.50 - Minimum Bill.
Next	5,000	gallons @ \$	6.73 - per 1,000 gallons.
Next	5,000	gallons @ \$	6.13 - per 1,000 gallons.
All Over	15,000	gallons @ \$	5.53 - per 1,000 gallons.

2-Inch Meter:

First	15,000	gallons @ \$	105.80 - Minimum Bill.
All Over	15,000	gallons @ \$	5.53 - per 1,000 gallons.

Wholesale Rates:

City of Campton	\$ 2.85 - per 1,000 gallons.
City of Frenchburg	\$ 2.85 - per 1,000 gallons.

All other provisions of the referenced Letter of Conditions remain in full force and unchanged.

Sincerely,


 KENNETH SLONE
 State Director

- cc: Area Director - Morehead, Kentucky
- Gateway ADD - Morehead, Kentucky
- Rubin & Hays - Louisville, Kentucky
- Steve O'Conner - West Liberty, Kentucky
- Cann-Tech, LLC - Lawrenceburg, Kentucky
- PSC - ATTN: Dennis Jones - Frankfort, Kentucky

3/21



United States Department of Agriculture
Rural Development
Kentucky State Office

April 25, 2007

Mr. Roy Collett, Chairman
Morgan County Water District
408 Prestonsburg Street
West Liberty, Kentucky 41472

Dear Mr. Collett:

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 and 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 \$1,446,000; a RUS grant not to exceed \$754,000; and an Appalachian Regional Commission (ARC) grant in the amount of \$500,000.

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:

771 Corporate Drive • Suite 200 • Lexington, KY 40503
Phone (859) 224-7338 • Fax: (859) 224-7444 • TDD: (859) 224-7422 • Web <http://www.rurdev.usda.gov/ky>

Committed to the future of rural communities.

"USDA is an equal opportunity provider, employer and lender."
To file a complaint of discrimination write USDA, Director, Office of Civil Rights,
1400 Independence Avenue, SW, Washington, DC 20250-9410
or call (800) 795-3272 (voice) or (202) 720-6382 (TDD)

1. Number of Users and Their Contribution:

There shall be 2,507 water users, of which 2,314 are existing users and 193 are new users contributing \$50,000 in connection fees toward the cost of the project. The connection fees will be collected prior to advertising for construction bids and will be placed in the construction account at loan pre-closing, unless spent for authorized purposes prior to loan pre-closing. 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 District will be required to execute Form AD-1049, "Certification Regarding Drug-Free Workplace Requirements (Grants) Alternative I - 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 Bond. Principal payment will not be deferred for a period in excess of two years from the date of the Bond. Payments will be in accordance with applicable KRS, which requires interest to be paid semi-annually (January 1st and July 1st) and principal will be due on or before the first of January. Rural Development may require the District to adopt a supplemental payment agreement providing for monthly payments of principal and interest so long as the bond is held or insured by RUS. Monthly payments will be approximate amortized installments.

5. Recommended Repayment Method:

Payments on this loan can 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 SF 5510, "Authorization Agreement for Preauthorized Payments," should be signed by the District 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 District will be required to deposit \$635 per month into a "Funded Depreciation Reserve Account" until the account reaches \$76,200. The deposits are to be resumed any time the account falls below the \$76,200.

The required monthly deposits to the Reserve Account and required Reserve Account levels are in addition to the requirements of the District's prior bond 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 District also needs to fund an account for short-lived assets by depositing a sum of \$3,047 monthly into the account. The funds in the short-lived asset account may be used by the District as needed to replace or add short-lived assets in the District's water system.

7. Security Requirements:

A pledge of gross water revenue will be provided in the Bond Resolution. Bonds shall rank on a parity with existing bonds, if possible.

If this is not possible, the bond will be subordinate and junior to the existing bonds, in which case the District will be required to abrogate its right to issue additional bonds ranking on a parity with the existing bonds, so long as any unpaid indebtedness remains on this bond issue.

8. Land Rights and Real Property:

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

10. Business Operations:

The District 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 District after review by Rural Development. At no later than loan pre-closing, the District 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, bookkeeping, making and delivering required reports and audits.

11. Accounts, Records and Audits:

The District will be required to maintain adequate records and accounts and submit annual budgets and year-end reports (annual audits) in accordance with subsection 1780.47 of RUS Instruction 1780 and RUS Staff Instruction 1780-4, a copy of which is enclosed.

The enclosed audit booklet will be used as a guide for preparation of audits. The District shall be required to submit a copy of its audit agreement for review and concurrence by Rural Development prior to pre-closing the loan.

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

The District will accomplish audits in accordance with OMB Circular A-133, during the years in which federal funds are received. The District 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 District. The District should obtain amounts of coverage as recommended by its attorney, consulting engineer and/or insurance provider.
- B. Worker's Compensation - The District will carry worker's compensation insurance for employees in accordance with applicable state laws.
- C. Fidelity Bond - The District 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 \$241,000.
- D. Real Property Insurance - The District 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 District 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 District will obtain and maintain adequate coverage on any facilities located in a 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.

Prior to receipt of an authorization to advertise for construction bids, the District will obtain advance clearance from Bond Counsel regarding compliance with KRS 424 pertaining to publishing of the advertisement for construction bids in local newspapers and the period of time the notice is required to be published.

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 District.

17. Compliance with Special Laws and Regulations:

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

18. System Operator:

The District is reminded that the system operator must have an Operator's Certificate issued by the State.

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

- A. Form RUS Bulletin 1780-27, "Loan Resolution (Public Bodies)."
- B. Form RD 400-1, "Equal Opportunity Agreement."
- C. Form RD 400-4, "Assurance Agreement."
- D. Form AD-1047, "Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transaction."
- E. Form RD 1910-11, "Applicant Certification Federal Collection Policies for Consumer or Commercial Debts."
- F. RD Instruction 1940-Q, Exhibit A-1, "Certification for Contracts, Grants and Loans."
- G. RUS Bulletin 1780-22, "Eligibility Certification."

20. Refinancing and Graduation Requirements:

The District is reminded that if at any time it shall appear to the Government that the District 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 District will apply for and accept such loan in sufficient amount to repay the Government.

21. Commercial Interim Financing:

The District 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 District 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 District 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.

During construction, the District 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 District, 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 District.

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

Monthly audits of the District'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 District. Grant funds, upon receipt, must be deposited in an interest bearing account in accordance with 7 CFR part 3016 (as applicable). Interest earned on grant funds in excess of \$100 (as applicable) per year will be submitted to RUS at least quarterly.

24. Cost of Facility:

Breakdown of Costs:

Development	\$ 2,140,000
Land and Rights	50,000
Legal and Administrative	32,000
Engineering	284,000
Interest	30,000
Contingencies	<u>214,000</u>

TOTAL \$ 2,750,000

Financing:

RUS Loan	\$ 1,446,000
RUS Grant	754,000
ARC Grant	500,000
Connection Fees	<u>50,000</u>
TOTAL	\$ 2,750,000

25. Review of Expenses

Upon review of the historical and proposed Operation and Maintenance expenses for the Water District, it has been noted that the expenses are excessive in relation to other similar Water Districts. Management should review all O&M costs and develop a plan to limit unnecessary or excessive expenses as possible.

26. Commitment of Other Project Funds:

This Letter of Conditions is issued contingent upon a firm commitment being in effect prior to advertising for construction bids for the ARC grant in the amount of 500,000.

27. Use of Remaining Project Funds:

The connection 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/ARC 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.

28. 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.

29. Rates and Charges:

Rates and charges for facilities and services rendered by the District 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 will be at least:

5/8" x 3/4" Meter Size:

First	2,000	gallons @ \$	19.41 - Minimum Bill.
Next	3,000	gallons @ \$	7.03 - per 1,000 gallons.
Next	5,000	gallons @ \$	6.43 - per 1,000 gallons.
Next	5,000	gallons @ \$	5.83 - per 1,000 gallons.
All Over	15,000	gallons @ \$	5.23 - per 1,000 gallons.

1" Meter Size:

First	5,000	gallons @ \$	40.50 - Minimum Bill.
Next	5,000	gallons @ \$	6.43 - per 1,000 gallons.
Next	5,000	gallons @ \$	5.83 - per 1,000 gallons.
All Over	15,000	gallons @ \$	5.23 - per 1,000 gallons.

2" Meter Size:

First	15,000	gallons @ \$	101.80 - Minimum Bill.
All Over	15,000	gallons @ \$	5.23 - per 1,000 gallons.

Wholesale Rates:

City of Campton	\$	2.71 - per 1,000 gallons.
City of Frenchburg	\$	2.71 - per 1,000 gallons.

30. Water Purchase Contract:

The District will submit a Water Purchase Contract for approval by Rural Development before advertising for construction bids. If the contract is not on Form RD 442-30, "Water Purchase Contract," the contract will require approval by our Regional Attorney. The contract must meet the requirements of subsection 1780.62 of RUS Instruction 1780.

31. Compliance with the Bioterrorism Act:

Prior to pre-closing the loan, the District 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).

32. Floodplain Construction:

The District will be required to pass and adopt a Resolution or amend its By-Laws whereby the District 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 District 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.

33. Mitigation Measures:

- A. The project shall be in compliance with all requirements noted in the Governor's Office for Local Development letter dated July 31, 2006, 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 November 8, 2006, 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. The design and construction shall be in compliance with all local, state and federal environmental statutes, regulations and executive orders applicable to the project.

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,



KENNETH SLONE
State Director

Enclosures

- cc: Area Director - Morehead, Kentucky
Rural Development Manager – West Liberty, Kentucky
Gateway ADD - Owingsville, Kentucky
Rubin and Hays - Louisville, Kentucky
Steve O’Conner – West Liberty, Kentucky
Cann-Tech, LLC - Lawrenceburg, Kentucky
PSC - ATTN: Bob Amato - Frankfort, Kentucky

2/5

REQUEST FOR OBLIGATION OF FUNDS
ARC Grant

INSTRUCTIONS-TYPE IN CAPITALIZED ELITE TYPE IN SPACES MARKED Complete Items 1 through 30 and applicable Items 31 through 43. See FMI.			
1. CASE NUMBER ST CO BORROWER ID 20 088 621470536		LOAN NUMBER	FISCAL YEAR
2. BORROWER NAME Morgan County Water District		3. NUMBER NAME FIELDS 1 1, 2, or 3 from Item 2)	
		4. STATE NAME Kentucky	
		5. COUNTY NAME 088 Morgan	
GENERAL BORROWER/LOAN INFORMATION			
6. RACE/ETHNIC CLASSIFICATION 1 - WHITE 4 - HISPANIC 2 - BLACK 5 - A/P 3 - AVAN	7. TYPE OF APPLICANT 4 - PUBLIC BODY 1 - INDIVIDUAL 2 - PARTNERSHIP 3 - CORPORATION	8. COLLATERAL CODE 1 - REAL ESTATE SECURED 2 - REAL ESTATE AND CHATTEL 3 - NOTE ONLY OR CHATTEL ONLY 4 - MACHINERY OR LIVESTOCK ONLY 5 - CROPS ONLY 6 - SECURED BY BONDS 7 - OTHER	9. EMPLOYEE RELATIONSHIP CODE 1 - EMPLOYEE 2 - MEMBER OF FAMILY 3 - CLOSE RELATIVE 4 - ASSOC
10. SEX CODE 1 - MALE 2 - FEMALE 6	11. MARITAL STATUS 1 - MARRIED 2 - SEPARATE 3 - UNMARRIED (INCLUDES WIDOWED/DIVORCED)	12. VETERAN CODE 1 - YES 2 - NO	13. CREDIT REPORT 1 - YES 2 - NO 2
14. DIRECT PAYMENT (See FMI)	15. TYPE OF PAYMENT 1 - MONTHLY 2 - ANNUALLY 3 - SEMI-ANNUALLY 4 - QUARTERLY	16. FEE INSPECTION 1 - YES 2 - NO 2	17. INTEREST CREDIT 1 - YES (FRO SFH ONLY) 2 - NO
18. COMMUNITY SIZE 1 - 10,000 OR LESS (FOR SFH AND IFPG ONLY) 2 - OVER 10,000		19. DWELLING TYPE/USE OF FUNDS CODE (See FMI)	
COMPLETE FOR OBLIGATION OF FUNDS			
20. TYPE OF ASSISTANCE 085 (See FMI)	21. PURPOSE CODE 2	22. SOURCE OF FUNDS 2	23. TYPE OF ACTION 1 - OBLIGATION ONLY 2 - OBLIGATION/CHECK REQUEST 3 - CORRECTION OF OBLIGATION 1
24. TYPE OF SUBMISSION 1 - INITIAL 2 - SUBSEQUENT 2	25. AMOUNT OF LOAN	26. AMOUNT OF GRANT \$ 500,000.00	
27. AMOUNT OF IMMEDIATE ADVANCE \$ 0.00	28. DATE OF APPROVAL MO DA YR 09-26-07	29. INTEREST RATE	30. REPAYMENT TERMS
COMPLETE FOR SINGLE FAMILY HOUSING ONLY			
31. INCOME CATEGORY CODES 1 - VERY LOW 2 - LOW 3 - MODERATE 4 - ABOVE MODERATE	32. LOW INCOME LIMIT-MAX.	33. ADJUSTED FAMILY INCOME	
34. R.E. INSURANCE	35. R.E. TAXES 1st year	36. R.E. TAXES 2nd year	37. NOTE INSTALLMENT INELIGIBLE
38. TYPE OF UNIT 1 - FARM TRACT 2 - NON-FARM TRACT			
COMPLETE FOR COMMUNITY PROGRAM AND CERTAIN MULTIPLE-FAMILY HOUSING LOANS			
39. PROFIT TYPE 1 - FULL PROFIT 2 - LIMITED PROFIT 3 - NONPROFIT 3			
COMPLETE FOR EM LOANS ONLY		COMPLETE FOR CREDIT SALE-ASSUMPTION	
40. DISASTER DESIGNATION NUMBER (See FMI)	41. TYPE OF SALE 1 - CREDIT SALE ONLY 2 - ASSUMPTION ONLY 3 - CREDIT SALE WITH SLB LOA 4 - ASSUMPTION WITH SLB SEQUENTIAL LOAN		
FINANCE OFFICE USE ONLY		COMPLETE FOR FP LOANS ONLY	
42. OBLIGATION DATE MO DA YR	43. BEGINNING FARMER/RANCHER (See FMI)		

If the decision contained on this form results in denial, reduction or cancellation of USDA assistance, you may appeal that decision and have a hearing or you may request a review without a hearing. Please use the form we have included for this purpose.

Position 2

ORIGINAL - Borrower's Case Folder COPY 1 - Finance Office COPY 2 - Applicant/Lender COPY 3 - State Office

CERTIFICATION APPROVAL

For All Farmer Programs

EM, OL, FO, and SW Loans

This loan is approved subject to the availability of funds. If this loan does not close for any reason within 90 days from the date of approval on this document, the approval official will request updated eligibility information. The undersigned loan applicant agrees that the approval official will have 14 working days to review any updated information prior to submitting this document for obligation of funds. If there have been significant changes that may affect eligibility, a decision as to eligibility and feasibility will be made within 30 days from the time the applicant provides the necessary information.

If this is a loan approval for which a lien and/or title search is necessary, the undersigned applicant agrees that the 15-working-day loan closing requirement may be exceeded for the purposes of the applicant's legal representatives completing title work and completing loan closing.

44. COMMENTS AND REQUIREMENTS OF CERTIFYING OFFICIAL

Approval of financial assistance is subject to the provisions of the ARC Letter of Conditions dated 9/19/07 and any amendments thereto.

- 45. I HEREBY CERTIFY that I am unable to obtain sufficient credit elsewhere to finance my actual needs at reasonable rates and terms, taking into consideration prevailing private and cooperative rates and terms in or near my community for loans for similar purposes and periods of time. I agree to use the sum specified herein, subject to and in accordance with regulations applicable to the type of assistance indicated above, and requested payment of such sum. I agree to report to USDA any material adverse changes, financial or otherwise, that occur prior to loan closing. I certify that no part of the sum specified herein has been received. I have reviewed the loan approval requirements and comments associated with this loan request and agree to comply with these provisions.

(For SFH & FP loans at eligible terms only) If this loan is approved, I elect the interest rate to be charged on my loan to be the lower of the interest rate in effect at the time of approval or loan closing. If I check "NO", the interest rate charged on my loan will be the rate specified in Item 29 of this form.

YES NO

WARNING: Whoever, in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals or covers up by any trick, scheme, or device a material fact, or makes any false, fictitious or fraudulent statements or representations, or makes or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry, shall be fined under this title or imprisoned not more five years, or both."

Date _____

Morgan County Water District

Date 9/25/07

By: Roy Collett Chairman

- 46. I HEREBY CERTIFY that all of the committee and administrative determinations and certifications required by regulations prerequisite to providing assistance of the type indicated above have been made and that evidence thereof is in the docket, and that all requirements of pertinent regulations have been complied with. I hereby approve the above-described assistance in the amount set forth above, and by this document, subject to the availability of funds, the Government agrees to advance such amount to the applicant for the purpose of and subject to the availability prescribed by regulations applicable to this type of assistance.

Kenneth Stone (Signature of Approving Official)

Date Approved: 9/26/07

Title _____

- 47. TO THE APPLICANT: As of this date 9/28/07 this is notice that your application for financial assistance from the USDA has been approved, as indicated above, subject to the availability of funds and other conditions required by the USDA. If you have any questions contact the County Supervisor or District Director.



United States Department of Agriculture
Rural Development
Kentucky State Office

3/21

September 19, 2007

Mr. Roy Collett, Chairman
Morgan County Water District
408 Prestonsburg Street
West Liberty, Kentucky 41472

Dear Mr. Collett:

This letter establishes conditions which must be understood and agreed to by you before further processing of your Appalachian Regional Commission (ARC) grant application and which must be met before the grant can be closed.

The Federal Co-Chairman of ARC has entered into an agreement with the Administrator of the Rural Utilities Service (RUS) whereby the RUS will be responsible for awarding and administering the ARC grant offer for the proposed project in an amount not to exceed \$500,000. The grant offer is composed of an ARC Section 214 Grant in the amount of \$500,000.

Please complete Form RD 1942-46, "Letter of Intent to Meet Conditions," if you agree with the conditions stated herein and desire to continue with the ARC grant.

1. Grant Administration:

The RUS is responsible for administering the ARC grant. This will include responsibility of making the decisions and determinations involving project costs, availability of funds, contract documents, specifications, plans, change orders, inspections during construction, final inspections, financial management of the project, and other areas affecting the awarding and administering of the ARC grant.

2. Grant Resolution:

The District will be required to pass and adopt a resolution accepting the grant offer of \$500,000 from the Appalachian Regional Commission.

3. Grant Agreement:

The District will be required to execute RUS Bulletin 1780-12, "Water or Waste System Grant Agreement," prior to closing the grant.

771 Corporate Drive • Suite 200 • Lexington, KY 40503
Phone: (859) 224-7336 • Fax: (859) 224-7444 • TDD: (859) 224-7422 • Web: <http://www.rurdev.usda.gov/ky>

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1400 Independence Avenue, SW, Washington, DC 20250-9410
or call (800) 795-3272 (voice) or (202) 720-6362 (TDD)

4. Drug-Free Work Place:

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

5. Davis-Bacon Act:

The Construction contracts for project work in all applicable cases will contain binding provisions for paying the prevailing wages as determined by the Secretary of Labor in accordance with Davis-Bacon Act.

6. Organization:

The District will be legally organized under applicable KRS, which will permit them to perform this service and to carry out the purpose of the proposed grant.

7. Compliance with Special Laws and Regulations:

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

8. Fund Release:

The District will be required to provide paid receipts or accounts payable invoices for release of funds.

9. Audit/Closeout Report:

The District will be required to furnish an audit report, or other approved report, on the final cost of the project, at its own expense.

The proportionate share of any ARC grant funds actually advanced and not needed for any approved purposes shall be returned immediately to the ARC as provided for in the grant agreement.

10. Remaining Project Funds:

If the actual eligible costs are less than the estimated costs on which the Commission based its approval of a supplemental or special basic grant (or if the non-214 basic federal grant(s) or the non-federal funds are increased for a project without any change in eligible project costs), the amount of Section 214 funds available for the project shall be reduced to the difference between the actual eligible costs and the sum of (i) the non-214 basic grant(s) and (ii) the non-federal funds shown in the approved Section 214 application unless, because of changed circumstances, the Commission directs otherwise.

11. Final Approval Conditions:

Final approval of this grant 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 processing your grant offer.

Sincerely,


KENNETH SLONE
State Director

cc: Area Director - Morehead, Kentucky
Rural Development Manager - West Liberty, Kentucky
Gateway ADD - Owingsville, Kentucky



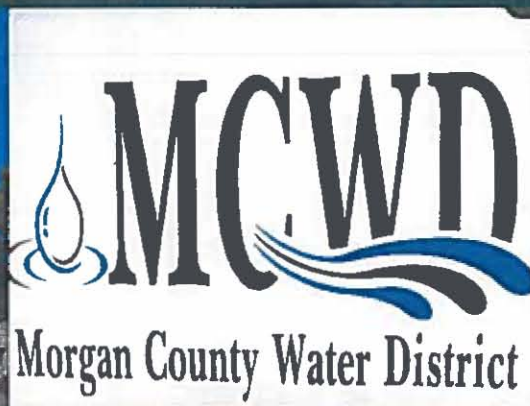
nesbitt engineering, inc.

July 2019

MORGAN COUNTY WATER DISTRICT

West Liberty, Kentucky

Preliminary Engineering Report Waterline Replacement Project Phase 1



SUBMITTED TO:
Rural Development and Appalachian Regional
Commission

PREPARED BY:
Nesbitt Engineering, Inc.
227 N. Upper Street
Lexington, KY 40507-1016
859-233-3111

*Providing
Proven
Solutions Since 1976*

Preliminary Engineering Report - Waterline Replacement Project-Phase 1, Morgan County, KY

GENERAL

Morgan County is located in the eastern part of Kentucky approximately 88 miles east of Lexington, 67 miles northwest of Pikeville, 63 miles north of Hazard and 24 miles south-east of Morehead Kentucky. Morgan County is bordered by Wolfe, Menifee, Rowan, Elliott, Johnson and Magoffin Counties (see Figure 1). West Liberty is the County Seat of Morgan County and is a 4th class city. In 2015 it is estimated that of the total county population of 13,275, there were 3,330, or approximately 25% of the County population living in West Liberty.

The remaining 75% lived in Morgan County and were served potable water by the Morgan County Water District (MCWD) which was created in 1992. MCWD has waterlines, pump stations and water storage tanks throughout Morgan County to serve their approximately 2800 residential and commercial customers (2019) and some 4,100 households.

MCWD's office is located at 1009 on KY 172 north of West Liberty.

MCWD does not have any treatment facilities and thus purchases all of their water and then sells it to their customers. They purchase approximately 113.3 million gallons (MG) annually (approx. 41%) from Cave Run Water commission at \$2.57/1000 gallons and 161.7 MG annually (approx. 59%) from the City of West Liberty at \$3.08/1000 gallons.

In addition to their customers, they have the ability to provide water to 2 other entities thru master meters, i.e. City of Campton and City of Frenchburg (currently inactive). This only amounts to 0.054MG annually with most of this water going to the City of Campton. They charge \$4.16/1000 gallons for the water they sell wholesale. They have other connections with other entities but these were established merely for emergencies and they generally do not sell water at these connection points.

All of MCWD's facilities are located either on property that they own in fee simple, private easements or on permitted public right of way. The water district was formed under KRS Chapter 74, which means it is governed by the KY Public Service Commission (PSC). The PSC oversees their customer usage rates and monitors their operation and management.

LAST PLOTTED ON: 5/16/2019 BY: WHITE, JILL E. DRAWING FILE LOCATION: P:\MORGAN COUNTY WATER DISTRICT\1191-01 WATERLINE REPLACEMENT\1-01 PRELIM\PER\STATE MAP.DWG



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providing proven solutions since 1976

**PROPOSED WATERLINE REPLACEMENT
 EXISTING WATER DISTRIBUTION SYSTEM
 PERRY COUNTY SANITATION DISTRICT #1**

**FIGURE 1
 AREA MAP**

drawn by:
JCW
 date:
5-16-2019

job no:
1191.01
 scale:
NOT TO SCALE

1. PROJECT PLANNING AREA

The proposed project planning area for Phase 1, since this project is a waterline replacement project consists of the current service area which is basically all of Morgan County outside of the City Limits of West Liberty. Currently the water district has a large percentage (over 50%) unaccounted for water which is causing financial hardship on the District..

a. Location

The location of the proposed Phase 1 Project will be as indicated on the U.S.G.S. Topographical map included as Figure 2.

b. Growth Areas and Population Trends

According to figures obtained from the Kentucky State Data Center (UL KY SDC) in Louisville, Morgan County is projected to slightly decrease in population till Census Year 2040.

This area of Morgan County has wide valleys and is prime land for future home and business sites along the following KY State Routes 519, 172, 191 and 205 and US 460 corridors. The primary goal of this project is to reduce the percentage of unaccounted for water and thus result in an increase in net revenue for the District.

Table 1-1 Population for Morgan Co. from UL KY SDC

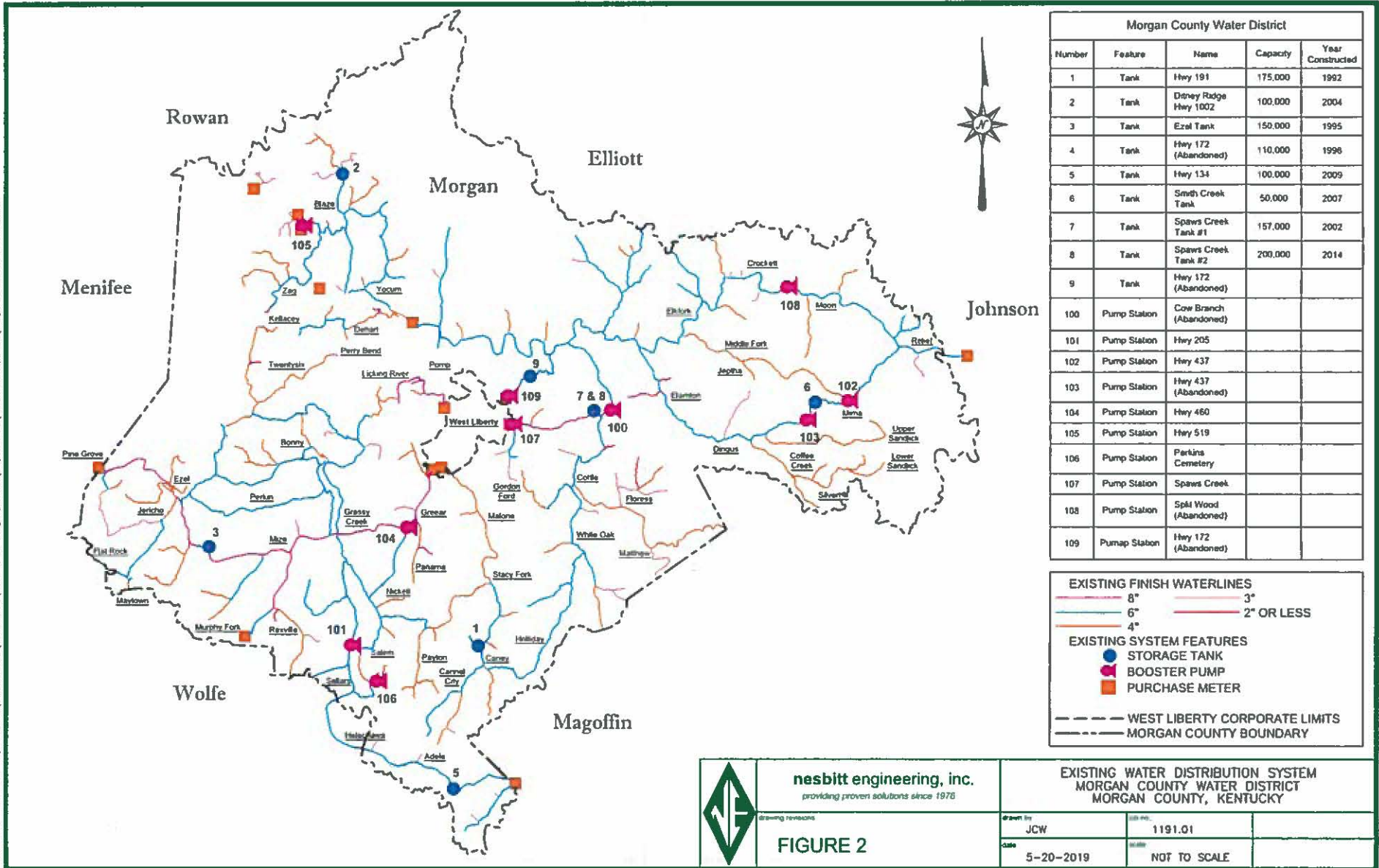
Area	Year	Determined	Population	Households
West Liberty	2015	Projection	3,330	—
Morgan Co.	2015	Projection	13,275	4,818
Morgan Co.	2010	Census	13,923	4,860
Morgan Co.	2020	Projection	12,824	4,739
Morgan Co.	2030	Projection	11,782	4,465
Morgan Co.	2040	Projection	10,536	4,016

2. EXISTING FACILITIES

a. Location Map

The homes and businesses in the project area rely totally on MCWD for their water needs. **See Figure 2**

DRAWING FILE LOCATION: N:\MARKETING\GATEWAY ADD\MORGAN CO\MORGAN CO WATER DISTRICT\UTILITY MAPS\WATER DISTRIBUTION\WATER DISTRIBUTION 11X17.DWG



Morgan County Water District				
Number	Feature	Name	Capacity	Year Constructed
1	Tank	Hwy 191	175,000	1992
2	Tank	Disney Ridge Hwy 1002	100,000	2004
3	Tank	Ezel Tank	150,000	1995
4	Tank	Hwy 172 (Abandoned)	110,000	1996
5	Tank	Hwy 134	100,000	2009
6	Tank	Smith Creek Tank	50,000	2007
7	Tank	Spaws Creek Tank #1	157,000	2002
8	Tank	Spaws Creek Tank #2	200,000	2014
9	Tank	Hwy 172 (Abandoned)		
100	Pump Station	Cow Branch (Abandoned)		
101	Pump Station	Hwy 205		
102	Pump Station	Hwy 437		
103	Pump Station	Hwy 437 (Abandoned)		
104	Pump Station	Hwy 460		
105	Pump Station	Hwy 519		
106	Pump Station	Perkins Cemetery		
107	Pump Station	Spaws Creek		
108	Pump Station	Split Wood (Abandoned)		
109	Pump Station	Hwy 172 (Abandoned)		

EXISTING FINISH WATERLINES

- 8" (thick red line)
- 6" (medium red line)
- 4" (thin red line)
- 3" (thin red line)
- 2" OR LESS (dotted red line)

EXISTING SYSTEM FEATURES

- STORAGE TANK
- BOOSTER PUMP
- PURCHASE METER

--- WEST LIBERTY CORPORATE LIMITS
 - - - MORGAN COUNTY BOUNDARY

	nesbitt engineering, inc. providing proven solutions since 1978		EXISTING WATER DISTRIBUTION SYSTEM MORGAN COUNTY WATER DISTRICT MORGAN COUNTY, KENTUCKY	
	drawing revision	FIGURE 2		drawn by: JCW date: 5-20-2019
		job no.: 1191.01		
		scale: NOT TO SCALE		

b. History

The MCWD owns and operates a water distribution system serving most of Morgan County. The District has no treatment facilities, so they purchase water and then distribute it to sell to their customers.

c. Condition of Facilities

The District has the following existing facilities; per the KY KIA WRIS system data

Table 2-1 Distribution Lines

Diameter (in.)	Linear Feet of Pipe	% of Total Linear Feet
8	138,692	7
6	873,945	46
4	666,175	35
3	173,186	9
Up to 2	30,434	2
Totals	1,882,432	100

Table 2-2 Age of Distribution Lines

Decade Constructed	Linear Feet of Pipe	% of Total Linear Feet
1970	210,348*	11
1980	381,506*	20
1990	51,849	3
2000	1,183,102	63
2010	55,627	3
Totals	1,882,432	100

* District was created in 1992, so these totals were included in 1990 decade.

From these two tables, one can see that the majority of the District's water lines are 4" and 6" in diameter (approx. 81%) and also roughly 33% of their system was installed prior to year 2000.

Contrary to the data, on the WRIS web site district personnel stated there is no asbestos cement lines in their system.

The District has six pump stations to fill their seven water storage tanks. These pump stations are controlled by telemetry from the tank they are filling and this information is transmitted back to the district office.

The seven tanks have a total storage capacity of 932,000 gallons, which is approximately 1.25% of their Average Daily Demand based on the volume of water purchased annually. $(274,987,000 \text{ G/yr}/365 \text{ days/yr}) = 753,389 \text{ G/day}$. $(932,000 \text{ G}/753,389 \text{ G/day} = 1.25 \text{ days supply})$.

All portions of the MCWD water distribution system are in compliance with all applicable State requirements.

d. Financial Status of any Existing Facilities

The District currently operates all infrastructure facilities in a financially solvent manner, but due to the large amount of unaccounted for water, the horizon doesn't appear as positive. Audits are performed on an annual basis and rates are reviewed as necessary. The most recent rate increase approved by the PSC was enacted in 2018. Appendix D contains plot of the unaccounted water by year.

3. NEED FOR PROJECT

a. Health, Sanitation, and Security

The health and safety of the residents living within the project area depend on the ability of the District to provide potable water at an adequate pressure.

Residents of Morgan County without access to the District's water distribution system, utilize wells, hauling water or bottled water. Water quality from the private wells could be suspect due to the use septic tanks for the treatment of household sewerage. The soils of the area are classified as unsuitable for proper septic treatment over an extended period of time.

b. System O&M

Operation and maintenance of the proposed replacement waterlines and distribution system will continue to be provided by the existing, certified and licensed staff of the District.

- c. Since the new waterlines will be installed in the existing easements, i.e. In previously disturbed areas, it is believed that a Categorical Exclusion could easily be obtained for this proposed Phase 1 project.

4. Scope of Proposed Project

An effort to identify the waterlines with the greatest leakage and/or those with the highest frequency of repair is ongoing and was enhanced by the assistance of the KY Rural Water Association (KRWA) Representative that was on site in June 2019 for 5 days assisting with Identification of lines that should be considered for replacement or verifying lines that were not leaking or compromised.

In the future a record or listing of lines that require frequent repair should be maintained for line replacement consideration. Operators can identify those lines which need repairs. After that, the project should encompass the oldest lines that experience the greatest amount of pressure and consider replacement of these oldest lines installed in the system. Leak determination of KY 1191 from index to Wolfe Co. line should be considered as far as the current funds would permit.

The estimated Opinion of Probable Construction and Project Costs for Phase 1 will be presented in Appendix "A" of this report. Lines on US 460 and KY 172 are the major lines to be replaced. There is also a 2" diameter line perpendicular to US 460 that should be replaced.

One pump station's chlorine room is slated to be rehabilitated and the remaining estimated construction funds can be used to replace of some valves, hydrants and residential water meters. (see figure 3).

5. Project Funding

The District will seek funding from both Rural Development (RD) and the Appalachian Regional Commission (ARC). They will request a grant of \$800,000 from ARC and \$280,000 low interest loan and a \$120,000 grant from RD. RD has three rates available, i.e. Market, Intermediate and Poverty based on non-metro Median Household Income (MHI). The levels of MHI and the rates are as shown in Table 5-1 (see appendix B for additional information).

It appears that Morgan Co. just misses qualifying for the lowest interest rate as their MHI is shown in their KIA Drinking Water Profile as \$32,870.

Therefore using the Intermediate Interest Rate of 3.375% and financing a \$280,000 loan for 38 years (with two payments per year) would result in an annual payment of \$13,131 (calculation included in appendix B).

Table - 5-1

Designation	MHI (non Metro)	Percentage
Market	\$40,418 and above	4.25
Intermediate	\$32,335 to \$40,418	3.375
Poverty	Less than \$32,334	2.50

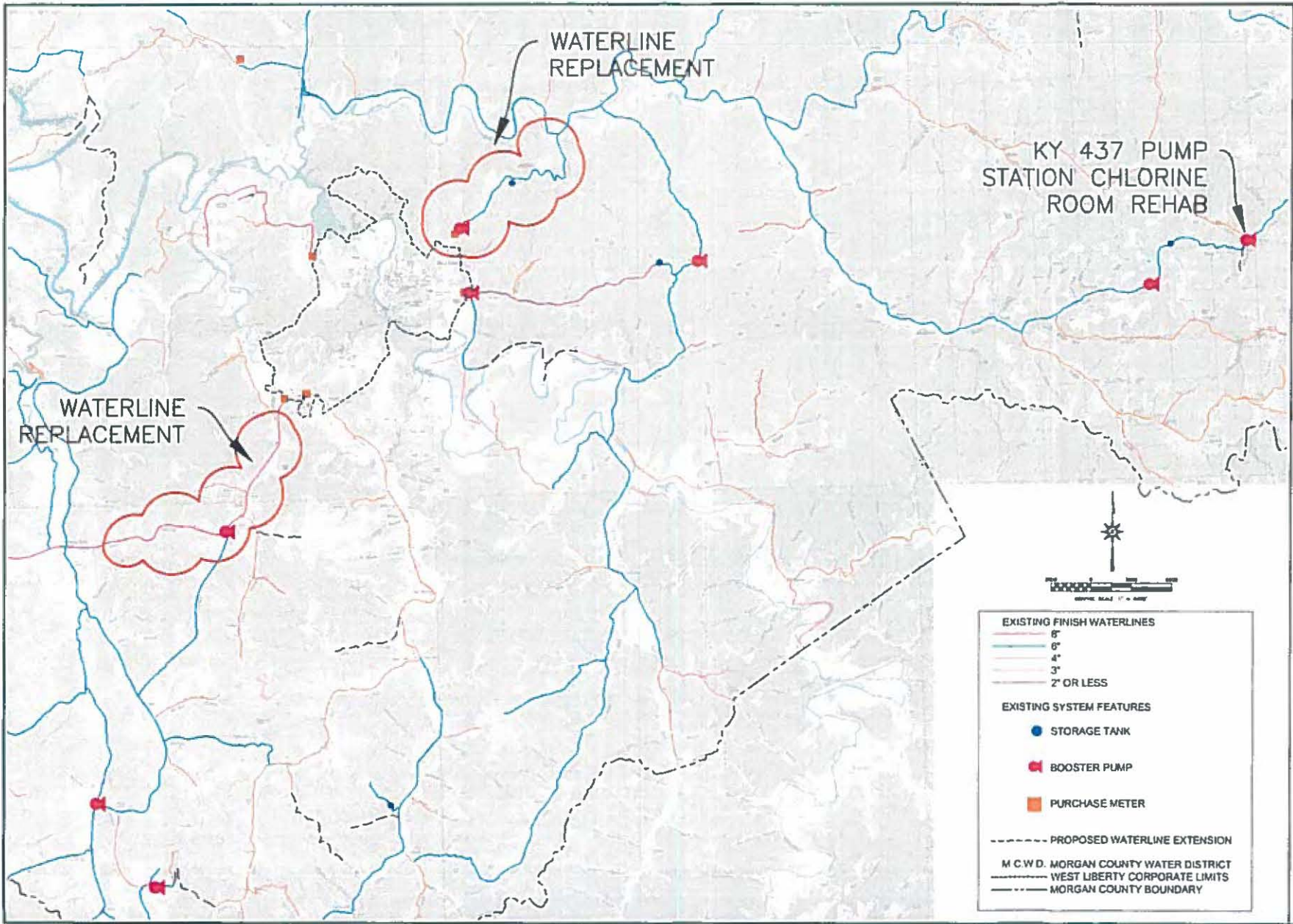


FIGURE 3
 MORGAN COUNTY WATER DISTRICT
 MORGAN COUNTY, KENTUCKY
 SCATTERED WATER LINE REPLACEMENT AND PUMP STATION REHAB

6. Conclusions and Recommendations

RD requests that the entity collect 10% more than this amount as a safe practice (10% coverage). Adding the coverage would result in a total annual RD loan payment of approx. \$14,444/year (\$39.57/day).

The amount of water that would need to be reduced from the District's purchases would be the amount to offset the \$39.57/day. Based on the weighted average purchase price of \$2.87/1000 gallons, this would require a reduction of 13,800 gallons/day. This amount is slightly over 1.8% of their average amount purchased daily. The goal of this project is to reduce the percentage of unaccounted for water by 10-15%, so 1.8% seems very attainable.

This reduction of cost coupled with a rate increase adjustment should be considered to stabilize the financial situation of the District.

Appendix B contains the calculation for existing rates and existing cost to replicate the income shown in the 12/31/2017 audit. It also indicates a change in the rate structure to just two categories and proposed rates that would generate sufficient revenue to make the cash flow be positive with the proposed additional Phase 1 project debt service.

Appendix "A"

- Estimated Opinion of Probable Construction Cost
- Estimated Opinion of Probable Project Cost

Appendix "B"

- USDA Rural Utilities Interest Rate Information

Appendix "C"

- MCWD Facilities
 - Pipes
 - Pump Stations
 - Tanks

Appendix "D"

- User Rate Information
 - Existing Rates Effective 10/1/2018
 - Customer Usage to Reflect Revenue as Shown in 12/31/20107 Audit
 - Proposed Rates for Phase 1 Project

Morgan County Water District

Opinion of Probable Construction Cost Waterline Replacement Project (6/2019)

Estimated Opinion of Probable Construction Cost				
Description	Units	Quantity	Unit Cost	Total Cost
Rehabilitate existing pump station	LS	1	\$ 46,810	\$ 46,810.00
8" PVC SDR 17 Pipe	LF	7500	\$ 18.00	\$ 135,000.00
6" PVC SDR 17 Pipe	LF	13500	\$ 16.50	\$ 222,750.00
4" PVC SDR 17 Pipe	LF	5500	\$ 14.50	\$ 79,750.00
3" PVC SDR 17 Pipe	LF	4500	\$ 12.50	\$ 56,250.00
2" PVC SDR 17 Pipe	LF	600	\$ 11.00	\$ 6,600.00
8" D.I.M.J. Gate Valve & Box	EA	5	\$ 1,800.00	\$ 9,000.00
6" D.I.M.J. Gate Valve & Box	EA	4	\$ 1,500.00	\$ 6,000.00
4" D.I.M.J. Gate Valve & Box	EA	4	\$ 1,350.00	\$ 5,400.00
3" D.I.M.J. Gate Valve & Box	EA	4	\$ 990.00	\$ 3,960.00
2" D.I.M.J. Gate Valve & Box	EA	4	\$ 850.00	\$ 3,400.00
Directional Drill	LF	200	\$ 100.00	\$ 20,000.00
Bore & Jack	LF	120	\$ 180.00	\$ 21,600.00
Combination Air Release Valve Assembly	EA	4	\$ 2,000.00	\$ 8,000.00
Flushing Hydrant Assembly Type 3	EA	2	\$ 2,525.00	\$ 5,050.00
5/8 x 3/4 meters (SR2's w metal bottoms)	EA	700	\$ 160.00	\$ 112,000.00
5/8 x 3/4 meters transmitter unit	EA	175	\$ 68.00	\$ 11,900.00
Flow Monitoring and Leak Detection Equipment	LS	1	\$ 15,000.00	\$ 15,000.00
Flow Monitoring and Leak Detection Vaults	EA	4	\$ 3,500.00	\$ 14,000.00
Existing Water Storage Tank Inspections	EA	7	\$ 7,000.00	\$ 49,000.00
Flushing Hydrant Assembly	EA	2	\$ 3,250.00	\$ 6,500.00
Total Estimated Opinion of Probable Construction Cost				\$ 831,470.00



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Morgan County Water District

Opinion of Probable Project Cost Waterline Replacement Project (6/2019)

Total Estimated Opinion of Probable Construction Cost		\$ 831,470.00
Estimated Opinion of Other Project Related Costs		
Legal		\$5,500.00
Engineering		
Preliminary Engineering	\$	5,000.00
Design		\$66,000.00
Contract Admin.		\$17,000.00
Resident Observation		\$53,000.00
Permits (DOW, KTC, etc.)		\$5,000.00
Other Engineering (Easements, Survey, Reports, etc.)		\$10,000.00
Develop Hydraulic Model and Overall Map of Distribution System		\$25,000.00
Project Contingencies		\$82,030.00
Initial O&M		\$100,000.00
Total Estimated Opinion of Probable Project and Construction Costs =		\$ 1,200,000.00

Possible Funding Sources		
Appalachian Regional Commission (Grant)	\$	800,000
Rural Development Grant	\$	120,000
Rural Development Loan	\$	280,000
	Total Project Funds	\$ 1,200,000



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Appendix "B"

- USDA Rural Utilities Interest Rate Information

Main, Ora

From: Hollinsworth, Anthony - RD, Lexington, KY <anthony.hollinsworth@usda.gov>
Sent: Tuesday, May 21, 2019 9:11 AM
To: Main, Ora
Cc: Anderson, Julie - RD, Lexington, KY
Subject: RE: KY Interest Rates

Ora, the income levels are based upon percentages of the state non metro MHI. The simple answer is:

Market = \$40,418 or above

Intermediate = \$32,335 up to \$40,418

Poverty = less than \$32,334 + the project has to remove a sanitary or health hazard

Thanks,

Anthony

From: Main, Ora <omain@nei-ky.com>
Sent: Monday, May 20, 2019 7:32 PM
To: Hollinsworth, Anthony - RD, Lexington, KY <anthony.hollinsworth@usda.gov>
Subject: Re: KY Interest Rates

Thanks

What income levels qualify for intermediate and poverty rates?

Sent from my iPhone

On May 20, 2019, at 4:23 PM, Hollinsworth, Anthony - RD, Lexington, KY <anthony.hollinsworth@usda.gov> wrote:

Ora:

Good afternoon. Our current interest rates (through June 30th) are:

Market	4.25%
Intermediate	3.375%
Poverty	2.50%

Rates change quarterly, so these rates will probably change effective 7/1, and that rate has not yet been established.

Thanks,

Anthony

From: Anderson, Julie - RD, Lexington, KY
Sent: Monday, May 20, 2019 3:52 PM
To: Main, Ora <omain@nei-ky.com>
Cc: Hollinsworth, Anthony - RD, Lexington, KY <anthony.hollinsworth@usda.gov>
Subject: RE: KY Interest Rates

Hey Ora. Hope all is well. I am not sure what the rates are. I don't do the financing side of things so I have cc'd Anthony on this one. He should be able to tell you what they are. Thanks, Julie

From: Main, Ora <omain@nei-ky.com>
Sent: Monday, May 20, 2019 3:43 PM
To: Anderson, Julie - RD, Lexington, KY <julie.anderson@usda.gov>
Subject: KY Interest Rates

Julie,

What are the current interest rates and what income levels would determine which rate a water utility would be granted.

Thanks,

Ora C. Main, PE, MBA
Project Manager

nesbitt engineering, inc.
main: (859) 233-3111
direct: (859) 685-4514
cell: (859) 333-7771

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Rural Utilities Interest Rates

			Interest Rate		
Quarterly Report Date	Loans Approved Before/After		Poverty	Intermediate	Market
01/04/19	Before	5/22/08	4.500	4.375	4.250
01/04/19	After	5/23/08	2.500	3.375	4.250
01/01/19	Before	5/22/08	4.500	4.375	4.250
01/01/19	After	5/23/08	2.500	3.375	4.250
10/1/18	Before	5/22/08	4.500	4.250	4.000
10/1/18	After	5/23/08	2.375	3.250	4.000
07/01/18	Before	5/22/08	4.500	4.125	3.875
07/01/18	After	5/23/08	2.375	3.125	3.875
04/01/18	Before	5/22/08	4.500	4.125	3.875

USDA is an equal opportunity provider and employer.

Morgan Co. Water District

RD Loan		TABLE DATA	
Loan amount:	\$280,000.00	Table starts at date:	1
Ann. interest rate:	3.375%	or at payment number:	
Term in years:	38		
Payments / year:	2		
First payment due:	1/1/2022		

Payment: **\$6,565.48**

CRF = 0.023448 Ann. Pymts = \$13,130.96	No.	Payment Date	Beginning Balance	Interest
	1	1/1/2022	280,000.00	4,725.00
	2	7/1/2022	278,159.52	4,693.94
	3	1/1/2023	276,287.98	4,662.36
	4	7/1/2023	274,384.86	4,630.24
	5	1/1/2024	272,449.63	4,597.59

Use payment of: **\$6,565.48** Beginning balance at payment 1: **280,000.00**
 payment in table: 1 Cumulative interest prior to payment 1: **0.00**

Table

No.	Payment Date	Beginning Balance	Interest	Principal	Ending Balance	Cumulative Interest
1	1/1/2022	280,000.00	4,725.00	1,840.48	278,159.52	4,725.00
2	7/1/2022	278,159.52	4,693.94	1,871.54	276,287.98	9,418.94
3	1/1/2023	276,287.98	4,662.36	1,903.12	274,384.86	14,081.30
4	7/1/2023	274,384.86	4,630.24	1,935.24	272,449.63	18,711.55
5	1/1/2024	272,449.63	4,597.59	1,967.89	270,481.73	23,309.13
6	7/1/2024	270,481.73	4,564.38	2,001.10	268,480.63	27,873.51
7	1/1/2025	268,480.63	4,530.61	2,034.87	266,445.76	32,404.12
8	7/1/2025	266,445.76	4,496.27	2,069.21	264,376.55	36,900.40
9	1/1/2026	264,376.55	4,461.35	2,104.13	262,272.43	41,361.75
10	7/1/2026	262,272.43	4,425.85	2,139.63	260,132.79	45,787.60
11	1/1/2027	260,132.79	4,389.74	2,175.74	257,957.06	50,177.34
12	7/1/2027	257,957.06	4,353.03	2,212.45	255,744.60	54,530.36
13	1/1/2028	255,744.60	4,315.69	2,249.79	253,494.81	58,846.05
14	7/1/2028	253,494.81	4,277.72	2,287.76	251,207.06	63,123.78
15	1/1/2029	251,207.06	4,239.12	2,326.36	248,880.69	67,362.90
16	7/1/2029	248,880.69	4,199.86	2,365.62	246,515.08	71,562.76
17	1/1/2030	246,515.08	4,159.94	2,405.54	244,109.54	75,722.70
18	7/1/2030	244,109.54	4,119.35	2,446.13	241,663.41	79,842.05
19	1/1/2031	241,663.41	4,078.07	2,487.41	239,176.00	83,920.12
20	7/1/2031	239,176.00	4,036.09	2,529.39	236,646.61	87,956.21
21	1/1/2032	236,646.61	3,993.41	2,572.07	234,074.54	91,949.63
22	7/1/2032	234,074.54	3,950.01	2,615.47	231,459.07	95,899.63
23	1/1/2033	231,459.07	3,905.87	2,659.61	228,799.46	99,805.51
24	7/1/2033	228,799.46	3,860.99	2,704.49	226,094.97	103,666.50
25	1/1/2034	226,094.97	3,815.35	2,750.13	223,344.84	107,481.85
26	7/1/2034	223,344.84	3,768.94	2,796.54	220,548.31	111,250.79
27	1/1/2035	220,548.31	3,721.75	2,843.73	217,704.58	114,972.55
28	7/1/2035	217,704.58	3,673.76	2,891.72	214,812.86	118,646.31
29	1/1/2036	214,812.86	3,624.97	2,940.51	211,872.35	122,271.28
30	7/1/2036	211,872.35	3,575.35	2,990.13	208,882.22	125,846.62

Appendix "C"

- MCWD Facilities
 - Pipes
 - Pump Stations
 - Tanks

Morgan County Water District
Existing System Pipes (Sorted by size)

Size (inches)	Material	Decade Constructed	Length (LF)	LF by size	Miles by size	% of Total System
Up to 2	PVC	2000	1,253			
Up to 2	PVC	1980	9,195			
Up to 2	PVC	1990	2,387			
Up to 2	PVC	2000	5,747			
Up to 2	PVC	2010	511			
Up to 2	PVC	2000	4,128			
Up to 2	PVC	2000	7,213			
Total per size				30,434	5.8	2%
3	PVC	2000	7,730			
3	PVC	2000	2,461			
3	PVC	2000	2,138			
3	PVC	2000	27,120			
3	PVC	2010	35,830			
3	PVC	2000	31,218			
3	PVC	2000	9,542			
3	PVC	1970	22,936			
3	PVC	1980	7,770			
3	PVC	2000	23,242			
3	PVC	2010	3,199			
Total per size				173,186	32.8	9%
4	PVC	2000	11,611			
4	PVC	1970	27,279			
4	PVC	1980	58,402			
4	PVC	2000	13,533			
4	PVC	1990	1,795			
4	PVC	2000	222,484			
4	PVC	2000	70,083			
4	PVC	1970	44,448			
4	PVC	1980	41,087			
4	PVC	2000	175,453			
Total per size				666,175	126.2	35%
6	PVC	2000	56,244			
6	PVC	1980	37,978			
6	PVC	1990	2,715			
6	PVC	2000	6,070			
6	PVC	1980	150,577			
6	PVC	1990	44,952			
6	PVC	2000	164,778			
6	PVC	2000	97,173			
6	PVC	1970	63,794			
6	PVC	1980	6,929			
6	PVC	2000	242,735			
Total per size				873,945	165.5	46%
8	DUCTILE IRON	2010	5,694			
8	PVC	1970	16,318			
8	PVC	2010	10,393			
8	AC*	1970	10,208			
8	PVC	1970	25,365			
8	PVC	1980	69,588			
8	PVC	2000	1,146			
Total per size				138,692	26.3	7%
Total Linear Feet In Distribution System			1,882,432	1,882,432		100%
Total Miles In Distribution System			356.5	356.5		

Info from KIA, WRIS System Data, Morgan Co. Water District, Asset Management

*District personnel states there is no AC lines in their system

Morgan County Water District
Existing System Pipes (Sorted by Decade Installed)

Size (inches)	Material	Decade Installed*	Length (LF)	LF by Decade Installed	% of Total System
4	PVC	1970	27,279		
8	PVC	1970	16,318		
3	PVC	1970	22,936		
4	PVC	1970	44,448		
6	PVC	1970	63,794		
8	AC	1970	10,208		
8	PVC	1970	25,365		
Total per Decade Installed				210,348	11%
4	PVC	1980	58,402		
6	PVC	1980	37,978		
Up to 2	PVC	1980	9,195		
6	PVC	1980	150,577		
3	PVC	1980	7,770		
4	DUCTILE IRON	1980	41,087		
6	PVC	1980	6,929		
8	PVC	1980	69,568		
Total per Decade Installed				381,506	20%
6	PVC	1990	2,715		
Up to 2	PVC	1990	2,387		
4	PVC	1990	1,795		
6	PVC	1990	44,952		
Total per Decade Installed				51,849	3%
Up to 2	PVC	2000	1,253		
3	PVC	2000	7,730		
3	PVC	2000	2,461		
4	PVC	2000	11,611		
6	PVC	2000	56,244		
3	PVC	2000	2,138		
4	PVC	2000	13,533		
6	PVC	2000	6,070		
Up to 2	PVC	2000	5,747		
3	PVC	2000	27,120		
4	PVC	2000	222,484		
6	PVC	2000	164,778		
Up to 2	PVC	2000	4,128		
3	PVC	2000	31,218		
4	PVC	2000	70,083		
6	PVC	2000	97,173		
3	PVC	2000	9,542		
Up to 2	PVC	2000	7,213		
3	PVC	2000	23,242		
4	PVC	2000	175,453		
6	PVC	2000	242,735		
8	PVC	2000	1,148		
Total per Decade Installed				1,183,102	63%
Up to 2	PVC	2010	511		
3	PVC	2010	35,630		
8	DUCTILE IRON	2010	5,694		
8	PVC	2010	10,393		
3	PVC	2010	3,199		
Total per Decade Installed				55,627	3%
Total Linear Feet in Distribution System			1,882,432	1,882,432	100%
Total Miles in Distribution System			356.5		

District began in 1992, so totals shown in 1970 & 1980 are included in the 1990 totals.

Morgan County Water District

Existing System Pump Stations (In Use - 6)

Name	Date Constructed	# of Pumps MI/Type	Pump Capacity (GPM)	Pump Motor HP/RPM	Model #	Above Grnd (A) Under Grnd (U)	Pump Head (Ft)	Pumps to	Pumps Start/Stop Control
Pneumatic Perkins Cemetary Highway 844 Feeds 10-12	2002	2 Armstrong/Vert.	30	2/3600	VMS-3004	A	135	10-12 Homes	Bladder
Highway 519	2004	2 Aurora, Peerless/Cent.	100	5/1800	341	U	65	Ditney Ridge Tank & Zag	98/105
Highway 437 (New)	2007	2 Grundfos/Vert	96	7.5/3500	CRN15-4	A	195	Smith Creek Tank	76/87
Highway 205	2009	2 Goulds/ Vert.	100	5/1750	33SVDG04J 6TC	A	135	134 Tank	71/78
Morris Cemetary Dog House	2009	1 Berkeley/Vert.	25	1.5/3500	BVM4-40	A	125	2 Homes	Bladder
Highway 460 E Spaws Creek	2014	2 Grundfos/Vert.	400	30/3500	CR90-2-1	A	190	Cow Branch Tanks #1 & #2	24'/30' transducer needs replaced
Perkins Cemetary		2							
Spaws Creek		2							

Morgan County Water District

Existing System Storage Tanks (In Use 7)(Not in Use 1)

(sorted oldest to newest)

Tank Name	Date Constructed	Capacity (Gallons)	Type of Tank Const.	Dimensions	Ground Elevation	Overflow Elevation (Ft)	From Pump Station	Water Level Control (Telemetry or AV)	Tank Elev. Fill/Stop Control Pts.
Highway 191	2/11/1992	175,000	Steel, glass lined	25.18'D x 46.76' H Standpipe	1,052	1232	Gravity from City	T	
Ezel Tank	1/8/1995	150,000	Steel, glass lined	18' D x 84' H Standpipe	1,148	1232	Gravity from CRWC	T	
Highway 172 (old) (Not in use)	6/18/1905	110,000	Steel, glass lined	19.58' D x 46.76' H Standpipe					
Spaws Creek # 1	2/2/2002	157,000	Steel, glass lined	25.18' D x 42.17' H Standpipe	1,224	1266	From KY 460 E PS	T	
Highway 1002 Ditney Ridge	5/31/2004	100,000	Steel, glass lined	Elevated 80' 10"	1,182	1254	From KY 519 PS	T/AV	
Smith Creek Tank	2/1/2007	50,000	Steel	10' D x 97.5' H Standpipe	1,252.5	1350	From KY 434 PS	T	
Highway 134	10/1/2009	100,000	Steel, glass lined	14' D x 90' H Standpipe		1270	From KY 205 PS	T	
Spaws Creek # 2	12/1/2014	200,000	Steel, glass lined	28' D x 42' H	1,223.5	1266	From US 460E PS	T	

Total Storage Capacity of all Tanks = 1,042,000 - 110,000 = 932,000 gallons

Info. from 61AL WRS System Data, Morgan Co. Water District, Asset Management & Morgan Co. Water District

Morgan County Water District

Existing System Pump Stations (Not in Use - 7)

(sorted oldest to newest)

Name	Date Constructed	# of Pumps M/Type	Pump Capacity (GPM)	Pump Motor HP/RPM	Model #	Above Gmd (A) Under Gmd (U)	Pump Head (Ft)	Pumps to	Pumps Start/Stop Control
Highway 191 (Not in use)	1992	2 Aurora/Cent.	200	7.5/1750					
Highway 460 (Not in use)	1995	2 Dakota/Cent.	150	20/3500					
Splitwood (Not in use)	1996	2 Burks, Peerless/Cent.	100	15/3500					
Highway 172 (old)	1996	2 Dakota, Peerless/Cent.	100	7.5/3500	C-815G	U			
Highway 203 (Not in use)	1999	2 Dakota, Peerless/Cent.	25	5/3450					
Highway 437 (Not in use)	2001	2 Aurora, Peerless/Cent.	30	3/3500					
Cow Branch (Not in use)	2002	2 Dakota, Peerless/Cent.	100	7.5/3500					
Adelle (Not in use)	2002	2 Cornell Horiz	234	7.5/1800			72		

Appendix "D"

- User Rate Information
 - Existing Rates Effective 10/1/2018
 - Customer Usage to Reflect Revenue as Shown in 12/31/20107 Audit
 - Proposed Rates for Phase 1 Project

FOR Entire Service Area
Community, Town or City

P.S.C. KY. NO. 1

1st Revised SHEET NO. 1

MORGAN COUNTY WATER DISTRICT
(Name of Utility)

CANCELLING P.S.C. KY. NO. 1

2nd Revised SHEET NO. 1

RATES & CHARGES

Monthly Rates:

5/8" x 3/4" Meter

First 2,000 gallons	\$25.42 Minimum Bill
Next 3,000 gallons	9.41 per 1,000 gallons
Next 5,000 gallons	8.72 per 1,000 gallons
Next 5,000 gallons	8.03 per 1,000 gallons
Over 15,000 gallons	7.34 per 1,000 gallons

$25.42 + UT .76^4 = 26.18$

1" Meter

First 5,000 gallons	\$53.78 Minimum Bill
Next 5,000 gallons	8.72 per 1,000 gallons
Next 5,000 gallons	8.03 per 1,000 gallons
Over 15,000 gallons	7.34 per 1,000 gallons

2" Meter

First 15,000 gallons	\$136.38 Minimum Bill
Over 15,000 gallons	7.34 per 1,000 gallons

6" Meter

First 100,000 gallons	\$761.31 Minimum Bill
Over 100,000 gallons	7.34 per 1,000 gallons

WHOLESALE WATER RATE:

3" MET
3' "

City of Campton (Emerald)	\$4.26 per 1,000 gallons
City of Frenchburg "	\$4.26 per 1,000 gallons

DATE OF ISSUE 10/23/2018
Month / Date / Year

DATE EFFECTIVE 10/1/2018
Month / Date / Year

ISSUED BY [Signature]
(Signature of Officer)

TITLE Chairman

BY AUTHORITY OF ORDER OF THE PUBLIC SERVICE COMMISSION

IN CASE NO. 2018-00301 DATED 10/23/2018

KENTUCKY PUBLIC SERVICE COMMISSION
Gwen R. Pinson Executive Director
<u>[Signature]</u>
EFFECTIVE 10/1/2018 PURSUANT TO 807 KAR 5.011 SECTION 9 (1)

Morgan County Water District

Existing Rates (5 Rate Blocks - Effective 10/01/2018) - 2019 customers

Verification of Revenue in Audit (YE 12/31/2017)

Meter Size	Annual Gallons Sold	Annual Revenue
5/8 x 3/4" Meter	109,968,462	\$ 1,383,374.00
1" Meter	1,054,740	\$ 10,577.00
2" Meter	5,862,624	\$ 45,283.00
6" Meter	2,148,000	\$ 16,094.00
Totals	119,033,826	\$ 1,455,328.00

Annual Revenue Required for 2022 (2019 WL Replacement Project and additional Debt Service) = \$1,617,618

Existing Income based on 2018 rates and 2019 customers = \$ 1,455,328

Required Additional Revenue in 2022 = (1,617,618-1,455,328) = \$ 162,290 per year or \$ 13,524.17 per month

This would require approximately a 12 % increase in rates to generate the additional revenue shown above.

A minimum rate of \$28.00 (2000 gals) and a single rate block over the minimum of \$11.50 / 1000 gallons would produce the additional revenue needed as shown above for the 2019 WL Replacement Proj.

See All Meters Proposed Rates

Morgan County Water District; Existing Rates - 2019 customers

Residential 5/8 x 3/4" Meter						
First 2,000 Gal. at	\$25.42	Minimum				Rates
Next 3,000 Gal. at	\$9.41	per Thousand Gallons				Effective
Next 5,000 Gal. at	\$8.72	per Thousand Gallons				10/1/2018
Next 5,000 Gal. at	\$8.03	per Thousand Gallons				
All Over 15,000 Gal. at	\$7.34	per Thousand Gallons				
Monthly Usage Gallons		Average Monthly Usage	Average Monthly Bill	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To					
0	2,000	1,800	\$ 25.42	1154	1080.08	\$ 29,332.14
2,000	3,000	2,895	\$ 33.84	426	1,232.40	\$ 14,406.52
3,000	4,000	3,550	\$ 40.01	360	1,277.29	\$ 14,393.98
		4,000	\$ 44.24	0	0.00	\$ -
4,000	5,000	4,863	\$ 52.36	290	1,411.73	\$ 15,200.35
5,000	6,000	5,442	\$ 57.50	175	950.72	\$ 10,045.99
6,000	7,000	6,670	\$ 68.21	151	1,005.17	\$ 10,279.61
7,000	8,000	7,346	\$ 74.11	108	791.90	\$ 7,988.75
		8,000	\$ 79.81	0	0.00	\$ -
8,000	9,000	8,593	\$ 84.98	52	444.26	\$ 4,393.52
9,000	10,000	9,818	\$ 95.66	40	388.79	\$ 3,788.25
10,000	11,000	10,290	\$ 99.58	15	158.47	\$ 1,533.51
11,000	12,000	11,861	\$ 112.19	8	91.33	\$ 863.89
		12,000	\$ 113.31	0	0.00	\$ -
12,000	13,000	12,605	\$ 118.17	4	55.46	\$ 519.94
13,000	14,000	13,848	\$ 128.15	3	45.70	\$ 422.89
14,000	15,000	14,567	\$ 133.92	8	112.17	\$ 1,031.21
15,000	over	15,400	\$ 140.34	8	118.58	\$ 1,080.59
Totals				2800	9164.04	\$ 115,281.13

Annual Residential Water Sales	\$1,383,373.58
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Total Annual Water Sold (Gallons)	109,968,462
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RESIDENTIAL	
Total Users	2800
Total Annual Water Sales	\$1,383,373.58
Average Monthly Bill	\$41.17
Average Monthly Usage (Gallons)	3,272

Morgan County Water District; Existing Rates - 2019 customers

Residential 1" Meter						
First 5,000 Gal. at	\$53.78	Minimum			Rates	
Next 5,000 Gal. at	\$8.72	per Thousand Gallons			Effective	
Next 5,000 Gal. at	\$8.03	per Thousand Gallons			10/1/2018	
All Over 15,000 Gal. at	\$7.34	per Thousand Gallons				
Monthly Usage Gallons		Average Monthly Usage	Average Monthly Bill	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To					
0	5,000	4,863	\$ 53.78	4	19.45	\$ 215.12
5,000	6,000	5,442	\$ 57.63	0	0.00	\$ -
6,000	7,000	6,670	\$ 68.34	0	0.00	\$ -
7,000	8,000	7,350	\$ 74.27	0	0.00	\$ -
8,000	9,000	8,950	\$ 88.22	4	35.80	\$ 352.90
9,000	10,000	9,818	\$ 95.79	0	0.00	\$ -
10,000	11,000	10,881	\$ 104.45	3	32.64	\$ 313.36
11,000	12,000	11,855	\$ 112.28	0	0.00	\$ -
12,000	13,000	12,605	\$ 118.30	0	0.00	\$ -
13,000	14,000	13,846	\$ 128.26	0	0.00	\$ -
14,000	15,000	14,567	\$ 134.05	0	0.00	\$ -
15,000	over	15,400	\$ 140.47	0	0.00	\$ -
Totals				11	87.90	\$ 881.38

Annual Residential Water Sales	\$10,576.55
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Total Annual Water Sold (Gallons)	1,054,740
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RESIDENTIAL	
Total Users	11
Total Annual Water Sales	\$10,576.55
Average Monthly Bill	\$80.13
Average Monthly Usage (Gallons)	7,990

Morgan County Water District; Existing Rates - 2019 customers

Residential 2" Meter						
First 15,000 Gal. at		\$136.38	Minimum		Effective	
All Over 15,000 Gal. at		\$7.34	per Thousand Gallons		10/1/2018	
Monthly Usage Gallons		Average Monthly Usage	Average Monthly Bill	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To					
0	15,000	14,750	\$ 136.38	2	29.50	\$ 272.76
15,000	over	58,652	\$ 456.79	1	58.65	\$ 456.79
15,000	over	100,100	\$ 761.01	4	400.40	\$ 3,044.06
Totals				7	488.552	\$ 3,773.60

Annual Residential Water Sales	\$45,283.22
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Total Annual Water Sold (Gallons)	5,862,624
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RESIDENTIAL	
Total Users	7
Total Annual Water Sales	\$45,283.22
Average Monthly Bill	\$539.09
Average Monthly Usage (Gallons)	69,793

Morgan County Water District; Existing Rates - 2019 customers

Residential 6" Meter						
First 100,000 Gal. at		\$761.31	Minimum		Effective	
All Over 15,000 Gal. at		\$7.34	per Thousand Gallons		10/1/2018	
Monthly Usage Gallons		Average Monthly Usage	Average Monthly Bill	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To					
0	100,000	97,260	\$761.31	0	0.00	0.00
100,000	120,000	108,834	\$ 826.15	0	0.00	0.00
120,000	140,000	133,400	\$ 1,006.47	0	0.00	0.00
140,000	160,000	143,859	\$ 1,083.24	0	0.00	0.00
160,000	180,000	179,000	\$ 1,341.17	1	179.00	1341.17
180,000	200,000	196,360	\$ 1,468.59	0	0.00	0.00
200,000	220,000	217,620	\$ 1,624.64	0	0.00	0.00
220,000	240,000	237,106	\$ 1,767.67	0	0.00	0.00
240,000	260,000	267,500	\$ 1,990.76	0	0.00	0.00
260,000	280,000	28,500	\$ 236.50	0	0.00	0.00
280,000	300,000	291,340	\$ 2,165.75	0	0.00	0.00
300,000	over	300,000	\$ 2,229.31	0	0.00	0.00
Totals				1	179.00	1,341.17

Annual Residential Water Sales	\$16,094.04
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Total Annual Water Sold (Gallons)	2,148,000
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RESIDENTIAL	
Total Users	1
Total Annual Water Sales	\$16,094.04
Average Monthly Bill	\$1,341.17
Average Monthly Usage (Gallons)	179,000

Morgan County Water District; Proposed Rates - 2019 customers

All Meters						
First 2,000 Gal. at	\$28.00	Minimum				
All Over 2,000 Gal. at	\$11.50	per Thousand Gallons				Proposed Rates
Monthly Usage Gallons		Average Monthly Usage	Average Monthly Bill	No. of Users	Usage (1000-Gal.)	Monthly Income
From	To					
0	2,000	1,800	\$ 28.00	1158	1080.08	\$ 32,421.20
2,000	3,000	2,895	\$ 38.29	426	1,232.40	\$ 16,301.12
3,000	4,000	3,550	\$ 45.83	360	1,277.29	\$ 16,487.84
		4,000	\$ 51.00			
4,000	5,000	4,863	\$ 60.92	290	1,411.73	\$ 17,686.38
5,000	6,000	5,442	\$ 67.58	175	950.72	\$ 11,806.75
6,000	7,000	6,670	\$ 81.71	151	1,005.17	\$ 12,312.94
7,000	8,000	7,346	\$ 89.48	108	791.90	\$ 9,645.84
		8,000	\$ 97.00			
8,000	9,000	8,593	\$ 103.82	56	478.63	\$ 5,782.75
9,000	10,000	9,818	\$ 117.91	40	388.79	\$ 4,669.12
10,000	11,000	10,290	\$ 123.34	17	173.90	\$ 2,084.36
11,000	12,000	11,861	\$ 141.40	9	109.12	\$ 1,300.89
		12,000	\$ 143.00			
12,000	13,000	12,605	\$ 149.96	4	55.46	\$ 659.81
13,000	14,000	13,848	\$ 164.25	3	45.70	\$ 542.03
14,000	15,000	14,567	\$ 172.52	10	141.30	\$ 1,673.45
15,000	over	15,400	\$ 182.10	8	118.58	\$ 1,402.17
		58,652	\$ 679.50	1	58.65	\$ 679.50
		100,100	\$ 1,156.15	4	400.40	\$ 4,624.60
		179,000	\$ 2,063.50	1	179.00	\$ 2,063.50
Totals				2819	9898.82	\$ 135,456.14

Annual Residential Water Sales	\$1,625,473.73
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Total Annual Water Sold (Gallons)	118,785,876
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RESIDENTIAL	
Total Users	2819
Total Annual Water Sales	\$1,625,473.73
Average Monthly Bill	\$48.04
Average Monthly Usage (Gallons)	3,511

MORGAN COUNTY WATER DISTRICT

**Response to Commission's Order of July 25, 2019
Case No. 2019-00041**

Request No. 2A

Responding Witness: Chernell Holbrook

R-2A. As part of the utility's most recent rate filing under KRS 278.023, the USDA-RD loan process includes conditions that the utility must meet and agree to in order to have loans approved.

A. Refer to paragraph 10, Business operations, of the USDA-RD Loan Application that reads in part, the "District will be required to furnish a prior approved management service 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." Explain whether the utility furnished a management plan to USDA-RD as part of its loan application process.

A-2A. As previously explained, due to the loss of documentation in the 2012 tornado and turnover in management and board personnel, the District is unsure whether or not the above described management plan was furnished to USDA-RD as part of the last loan application process.

MORGAN COUNTY WATER DISTRICT

**Response to Commission's Order of July 25, 2019
Case No. 2019-00041**

Request No. 2B

Responding Witness: Chernell Holbrook

R-2B. As part of the utility's most recent rate filing under KRS 278.023, the USDA-RD loan process includes conditions that the utility must meet and agree to in order to have loans approved.

B. Under paragraph 33, Rates and Charges, of the USDA-RD Loan Application the first sentence reads, "Rates and charges for facilities and services rendered by the District must be at least adequate to meet costs of maintaining, repairing and operating the water system and meeting required principle and interest payments and the required deposits to debt service and / or depreciation reserve." Explain whether the rates listed in that application are contributing toward depreciation reserve and, if so, state how much is being contributed on a monthly basis.

A-2B. Currently no money is being contributed toward depreciation reserve. The District has been prioritizing making the USDA-RD loan payments over funding depreciation reserve and has been in communication with USDA-RD regarding this matter.