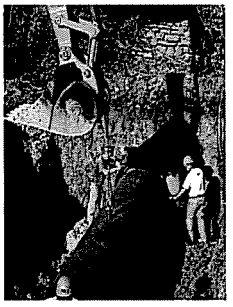
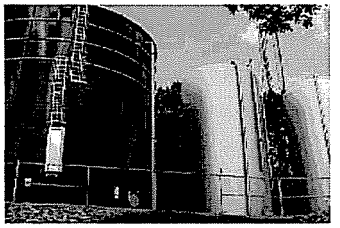
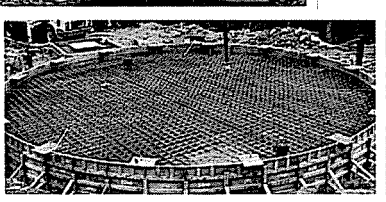
FINAL ENGINEERING REPORT

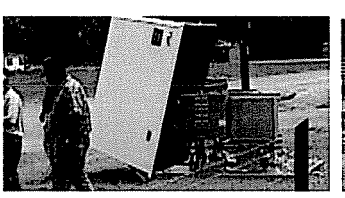
TODD COUNTY WATER DISTRICT
COAL BANK ROAD WATER TANK REPLACEMENT PROJECT

January 2011









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Final Engineering Report

prepared for the

Todd County Water District

Coal Bank Road Water Tank Replacement Project

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01-03-11

January 2011

Preliminary Engineering Report

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1.0 INTRODUCTION

The Todd County Water District (TCWD) was chartered in 1971 to supply potable water to rural residents of Todd County, Kentucky. The District is governed by five board members, and is regulated by the Kentucky Public Service Commission. The Board includes three members from Todd County and two from Logan County because of the significant number of customers served by the TCWD in the Lake Malone area of Logan County. Todd County has authority to plan, design, finance, construct, operate, replace and maintain the distribution facilities within its service area.

The Todd County water system is comprised of over 430 miles of water distribution lines and five water storage tanks with a total capacity of 967,800 gallons, all of which serves approximately 3,200 customers in rural Todd County and a small portion of northwestern Logan County. As of the Spring 2003, the Todd County Water District began to purchase all of its treated water from the recently completed water system of the Logan Todd Regional Water Commission (LTRWC). The Commission's water treatment facility is rated at 10 million gallons per day, and its distribution system consists of nearly 85 miles of pipeline and three storage tanks totaling 3,500,000 gallons in capacity. Since going online with the Commission, the average daily wholesale water demand within the Todd County system has averaged 565,000 gallons per day, which is considerably above the 406,000 gpd projected by LTRWC on the basis of historical data. Todd County has four meter stations with the Commission, one located in the southern part of the county, one in the north, one at the LTRWC's tank and one at Allensville.

The TCWD is a relatively large water system covering approximately 85% of the Todd County area. With the exception of the southwestern part of the county, most of the roads within the county have water service, with only short extensions needed from time to time to accommodate new development.

The main problems that faced the TCWD are its long-term supply of treated water, providing adequate water storage in the northern third of Todd County and improving water pressures in some low pressure areas. The water supply issue has been resolved with their transition to the Logan Todd Regional system. The remaining problems will be alleviated by the addition of a new storage tank.

The proposed Coal Bank Road Water Tank Replacement Project will involve the construction of a new 500,000 gallon elevated water storage tank at or near the existing tank site. The area served by the tank project includes the northern 1/3 of Todd County.

The existing 250,000 gallon water storage tank is lacking in capacity due to the increase in customers and the new water storage tank in the Clifty community. During high usage demand, an existing pumping station must be use to supply the customers with water. The proposed larger tank will allow the pumping station to fill the tank at low demands and the added capacity will serve the customers during the high usage times. The total estimated cost of the proposed project is $1,420,000.

2.0 PROJECT PLANNING AREA

2.1 *Location*

The project involves the construction of a 500,000-gallon elevated water storage tank. The tank's proposed location is within or near the existing Coal Bank Tank property located on the Coal Bank Road in northern Todd County. The existing tank does not have enough storage capacity, as mentioned, due to the increase of customers and a new storage tank in the Clifty community. The proposed overflow of the tank will be 925'.

The proposed project is illustrated on the county highway map labeled as Exhibit E-1.

2.2 *Land Use and Environmental Resources Present*

The work is proposed to be constructed within utility easements or property that will be acquired by the Todd County Water District. The project will affect two main resources during construction: agriculture and grazing. The general construction effect to the resources is the disturbances associated with building the facilities. Industrial, commercial, residential and agriculture resources in the entire District will be affected upon completion of the project by providing improved pressure and abundant storage capacity.

The project has been reviewed by the Kentucky State Clearinghouse. The Clearinghouse review identified no conflicts with state or local planning, and recommended approval of the project. The Clearinghouse review letter is included in Appendix A. An archeological investigation of the possible tank site was conducted to determine if the proposed tank site affects historical and archeological resources that may be eligible for listing in the National Register for Historical Places. Dr. Jack Schock, of Arrow Enterprises, conducted a review of the site and reported that no historical resource would be affected by the proposed project, and that the State Historical Preservation Officer will concur with his assessment.

The following exhibits indicate the environmental resources present within the project planning area:

- A topographic map of the proposed tank site, indicating the areas to be affected and the surrounding area, is attached as Exhibit 2. The base maps are USGS 7.5' quadrangles images.
- Exhibit 3 shows soil survey data from the Soil Conservation Service.

2.3 *Growth Areas and Population Trends*

The population history of Todd County is an important element in determining the growth patterns over the last 50 years. Analysis of the population history will assist in forming a reliable estimate of the future water needs of the project area.

According to historical records, Todd County's population has hovered around 11,000 persons for the past 40 years. Table 2 provides the population history and

projections of the county based on data obtained from the U.S. Bureau of the Census.

Table 1
Population History and Projections

	YEAR	Historical								Projections				
		1940	1950	1960	1970	1980	1990	2000	2005	2010	2015	2020	2025	2030
TODD	Elkton	1,214	1,312	1,448	1,612	1,815	1,789	1,984	1,968	2,025	2,117	2,205	2,288	2,365
TODD	Guthrie	1,272	1,253	1,211	1,200	1,361	1,504	1,469	1,457	1,500	1,567	1,633	1,694	1,751
TODD	Trenton	572	577	542	496	465	378	419	416	428	448	466	484	500
TODD	Rural Areas	11,176	9,748	8,163	7,515	8,233	7,269	8,099	8,031	8,267	8,639	9,001	9,336	9,652
TODD	Todd County	14,234	12,890	11,364	10,823	11,874	10,940	11,971	11,872	12,220	12,771	13,305	13,802	14,268
	% Change		-9.4%	-11.8%	-4.8%	9.7%	-7.9%	9.4%	-0.8%	2.9%	4.5%	4.2%	3.7%	3.4%

Notes to Table 1:
1. Shaded areas have been calculated based on census and projection data.

Sources to Table 1:
1. Historical & Projections provided by the KY State Data Center and Census Bureau University of Louisville, State Data Center (http://cbpa.louisville.edu/ksdc/)

Analyzing Table 2 from 1940 to 2005 shows that Elkton and Guthrie have grown overall with some fluctuations, while Trenton and the rural areas have declined in population. Recent years have seen growth in all areas, and projections call for modest growth over the next 30 years.

Several factors influence the growth of a community, some of which include accessibility, technology, education, water infrastructure, sewer facilities, and jobs. Over the past ten years, the community has experienced the benefit of a new four-lane highway, which has increased the areas access to larger Kentucky cities such as Hopkinsville and Bowling Green plus improved access to Interstates 24 and 65. High speed internet and wireless technology has gradually entered the communities, creating greater and easier contact to the rest of the world. The local school system is strong and provides a quality education. Over the last five years, the TCWD and other communities within the county have worked together to secure a reliable source of potable water for the next thirty years as the county goes online with the recently completed Logan Todd Regional Water Commission.

Further analysis of these projections indicates Todd County's population is projected to grow on average about 3.5% every five years, which adds about 2,300 persons by 2030. While this growth rate is higher than historical, the projections, when compared with estimates by area development districts, universities, etc., are sound. It should be noted that population would be impacted by the availability or unavailability of water supply. An ample supply of water will promote growth while the lack thereof will limit growth. These factors must be considered when reviewing this report since many assumptions are dependent on these projections.

3.0 EXISTING FACILITIES

3.1 *History and Assets*

The Todd County Water District (TCWD) was formed by Todd County Court order in 1971 to supply potable water to rural residents of Todd County, Kentucky. There are four public water systems in Todd County, those being Elkton, Guthrie, Trenton and the TCWD. The Elkton and Guthrie systems serve the incorporated areas of those communities and only limited areas adjacent to town. The Trenton system serves the town's incorporated area, and a portion of the rural area south of town along Highway 104.

The TCWD water system is comprised of approximately 430 miles of water line and a total water storage capacity of 967,800 gallons. The existing distribution system consists of 10", 8", 6", 4", and 3" PVC lines. The general service area is depicted in Exhibit 1, which illustrates the general distribution layout. The existing transmission and distribution lines generally radiate from their decommissioned (2003) water treatment plant located near the Allegre community in northern Todd County. The system is well laid out with many loops. However, there are some dead end and low-flow lines within the system that require frequent flushing.

TCWD has five water storage structures to serve the water system and one primary pumping station that boosts water into the higher-pressure north zone. Only four of the five existing water storage tanks provide useful storage for the TCWD system. The Clifty elevated water tank, and the Coal Bank Road tank provide 250,000 and 150,000 gallons of storage respectively to the northern pressure zone. The Allensville standpipe has a storage capacity of 67,800 gallons and provides pressure to a small area in the southeastern part of the County. The fourth tank located on Allenders Hill acts as a pump tank for the Logan Todd Regional Water Commission's booster pump station at that location. The newly constructed Hammacksville tank has a storage capacity of 250,000 gallons and provides pressure to the area just south of Trenton. Currently, the remaining southern portion of the county is served directly from an existing 1,500,000 gallon elevated tank owned by the LTRWC.

The Logan Todd Regional system supplies water to the TCWD system in four locations. The southern feed point is located at the base of the LTRWC tank described above and a newly constructed station located near Trenton, while the others are located at the Allender's Hill tank in northern Todd County, and at Allensville. Flow through each of these metering points is controlled by the LTRWC SCADA system. The northern pressure zone is controlled by level in the Clifty and Coal Bank Road tanks, the southern pressure zone is fed directly from the LTRWC tank in conjunction with the Hammacksville tank and the Allensville system is controlled by the level in the Allensville tank.

3.2 *Regulatory Compliance*

According to the Division of Water's remarks within the Clearinghouse Comments, the Todd County water system is currently in compliance with appropriate regulatory agencies. No other remarks were given to suggest that the water system was in or near a noncompliance status. The comments of the Division of Water and other agencies are included in Appendix A.

3.3 *Existing Financial Charges and Status*

3.3.1 *Existing Rate Schedule (Rates effective 9-1-08)*

All Meter Sizes

First	2,000	Gallons @	$ 19.63	Minimum
Next	8,000	Gallons @	$ 10.28	per 1,000 Gallons
Next	10,000	Gallons @	$ 9.16	per 1,000 Gallons
Next	20,000	Gallons @	$ 8.03	per 1,000 Gallons
All Over	40,000	Gallons @	$ 6.66	per 1,000 Gallons

This rate schedule went into effect as a result of a rate change from the Logan Todd Regional Water Commission as TCWD's treated water supply source.

3.3.2 *O&M Costs (FYE 12/31/08)*

Item No.	Expense Item	Amount
1	Payroll Expense	$ 296,416.00
2	Purchased Water	$ 673,320.00
3	Distribution Expense	$ 56,060.00
4	Contract Services	$ 16,856.00
5	Utilities	$ 27,633.00
6	Administrative Expense	$ 42,083.00
7	Office Expenses	$ 41,463.00
8	Depreciation	$ 364,454.00
9	Insurance	$ 24,078.00
10	Travel	$ 28,920.00
11	Bad Debts	$ 23,211.00
12	Miscellaneous	$ 7,527.00
	Total Utility Expense	**$ 1,602,021.00**

3.3.3 *Long Term Debts (as of 12/31/08)*

Date of Issue	Bond/Note Holder	Principal Balance	Maturity Date	Bond Type	Interest Rate
1979	Rural Dev	$ 289,310	2017	Revenue	5.000%
1987	Rural Dev	$ 465,000	2027	Revenue	5.000%
1990	Rural Dev	$ 504,000	2030	Revenue	5.000%
1992	Rural Dev	$ 170,900	2032	Revenue	5.000%
1996	Rural Dev	$ 469,000	2036	Revenue	4.875%
2000	Rural Dev	$ 746,000	2040	Revenue	4.750%
2005	Rural Dev	$ 1,088,000	2045	Revenue	4.125%
Total		$ 3,732,210			

4.0 NEED FOR PROJECT

4.1 *Health and Safety*

The proposed elevated water storage tank will provide an ample storage facility in the District's northern third. Currently, the northern third of the county is dependant upon the Coal Bank Road water tank, whose purpose is to serve

customers and act as storage of potable water to help fill the Clifty tank. The new tank will have a capacity of 500,000 gallons, and will increase the total system storage volume in that area to over 750,000 gallons, providing over two days of storage capacity at average demands.

4.2 *System O&M*

There are two primary reasons for the District's proposed project. The first is to provide a reliable and potable water source to the existing Coal Bank Tank residences as described in the preceding section. The second reason is to improve the operation and maintenance of the system by expanding the storage capacity and hydraulic capacity of the northern portion of the system.

4.3 *Growth*

As mentioned earlier, the population of Todd County and the rural areas should grow by an average of 3.5% every five years over the next 30 years based upon census records and expected growth. The proposed project is necessary to provide water service to the existing customers. Overall, the proposed project is being designed to ultimately improve water service to all 3,200 customers. The new infrastructure will ensure the District's ability to properly serve the existing customer base plus future growth in the area.

5.0 ALTERNATIVES CONSIDERED

A resolution to the problems faced by the Todd County Water District is a relatively simple project with two alternatives.

5.1 *Alternative 1*

The first obvious alternative is to do nothing or a smaller variation of the project. However, the District would continue their current endurance of operation, maintenance and water capacity problems plus low pressure areas would remain. Therefore, the 'do nothing' alternative is not a viable option as it would only prolong the problems.

5.2 *Alternative 2*

The second alternative is one that offers several advantages and resolves the three critical deficiencies in the water system. This alternative provides an adequate water storage structure in the northern third of the county eliminating the dependency of continuously running pump stations. The project adheres with the Commonwealth's drive to provide a reliable and potable water source to all families by the year 2020. Also, the project provides the water storage facility in a high demand agriculture area, which will reduce seasonal pressure spikes and provide at least 30-psi pressure during all demand times.

5.2.1 *Description*

The project involves construction of a 500,000-gallon water storage tank (O.F. = 925').

5.2.2 *Environmental Impacts and Land Requirements*

The alternative has little to no impact upon the environment and land resources because the proposed construction will be done within or adjacent to existing water district property. Todd County has property in the Coal Bank Road community that can be used or adjacent property that can be reasonably purchased for the proposed elevated water tank. As mentioned earlier, the project will affect two main land resources during construction: agriculture and grazing. The general construction effect to the resources is the disturbances associated with building the facilities. No other effect to the resources is expected after construction of the facilities is complete.

5.2.3 *Construction Problems*

There are no severe construction problems foreseen for the project. The Todd County service area has varying soil conditions ranging from near ideal in some of the southern parts of the county, to sporadic instances of rock outcrops in the north. The proposed tank site is very accessible, and there is little evidence of a high water table.

5.2.4 *Cost Estimates*

The Todd County Water District's Coal Bank Tank Replacement Project is estimated to have a total cost of $1,420,000. The project cost consists of construction, non-construction and contingency costs, which are $998,000, $182,150 and $239,850 respectively. The project is anticipated to be funded in part by a $426,000 grant and $994,000 loan from Rural Development.

6.0 PROPOSED PROJECT

6.1 *Project Design*

6.1.1 *Water Supply*

The Logan Todd Regional Water Commission's plant will serve the proposed project. Based upon figures from LTRWC, the newly completed plant is producing approximately 4,000,000 gallons per day, which is approximately 40% of the design capacity. Therefore, sufficient capacity exists fill the proposed storage tank for the Todd County project.

6.1.2 *Storage*

The proposed project will involve the construction of a new 500,000-gallon elevated storage tank (OF = 925'). This new tank will

be constructed in the Coal Bank Road community, which is located in the northern part of the county where there is presently a smaller water structure belonging to the District. The new tank will place a sufficient water storage supply in a high demand agriculture area producing a steady pressure environment of at least 40 psi in the higher elevations of the community. Overall, the water system's total storage capacity will increase to 967,800 gallons or more than two times the current daily demand. The proposed tank site is illustrated in Exhibit E-1 and E-2.

6.1.3 *Regulatory Compliance*

The proposed project has been submitted to the Kentucky State Clearinghouse for their comments. The clearinghouse comments are included in Appendix A. The clearinghouse review of the proposal indicates there are no identifiable conflicts with any state or local plan, goal, or objective. Furthermore, no notices have been received and none are expected to suggest that the water system is in or near a noncompliance status.

6.1.4 *Hydraulic Calculations*

For preliminary planning purposes, the computer hydraulic simulator, KYPIPE 2000, was used to construct a system wide model to determine the hydraulic characteristics of the Todd County Water District, as it currently exists. The proposed tank was then added and a 48-hour extended period simulation of the distribution system was run to analyze the diurnal pressure and flow variations.

The "existing conditions" model verified the existence of low pressure areas during high demand periods, and identified the county's northern third in need of greater water storage capacity. The "future conditions" model verified that the new tank will correct the storage problem, and that the existing areas can be successfully served with adequate pressure and flow. The requirement to provide a line flushing velocity of at least 2.5 feet per second has also been considered. Detailed model results are available upon request.

6.2 *Cost Estimate*

The proposed itemized cost estimate of the Todd County Water District's Coal Bank Tank Replacement Project is shown in Table 2.

Table 2
Project Cost Estimate

As-Bid Project Budget

CONSTRUCTION COSTS		
Coal Bank Water Storage Tank (500,000 Elevated)	$	978,000
Demolition of Existing Coal Bank Tank	$	20,000
TOTAL ESTIMATED CONSTRUCTION COST	$	998,000
NON-CONSTRUCTION COSTS		
Administrative Costs	$	500
Land & Right-of-Way	$	-
Legal Costs	$	14,000
Preliminary Engineering & Environmental Services	$	20,000
Geotechnical Engineering	$	2,450
Design Engineering	$	61,800
Construction Phase Engineering Services	$	26,500
Construction Inspection	$	55,900
Financing Costs	$	1,000
Subtotal - Non-Construction	**$**	**182,150**
Contingency	$	239,850
TOTAL ESTIMATED PROJECT COST	**$**	**1,420,000**

6.3 *Annual Operating Budget*

The proposed annual operating budget for the Todd County Water District's Coal Bank Tank Replacement Project is shown in Table 3.

Table 3
Proposed Operating Budget

	Existing [1]	Project	Future
Operating Income			
Water Sales	$1,614,126.00	$5,440.00 [2]	$1,749,131.28 [8]
Late Charges	$29,905.00	$0.00	$29,905.00
Other Charges	$43,199.00	$0.00	$43,199.00
Total Operating Income	$1,687,230.00	$5,440.00	$1,822,235.28
Operating and Maintenance Expense			
Purchased Water	$ 683,355.00	$2,813.00 [3]	$775,370.00 [7]
Payroll Expense	$ 296,416.00	$8,900.00 [4]	$305,316.00
Distribution Expense	$ 56,060.00	$1,700.00 [4]	$57,760.00
Contract Services	$ 16,856.00	$500.00 [4]	$17,356.00
Utilities & Telephone	$ 27,633.00	$800.00 [4]	$28,433.00
Administrative Expense	$ 42,083.00	$1,300.00 [4]	$43,383.00
Office Expenses	$ 41,463.00	$1,200.00 [4]	$42,663.00
Insurance	$ 24,078.00	$700.00 [4]	$24,778.00
Travel	$ 28,920.00	$900.00 [4]	$29,820.00
Bad Debts	$ 23,211.00	$700.00 [4]	$23,911.00
Miscellaneous	$ 7,527.00	$200.00 [4]	$7,727.00
Replacement Reserve	$ 12,787.00	$400.00 [4]	$13,187.00
Total Operating Expenses	$ 1,247,602.00	$19,713.00	$1,369,704.00
Net Operating Income	$439,628.00	($14,273.00)	$452,531.28
Non-Operating Income (Expense)			
Interest Income	$33,256.00	$0.00	$33,256.00
RUS Interest (Bonds pre-2008)	($176,670.00)	$0.00	($171,800.00) [6]
RUS Principal (Bonds pre-2008)	($125,201.00)	$0.00	($138,914.00) [6]
RUS Interest (2009 Issue)	($74,250.00)	$0.00	($74,250.00) [9]
RUS Principal (2009 Issue)	($20,375.00)	$0.00	($20,375.00) [9]
RUS Interest (2011 Issue)	$0.00	($24,416.00) [5]	($33,548.00) [6]
RUS Principal (2011 Issue)	$0.00	($21,513.00) [5]	($13,261.00) [6]
Total Non-Operating Income	($363,240.00)	($45,929.00)	($418,892.00)
Net for Coverage & Depreciation	$76,388.00	($60,202.00)	$33,639.28

Notes:

1. Based on the 2008 Audit & 2008 PSC Report
2. Based on 10 new customers using 4,500 gallons per month at current rates (anticipated extensions).
3. Based on increased water demand of 750,000 gallons per year at $3.31 wholesale rate.
4. Based on 3% nominal increase due to anticipated annual cost increases.
5. Based on a **$994,000 RUS loan** at 3.25% and 38 payments
6. Estimated Debt Service for 2012
7. Based on increase due to wholesale increase of $3.31/1,000 gallons to $3.75/1,000 gallons
8. Approximate 8% rate increase required to roughly maintain current Net for Coverage & Depreciation.
9. Based on a **$1,800,000 RUS loan** at 4.125% and 38 payments

Based on the projections and assumptions outlined above, the commitment of a $426,000 Rural Development Grant and added revenues from the increased water rates are expected to produce an adequate fund for coverage and depreciation, nearly equal to the previous year. Without securing the referenced Rural

Development grant, it is estimated that an additional 2% increase to the proposed water rates would be required to offset the increase in debt service and maintain the equivalent fund for coverage and depreciation.

Table 4 illustrates the project's rate schedule with the requested RUS Grant, and Table 5 shows the necessary rate schedule if the project is undertaken without the requested RUS Grant and funded entirely with the RUS loan and KIA Grant.

Table 4
Project Rate Schedule with RUS Grant

First	2,000	Gallons @	$ 21.20	Minimum
Next	8,000	Gallons @	$ 11.10	per 1,000 Gallons
Next	10,000	Gallons @	$ 9.89	per 1,000 Gallons
Next	20,000	Gallons @	$ 8.67	per 1,000 Gallons
All Over	40,000	Gallons @	$ 7.19	per 1,000 Gallons

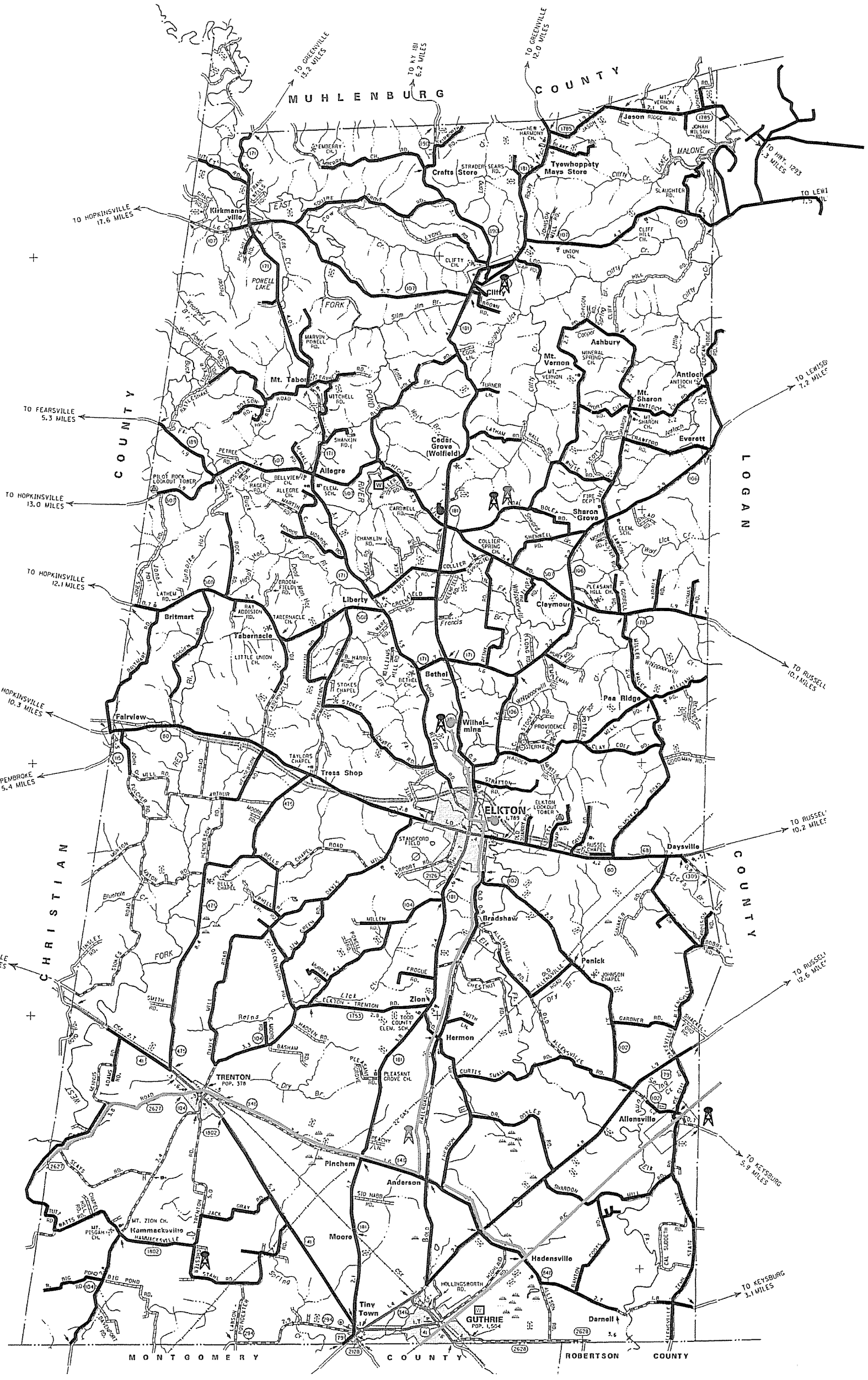
Table 5
Project Rate Schedule without RUS Grant

First	2,000	Gallons @	$ 21.59	Minimum
Next	8,000	Gallons @	$ 11.31	per 1,000 Gallons
Next	10,000	Gallons @	$ 10.08	per 1,000 Gallons
Next	20,000	Gallons @	$ 8.83	per 1,000 Gallons
All Over	40,000	Gallons @	$ 7.33	per 1,000 Gallons

7.0 RECOMMENDED SOLUTION

In order to address the problems and needs of the water system, the Todd County Water District should do the following:

- Construct a 500,000-gallon elevated water storage tank (OF = 925') in the Coal Bank Road area to serve the northern part of Todd County.
- Continue pursuing different means of financing through other available agencies and methods.



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Scale in Miles

Background Map: KyDOT Todd County General Highway Map—1998

LEGEND

- Existing Water Line—TCWD
- Proposed Water Line—TCWD
- Existing Water Line—LTRWC
- Existing Water Storage Tank
- Proposed Water Storage Tank
- Existing Pump Station

McGHEE ENGINEERING, INC.

Guthrie, Kentucky

Todd County Water District

Coal Bank Road Water Tank Replacement

OVERALL PROJECT LAYOUT

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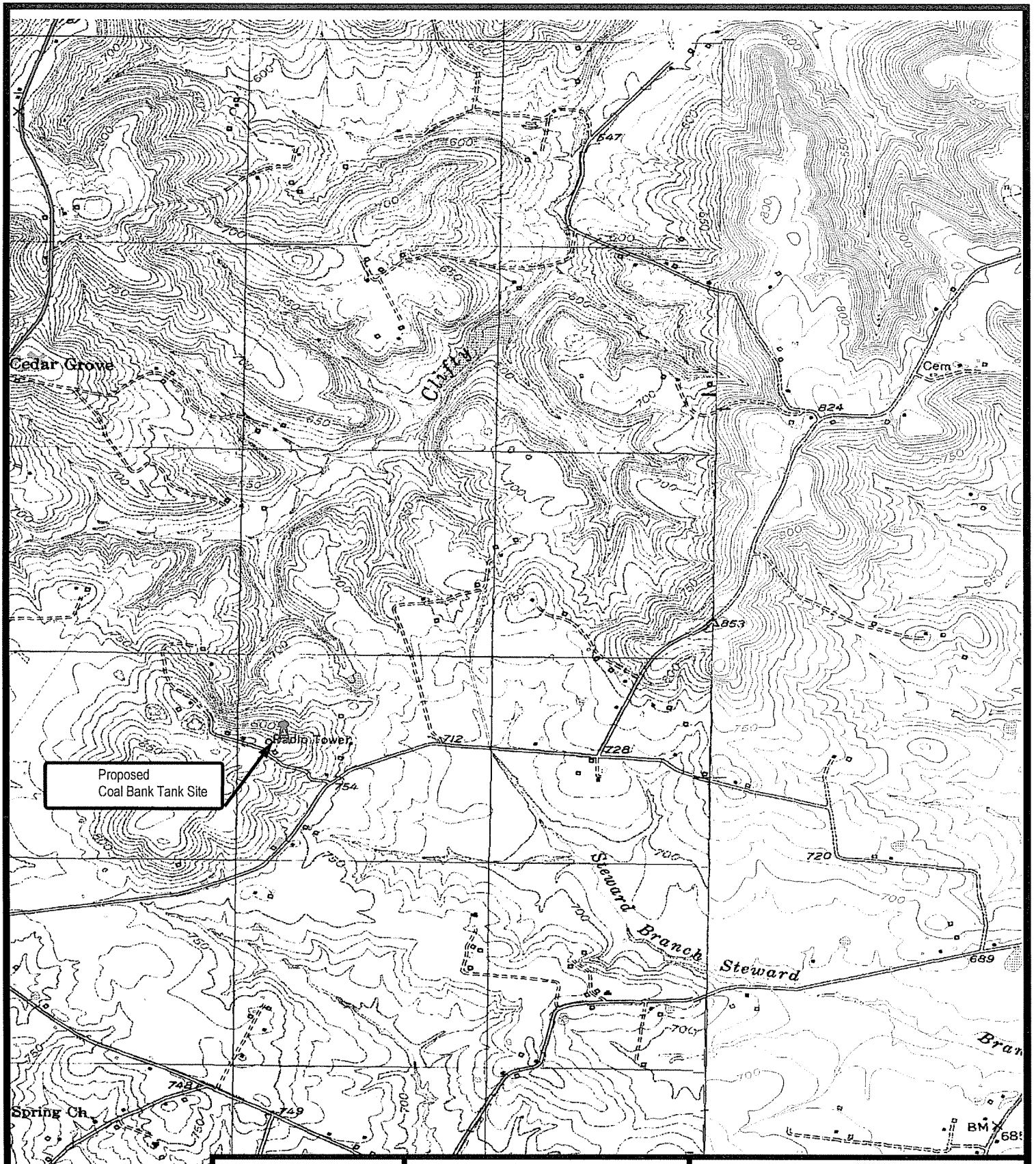

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LEGEND

Proposed Water Tank

Source: USGS "Sharon Grove" & "Allegre"
7½' Topographic Quadrangles

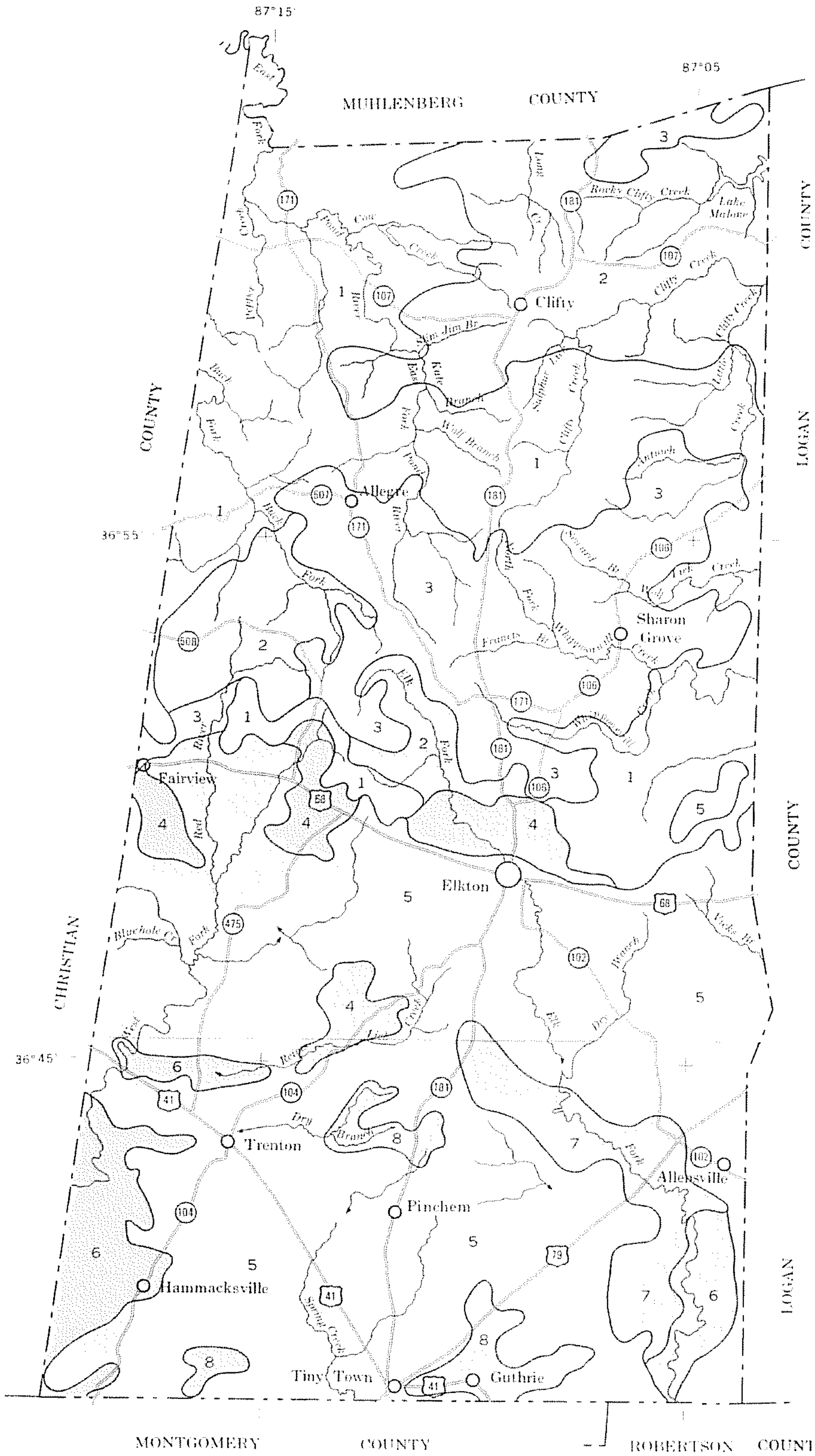
TODD COUNTY WATER DISTRICT

Coal Bank Road Water Tank Replacement

Tank Site Location

McGHEE ENGINEERING, INC.
Guthrie, Kentucky

Scale	Drawn By	Date	Page
1"=2,000'	M. Suiter	01-03-11	E-2



LEGEND

WELL DRAINED AND MODERATELY WELL DRAINED VERY STEEP TO NEARLY LEVEL SOILS; UNDERLAIN BY SANDSTONE SILTSTONE SHALE OR LIMESTONE

1 — Caneyville-Frondorf-Wellston: Well drained, steep to sloping, moderately deep and deep soils that are loamy and have a clayey or loamy subsoil; formed in residuum or in loess and residuum from limestone, sandstone, siltstone, or shale; on side slopes and ridges

2 — Frondorf-Weikert-Zanesville: Well drained and moderately well drained, very steep to gently sloping, deep to shallow soils that are loamy and have a loamy subsoil; formed in loess and residuum or in residuum from sandstone, siltstone, or shale; on ridges and side slopes

3 — Sadler-Zanesville: Moderately well drained and well drained, nearly level to sloping, deep soils that are loamy and have a loamy subsoil; formed in loess and residuum from sandstone, siltstone, or shale; on ridges

WELL DRAINED TO POORLY DRAINED NEARLY LEVEL TO MODERATELY STEEP SOILS; UNDERLAIN BY LIMESTONE

4 — Fredonia-Pembroke-Caneyville: Well drained, gently sloping and sloping, moderately deep and deep soils that are loamy and have a loamy or clayey subsoil; formed in residuum or in loess and residuum from limestone; on broad karst upland plains

5 — Pembroke-Nicholson-Crider: Well drained and moderately well drained; nearly level to sloping, deep soils that are loamy and have dominantly a loamy subsoil; formed in loess and residuum from limestone; on broad upland plains

6 — Hammack-Baxter-Crider: Well drained, gently sloping to moderately steep, deep soils that are loamy and have a loamy or clayey subsoil; formed in loess and residuum or in residuum from cherty limestone; on karst upland plains

7 — Pembroke-Vertrees: Well drained, nearly level to sloping, deep soils that are loamy and have a loamy or clayey subsoil; formed in loess and residuum or in residuum from limestone; on karst upland plains

8 — Robertsville-Lawrence: Poorly drained and somewhat poorly drained, nearly level, deep soils that are loamy and have a loamy subsoil; formed in alluvium or colluvium; on concave upland basins or stream terraces

COMPILED 1986

Source: US Department of Agriculture, Soil Conservation Service, GENERAL SOIL MAP—Todd County, Kentucky—1986

N

TODD COUNTY WATER DISTRICT

Coal Bank Road Water Tank Replacement

Soil Map

MCGHEE ENGINEERING, INC.

Guthrie, Kentucky

Scale	Drawn By	Date	Page
1"=4 miles	M. Suiter	01-03-11	E-3

Appendix A

Kentucky State Clearinghouse Comments

STEVEN L. BESHEAR
GOVERNOR

DEPARTMENT FOR LOCAL GOVERNMENT
OFFICE OF THE GOVERNOR
1024 CAPITAL CENTER DRIVE, SUITE 340
FRANKFORT, KENTUCKY 40601-8204
PHONE (502) 573-2382 FAX (502) 573-2939
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WWW.DLG.KY.GOV

TONY WILDER
COMMISSIONER

August 26, 2009

Mr. Eric Harris
McGhee Engineering
202 South Ewing Street
Guthrie, KY 42234

RE: Todd County Water District - Coal Bank Road Water Tank Replacement
WX21219025
SAI# KY20090331-0561

Dear Mr. Harris:

The Kentucky State Clearinghouse, which has been officially designated as the Commonwealth's Single Point of Contact (SPOC) pursuant to Presidential Executive Order 12372, has completed its evaluation of your proposal. The clearinghouse review of this proposal indicates there are no identifiable conflicts with any state or local plan, goal, or objective. Therefore, the State Clearinghouse recommends this project be approved for assistance by the cognizant federal agency.

Although the primary function of the State Single Point of Contact is to coordinate the state and local evaluation of your proposal, the Kentucky State Clearinghouse also utilizes this process to apprise the applicant of statutory and regulatory requirements or other types of information which could prove to be useful in the event the project is approved for assistance. Information of this nature, if any, concerning this particular proposal will be attached to this correspondence.

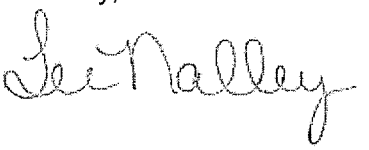
You should now continue with the application process prescribed by the appropriate funding agency. This process may include a detailed review by state agencies that have authority over specific types of projects.

This letter signifies only that the project has been processed through the State Single Point of Contact. It is neither a commitment of funds from this agency or any other state of federal agency.

The results of this review are valid for one year from the date of this letter. Continuation or renewal applications must be submitted to the State Clearinghouse annually. An application not submitted to the funding agency, or not approved within one year after completion of this review, must be re-submitted to receive a valid intergovernmental review.

If you have any questions regarding this letter, please feel free to contact my office at 502-573-2382.

Sincerely,



Lee Nalley
Kentucky State Clearinghouse

Attachments

The Kentucky Housing Corporation has made the following advisory comment pertaining to State Application Identifier Number KY200903310561
No Comments

The Labor Cabinet has made the following advisory comment pertaining to State Application Identifier Number KY200903310561

PW RATES MAY APPLY CONTACT KY LABOR CABINET AT 502-564-3534

The Heritage Council has made the following advisory comment pertaining to State Application Identifier Number KY200903310561

The applicant must ensure compliance with the Advisory Council on Historic Preservation's Rules and Regulations for the Protection of Historic and Cultural Properties (36CFR, Part 800) pursuant to the National Historic Preservation Act of 1966, the National Environmental Policy Act of 1969, and Executive Order 11593.

Those water lines in the existing right-of-way do not require an archaeological survey, however, the lines not in the right-of-way and the water tank area, booster pump station and generation project areas must be surveyed by a professional archaeologist to determine if sites eligible for listing in the National Register of Historic Places will be affected by the undertaking. Where a given project area or portions thereof have been disturbed by prior construction, the applicant may file documentation of that disturbance with the State Historic Preservation Officer and may request an opinion concerning the need of an archaeological survey. The State Historic Preservation Officer must review and approve the survey report. If you have any questions, please contact Lori Stahlgren at 502.564.7005 ext 151.

The Pennyrile ADD has made the following advisory comment pertaining to State Application Identifier Number KY200903310561
no comments

The Health and Family Services has made the following advisory comment pertaining to State Application Identifier Number KY200903310561

The Cabinet for Health and Family Services supports projects that improve the lives of Kentuckians, this project should be coordinated with the Department of Public Health, Division of Public Health Protection and Safety to ensure that activities and funding are not duplicative.

The Natural Resources has made the following advisory comment pertaining to State Application Identifier Number KY200903310561

This review was based upon the information that was provided by the applicant through the Clearinghouse for this project. An endorsement of this project does not satisfy, or imply, the acceptance or issuance of any permits, certifications or approvals that may be required from this agency under Kentucky Revised Statutes or Kentucky Administrative Regulations. Such endorsement means this agency has found no major concerns from the review of the proposed project as presented other than those stated as conditions or comments.

The proposed project is subject to Division of Water (DOW) jurisdiction because the following are or appear to be involved: water storage tank construction and appurtenances. Prior approval must be obtained from the DOW before construction can begin. The applicant must cite the State Application Identifier (SAI #KY200903310561) when submitting plans and specifications.

This project is consistent with the Todd County Water Management Plan. It is approved for water management planning. It is approved for water withdrawal by the Water Quantity Management Section of DOW. From the application data, DOW ascertains that the proposed project is not located in a floodplain area; therefore, a stream construction permit is not required for this project.

This project will replace the existing aging water storage tank on Coal Bank Road with a new 500,000 gallon tank at or near the existing tank site. This project will also include a booster pump station and generator in the Tress Shop area. Completion of this project will provide improved water service to 100 households, 10 commercial entities, 2 industrial entities, and 15 miscellaneous entities (schools, churches, etc.). There are no objections to the proposed project. However, plans and specifications along with hydraulic analysis of the proposed project (including fill/drain cycles of the tank to justify adequate tank turn over) must be submitted to the Division of Water's Water Infrastructure Branch by a registered professional engineer in Kentucky. The applicant must also receive a written approval from the Division of Water prior to the beginning of the construction. In regards to the generator, plans and specifications are not required to be submitted to Division of Water's Water Infrastructure Branch for review and approval. However, when the construction is completed, a written notification needs to be submitted to DOW for documentation purposes. Documentation shall include approximate capacity of the backup generator and what percentage of the treatment/pumping capacity can be operated by the proposed emergency backup power.

If the construction area disturbed is equal to or greater than 1 acre, the applicant will need to apply for a Kentucky Pollutant Discharge Elimination System (KPDES) storm water discharge permit.

Utility line projects that cross a stream will require a Section 404 permit from the US Army Corps of Engineers and a 401 Water Quality Certification from DOW.

The Kentucky Division of Water supports the goals of EPA's Sustainable Infrastructure Initiative. This Initiative seeks to promote sustainable practices that will help to reduce the potential gap between funding needs and spending at the local and national level. The Sustainable Infrastructure Initiative will guide our efforts in changing how Kentucky views, values, manages, and invests in its water infrastructure. This website, www.epa.gov/waterinfrastructure/, contains information that will help you ensure your facility and operations are consistent with and can benefit from the aims of the Sustainable Infrastructure Initiative.

The Housing, Building, Construction has made the following advisory comment pertaining to State Application Identifier Number KY200903310561
no comment

The Transportation has made the following advisory comment pertaining to State Application Identifier Number KY200903310561

Moore (D3), Jeff: This office has reviewed the project pertaining to our district. Concerning this project, if work is done for this project on the right of way of state maintained roads including any entrances, then a permit is to be secured from our Kentucky Transportation Cabinet District 3 Permits Engineer (Allen Cox @ 270.746.7898).

The Fish & Wildlife has made the following advisory comment pertaining to State Application Identifier Number KY200903310561
no comments