

**CASE**

**NUMBER:**

99-478

INDEX FOR CASE: 1999-478  
WEST SHELBY WATER DISTRICT  
Construct, Finance; 278.023

IN THE MATTER OF THE APPLICATION OF WEST SHELBY WATER  
DISTRICT FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND  
NECESSITY TO CONSTRUCT AND FINANCE PURSUANT TO THE  
PROVISIONS OF KRS 278.023

SEQ NBR	ENTRY DATE	REMARKS
0001	11/19/1999	Application.
0002	11/23/1999	Acknowledgement letter.
0003	11/29/1999	No def. letter
0004	12/13/1999	Final Order approving construction of waterworks improvement project.



COMMONWEALTH OF KENTUCKY  
**PUBLIC SERVICE COMMISSION**

730 SCHENKEL LANE  
POST OFFICE BOX 615  
FRANKFORT, KY. 40602  
(502) 564-3940

CERTIFICATE OF SERVICE

RE: Case No. 1999-478  
WEST SHELBY WATER DISTRICT

I, Stephanie Bell, Secretary of the Public Service Commission, hereby certify that the enclosed attested copy of the Commission's Order in the above case was served upon the following by U.S. Mail on December 13, 1999.

See attached parties of record.

*Stephanie J. Bell*

Secretary of the Commission

SB/lc  
Enclosure

Mr. Ray Larmee  
& Ms. Wanda Land  
West Shelby Water District  
P. O. Box 26  
7101 Shelbyville Road  
Simpsonville, KY. 40067

Mr. Thmoas G. Fern  
State Director  
Rural Development  
771 Corporate Drive, Suite 200  
Lexington, KY. 40503 5477

Mr. Terry Loper  
Rural Development  
Mid America Building  
1900 Midland Trail  
Shelbyville, KY. 40065 9113

Mr. Warner A. Broughman  
Warner A. Broughman III  
and Associates  
3161 Custer Drive  
Lexington, KY. 40517

Honorable Donald T. Prather  
Mathis, Riggs & Prather, P.S.C.  
500 Main Street  
P. O. Box 1059  
Shelbyville, KY. 40066 1059

Honorable W. Randall Jones  
Rubin & Hays  
First Trust Centre  
200 South Fifth Street  
Louisville, KY. 40202

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF WEST SHELBY WATER )  
DISTRICT FOR A CERTIFICATE OF PUBLIC )  
CONVENIENCE AND NECESSITY TO CONSTRUCT ) CASE NO. 99-478  
AND FINANCE PURSUANT TO THE PROVISIONS )  
OF KRS 278.023 )

O R D E R

On November 19, 1999, West Shelby Water District ("West Shelby District") submitted an application for a Certificate of Public Convenience and Necessity to construct a \$1,539,000 waterworks improvement project and for approval of its plan of financing for this project. This project will provide new service to one additional customer. Project funding is an \$835,000 bond issue to be purchased pursuant to an agreement with the U.S. Department of Agriculture's Rural Development ("RD"), a \$504,000 Community Development Block Grant ("CDBG"), a \$100,000 contribution from Kingbrook Commerce Park, and a \$100,000 contribution from the Applicant.

West Shelby District's application was made pursuant to KRS 278.023, which requires the Commission to accept agreements between water utilities and the U. S. Department of Agriculture or the U. S. Department of Housing and Urban Development and to issue the necessary orders to implement the terms of such agreements within 30 days of satisfactory completion of the minimum filing requirements. Given that minimum filing requirements were met in this case on November 19, 1999, KRS 278.023 does not grant

the Commission any discretionary authority to modify or reject any portion of this agreement.

IT IS THEREFORE ORDERED that:

1. West Shelby District is hereby granted a Certificate of Public Convenience and Necessity for the proposed construction project.

2. West Shelby District's proposed plan of financing with RD is accepted.

3. West Shelby District is authorized to issue bonds not to exceed \$835,000.

4. West Shelby District shall file a copy of the "as-built" drawings and a certified statement that the construction has been satisfactorily completed in accordance with the contract plans and specifications within 60 days of the substantial completion of the construction certificated herein.

5. Three years from the effective date of this Order, West Shelby District shall file an income statement, along with any pro forma adjustments, in sufficient detail to demonstrate that the rates approved herein are sufficient to meet its operating expenses and annual debt service requirements.

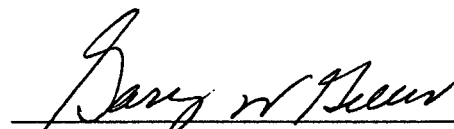
Nothing contained herein shall be deemed a warranty of the Commonwealth of Kentucky, or any agency thereof, of the financing herein accepted.

Done at Frankfort, Kentucky, this 13th day of December, 1999.

PUBLIC SERVICE COMMISSION

  
Chairman

\_\_\_\_\_  
Vice Chairman

  
Commissioner

ATTEST:

  
Executive Director



COMMONWEALTH OF KENTUCKY  
**PUBLIC SERVICE COMMISSION**

730 SCHENKEL LANE  
POST OFFICE BOX 615  
FRANKFORT, KY. 40602  
(502) 564-3940

November 29, 1999

To: All parties of record

RE: Case No. 1999-478  
WEST SHELBY WATER DISTRICT

The Commission staff has reviewed your application in the above case and finds that it meets the minimum filing requirements. Enclosed please find a stamped filed copy of the first page of your filing. This case has been docketed and will be processed as expeditiously as possible.

If you need further assistance, please contact my staff at 502/564-3940.

Sincerely,

A handwritten signature in cursive script that reads "Stephanie J. Bell".

Stephanie Bell  
Secretary of the Commission

SB/sa  
Enclosure



Mr. Ray Larmee  
& Ms. Wanda Land  
West Shelby Water District  
P. O. Box 26  
7101 Shelbyville Road  
Simpsonville, KY. 40067

Mr. Thmoas G. Fern  
State Director  
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771 Corporate Drive, Suite 200  
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Honorable W. Randall Jones  
Rubin & Hays  
First Trust Centre  
200 South Fifth Street  
Louisville, KY. 40202

# Rubin & Hays

ATTORNEYS AT LAW

First Trust Centre, 200 South Fifth Street, Louisville, Kentucky 40202-3236  
Telephone (502) 569-7525 Telefax (502) 569-7555 Email: rh@rubinhays.com

CHARLES S. MUSSON  
W. RANDALL JONES  
CHRISTIAN L. JUCKETT

OF COUNSEL  
WM. CARL FUST

PARALEGAL  
MARY M. EMBRY

November 18, 1999

RECEIVED

NOV 19 1999

PUBLIC SERVICE  
COMMISSION

FILED

NOV 19 1999

PUBLIC SERVICE  
COMMISSION

Ms. Helen C. Helton  
Executive Director  
Public Service Commission  
P.O. Box 615  
Frankfort, Kentucky 40602

Re: West Shelby Water District Water Project *CASE 99-478*

Dear Ms. Helton:

Enclosed please find the original and ten (10) copies of the Application of West Shelby Water District for an Order approving construction financing and issuing a Certificate of Public Convenience and Necessity pursuant to KRS 278.023.

Also enclosed are eleven (11) copies of the exhibits required pursuant to 807 KAR 5.069, and the Preliminary and Final Engineering Reports, of which two copies are enclosed.

If you need any additional information or documentation, please let us know.

Sincerely,

Rubin & Hays

By

  
W. Randall Jones

WRJ:jl  
Enclosures  
cc: Distribution List



COMMONWEALTH OF KENTUCKY  
**PUBLIC SERVICE COMMISSION**

730 SCHENKEL LANE  
POST OFFICE BOX 615  
FRANKFORT, KY. 40602  
(502) 564-3940

November 23, 1999

To: All parties of record

RE: Case No. 1999-478  
WEST SHELBY WATER DISTRICT  
(Construct, Finance; 278.023)

This letter is to acknowledge receipt of initial application in the above case. The application was date-stamped received November 19, 1999 and has been assigned Case No. 1999-478. In all future correspondence or filings in connection with this case, please reference the above case number.

If you need further assistance, please contact my staff at 502/564-3940.

Sincerely,  
*Stephanie Bell*

Stephanie Bell  
Secretary of the Commission

SB/jc

Mr. Ray Larmee  
& Ms. Wanda Land  
West Shelby Water District  
P. O. Box 26  
7101 Shelbyville Road  
Simpsonville, KY. 40067

Mr. Thmoas G. Fern  
State Director  
Rural Development  
771 Corporate Drive, Suite 200  
Lexington, KY. 40503 5477

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# Rubin & Hays

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First Trust Centre, 200 South Fifth Street, Louisville, Kentucky 40202-3236  
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CHARLES S. MUSSON  
W. RANDALL JONES  
CHRISTIAN L. JUCKETT

OF COUNSEL  
WM. CARL FUST

PARALEGAL  
MARY M. EMBRY

November 18, 1999

RECEIVED

NOV 19 1999

PUBLIC SERVICE  
COMMISSION

Ms. Helen C. Helton  
Executive Director  
Public Service Commission  
P.O. Box 615  
Frankfort, Kentucky 40602

FILED

NOV 19 1999

PUBLIC SERVICE  
COMMISSION

Re: West Shelby Water District Water Project *CASE 99-478*

Dear Ms. Helton:

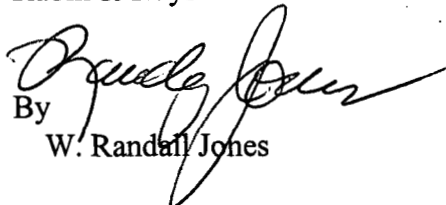
Enclosed please find the original and ten (10) copies of the Application of West Shelby Water District for an Order approving construction financing and issuing a Certificate of Public Convenience and Necessity pursuant to KRS 278.023.

Also enclosed are eleven (11) copies of the exhibits required pursuant to 807 KAR 5.069, and the Preliminary and Final Engineering Reports, of which two copies are enclosed.

If you need any additional information or documentation, please let us know.

Sincerely,

Rubin & Hays

  
By  
W. Randall Jones

WRJ:jlm  
Enclosures  
cc: Distribution List

**DISTRIBUTION LIST**

**Re: West Shelby Water District Waterworks Revenue Bonds, Series 2000**

**Account No. 370.0000**

Mr. Thomas G. Fern  
State Director  
Rural Development  
771 Corporate Drive, Suite 200  
Lexington, Kentucky 40503-5477

Phone: (606) 224-7336  
Fax: (606) 224-7425

Mr. Terry Loper  
Rural Development  
Mid America Building  
1900 Midland Trail  
Shelbyville, Kentucky 40065-9113

Phone: (502) 633-0891  
Fax: (502) 633-0552

Mr. Ray Larmee, Chairman  
Ms. Wanda Land  
West Shelby Water District  
P. O. Box 26  
Simpsonville, Kentucky 40067

Phone: (502) 722-8944  
Fax: (502) 722-0060

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Fax: (502) 569-7555

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

NOV 19 1999

PUBLIC SERVICE  
COMMISSION

In the Matter of:

**THE APPLICATION OF WEST SHELBY WATER  
DISTRICT FOR A CERTIFICATE OF PUBLIC  
CONVENIENCE AND NECESSITY TO CONSTRUCT  
AND FINANCE PURSUANT TO THE PROVISIONS  
OF KRS 278.023**

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NO. 99-478

**APPLICATION**

This Application of the West Shelby Water District (the "Applicant") of Shelby County, Kentucky, respectfully shows:

1. That the Applicant is a water district of Shelby County, Kentucky, created and existing under and by virtue of Chapter 74 of the Kentucky Revised Statutes.

2. That the post office address of the Applicant is:

West Shelby Water District  
c/o Ms. Wanda Land  
P.O. Box 26  
Simpsonville, Kentucky 40067

3. That the Applicant, pursuant to the provisions of KRS 278.020 and 278.023, seeks (i) a Certificate of Public Convenience and Necessity, permitting the Applicant to construct a waterworks construction project, consisting of extensions, additions, and improvements (the "Project") to the existing waterworks system of the Applicant; and (ii) approval of the proposed plan of financing said Project.

4. That the proposed project consists of the installation of approximately 12,650 linear feet of 12 and 16-inch ductile iron water transmission mains and a 1,000,000 gallon, single pedestal, composite, elevated water storage tank. The overall scheme is to pump water from Louisville with an existing pump station to both the new tank and the existing 200,000 gallon tank in Simpsonville. The new tank helps West Shelby Water District meet the one-day storage requirement of the Public

Service Commission and provides sufficient flow to the Kingbrook Commerce Park area to meet fire flow requirements.

The 16-inch pipe to Kingbrook is made necessary by the high flows required to provide fire protection to the industries locating there. The 12-inch pipe connection to Louisville completes a project started in the early 90's. This line will allow the system to be served completely by Louisville in the unlikely event that problems occur in the Shelbyville system.

5. That the Applicant proposes to finance the construction of the Project through (i) issuance of \$835,000 of its Waterworks Revenue Bonds, (ii) a Community Development Block grant ("CDBG") in the amount of \$504,000, (iii) a Kingbrook Commerce Park contribution in the amount of \$100,000, and (iv) a contribution from the Applicant in the amount of \$100,000. The Applicant has a commitment from the RD to purchase said \$835,000 of bonds maturing over a 40-year period, at an interest rate of not exceeding 5.00% per annum, as set out in the RD Letter of Conditions filed herewith as an Exhibit.

6. That the Applicant does not contemplate having the Project constructed with any deviation from minimum construction standards of this Public Service Commission.

7. That the Applicant files herewith the following Exhibits pursuant to 807 KAR 5:069 in support of this Application:

- A. Copy of RD Letter of Conditions.
- B. Copy of RD Letter of Concurrence in Bid Award.
- C. Copy of Preliminary and Final Engineering Reports.
- D. Certified statement from the Chairman of the Applicant, based upon statements of the Engineers for the Applicant, concerning the following:
  - (1) The proposed plans and specifications for the Project have been designed to meet the minimum construction and operating requirements set out in 807 KAR 5:066, Section 4(3) and (4); Section 5(1); Sections 6 and 7; Section 8(1) through (3); Section 9(1) and Section 10;
  - (2) All other state approvals or permits have already been obtained;
  - (3) The existing rates of the Applicant shall produce the total revenue requirements set out in the engineering reports; and
  - (4) Setting out the dates when it is anticipated that construction will begin and end.

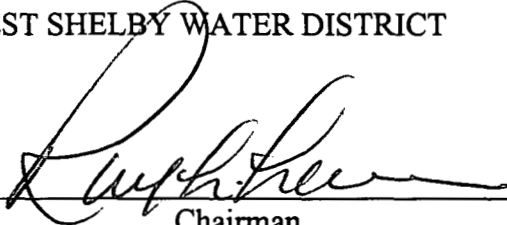


8. That the foregoing constitutes the documents necessary to obtain the approval of the Public Service Commission in accordance with Section 278.023 of the Kentucky Revised Statutes and in accordance with the "Minimum Filing Requirements" specified in 807 KAR 5:069, Section 3.

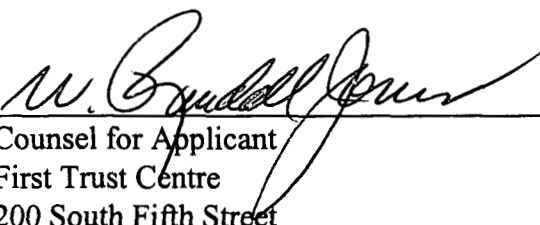
WHEREFORE, the Applicant, the West Shelby Water District, asks that the Public Service Commission of the Commonwealth of Kentucky grant to the Applicant the following:

- a. A Certificate of Public Convenience and Necessity permitting the Applicant to construct a waterworks project consisting of extensions, additions, and improvements to the existing waterworks system of the Applicant.
- b. An Order approving the financing arrangements made by the Applicant, viz., the issuance of \$835,000 of West Shelby Water District Waterworks Revenue Bonds at an interest rate of not exceeding 5.00% per annum; a CDBG grant in the amount of \$504,000; a contribution from the Kingbrook Commerce Park in the amount of \$100,000; and a contribution from Applicant in the amount of \$100,000.

WEST SHELBY WATER DISTRICT

By:   
Chairman  
Board of Water Commissioners

RUBIN & HAYS

By:   
Counsel for Applicant  
First Trust Centre  
200 South Fifth Street  
Louisville, Kentucky 40202  
(502) 569-7525



A





United States  
Department of  
Agriculture

Rural  
Development

Corporate Drive, Suite 200  
Lexington, KY 40503-5477  
(606) 224-7336 TTY(606) 224-7422

February 23, 1999

Mr. Ray Larmee  
Chairman, West Shelby Water District  
7101 Shelbyville Road  
Simpsonville, Kentucky 40026

Dear Mr. Larmee:

This letter establishes conditions which must be understood and agreed to by you before further consideration may be given to the application. The loan 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 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 \$835,000, a Department of Housing and Urban Development (HUD) Community Development Block Grant (CDBG) of \$504,000, a cash contribution from Kingbrook Commerce Park in the amount of \$100,000, and a cash contribution from the applicant in the amount of \$100,000.

If Rural Development makes the loan, you may make a written request that the interest rate be the lower of the rate in effect at the time of loan approval or the time of loan closing. If you do not request the lower of the two interest rates, the interest rate charged will be the rate in effect at the time of loan approval. 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. If you want the lower of the two rates, your written request should be submitted to Rural Development as soon as practical. In order to avoid possible delays in loan closing, such a request should ordinarily be submitted at least 30 days before loan closing.

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, you are agreeing to complete the following as expeditiously as possible:

1. Number of Users and Their Contribution:

There shall be 1,185 water users, of which 1,184 are existing users and 1 is a new user. The Rural Development Manager will review and authenticate the number of users prior to advertising for construction bids

2. 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 (2) 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 Water 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.

Rural Development encourages the use of the Preauthorized Debit (PAD) payment process, which authorizes the electronic withdrawal of funds from your bank account on the exact installment payment due date (contact the Rural Development Manager for further information).

3. Funded Depreciation Reserve Account:

The Water District will be required to deposit \$415.00 per month into a "Funded Depreciation Reserve Account". The monthly deposits are for the life of the loan.

The required deposits to the Reserve Account are in addition to the requirements of the Water District's prior bond resolutions.

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

4. 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 Water 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.

5. Land Rights and Real Property:

The Water 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.

6. Organization:

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

7. Business Operations:

The Water 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 Water District after review by Rural Development. At no later than loan pre-closing, the Water 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.

8. Accounts, Records and Audits:

The Water 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.

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

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

10. 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 Water District. The Water District should obtain amounts of coverage as recommended by its attorney, consulting engineer and/or insurance provider.
- B. Worker's Compensation - The Water District will carry worker's compensation insurance for employees in accordance with applicable state laws.

- C. Fidelity Bond - The Water 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 \$135,000.
- D. Real Property Insurance - The Water 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 Water 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 Water District will obtain and maintain adequate coverage on any facilities located in a special flood and mudslide prone areas.

11. 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 "20" 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 Rural Development Manager is prepared to furnish the necessary guide for him 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 Water 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.

12. Compliance with Section 504 of the Rehabilitation Act of 1973:

The Water District will be required to comply with Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), in order to make sure no handicapped individual, solely by reason of their handicap, is excluded from participation in the use of the water system, be denied the benefits of the water system, or be subjected to discrimination.

13. 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 Water District.

14. Compliance with Special Laws and Regulations:

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

15. System Operator:

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

16. Prior to Pre-Closing the Loan, the Water District will be Required to Adopt:

- A. Form RD 1942-47, "Association Loan Resolution (Public Body)."
- 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. FmHA Instruction 1940-Q, Exhibit A-1, "Certification for Contracts, Grants and Loans."

The Water District must offer the opportunity for all residents in the service area to become users of the facilities regardless of race, creed, color, religion, sex, national origin, marital status, physical or mental handicap or level of income.



17. Refinancing and Graduation Requirements:

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

18. Commercial Interim Financing:

The Water 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 Water 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.

19. Disbursement of Project Funds:

A construction account for the purpose of disbursement of project funds (RUS) will be established by the Water 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 Water 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 Water 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 Water District.

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

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

20. Cost of Facility:

## Breakdown of Costs:

Development	\$ 1,179,400
Land and Rights	13,800
Legal and Administrative	33,500
Engineering	158,600
Interest	35,300
Contingencies	<u>118,400</u>
TOTAL	\$ 1,539,000

## Financing:

RUS Loan	\$ 835,000
HUD-CDBG	504,000
Kingbrook Commerce Park	100,000
Applicant Contribution	<u>100,000</u>
TOTAL	\$ 1,539,000

21. Use of Remaining Project Funds:

The applicant and Kingbrook Commerce Park contribution shall be considered as the first funds expended. After providing for all authorized costs, any remaining project funds will be considered to be RUS Loan/CDBG grant funds and refunded in proportion to participation in the project.

22. Rates and Charges:

Rates and charges for facilities and services rendered by the Water 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:

Meter Size 5/8-Inch x 3/4-Inch:

First	2,500	gallons @ \$	12.00 - Minimum Bill.
Next	7,500	gallons @ \$	4.17 - per 1,000 gallons.
Next	20,000	gallons @ \$	3.54 - per 1,000 gallons.
Next	200,000	gallons @ \$	3.04 - per 1,000 gallons.
All Over	230,000	gallons @ \$	2.68 - per 1,000 gallons.

Meter Size 3/4-Inch:

First	3,500	gallons @ \$	16.17 - Minimum Bill.
Next	6,500	gallons @ \$	4.17 - per 1,000 gallons.
Next	20,000	gallons @ \$	3.54 - per 1,000 gallons.
Next	200,000	gallons @ \$	3.04 - per 1,000 gallons.
All Over	230,000	gallons @ \$	2.68 - per 1,000 gallons.

Meter Size 1-Inch:

First	5,000	gallons @ \$	22.42 - Minimum Bill.
Next	5,000	gallons @ \$	4.17 - per 1,000 gallons.
Next	20,000	gallons @ \$	3.54 - per 1,000 gallons.
Next	200,000	gallons @ \$	3.04 - per 1,000 gallons.
All Over	230,000	gallons @ \$	2.68 - per 1,000 gallons.

Meter Size 1 1/2-Inch:

First	10,000	gallons @ \$	43.23 - Minimum Bill.
Next	20,000	gallons @ \$	3.54 - per 1,000 gallons.
Next	200,000	gallons @ \$	3.04 - per 1,000 gallons.
All Over	230,000	gallons @ \$	2.68 - per 1,000 gallons.

Meter Size 2-Inch:

First	16,000	gallons @ \$	64.49 - Minimum Bill.
Next	14,000	gallons @ \$	3.54 - per 1,000 gallons.
Next	200,000	gallons @ \$	3.04 - per 1,000 gallons.
All Over	230,000	gallons @ \$	2.68 - per 1,000 gallons.

Meter Size 3-Inch:

First	30,000	gallons @ \$	114.11 - Minimum Bill.
Next	200,000	gallons @ \$	3.04 - per 1,000 gallons.
All Over	230,000	gallons @ \$	2.68 - per 1,000 gallons.

Meter Size 4-Inch:

First	50,000	gallons @ \$	165.30 - Minimum Bill.
Next	180,000	gallons @ \$	3.04 - per 1,000 gallons.
All Over	230,000	gallons @ \$	2.68 - per 1,000 gallons.

Meter Size 6-Inch:

First	100,000	gallons @ \$	317.36 - Minimum Bill.
Next	130,000	gallons @ \$	3.04 - per 1,000 gallons.
All Over	230,000	gallons @ \$	2.68 - per 1,000 gallons.

23. Water Purchase Contract:

The Water 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.

24. Commitment of HUD, Kingbrook Commerce Park, and Applicant Contribution:

This Letter of Conditions is issued contingent upon a firm commitment being in effect prior to advertising for construction bids for the HUD Grant in the amount of \$504,000, for the Kingbrook Commerce Park contribution in the amount of \$100,000, and for the Applicant cash contribution in the amount of \$100,000.

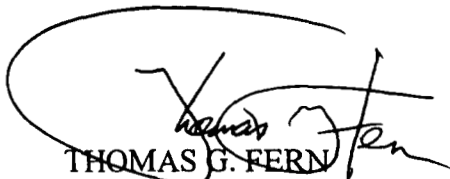
25. Final Approval Conditions:

Final approval of this loan 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.

In accordance with the intent of Congress as expressed in the Fiscal Year 1998 Appropriations Act, recipients of Water and Waste assistance provided by the Rural Utilities Service are encouraged, in expending the assistance, to purchase only American-made equipment and products.

If you desire to proceed with your application, the Rural Development Manager will allot a reasonable portion of his time to provide guidance in application processing.

Sincerely,



THOMAS G. FERN  
State Director  
Rural Development

Enclosures

cc: Rural Development Manager - Shelbyville, Kentucky  
Community Development Manager - Campbellsburg, Kentucky  
KIPDA ADD - Louisville, Kentucky  
Donald Prather - Shelbyville, Kentucky  
Rubin and Hays - Louisville, Kentucky  
Warner A. Broughman, III - Lexington, Kentucky  
PSC - ATTN: Claude Rhorer - Frankfort, Kentucky

B






November 15, 1999

SUBJECT: West Shelby Water District  
Kingsbrook Park & Water Line Extension Project- Contract 1 and 2  
Concurrence in Contract Award

TO: Rural Development Manager  
Shelbyville, Kentucky

Based on the bids received and the recommendation of the consulting engineer, Rural Development concurs in the award of Contract 1, Waterlines, to the low bidder, Perkins Excavating, Inc., in the amount of \$835,000.00 and Contract 2, Water Storage Tank, to the low bidder, Landmark Structures, Inc., in the amount of \$792,000.00.

If you have any questions, please contact Jo Ann Clark, State Engineer, at (606) 224-7348.

  
THOMAS G. FERN  
State Director  
Rural Development

cc: Warner A. Broughman III  
Lexington, Kentucky

✓ Rubin and Hays  
Louisville, Kentucky



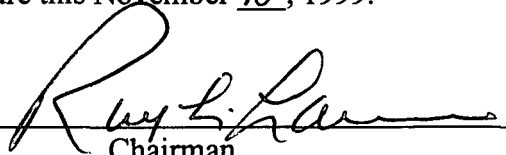
**CERTIFICATE OF CHAIRMAN OF WEST SHELBY WATER DISTRICT,  
AS TO STATEMENT REQUIRED BY SECTION 3(2)(D) OF 807 KAR 5:069**

I, Ray Larmee, hereby certify that I am the duly qualified and acting Chairman of the West Shelby Water District, and that said District is in the process of arranging to finance the construction of extensions, additions and improvements to the existing waterworks system of the District (the "Project"), in cooperation with the Engineers for the District, Warner A. Broughman III and Associates, Inc., Lexington, Kentucky.

Based on information furnished to me by said Engineers for the District, I hereby certify as follows:

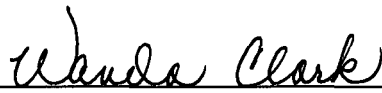
1. That the proposed plans and specifications for the Project have been designed to meet the minimum construction and operating requirements set out in 807 KAR 5:066 Section 4(3) and (4); Section 5(1); Sections 6 and 7; Section 8(1) through (3); Section 9(1) and Section 10.
2. That all other state approvals and/or permits have already been obtained.
3. That the existing rates of the District shall produce the total revenue requirements set out in the engineering reports.
4. That it is now contemplated that construction of the Project will begin on or about December 15, 1999, and will end on or about August 15, 2000.

IN TESTIMONY WHEREOF, witness my signature this November 10, 1999.

  
\_\_\_\_\_  
Chairman  
West Shelby Water District

STATE OF KENTUCKY    )  
                                  ) SS  
COUNTY OF SHELBY    )

Subscribed and sworn to before me by Ray Larmee, Chairman of the Board of Commissioners of the West Shelby Water District, on this November 10, 1999.

  
\_\_\_\_\_  
Notary Public  
In and For Said State and County

(Seal of Notary)

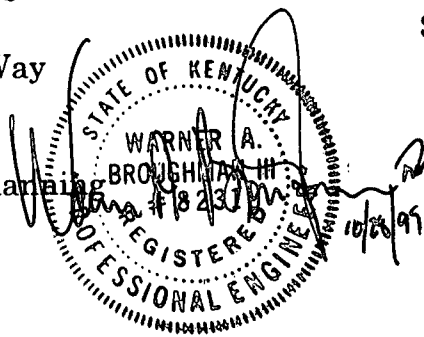


**WEST SHELBY WATER DISTRICT  
SIMPSONVILLE WATER TANK  
Final Engineering Report  
OCTOBER 26, 1999**

The project encompassed by West Shelby Water District is the construction of approximately 12,650 linear feet of water transmission mains and a 1,000,000-gallon elevated water storage tank. The overall scheme is to pump water from Louisville with an existing pump station to both the new tank and the existing tank in Simpsonville. The new tank helps West Shelby Water District meet the one-day storage requirement of the Public Service Commission and provides sufficient flow to the Kingbrook industrial area to meet fire flow requirements. There will be at least one new industrial customer that is served with this construction. The low bidding contractor for the pipeline is Perkins Excavating, Inc at \$ 329,361.50 and Landmark Structures, Inc for the water storage tank at \$ 792,000.00.

The method of financing the above outlined work is through a Rural Economic and Community Development (RECD) loan of \$ 835,000.00; a Community Development Block Grant (CDBG) of \$ 504,000.00; a grant from Boland-Maloney Realty Co. of \$ 100,000.00; and a contribution from Water District in the amount of \$ 100,000.00. The total financing for this project is \$ 1,539,000.00. The final estimate for the project is as follows:

Contract #1 Pipelines	\$ 329,361.50
Contract #2 Tank	\$ 792,000.00
Land and Right-of-Way	\$ 13,800.00
Local Counsel	\$ 6,000.00
Bond Counsel	\$ 7,500.00
Administration & Planning	\$ 25,000.00
Expert Services	\$ 4,344.97
Engineering Design	\$ 85,532.31
Resident Inspection	\$ 50,237.00
Interim Financing	\$ 35,300.00
Contingency	\$ 189,924.22
<b>TOTAL:</b>	<b>\$ 1,539,000.00</b>



The District will not need to increase rates to finance the new project. The following rates will be needed to maintain the District.

First 2500 gallons	\$ 12.37 minimum bill
Next 7500 gallons	\$ 4.32 per 1000 gallons
Next 20,000 gallons	\$ 3.19 per 1000 gallons
Next 200,000 gallons	\$ 3.69 per 1000 gallons
Over 230,000 gallons	\$ 2.83 per 1000 gallons

NOV 19 1999

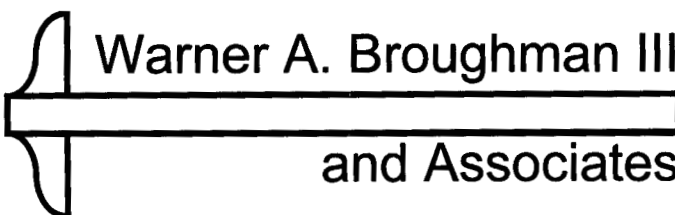
# **WEST SHELBY WATER DISTRICT**

**SIMPSONVILLE, KENTUCKY**

**PRELIMINARY ENGINEERING REPORT**

## **WATER SYSTEM IMPROVEMENTS**


**AUGUST 1997  
REVISED NOVEMBER 1997  
REVISED JANUARY 1999**

 Warner A. Broughman III  
and Associates

**3161 Custer Drive  
Lexington, Kentucky 40517  
(606) 271-1778**

**PROJECT NO.  
97-14**

**PROPOSED STORAGE AND IMPROVEMENTS**  
**of**  
**WEST SHELBY WATER DISTRICT**

*Warner Broughman*  
  
*10/24/99*

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**PRELIMINARY ENGINEERING REPORT**  
**for**  
**PROPOSED STORAGE AND WATER LINE IMPROVEMENTS**  
**of**  
**WEST SHELBY WATER DISTRICT**

**1. INTRODUCTION**

The purpose of this report is to present engineering information and economic feasibility for improvements to the public water supply system of the West Shelby Water District in Shelby County, Kentucky. The firm of Warner A. Broughman III & Associates was retained by the District to investigate their existing water distribution system and to make specific recommendations for improvements.

Primary consideration was given to addressing the shortcomings in the existing storage tank and transmission line in the western portion of the service area of the District. The District realized that the existing 200,000 gallon storage tank is inadequate to meet the P.S.C. requirement for one day's storage and was already failing to meet the Rural Development's guideline of two day's storage. The existing 6-inch transmission main is being used as much as 20 hours a day to pump current demands and is not going to be able to meet the future demands of the growing area.

Numerous field and office studies were made to determine the desirability and feasibility of various alternatives. This report presents the conclusions and recommendations of the Engineer.

## **2. SERVICE AREA**

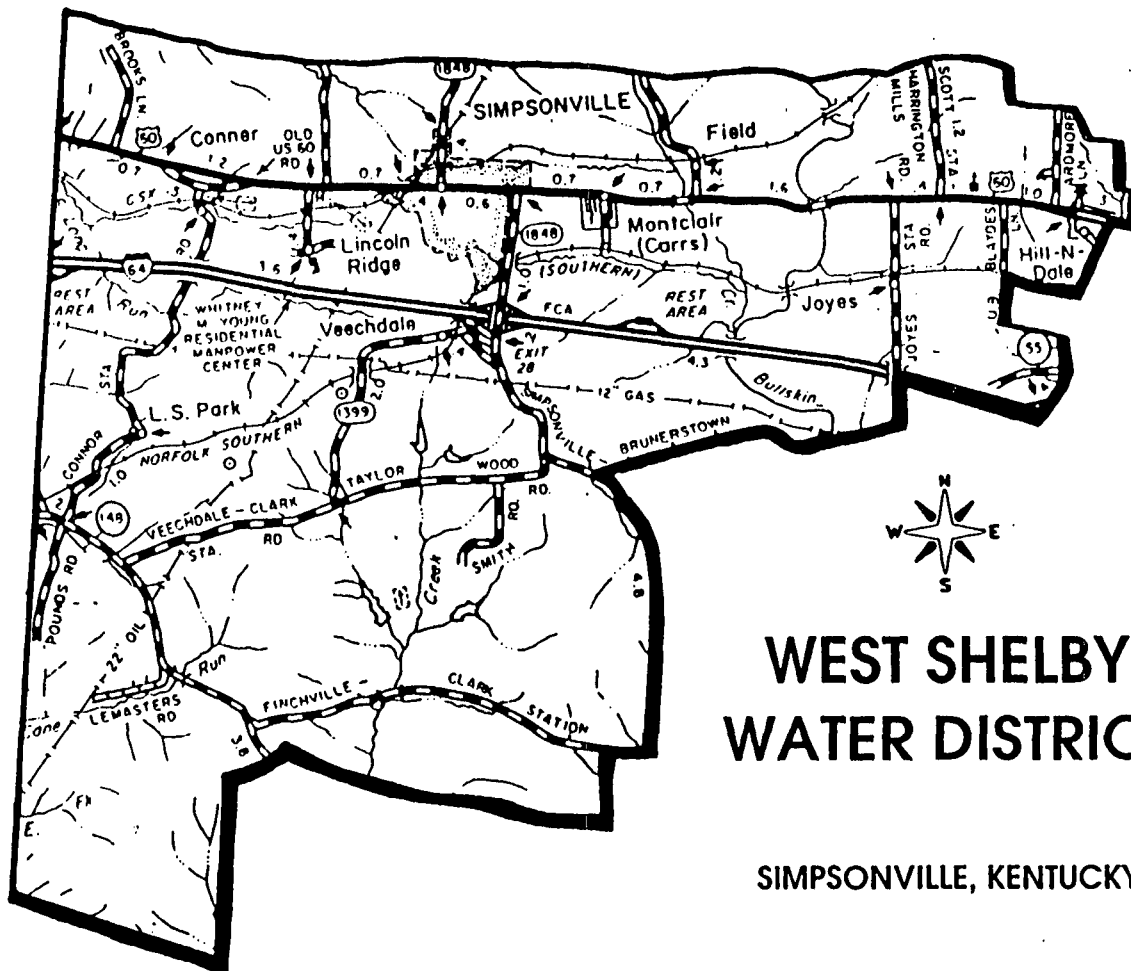
The West Shelby Water District provides potable water to 1,050 customers in west Shelby County. More specifically the area is defined by a Shelby County Court Order as seen in figure 1 "District Boundary" after this section.

The terrain itself is gently rolling to rolling topography with occasional hills or knobs and steeper areas near the larger streams.

Elevations range from a low of approximately 640 feet above mean sea level at the county line to some 830 feet above sea level in Simpsonville. The major underlying rock formations consist chiefly of limestone with considerable interbedding of shale. Most of the soils have a moderate to high fertility.

Not surprisingly, the major land use in the District is for agriculture while rural residential tracts are the second largest. Ground water availability is generally poor in the West Shelby Water District. Few wells drilled in the shale of shaly limestone formations yield enough water for domestic use. Expected yields for a well in this part of Shelby County is less than 5 gallons per minute. There are several springs in this area, but most go dry in late summer. Bullskin Creek, a tributary of Clear Creek and the Salt River, is the major body of surface water in the District. Because of the agricultural need for water, the area is dotted with numerous man-made farm ponds. These, of course, draw down considerably during the summer months. The large commercial farms in the service area purchase nearly 10% of the total water sold by the District.

# DISTRICT BOUNDARY



## WEST SHELBY WATER DISTRICT

SIMPSONVILLE, KENTUCKY

### BOUNDARY DESCRIPTION

Beginning in the center of the intersection of Highway 55 South and U.S. Highway 60 West, thence in a westerly direction along the entire north boundary of the Shelby Business Park, Section 1, thence in a southerly direction, with the entire western boundary of same, and thence in an easterly direction with the entire southern boundary of the Shelby Business Park, Section 1, to the intersection of the Shelby Business Park and Kentucky Highway 55 South, thence with the west right-of-way of Kentucky Highway 55 South to I-64, thence with the centerline of I-64 in a westerly direction to the centerline of Joyes Station Road, thence south with the centerline of said road to its intersection with Brunerstown Road, thence in a westerly direction with the centerline of Brunerstown Road to its intersection with Simpsonville-Buck Creek Road, thence in a southerly direction with the centerline of Simpsonville-Buck Creek Road to its intersection with the Finchville-Clark Station Road to the existing terminating point of the Shelbyville water main on the Finchville-Clark Station Road, thence due south to a point equidistant between Finchville-Clark Station Road and Highway 148 a point due northeast of the existing terminating point of the Commission's distribution line on Highway

148, thence due southwest to the terminating point of the Commission's water main on Highway 148, thence leaving Highway 148 and in a southwesterly direction 2000 feet northwest of and parallel to the centerline of Henry Smith Road to a point 2000 feet due north of the present end of Henry Smith Road, thence due south to the Shelby-Spencer County line, thence with the Shelby-Spencer line west to the Jefferson County line, thence with the Jefferson County line north to a point one mile north of U.S. Highway 60, thence along a line running in an easterly direction on mile north of and parallel to U.S. 60 to the intersection of said line with the CSX Railroad southern right-of-way, thence with the southern right-of-way of said railroad in an easterly direction to the existing western City of Shelbyville city limits and the western line of Tract 2 of the Midland Industrial Park Section III, thence with the west and south line of said Midland Industrial Park tract to a point in the northeast corner of the Prentice Lyons property, thence with the east line of Lyons in a southerly direction approximately 3500 feet to a point in the center of U.S. Highway 60, thence with the center line of said Highway in a westerly direction to the point of beginning.



### **3. EXISTING FACILITIES**

#### **3.1 PHYSICAL PLANT**

For any questions on the section below please refer to figure 2: West Shelby Water District map that follows this section.

##### **3.1.1 SOURCES**

The West Shelby system has no internal water supply. All of their water is bought wholesale from two external sources of finished water. All of the water that is purchased is already treated therefore the District does not have its own treatment facilities. The two external sources are listed below.

###### **3.1.1.1 City of Shelbyville, Kentucky**

Originally all of the water was purchased from the nearby City of Shelbyville, Kentucky, whose source is the Guist Creek Reservoir. The system grew in the 80's and this source became inadequate for even Shelbyville's needs. Then West Shelby Water District was forced to look elsewhere for water.

###### **3.1.1.2 Louisville Water Company**

Due to population growth in the 80's throughout the District an additional source of water was established in 1990. This source was the Louisville Water Company that obtains its water from the Ohio River. The system was connected through its existing 6-inch line to a new 12-inch line installed by Louisville Water Company at West Shelby's expense to the Jefferson County line.

##### **3.1.2 DISTRIBUTION SYSTEM**

The distribution system consists of all of the pipelines and their appurtenances. The pipes in the West Shelby Water District are consistently made of either Asbestos Cement (AC), Poly Vinyl Chloride (PVC), or Ductile Iron (DI) and have sizes that range from 3 inches to 12 inches. There are approximately 39 miles of pipelines throughout the entire district.

##### **3.1.3 STORAGE**

The West Shelby Water District has two elevated storage tanks that can hold 950,000 gallons of water. The Simpsonville tank was built in 1978 and is a 200,000 gallon tank with an overflow of approximately 928.5 feet above sea level. The other tank is in the Industrial Park at the east end of the

## **WAB III - PRELIMINARY ENGINEERING REPORT**

district and was completed in 1990. Its capacity is 750,000 gallons and has an overflow of approximately 926 feet.

This gives the entire system a total storage capacity of 950,000 gallons. In section 6.1.3 you will see that when compared to the daily usage of the system it no longer complies with the PSC and Insurance Services Office (ISO) regulations.

### **3.1.4 PUMPS**

There are two pump stations in the system, one coming from each of the two water sources. The station for the City of Shelbyville connection consists of two 300 gpm pumps that operate in alternation. Those pumps are used to feed the tank at the Industrial Park and operate about 10 hours a day. The other station is at the Louisville Water Company connection and is used to fill the Simpsonville tank. This station has two 220 gpm pumps that operate about 16 hours a day in winter and 20 hours per day in summer.

### **3.2 USAGE**

The District consists of 5 different classes of service with a total of 1,050 customers using 16-17million gallons each month or 560,000 gallons per day. The different classes are Commercial, Governmental, Industrial, Multi-Family, and Residential. The most recent information as of July 1997 shows the customers and usage in each class is as follows:

#### **3.2.1 Commercial**

There are 78 commercial users consuming about 2,000,000 gallons a month.

#### **3.2.2 Governmental**

There are 9 governmental users consuming from 500,000 to 1,000,000 gallons a month.

#### **3.2.3 Industrial**

There are 12 Industrial customers that consume about 6,500,000 gallons a month.

#### **3.2.4 Multi-Family**

The 5 multi-family customers use about 300,000 gallons a month.

## **WAB III - PRELIMINARY ENGINEERING REPORT**

### 3.2.5 Residential

There are 946 residential customers that consume about 5,000,000 gallons a month.

### 3.3 CONCERNS

#### 3.3.1 Fire Flows

Several industries are building plants within the District service area. These plants will require fire protection. Also, several subdivisions are under construction and more are planned for the immediate future. The planned and constructed developments will more than double the size of the District. The future shows more than 1,500 new customers in the immediate future. West Shelby's storage of 950,000 gallons does not meet the requirement of 2 day domestic storage plus the amount needed for fire protection. Increased demands from all classes of users will continue to deplete the storage capacity of the District.

#### 3.3.2 Insufficient Water Supply

The trunk water main from the Louisville connection to the Simpsonville area is insufficient. There is an 11,000 foot section of this line that is a 6-inch water main. This small pipe restricts the flow in this section causing the pumps to operate for prolonged periods of time to fill up the existing tank. In the future with additional customers and the construction of the proposed developments this section of pipeline will be completely inadequate.

The pumps currently operate 15 hours per day in the minimum usage periods and more than twenty hours per day in peak usage periods and during the summer.

The tables that follow illustrate the critical nature of increased usage that will be coming on line in 1999 or immediately thereafter.

# WAB III - PRELIMINARY ENGINEERING REPORT

## Table 1: SUBDIVISIONS UNDER CONSTRUCTION

Currently Under Construction	Number of Units
Braxton Estates	18 Residential
Todds Point	12 Commercial
Majestic Oaks	22 Residential
Clark Station	67 Residential
Kingbrook.	<u>6</u> Industrial
TOTAL	125

Source: Various plats submitted to District

## Table 2: BEYOND 1999 NEW CUSTOMERS

Presented or Inquired at District	Number of Units
Perdew Development	1,000+ Residential
U. of L. Golf Course	250 Residential
Cooper Development	80-90 Residential
Rolling Ridge	60 Residential
Kingbrook Phase II	<u>30</u> Industrial
TOTAL	1,420

**4. EXISTING FINANCIAL STATUS**

Most of the following financial information can be found in the December 31, 1998 Income Statement submitted by Joseph Sutherland, PSC.

**4.1 REVENUE**

The total 1998 revenue for the District was approximately \$681,361.00 resulting from the sale of approximately 88,300,000 gallons of water. For 1998 the District had a net income of nearly \$120,181.

The District charges all customers according to the rate schedule shown in Table 1: Water Rates. The complete tariff is contained in Appendix.

**Table 3: WATER RATES**

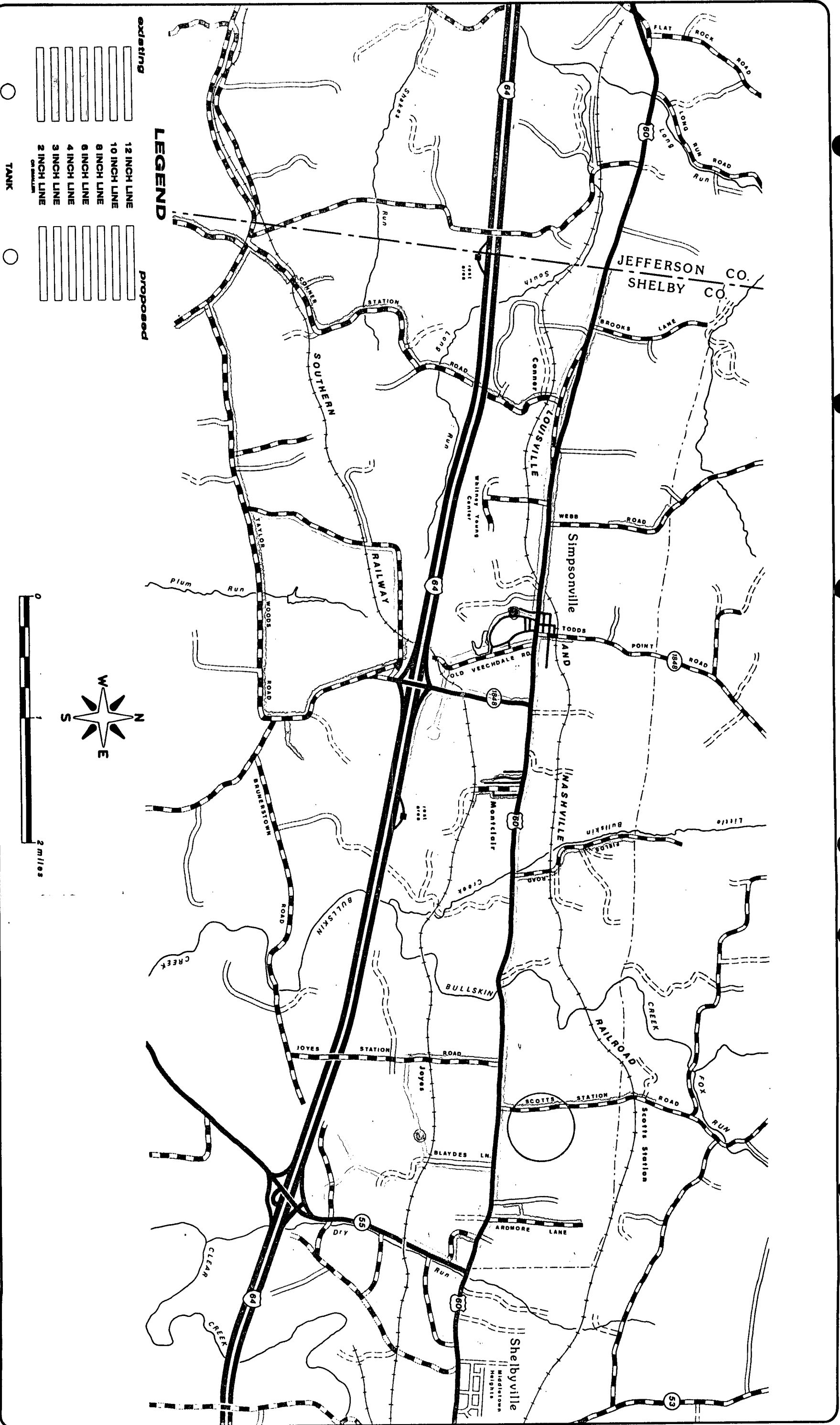
Gallons/Month	Cost per 1,000 gallons
First 2,500	\$11.24 (minimum bill)
Next 7,500	\$3.90
Next 20,000	\$3.32
Next 200,000	\$2.85
Over 230,000	\$2.51

Source: PSC Tariff Effective December 20, 1994

Warner A. Broughman III  
and Associates  
LEXINGTON KENTUCKY

# West Shelby Water District

Figure 1  
Distribution System



# WAB III - PRELIMINARY ENGINEERING REPORT

## 4.2 DEBT

The District is current on its long term debt obligations. See the following table, "Debts" for information regarding these outstanding debts.

Table 4: DEBTS

Year Issued	Type	Amount	Interest Rate	Outstanding	Length (yrs)
1966	Bond	\$364,000	4%	\$130,000	40
1978	Bond	\$300,000	5%	\$232,000	40
1988	Note	\$198,803	5.74%	\$168,678	20
1990	Bond	\$650,000	7%	\$621,000	40

Source: J. Sutherland Audit 1997

All of the bonds are unsettled loans with Farmers Home Administration (FmHA). The only note that is outstanding is owed to the Louisville Water Company (LWC).

## **5. PROPOSED FACILITIES AND SERVICES**

The West Shelby Water District has been supplying potable water to its customers since 1967. These thirty years of operation have produced increased demands on the system. The foremost among the demands is additional storage.

While the West Shelby Service area is a rural part of Shelby County, the density of residential and commercial customers is more in the nature of a village or similar community. Coupled with the District's initial desire for potable water was a concern for fire protection in the service area. The inclusion of large diameter mains and the liberal use of fire hydrants in the original construction are evidence of the District's early commitment to providing fire protection. The District still considers fire protection one of the major goals of the water distribution system. West Shelby proposes to increase their storage capacity and to upgrade the connection to the Louisville Water Company to provide improved service to existing and future customers. The primary objectives of the project are the provisions for a minimum of 2 days storage and improvement in fire protection characteristics. No extensions to the distribution system are planned. It is not anticipated that the project will produce an increase in the number of residential customers, however the storage tank will provide fire protection to the new Kingbrook Commerce Park that will then become a customer. Construction time for the total project is expected to take 6 to 8 months.

A hydraulic analysis was conducted on the water distribution system, as it would exist with the proposed improvements. The computations were based on 0.6 gallons per minute (gpm) demand per customer with an additional 5 gpm demand on dead-end lines. The fire protection flow to Kingbrook Commerce Park was modeled at 2300 gpm.



## **6. PROPOSED SYSTEM IMPROVEMENTS**

### **6.1 STORAGE**

The development of the new rest area and the Norfolk & Southern mixing facility have made it clear that industrial development is coming to Simpsonville. The Kingbrook Commerce Park project needs to have 276,000 gallons of storage for fire protection purposes. The existing Industrial Park has a requirement for 168,000 of storage for fire protection purposes. For this report it was determined that 560,000 gallons is approximately one day's storage requirements for domestic use.

Compounding the problem of raw number shortages of storage is the fact that hydraulically, the District operates as two systems. The reasons are two-fold: 1) gravity/pressure changes and 2) differences in disinfectant treatment which cause taste and quality problems when mixed. This results in a need for operating storage and fire reserve storage at each end of the District. The west end of the system is the worst case as 276,000 gallons is required for fire reserve and 250,000 gallons is needed for operating storage, yet only a 200,000 gallon tank exists.

In general, storage is necessary to maintain adequate and reliable service to the system's customers. The three major components of such service storage are:

#### **6.1.1 Operating Storage**

Operating Storage is the amount of storage that is hydraulically necessary to provide adequate water service during normal operating conditions. Since West Shelby Water District's total storage is 950,000 gallons and the approximate normal demand is 560,000 a day, the existing system is inadequate to meet current operating requirements of the distribution system. A total of 506,000 gallons is available after subtracting the fire reserve storage of 444,000 gallons.

#### **6.1.2 Fire Reserve Storage**

The fire reserve storage is exactly what it appears to be. It is the amount of water storage that is required to comply with the Insurance Services Office requirement for fire insurance.

To be considered available for fire protection, the distribution system must be capable of delivering 750-1500 gpm at a pressure greater than 20 pounds per square inch (psi). The present distribution system will not sustain such a flow demand at the necessary 20 psi residual pressure. This is due not only to the lack of sufficient storage capacity, but also to the size and configuration of the existing distribution pipe system.

## **WAB III - PRELIMINARY ENGINEERING REPORT**

The fire protection requirements for the Kingbrook Commerce Park are 2300 gpm for 2 hours. To provide this flow, the tank will be located off KY 1848 in the immediate vicinity of the Flea Market and be connected to the Kingbrook Commerce Park by a 16-inch water main. This flow requirement necessitates the storage of 276,000 gallons of fire reserve storage. In addition to this, there is also the fire protection at the Industrial Park on the east end of the District. The fire flow requirements for this area are 1400 gpm for 2 hours which means that their storage needs are 168,000 gallons. Technically, the District would only have to provide storage for the worst case scenario which would be the higher demands of the Kingbrook Commerce Park but there are some hydraulic complications that make this impossible. The distribution system acts as two separate systems hydraulically for these large industrial fire flows; therefore, the tank in Simpsonville cannot provide protection for the Industrial Park on the east end. This also means that the 750,000 gallon tank to the east cannot provide fire protection to the proposed Kingbrook Commerce Park.

It is proposed to construct a 750,000 gallon storage tank adjacent to the Flea Market on a site owned by the District. This would provide the system with 2.0 days of operating storage plus 276,000 gallons of fire protection at the west industrial area.

### **6.1.3 Emergency Reserve Storage.**

The amount of water required for emergency storage reserve is in a large measure dependent upon the reliability of the system itself. The actual reserve volume needed would be dependent upon the extent to which the various parts of the distribution may reasonably be expected to be out of service as a result of maintenance and repair work, an emergency, or some unusual condition. The Public Service Commission's administrative regulations states that "each utility shall provide water storage to insure a minimum of one day's supply of its average daily water." This arbitrary requirement appears to be based on emergency reserve considerations. The Insurance Services Office recommends an emergency reserve storage equaling from 2 to 5 times the maximum daily water consumption rate. As a rule, storage requirements of this magnitude are economically prohibitive for rural water systems. However, two factors will continue to drive requirements upward: 1) general societal expectations of decreased risk and 2) more "urban" expectations for this area of Shelby County as it develops.

## **6.2 SOURCE**

The current source of water for the West Shelby Water District is purchased water from the City of Shelbyville and the Louisville Water Company. Since the region within the boundaries of the West

## **WAB III - PRELIMINARY ENGINEERING REPORT**

Shelby Water District does not contain any large bodies of surface water, nor available quantities of groundwater, a reliable source of raw water would be rather difficult to develop. All of which, coupled with the construction and operation of a treatment plant, would make finishing their own water quite expensive. This project will not require a large or even substantial increase in the water purchased from these water sources. On the other hand, there will be some major improvements needed to the distribution lines and the pump station at this connection.

### **6.3 DISTRIBUTION SYSTEM**

The Louisville Water Company supplies potable water to West Shelby through a 12-inch line at the Jefferson County line. The water is currently pumped to Simpsonville via a 6-inch pipeline. West Shelby proposes to reconstruct the pump station immediately and upgrade the pumps. It is proposed to construct a 12-inch line from the county line to the existing 12-inch line at the Job Corps. This connection would create a 12-inch main straight from Louisville Water Company to the storage tank on the west end of West Shelby Water District and drastically reduce the pumping time for the distribution system.

The fire flow requirements in the industrial park area necessitate the construction of a 16-inch main. This large main is needed to obtain the required flows and maintain the required pressures for the fire suppression system. The main will be directly connected to the new Kingbrook Commerce Park and the proposed storage tank. The connection between the proposed storage tank and the existing system will be along Kentucky Highway 1848 (Veachdale Road). This area had no new customers at this present time, but one would expect this area to grow as industrial development takes place.

### **6.4 PRESSURE**

During average conditions, the existing distribution system maintains static pressures from about 35 psi at Simpsonville to over 100 psi in the lower part of the system. During withdrawals, of course, the system's dynamic pressures are somewhat less. Under normal operating condition such pressure drops are barely noticeable to the majority of the District's customers. The proposed changes (i.e. new elevated water storage tank, line upgrade, and pump upgrade) will not appreciably affect the system's static pressure. But, they are expected, however, to improve residual pressures during peak demands and drastically improve the fire flow pressures to the Industrial Park.

## **WAB III - PRELIMINARY ENGINEERING REPORT**

A 16-inch main is the smallest standard sized pipe that will allow the water district to support the sprinkler system at the Industrial Park. A 12-inch watermain would induce too much head loss at the required flow rates to meet or even come close to the required pressure. Therefore, in order to serve the Industrial Park with the 2300 gpm with 60 to 70 psi residual pressure the water district must construct a 16-inch watermain that is directly connected to the Kingbrook Commerce Park .

### **7. COST ESTIMATES**

An itemized estimate of the cost of the project outlined in the previous discussion is given below in Table 3: Project Cost. These costs are approximate only and are based on available information on the costs of similar 1997 projects.

**Table 5: PROJECT COST**

<u>ITEM</u>	<u>1997 COST</u>
<u>CONSTRUCTION COST</u>	
Elevated Tank (750 M)	\$ 650,000
Pump Station & Controls	75,000
New 16" Mains (4500 L.F. @ Veachdale Road)	175,000
Renovation of Mains to 12" (11,000 L.F. to Job Corps on U.S. HWY 60)	266,875
Restoration of Surfaces	<u>12,500</u>
	<b>\$ 1,179,375.00</b>
<u>PROJECT COST</u>	
Local Counsel	\$ 6,000
Bond Counsel	7,500
Planning & Administration	25,000
Engineering Design	93,100
Expert Services	8,500
Construction Inspection	52,000
Land & Right-of-Way	13,800
Interim Financing	35,300
Contingency ( 10% )	<u>117,900</u>
	<b>\$ 359,100.00</b>
<b>TOTAL PROJECT COST</b>	<b><u>\$1,538,475.00</u></b>

**8. ANNUAL OPERATING BUDGET**

**8.1 INCOME**

The existing rate schedule for the West Shelby Water District is shown in Table 1. The current rate schedule generated \$681,361 from the sale of water in 1998. Interest, dividend and non-operating income added \$44,793 to the total revenue for 1998. For 1999, the existing customers are expected to generate \$700,000 from the sale of water.

Total income for 1999 should be as follows:

**Table 6: INCOME**

Metered Sales of Water	\$700,000
Other Income	45,000
Total	<u>\$745,000</u>

**8.2 OPERATION & MAINTENANCE COSTS**

The 1998 year end records reflect various expenses for operation and maintenance of the system. From those numbers we can expect that in 1999, the system will have an operation & maintenance cost of more than \$400,000.

Those expenses suggests that the following expenditures will occur in 1999:

**Table 7: OPERATION & MAINTENANCE**

Purchased Water	\$260,000
Pumping	8,500
Transmission & Distribution	70,000
Administration & General	100,000
Total	<u>\$438,500</u>

**8.3 DEBT REPAYMENTS**

The current debt of the District is for \$1,314,000 in Farmer's Home Administration bonds and a note to the Louisville Water Company for \$198,803. The yearly interest charge amounts to \$74,204. The current depreciation and amortization expense amounts to \$92,942 for a total expected expense of \$605,646. This leaves some \$139,354 available as debt service. Added to this is the expected revenue ( less expenses) from the Kingbrook Commerce Park. The Public Service Commission and Rural

## **WAB III - PRELIMINARY ENGINEERING REPORT**

Development require a 1.2 coverage requirement for debt, therefore \$120,766 would be available to repay a loan.

### **9. CONCLUSIONS AND RECOMMENDATIONS**

West Shelby Water District must proceed immediately with the construction of the elevated tank and connecting lines outlined in this report. The renovation of lines and pump station between the Job Corps and the Jefferson County line must proceed at the same time to be able to supply water for the new tank. The District applied for and received a \$504,000 CDBG grant from the Office of Local Government through the City of Simpsonville. The owners of Kingbrook Commerce Park have agreed to contribute \$100,000 and the District proposes to contribute \$100,000. The remainder of the project costs should be borrowed from Rural Development.

**APPENDIX**

Item 1

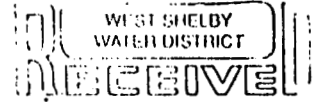


# BOLAND-MALONEY REALTY Co.

PHONE: 426-6121 • 4010 COLLINS LANE • ANCHORAGE, KENTUCKY 40245

RICHARD BOLAND  
PRESIDENT

GERALD J. BOLAND  
VICE PRESIDENT



May 27, 1997

MAY 28 1997

Wanda Clark  
West Shelby Water District  
P O Box 26  
Simpsonville, KY 40067

Dear Ms. Clark:

I have contacted my fire suppression contractor and he has outlined our hydraulic needs for the facilities we will have under construction in the immediate future at Kingbrook Commerce Park.

It is my understanding that you may not have these requirements available to the site at this time.

May this serve as notification of our immediate needs, with future needs even more extensive.

I am available to discuss these requirements with you at any time. You can reach me at 426-6121.

Thanks for your consideration of our needs.

Sincerely,

KINGBROOK COMMERCE PARK

James Boland  
Managing Partner

br

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450 DOWNES TERRACE  
LOUISVILLE, KENTUCKY 40214

November 3, 1997

Mr. Ray Larnce  
West Shelby Water District  
P.O. Box 26  
Simpsonville, KY 40067

**Re: Kingbrook Commerce Park- Required Water Storage Capacity**

Dear Sir:

We have reviewed the required water storage capacity for a 2 hr. minimum requirement to NFPA standards for the following categories:

- NFPA 13- Standard Sprinkler Systems
- NFPA 30- Flammable and Combustible Liquids
- NFPA 231- General Storage
- NFPA 231 C- Rack Storage
- NFPA 231 D- Storage of Rubber Tires
- NFPA 231 F- Storage of Roll Paper

The developer informs me that buildings to 28 ft. clear will be prevalent in the park, and that their own facilities will be in this category.

Their needs for wood and plastic storage to 25 ft. will be 276,000 gallon storage capacity, minimum for fire protection.

Other needs could be as much as 900,000 gallon storage. See tables enclosed.

We recommend that the minimum storage capacity for the park be 276,000 gallons to provide adequate fire protection.



Rubel Shields  
President

For Entire Service Area

P.S.C. No. 1

West Shelby Water District  
Name of Issuing Corporation

Ninth Revision Sheet No. 2

CANCELING P.S.C. Ky No. 1

Eighth Revision sheet No. 2

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## CLASSIFICATION OF SERVICE

Rate Per Unit

Applicable: Entire Area Served

Available: To all Customers served by the District

### RATES:

#### 5/8 Inch Meter

First 2,500 gallons per month, (minimum bill)	11.24 (I)
Next 7,500 gallons per month, per 1,000 gallons	3.90 (I)
Next 20,000 gallons per month, per 1,000 gallons	3.32 (I)
Next 200,000 gallons per month, per 1,000 gallons	2.85 (I)
Over 230,000 gallons per month, per 1,000 gallons	2.51 (I)

#### 3/4 Inch Meter

First 3,500 gallons per month, (minimum bill)	15.14 (I)
Next 6,500 gallons per month, per 1,000 gallons	3.90 (I)
Next 20,000 gallons per month, per 1,000 gallons	3.32 (I)
Next 200,000 gallons per month, per 1,000 gallons	2.85 (I)
Over 230,000 gallons per month, per 1,000 gallons	2.51 (I)

#### 1 Inch Meter

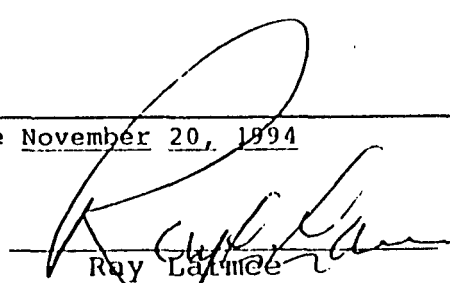
First 5,000 gallons per month, (minimum bill)	20.99 (I)
Next 5,000 gallons per month, per 1,000 gallons	3.90 (I)
Next 20,000 gallons per month, per 1,000 gallons	3.32 (I)
Next 200,000 gallons per month, per 1,000 gallons	2.85 (I)
Over 230,000 gallons per month, per 1,000 gallons	2.51 (I)

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Date of Issue November 20, 1994

Date Effective December 20, 1994

ISSUED BY



TITLE Chairman

Roy Latimer

Issued by authority of an Order of the Public Service Commission of  
Kentucky in Case No. \_\_\_\_\_ dated \_\_\_\_\_