COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:		RECEIVED
		JAN 3 0 2007
		PUBLIC SERVICE COMMISSION
APPLICATION BY LAKE VILLAGE)	001014
WATER ASSOCIATION, INC., FOR)	
A CERTIFICATE OF CONVENIENCE)	<u>APPLICATION</u>
AND NECESSITY FOR A U.S. DEPT.)	AND
OF AGRICULTURE FUNDED)	NOTICE OF
CONSTRUCTION PROJECT IN)	ADJUSTMENT OF RATES
MERCER COUNTY, KENTUCKY)	
AND)	CASE NO. <u>2007-0005</u>
)	·
NOTICE OF ADJUSTMENT OF RATES)	

Comes now the applicant, Lake Village Water Association, Inc., and, for its application and notice herein, would state as follows:

- A. That the Applicant is engaged as a public utility in supplying potable water to portions of Boyle and Mercer Counties, Kentucky.
 - B. That the post office address of the Applicant is P. O. Box 303, Burgin, Kentucky 40310.
- C. That the Applicant does hereby apply for a certificate of convenience and necessity for a construction project financed in part by a loan from the U.S. Department of Agriculture. The remaining funding comes from a grant from the Kentucky Infrastructure Authority and contribution by the Applicant.
- D. That the Applicant does hereby propose to adjust its rates, effective the 1st day of January, 2008, in conformity with the schedule attached as Lake Village Exhibit 1.

- E. That this application and notice are made pursuant to KRS 278.020(1), 807 KAR 5:.001, Section 8; KAR 5:069 and all other applicable law.
- F. That the Applicant is a non-profit, non-stock Kentucky corporation. The Applicant's articles of incorporation where heretofore filed with the Public Service Commission (PSC) in a prior proceeding; specifically "In the Matter of THE NOTICE BY LAKE VILLAGE WATER ASSOCIATION, INC. OF A TARIFF AMENDMENT ADJUSTING RATES etc." and identified by the Commission as Case No. 9290.
- G. That this application is submitted for a construction project to extend the Lake Village system along U.S. 68 to the Kentucky River, including the adjoining secondary roads to provide water to an unserved portion of the Lake Village service area. The construction is located entirely within Mercer County.
- H. The construction will impact the system by providing potable water service to customers
 in the only remaining unserved portion of the Association's service area and add an estimated 58 new users
 members to the system.
- I. Attached as Lake Village Exhibit 2 is the USDA "Letter of Conditions" issued for the project.
 - J. Attached as Lake Village Exhibit 3 is the USDA "letter of concurrence" in the bid award.
- K. Attached as combined Lake Village Exhibit 4 are sets [3] of the preliminary and final engineering reports.
- L. Attached as Lake Village Exhibit 5 is the certification required by 807 KAR 5:069, Section 1(5).

- M. That the construction project will require the rate increase set out in Lake Village Exhibit
- N. Attached as Lake Village Exhibit 6 is the notice required by 807 KAR 5:069, Section 2 as published in a newspaper of general circulation in the local service area.

WHEREFORE the Lake Village Water Association, Inc. respectfully requests that the Commission issue a certificate of convenience and necessity for this project funded in part by USDA and an order approving the increased rates.

Dated at Burgin, Kentucky, this 30 day of January, 2007.

TAYLOR & STEVENS ATTORNEYS FOR APPLICANT LAKE VILLAGE WATER ASSOCIATION, INC. 326 West Main Street P.O. Box 901

1.

Danville, Kentucky 40423-0901 Telephone: (606) 236-2167

Telephone. (000) 230-2107

WILLAM L STEVENS

LAKE VILLAGE WATER ASSOCIATION, INC.

DESIDENT

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Final Engineering Report Support Documents

Lake Village Water Association Rate Increase Comparison

Usage				
gailons	Current 2004 Rates	15% Increase in Cost	Cost Increase	Percentage Increase
0	\$19.39	\$22.30	\$2.91	15.00%
1,000	\$19.39	\$22.30	\$2.91	15.00%
2,000	\$19 <i>.</i> 39	\$22.30	\$2.91	15.00%
3,000	\$26.52	\$30.50	\$3.98	15.00%
4,000	\$33.65	\$38.70	\$5.05	15.00%
5,000	\$40.78	\$46.90	\$6.12	15.00%
6,000	\$47.91	\$55.1 0	\$7.19	15.00%
7,000	\$55.04	\$63.30	\$8.26	15.00%
8,000	\$62.17	\$71.50	\$9.33	15.00%
9,000	\$69.30	\$79.70	\$10.40	15.00%
10,000	\$76.43	\$87.89	\$11.46	15.00%
15,000	\$112.08	\$128.89	\$16.81	15.00%
20,000	\$147.73	\$169.89	\$22,16	15.00%
25,000	\$174.78	\$201.00	\$26.22	15.00%
30,000	\$201.83	\$232.10	\$30.27	15.00%
35,000	\$228.88	\$263.21	\$34.33	15.00%
40,000	\$255.93	\$294.32	\$38.39	15.00%
50,000	\$310.03	\$356.53	\$46.50	15.00%
100,000	\$580.53	\$667.61	\$87.08	15.00%
200,000	\$1,121.53	\$1,289.76	\$168.23	15.00%
300,000	\$1,662.53	\$1,911.91	\$249.38	15.00%
400,000	\$2,203.53	\$2,534.06	\$330.53	15.00%
500,000	\$2,744.53	\$3,156.21	\$411.68	15.00%

Comparison of Rates

	Current 2004	Rate increase
Block Usage	Rates	needed
First 1,000 gallons	 \$19.39	\$22.30
Next 2,000 gallons	 \$5.58	\$6.42
Next 2,000 gallons	\$5.08	\$5.84
Next 5,000 gallons	 \$4.62	\$5.31
Over 10,000 gallons	\$4.26	\$4.90

	Current 2004	Rate increase
COSS Block Usage	Rates	needed
First 2,000 gallons	\$19.39	\$22.30
Next 18,000 gallons	\$7.13	\$8.20
Over 20,000 gallons	\$5.41	\$6.22

Effect on Customer Average Bill - 5,000 Gallons Usage			
Current 2004 Rate increase Percentage			
Rates	needed	Cost Increase	Increase
\$40.78	\$46.90	\$6.12	15.00%



United States Department of Agriculture Rural Development Kentucky State Office

January 21, 2005

Mr. Danny Noel, President Lake Village Water Association, Inc. P.O. Box 303 Burgin, Kentucky 40310

Dear Mr. Noel:

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 \$885,000, a Tobacco Settlement grant of \$450,000, and an applicant contribution of \$20,000.

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

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

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

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

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

771 Corporate Drive • Suite 200 • Lexington, KY 40503
Phone: (859) 224-7300 • Fax: (859) 224-7425 • TDD: (859) 224-7422 • Web: http://www.rurdev.usda.gov/ky

1. Number of Users and Their Contribution:

There shall be 1,940 water users, of which 1,882 are existing users and 58 are new users. The Area Director will review and authenticate the number of users and amount of contribution prior to advertising for construction bids.

1b. <u>Drug-Free Work Place</u>:

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

2. Repayment Period:

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

3. Recommended Repayment Method:

Payments on this loan can be made using the Preauthorized Debit (PAD) payment method. This procedure eliminates the need for paper checks and ensures timely receipt of RD loan payments. To initiate PAD payments, Form SF 5510, "Authorization Agreement for Preauthorized Payments," should be signed by the Association to authorize the electronic withdrawal of funds from your designated bank account on the exact installment payment due date. The Area Director will furnish the necessary forms and further guidance on the PAD procedure.

4. Funded Depreciation Reserve Account:

The Association will be required to deposit \$410.00 per month into a "Funded Depreciation Reserve Account" until the account reaches \$49,200. The deposits are to be resumed any time the account falls below the \$49,200.

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

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

5. <u>Security Requirements</u>:

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

6. Land Rights and Real Property:

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

7. <u>Organization</u>:

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

8. <u>Business Operations</u>:

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

The operating expenses are above typical and the water loss was 28.57% on the December 31, 2003 PSC Annual Report, which exceeds the reasonable level of 15%. The management of the Association needs to address these situations and provide a written response concerning their corrective measures.

9. Accounts, Records and Audits:

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

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

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

11. Insurance and Bonding:

The following insurance and bonding will be required:

- A. Adequate Liability and Property Damage Insurance including vehicular coverage, if applicable, must be obtained and maintained by the Association. The Association should obtain amounts of coverage as recommended by its attorney, consulting engineer and/or insurance provider.
- B. Worker's Compensation The Association will carry worker's compensation insurance for employees in accordance with applicable state laws.

- C. Fidelity Bond The Association will provide Fidelity Bond Coverage for all persons who have access to funds. Coverage may be provided either for all individual positions or persons, or through "blanket" coverage providing protection for all appropriate employees and/or officials. The amount of coverage required for all RUS loans is \$230,000.
- D. Real Property Insurance The Association will obtain and maintain adequate fire and extended coverage on all structures including major items of equipment or machinery located in the structures. The amounts of coverage should be based on recommendations obtained by the Association from its attorney, consulting engineer and/or insurance provider. Subsurface lift stations do not have to be covered except for the value of electrical and pumping equipment therein.
- E. Flood Insurance The Association will obtain and maintain adequate coverage on any facilities located in special flood and mudslide prone areas.

12. 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 "21" of this letter. The engineer may then proceed to develop final plans and specifications to be completed no later than 210 days from this date, and prepare bid documents. The Area Director is prepared to furnish the necessary guide to follow so as to keep the project plans and documents within our guidelines and requirements. The project should not be advertised for construction bids until all easements and enforceable options have been obtained, and total funds are committed or available for the project.
- B. The following documents will be submitted to Rural Development for review and must be concurred in by Rural Development prior to advertisement for construction bids:
 - 1. Final plans, specifications and bid documents.
 - 2. Applicant's letter on efforts to encourage small business and minority owned business participation.
 - 3. Legal Service Agreements.
 - 4. Engineering Agreements.

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

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

The Association 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.

14. Closing Instructions:

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

15. Compliance with Special Laws and Regulations:

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

16. System Operator:

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

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

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

The Association 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.

18. Refinancing and Graduation Requirements:

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

19. Commercial Interim Financing:

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

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

20. Disbursement of Project Funds:

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

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

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

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

21. Cost of Facility:

Breakdown of Costs:

Development	\$ 1,023,100
Land and Rights	9,000
Legal and Administrative	34,600
Engineering	188,300
Contingencies	100,000
TOTAL	\$ 1,355,000
Financing:	
RUS Loan	\$ 885,000
Tobacco Settlement Grant	450,000
Applicant Contribution	20,000
TOTAL	\$ 1,355,000

22. <u>Debt Collection Improvement Act (DCIA) of 1996</u>:

The Debt Collection Improvement Act (DCIA) of 1996 requires that <u>all</u> federal payments after January 1, 1999, must be made by Electronic Funds Transfer/Automated Clearinghouse (EFT/ACH). Borrowers receiving payments by EFT will have funds directly deposited to a specified account at a financial institution with funds being available to the recipient on the date of payment. The borrower should complete Form SF-3881, "Electronic Funds Transfer Payment Enrollment Form," for each account where funds will be electronically received. The completed form(s) must be received by Rural Development at least thirty (30) days prior to the first advance of funds.

23. Use of Remaining Project Funds:

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

24. Rates and Charges:

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

Water rates will be at least:

First	2,000	gallons @ \$	22.30 - Minimum Bill.
Next	18,000	gallons @ \$	8.20 - per 1,000 gallons.
All Over	20,000	gallons @ \$	6.22 - per 1,000 gallons.

Wholesale rate to North Point Training Center \$1.85 - per 1,000 gallons.

25. Water Purchase Contract:

The Association 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.

26. Commitment of Tobacco Settlement Grant Funds:

This Letter of Conditions is issued contingent upon a firm commitment being in effect prior to advertising for construction bids for the Tobacco Settlement grant in the amount of \$450,000.

27. Floodplain Construction:

The Association will be required to pass and adopt a Resolution or amend its By-Laws whereby the Association will deny any water service to any future customer wishing to build on or develop property located within a designated floodplain. If a customer or developer requests service for construction in a designated floodplain, the customer or developer must provide evidence and a justification for approval by the Association and Rural Development officials that there are no other alternatives to construction or development within the designated floodplain. The community must be a participant in the National Flood Insurance Program (NFIP) and the customer or developer must obtain the required permits prior to the tap on restrictions being waived.

28. <u>Mitigation Measures</u>:

- A. The project shall be in compliance with all requirements noted in the Kentucky Department for Local Government letter dated June 22, 2004, from Mr. Ronald A. Cook, Manager.
- B. The design and construction shall be in compliance with the requirements of the U.S. Fish and Wildlife Service as requested by letter dated October 18, 2004, and signed by Virgil Lee Andrews, Jr., Field Supervisor.
- C. The line design and construction shall be accomplished in a way that will leave flood plains and farmland without affect after construction is complete. The Army Corps of Engineers Nationwide Permit No. 12 applies to all floodplain and wetland utility line construction.
- D. The design and construction shall be in compliance with all local, state and federal environmental statutes, regulations and executive orders applicable to the project.

29. Final Approval Conditions:

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

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

Sincerely,

KENNETH SLONE

State Director

Enclosures

cc: Area Director - Shelbyville, Kentucky

Rural Development Manager - Nicholasville, Kentucky

Bluegrass ADD - Lexington, Kentucky

William L. Stevens - Danville, Kentucky

Strand Associates - Louisville, Kentucky

PSC - ATTN: Bob Amato - Frankfort, Kentucky



United States Department of Agriculture Rural Development Kentucky State Office

January 26, 2007

SUBJECT:

Lake Village Water Association

Contract 12-2006 Water Main Extension

Contract Award Concurrence

10:

Area Director

Shelbyville, Kentucky

Based on the bids received and the recommendation of the consulting engineer, Rural Development concurs in the award of subject contract to the low bidder, H and M Pipeline, in the amount of \$908,630.04.

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

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Rural Development

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Struck Tile.

Lexington, Kentucky

Hill Stovens

Taylor and Stevens

771 Corporate Drive • Sulfe 200 • Lewington, KY 40505 Fraces (849) 224-7300 • Fax: (858) 224-7425 •) DD, (859) 224-7422 • Web Intervieww.nurdeoleadii goviky

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*USDA is an equal appointmenty provider, employer and ronder *
In file a CND stant of areal american we is USDA, Director, Oliver of Civil Rights, Room \$264W. Wanton Building, 14* and findependence Avenue, SW, Washington, ISC 20250-9410 or call (202) 720-5944 (voice or TDD).

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

JAN 3 0 2007

PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION BY LAKE VILLAGE)	
WATER ASSOCIATION, INC., FOR)	
A CERTIFICATE OF CONVENIENCE)	
AND NECESSITY FOR A U.S. DEPT.)	7007 000 5
OF AGRICULTURE FUNDED)	CASE NO. 2007-000 5
CONSTRUCTION PROJECT IN)	·
MERCER COUNTY)	
)	
AND)	
)	
NOTICE OF ADJUSTMENT OF RATES)	

CERTIFIED STATEMENT OF UTILITY OFFICIAL

This is submitted in support of the application of Lake Village in the above styled matter to certify the following:

- 1. That the undersigned is the President of the Lake Village Water Association, Inc. and these certifications are submitted information and believe following due investigation and review.
- 2. That the proposed plans and specifications for the project have been designed to meet the minimum construction and operating requirements established 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.
 - 3. That all other state approvals and/or permits have been obtained.

- 4. That the rates proposed in the attached Exhibit 1 of the Association will produce the total revenue requirements as set out in the engineering reports.
- 5. That construction is scheduled to begin February 1 2007, and scheduled to be completed within six months.
- 6. That notice meeting the requirements of 807 KAR 5:069, Section 2, has been given; see attached Exhibit 6.

CERTIFIED this 30 day of January, 2007.

DANNY NOEL, President,

Lake Village Water Association, Inc.

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NOTICE

TO THE MEMBERS OF THE

LAKE VILLAGE WATER ASSOCIATION, INC.

The members of the Lake Village Water Association, Inc., are given notice that the Association will file an application with the Public Service Commission of the Commonwealth of Kentucky for a certificate of convenience and necessity for a construction project funded in part by a loan from the U.S. Department of Agriculture. MEMBERS ARE ALSO GIVEN NOTICE THAT THIS PROJECT WILL RESULT IN AN INCREASE IN THE RATES TO BE CHARGED TO MEMBERS AS SET OUT BELOW.

The project consists of the installation of water line in Mercer County, Kentucky, along U.S. 68 to the Mercer – Jessamine County line, with connector lines along A.T. Dean Road, Canaan Land Road, Coghill Lane, Shakers Landing Road, and Palisades Road. These extensions will serve an estimated 58 new customers in Mercer County. The estimate cost of the project is \$1,355,000.00. Funding for the project is by means of a \$885,000.00 RD loan, a grant of \$450,000.00 from the Kentucky Coal/Tobacco Development Fund, and \$20,000.00 in direct contribution from the Association from connection fees.

The existing and proposed rates are as follows:

	Current 2004	Rate increase
Block Usage	Rates	needed
First 1,000 gallons	\$19.39	\$22.30
Next 2,000 gallons	\$5.58	\$6.42
Next 2,000 gallons	\$5.08	\$5.84
Next 5,000 gallons	\$4.62	\$5.31
Over 10,000	\$4.26	\$4.90

DANNY NOEL, PRESIDENT

LAKE VILLAGE WATER ASSOCIATION, INC.

LEGAL NOTICE

TO THE MEMBERS OF THE LAKE VILLAGE ASSOCIATION. INC.

THE MEMBERS OF THE LAKE VILLAGE WATER ASSOCIATION, INC., ARE GIVEN NOTICE THAT THE ASSOCIATION WILL FILE AN APPLICATION WITH THE PUBLIC SERVICE COMMISSION OF THE COMMONWEALTH OF KENTUCKY FOR A CERTIFICATE OF CONVENIENCE AND NECESSITY FOR A CONSTRUCTION PROJECT FUNDED IN PART BY A LOAN FROM THE U.S. DEPARTMENT OF AGRICULTURE. MEMBERS ARE ALSO GIVEN NOTICE THAT THIS PROJECT WILL RESULT IN AN INCREASE IN THE RATES TO BE CHARGED TO MEMBERS AS SET OUT BELOW.

THE PROJECT CONSISTS OF THE INSTALLATION OF WATER LINE IN MERCER COUNTY, KENTUCKY, ALONG U.S. 68 TO THE MERCER - JESSAMINE COUNTY LINE, WITH CONNECTOR LINES ALONG A.T. DEAN ROAD, CANAAN LAND ROAD, COGHILL LANE, SHAKERS LANDING ROAD, AND PALISADES ROAD. THESE EXTENSIONS WILL SERVE AN ESTIMATED 58 NEW CUSTOMERS IN MERCER COUNTY. THE ESTIMATE COST OF THE PROJECT IS \$1,355,000.00. FUNDING FOR THE PROJECT IS BY MEANS OF A \$885,000 RD LOAN, A GRANT OF \$450,000.00 FROM THE KENTUCKY COAL/TOBACCO DEVELOPMENT FUND, AND \$20,000.00 IN DIRECT CONTRIBUTION FROM THE ASSOCIATION FROM CONNECTION FEES.

THE EXISTING AND PROPOSED RATES ARE AS FOLLOWS:

Block Usage	Current 2004 Rates	Rate Increase Needed
FIRST 1,000 GALLONS	\$19.39	\$22.30
NEXT 2,000 GALLONS	\$5.58	\$6. <i>4</i> 2
NEXT 2,000 GALLONS	\$5.08	\$5.84
NEXT 5,000 GALLONS	\$4.62	\$5.31
OVER 10,000	\$4.26	\$4.90

DANNY NOEL, PRESIDENT LAKE VILLAGE WATER ASSOCIATION, INC.

2 COM 045 E. E.

AFFIDAVIT

The affiant, Michael G. Elliott, states that he is the Advertising Director for the Advocate

Messenger and The Kentucky Advocate, newspapers of general circulation published in Danville,

Boyle County, Kentucky.

He further states that an advertisement of <u>Xa</u>	he Village Water
Construction project	
γ σ	amounting to 97. 20
was published in <u>The Advola</u>	to Messeager
on 1/29/07	
	Michael G. Elliott
	Advertising Director
Subscribed and sworn before me this 29 d	ay of
	Betty Smith
•	Notary Public State-at-Large
	Kentucky
My Commission expires 9-28-08	

Case No. 2007-00051 RECEIVED JAN 3 0 2007 PUBLIC SERVICE COMMISSION

Report

Final Engineering Report

Lake Village Water Association, KY

January 2007 (Revised 1/25/07)

Report for

Lake Village Water Association, Kentucky

Final Engineering Report



Prepared by:

STRAND ASSOCIATES, INC.® 1525 Bull Lea Road, Suite 100 Lexington, KY 40511 www.strand.com

January 2007 (Revised January 25, 2007)



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2.01-1 2.01-2 2.01-3 3.01-1 3.01-2	Budget Review Project Funding Service Tap History and Projections Summary of Operating Budget Analysis per 2004 Rates Summary Comparison of Operating Budgets	1-1 1-2 1-2 1-3 1-4	



1.01 PURPOSE OF THE REPORT

This report updates the Preliminary Engineering Report dated March 2004, of the proposed water main extension project Contract 12 for Lake Village Water Association (LVWA).

2.01 FINANCIAL

A. Construction and Project Costs

Construction and project cost estimates based on the bids dated December 18, 2006, are presented in Table 2.01-1. The construction bid, excluding meters, is \$908,630. The total project cost is approximately \$1,355,000.

	Cost Classification	Budget Per Preliminary Engineering Report and Rural Development Letter of Conditions	Budget per December 2006 Project Status
	Cost Classification	Letter of Conditions	Project Status
		•	
1.	Administrative Expenses (1)	\$29,600.00	\$29,600.00
2.	Legal Expenses Land, Appraisals,	5,000.00	10,000.00
3.	Easements, Right-of-Ways Relocation Expense and	9,000.00	9,000.00
4.	Payments Planning (Preliminary and	-	-
5.	Additional Services) Engineering Fees - Design	30,000.00	68,500.00
6.	and Bid Engineering Fees -	75,568.00	75,568.00
7.	Construction Engineering Fees -	18,972.00	17,892.00
8.	Observation	63,760.00	58,900.00
9.	Construction	1,023,100.00	908,630.04
10.	Equipment	-	-
11.	Contingency	100,000.00	176,909.96
12.	Other	_	-
	Total	\$1,355,000.00	\$1,355,000.00
Table	2.01-1 Budget Review		

B. Project Budget

A summary of the project funding is presented in Table 2.01-2. Funding is comprised of a loan (Rural Development - \$885,000), a grant (Kentucky Coal/Tobacco - \$450,000), and connection fees (\$20.000).

	Sources of Funds	Amount
1.	RD Loan	\$ 885,000.00
2.	KY Coal/Tobacco Development	450,000.00
3.	Local Connection Fees	20,000.00
	Total	\$1,355,000.00

C. Rate Analysis

LVWA served 1,932 customers in March 2004. Currently (January 7, 2007), LVWA serves 2,110 customers. Records indicate that a significant number of new taps occurred in 2004. See Table 2.01-3. The expected annual income, based on existing rates and recent billing data provided by LVWA, is presented in the Appendix of supporting documents. The average monthly bill for residential customers is \$30.09 based on usage of 3,500 gallons. With the projections of revenues, operation costs, and the debt retirement schedule, the operating budgets were computed for the years 2003 through 2008 and 2012. See Appendix A.

Year	Recorded New Taps	Total Customers
1999	27	1,662
2000	43	1,705
2001	39	1,744
2002	66	1,810
2003	72	1,882
2004	159	2,041
2005	44	2,085
2006	25	2,110
Year	Projected New Taps	Projected Customers
2007	0	2,110
2008	58	2,168
2009	0	2,168
2010	0	2,168
2011	0	2,168
2012	0	2,168
Table 2.01-3	Service Tap History and Pr	ojections

3.01 SUMMARY AND CONCLUSIONS

The Contract 12 Water Main Extension Project expands the existing LVWA public water supply system to reach the eastern boundary of Mercer County. This extension will make service available to 58 new customers in Mercer County currently lacking a potable water supply.

The 2003 through 2008 and 2012 Proposed Operating Budgets for the Existing System and the Contract 12 extension are presented in the Appendix and summarized in Table 3.01-1. The projected deficit for the entire system in 2008 (first year of operation after improvement) is approximately -\$8,000. At the fifth year of operation after the project is complete, 2012, the operating budget is projected to have an approximate deficit of \$96,000. Based upon these projections, a rate increase noted in the Summary Addendum will be needed. The 15 % rate increase is compared in Table 3.01-2 for the first and fifth year of operation. The 15 % rate increase provides a surplus for the operation.

	2003	2004	2005	2006	2007	2008	2012
Operating Income	\$740,149	\$886,563	\$954,592	\$966,384	\$973,533	\$993,296	\$993,296
Operation and Maintenance							
Expense	666,946	601,221	664,883	684,829	705,374	726,536	817,716
Net Income	76,936	285,342	290,260	281,555	268,159	266,760	175,580
Debt Repayment Balance for Coverage and Depreciation Prior to	210,180	210,180	210,959	210,180	210,180	229,325	226,087
20% Coverage Deduction	(133,244)	75,162	79,301	71,375	57,979	37,435	(50,507)
Surplus (Deficit)	(\$175,280)	\$33,126	\$37,109	\$29,339	\$15,943	(\$8,430)	(\$95,724)

Note: Data for 2003 through 2005 based on audit reports.

Table 3.01-1 Summary of Operating Budget Analysis per 2004 Rates

,	2008	2008	2012	2012
	2004 Rates	15% Increase	2004 Rates	15% Increase
Operating Income Operation and Maintenance	\$993,296	\$1,092,915	\$993,296	\$1,092,915
Expense	726,536	726,536	817,716	817,716
Net Income	266,760	409,315	175,580	318,134
Debt Repayment Balance for Coverage and Depreciation prior	229,325	229,325	226,087	226,087
to 20% Coverage deduction	37,435	179,990	(50,507)	92,047
Surplus (Deficit)	(\$8,430)	\$134,125	(\$95,724)	\$46,830

Table 3.01-2 Summary Comparison of Operating Budgets

New Taps and Customer Records

Year	Recorded New Taps	Total Customers
1999	27	1,662
2000	43	1,705
2001	39	1,744
2002	66	1,810
2003	72	1,882
2004	159	2,041
2005	44	2,085
2006	25	2,110
	Projected New	Projected
Year	Taps	Customers
2007	0	2,110
2008	58	2,168
2009	0	2,168
2010	. 0	2,168
1	i .	
2011	0	2,168

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Anticipated Billing based on 2003-04 monthly averages supplemented with '04 '05 Audit Data

	2	
	Adjusted 2005 LVWA Monthly BLIND Amonthly BLIND Amonthly BLIND Amonthly BLIND Amonthly BLIND Amonthly BLIND Amonthly S4,634,21 S7,606,21 S9,425,07	
	Avg. Monthly Anticipated Usage with new customers in Galloms Calloms Calloms Calloms This Garage This Ga	
	Total Customers with new services added 177 2250 239 239 239 239 240 30 30 30 30 30 30 40 40 40 40 40 40 40 40 40 40 40 40 40	
Distribution of the	balance of the 2004 new customers plus half of th 44 new users in 2005 per previous consumption 0 0 0 0 0 0 0 0 16 18 19 19 19 19 10 0 0 0 0 0 0 0 0 0 0 0 0	
	LVWA Monthly Billing for Ex. & New Customers 2004 \$3.422.03 \$4.634.21 \$5.742.03 \$5.764.00 \$5.764.00 \$5.769.00 \$1.842.20 \$1.842.20 \$1.842.20 \$1.842.20 \$1.842.20 \$1.842.20 \$1.842.20 \$1.842.20 \$1.842.20 \$1.842.20 \$1.842.20 \$1.842.20 \$1.842.20 \$1.842.20 \$1.862	
	Avg. Mortthly Anticipated Usage with new customers in Gallons 0 373.462 373.462 373.462 478.662 438.327 438.327 438.327 438.327 438.663 66.6665 81.964	
	Total Customers with new with new with new services added 177 177 239 239 289 289 289 26 289 26 28 25 25 25 25 25 25 25 25 25 25 25 25 25	
	Distribution of 55 new users in 2004 per Consumption Breakdown Breakdown 10 10 10 10 0 0 0 0 0 0 0 0 0 0 0 0 0	
	Existing for Existing for Existing Customers at 2004 rates \$2,276.91 \$3,276.91 \$5,440.31 \$5,440.	
	2004 LVWA LV Monthly Billing Rate for Average Consumption per 2003 Customer \$19.39 \$19.39 \$25.35 \$19.39 \$25.30 \$10.39 \$25.30 \$10.39 \$25.30 \$10.39 \$10	
	Usage per Average Customer in Gallons of Gal	
	2003 Customers 169 223 273 273 273 275 275 275 275 276 28 58 58 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
	Usage in Gallons C 0 12, 809 357, 806 625,046 625,046 625,046 625,046 625,047 639 637, 806 625,091 635,691 635	

\$911,560.58 Adjusted to match 2005 \$71,160.95 Anticipated increased revenue to update for 2007 is \$840,399.63 Adjusted to match 2004 \$822,843.50 \$17,556.12 Base for 2003 Anticipated increased revenue to update for 2006 is Yearly Average at 2004 rates

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Anticipated Billing based on 2003-04 monthly averages supplemented with '04 '05 Audit Data

thily K. &	77.76 (4.45	31.16	57.38	37.50	\$6,117.08	34.716	88.15	37 10	28.01	\$890.38	15.16	\$610.05	\$353.61	01.90	\$525.91	\$2377.03 64 FE4 60	58.10	\$1,567.93	,549.84			\$930,598.04	- Andrews
2007 Projected LVWA Monthly Billing for Ex. & No New Customers	\$3,567.7 \$4,944.4	\$4,731.1	\$9,257.3	\$7,787.5	0.711.08	\$9,281.1	\$2,288.1	\$1,045	\$1,028	\$8	\$515	\$610.0	\$3	\$401.9	\$5	52,577	0.100,10 641.15	\$1.5	\$77,5			\$930,	1477.477.477.477.477.477.477.477.477.477
Avg. Monthly Anticipated Usage with new customers in Gallons	0 128/353	381,275	1,078,924	966,305	772.316	259,245 424,216	298,615	176,460	136,267	118,403	98,655	81,964	8.2. Q6.000 m	54,209	70,882	337,136	235,691	238,673	8,588,013			for 2007	
Total Customers with new services added	184	244	305	175		74	31	20	0	6	9	5	4	C	4	14	7	7	2.110			Projection for 2007	7.6
Distribution of 2006 balance and no new users in 2007 per previous consumption Exercises	2 0	0	-	-		-	1			0	0			0	0	.0	NATION CO.	0.0	12			~	\$7,148.97
Projected LVWA Monthly Biling for	\$3,528.98	\$4,731.16	\$7,146.90	59 535 15	\$6,065.68	\$4,308.02	\$2,214.34	\$1,563.66	\$1,247.96	10.020 (A	\$51516	\$610.05	\$502.05	\$353.61	\$525,91	\$2,377/33	\$1,551.80	\$1,158,19	01,301,30 01,301,30	0:100:00		\$923,449.08	Anticipated increased revenue to update for 2007 is
Avg. Monthly Anticipated Usage with new customers in	Gallons 0	381,275	1 075.386	1,153,857	960,783	MAKE.	288 982		100	136,267	118,403	81,964	67,538	47,436	70.882	5 136 25 5 136 25 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	235,691	111184,855	238,673	8,517,092		1 for 2006	increased revent
Total Customers with new services	added 182	244	305	255	174	50000	90	90.	14	113	6	5	7	3	THE SECOND	TELEPINA T		4	7	2,098		Projection for 2006	Anticipated
Distribution of balance of 2005 users and half of 25 new users in 2006 per previous consumption	Bre	5	9	£	3	10000000000000000000000000000000000000		0	0	\$11028/01	0	0	0		0					35		m	4
Projected 2005 LVWA Monthly Billing at 2004	rates \$3,432.03	\$4,847,50	\$7,006.21	\$9,075.20	\$7,609.50	\$4,249.01	43,215154	\$2,214.34	\$1,247.96	\$1,028,01	a i	\$51516	0106	\$353.61	\$401	\$525	24,077,030	\$1115	\$1,56	\$75,963.3		\$911,560.63	\$11,888.44
2004 LVWA Monthly Billing Rate for Average Consumption per	2005 Customer \$19.39			7 \$30,35 E \$37,89		\$59.01		\$73.81			\$98.93	\$103.03	\$122.01			20000	\$169.81			110000000000000000000000000000000000000	Base	adjustment for 2005	late for 2006 is
Usage per Average	Gallons	503	1,563	3,53	5,52	7.557		9,633	10,923	SOUTH THE STATE OF	13,156			15,884,885	18,070	17,721	24,081	33,670	34,096				Anticipated increased revenue to update for 2006 is
2005			239	- 3	-	116			6	200		200		4				7	7	36 2,063		Yearly Average at	ted increase
	Gallons	125,836	373,462	1,057,699	944,218	752,846	415,732	288,982	205,637	104,430	118 403	68,655	81,964	67,536	47,430	70,882	337,136	235,691	238 673	8,422,996		Yearly Ave	Anticipa

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Anticipated Billing based on 2003-04 monthly averages supplemented with '04 '05 Audit Data

		-15%								12.	·	 ,	200	~	700		·~	==	-		77.1	<u>~ i:</u>	ON A	o Tr	 1
Projected 2012 LVWA Monthly Billing	\$3,722.88	\$4,886,28	\$7,381,12	\$9,621.60	. 59,722.11	\$7,965.50	\$6,271.30	\$4,426.05	\$3,346.78	\$2,288.15	\$1,645.96	\$1,337.10	\$1,028.01	\$890.38	\$515.16	\$610.05	\$502.05	\$353.61	\$401.90	\$525.91	\$2,377,33	\$1,551.80	\$1,158,19	A. /00,10	\$79,196.74
Avg. Monthly Anticipated Usage with new customers in Gallons	0	393.776	808,579	1,121,373	1,176,482	988,392	791,786	566,802	432,700	298,615	216,460	176,739	136,267	118,403	88,655	81,964	67,536	47,436	54,209	70,882	337/136	235,691	184,855	238,073	8,747,349
Total Customers with new services added	192	252	315	317	260	179	122	75	5	31	20	15		6	9	5	4.5	တ	e S	4	14	7	*	,	2,168
No new customers projected plus balance of 2008 users to 2012 per previous consumption Breakdown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0
Projected 2008 LVWA Monthly Billing	\$3,722.88	\$5,099.57	\$7.381.12	\$9,621,60	59722 11	\$7,965.50	\$6.271.30	\$4,426.05	\$3,346,78	\$2,288.15	\$1,645,96	\$1,337.10	\$1,028,01	\$890.38	821218	\$610,05	\$502.05	\$353.61	\$401.90	\$525.91	\$2,377,33	\$1,551.80	\$1.158.19	\$1,567.93	\$79,196.74
Avg. Monthly Anticipated Usage with new customers in Gallons	0	133 937 rt	F 808,579	1,121,373	1.176.482	988,392	791,786	566,802	432,700	298,615	216,460	176,739	136.267	118,403	68.655	81,964	57,536	47,436	54,209	70,882	337,136	235,691	184,855	238,673	8,747,349
Total Customers with new services	192	263	345	317	260	179	122	75	51	31	20	15	14	6	9.0	22	4	တ	0	4	14.	7	4	7	2,168
Distribution of 58 new users with CT12 and no new customers in 2008 per previous consumption Breakfown		. 8		SOLETE STATE OF THE STATE OF TH	4	4	3	-		0	0	0	0	0		0	0,	0	. 0	0	0	0	0	0	58
LVWA Monthly Billing for Existing Customers at		\$4,944,45			S			State and a second				NATIONAL PROPERTY.			\$51516	\$610.05	\$502,05	\$353.61	\$401.90	A STATE OF THE PARTY OF THE PAR	\$2,977,33		\$1,158,19		\$77,549.84
2004 LVWA Monthly Billing Rate for Average Consumption projected 2007 Customer	\$19.39	\$19.30	\$18.38	\$30.35	\$37.39	\$44.50	\$51.40	\$59.01	465.62	\$73.81	\$82.30	\$89.14	593.48	\$98.93	\$103.03	\$122.01	\$125.51	\$117,87	\$133.97	\$131.48	\$169.81	\$221.69	\$289.55	\$223.99	
Usage per Average Customer in	0	5.5509	1,563	3.537	4.525	5,522	6.490	7.557	PAPE	9 633	10.823	11.783	886-C1-3-38	13,156	12 TO 17 STEEL	16,393	16.884	15.812	3.8070	17.721	24.081	33.670	46,214	34,096	
Projected 2007 without 58				305				200		31		2		6	2.12	5	7.1	3		4	14	7	7	7	2,110
Usage in	0	129,863	381,275	1.078.924	1.158.382	966.305	770.816	559 245	20000	208 615	216.460	176.739	196 257	118.403	68 655	81.964	67,516	47 436	buc Ta	70.882	937-136	235.691	184,855	238,673	8 589 524

\$950,360.83	
Projection for 2012	\$0.00
\$950,360.83	to update for 2007 is
Projected for 2008	Anticipated increased revenue to update for 2007 is
\$930,598.10	\$19,762.73
Projected for 2007	sed revenue to update for 2006 Is
Yearly Average at 2004 rates	Anticipated Increase

PAST OPERATING BUDGET	01/01/03 through 12/31/03
(As of 2003 full operating year)	Ono noo anough 120 noo
A. Operating Income: With 2003 Rates	
Water Sales recorded use at 2003 rates	\$704,655 \$0
Suchage Fee Other (Lease Income and Miscellaneous Revenue)	\$35,494
Less Allowances and Deductions	<u>\$0</u>
Total Operating Income	\$740,149
B. Operation and Maintenance Expenses: (Based on Uniform System of Accounts prescribed by National Association of Regulatory Utility Commissioners)	
Potable Water System Expenses, includes treatment & distribution	(\$316,914) \$0
Customer Accounts Expense Administrative and General Expense - potable water system	(\$350,032)
Total Operating Expenses	(\$666,946)
Net Operating Income	\$73,203
C Non-Operating Income:	
Interest on Deposits Other (Nonutility Income)	\$0 \$3,733
Total Non-Operating Income	\$3,733
D Net Income	<u>\$76,936</u>
E. Debt Repayment:	
Revenue Bond Interest	\$0
Revenue Bond Principal RD Interest	\$0 (\$109,964)
RD Principal	(\$100,216)
Total Debt Repayment	(\$210,180)
F. Balance Available for Coverage and Depreciation	(\$133,244)
G Required Coverage @ 20%	(\$42,036)
H Surplus (Deficit)	(\$175,280)
I. Conclusion: Operation was negative and the 2004 rate increase justified.	

	_		
OPERATING BUDGET (2004 Year Of Operation	<u>r</u> on prior to new improvements)	Year Ending	12/31/2004
A. Operating Income:	With 2004 Rates		
Water Sales record	led use per audit at 2004 rates		\$840,394
Surcharge Fee			\$0
Other (Lease Incom	ne and Miscellaneous Revenue)	space-over	\$46,169
Less Allo	owances and Deductions	***************************************	\$0
Total Operating Inco	ome		\$886,563
	tenance Expenses: System of Accounts prescribed by on of Regulatory Utility Commissioners	s)	
Potable Water Syste	em Expenses, including treatment & di	stribution	(\$286,906)
Customer Accounts		**************************************	\$0
Administrative and C	General Expense - potable water syste		
	ing fees associated with design of r	new	(4-1-1-1-1-1
improvements		w	(\$314,315)
Total Operating Exp	enses	<u> </u>	(\$601,221)
Net Operating Incon	ne		\$285,342
C Non-Operating Inco	me:		
Interest on Deposits			\$0
Other (Describe)	,		\$0
- ,,,,, (= +-+,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			-
Total Non-Operating	g Income	*******	\$0
D Net Income			\$285,342
E. Debt Repayment:			
Revenue Bond Inte	rest		\$0
Revenue Bond Prin			\$0
RD Interest	4.P		(\$135,560)
RD Principal			(\$74,620)
Total Debt Repaym	ent	<u>.</u>	(\$210,180)
, -			
F. Balance Available for and Depreciation	or Coverage		\$75,162
G Required Coverage	@ 20%		(\$42,036)
H Surplus (Deficit)			\$33,126
I. Conclusion Operat	ion is positive.		

PAST OPERATING BUDGET	
(As of 2005 full operating year)	01/01/05 through 12/31/05
A. Operating Income: With 2004 Rates	
Water Sales reported in 2005	\$911,657
Suchage Fee Other (Lease Income and Miscellaneous Revenue)	\$0 \$42,935
Less Allowances and Deductions	<u> </u>
Total Operating Income	\$954,592
B. Operation and Maintenance Expenses: (Based on Uniform System of Accounts prescribed by National Association of Regulatory Utility Commissioners)	
Potable Water System Expenses, includes treatment & distribution Customer Accounts Expense	(\$325,110) \$0
Administrative and General Expense - potable water system	(\$339,773)
Total Operating Expenses	. (\$664,883)
Net Operating Income	\$289,709
C Non-Operating Income:	
Interest on Deposits Other (Nonutility Income)	\$0 \$551
Total Non-Operating Income	\$551
D Net Income	\$290,260
E. Debt Repayment:	
Revenue Bond Interest Revenue Bond Principal	\$0 \$0
RD Interest	(\$130,220)
RD Principal	(\$80,739)
Total Debt Repayment	(\$210,959)
F. Balance Available for Coverage and Depreciation	\$79,301
G Required Coverage @ 20%	(\$42,192)
H Surplus (Deficit)	\$37,109
I. Conclusion: Operation analysis indicates surplus with 2004 rate increase	•

PROJECTED OPERATING BUDGET (2006 Year Of Operation prior to new improvements)	Year Ending	12/31/2006
A. Operating Income: With 2004 Rates		
Water Sales projected use to 2006 Surcharge Fee Other (Lease Income and Miscellaneous Revenue)		\$923,449 \$0 \$42,935
Less Allowances and Deductions		\$0
Total Operating Income		\$966,384
B. Operation and Maintenance Expenses; (Based on Uniform System of Accounts prescribed by National Association of Regulatory Utility Commissioners)		
Potable Water System Expenses, including treatment & distrib Customer Accounts Expense	oution	(\$334,863) \$0
Administrative and General Expense - potable water system		(\$349,966)
Total Operating Expenses		(\$684,829)
Net Operating Income		\$281,555
C Non-Operating Income:		
Interest on Deposits Other (Describe)		\$0 \$0
Total Non-Operating Income	******	\$0
D Net Income		\$281,555
E. Debt Repayment:		
Revenue Bond Interest Revenue Bond Principal RD Interest RD Principal		\$0 \$0 (\$126,711) (\$83,469)
Total Debt Repayment		(\$210,180)
F. Balance Available for Coverage and Depreciation		\$71,375
G Required Coverage @ 20% per 2005 audit	parameter ((\$42,036)
H Surplus (Deficit)	-	\$29,339
I. Conclusion: Operation is positive.		

PROJECTED OPERAT (Projected 2007 Year C	<u>FING BUDGET</u> Of Operation prior to new improvements)	Year Ending	12/31/2007
A. Operating Income:	With 2004 Rates		
	ted use to 2007 assuming no new dent of CT12-2006 and at 2004 rates		\$930,598 \$0
Other (Lease Incom	e and Miscellaneous Revenue)		\$42,935
Less Allo	wances and Deductions		\$0
Total Operating Inco	me		\$973,533
	enance Expenses: System of Accounts prescribed by on of Regulatory Utility Commissioners)		
Customer Accounts Administrative and G	General Expense - potable water system	on	(\$344,909) \$0
excluding engineer improvements	ing fees associated with design of new		(\$360,465)
Total Operating Expe	enses		(\$705,374)
Net Operating Incom	ne	- · · ·	\$268,159
C Non-Operating Incor	ne:		
Interest on Deposits Other (Describe)			\$0 \$0
Total Non-Operating	Income		\$0
D Net Income		,	\$268,159
E. Debt Repayment:			
Revenue Bond Inter			\$0
Revenue Bond Princ RD Interest	cipal	ann	\$0 (\$121,864)
RD Principal			(\$88,316)
Total Debt Repayme	ent	,	(\$210,180)
F. Balance Available fo and Depreciation	or Coverage	<u>-</u>	\$57,979
G Required Coverage	@ 20%	1000	(\$42,036)
H Surplus (Deficit)		***	\$15,943
i. Conclusion Operation	on is positive.		

PROJECTED OPERATING (Projected 2008 Year Of Co.)	G BUDGET peration with new improvements)	Year Ending	12/31/2008
A. Operating Income: V	Vith 2004 Rates		
customers per CT12-2 projected operation of Surcharge Fee	use to 2008 assuming only the 58 ne 006 and at 2004 rates. This would be one full year with project complete. nd Miscellaneous Revenue)		\$950,361 \$0 \$42,935
Less Allowa	nces and Deductions		\$0_
Total Operating Income			\$993,296
	ince Expenses: stem of Accounts prescribed by of Regulatory Utility Commissioners)		
Potable Water System I Customer Accounts Exp	Expenses, including treatment & distribusense	ution	(\$355,256) \$0
Administrative and Gene	eral Expense - potable water system		(\$371,279)
Total Operating Expens	es ,	· · · · · ·	(\$726,536)
Net Operating Income			\$266,760
C Non-Operating Income:			
Interest on Deposits Other (Describe)			\$0 \$0
Total Non-Operating Inc	come		\$0_
D Net Income			\$266,760
E. Debt Repayment:			
Revenue Bond Interest Revenue Bond Principa RD Interest RD Principal	l		\$0 \$0 (\$160,969) (\$68,356)
Total Debt Repayment			(\$229,325)
F. Balance Available for C and Depreciation .	overage 		\$37,435
G Required Coverage @	20%	****	(\$45,865)
H Surplus (Deficit)	,		(\$8,430)
I. Conclusion Operation	is negative.		

PROJECTED OPERATING BUDGET (Projected 2008 Year Of Operation with new improvements) Year Ending	ng <u>12/31/2008</u>
A. Operating Income: With 2004 Rates X 1.15 for 15% rate increase	
Water Sales projected use to 2008 assuming only the 58 new customers per CT12-2006 and at 2004 rates. This would be the projected operation of one full year with project complete. Surcharge Fee Other (Lease Income and Miscellaneous Revenue)	\$1,092,915 \$0 \$42,935
Less Allowances and Deductions	\$0
Total Operating Income	<u>\$1,135,850</u>
B. Operation and Maintenance Expenses: (Based on Uniform System of Accounts prescribed by National Association of Regulatory Utility Commissioners)	
Potable Water System Expenses, including treatment & distribution Customer Accounts Expense	(\$355,256) \$0
Administrative and General Expense - potable water system	(\$371,279)
Total Operating Expenses	. (\$726,536)
Net Operating Income	\$409,315
C Non-Operating Income:	
Interest on Deposits Other (Describe)	\$0 \$0
Total Non-Operating Income	\$0_
D Net Income	\$409,315
E. Debt Repayment:	
Revenue Bond Interest Revenue Bond Principal RD Interest RD Principal	\$0 \$0 (\$160,969) (\$68,356)
Total Debt Repayment	(\$229,325)
F. Balance Available for Coverage and Depreciation	\$179,990
G Required Coverage @ 20%	(\$45,865)
H Surplus (Deficit)	\$134,125
I. Conclusion Operation is positive.	

PROJECTED OPERATING BUDG (Projected 2008 Year Of Operation		Year Ending	12/31/2008
A. Operating Income: With 200	04 Rates X 1.05 for 5% rate inc	crease	
Water Sales projected use to customers per CT12-2006. Th operation of one full year with Surcharge Fee Other (Lease Income and Misc	is would be the projected n project complete.	ew - - -	\$997,879 \$0 \$42,935
Less Allowances an	d Deductions	-	\$0
Total Operating Income			\$1,040,814
B. Operation and Maintenance Ex (Based on Uniform System of National Association of Regul	Accounts prescribed by		
Potable Water System Expense Customer Accounts Expense	es, including treatment & distrib	ution .	(\$355,256) \$0
Administrative and General Exp	oense - potable water system		(\$371,279)
Total Operating Expenses .			(\$726,536)
Net Operating Income			\$314,278
C Non-Operating Income:			
Interest on Deposits Other (Describe)			\$0 \$0
Total Non-Operating Income			\$0_
D Net Income	·		\$314,278
E. Debt Repayment:			
Revenue Bond Interest Revenue Bond Principal RD Interest RD Principal			\$0 \$0 (\$160,969) (\$68,356)
Total Debt Repayment .			(\$229,325)
F. Balance Available for Coveragand Depreciation	e 		\$84,953
G Required Coverage @ 20%			(\$45,865)
H Surplus (Deficit)			\$39,088
I. Conclusion Operation is posi	tive.		

PROJECTED OPERATING BUDGET (Projected 2008 Year Of Operation with new improvements)	Year Ending	12/31/2008
A. Operating Income: With 2004 Rates X 1.11 for 11% rate	increase	
Water Sales projected use to 2008 assuming only the 58 customers per CT12-2006. This would be the projected operation of one full year with project complete. Surcharge Fee Other (Lease Income and Miscellaneous Revenue)	new	\$1,054,901 \$0 \$42,935
Less Allowances and Deductions		\$0_
Total Operating Income		\$1,097,836
B. Operation and Maintenance Expenses: (Based on Uniform System of Accounts prescribed by National Association of Regulatory Utility Commissioners)		
Potable Water System Expenses, including treatment & distri Customer Accounts Expense	bution	(\$355,256) \$0
Administrative and General Expense - potable water system	_	(\$371,279)
Total Operating Expenses		(\$726,536)
Net Operating Income		\$371,300
C Non-Operating Income:		
Interest on Deposits Other (Describe)		\$0 \$0
Total Non-Operating Income		\$0
D Net Income		\$371,300
E. Debt Repayment:		
Revenue Bond Interest Revenue Bond Principal RD Interest RD Principal	 	\$0 \$0 (\$160,969) (\$68,356)
Total Debt Repayment		(\$229,325)
F. Balance Available for Coverage and Depreciation		\$141,975
G Required Coverage @ 20%		(\$45,865)
H Surplus (Deficit)	•	\$96,110
I. Conclusion Operation is positive.		

PROPOSED OPERAT (5th Full Year Of Opera		Year Ending	12/31/2012
A. Operating Income:	Loan (RD) \$885,000 @ 5.000% ad	Ided to Debt Repayment	
and at 2004 rates Surcharge Fees	ted use with no new customers from	m 2008 ———————————————————————————————————	\$950,361 \$0 \$42,935
Less Alic	owances and Deductions		\$0
Total Operating Inco	me		\$993,296
B. Operation and Maint (Based on Uniform National Association	tenance Expenses: System of Accounts prescribed by on of Regulatory Utility Commissioners	s)	
Potable Water Syste Administrative and C Customer Accounts	em Expenses, including treatment & di General Expense - potable water syste Expense	istribution	(\$399,841) (\$417,875) \$0
Total Operating Exp	enses	, , , , , , , , , , , , , , , , , , ,	(\$817,716)
Net Operating Incom	ne		\$175,580
C Non-Operating Inco	me:		
Interest on Deposits Other (Describe)	3		\$0 \$0
Total Non-Operating	g Income		\$0
D Net Income		<u>.</u>	\$175,580
E. Debt Repayment:			
Revenue Bond Inte Revenue Bond Prin RD Interest RD Principal			\$0 \$0 (\$142,932) (\$83,155)
Total Debt Repaym	ent	. ,	(\$226,087)
F. Balance Available f and Depreciation	or Coverage	<u>.</u>	(\$50,507)
G Required Coverage	@ 20%	1000	(\$45,217)
H Surplus (Deficit)			(\$95,724)
I. Conclusion Operat	tion is negative.		

PROPOSED OPERAT			10/01/02
(5th Full Year Of Opera	ition)	Year Ending _	12/31/2012
A. Operating Income:	Loan (RD) \$885,000 @	5.000% added to Debt Repayment	
and at 2004 Rates > Surcharge Fees	ted use with no new cus (1.15 for 15% rate increa e and Miscellaneous Reve		\$1,092,915 \$0 \$42,935
Less Allo	wances and Deductions	-	\$0
Total Operating Inco	me		\$1,135,850
	enance Expenses: System of Accounts preso on of Regulatory Utility Cor		
	em Expenses, including tre General Expense - potable Expense		(\$399,841) (\$417,875) \$0
Total Operating Exp	enses		(\$817,716)
Net Operating Incom	ie		\$318,134
C Non-Operating Incor	ne:		
Interest on Deposits Other (Describe)		- 	\$0 \$0
Total Non-Operating	; Income		\$0
D Net Income			\$318,134
E. Debt Repayment:			
Revenue Bond Inter Revenue Bond Princ RD Interest RD Principal		- - -	\$0 \$0 (\$142,932) (\$83,155)
Total Debt Repayme	ent		(\$226,087)
F. Balance Available fo and Depreciation	or Coverage	<u>.</u>	\$92,047
G Required Coverage	@ 20%		(\$45,217)
H Surplus (Deficit)			\$46,830
1. Conclusion Operati	on is positive.		

PROPOSED OPERATI		Year Ending	12/31/2012
,			
A. Operating Income:	Loan (RD) \$885,000 @ 5.000%	6 added to Debt Repayment	
and at 2004 Rates X Surcharge Fees	ted use with no new customers (1.05 for 5% rate increase	from 2008	\$997,879 \$0
Other (Lease Incom	e and Miscellaneous Revenue)		\$42,935
Less Allo	wances and Deductions		\$0
Total Operating Inco	me		\$1,040,814
B. Operation and Maint (Based on Uniform National Association	enance Expenses: System of Accounts prescribed b on of Regulatory Utility Commissio	y oners)	
	em Expenses, including treatment General Expense - potable water s Expense		(\$399,841) (\$417,875) \$0
Total Operating Expe	enses		(\$817,716)
Net Operating Incom	ne	<u>.</u>	\$223,098
C Non-Operating Incom	ne:		
Interest on Deposits Other (Describe)			\$0 \$0
Total Non-Operating	Income	****	\$Ò
D Net Income			\$223,098
E. Debt Repayment:			
Revenue Bond Inter			\$0
Revenue Bond Prince	cipal		\$0 (\$142,932)
RD Interest RD Principal			(\$83,155)
Total Debt Repaymo	∍nt		(\$226,087)
F. Balance Available for and Depreciation	or Coverage	<u>.</u>	(\$2,989)
G Required Coverage	@ 20%		(\$45,217)
H Surplus (Deficit)			(\$48,206)
I. Conclusion Operati	on is negative.		

PROPOSED OPERATI		Year Ending	12/31/2012
•	•	% added to Debt Repayment	
A. Operating Income:	•		
	ted use with no new customer (1.11 for 11% rate increase	s from 2008 _	\$1,054,901
Surcharge Fees		<u>-</u>	\$0
Other (Lease Incom	e and Miscellaneous Revenue)	-	\$42,935
Less Allo	wances and Deductions	-	\$0
Total Operating Inco	me		\$1,097,836
B. Operation and Maint (Based on Uniform National Association	enance Expenses: System of Accounts prescribed on of Regulatory Utility Commiss	by. ioners)	
Potable Water Syste	em Expenses, including treatmen	t & distribution	(\$399,841)
Administrative and G	General Expense - potable water		(\$417,875)
Customer Accounts	Expense	-	\$0
Total Operating Expo	enses		(\$817,716)
Net Operating Incom	ne		\$280,120
C Non-Operating Incor	ne:		
Interest on Deposits		_	\$0_
Other (Describe)		-	\$0
Total Non-Operating	J Income		\$0_
D Net Income			\$280,120
E. Debt Repayment:			
Revenue Bond Inter	rest		\$0_
Revenue Bond Princ	cipal		\$0
RD Interest			(\$142,932) (\$83,155)
RD Principal		•	
Total Debt Repayme	ent		(\$226,087)
F. Balance Available fo and Depreciation	or Coverage		\$54,033
G Required Coverage	@ 20%		(\$45,217)
H Surplus (Deficit)			\$8,816
I. Conclusion Operati	on is positive.		

LVWA LOANS WITH INTEREST AND PRINCIPAL SCHEDULES

Principal			Pay	ment Year 2	004	Pay	ment Year 2	005
Balance 2003	Annual Payment	Interest Rate	Principal Payment	Interest Payment	Principal Balance	Principal Payment	Interest Payment	Principal Balance
\$21,070	\$5,928	5.00%	\$4,875	\$1,054	\$16,196	\$5,118	\$810	
\$23,705		5.00%	\$5,336	\$1,185	\$18,369	\$5,603	\$918	\$12,767
\$43,099		5.00%	\$9,701	\$2,155	\$33,398	\$10,186		
\$42,888			\$9,712	\$2,144	\$33,176	\$10,197		
\$362,159	\$45,703	8.38%	\$15,354	\$30,349	\$346,805	\$16,641	\$29,062	
\$767,461	\$52,206	5.50%	\$9,996	\$42,210	\$757,465	\$10,545	\$41,661	\$746,920
\$266,324	\$21,484	5.38%	\$7,156	\$14,328	\$259,168	\$7,541	\$13,943	
\$276,432	\$16,839	4.98%	\$3,073					
\$591,549			\$9,393	\$28,394	\$582,156	\$9,843	\$27,944	\$572,313
	\$52,069	5.00%						
\$2,394,687	\$262,249	- United Address of the Control of t	\$74,594	\$135,586	\$2,320,093	\$78,900	\$131,280	\$2,241,193

Payr	Payment Year 2006		Payment Year 2007			Payment Year 2008		
Principal	Interest	Principal	Principal	Interest	Principal Balance	Principal Payment	Interest Payment	Principal Balance
Payment	Payment	Balance	Payment	Payment	Dalance	Payment	rayment	Dalance
\$5,374	\$554	\$5,703	\$5,643	\$285	\$60	\$60	\$3	\$(
\$5,883	\$638	\$6,884	\$6,177	\$344	\$707	\$707	\$35	\$(
\$10,695		\$12,516	\$11,230	\$626	\$1,286	\$1,286	\$64	\$(
\$10,707	\$1,149	\$12,272	\$11,242	\$614	\$1,030	\$1,030	\$51	\$
\$18,035	\$27,668	\$312,129	\$19,547	\$26,156	\$292,582	\$21,185	\$24,518	\$271,39
\$11,125		\$735,795	\$11,737	\$40,469	\$724,057	\$12,383	\$39,823	
\$7,946		\$243,681	\$8,374	\$13,110	\$235,307	\$8,824	\$12,660	\$226,48
\$3,386	\$13,453	\$266,747	\$3,555	\$13,284	\$263,192	\$3,732	\$13,107	\$259,46
\$10,316	~~~~	\$561,997	\$10,811	\$26,976	\$551,186			\$539,85
					\$885,000	\$7,819	\$44,250	\$877,18
\$83,469	\$126,711	\$2,157,724	\$88,316	\$121,864	\$2,954,408	\$68,356	\$160,969	\$2,886,052

Payment Year 2009 Payment Year 2010			Payment Year 2010 Payment Year 20			011		
Principal	Interest	Principal	Principal	Ințerest	Principal	Principal	Interest	Principal
Payment	Payment	Balance	Payment	Payment	Balance	Payment	Payment	Balance
\$22,960	\$22,743	\$248,438	\$24,884	\$20,819	\$223,554	\$26,969	\$18,734	
\$13,064	\$39,142	\$698,610	\$13,782	\$38,424	\$684,828	\$14,540	\$37,666	\$670,288
\$9,299	\$12,185	\$217,183	\$9,800	\$11,684	\$207,384	\$10,327	\$11,157	
\$3,918	\$12,921	\$255,542	\$4,113	\$12,726	\$251,429	\$4,318	\$12,521	
\$11,874	\$25,913	\$527,982	\$12,444	\$25,343	\$515,538	\$13,041		
\$8,210	\$43,859	\$868,972	\$8,620	\$43,449	\$860,352	\$9,051	\$43,018	\$851,301
\$69,324	\$156,763	\$2,816,728	\$73,643	\$152,445	\$2,743,085	\$78,246	\$147,841	\$2,664,839

Year 2012			Payment Year 2013			Pay	ment Year 2	014
Principal	Interest	Principal	Principal	Interest	Principal	Principal	Interest	Principal
Payment	Payment	Balance	Payment	Payment	Balance	Payment	Payment	Balance
\$29,229	\$16,474	\$167,356	\$31,679	\$14,024	\$135,677	\$34,333	\$11,370	\$101,344
\$15,340	\$36,866	\$654,947	\$16,184	\$36,022	\$638,764	\$17,074	\$35,132	\$621,690
\$10,882	\$10,602	\$186,175	\$11,468	\$10,016	\$174,707	\$12,085	\$9,399	\$162,622
\$4,533		\$242,579	\$4,759	\$12,080	\$237,820	\$4,996	\$11,843	\$232,825
\$13,667			\$14,323	\$23,464	\$474,506	\$15,011	\$22,776	\$459,496
\$9,504			\$9,979	\$42,090	\$831,819	\$10,478	\$41,591	\$821,341
\$83,155	\$142,932	\$2,581,683	\$88,391	\$137,697	\$2,493,292	\$93,976	\$132,112	\$2,399,317

Payr	nent Year 20	15	Payment Year 2016			2016 Payment Year 2017				
Principal	Interest	Principal Principal Interest Princip		Interest Principal		Principal Interest		Principal	Interest	Principal
Payment	Payment	Balance	Payment	Payment	Balance	Payment	Payment	Balance		
\$37,210	\$8,493	\$64,133	\$40,329	\$5,374	\$23,805	\$23,805	\$1,995	\$(
\$18,013	\$34,193	\$603,676	\$19,004	\$33,202	\$584,673	\$20,049	\$32,157	\$564,624		
\$12,735	\$8,749	\$149,887	\$13,420	\$8,064	\$136,467	\$14,142	\$7,342	\$122,325		
. \$5,244	\$11,595	\$227,580	\$5,506	\$11,333	\$222,075	\$5,780	\$11,059	\$216,295		
\$15,731	\$22,056	\$443,764	\$16,486	\$21,301	\$427,278	\$17,278				
\$11,002			\$11,552	\$40,517	\$798,788	\$12,129	\$39,939	\$786,658		
\$99,936	\$126,152	\$2,299,381	\$106,296	\$119,792	\$2,193,085	\$93,183	\$113,002	\$2,099,903		

Pay	Payment Year 2018							
Principal Payment	Interest Payment	Principal Balance						
\$21,152	\$31,054	\$543,472						
\$14,903	\$6,581	\$107,422						
\$6,068	\$10,771	\$210,228						
\$18,107	\$19,680	\$391,893						
\$12,736	\$39,333	\$773,923						
\$72,965	\$107,420	\$2,026,938						

Final Engineering Report Support Documents

Lake Village Water Association Rate Increase Comparison

Usage				
gallons	Current 2004 Rates	15% Increase in Cost	Cost Increase	Percentage Increase
o	\$19.39	\$22.30	\$2.91	15.00%
1,000	\$19.39	\$22.30	\$2.91	15.00%
2,000	\$19.39	\$22.30	\$2.91	15.00%
3,000	\$26.52	\$30.50	\$3.98	15.00%
4,000	\$33.65	\$38.70	\$5.05	15.00%
5,000	\$40.78	\$46.90	\$6.12.	15.00%
6,000	\$47.91	\$55.10	\$7.19	15.00%
7,000	\$55.04	\$63.30	\$8.26	15.00%
8,000	\$62.17	\$71.50	\$9.33	15.00%
9,000	\$69.30	\$79.70	\$10.40	15.00%
10,000	\$76.43	\$87.89	\$11.46	15.00%
15,000	\$112.08	\$128.89	\$16.81	15.00%
20,000	\$147.73	\$169.89	\$22.16	15.00%
25,000	\$174.78	\$201.00	\$26.22	15.00%
30,000	\$201.83	\$232.10	\$30.27	15.00%
35,000	\$228.88	\$263.21	\$34.33	15.00%
40,000	\$255.93	\$294.32	\$38.39	15.00%
50,000	\$310.03	\$356.53	\$46.50	15.00%
100,000		\$667.61	\$87.08	15.00%
200,000	\$1,121.53	\$1,289.76	\$168.23	15.00%
300,000	\$1,662.53	\$1,911.91	\$249.38	15.00%
400,000	\$2,203.53	\$2,534.06	\$330.53	15.00%
500,000	\$2,744.53	\$3,156.21	\$411.68	15.00%

Comparison of Rates

	Current 2004	Rate increase
Block Usage	Rates	needed
First 1,000 gallons	\$19.39	\$22.30
Next 2,000 gallons	\$5.58	\$6.42
Next 2,000 gallons	\$5.08	\$5.84
Next 5,000 gallons	\$4.62	\$5.31
Over 10,000 gallons	\$4.26	\$4.90

	Current 2004	Rate increase	
COSS Block Usage	Rates	needed	
First 2,000 gallons	\$19.39	\$22.30	
Next 18,000 gallons	\$7.13	\$8.20	
Over 20,000 gallons	\$5.41	\$6.22	

Effect on Customer Average Bill - 5,000 Gallons Usage							
Current 2004 Rate increase Percentage							
Rates	needed	Cost Increase	Increase				
\$40.78	\$46.90	\$6.12	15.00%				

Case No. 2007-0005/ RECEIVED

JAN 3 0 2007

PUBLIC SERVICE
COMMISSION

Report

Preliminary Engineering Report

Lake Village Water Association, KY

March 2004

Report for Lake Village Water Association, KY

Preliminary Engineering Report

Prepared by:

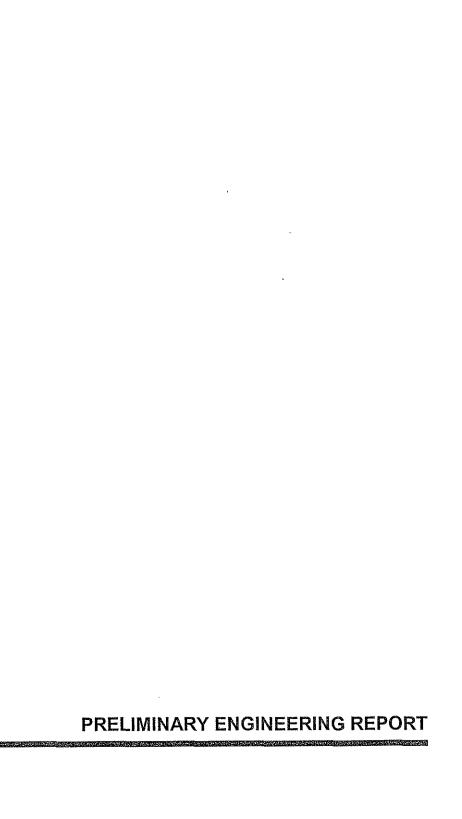
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March 2004



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1.01 PURPOSE OF REPORT

This report describes the scope of the proposed project, known as Contract 12, Phases 1 and 2, and presents the general background data used in its planning and development. Design criteria and financial data are presented and discussed.

1.02 GENERAL BACKGROUND DATA

In the fall of 2002, Strand Associates, Inc. (Strand) was authorized by the Lake Village Water Association (LVWA) to investigate the feasibility of designing water system improvements to the northeast area of Mercer County. In December 2002, a Rural Development (RD) Application for the Contract 12 Water Project was filed by LVWA. This project, located in the vicinity of U.S. 68 from Harrodsburg Water Treatment Plant/Chatham Lane to U.S. 68 bridge across the Kentucky River, was identified as Contract 12.

This Contract 12 project identified as Water Project 2004-1, proposes to use funds from Coal/Tobacco grant monies, connection fees and RD loan monies. In December 2003, the Rural Development Application was revised by Strand and filed by LVWA. Exhibit 1 in the Appendix shows the location of the proposed project.

Kentucky State Clearinghouse comments have been received with no major conflicts with the Commonwealth's goals, plans or objectives. Each comment or concern will be addressed in conjunction with the design and/or construction of the project. The proposed system improvements have been reviewed by the Bluegrass Area Development District (BGADD) and appear to be consistent with the BGADD Comprehensive Plan.

1.03 EXISTING SYSTEM

The LVWA was first formed in the late 1960's to provide water service to rural Mercer and Boyle County residents. LVWA presently purchases all its water from the cities of Danville and Harrodsburg. Danville's raw water supply is drawn from Herrington Lake and its treatment plant has a capacity of 10 million gallons per day. Harrodsburg's raw water supply is drawn from the Kentucky River and its treatment plant has a capacity of 4 million gallons per day. Both cities presently have ample unused water treatment capacity to accommodate the improvements to LVWA system.

LVWA has faced many challenges since its inception to become one of the better rural water suppliers in the Commonwealth. The system is operated by a staff of experienced and motivated individuals, while the Board of Directors are diligent in their efforts to provide the highest quality water service at a fair rate to all of its customers. LVWA water system is regulated by the Kentucky Department of Environmental Protection and the Public Service Commission and is subject to meeting state and federal regulations. Since this project only adds 58 customers, the average demand by new customers should be less than 23,000 gallons per day.

1.04 SCOPE OF PROJECT

The proposed Water Project 2004-1 consists of approximately 11,000 linear feet of 8-inch, approximately 19,000 linear feet of 6-inch, approximately 24,000 linear feet of 4-inch and approximately 6,400 linear feet of 3-inch PVC pipe as well as all necessary appurtenances. This project will serve an estimated 58 additional customers.

1.05 ESTIMATED WATER USAGE

Presently, LVWA serves 2,004 customers, approximately 98.4% of which are residential customers. The average monthly water usage by the 2,004 existing customers, as determined by billings/sales for the 12-month period between January 2003 through December 2003, was 8.3 million gallons. The average monthly water usage for the entire LVWA was 14.2 million gallons. This includes water loss from pipe leaks, main breaks and maintenance activities related to flushing lines.

The BGADD plan recommends that the Association be served by either the City of Harrodsburg and/or the City of Danville Water Treatment Plant. The rated 24-hour capacity of the Harrodsburg plant is 4.0 million gallons (MG) and the average daily production in 2002 was 2.6 MG with a peak day production of 4.0 MG. The rated 24-hour capacity of the Danville plant is 10.0 million gallons and the average daily production in 2002 was 4.7 MG with a peak day production of 5.7 MG.

LVWA currently has water purchase contracts with the cities of Danville and Harrodsburg. LVWA may purchase up to 20 million gallons per month from Harrodsburg. The original 30-year contract has been extended into the first of three 10 year extensions. LVWA may purchase up to 9 million gallons per month from Danville. The original contract for 9 million gallons a month was renewed in 1999 for an additional 30-years. Both of these contracts are automatically extended unless LVWA notifies either city prior to 90 days before the contract expires that LVWA does not want the extension option.

1.06 DESIGN CRITERIA

A. <u>Hydraulic Considerations</u>

Hydraulic calculations are based on the Hazen and Williams formula with a "C" value of 140 for PVC pipe and 130 for ductile iron pipe. The economy of polyvinyl chloride (PVC) pipe has caused it to be the predominant material for rural water system pipelines. The relatively high flow coefficient of C = 140 is a common value for PVC water systems and is, therefore, used in the design of this system. The same is true of C = 130 for ductile iron.

Peak flows for determining line sizes are calculated using the relationship between demand per customer and total customers shown in the figures for Maximum Domestic Demand. The class 3 curve was utilized in determining the maximum domestic demand for the proposed extensions. These values have proven to be slightly conservative in practice, but since their use leaves room for expansion, they are considered valid for design purposes. Additional future capacity is insured by a minimum of five gallons per minute into each dead end line.

Line sizes are designed to maintain a minimum of 30 pounds per square inch (psi) at the service meter during peak flows.

Fire protection capacity is not designed into the system. Hydrants are normally for blow-off purposes. Service meters, valves, and other appurtenances are designed for basically rural-domestic water supply service only.

B. Construction Considerations

The pipeline will be constructed on private easements, and some state and county rights-of-way. The project area is underlain by limestone. Based upon previous construction projects and the Association's construction experience, the determination was made that, at the proposed construction sites, rock removal would be required. Estimates are based on current bid prices in similar terrain. This project will also have a section of the water main that will need to either have the water line attached to rock face of a hill side or a vertical casing through solid rock to an open cavern at the lower elevations of the "Palisades".

1.07 FINANCIAL

A. Construction and Project Costs

Detailed construction and cost estimates for each phase of the contract and the total project are presented in Exhibits 2 (Phase 1), 3 (Phase 2), and 4 of the Appendix. Estimated total construction and project costs are respectively \$1,023,100 and \$1,355,000. Constructions cost estimates are based on current bid prices for similar projects. See Table 1.07-1 below for breakdown of construction and project costs by contract.

	Contract 12 Phase 1	Contract 12 Phase 2	Total
Construction Costs	\$412,400	\$610,700	\$1,023,100
Project Costs	\$555,000	\$800,000	\$1,355,000

Table 1.07-1
Construction and Project Cost Breakdown

B. Project Budget

A summary of the proposed funding is provided in the Table 1.07-2 below.

Funding Source	Р	hase 1	Phase 2	
RD Loan	\$	347,000	\$ 538,000	
Coal/Tobacco	\$	200,000	\$ 250,000	
Connection Fees	\$	8,000	\$ 12,000	
	\$	555,000	\$ 810,000	
Total Estimated Project Cost			\$ 1,355,000	
Table 1.07-2 Summary of Proposed Funding			•	

C. Rate Analysis

A rate analysis along with the existing and projected operation and maintenance costs and debt service requirements is being developed and will be submitted in the **Summary/Addendum**. This analysis will include a statement regarding the income necessary to meet estimated obligations for both the existing and proposed system and, if required, a rate increase will be proposed.

1.08 SUMMARY AND CONCLUSIONS

The Water Project 2004-1 consists of extensions to the existing LVWA public water supply system. This project will extend service to approximately 58 customers currently without service.

Recommended financing for the project is a RD loan in the amount of \$885,000. Coal/Tobacco Development grant funds of \$450,000, along with \$20,000 from connection fees.



Signed:

Strand Associates, Inc. 325 West Main Street, Suite 710 Louisville, Kentucky 40202

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APPENDIX A SUPPORT EXHIBITS

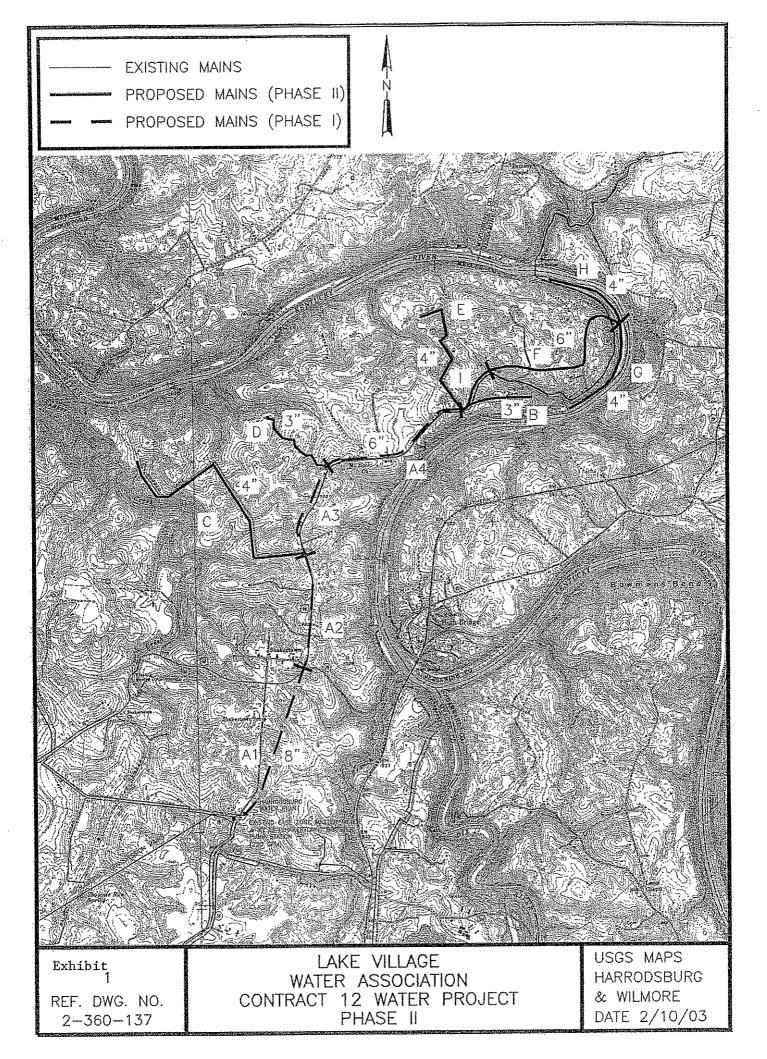


Exhibit 2 (Phase I)

CONSTRUCTION COST ESTIMATE BY PHASE

Item	Unit Cost		Phase I	Phase II		То	tals
8" PVC Pipe	\$17	LF	11,000			11,000	\$187,000
6" PVC Pipe	\$14	LF	10,000			10,000	\$140,000
4" PVC Pipe	\$12	LF				0	\$0
3" PVC Pipe	\$10	LF	2,700			2,700	\$27,000
Extra for US 68/KY River Construction	\$20,000	LS				0	\$0
Road Bore	\$100	LF	100			100	\$10,000
8" Gate Valve	\$700	EA	2			2	\$1,400
6" Gate Valve	\$600	EΑ	3			3	\$1,800
4" Gate Valve	\$500	EA	2			2	\$1,000
3" Gate Valve	\$400	EA	1			1	\$400
Tank (190,000gal)	\$150,000	is.				0.0	\$0
Shakertown Pump Station Upgrade	\$25,000	LS		STANTONIA (TERRO TOTAL POR STANTONIA (TERRO TOTAL POR STANTONIA (TERRO TOTAL POR STANTONIA (TERRO TOTAL POR ST	THE PERSON NAMED IN COLUMN PARTY.	0	\$0
Telemetry	\$30,000	LS:				0	\$0
Services	\$500	EΑ	27			27	\$13,500
Service Line	\$3	LF	1,350			1,350	\$4,050
Blowoff	\$1,500	EA	2			2	\$3,000
AARV	\$500	EA	2			2	\$1,000
Stream Crossing	\$75	LF	150			150	\$11,250
Rock Surface	\$10	LF	500			500	\$5,000
Bituminous Surface	\$30	LF	150			150	\$4,500
Mastermeter Vault	\$10,000					0	\$0
Tie-in	\$1,500	EΑ	1			1	\$1,500
				TOTALS			\$412,400

Exhibit 2A (Phase I)

Estimated Project Costs (with RD template)

Item	Costs
Construction	\$412,400
Engineering:	
Design & Bid	\$31,840
Construction	\$7,960
Observation	\$28,580
Planning (Preliminary and Additional Services)	\$15,000
Legal & Administrative	\$5,000
Land & Easements	\$5,000
Interest	\$10,310
Contingencies	\$38,910
TOTALS	\$555,000

Exhibit 3 (Phase II)

CONSTRUCTION COST ESTIMATE BY PHASE

Item	Unit Cost		Phase I	Phase II	To	otais
8" PVC Pipe	\$20	LF			0	\$0
6" PVC Pipe	\$16	LF		9,000	9,000	\$144,000
4" PVC Pipe	\$13	LF		24,000	24,000	\$312,000
3" PVC Pipe	\$11	LF		3,700	3,700	\$40,700
Extra for US 68/KY River Construction	\$20,000	LS		1	1	\$20,000
Road Bore	\$100	LF		50	50	\$5,000
8" Gate Valve	\$700	EΑ			0	\$0
6" Gate Valve	\$600	EΑ		2	2	\$1,200
4" Gate Valve	\$500	EΑ		3	3	\$1,500
3" Gate Valve	\$400	EA			0	\$0
Tank (100,000gal)	\$150,000	LS			0.00	\$0
Shakertown Pump Station Upgrade	\$30,000	LS		1	1	\$30,000
Telemetry	\$30,000	LS			0	\$0
Services	\$500	EA		43	43	\$21,500
Service Line	\$3	LF		2,150	2,150	\$6,450
Blowoff	\$1,500	EΑ		4	4	\$6,000
AARV .	\$500	EΑ		5	5	\$2,500
Stream Crossing	\$75	LF		150	150	\$11,250
Rock Surface	\$10	LF		500	500	\$5,000
Bituminous Surface	\$30	LF	-	120	120	\$3,600
Mastermeter Vault	\$10,000	LS			- 0	\$0
Tie-in	\$1,500	EΑ			0	\$0

TOTALS \$610,700

Exhibit 3B (Phase II)

Estimated Project Costs (with RD template)

Item	Costs
Construction	\$610,700
Engineering:	
Design & Bid	\$43,728
Construction	\$10,932
Observation	\$35,180
Planning (Preliminary and Additional Services)	\$15,000
Legal & Administrative	\$4,000
Land & Easements	\$4,000
Interest	\$15,268
Contingencies	\$61,192
TOTALS	\$800,000

Exhibit 4

CONSTRUCTION COST ESTIMATE BY PHASE

ltem	Unit Cost		Phase	Phase II	•	Totals
8" PVC Pipe	\$17	\$20 L	F 11,000		11,000	\$187,000
6" PVC Pipe	\$14	\$16 L	F 10,000	9,000	19,000	\$284,000
4" PVC Pipe	\$12	\$13 L	F	24,000	24,000	\$312,000
3" PVC Pipe	\$10	\$11 L	F 2,700	3,700	6,400	\$67,700
Extra for US 68/KY River Construction	\$20,000	\$20,000 L	s	1	1	\$20,000
Road Bore	\$100	\$100 L	F 100	50	150	\$15,000
8" Gate Valve	\$700	\$700 E	A 2		2	\$1,400
6" Gate Valve	\$600	\$600 E	A 3	2	5	\$3,000
4" Gate Valve	\$500	\$500 E	A 2	3	5	\$2,500
3" Gate Valve	\$400	\$400 E	A 1		1	\$400
Tank (100,000gal)	\$150,000	-\$150,000 L	S			\$0
Shakertown Pump Station Upgrade	\$25,000	\$30,000 L	s	1	1	\$30,000
Tolemetry	\$30,000	\$30,000 L	5 - 7 -			\$0
Services	\$500	\$500 E	A 27	43	70	\$35,000
Service Line	\$3	\$3 L	F 1,350	2,150	3,500	\$10,500
Blowoff	\$1,500	\$1,500 E	A 2	4	6	\$9,000
AARV	\$500	\$500 E	A 2	5	7	\$3,500
Stream Crossing	\$75	\$75 L	F 150	150	300	\$22,500
Rock Surface	\$10	\$10 L	F 500	500	1,000	\$10,000
Biturninous Surface	\$30	\$30 L	F 150	120	270	\$8,100
Mastermeter Vault	\$10,000	\$10,000 L	S			\$0
Tie-in	\$1,500	\$1,500 E	A 1		1	\$1,500
				TOTALS		\$1,023,100

Exhibit 4 A

Estimated Project Costs (with RD template)

Item		Costs
Construction		\$1,023,100
Engineering:		
Design & Bid		\$75,568
Construction		\$18,892
Observation		\$63,760
Planning (Preliminary and Additional Services)		\$30,000
Legal & Administrative		\$9,000
Land & Easements		\$9,000
Interest		\$25,578
Contingencies		\$100,102
	TOTALS	\$1,355,000