

**KENTUCKY-AMERICAN WATER COMPANY
 REVISED INVESTMENT PROJECT 01-10
 RICHMOND ROAD STATION
 HYDRAULIC AND CHEMICAL FEED IMPROVEMENTS**

Detailed Cost Estimate

	March 2001	October 2001
Preliminary Engineering	\$14,000	\$30,000
Detailed Design, Bidding, & Award	121,000	90,000
Construction Engineering & Management		66,000
Utility Plant Construction		
Acct #320 - Water Treatment Equipment		150,000
Sewerwork and Site Improvements		20,000
Concrete		50,000
Electrical & Controls		\$1,060,000
Equipment		<u>64,000</u>
Omissions & Contingencies (5%)	\$135,000	\$1,530,000
AFUDC	5,000	<u>70,000</u>
TOTAL	<u>\$140,000</u>	<u>\$1,600,000</u>
Cost of Removals		\$25,000



Kentucky-American Water Company

2300 Richmond Road • Lexington, Kentucky 40502 • (859) 269-2386 • Fax (859) 268-6327

September 21, 2001
Proposed IP 02-01
Project No. 11205

KENTUCKY-AMERICAN WATER COMPANY PROPOSED INVESTMENT PROJECT 02-01 LEESTOWN ROAD WATER LINE IMPROVEMENTS

Reference: Strategic Business Plans for 2000 and 2001.

SUBJECT OF STUDY

To improve reliability and flows in the distribution system.

RECOMMENDATION

It is recommended that funds be authorized for the design, bidding, and construction of 10,000 feet of 16-inch water main along Leestown Road to improve fire flows and increase distribution system reliability. It is also recommended that funds be authorized for the design of an additional 33,000 feet of 16-inch water main along Leestown Road, with construction to occur in the future.

ESTIMATED COST

Total Estimated Cost \$700,000
Proposed 2002 Expenditure \$700,000

ADEQUACY

The proposed investment project is adequate for engineering design, bidding services and construction for the Leestown Road Water Line Improvements.

INVESTMENT PROJECT REVIEW	
DEPARTMENT	BY
ENGINEERING	<i>W.A. King</i>
WATER QUALITY	
INFO. SYSTEMS	
OTHERS	
DATE	
10-1-01	
RECOMMENDED FOR APPROVAL:	
<i>W.A. King</i>	
PRESIDENT	
10.24.01	

Kentucky-American Water Company
Proposed IP 02-~~01~~
Leestown Road Water Line Improvements
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DISCUSSION

This capital investment will initiate design, bidding, easement acquisition, and construction services for a new 16-inch water main along the Leestown Road (US 421) corridor. Installed in Leestown Road is an 8-inch water main that extends outward from the City of Lexington into rural Fayette County and into a small portion of Scott and Woodford Counties. The main heads in a northwesterly direction for approximately 10 miles with water sales along the way and ultimately to the City of Midway in Woodford County. Customers served by this main include the Federal Medical Center (FMC), which houses 1,800 inmates and is one of KAWC's top 10 customers, and the Veterans Administration (VA) Hospital.


In recent years, individual customers including industrial customers, Midway, FMC and the VA Hospital have increased their demands due to expansions. Additionally, the first four miles of the above mentioned corridor is experiencing rapid growth for residential and commercial customers. A 16-inch main has been installed parallel to the existing 8-inch main in new residential developments in the area. The City of Midway has also indicated that it will increase its demands by 200,000 gallons per day due to the construction of an industrial park.

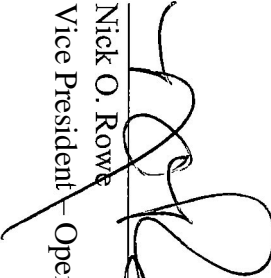
During the summers of 2000 and 2001, numerous customer complaints were received regarding low pressures along the Leestown Road corridor. The continued residential growth in this area will only increase system demands during hot and dry weather. This main is critical to maintaining system reliability not only for fire flows and system reinforcement but also for low pressure problems. This project also provides a future opportunity for regionalization with communities in the area and will enable continued growth.

This project is needed immediately to improve service and reliability for our existing customers. The main will be designed with adequate capacity to accommodate known future developments along the corridor. The potential for regionalization enhances the value of this project and will only help to facilitate future extensions of water lines in Fayette, Scott and Woodford Counties.

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Proposed IP 02-
Leestown Road Water Line Improvements
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Construction for the first 10,000 feet of main is scheduled for 2002. Construction of the additional 33,000 feet of main is expected within the next five years depending on growth and regionalization efforts. To take advantage of economies of scale, the entire design work will be completed at this time. It is estimated that total construction will cost \$2,500,000. The proposed design and construction cost is within an accuracy of plus or minus 10 percent.


Richard C. Syndland, P.E.
Senior Operations Engineer


Nick O. Rowe
Vice President - Operations

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KENTUCKY-AMERICAN WATER COMPANY
PROPOSED INVESTMENT PROJECT 02-01
LEESTOWN ROAD WATER LINE IMPROVEMENTS

ITEM	RESPONSIBLE ENTITY	TOTAL ESTIMATED COST
Administration	KAWC	\$ 10,000
Design, Bidding, & Easements	Engineer Consultant	\$ 130,000
Materials	KAWC	\$ 185,000
Construction	(Contractor	\$ 331,310
	Sub-Total	\$ 656,310
O&C (+/- 3%)		\$ 19,680
Engineering Overhead (+/- 2%)		\$ 13,540
	Sub-Total	\$ 689,530
AFUDC		\$ 10,470
	Total	\$ 700,000

**KENTUCKY-AMERICAN WATER COMPANY
ECONOMIC ANALYSIS OF THE IMPACT OF CAPITAL
SPENDING PROPOSAL
LEESTOWN ROAD WATER LINE IMPROVEMENTS**

<u>Determination of Revenue Requirement</u>	
Authorized Rate of Return on Common Equity	11.00%
Federal Income Tax Rate	35.00%
Return on Common Equity before FIT	16.92%
State Income Tax Rate	8.25%
Required Rate of Return on CE for Project	18.44%
Common Equity Ratio for Project	40.00%
Weighted Cost of Common Equity before Tax	<u>7.38%</u>

Long Term Debt Ratio for Project	60.00%
Estimated Cost Rate for New Debt	8.00%
Weighted Cost of Debt	<u>4.80%</u>

Total Pre-Tax Cost of Capital	<u>12.18%</u>
Total Estimated Cost of Project	\$ 700,000
Investment by Others	0
Net Investment Financed by Company	<u>\$ 700,000</u>

New Common Equity	\$ 280,000
New Long Term Debt	420,000

<u>Total Revenue Requirement</u>		<u>Amount</u>	<u>Rate</u>
Required Pre-Tax Operating Income		\$ 85,260	12.18%
Depreciation Rate	1.180%	8,260	1.18%
Property Tax Rate	0.7037%	4,926	0.70%
Change in Operation & Maint. Expense		0	0.00%
Revenue from New Customers		0	0.00%
Total Net Revenue Requirement		\$ 98,446	14.06%
Revenue Tax Rate	0.14537%	143	0.02%
Total Revenue Requirement		<u>\$ 98,589</u>	<u>14.08%</u>

Latest 12 Months Revenue - 06/30/2001	<u>\$ 40,071,359</u>
Required Price Increase	<u>0.25%</u>



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September 21, 2001
Proposed IP 02-
Project No. 11206

**KENTUCKY-AMERICAN WATER COMPANY
PROPOSED INVESTMENT PROJECT 02 -
KYDOT MAIN RELOCATIONS**

Reference: Strategic Business Plans for 2001, 2000 and 1999

SUBJECT

Replace existing water mains which may conflict with road construction undertaken by the Kentucky Department of Transportation.

RECOMMENDATION

It is recommended that approximately 22,400 feet of water main be designed/installed in 2002 to relocate those existing mains which create a conflict with KY DOT projects.

ESTIMATED COST

Total Estimated Cost	\$2,000,000
Proposed 2002 Expenditure	\$2,000,000

ADEQUACY

The proposed investment project will be adequate for design, permitting, bidding and installation of new mains to relocate facilities which conflict with the KY DOT projects identified in the attached Exhibit "A".

INVESTMENT PROJECT REVIEW	
DEPARTMENT	BY
ENGINEERING	<i>John V. Spang</i>
DATE	9-28-01
WATER QUALITY	N/A
INFO. SYSTEMS	
OTHERS	
RECOMMENDED FOR APPROVAL:	
<i>[Signature]</i>	10-27-01
PRESIDENT	

Kentucky-American Water Company
Proposed 2002 IP 02-
KY DOT Main Relocations
Project No. 11206
September 21, 2001
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DISCUSSION

Water mains and other facilities must be relocated when they conflict with KY DOT roadway projects. The KY DOT has increased its construction activity as a result of elevated federal funding. This activity is expected to remain high through 2004. The volume and intensity of the construction program is resulting in more "fast tracking", and the DOT's priorities are often changed without prior notice. The most recent schedule of KY DOT projects which will affect KAWC facilities in 2002 is attached as Exhibit "A". This schedule will be revised as required by changes to the DOT plan and schedule.

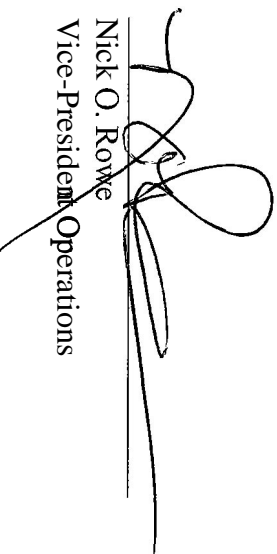
All of the projects listed in Exhibit A were included in the Company's Strategic Plan and were begun in 2001. The amount proposed has been increased based on current information from the DOT.

The KY DOT is required to reimburse KAWC when the existing facilities lie in private easement. Unfortunately, the proposed schedule has very little main in private easement. This varies depending on the location of the mains from one end of the distribution system to the other. Additionally, the proposed projects are all within major roadways, which will increase the relocation costs for this year's work.

The total project cost estimate of \$2,000,000 is accurate to within plus/minus 15 percent for the projects listed.



Linda C. Bridwell, P.E.
Director of Engineering



Nick O. Rowe
Vice-President Operations

**Exhibit A
 List of Known 2002 DOT Projects**

Project Name	Footage	Pipe Size	Estimated Cost
Paris Pike	10,000	12"	\$670,000
Reynolds Road	2,000	24"	\$300,000
Richmond Road	3,000	30"	\$530,000
Harrodsburg Road	7,400	16"	<u>\$500,000</u>
Subtotal			\$2,000,000
<u>Potential Reimbursements</u>			
Harrodsburg Road			(\$250,000)
Total			\$1,750,000