KENTUCKY-AMERICANWATER COMPANY PROPOSED 2002 CAPITAL INVESTMENT PLAN PROJECT 02 KYDOT MAIN RELOCATIONS

ITEM	RESPONSIBLE ENTITY	FSTI	TOTAL ESTIMATED COST		
TT CIVI	REGI GIVOIBLE EIVIII I		WATEDCOST		
Design/Easement Acquisition	KAWC / Consultant	\$	75,000		
Construction & Materials	Contractor	\$	1,637,500		
Inspection	KAWC	\$	92,500		
	Sub-Total	\$	1,805,000		
O&C (3%)		\$	54,150		
Engineering Overhead (2%)		\$	36,100		
	Sub-Total	\$	1,895,250		
AFUDC		\$	103,691		
	Total	\$	1.998.941		

KENTUCKY-AMERICAN WATER COMPANY PROPOSED 2002 CAPITAL INVESTMENT PLAN PROJECT 02KYDOT MAIN RELOCATIONS

DESCRIPTION	ENTITY						20	02						TOTAL
OF ACTIVITY	RESPONSIBLE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	2002
Design/Easement Acquisition	KAWC / Consultant				1									\$ 75,000
Construction	Contractor					1			1	· · · · · · · · · · · · · · · · · · ·		1		\$ 1,637,500
Company Labor	KAWC										1			\$ 92,500
	14 -g-, .													
SUB-TOTAL		\$302,500	\$ 45,200	\$ 139,700	\$ 138,600	\$ 279,900	\$ 325,250	\$180,400	\$112,600	\$ 83,150	\$ 82,400	\$ 81,800	\$33,500	\$ 1,805,000
O&C (3%)		\$ 9,075		10000-0			\$ 9,758	\$ 5,412			\$ 2,472			
Overhead (2%)		\$ 6,050	\$ 904	\$ 2,794	\$ 2,772	\$ 5,598	\$ 6,505	\$ 3,608	\$ 2,252	\$ 1,663	\$ 1,648	\$ 1,636	\$ 670	\$ 36,100
AFUDC		1,191	2,569	3,316	4,437	6,118	8,547	10,602	11,835	12,695	13,442	14,189	14,750	\$ 103,691
CASH FORECAST		\$318,816	\$ 50,029	\$150,001	\$ 149,967	\$ 300,013	\$350,059	\$ 200,022	1 \$ 130,065	 \$ 100,002	l \$ 99,962	 \$ 100,079	! \$49,925	 \$ 1,998,941

KENTUCKY-AMERICAN WATER COMPANY ECONOMIC ANALYSIS OF THE IMPACT OF CAPITAL SPENDING PROPOSAL KY DOT MAIN RELOCATIONS

<u>Determination of Revenue Requirement</u>			
Authorized Rate of Return on Common E	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 Proje	ct	l.	18.44%
Common Equity Ratio for Project			40.00%
Weighted Cost of Common Equity before	e Tax		7.38%
9			
Long Term Debt Ratio for Project			60.00%
Estimated Cost Rate for New Debt			7.00%
Weighted Cost of Debt			4.20%
ŭ			
Total Pre-Tax Cost of Capital			11.58%
•			
Total Estimated Cost of Project			\$ 2,000,000
Investment by Others			250,000
Net Investment Financed by Company			\$ 1,750,000
New Common Equity	\$ 700,000		
New Long Term Debt	1,050,000		
3	, ,		
Total Revenue Requirement		<u>Amount</u>	Rate
Required Pre-Tax Operating Income		\$ 202,650	11.58%
Depreciation Rate	1.180%	20,650	1.18%
Property Tax Rate	0.7037%	12,315	0.70%
Change in Operation & Maint. Expense		. 0	0.00%
Revenue from New Customers		0	0.00%
Total Net Revenue Requirement		\$ 235,615	13.46%
Revenue Tax Rate	0.14537%	343	0.02%
Total Revenue Requirement		\$ 235,958	13.48%
·		-	
Latest 12 Months Revenue - 06/30/2001		\$ 40,071,359	
Required Price Increase		0.59%	
- 1		 	•



Kentucky-American Water Compmy

1025 Laurel Oak Road • P.O. Box 1770 • Voorhees, New jersey 08043 • (609) 346-8200 August 24,2001

IP 02-03 Project No. 11206

KENTUCKY-AMERICAN WATER COMPANY PROPOSED INVESTMENT PLAN PROJECT 02-03 REPLACE TRAVELING SCREENS AT KENTUCKY RIVER STATION INTAKE

Reference: Strategic Business Plans for 1999 and 2000

SUBJECT:

Intake on the Kentucky River. Deteriorating operation of the two (2) traveling screens at the Kentucky River Station

RECOMMENDATION:

It is recommended that the traveling screens be completely replaced.

ESTIMATED COST:

Proposed 2003 Expenditure	Proposed 2002 Expenditure	Total Estimated Cost
\$	↔	S
\$ 250,000	\$ 200,000	\$ 450,000

ADEQUACY:

screens. The proposed investment project funds are adequate for replacement of both traveling

INVESTMENT PROJECT REVIEW
DEPARTMENT // BY / DATE
ENGINEERING John J. Juny 10.02.01
WATER QUALITY (N/A QUA
INFO. SYSTEMS
OTHERS
RECOMMENDED FOR APPLICAL: 10-24-01

Kentucky-American Water Company Replace Traveling Screens at KRS Intake Proposed 2001 IP 02-**Q3** Project No. 11206 August 24,2001 Page 2

DISCUSSION

and can be isolated by the closure of sluice gates. A separate IP 01-06 was approved to replace be in a position to start the replacement of the traveling screens. the sluice gates used to isolate the traveling screens. Upon completion of IP 01-06, KAWC will fish, and other debris larger then 1/2". The traveling screens are located behind a coarse bar rack These traveling screens are used to protect the raw water intake pumps from leaves, branches, Two (2) traveling screens are located at the intake structure on the Kentucky River.

overhauls and maintenance expense occurring in 1985, 1988, 1992, 1997 and 2000. were added to the screens, but no major changes were made to the original equipment. Since the the two screens were vertically raised above the 100-year flood stage, and additional buckets late 1960's, continual maintenance has been required to keep the screens operational, with major the late 1950's. Portions of the traveling screens have been in service since their original installation in In the late 1960's minor modifications were made as the drive mechanism for

capacity, and avoid extraordinary maintenance expenses. and maximize intake capacity. The existing screens have reached the end of their useful life with to increase the useful life. The screens should be replaced to ensure reliability, maintain intake many structural components having severely corroded. Another major overhaul is not expected Effective operation of the screens also will improve the reliability of the intake pumps

The total project cost estimate is considered accurate to within 10 percent.

Nick O. Re

Senior Operations Engineer

Svindland, P.E.

Vice President - Operations

KENTUCKYK-AMERICAN WATER COMPANY PROPOSED INVESTMENT PLAN PROJECT 02-63 REPLACE TRAVELING SCREENS AT KENTUCKY RIVER STATION INTAKE

Cost Estimate

\$435,490 AFUDC 12,090

KENTUCKY-AMERICAN WATER COMPANY

PROPOSED INVESTMENT PLAN PROJECT 02-03

REPLACE TRAVELING SCREENS AT KENTUCKY RIVER STATION INTAKE

DESCRIPTION	ENTITY	2002													
OF ACTIVITY	RESPONSIBLE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG		SEPT	OCT	NOV	DEC	2002
Administration	KAWC		, , , ,												\$ 2,500
Materials	KAWC														\$110,000
Construction	Contractor														\$ 75,000
										-					
			,		n										
SUB-TOTAL					-				\$ 50	0 \$	500	\$110,500	\$ 38,000	\$ 38,000	\$187,500
O&C (+/- 3%)									\$ 2	0 \$	20	\$ 3,320	\$ 1,140	\$ 1,140	\$ 5,640
Overhead (+/- 2%)		-,-							\$ 1	0 \$	10	\$ 2,280	\$ 780	\$ 780	\$ 3,860
AFUDC									\$ -	\$	10	\$ 420	\$ 980	\$ 1,260	\$ 2,670
CASH FORECAST									\$ 53	0 \$	540	\$116,520	\$ 40,900	\$ 41,180	\$199,670

KENTUCKY-AMERICAN WATER COMPANY

PROPOSED INVESTMENT PLAN PROJECT 02- 03

REPLACE TRAVELING SCREENS AT KENTUCKY RIVER STATION INTAKE

DESCRIPTION	ENTITY						200	3						TOTAL	TOTAL
OF ACTIVITY	RESPONSIBLE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	2003	PROJECT
Administration	KAWC					-							-	\$ 2,000	\$ 4,500
Materials	KAWC				-							_		\$150,000	\$260,000
Construction	Contractor													\$ 75,000	\$150,000
SUB-TOTAL		\$ 500	\$100,500	\$ 88,000	\$ 38,000				 					\$227,000	\$414,500
O&C (+/- 3%)		\$ 20	\$ 3,020	\$ 2,640	\$ 1,140									\$ 6,820	\$ 12,460
Overhead (+/- 2%)		\$ 10	\$ 2,070	\$ 1,810	\$ 780								, _	\$ 4,670	\$ 8,530
AFUDC		\$1,410	\$ 1,790	\$ 2,490	\$ 2,970									\$ 8,660	\$ 11,330
CASH FORECAST		\$1,940	\$107,380	\$ 94,940	\$ 42,890									\$247,150	\$446,820

REPLACE TRAVELING SCREENS AT KENTUCKY RIVER STATION INTAKE **ECONOMIC ANALYSIS OF THE IMPACT OF CAPITAL** KENTUCKY-AMERICAN WATER COMPANY SPENDING PROPOSAL

A tithorized Data of Daties on Common Fatility	Determination of Revenue Requirement
	Requirement

Weighted Cost of Common Equity before Tax	Common Equity Ratio for Project	Required Rate of Return on CE for Project	State Income Tax Rate	Return on Common Equity before FIT	Federal Income Tax Rate	Authorized Rate of Return on Common Equity
	40.00%		8.25%	16.92%	35.00%	11.00%

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

New Long Term Debt	New Common Equity \$	Net Investment Financed by Company	Investment by Others	Total Estimated Cost of Project	Total Pre-Tax Cost of Capital	
268,092	178,728					
		\$ 446,820	0	\$ 446,820	12.18%	

Total Revenue Requirement	Revenue Tax Rate (Total Net Revenue Requirement	Revenue from New Customers	Change in Operation & Maint. Expense	Property Tax Rate	Depreciation Rate	Required Pre-Tax Operating Income	Total Revenue Requirement	New Long Term Debt
	0.14537%				0.7037%	3.140%			268,092
8		↔					₩	Ŀ	
46,665	68	46,597	0	(25,000)	3,144	14,030	54,423	Amount	
10.44%	0.02%	10.42%	0.00%	-5.60%	0.70%	3.14%	12.18%	Rate	

Required Price Increase

Latest 12 Months Revenue - 06/30/2001

\$ 40,071,359

0.12%



Kentucky-American Water Company

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

March 11,2002 IP 02-**C4** Project No. 10212

KENTUCKY-AMERICAN WATER COMPANY PROPOSED INVESTMENT PLAN PROJECT 02-04 WATER SUPPLY PROJECT DEVELOPMENT

Reference: Strategic Business Plans for 2002, Investment Project 92-12

SUBJECT:

Kentucky-American's current treatment capacity deficit and source of supply deficit.

RECOMMENDATION:

proceeding and the Bluegrass Water Supply Consortium regional study efforts. project plan development including the current Kentucky Public Service Commission It is recommended that an investment project be established to facilitate water supply

ESTIMATED COST:

Proposed 2003 Expenditure	Proposed 2002 Expenditure	Prior Expenditures	Total Estimated Cost
\$ 200,000	\$ 243,000	\$ 157,000	\$ 600,000

ADEQUACY:

services toward obtaining regulatory and stakeholder concurrence of the project plan. The proposed investment project funds are estimated to be adequate for professional

INVESTMENT PROJECT REVIEW
DEPARTMENT // BY / DATE
ENGINEERING Com J. Juny 3.30.02
WATER QUALITY Ideal Mood 4/1/02
INFO.SYSTEMS
OTHERS
RECOMMENDED FOR APPROVAL 4.4.02

Kentucky-American Water Company
Water Supply Project Development
Proposed 2002 IP 02-24
Project No. 10212
March 11,2002
Page 2

DISCUSSION

controversy, which has delayed ultimate resolution of either problem individually. dams for releases and permit modifications. Potential long-term solutions have created local been efforts to optimize the use of the Kentucky River including valve installation on upstream have been made to maximize the treatment plant capabilities in the short term, and there have situation. This includes a source of supply deficit and a treatment capacity deficit. Upgrades Kentucky-American has been working to resolve its long-term water supply deficit

the issue. The LFUCG Council, which represents over 80% of Kentucky-American's customers, that the Kentucky River alternative solutions were insufficient and that Kentucky-American had the conclusion of that case. Case No. 93-434 was finally resolved in August 1997 with an Order of supply and treated water deficits. Kentucky-American agreed to halt work on the project until encouraged Kentucky-American to pursue a regional solution. provided a number of items could be concluded within specific timeframes. Accordingly. passed a resolution in December 1999 that indicated a preference for a Kentucky River solution, Lexington-Fayette Urban County Government Council established a technical forum to review detailed design work on the pipeline. In 1999, with the pipeline design about 60% complete, the the responsibility to solve the problem for its customers. Thus Kentucky-American initiated Kentucky Public Service Commission established a separate proceeding to investigate the source Kentucky-American included design costs in its forward-looking rate case that year. In 1993, the would supply finished water that was to be purchased from the Louisville Water Company. Kentucky-American terminated work on the design of the pipeline. In 1992, Kentucky-American proceeded with design and construction of a pipeline that The resolution also

2001, the PSC provided a final order in that case that granted Kentucky-American relief for the \$6.2 million that had been expended on pursuing the pipeline solution up to that point. In May rate treatment of the expenditures. majority of expenditures to date. The nature of the various expenditures determined the different In 2000, Kentucky-American filed a rate case and among other issues sought relief of the

established Case No 2001-117 to investigate the feasibility and advisability of the Kentuckyindicated that it could not unilaterally implement a project to increase the supply of the Kentucky be implemented, either on the Kentucky River or from another source. situation, status of work since 1997, and issues that had to be resolved in order for a solution to American proposed solution to its source of supply deficit. American acquiesced to that preference in its decision to stop work on the pipeline. The PSC River, although the LFUCG had indicated a preference for a river solution and Kentucky-1997 Order in Case No. 93-434. Kentucky-American filed a 20-page response, that detailed the In February 2001, the PSC requested a status update from Kentucky-American on the Kentucky-American

Proposed 2002 IP 02-04 Kentucky-American Water Company March 11,2002 Project No. 10212 Water Supply Project Development

supply, and treatment capacity. recommendation for a regional water supply including regional interconnections, source of complete a regional water supply study. received a grant from Congress and matched by the Kentucky Infrastructure Authority, to that have established themselves as the Bluegrass Water Supply Consortium. This group has Additionally, Kentucky-American has been working with a group of other water utilities This study should provide an objective, detailed

with the Consortium efforts. project plan will be fully developed as a result of the Commission proceeding in conjunction estimates are based on previous Commission proceedings. It is anticipated that the water supply issue and professional service including legal services involved in the PSC investigation. These and parties responsible for implementation is part of the PSC proceeding and the work with the supply solution in the near future. The continued effort to develop the project with stakeholders Consortium. The continued involvement in both of these efforts is critical to implementing a water The estimated expenditures are specifically for Company labor involved in the

project, Kentucky-American believes that it is appropriate given the nature of this ongoing issue. While the nature of these expenditures alone would normally not constitute an investment

Director of Engineering

Linda C. Bridwell, PE

Nick O. Vice President – Operations Ko

KENTUCKY-AMERICAN WATER COMPANY PROPOSED INVESTMENT PLAN PROJECT 02-04 WATER SUPPLY PROJECT DEVELOPMENT

ITEM	RESPONSIBLE ENTITY	ESTIN	TOTAL ESTIMATED COST			
Priors		\$	157,000			
Project Development	KAWC	\$	128,170			
Legal Services	Consultant	\$	262,000			
Professional Services	Consultant	\$	31,500			
	Sub-Total	\$	578,670			
O&C (+/- 3%)		\$	12,660			
Engineering Overhead (+/- 2%)		\$	8,670			
	Sub-Total	\$	600,000			
AFUDC		\$				
	Total	\$	600.000			

Estimate \$

600,000

KENTUCKY-AMERICAN WATER COMPANY

PROPOSED INVESTMENT PLAN PROJECT 02- 04

WATER SUPPLY PROJECT DEVELOPMENT

DESCRIPTION ENTITY 2002							TOTAL								
OF ACTIVITY	RESPONSIBLE	Priors	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	2002
Project Development	KAWC					\$ 10,000	3. 2,000	3 2,000	3 3,000	3.5000	3 3,000	3.40,000	3 3,000	3 1,300	\$ 45,800
Legal Services	(Consultant					35-240,000	6.15 .000	3 12,000	3 15,000	\$ 20,000	\$ 20,000	3 20,000	3 15,000	3 15,000	\$ 162,000
Professional Services	Consultant					\$2,000	3. 4.500	3 2,000	23, 2,000	3:3,000	3, 5,000	3 5,000	35.2000	3 2,000	\$ 23,500
								<u> </u>							
								<u> </u>							
SUB-TOTAL		\$157,000				\$ 52,000	\$ 7,500	\$ 16,000	\$ 22,000	\$ 28,000	\$ 30,000	\$ 35,000	\$ 22,000	\$ 18,800	\$ 231,300
O&C (+/- 3%)			-			\$ 1,560	\$ 230	\$ 480	\$ 660	\$ 840	\$ 900	\$ 1,050	\$ 660	\$ 560	\$ 6,940
Overhead (+/- 2%)						\$ 1,070	\$ 150	\$ 330	\$ 450	\$ 580	\$ 620	\$ 720	\$ 450	\$ 390	\$ 4,760
AFUDC															\$ -
CASH FORECAST		\$157,000				\$ 54,630	\$ 7,880	\$ 16,810	\$ 23,110	\$ 29,420	\$ 31,520	\$ 36,770	\$ 23,110	\$ 19,750	\$ 243,000

KENTUCKY-AMERICAN WATER COMPANY PROPOSED INVESTMENT PLAN PROJECT 02-04 WATER SUPPLY PROJECT DEVELOPMENT

DESCRIPTION	ENTITY						2003							TOTAL	TOTAL
OF ACTIVITY	RESPONSIBLE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	2003	PROJECT
									<u> </u>	1	4	<u> </u>	<u> </u>	\	
Project Development	KAWC	3 40,000	\$ 10,000	3 10,000	3 40,000	S 7.500	3 5,000	3 3,000	\$ 5,000	3 3,000	35,000	5,000	33=41/370	\$ 82,370	\$ 128,170
						9(S-4), S									
Legal Services	Consultant	3 .20,000	3 15,000	5 10 000	3 10,000	32 (10,000)	S 10,000	3 10,000	3 7,000	8 24000	32,000	3 2,000	2,000	\$ 100,000	\$ 262,000
Professional Services	(Consultant	3 2000	45 2 2 000	35 24000 ·	3 2000									\$ 8,000	\$ 31,500
									<u> </u>	<u> </u>					
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SUB-TOTAL		\$ 32,000	\$ 27,000	\$ 22,000	\$ 22,000	\$ 17,500	\$ 15,000	\$ 15,000	\$ 12,000	\$ 7,000	\$ 7,000	\$ 7,000	\$ 6,870	\$ 190,370	\$ 578,670
<u></u>									1						
O&C (+/- 3%)		\$ 960	\$ 810	\$ 660	\$ 660	\$ 530	\$ 450	\$ 450	\$ 360	\$ 210	\$ 210	\$ 210	\$ 210	\$ 5,720	\$ 12,660
<u> </u>															
Overhead (+/- 2%)		\$ 660	\$ 560	\$ 450	\$ 450	\$ 360	\$ 310	\$ 310	\$ 250	\$ 140	\$ 140	\$ 140	\$ 140	\$ 3,910	\$ 8,670
						<u> </u>			1			<u> </u>			
AFUDÇ	<u> </u>													\$ -	\$ -
0.101150050105							 	I							
CASHFORECAST		\$ 33.620	\$ 28,370	\$ 23,110	\$ 23,110	\$ 18,390	\$ 15,760	\$ 15,760	\$ 12,610	\$ 7,350	\$ 7,350	\$ 7,350	\$ 7,220	\$ 200,000	\$ 600,000

KENTUCKY-AMERICAN WATER COMPANY ECONOMIC ANALYSIS OF THE IMPACT OF CAPITAL SPENDING PROPOSAL WATER SUPPLY PROJECT DEVELOPMENT

. . .

Determination of Revenue Requirement Authorized Rate of Return on Common Federal Income Tax Rate Return on Common Equity before FIT State Income Tax Rate	Equi	ty				11.00% 35.00% 16.92% 8.25%
Required Rate of Return on CE for Project Common Equity Ratio for Project Weighted Cost of Common Equity before		x				18.44% 40.00% 7.38%
Long Term Debt Ratio for Project Estimated Cost Rate for New Debt Weighted Cost of Debt						60.00% 8.00% 4.80%
Total Pre-Tax Cost of Capital						12.18%
Total Estimated Cost of Project Investment by Others Net Investment Financed by Company New Common Equity New Long Term Debt	\$	240,000 360,000			\$ \$	600,000 0 600,000
Total Revenue Requirement Required Pre-Tax Operating Income Depreciation Rate Property Tax Rate Change in Operation & Maint. Expense Revenue from New Customers Total Net Revenue Requirement Revenue Tax Rate Total Revenue Requirement		1.304% 0.7037% 0.14537%	\$ \$	Amount 73,080 7,824 4,222 0 0 1 85,126 124 85,250		Rate 12.18% 1.30% 0.70% 0.00% 14.18% 0.02% 14.20%
Latest 12 Months Revenue - 12/31/2002 Required Price Increase	1		\$	41,477,827 0.21%		