

FORM 993 Kentucky-American Water Company
2003 INVESTMENT PLAN

Investment Item	Brief Description of Proposed Expenditures	Authorized Expenditures					Strategic Business Plan				Original SBP		Current SBP	
		FY2003	FY2004	FY2005	2002	2001	2000	1999	Cost	Year	Cost	Year		
A	Mains, Hydrants, Valves, Meters - Deposit/Contribution	4,250,000												
B	Mains, Hydrants, Valves - Company Expense	975,000												
C	Services	1,425,000												
D	Meters	1,500,000												
E	Office Furniture & Equipment	25,000												
F	Transportation	0												
G	General Equipment	357,750												
H	Miscellaneous	163,400												
	TOTAL ITEM A THROUGH H	8,696,150												
		Estimated Cost	Prior	FY2003	FY2004	FY2005								
9619	Current Investment Projects	2,925,000	2,925,000	0	0	0								
01-02	Customer Service Software	1,500,000	1,500,000	500,000	882,200	0								
01-03	Clays Mill Ground Storage Tank - 3.0 MG	694,000	194,000	500,000	0	0								
01-04	SCADA Improvements	2,100,000	1,500,000	600,000	0	0								
01-05	Scott County Mains	1,500,000	325,000	150,000	1,025,000	0								
01-10	Russell Cave Rd. Tank - 1.0 MG	1,615,000	1,165,000	450,000	0	0								
01-11	RRS Hydraulic Improvements	1,800,000	1,030,000	770,000	0	0								
02-04	New Columbus Project	600,000	392,700	207,300	0	0								
	Other Supply Project Development													
	Proposed Investment Projects													
03-	Elevated Storage Tank - 2.0 MG	3,000,000	0	150,000	700,000	2,150,000								
03-	Major Highway Relocations	700,000	0	700,000	0	0								
03	Electrical Reliability Upgrades at KRS	1,320,000	0	400,000	920,000	0								
	INVESTMENT PROJECT TOTAL	4,427,000												
Line 1	TOTAL ITEM A THROUGH IP's (2000)	13,123,450												
Line 2	Item A, IP Contributions and Tap Fees	6,570,000												
Line 3	COMPANY FUNDED EXPENDITURES (1 minus 2)	6,553,450												
	Acquisitions													
Line 4	TOTAL ACQUISITIONS (2000)													
Line 5	TOTAL CAPITAL EXPENDITURES (1 plus 4) (2000)	13,123,450												
	\$ in Millions													
	Source of Supply - Water	207,300	0	0	0	0								
	Pumping - Water	0	0	0	0	0								
	Treatment - Water	950,000	0	0	0	0								
	Storage - Water	800,000	2,607,200	2,150,000	0	0								
	Distribution - Water	10,220,000	0	0	0	0								
	Other Water Plant	946,150	920,000	0	0	0								
	Pumping - Sewer	0	0	0	0	0								
	Treatment - Sewer	0	0	0	0	0								
	Collection - Sewer	0	0	0	0	0								
	Other Sewer Plant	0	0	0	0	0								
	Total (Line 1)	13,123,450	3,527,200	2,150,000	0	0								
	Infrastructure Improvements	2,421,150	920,000	0	0	0								
	Regulatory Mandates	2,157,300	2,607,200	2,150,000	0	0								
	Revenue Supported Growth	8,545,000	0	0	0	0								
	Total (Line 7)	13,123,450	3,527,200	2,150,000	0	0								

President _____ Date _____

Approved by Board of Directors for the Year 2003

Revised 11/05/02

2003 Investment Plan Summary --10/09/02

CPS #	Program of Construction Item	2003 Investment Plan Summary --10/09/02												FORECAST TOTAL	2001-2005 SBB Budget
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		
	Item A - Mains & Hydrants, Deposit Agreements	100,000	205,000	315,000	371,000	422,000	527,000	532,000	532,000	433,000	323,000	273,000	217,000	4,250,000	4,335,000
	Item B - Mains & Hydrants, New & Replacement	18,000	22,000	37,000	58,000	63,500	103,500	146,000	138,000	131,000	90,000	87,900	81,000	975,000	1,175,700
	Item C - Services	66,822	121,492	123,988	104,624	117,987	121,795	115,218	127,495	110,745	128,745	145,373	142,598	1,425,000	1,145,700
	Item D - Meters & Installations	51,200	109,500	209,250	172,500	166,100	197,150	161,050	159,400	80,850	63,800	49,450	79,750	1,500,000	1,657,300
	Item E - Office Furniture & Equipment	2,000	6,000	2,000	2,000	2,000	2,000	2,000	2,000	2,500	2,500	0	0	2,500,000	312,000
	Item F - Transportation Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	147,900
	Item G - General Equipment	35,000	23,500	24,450	14,000	113,800	97,000	20,000	27,000	2,000	1,000	0	0	357,750	261,800
	Item H - Miscellaneous	0	6,500	8,000	32,000	0	95,000	1,400	10,000	10,500	0	0	0	163,400	378,100
	SUB-TOTAL	273,122	493,992	719,668	754,124	885,397	1,143,445	977,668	995,885	770,585	607,045	554,823	520,348	8,696,150	9,413,500
	LESS Item A	100,000	205,000	315,000	371,000	422,000	527,000	532,000	532,000	433,000	323,000	273,000	217,000	4,250,000	4,335,000
	TOTAL	173,122	288,992	404,668	383,124	463,397	616,445	445,668	463,885	337,585	284,045	281,823	303,348	4,446,150	5,078,500
INVESTMENT PROJECTS															
96-19	Customer Service Software	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01-02	Clays Mill Ground Storage Tank - 3.0 MG	0	0	0	10,000	25,000	50,000	50,000	90,000	80,000	80,000	80,000	35,000	500,000	700,000
01-03	SCADA Improvements	50,000	50,000	60,000	60,000	60,000	60,000	60,000	60,000	50,000	20,000	0	0	500,000	500,000
01-04	Scott County Mains	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01-05	Russell Cave Rd. Tank - 1.0 MG	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01-10	RRS Hydraulic Improvements	100,000	100,000	150,000	75,000	75,000	100,000	75,000	5,000	5,000	5,000	5,000	130,000	600,000	750,000
01-11	New Columbus Project	10,000	10,000	25,000	50,000	50,000	100,000	100,000	100,000	150,000	100,000	50,000	25,000	450,000	600,000
02-01	Leestown Road Main Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02-03	Replace Travelling Screen Housing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02-04	Source of Supply Project Development	25,000	50,000	50,000	50,000	25,000	7,300	0	0	0	0	0	0	207,300	200,000
03-	Ground Storage Tank - 3.0 MG	0	0	0	0	2,500	7,500	10,000	20,000	35,000	35,000	35,000	5,000	150,000	150,000
03-	Replace Filter Media @ KRS - Hydrotis 3 & 4	50,000	50,000	50,000	100,000	75,000	75,000	75,000	75,000	75,000	40,000	20,000	15,000	700,000	1,500,000
03-	Major Highway Relocations	10,000	25,000	100,000	100,000	100,000	65,000	0	0	0	0	0	0	400,000	400,000
03	Electrical reliability upgrades at KRS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SUB-TOTAL IPS	295,000	380,000	510,000	520,000	412,500	459,800	370,000	425,000	395,000	280,000	190,000	210,000	4,427,300	5,315,000
	IP Reimbursements	0	0	0	0	0	0	0	0	0	0	0	0	(1,220,000)	(1,150,000)
	TOTAL IPS (Less IP Reimbursements)	295,000	380,000	510,000	520,000	412,500	459,800	370,000	425,000	395,000	280,000	190,000	210,000	3,207,300	4,165,000
	Tap Fees	(91,667)	(91,667)	(91,667)	(91,667)	(91,667)	(91,667)	(91,667)	(91,667)	(91,667)	(91,667)	(91,667)	(91,667)	(1,100,000)	(1,100,000)
Total Investment Plan (Less Item A and Reimbursements)															
		376,455	557,325	823,031	811,457	784,230	984,578	324,001	797,228	640,928	472,378	380,156	(398,319)	6,553,450	8,143,500

2003 Investment Plan - Investment Projects

CPS #	Project No.	IP No.	INVESTMENT PROJECTS	Acct	12/31/2002 Prior	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2003 TOTAL	YTD Forecast	Projected Total	Anticipated Completion	COMMENTS
	10619	9619	Customer Service Software	391.25	2,925,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,925,000	Dec-03	
		01-02	Clays Mill Ground Storage Tank - 3.0 MG	342	117,800	0	0	0	10,000	25,000	50,000	50,000	90,000	80,000	80,000	80,000	35,000	500,000	0	1,500,000	Dec-04	
		01-03	SCADA Improvements	391.28	194,000	50,000	50,000	60,000	60,000	40,000	50,000	60,000	60,000	50,000	20,000	0	0	500,000	0	694,000	Dec-03	
		01-04	Scott County Mains	343	1,500,000	50,000	75,000	75,000	75,000	75,000	100,000	75,000	75,000	0	0	0	0	600,000	0	2,100,000	Dec-03	\$1,500,000 complete and in service in December 2002
		01-05	Russell Caw Rd. Tank - 1.0 MG	342	175,000	0	0	0	0	0	0	0	5,000	5,000	5,000	5,000	130,000	150,000	0	1,500,000	Aug-04	
		01-10	KRS Hydraulic Improvements	332	1,315,000	100,000	100,000	150,000	75,000	20,000	5,000	0	0	0	0	0	0	450,000	0	1,615,000	Dec-03	
		01-11	New Columbus Project	343	1,025,000	10,000	10,000	25,000	50,000	50,000	100,000	100,000	100,000	150,000	100,000	50,000	25,000	770,000	0	1,795,000	Dec-03	
		02-61	Leestown Road Main Improvements	343	75,600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	700,000	Jun-04	
		02-03	Replace Travelling Screen Housing	311	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Dec-04	Postponed from 2002
		02-64	Source of Supply Project Development	343	192,700	25,000	50,000	50,000	50,000	25,000	7,300							207,300	0	400,000	Dec-03	
		03-	Ground Storage Tank - 3.0 MG	342	0	0	0	0	0	2,500	7,500	10,000	20,000	35,000	35,000	35,000	5,000	150,000	0	1,500,000	Dec-04	
		03-	Replace Filter Media @ KRS - Hydrotr 3 & 4	332	0	0	0	0	0									0	0	0	Jun-04	
		03-	Major Highway Relocations	343	0	50,000	50,000	50,000	100,000	75,000	75,000	75,000	75,000	75,000	40,000	20,000	15,000	700,000	0	700,000	Dec-03	
		03	Electrical reliability upgrades at KRS	331	0	10,000	25,000	100,000	100,000	100,000	65,000	0	0	0	0	0	0	400,000	0	2,500,000	Dec-04	
			Investment Total			295,000	360,000	510,000	520,000	412,500	459,800	370,000	425,000	395,000	280,000	190,000	210,000	4,427,300				
			Reimbursements			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			Investment Plan Total			295,000	360,000	510,000	520,000	412,500	459,800	370,000	425,000	395,000	280,000	190,000	(1,020,000)	4,427,300				
			Actual/Projected																			

**ITEM A - MAINS & HYDRANTS, DEPOSIT AGREEMENT
2003 INVESTMENT PLAN**

Item	Acct	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Mains	343	100,000	200,000	300,000	350,000	400,000	500,000	500,000	500,000	400,000	300,000	250,000	200,000	4,000,000
Reimbursible projects from Item B	343	0	0	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	50,000
Fire Services	345	0	5,000	10,000	15,000	15,000	20,000	25,000	25,000	25,000	15,000	15,000	10,000	180,000
Hydrants	348	0	0	0	1,000	2,000	2,000	2,000	2,000	3,000	3,000	3,000	2,000	20,000
Total Budget		100,000	205,000	315,000	371,000	422,000	527,000	532,000	532,000	433,000	323,000	273,000	217,000	4,250,000

**ITEM B - MAINS & HYDRANTS, NEW & REPLACEMENT
2003 INVESTMENT PLAN**

Item	Acct	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1A. Mains @ Company Expense-Co. Portion	343	7,000	7,000	10,000	16,000	16,000	20,000	23,000	27,000	23,000	17,000	17,000	17,000	200,000
1B. Mains - Expense for Upsizing Mains	343	0	0	2,000	7,000	7,500	8,500	8,000	6,000	8,000	3,000	0	0	50,000
2A. Hydrants @ Company Expense - New	348	5,000	10,000	15,000	15,000	20,000	20,000	20,000	20,000	25,000	20,000	20,000	10,000	200,000
2B. Hydrants - Additional Hydrants requested	348						20,000	20,000	20,000					60,000
4. Miscellaneous Capitalized Maintenance Repairs	343	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Relocations	343	6,000	5,000	10,000	20,000	20,000	35,000	75,000	65,000	75,000	50,000	50,000	54,000	465,000
Total Budget		18,000	22,000	37,000	58,000	63,500	103,500	146,000	138,000	131,000	90,000	87,000	81,000	975,000

**ITEM C - SERVICES
2003 INVESTMENT PLAN**

Item	Account		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	Unit	Cost													
1. Install 3/4" Services (5002)	345	\$ 525	3,672	8,392	2,098	1,574	3,147	5,245	7,868	5,245	5,245	5,245	2,623	2,098	52,450
			7	16	4	3	6	10	15	10	10	10	5	4	100
2. Renew 3/4" Services (6002)	345	\$ 1,200	6,000	9,600	8,400	6,000	12,000	12,000	12,000	6,000	6,000	18,000	6,000	6,000	108,000
			5	8	7	5	10	10	10	5	5	15	5	5	90
3. Extend 3/4" Services (7002)	345	\$ 500	0	500	500	500	500	500	500	500	500	500	500	500	5,500
			0	1	1	1	1	1	1	1	1	1	1	1	11
4. Install 1" Services (5102)	345	\$ 600	42,000	54,000	60,000	60,000	66,000	66,000	66,000	90,000	72,000	72,000	90,000	90,000	828,000
			70	90	100	100	110	110	110	150	120	120	150	150	1,380
5. Renew 1" Services (6102)	345	\$ 1,350	13,500	40,500	40,500	20,250	20,250	20,250	13,500	13,500	13,500	20,250	40,500	40,500	297,000
			10	30	30	15	15	15	10	10	10	15	30	30	220
6. Extend 1" Services (7102)	345	\$ 500	0	500	1,000	1,000	1,500	2,500	2,500	2,500	2,000	1,000	500	0	15,000
			0	1	2	2	3	5	5	5	4	2	1	0	30
7. Install 2" Services (5302)	345	\$ 1,750	1,750	5,250	8,750	8,750	8,750	8,750	7,000	7,000	8,750	7,000	5,250	3,500	80,500
			1	3	5	5	5	5	4	4	5	4	3	2	46
8. Renew 2" Services (6302)	345	\$ 2,750	0	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	0	0	24,750
			0	1	1	1	1	1	1	1	1	1	0	0	9
9. Extend 2" Services (7302)	345	\$ 700	0	0	0	700	0	700	0	0	0	0	0	0	1,400
			0	0	0	1	0	1	0	0	0	0	0	0	2
10-Install Domestic Services larger than 2"	345	\$ 3,100	0	0	0	3,100	3,100	3,100	3,100	0	0	0	0	0	12,400
			0	0	0	1	1	1	1	0	0	0	0	0	4
Subtotal			66,922	121,492	123,998	104,624	117,997	121,795	115,218	127,495	110,745	126,745	145,373	142,598	1,425,000

**ITEM E - OFFICE FURNITURE & EQUIPMENT
2003 INVESTMENT PLAN**

Item	Acct	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Administrative														
Information Services														
1. Replace/Upgrade 10 computers		2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,500	2,500			21,000
Production														
Purchase one lap top computer for field information	391.1		4000											4,000
Water Quality														
Total Budget		2,000	6,000	2,000	2,000	2,000	2,000	2,000	2,000	2,500	2,500	0	0	25,000
Actual/Projected														

**ITEM F - TRANSPORTATION EQUIPMENT
2003 INVESTMENT PLAN**

Item	Acct	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Distribution														
1. Replace 1997 Chevy 1 1/2 Ton, Unit 70	392.12													0
2. Replace 1995 Chevy 3/4 Ton, Unit 46	392.11													0
Engineering														
Replace 1998 Unit 82, 1/2 ton pick-up														0
Production														
Replace Unit 58, 1996 4 x 4 truck	392.11													0
Water Quality														
Total														0
Trade-in Value														0
Total Item F Less Trade-ins			0	0	0	0	0	0	0	0	0	0	0	0
Actual/Projected														

**ITEM 6 - GENERAL EQUIPMENT
2003 INVESTMENT PLAN**

Item	Acct	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Distribution														
1. Miscellaneous Small Equipment	394		1,000	1,000	2,000	2,000	2,000	2,000	2,000	2,000	1,000			15,000
2. 25 Perma-Log leak detectors @ \$900 each	394		22,500											22,500
3. Line Stop Replacement parts	394						50,000							50,000
Engineering														
	398													
Maintenance														
1. Replace Washwater Holding Tank Sludge Pumps, R	398					45,000								45,000
2. Replace PACL Chemical Feed Pumps, RRS	398								25,000					25,000
3. Replace Chemical Feed Pump VSD, KRS	398					11,800								11,800
Production														
1. Replace exhaust fans at KRS valve house					12,000									12,000
2. Replace mower at KRS				2,000										2,000
3. Replace large tractor mower attach. at Jacobson				1,450										1,450
4. Replace Intake & Raw Water Ultrasonic Sensors	398						45,000							45,000
Water Quality														
1. Continuous remote chlorine analyzers dist.syst.	395							18,000						18,000
2. Online Ammonia/Chloramine Analyzer at KRS	395			10,000										10,000
3. Online Ammonia/Chloramine Analyzer at RRS	395			10,000										10,000
4. Gas Chromatograph system for HA analysis	395					55,000								55,000
5. Purchase AA Spectro		35,000												35,000
Total Investment		35,000	23,500	24,450	14,000	113,800	97,000	20,000	27,000	2,000	1,000	0	0	357,750
Less Item G Trade-in Values														0
Total Investment Item G		35,000	23,500	24,450	14,000	113,800	97,000	20,000	27,000	2,000	1,000	0	0	357,750
Actual/Projected														

**ITEM H - MISCELLANEOUS
2003 INVESTMENT PLAN**

Item	Acct	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	YTD
Administrative															
1. Install security equipment at stock building			8,000											8,000	
Maintenance															
1. Replace No. 14 Motor at KRS	311				65,000									65,000	
2. Replace Cox Street Motor	347			10,000										10,000	
Production															
1. Repairs to Production office trailer					20,000									20,000	
2. Replace outdoor lighting at KRS			6,500											6,500	
3. Upgrade Septic system at KRS				8,500										8,500	
Water Quality															
1. Replace Analytical Balance RRS Lab			3,500											3,500	
2. Purchase feeder Calib. Balance for RRS Lab				1,400										1,400	
3. Distribution Sampling Stations			10,000											10,000	
4. KRS Particle Counters and spares				10,000										10,000	
5. UV-Sterilization Cabinet for Filter Funnels				2,000										2,000	
6. Autoclave Sterilizer KRS				8,500										8,500	
7. Online Analyzer @ KRS					10,000									10,000	
Total Budget			0	6,500	8,000	32,000	0	95,000	1,400	10,000	10,500	0	0	163,400	142,900
Actual/Projected															0

**Investment Budget
2003
Item G**

- 1. Buy-Out Previously Leased Atomic Absorption Spectrophotometer & THM Gas Chromatograph.....\$35,000**

These systems are used to analyze trace metals including compliance lead and copper testing and trihalomethane disinfection byproducts. The lease agreement has ended (original value was \$139,002.65, leased over 60 months). Equipment is still functioning well; therefore, the buyout will eliminate the monthly extended lease payments of \$2,500 per month. (January)

- 2. Miscellaneous Small Equipment.....\$15,000**

- 3. (25) Perma-Log Leak Detectors.....\$22,500**

- 4. Purchase Finish Lawn Mower\$2,000**

The mower for the Kubota lawn tractor is in need of replacement. A considerable amount of mowing is accomplished with KAWC associates. Repair costs and downtime of the equipment has been a hindrance in keeping the properties in acceptable appearance.

- 5. Purchase Brush Mower\$1,450**

The mower for the large tractor is in need of replacement. This mower is used to mow large areas of company property, including the farm at Jacobson Reservoir. The mower is cracked in several places and modifications have been made to the original deck.

- 6. Online Ammonia/Chloramine Analyzers KRS and RRS.....\$20,000**

These analyzers will allow operating personnel to more closely monitor the ammonia and monochloramine levels in the finished water to ensure proper chloramine disinfectant levels.

- 7. Exhaust fans valve house at KRS\$12,000**

Some of the valve houses were constructed as long ago as 1958. They were not constructed to house electronic equipment. Now the valve houses are equipped with numerous pieces of critical electronic equipment. The humidity and heat buildup in these buildings is resulting in corrosion and damage to this expensive and valuable electronic equipment. The installation of exhaust fans for use in summer months would help to bring a better and more desired environment in these facilities for the equipment that is now operating in them.

**Investment Budget
2003
Item G**

8. Replace Washwater Holding Tank Sludge Pumps, KRS.....\$45,000

These sludge pumps have been in service since 1992 and are in need of replacement. The sludge and grit these pumps transfer have worn the impellers, shafting, pump housings, etc. to the point of having to be replaced. They pump sludge, etc., from the washwater holding tanks to the lagoons for dewatering/drying. One of these pumps has been removed for repair. The repair cost is within ninety percent (90%) of the cost of a new pump.

9. Replace Chemical Feed Pump Variable Speed Drives, KRS.....\$11,800

The variable speed drives of the Ferric, PACl, Fluoride, Caustic Soda, Zinc Orthophosphate and Sodium Thiosulfate chemical feed pumps are obsolete and no repair parts are available. The manufacturer no longer produces the variable speed drives. To ensure treatment capacity reliability, these drives must be replaced. The chemical feed pumps will not operate without these drives.

10. Air Conditioner for the Laboratory at KRS\$15,000

The current air conditioner is over 15 years old requiring major repairs and \$3,000 has already been spent in 2002. This unit serves the laboratory and, for proper working environment of the personnel and the equipment, the unit needs to be replaced in order to ensure a working unit and to maintain the environment as is needed.

11. Gas Chromatograph System for Haloacetic Acid Analysis.....\$55,000

This advanced analysis equipment is needed to test for a newly regulated class of disinfection byproducts (Haloacetic Acids) which must be monitored extensively under new regulation. In-house monitoring capability will also enable effective treatment process analysis and control for these newly regulated parameters.

12. Line Stop Replacement Parts.....\$50,000

**13. Replace Intake and Raw Water Transfer Pump Ultrasonic Flow Meters, KRS
.....\$45,000**

The existing flow meters are used to measure the flow rate each pump is delivering to the treatment plant(s). They are also used to automatically calculate the wire-to-water efficiency of each pumping unit. They are the only means available to determine if a pumping unit is in need of maintenance/overhaul, due to lack of performance. The flow meters have been in service for 10 years and are in need of replacement due to lack of performance, age and obsolescence. There are no repair parts or repair service available for these units.

**Investment Budget
2003
Item G**

14. KRS Lab Sink Cabinet Assembly.....\$4,000

The sink used in the laboratory at the KRS, where raw, treated and effluent water feed lines continuously flow, is not designed appropriately for the sampling of these lines on a regular basis. A new sink cabinet assembly is needed to eliminate splattering of spills of bacteria laden raw water associated with the current sink assembly.

15. Continuous Chlorine Analyzers in Distribution System.....\$18,000

These instrument systems will monitor chlorine at remote areas, which now must be manually tested, taking much staff time to drive to these remote sites.

16. Replace PACI Chemical Feed Pumps, RRS\$25,000

The existing PACI pumps were originally installed as Alum feed pumps in Chemical Building No.1 in 1988. They were moved to Chemical Building No. 2 in 1997. The primary coagulant was changed to PACI in 2002 and these pumps are now being utilized as PACI feed pumps. These pumps cannot be operated in automatic flow paced mode due to the fact that they do not have any remote stroke adjuster or means of remotely controlling the stroke adjustment. To ensure efficient operation, adequate treatment of the processed water, compliance with treatment standards, these pumps must be replaced and remote control added to the SCADA system.

**Investment Budget
2003
Item H**

- 1. Replace Outdoor Lighting @ KRS.....\$6,500**
- 2. Install Security Monitor\$8,000**
- 3. Remodel Residence @ KRS\$20,000**

The residence at the Kentucky River Station is vacant and needs to have maintenance and remodeling work performed on the building. This building, is a three bedroom brick veneer 1960's style ranch house. The operations superintendent of maintenance at the Kentucky River station uses a house trailer for an office and work space. I am proposing that we remodel this residential structure into an office building and meeting/training facility. We would also have the production supervisor cross connections work out of this building and free up needed space within the plant for the water quality group. The remainder of the house (the living room and dining area) would become a meeting room and training facility in which to conduct associate training sessions, and to conduct various meeting. Currently there is no area at this station in which to have a group meeting where all can meet at one time. The remodel facility would be large enough to accommodate the full production team for training session, to conduct construction meetings, safety meeting etc. As we move the one individual and the maintenance repair shop from a house trailer, and give needed office space to the water quality section.

- 4. Replace Cox Street Ground Booster Pump Motor\$10,000**

Cox Street Booster has been in service since 1948 and still contains the original motor that was installed at that time. Due to age, years in service, parts availability and the fact that it has an electrical short to frame, we propose to replace this motor with a premium efficient motor. This will reduce operating costs and improve efficiency. Additionally, should the motor develop another electrical short to frame, an ensuing explosion could occur.

- 5. Upgrade Septic System @ KRS\$8,500**
- 6. Replace Analytical Balance @ RRS Lab\$3,500**

Used daily by Water Quality and operators for precision weighing for preparation of reagents/medias, solids analysis, etc. Accuracy is imperative on this equipment for laboratory compliance.

- 7. Distribution Sampling Stations.....\$10,000**

As KAWC expands into more rural areas, adequate bacteriological sample points are difficult to locate. Sampling stations provide a clean, easily accessible means of collecting compliance samples.

**Investment Budget
2003
Item H**

8. Replace Intake & Raw Water Transfer Pump Ultrasonic Flow Meters, KRS\$45,000

The existing flow meters are used to measure the flow rate each pump is delivering to the treatment plant(s). They are also used to automatically calculate the wire-to-water efficiency of each pumping unit. They are the only means available to determine if a pumping unit is in need of maintenance/overhaul, due to lack of performance. The flow meters have been in service for 10 years and are in need of replacement, due to lack of performance, age and obsolescence. There are no repair parts or repair service available for these units.

9. Replace High Service Pump No. 14 Motor @ KRS\$65,000

High Service Pump No.14 has been in service since 1972. During that time the motor has been rewound five (5) times, at an average cost of \$14,000 per rewind. High Service Pump No.15 has been in service since 1982 and the motor has been rewound one (1) time. Other high service motors have similar histories of rewinds comparable to no.15. Pump No.14 motor appears to have inherent deficiencies. We propose to replace the motor of High Service Pump No.14 with a premium efficiency (94% - 95%) motor, to reduce operating and maintenance costs.

10. Replace Roof on RRS Lab and Control Room.....\$15,000

The roof is leaking in several areas and is 15 years old. This portion of the roof covers the laboratory and the control room. Rainfall leakage in this area cannot be tolerated. The roof for the pump station and electrical rooms was replaced in year 2002. We need to finish this building out and replace the remainder of the roof in 2003.

10. Repairs to Production Office Trailer @ RRS\$20,000

The Production group utilizes a double-wide trailer for an office. This unit was purchased in 1989 as a temporary facility during construction. It has now been in service for 14 years. Due to numerous leaks in the flat roof, this building needs to have a pitch-shingled roof installed. The exterior of the building is plywood and a partial plywood foundation skirting. The plywood foundation skirting and the exterior plywood have deteriorated and have severe termite damage. This plywood area needs to be replaced with a vinyl siding. The company has long recognized the need for repairs to this facility, but has the repairs have been delayed each year, and now it is becoming critical to complete this project.

**Investment Budget
2003
Item H**

11. KRS Particle Counters/Spares.....\$0,000

Additional units to monitor the settled water particle counts allowing careful evaluation of coagulation efficiency and a spare unit to have available for instrument problems.

12. Purchase Feeder Calibration Balance for RRS Lab.....\$1,400

This will be used for gross weighing of carbon, permanganate, and other chemicals/materials, to have accurate measures for calibrating chemical feeders, etc. Also, it will be used for general weighing of other materials.

13. Online Analyzers KRS.....\$30,000

Supplemental backup monitors for critical treatment parameters, turbidity, chlorine and pH, fluoride, orthophosphate using the SCADA interface. Ensures reliable function of automated monitoring systems.

14. UV-Sterilization Cabinet for Filter Funnels.....\$2,000

The existing cabinet is subject to frequent malfunctions and is due for replacement.

15. Autoclave Sterilizer @ KRS.....\$8,500

Replace old autoclave sterilizer that is subject to frequent failures and repairs.



Kentucky-American Water Company

1025 Laurel Oak Road • P.O. Box 1770 • Voorhees, New Jersey 08043 • (609) 346-8200
 October 16, 2002
 IP 01- 04
 Project No. 10511

KENTUCKY-AMERICAN WATER COMPANY SCOTT COUNTY MAINS REVISED INVESTMENT PROJECT 01-04

Reference: Investment Project Memoranda 01-04 dated 09/02/200; 99-03 dated 10/12/98, 97-05 dated 11/6/97, 95-12 dated 6/21/96; Strategic Business Plans for 1996, 1997, 1998, 1999, 2000, 2001 and 2002

Previous Estimated Cost	\$1,500,000
Previous 2001 Expenditure	\$750,000
Previous 2002 Expenditure	\$750,000
Previous Estimated Reimbursements	\$(960,000)
Proposed 2001 Reimbursements	\$(396,600)
Proposed 2002 Reimbursements	\$(563,400)
Revised Estimated Cost	\$2,363,000
Prior Expenditure	\$1,037,000
Proposed 2002 Expenditure	\$726,000
Proposed 2003 Expenditure	\$600,000
Revised Total Reimbursements	(\$1,607,300)
Prior Reimbursements	(\$705,000)
Proposed 2002 Reimbursements	(\$493,700)
Proposed 2003 Reimbursements	(\$408,000)

INVESTMENT PROJECT REVIEW		
DEPARTMENT	BY	DATE
ENGINEERING	<i>[Signature]</i>	11-22-02
WATER QUALITY	N/A	
INFO. SYSTEMS		
OTHERS		
RECOMMENDED FOR APPROVAL:		
<i>[Signature]</i>		12/9/02
PRESIDENT		

Kentucky-American Water Company
Revised IP 01-04
Scott County Mains
Project No. 10511
October 16, 2002
Page 2


DISCUSSION

An upward revision to the existing investment project is recommended to complete the public-private partnership with Scott County as proposed in the 2002 Strategic Business Plan. The Scott County Judge Executive has indicated that the Fiscal Court would like to complete all work by the end of the 2002-2003 Fiscal Year for the County which ends June 30, 2003. This work completes the provision of water service to all of Scott County as the City of Georgetown has already completed the western half of the County in partnership with the Fiscal Court. This program has enabled Kentucky-American to expand the retail service in a fast-developing area of our system. It additionally has allowed for two new wholesale customers at no additional expense and the potential for a third that has approached KAWC. Kentucky-American has received positive public recognition for its participation in the partnership and the residents of Scott County have received affordable, high quality water service that fits well with Governor Patton's initiative to provide water service to all of Kentucky.


The program was initiated under budget project 95-12 in 1995 and 1996. The County has agreed to provide 80 percent of the capital expenditures for rural water service and waive refunds if Kentucky-American Water Company will provide 20 percent of the capital expenditures. The fiscal court was only concerned with providing domestic water service, and insisted on the extension of small diameter, low pressure class PVC mains. Kentucky-American agreed to provide the investment necessary to upgrade the proposed facilities in order to provide for anticipated growth and to meet Company standards of materials for long-term maintenance. The proposed mains will provide a minimum hydrant fire flow of 500 gpm to these residential areas. Because Scott County was the third fastest growing county in the state of Kentucky for the 1990-2000 period, this additional investment has proven very cost effective. The Public Service Commission has approved the special agreement.

This project has included the installation of 23,000 feet of 8" main on Burgess Smith Road, 20,000 feet of 8" on Davis Turkeyfoot Road, 13,200 feet of 8" main on US 25 to the Grant County line, 2,600 feet of 8" on Frogtown Lane, and 4,900 feet of main on Mulberry Lane. The proposed revision will allow for the completion of the installation of 8,780 feet of 8" main in Northeast County Line Road in 2002 and completes the project with 18,850 feet of main on South Rays Fork and Fields Lane in 2003. This project will provide approximately 285 new customers with 90 being included in this last phase. This last phase will also allow for a second metering point for Georgetown Municipal Water and Sewer Service and a potential metering point for the City of Corinth north of Scott County.

The accuracy of the estimate is within plus/minus 10 percent.



Linda C. Bridwell, PE
Director of Engineering



Nick O. Rowe
Vice-President - Operations

**KENTUCKY-AMERICAN WATER COMPANY
REVISED INVESTMENT PROJECT 01-04
SCOTT COUNTY MAINS**

DETAILED COST ESTIMATE

Item	Responsibility	September 2000 Total Estimated Cost	October 2002 Total Estimated Cost	Scott County Contribution	KAWC Costs
2001 Design	Consultant	\$9,575			
Easement Acquisition	Consultant	\$25,000			
Construction	Contract	<u>\$665,580</u>			
		\$700,155			
Omissions Contingencies		\$34,345			
AFUDC		<u>\$15,500</u>			
		\$750,000	\$1,037,000	\$704,956	\$331,744
2002 Design	Consultant	\$8,000			
Easement Acquisition	Consultant	\$20,000			
Construction	Contract	<u>\$672,435</u>			
		\$700,435			
Omissions Contingencies		\$34,335			
AFUDC		<u>\$15,230</u>			
		\$750,000	\$726,000	\$493,680	\$232,320
2003 Design	Consultant		\$12,000	\$8,160	\$3,840
Easement Acquisition	Consultant		\$18,000	\$12,240	\$5,760
Construction	Contract		<u>\$530,000</u>	<u>\$360,400</u>	<u>\$169,600</u>
			\$560,000	\$380,800	\$179,200
Omissions & Contingencies			\$28,000	\$19,040	\$8,960
AFUDC			<u>\$12,000</u>	<u>\$8,160</u>	<u>\$3,840</u>
			\$600,000	\$408,000	\$192,000

**KENTUCKY-AMERICAN WATER COMPANY
ECONOMIC ANALYSIS OF THE IMPACT OF CAPITAL
REVISED INVESTMENT PROJECT 01-04
SPENDING PROPOSAL
SCOTT COUNTY MAINS**

Determination of Revenue Requirement

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	7.38%
Long Term Debt Ratio for Project	60.00%
Estimated Cost Rate for New Debt	7.00%
Weighted Cost of Debt	4.20%
Total Pre-Tax Cost of Capital	11.58%

Total Estimated Cost of Project	\$ 2,363,000
Investment by Others	1,607,300
Net Investment Financed by Company	\$ 755,700
New Common Equity	\$ 302,280
New Long Term Debt	453,420

Total Revenue Requirement

	<u>Amount</u>	<u>Rate</u>
Required Pre-Tax Operating Income	\$ 87,510	11.58%
Depreciation Rate 1.180%	8,917	1.18%
Property Tax Rate 0.7037%	5,318	0.70%
Change in Operation & Maint. Expense	0	0.00%
Revenue from New Customers	45,000	5.95%
Total Net Revenue Requirement	\$ 146,745	19.41%
Revenue Tax Rate 0.14537%	214	0.03%
Total Revenue Requirement	\$ 146,959	19.44%

Latest 12 Months Revenue - 09/30/2002	\$ 42,262,154
Required Price Increase	0.35%