

KENTUCKY AMERICAN WATER COMPANY
WATER DEMAND MODEL
U of L PROJECTIONS & UNACCOUNTED-FOR of 13%

MODEL UPDATE MARCH, 1992
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1996 Update with 1995 High Growth Population Series

Assumed Inflation Rate for the Year (CPI)					5.4%	4.21%	3.01%	2.99%	3.60%	2.50%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Projected Water/Sewer Rate Increase for the Year					4.04%	5.51%	51.80%	0.00%	3.32%	6.65%	6.09%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Losses and Non-Revenue Uses for Year						13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%
% GROWTH FOR YEAR - REFERENCE CASE			1.1%	1.1%	1.0%	1.0%	0.9%	0.8%	0.8%	0.7%	0.7%	0.6%	0.6%	0.5%	0.5%	2.2%	1.9%	1.6%	1.1%
			1.1%	0.0%	1.1%	1.3%	0.5%	1.8%	1.7%	1.7%	1.6%	1.5%	1.5%	1.5%	1.5%	5.6%	5.3%	4.7%	4.5%
Calendar Year	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015	2020
Total Population (Fayette County)	217701	220526	222912	222904	225366	228334	229500	233576	237652	241728	245555	249381	253207	257034	260861	275431	290000	303516	317032
Apartment Population	70546	71462	72235	72232	75741	76738	77130	78500	79870	81240	82526	83812	85098	86384	87670	92567	97463	102006	106548
U of K Full Time Residents	8153	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200
Inmates of Institutions	3793	4116	4439	4761	5084	5151	5177	5269	5361	5453	5539	5626	5712	5798	5885	6213	6542	6847	7152
Remaining Population Served (SFR, Fayette Co.)	135209	136748	138039	137710	136341	138245	138992	141607	144221	146835	149289	151743	154197	156652	159106	168451	177795	186463	195132
Outside County Population Served	4720	4979	5256	5491	5671	5835	6013	6163	6402	6699	6755	6819	6877	6937	6997	7219	7427	7589	7741
New Residents											2510	5027	7540	10055	12568	22135	31687	40518	49339
Actual Number of Customers																			
Usage Per Customer																			
Single Family Residential Per Capita Use (in gpd)	85.54	89.11	85.17	76.10	79.49	80.51	76.64	81.49	85.08	83.04	80.02	79.97	79.84	79.70	79.68	79.68	79.68	79.68	79.68
New Resident SFR Per Capita Use (in gpd)											72.02	71.97	71.86	71.73	71.71	71.71	71.71	71.71	71.71
Single Family Residential	11.97	12.63	12.21	10.90	11.29	11.60	11.11	12.04	12.82	12.75	12.47	12.64	12.80	12.96	13.13	13.82	14.51	15.14	15.77
Fayette Co. Residential use (in mgd).....	11.57	12.19	11.76	10.48	10.84	11.13	10.65	11.54	12.27	12.19	11.93	12.10	12.25	12.41	12.58	13.25	13.92	14.54	15.16
Apartment Population	70546	71462	72235	72232	75741	76738	77130	78500	79870	81240	82526	83812	85098	86384	87670	92567	97463	102006	106548
New Residents											1286	2572	3858	5144	6430	11327	16223	20766	25308
Number of Customers																			
Usage Per Customer																			
Existing Apartment Resident Per Capita Use (in gpd)	79.66	83.04	78.91	80.71	75.56	74.75	75.11	76.80	77.81	77.41	75.58	75.55	75.47	75.39	75.38	75.38	75.38	75.38	75.38
New Resident MFR Per Capita Use (in gpd)											71.80	71.77	71.70	71.62	71.61	71.61	71.61	71.61	71.61
Multi-Family Residential	1.37	1.41	1.39	1.33	1.40	1.40	1.42	1.49	1.57	1.45									
Garden Apartments	4.20	4.47	4.26	4.45	4.27	4.28	4.32	4.49	4.58	4.82									
High Rise Apartments	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.02									
Apartment use (in mgd).....	5.62	5.93	5.70	5.83	5.72	5.74	5.79	6.03	6.21	6.29	6.23	6.32	6.41	6.49	6.58	6.93	7.29	7.61	7.94
Outside Counties (see "Counties" pages)																			
Individual Cust. Use (in mgd)....	0.40	0.44	0.45	0.42	0.45	0.47	0.46	0.50	0.54	0.56	0.54	0.54	0.55	0.55	0.56	0.57	0.59	0.60	0.61
Bulk Sales Use (in mgd).....	0.53	0.77	0.73	0.61	0.58	0.64	0.63	0.78	0.75	0.71	0.78	0.79	0.79	0.79	0.80	0.84	0.88	0.92	0.96
Commercial Use (mgd)	7.75	8.10	7.74	7.18	7.48	7.79	7.53	7.93	8.37	7.84	7.95	8.07	8.18	8.30	8.42	8.89	9.36	9.80	10.23
Toyota Usage (mgd)			0.41	0.74	0.89	0.94	1.09	1.05	1.25	1.40	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
University of Kentucky	1.64	1.58	1.49	1.36	1.44	1.39	1.23	1.24	1.23	1.23	1.25	1.27	1.29	1.31	1.33	1.40	1.47	1.54	1.61

U of K Base Demand including residences (Main Campus only)	1.20	1.31	1.30	1.50	1.46	1.55	1.47	1.57	1.73	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63
U of K Student Population	23696	22461	22879	23297	23081	24132	24197	24288	24217	24378	24200	24200	24200	24200	24200	24200	24200	24200	24200
U of K per student use (g/d)	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
U of K student usage on campus (mgd).....	0.24	0.22	0.23	0.23	0.23	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Total U of K Main Campus Usage (mgd)	1.44	1.53	1.53	1.73	1.69	1.79	1.71	1.81	1.97	1.88	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87

Calendar Year	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015	2020
Other Public Use (in mgd).....	0.76	1.00	1.40	1.32	1.48	1.50	1.64	1.67	1.60	1.52	1.62	1.64	1.67	1.69	1.72	1.82	1.91	2.00	2.09
Total System Usage (mgd).....	29.70	31.55	31.20	29.67	30.57	31.40	30.73	32.56	34.19	33.61	33.71	34.14	34.55	34.96	35.39	37.12	38.83	40.42	42.01
Losses and Non-Revenue Use (%)	16.90%	17.60%	15.00%	12.30%	11.60%	15.40%	16.10%	17.64%	15.69%	16.01%	14.80%	14.80%	14.80%	14.80%	14.80%	14.80%	14.80%	14.80%	14.80%
Losses and Non-Revenue Use (mgd).....	6.04	6.74	5.51	4.16	4.01	5.71	5.90	6.97	6.36	6.41	5.86	5.93	6.00	6.07	6.15	6.45	6.75	7.02	7.30
Average Day Demand w/out Conservation (mgd)	35.74	38.28	36.71	33.84	34.59	37.11	36.63	39.53	40.55	40.02	39.56	40.07	40.56	41.03	41.54	43.56	45.58	47.44	49.31
Maximum Day w/out Conservation (mgd)	60.05	64.32	61.67	56.84	58.10	62.34	61.54	66.41	68.13	67.24	66.47	67.32	68.14	68.93	69.79	73.18	76.57	79.70	82.84
Actual Maximum Day (mgd)	57.47	54.89	63.91	47.72	58.52	56.42	47.22	59.49	58.36	63.77									
Conservation Impacts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-1.95	-1.58	-1.92	-2.27	-2.62	-2.75	-2.84	-2.91	-2.97	-3.04
Total Average Day Demand (mgd).....	35.74	38.28	36.71	33.84	34.59	37.11	36.63	39.53	40.55	38.07	37.99	38.16	38.28	38.41	38.79	40.72	42.67	44.47	46.27
Max Day: 95% Exceedance (mgd).....	60.05	64.32	61.67	56.84	58.10	62.34	61.54	66.41	68.12	65.28	64.86	65.35	65.77	66.22	66.95	70.25	73.57	76.64	79.71
In Plant Usage (mgd)	1.617	2.37	1.91	1.77	1.36	1.40	1.42	1.55	1.59	1.57	1.55	1.57	1.59	1.60	1.62	1.70	1.78	1.86	1.93
Total Max Day Production (mgd)[95%excd]	59.087	57.26	65.82	49.49	59.88	57.82	48.64	61.04	69.71	66.85	66.41	66.92	67.36	67.82	68.57	71.95	75.35	78.49	81.64
previous forecast (1992 CPS)	59.087	57.26	65.82	49.49	59.88	57.82	63.53	63.87	64.67	65.44	65.71	65.79	65.88	65.97	65.81	65.91	65.81	66.81	66.64

* NOTE: Revised to reflect actual 1986-1993 year-end billed usage & revised population projections per U of L Urban Studies Center.

FOR SAME CONDITIONS UNDER HOT, DRY SCENARIO:

TOTAL SYSTEM USAGE (mgd).....	31.48	33.44	33.08	31.45	32.41	33.28	32.58	34.51	36.24	35.63	35.73	36.19	36.63	37.05	37.52	39.34	41.16	42.85	44.53
LOSSES AND NON-REVENUE USE (%)	16.90%	17.60%	15.00%	12.30%	11.60%	15.40%	16.10%	17.64%	15.69%	16.01%	14.80%	14.80%	14.80%	14.80%	14.80%	14.80%	14.80%	14.80%	14.80%
LOSSES AND NON-REVENUE USE (mgd).....	6.40	7.14	5.84	4.41	4.25	6.06	6.25	7.39	6.74	6.79	6.21	6.29	6.36	6.44	6.52	6.83	7.15	7.44	7.74
TOTAL AVERAGE DAY DEMAND (mgd).....	37.89	40.58	38.91	35.87	36.66	39.34	38.83	41.90	42.99	42.42	41.94	42.48	42.99	43.49	44.03	46.18	48.31	50.29	52.27
MAX DAY: 95% EXCEEDANCE (mgd)	63.65	68.18	65.37	60.25	61.59	66.09	65.23	70.40	72.22	71.27	70.46	71.36	72.22	73.07	73.97	77.58	81.16	84.48	87.81
ACTUAL MAXIMUM DAY (mgd)	57.47	54.89	63.91	47.72	58.52	56.42	47.22	59.49	58.36	63.77									
CONSERVATION IMPACTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-1.95	-1.58	-1.92	-2.27	-2.62	-2.75	-2.84	-2.91	-2.97	-3.04
TOTAL AVERAGE DAY DEMAND (mgd).....	37.89	40.58	38.91	35.87	36.66	39.34	38.83	41.90	42.98	40.47	40.36	40.56	40.72	40.87	41.28	43.34	45.40	47.32	49.23
DROUGHT AVG. DAY DEMAND: 95% EXCD. (mgd)	45	48	46	42	43	46	46	50	51	48	48	48	48	48	49	51	54	56	58
MAX DAY: 95% EXCEEDANCE (mgd).....	63.65	68.18	65.37	60.25	61.59	66.09	65.23	70.40	72.21	69.32	68.85	69.39	69.86	70.35	71.13	74.64	78.16	81.42	84.68
IN PLANT USE(mgd)	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
TOTAL MAX DAY PRODUCTION (mgd)[95%excd]	59.07	56.49	65.51	49.32	60.12	58.02	48.82	61.09	73.81	70.92	70.45	70.99	71.46	71.95	72.73	76.24	79.76	83.02	86.28

SURROUNDING COUNTIES--INDIVIDUAL CUSTOMER

WATER DEMAND	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015	2020
WOODFORD COUNTY																			
Population	18884	19076	19900	19928	19955	20270	20585	20934	21283	21632	21988	22344	22701	23057	23413	24703	25992	27019	28045
No. of resid. connections	138	137	142	139	141	142	145	149	151	152	154	157	162	164	165	174	183	190	197
Persons per household	2.80	2.80	2.81	2.79	2.76	2.74	2.72	2.69	2.67	2.65	2.63	2.61	2.60	2.58	2.56	2.50	2.43	2.38	2.33
Population Service Area	386	384	399	387	389	389	394	401	403	403	405	411	419	422	421	433	444	452	459
KAWAHOONAH	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Existing Customer Per capita use (GPD)	85.54	89.11	85.17	76.10	79.49	80.51	76.64	81.49	85.08	83.04	80.02	79.97	79.84	79.70	79.68	79.68	79.68	79.68	79.68

OUTSIDE COUNTIES--BULK SALES																				
WATER DEMAND		1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015	2020
MIDWAY																				
Woodford Co.population projections		18884	19076	19900	19928	19955	20270	20585	20934	21283	21632	21988	22344	22701	23057	23413	24702.5	25992	27018.5	28045
Projected bulk consumption (mgd)		0.16	0.17	0.10	0.10	0.10	0.11	0.12	0.12	0.13	0.13	0.12	0.13	0.13	0.13	0.13	0.13	0.14	0.14	0.14
MIDWAY WATER DEMAND (in MGD).....		0.16	0.17	0.10	0.10	0.10	0.11	0.12	0.12	0.13	0.13	0.12	0.13	0.13	0.13	0.13	0.13	0.14	0.14	0.14
VERSAILLES																				
Woodford Co.population projections		18884	19076	19900	19928	19955	20270	20585	20934	21283	21632	21988	22344	22701	23057	23413	24702.5	25992	27018.5	28045
Versailles projected tot. avg usage												2.70	2.74	2.79	2.83	2.87	3.03	3.19	3.32	3.44
Versailles production capacity(mgd)		2.50	2.50	2.50	2.50	2.50	2.50	2.50	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Projected bulk consumption (mgd) (supplemental supply)												-1.30	-1.26	-1.21	-1.17	-1.13	-0.97	-0.81	-0.68	-0.56
VERSAILLES WATER DEMAND (in MGD).....		0.00	0.13	0.07	0.03	0.05	0.07	0.02	0.13	0.02	0.01	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
SPEARS DISTRICT																				
KAW-B-S-SP-H-2-C-PH-A-021402-06-Conditi		28911	29338	30610	30559	30508	31016	31524	32470	33417	34363	35105	35848	36590	37333	38075	40918	43761	46373	48984
Average bulk consumption (mgd)		0.12	0.15	0.15	0.11	0.11	0.12	0.14	0.13	0.11	0.10	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.14	0.15

SPEARS DISTRICT WATER DEMAND (in MGD)...	0.12	0.15	0.15	0.11	0.11	0.12	0.14	0.13	0.11	0.10	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.14	0.15
SOUTH ELKHORN DISTRICT Jessamine Co. population projections Average bulk consumption (mgd)	28911 0.25	29338 0.33	30610 0.41	30559 0.37	30508 0.32	31016 0.35	31524 0.36	32470 0.40	33417 0.39	34363 0.38	35105 0.38	35848 0.39	36590 0.40	37333 0.40	38075 0.40	40918 0.43	43761 0.46	46372.5 0.48	48984 0.51
SOUTH ELKHORN WATER DEMAND (in MGD)...	0.25	0.33	0.41	0.37	0.32	0.35	0.36	0.40	0.39	0.38	0.38	0.39	0.40	0.40	0.40	0.43	0.46	0.48	0.51
NORTH MIDDLETOWN Bourbon Co. population projections Average bulk consumption (mgd)	19188 0.00	19088 0.00	18978 0.00	19277 0.00	19236 0.00	19316 0.00	19397 0.00	19396 0.00	19395 0.10	19394 0.09	19576 0.10	19758 0.10	19939 0.10	20121 0.10	20303 0.10	20957.5 0.10	21612 0.10	22144 0.10	22676 0.10
NORTH MIDDLETOWN WATER DEMAND (in MG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
BULK SALES TOTAL WATER DEMAND OUTSIDE COUNTIES.	0.53	0.77	0.73	0.61	0.58	0.64	0.63	0.78	0.75	0.71	0.78	0.79	0.79	0.79	0.80	0.84	0.88	0.92	0.96

CONSERVATION PROGRAM IMPACTS

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015	2020
RESIDENTIAL RETROFIT PROGRAM SAVINGS PER HOUSEHOLD HOUSEHOLDS PARTICIPATING ANNUAL SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.04	0.06	0.07	0.08	0.00	0.00	0.00	0.00	0.00
CUMULATIVE SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.09	0.14	0.21	0.29	0.29	0.29	0.29	0.29	0.29
RESIDENTIAL LANDSCAPE/TURF SCHEDULE SAVINGS PER HOUSEHOLD HOUSEHOLDS PARTICIPATING ANNUAL SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.05	0.00	0.00	0.00	0.00	0.00	0.00
CUMULATIVE SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.10	0.10	0.10	0.10	0.10	0.10	0.10
INTERIOR HOME CONSULTATION SAVINGS PER HOUSEHOLD HOUSEHOLDS PARTICIPATING ANNUAL SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CUMULATIVE SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.05	0.05	0.05	0.05
COMMERCIAL/INDUSTRIAL INTERNAL AUDIT SAVINGS PER COMMERCIAL UNIT UNITS PARTICIPATING ANNUAL SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.08	0.08	0.10	0.10	0.00	0.00	0.00	0.00
SAVINGS PER INDUSTRIAL UNIT UNITS PARTICIPATING ANNUAL SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.14	0.14	0.14	0.00	0.00	0.00	0.00	0.00
CUMULATIVE SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.32	0.54	0.78	0.89	0.89	0.89	0.89	0.89
INDUSTRIAL/UK EXTERIOR AUDIT UNIVERSITY OF KENTUCKY SAVINGS PER INDUSTRIAL UNIT UNITS PARTICIPATING ANNUAL SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CUMULATIVE SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04
KAW_R_PSC#12a_SCH4_021402 96updthi 4 of 10 INCREASED LEAK DETECTION 2/14/02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.91	1.35	1.36	1.38	1.40	1.41	1.48	1.55	1.61	1.68

TOTAL SAVINGS FROM CONSERVATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	1.95	1.58	1.92	2.27	2.62	2.75	2.84	2.91	2.97	3.04
---------------------------------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

PUBLIC SERVICE COMMISSION CASE NO. 93-434
ATTACHMENT A
REBUTTAL TESTIMONY OF LINDA BRIDWELL
ITEM 1

SCHEDULE A
UNIVERSITY OF LOUISVILLE MODERATE GROWTH SERIES POPULATION PROJECTIONS
PAGE 2 OF 5

PUBLIC SERVICE COMMISSION CASE NO. 93-434
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UNIVERSITY OF LOUISVILLE MODERATE GROWTH SERIES POPULATION PROJECTIONS
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SCHEDULE A
UNIVERSITY OF LOUISVILLE MODERATE GROWTH SERIES POPULATION PROJECTIONS
PAGE 5 OF 5

ADVANCED PLUMBING CODE EFFECTS CALCULATION

		1996	2006	
	UNIT WATER SAVINGS, GDU			
	TOILETS	21.12	20.20	
	SHOWERHEADS	10.03	10.90	
	FAUCETS	13.73	3.00	
	ELIGIBLE POPULATION, %			
13.0%	TOILETS	0.15	0.65	
	SHOWERHEADS	0.25	0.9	
	FAUCETS	0.25	0.9	
	PARTICIPATION RATE			
	LOW	0.75	0.75	
	HIGH	0.90	0.90	
	NUMBER OF CUSTOMERS CALC.			
	WATER USE, MGD			
	SINGLE FAMILY			
	IN CTY	11.9265	13.2492	
	OUT CTY	1.31746	1.4122	
	MULTI	6.23239	6.93481	
	SFR PER CAP USAGE	80.0199	79.6756	
	MFR PER CAP USAGE	75.58	75.38	
	SFR POPULATION	165508	184014	
	MFR POPULATION	82462	92000	
	PEOPLE/UNIT	2.64	2.52	
	EQU. RESID. CUSTOMERS	93928	109529	
	COMM & IND SAVINGS	0.15	0.44	FROM AMY
	GOVT AND UK SAVINGS	0.08	0.15	FROM AMY
	ESTIMATED APC SAVINGS, MGD			
	HIGH	1.00	3.12	
	LOW	0.87	2.70	
	AVG.	0.94	2.91	

KENTUCKY AMERICAN WATER COMPANY

WATER DEMAND MODEL

U of L PROJECTIONS & UNACCOUNTED-FOR of 13%

1996 Update with 1995 Moderate Growth Series Population Growth

ASSUMED INFLATION RATE FOR YEAR (CPI)

LOSSES AND NON REVENUE USES FOR YEAR
% GROWTH FOR YEAR - REFERENCE CASE

CALENDAR YEAR

TOTAL POPULATION (FAYETTE CO)
APARTMENT POPULATION
U OF K FULL TIME RESIDENTS
INMATES OF INSTITUTIONS

REMAINING POPULATION SERVED
OUTSIDE COUNTY POPULATION SERVED

PER CAPITA USE (in gpd)
Single Family Residential

Fayette Co. Residential use (in mgd).....

APARTMENT POPULATION

PER CAPITA USE (in gpd)

Multi-Family Residential
Garden Apartments
High Rise Apartments

Apartment use (in mgd).....

OUTSIDE COUNTIES (see "Counties" files)

Individual Cust. Use (in mgd)....
Bulk Sales Use (in mgd).....

COMMERCIAL USE (mgd)
TOYOTA USAGE
INDUSTRIAL USE (mgd,non-TOYOTA)
UNIVERSITY OF KENTUCKY
U of K Base Demand
(Main Campus only)
U of K Population
U of K per student use (g/d)
U of K student usage (mgd).....
TOTAL U of K MAIN CAMPUS USAGE(mgd)

CALENDAR YEAR

OTHER PUBLIC USE (in mgd).....

TOTAL SYSTEM USAGE (mgd).....

LOSSES AND NON-REVENUE USE (%)
LOSSES AND NON-REVENUE USE (mgd).....
PLUMBING CODE IMPACTS
TOTAL AVERAGE DAY DEMAND (mgd).....

MAX DAY: 95% EXCEEDANCE (mgd)

ACTUAL MAXIMUM DAY (mgd)

CONSERVATION IMPACTS
TOTAL AVERAGE DAY DEMAND (mgd).....

MAX DAY: 95% EXCEEDANCE (mgd).....

IN PLANT USE(mgd)
TOTAL MAX DAY PRODUCTION (mgd)95%excd
previous forecast (1992 CPS)

* NOTE: Revised to reflect actual 1986-1993 year-end billed usage & revised population projections per U of L Urban Studies Center.

FOR SAME CONDITIONS UNDER HOT, DRY SCENARIO:

TOTAL SYSTEM USAGE (mgd).....

KAW_R_PSC#12a_SCH4_021402_96updtmo
LOSSES AND NON-REVENUE USE (%)

2/14/02

MODEL UPDATE
RUN DATE
DIRECTORY
FILENAME
SHEET

MARCH, 1992
02/14/02
VFILES\EXCEL
96DEMFOR.XLW
96UPDTMO

ELAST. % OF USE
SFR INDOOR
SFR OUTDOOR
COMMERCIAL
INDUSTRIAL
APARTMENT

ADVANCED PLUMBING CODE EFFECTS CALCULATION

UNIT WATER SAVINGS, GDU

TOILETS

SHOWERHEADS

FAUCETS

ELIGIBLE POPULATION, %

TOILETS

SHOWERHEADS

FAUCETS

PARTICIPATION RATE

LOW

HIGH

NUMBER OF CUSTOMERS CALC.

WATER USE, MGD

SINGLE FAMILY

IN CTY

OUT CTY

MULTI

SFR PER CAP USAGE

MFR PER CAP USAGE

SFR POPULATION

MFR POPULATION

PEOPLE/UNIT

EQU RESID CUSTOMERS

COMM & IND SAVINGS

GOVT AND UK SAVINGS

ESTIMATED APC SAVINGS, MGD

HIGH

LOW

AVG.

1996

2006

21.12

20.20

10.03

10.90

13.73

3.00

0.15

0.65

0.25

0.9

0.75

0.90

11.74052

12.46584

1.464308

1.80634

6.124301

6.480488

81.46022

81.53539

76.73

76.77

162102

175043

79820

84412

2.64

2.52

91637

102958

0.15

0.44

FROM AMY

0.08

0.15

FROM AMY

0.98

2.97

0.86

2.57

0.92

2.77

LOSSES AND NON-REVENUE USE (mgd).....	6.40	7.14	5.84	4.41	4.25	6.06	6.25	7.38	6.72	6.22	6.30	6.35	6.40	6.45	6.50	6.68	6.87	6.93	7.00
PLUMBING CODE IMPACTS (mgd)	0.00	0.00	0.00	0.00	0.00	0.00	-0.18	-0.37	-0.55	-0.73	-0.92	-1.10	-1.29	-1.47	-1.66	-2.58	-3.51	-3.51	-3.51
TOTAL AVERAGE DAY DEMAND (mgd).....	37.89	40.58	38.91	35.86	36.66	39.34	38.83	41.80	42.26	41.29	41.65	41.82	41.99	42.13	42.28	42.58	42.88	43.33	43.79
MAX DAY: 95% EXCEEDANCE (mgd)	63.65	68.18	65.37	60.25	61.59	66.09	65.35	70.48	71.37	69.87	70.60	71.02	71.42	71.78	72.15	73.29	74.42	75.19	75.95
ACTUAL MAXIMUM DAY (mgd)	57.47	54.89	63.91	47.72	58.52	56.42	47.22	59.49	58.36										
CONSERVATION IMPACTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-1.39	-1.60	-1.93	-2.28	-2.62	-2.74	-2.81	-2.85	-2.86	-2.88
TOTAL AVERAGE DAY DEMAND (mgd).....	37.89	40.58	38.91	35.86	36.66	39.34	38.83	41.80	42.25	39.90	40.06	39.89	39.71	39.50	39.53	39.77	40.03	40.47	40.91
DROUGHT AVG. DAY DEMAND: 95% EXCD. (mgd)	45	48	46	42	43	46	46	49	50	47	47	47	47	47	47	47	47	48	48
MAX DAY: 95% EXCEEDANCE (mgd).....	63.65	68.18	65.37	60.25	61.59	66.09	65.35	70.48	71.36	68.48	68.97	69.03	69.04	69.06	69.31	70.39	71.48	72.23	72.98
IN PLANT USE(mgd)	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
TOTAL MAX DAY PRODUCTION (mgd)[95%excd]	59.07	56.49	65.51	49.32	60.12	58.02	48.82	61.09	72.96	70.08	70.57	70.63	70.64	70.66	70.91	71.99	73.08	73.83	74.58

SURROUNDING COUNTIES--INDIVIDUAL CUSTOMER

WATER DEMAND	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015	2020
WOODFORD COUNTY																			
Population	18884	19076	19900	19928	19955	20270	20585	20900	21215	21531	21828	22125	22422	22719	23016	24129	25243	25868	26493
No. of resid. connections	138	137	142	139	141	142	145	149	151	152	153	156	160	162	162	170	178	183	187
Per capita use (GPD)	85.54	89.11	85.17	76.10	79.49	80.51	76.64	81.98	86.33	81.42	81.46	81.50	81.54	81.54	81.54	81.54	81.54	81.54	81.54
Persons per household	2.80	2.80	2.81	2.79	2.76	2.74	2.72	2.69	2.67	2.65	2.63	2.61	2.60	2.58	2.56	2.50	2.43	2.38	2.33
WOODFORD CO. WATER DEMAND (in MGD).....	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
SCOTT COUNTY																			
Population	22689	23501	22760	23314	23867	24135	24403	24671	24939	25208	25458	25708	25958	26208	26460	27432	28405	29033.5	29662
No. of resid. connections	1055	1149	1287	1373	1446	1507	1571	1628	1716	1799	1817	1835	1853	1870	1888	1958	2027	2072	2117
Per capita use (GPD)	85.54	89.11	85.17	76.10	79.49	80.51	76.64	81.98	86.33	81.42	81.46	81.50	81.54	81.54	81.54	81.54	81.54	81.54	81.54
Persons per household	2.90	2.90	2.77	2.76	2.74	2.73	2.72	2.70	2.69	2.68	2.66	2.65	2.63	2.62	2.60	2.55	2.50	2.46	2.42
SCOTT CO. WATER DEMAND (in MGD).....	0.26	0.30	0.30	0.29	0.31	0.33	0.33	0.36	0.40	0.39	0.39	0.40	0.40	0.40	0.40	0.41	0.41	0.42	0.42
BOURBON COUNTY																			
Population	19188	19088	18978	19277	19236	19316	19397	19478	19558	19639	19706	19773	19840	19907	19976	20238	20500	20700	20900
No. of resid. connections	394	391	394	407	409	419	427	433	441	477	480	482	484	485	492	498	503	508	508
Per capita use (GPD)	85.54	89.11	85.17	76.10	79.49	80.51	76.64	81.98	86.33	81.42	81.46	81.50	81.54	81.54	81.54	81.54	81.54	81.54	81.54
Persons per household	2.70	2.70	2.73	2.72	2.70	2.69	2.67	2.66	2.64	2.63	2.62	2.60	2.59	2.57	2.56	2.51	2.45	2.41	2.36
BOURBON CO. WATER DEMAND (in MGD).....	0.09	0.09	0.09	0.08	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
HARRISON COUNTY																			
Population	15722	15907	15887	16195	16248	16387	16526	16665	16904	16943	17073	17204	17335	17465	17596	18110	18623	18935	19246
No. of resid. connections	78	77	80	80	80	78	79	78	80	83	81	82	81	83	86	89	91	93	94
Per capita use (GPD)	85.54	89.11	85.17	76.10	79.49	80.51	76.64	81.98	86.33	81.42	81.46	81.50	81.54	81.54	81.54	81.54	81.54	81.54	81.54
Persons per household	2.70	2.70	2.71	2.70	2.69	2.68	2.68	2.67	2.67	2.66	2.65	2.64	2.63	2.62	2.61	2.57	2.52	2.49	2.45
HARRISON CO. WATER DEMAND (in MGD).....	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
INDIVIDUAL CUSTOMER																			
TOTAL WATER DEMAND OUTSIDE COUNTIES..	0.40	0.44	0.45	0.42	0.45	0.47	0.46	0.51	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.56	0.57	0.57	0.57

OUTSIDE COUNTIES--BULK SALES

WATER DEMAND	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015	2020
MIDWAY																			
Woodford Co.population projections	18884	19076	19900	19928	19955	20270	20585	20900	21215	21531	21828	22125	22422	22719	23016	24129	25243	25868	26493
Projected bulk consumption (mgd)	0.16	0.17	0.10	0.10	0.10	0.11	0.12	0.12	0.13	0.13	0.12	0.13	0.13	0.13	0.13	0.13	0.14	0.13	0.14
MIDWAY WATER DEMAND (in MGD).....	0.16	0.17	0.10	0.10	0.10	0.11	0.12	0.12	0.13	0.13	0.12	0.13	0.13	0.13	0.13	0.13	0.14	0.13	0.14
VERSAILLES																			
Woodford Co.population projections	18884	19076	19900	19928	19955	20270	20585	20900	21215	21531	21828	22125	22422	22719	23016	24129	25243	25868	26493
Versailles projected tot. avg usage											2.70	2.74	2.77	2.81	2.85	2.98	3.12	3.20	3.28
Versailles production capacity(mgd)	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Projected bulk consumption (mgd)											0.20	0.24	0.27	0.31	0.35	0.48	0.62	0.70	0.78
(supplemental supply)																			
VERSAILLES WATER DEMAND (in MGD).....	0.00	0.13	0.07	0.03	0.05	0.07	0.02	0.13	0.02	0.01	0.20	0.24	0.27	0.31	0.35	0.48	0.62	0.70	0.78
SPEARS DISTRICT																			
Jessamine Co.population projections	28911	29338	30610	30559	30508	31016	31524	32032	32540	33049	33495	33941	34387	34833	35277	37017	38756	39792	40828
Average bulk consumption (mgd)	0.12	0.15	0.15	0.11	0.11	0.12	0.14	0.13	0.11	0.10	0.12	0.12	0.12	0.11	0.11	0.12	0.13	0.13	0.13
SPEARS DISTRICT WATER DEMAND (in MGD).....	0.12	0.15	0.15	0.11	0.11	0.12	0.14	0.13	0.11	0.10	0.12	0.12	0.12	0.11	0.11	0.12	0.13	0.13	0.13

Jessamine Co. population projections	28911	29338	30610	30559	30508	31016	31524	32032	32540	33049	33495	33941	34387	34833	35277	37017	38756	39792	40828
Average bulk consumption (mgd)	0.25	0.33	0.41	0.37	0.32	0.35	0.36	0.40	0.39	0.38	0.38	0.39	0.39	0.39	0.39	0.41	0.43	0.44	0.45
SOUTH ELKHORN WATER DEMAND (in MGD)	0.25	0.33	0.41	0.37	0.32	0.35	0.36	0.40	0.39	0.38	0.38	0.39	0.39	0.39	0.39	0.41	0.43	0.44	0.45
NORTH MIDDLETOWN																			
Bourbon Co. population projections	19188	19088	18978	19277	19236	19316	19397	19478	19558	19639	19706	19773	19840	19907	19976	20238	20500	20700	20900
Average bulk consumption (mgd)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
NORTH MIDDLETOWN WATER DEMAND (in MGD)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
BULK SALES																			
TOTAL WATER DEMAND OUTSIDE COUNTIES	0.53	0.77	0.73	0.61	0.58	0.64	0.63	0.78	0.75	0.71	0.92	0.96	1.01	1.04	1.08	1.25	1.41	1.50	1.60

CONSERVATION PROGRAM IMPACTS

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015	2020
RESIDENTIAL RETROFIT PROGRAM																			
SAVINGS PER HOUSEHOLD									22.40	22.40	22.40	22.40	22.40	22.40					
HOUSEHOLDS PARTICIPATING									300	1500	2000	2500	3000	3500	0	0	0	0	0
ANNUAL SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.04	0.06	0.07	0.08	0.00	0.00	0.00	0.00	0.00
CUMULATIVE SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.09	0.14	0.21	0.29	0.29	0.29	0.29	0.29	0.29
RESIDENTIAL LANDSCAPE/TURF SCHEDULE																			
SAVINGS PER HOUSEHOLD										3.80	3.80	3.80	3.80						
HOUSEHOLDS PARTICIPATING										500	3000	10000	12500						
ANNUAL SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.05	0.00	0.00	0.00	0.00	0.00	0.00
CUMULATIVE SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.10	0.10	0.10	0.10	0.10	0.10	0.10
INTERIOR HOME CONSULTATION																			
SAVINGS PER HOUSEHOLD											23.76	23.76	23.76	23.76	23.76	23.76			
HOUSEHOLDS PARTICIPATING											200	200	200	200	200	200			
ANNUAL SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CUMULATIVE SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.05	0.05	0.05	0.05
COMMERCIAL/INDUSTRIAL INTERNAL AUDIT																			
SAVINGS PER COMMERCIAL UNIT											523	523	523	523	523				
UNITS PARTICIPATING											50	150	150	200	200				
ANNUAL SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.08	0.08	0.10	0.10	0.00	0.00	0.00	0.00
SAVINGS PER INDUSTRIAL UNIT											70824	70824	70824	70824					
UNITS PARTICIPATING											1	2	2	2					
ANNUAL SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.14	0.14	0.14	0.00	0.00	0.00	0.00	0.00
CUMULATIVE SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.32	0.54	0.78	0.89	0.89	0.89	0.89	0.89
INDUSTRIAL/UK EXTERIOR AUDIT																			
UNIVERSITY OF KENTUCKY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SAVINGS PER INDUSTRIAL UNIT											1127	1127	1127	1127					
UNITS PARTICIPATING											1	2	2	2					
ANNUAL SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CUMULATIVE SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04
INCREASED LEAK DETECTION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.35	1.37	1.38	1.39	1.40	1.41	1.45	1.49	1.50	1.52
TOTAL SAVINGS FROM CONSERVATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	1.39	1.60	1.93	2.28	2.62	2.74	2.81	2.85	2.86	2.88

PUBLIC SERVICE COMMISSION CASE NO. 93-434
ATTACHMENT A
REBUTTAL TESTIMONY OF LINDA BRIDWELL
ITEM 1

SCHEDULE A
UNIVERSITY OF LOUISVILLE MODERATE GROWTH SERIES POPULATION PROJECTIONS
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SCHEDULE A
UNIVERSITY OF LOUISVILLE MODERATE GROWTH SERIES POPULATION PROJECTIONS
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KENTUCKY AMERICAN WATER COMPANY						MODEL UPDATE		MARCH, 1992												ELAST.		% OF USE																					
WATER DEMAND MODEL						RUN DATE		02/14/02																																			
U of L PROJECTIONS & UNACCOUNTED-FOR of 13%						DIRECTORY		FILES\EXCEL												SFR INDOOR		0.1 85.0%																					
						FILENAME		96DEMFOR.XLW												SFR OUTDOOR		0.5 15.0%																					
1996 Update with 1994 Urban County Government Population Projections						SHEET		96UPDTUC												COMMERCIAL		0.1 100.0%																					
																				INDUSTRIAL		0 100.0%																					
																				APARTMENT		0.1 100.0%																					
ASSUMED INFLATION RATE FOR YEAR (CPI)						5.4%		4.21%		3.01%		2.99%		5.00%		5.00%		5.00%		5.00%		5.00%		5.00%		5.00%		5.00%															
LOSSES AND NON REVENUE USES FOR YEAR						13.0%		13.0%		13.0%		13.0%		13.0%		13.0%		13.0%		13.0%		13.0%		13.0%		13.0%		13.0%															
% GROWTH FOR YEAR - REFERENCE CASE						1.1%		1.1%		1.0%		0.9%		0.8%		0.8%		0.7%		0.7%		0.6%		0.6%		0.5%		2.2%															
						1.1%		0.0%		1.1%		0.9%		0.9%		0.9%		0.9%		0.8%		0.8%		0.8%		3.4%		1.9%															
CALENDAR YEAR						1986		1987		1988		1989		1990		1991		1992		1993		1994		1995		1996		1997		1998		1999		2000		2005		2010		2015		2020	
TOTAL POPULATION (FAYETTE CO)						217701		220526		222912		222904		225366		227374		229381		231389		233397		235405		237412		239420		241428		243435		245443		253892		262340		267647		272954	
APARTMENT POPULATION						70546		71462		72235		72232		75741		76416		77090		77765		78440		79115		79789		80464		81139		81814		82488		85328		88167		89951		91734	
U OF K FULL TIME RESIDENTS						8153		8200		8200		8200		8200		8200		8200		8200		8200		8200		8200		8200		8200		8200		8200		8200		8200		8200			
INMATES OF INSTITUTIONS						3793		4116		4439		4761		5084		5129		5175		5220		5265		5310		5356		5401		5446		5492		5537		5728		5918		6038		6158	
REMAINING POPULATION SERVED						135209		136748		138039		137710		136341		137629		138916		140204		141492		142780		144067		145355		146643		147930		149218		154636		160055		163458		166862	
OUTSIDE COUNTY POPULATION SERVED						4720		4979		5256		5491		5671		5835		6013		6163		6402		6699		6710		6732		6751		6772		6793		6876		6951		6971		6988	
												79.48641		82.91113		75.73372		80.0413		79.24795		79.23107		79.23107		79.23107		79.23107		79.23107		79.23107		79.23107		79.23107		79.23107		79.23107			
												0.084619		1.282635		-0.07631		-0.042573		0.003297		0		0		0		0		0		0		0		0		0		0			
PER CAPITA USE (in gpd)						85.54		89.11		85.17		76.10		79.49		80.86		76.68		82.05		86.42		81.53		81.57		81.61		81.65		81.64		81.64		81.64		81.64		81.64			
Single Family Residential						11.97		12.63		12.21		10.90		11.29		11.60		11.11		12.01		12.78		0.65137		0.654235		0.655176															
Fayette Co. Residential use (in mgd).....						11.57		12.19		11.76		10.48		10.84		11.13		10.65		11.50		12.23		11.64		11.75		11.86		11.97		12.08		12.18		12.63		13.07		13.35		13.62	
APARTMENT POPULATION						70546		71462		72235		72232		75741		76416		77090		77765		78440		79115		79789		80464		81139		81814		82488		85328		88167		89951		91734	
														79.57645		78.65626		77.0779		76.76057		76.41991		76.68690		77.02049		77.36117		77.27126		76.84377		76.85775		76.86693		76.87131		76.8709			
														74.81834		77.30864		77.45265		78.9981		76.80102		76.825		76.84898		76.87295		76.8709		76.8709		76.8709		76.8709		76.8709					
														0.767583		-0.43261		-0.02603		0.002054		0		0		0		0		0		0		0		0		0					
PER CAPITA USE (in gpd)						79.66		83.04		78.91		80.71		75.56		75.06		75.15		77.32		79.01		76.80		76.82		76.85		76.87		76.87		76.87		76.87		76.87		76.87			
Multi-Family Residential						1.37		1.41		1.39		1.33		1.40		1.40		1.42		1.48		1.57																					
Garden Apartments						4.20		4.47		4.26		4.45		4.27		4.28		4.32		4.47		4.57																					
High Rise Apartments						0.05		0.05		0.05		0.05		0.05		0.05		0.05		0.06		0.06																					
Apartment use (in mgd).....						5.62		5.93		5.70		5.83		5.72		5.74		5.79		6.01		6.20		6.08		6.13		6.18		6.24		6.29		6.34		6.56		6.78		6.91		7.05	
OUTSIDE COUNTIES (see "Counties" files)																																											
Individual Cust. Use (in mgd)....						0.40		0.44		0.45		0.42		0.45		0.47		0.46		0.51		0.55		0.55		0.55		0.55		0.55		0.55		0.56		0.57		0.57					
Bulk Sales Use (in mgd).....						0.53		0.77		0.73		0.61		0.58		0.64		0.63		0.78		0.75		0.71		0.92		0.96		1.01		1.04		1.08		1.25		1.41		1.50		1.60	
COMMERCIAL USE (mgd)						7.75		8.10		7.74		7.18		7.48		7.79		7.53		7.91		8.29		8.39		8.47		8.54		8.61		8.68		8.76		9.06		9.36		9.55		9.74	
TOYOTA USAGE										0.41		0.74		0.89		0.94		1.09		1.05		1.25		1.54		1.54		1.54		1.54		1.54		1.54		1.54		1.54		1.54			
INDUSTRIAL USE (mgd,non-TOYOTA)						1.64		1.58		1.49		1.36		1.44		1.39		1.23		1.24		1.23		1.25		1.26		1.27		1.28		1.29		1.30		1.35		1.39		1.42		1.45	
UNIVERSITY OF KENTUCKY																																											
U of K Base Demand (Main Campus only)						1.20		1.31		1.30		1.50		1.46		1.56		1.48		1.58		1.74		0.44		0.44		0.44		0.44		0.44		0.44		0.44		0.44		0.44			
U of K Population						23696		22461		22696		22931		23165		23400		23400		23400		23400		23400		23400		23400		23400		23400		23400		23400		23400		23400			
U of K per student use (g/d)						10.00		10.00		10.00		10.00		10.00		10.00		10.00		10.00		10.00		10.00		10.00		10.00		10.00		10.00		10.00		10.00		10.00		10.00			
U of K student usage (mgd).....						0.24		0.22		0.23		0.23		0.23		0.23		0.23		0.23		0.23		0.23		0.23		0.23		0.23		0.23		0.23		0.23		0.23					
TOTAL U of K MAIN CAMPUS USAGE(mgd)						1.44		1.53		1.53		1.73		1.69		1.79		1.71		1.81		1.97		0.67		0.68		0.68		0.68		0.68		0.68		0.68		0.68		0.68			
CALENDAR YEAR						1986		1987		1988		1989		1990		1991		1992		1993		1994		1995		1996		1997		1998		1999		2000		2005		2010		2015		2020	
OTHER PUBLIC USE (in mgd).....						0.76		1.00		1.40		1.32		1.48		1.50		1.64		1.66		1.59		1.65		1.66		1.68		1.69		1.70		1.72		1.78		1.84		1.87		1.91	
TOTAL SYSTEM USAGE (mgd).....						29.70		31.55		31.20		29.67		30.57		31.40		30.73		32.48		34.06		32.47		32.95		33.26		33.57		33.85		34.15		35.39		36.62		37.39		38.15	
LOSSES AND NON-REVENUE USE (%)						16.90%		17.60%		15.00%		12.30%		11.60%		15.40%		16.10%		17.64%		15.69%		14.80%		14.80%		14.80%		14.80%		14.80%		14.80%		14.80%		14.80%		14.80%			
LOSSES AND NON-REVENUE USE (mgd).....						6.04		6.74		5.51		4.16		4.01		5.71		5.90		6.96		6.34		5.64		5.72		5.78		5.83		5.88		5.93		6.15		6.36		6.49		6.63	
PLUMBING CODE IMPACTS						0.00		0.00		0.00		0.00		0.00		0.00		-0.18		-0.37		-0.55		-0.73		-0.92		-1.11		-1.29		-1.48		-1.67		-2.60		-3.54		-3.54			
TOTAL AVERAGE DAY DEMAND (mgd).....						35.74		38.28		36.71		33.83		34.59		37.11		36.63		39.44		40.39		37.38		37.75		37.93		38.10		38.26		38.41		38.93		39.45		40.34		41.24	
MAX DAY: 95% EXCEEDANCE (mgd)						60.05		64.32		61.67		56.84		58.10		62.34		61.66		66.51		68.24		63.30		64.05		64.48		64.89		65.28		65.67		67.18		68.68		70.18		71.69	
ACTUAL MAXIMUM DAY (mgd)						57.47		54.89		63.91		47.72		58.52		56.42		47.22		59.49		58.36																					
CONSERVATION IMPACTS						0.00		0.00		0.00		0.00		0.00		0.00		0.00		-0.01		-1.34		-1.55		-1.88		-2.23		-2.58		-2.70		-2.77		-2.82		-2.85		-2.88			
TOTAL AVERAGE DAY DEMAND (mgd).....						35.74		38.28		36.71		33.83		34.59		37.11		36.63		39.44		40.39		36.04		36.21		36.05		35.87		35.68		35.71		36.16		36.63		37.49		38.36	
MAX DAY: 95% EXCEEDANCE (mgd).....						60.05		64.32		61.67		56.84		58.10		62.34		61.66		66.51		68.23		61.96		62.47		62.54		62.57		62.61		62.87		64.31		65.77		67.24		68.72	
IN PLANT USE(mgd)						1.617		2.37		1.91		1.77		1.36		1.40		1.42		1.55		1.58		1.47		1.48		1.49		1.49		1.50		1.51		1.53		1.55		1.58			
TOTAL MAX DAY PRODUCTION (mgd)95%excd						59.087		57.26		65.82		49.49		59.88		57.82		48.64		61.04		69.81		63.42		63.95		64.03		64.06		64.11		64.38									

LOSSES AND NON-REVENUE USE (mgd).....	6.40	7.14	5.84	4.41	4.25	6.06	6.25	7.38	6.72	5.98	6.07	6.12	6.18	6.23	6.29	6.52	6.74	6.88	7.02
PLUMBING CODE IMPACTS (mgd)	0.00	0.00	0.00	0.00	0.00	0.00	-0.18	-0.37	-0.55	-0.73	-0.92	-1.11	-1.29	-1.48	-1.67	-2.60	-3.54	-3.54	-3.54
TOTAL AVERAGE DAY DEMAND (mgd).....	37.89	40.58	38.91	35.86	36.66	39.34	38.83	41.80	42.27	39.67	40.07	40.27	40.47	40.64	40.82	41.42	42.03	42.98	43.93
MAX DAY: 95% EXCEEDANCE (mgd)	63.65	68.18	65.37	60.25	61.59	66.09	65.35	70.48	71.38	67.14	67.95	68.41	68.87	69.28	69.71	71.36	73.01	74.61	76.20
ACTUAL MAXIMUM DAY (mgd)	57.47	54.89	63.91	47.72	58.52	56.42	47.22	59.49	58.36										
CONSERVATION IMPACTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-1.34	-1.55	-1.88	-2.23	-2.58	-2.70	-2.77	-2.82	-2.85	-2.88
TOTAL AVERAGE DAY DEMAND (mgd).....	37.89	40.58	38.91	35.86	36.66	39.34	38.83	41.80	42.26	38.33	38.53	38.39	38.23	38.06	38.12	38.65	39.21	40.12	41.05
DROUGHT AVG. DAY DEMAND: 95% EXCD. (mgd)	45	48	46	42	43	46	46	49	50	45	46	45	45	45	45	46	46	47	49
MAX DAY: 95% EXCEEDANCE (mgd).....	63.65	68.18	65.37	60.25	61.59	66.09	65.35	70.48	71.37	65.80	66.37	66.48	66.54	66.61	66.91	68.50	70.10	71.66	73.23
IN PLANT USE(mgd)	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
TOTAL MAX DAY PRODUCTION (mgd)[95%excd]	59.07	56.49	65.51	49.32	60.12	58.02	48.82	61.09	72.97	67.40	67.97	68.08	68.14	68.21	68.51	70.10	71.70	73.26	74.83

SURROUNDING COUNTIES--INDIVIDUAL CUSTOMER

WATER DEMAND	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015	2020
WOODFORD COUNTY																			
Population	18884	19076	19900	19928	19955	20270	20585	20900	21215	21531	21828	22125	22422	22719	23016	24129	25243	25868	26493
No. of resid. connections	138	137	142	139	141	142	145	149	151	152	153	156	160	162	162	170	178	183	187
Per capita use (GPD)	85.54	89.11	85.17	76.10	79.49	80.86	76.68	82.05	86.42	81.53	81.57	81.61	81.65	81.64	81.64	81.64	81.64	81.64	81.64
Persons per household	2.80	2.80	2.81	2.79	2.76	2.74	2.72	2.69	2.67	2.65	2.63	2.61	2.60	2.58	2.56	2.50	2.43	2.38	2.33
WOODFORD CO. WATER DEMAND (in MGD).....	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
SCOTT COUNTY																			
Population	22689	23501	22760	23314	23867	24135	24403	24671	24939	25208	25458	25708	25958	26208	26460	27432	28405	29033.5	29662
No. of resid. connections	1055	1149	1287	1373	1446	1507	1571	1628	1716	1799	1817	1835	1853	1870	1888	1958	2027	2072	2117
Per capita use (GPD)	85.54	89.11	85.17	76.10	79.49	80.86	76.68	82.05	86.42	81.53	81.57	81.61	81.65	81.64	81.64	81.64	81.64	81.64	81.64
Persons per household	2.90	2.90	2.77	2.76	2.74	2.73	2.72	2.70	2.69	2.68	2.66	2.65	2.63	2.62	2.60	2.55	2.50	2.46	2.42
SCOTT CO. WATER DEMAND (in MGD).....	0.26	0.30	0.30	0.29	0.31	0.33	0.33	0.36	0.40	0.39	0.39	0.40	0.40	0.40	0.40	0.41	0.41	0.42	0.42
BOURBON COUNTY																			
Population	19188	19088	18978	19277	19236	19316	19397	19478	19558	19639	19706	19773	19840	19907	19976	20238	20500	20700	20900
No. of resid. connections	394	391	394	407	409	419	427	433	441	477	480	482	484	485	492	498	503	508	508
Per capita use (GPD)	85.54	89.11	85.17	76.10	79.49	80.86	76.68	82.05	86.42	81.53	81.57	81.61	81.65	81.64	81.64	81.64	81.64	81.64	81.64
Persons per household	2.70	2.70	2.73	2.72	2.70	2.69	2.67	2.66	2.64	2.63	2.62	2.60	2.59	2.57	2.56	2.51	2.45	2.41	2.36
BOURBON CO. WATER DEMAND (in MGD).....	0.09	0.09	0.09	0.08	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
HARRISON COUNTY																			
Population	15722	15907	15887	16195	16248	16387	16526	16665	16904	16943	17073	17204	17335	17465	17596	18110	18623	18935	19246
No. of resid. connections	78	77	80	80	80	78	79	78	80	83	81	82	81	83	86	89	91	93	94
Per capita use (GPD)	85.54	89.11	85.17	76.10	79.49	80.86	76.68	82.05	86.42	81.53	81.57	81.61	81.65	81.64	81.64	81.64	81.64	81.64	81.64
Persons per household	2.70	2.70	2.71	2.70	2.69	2.68	2.68	2.67	2.67	2.66	2.65	2.64	2.63	2.62	2.61	2.57	2.52	2.49	2.45
HARRISON CO. WATER DEMAND (in MGD).....	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
INDIVIDUAL CUSTOMER																			
TOTAL WATER DEMAND OUTSIDE COUNTIES.....	0.40	0.44	0.45	0.42	0.45	0.47	0.46	0.51	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.56	0.57	0.57	0.57

OUTSIDE COUNTIES--BULK SALES

WATER DEMAND	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015	2020
MIDWAY																			
Woodford Co.population projections	18884	19076	19900	19928	19955	20270	20585	20900	21215	21531	21828	22125	22422	22719	23016	24129	25243	25868	26493
Projected bulk consumption (mgd)	0.16	0.17	0.10	0.10	0.10	0.11	0.12	0.12	0.13	0.13	0.12	0.13	0.13	0.13	0.13	0.13	0.14	0.13	0.14
MIDWAY WATER DEMAND (in MGD).....	0.16	0.17	0.10	0.10	0.10	0.11	0.12	0.12	0.13	0.13	0.12	0.13	0.13	0.13	0.13	0.13	0.14	0.13	0.14
VERSAILLES																			
Woodford Co.population projections	18884	19076	19900	19928	19955	20270	20585	20900	21215	21531	21828	22125	22422	22719	23016	24129	25243	25868	26493
Versailles projected tot. avg usage											2.70	2.74	2.77	2.81	2.85	2.98	3.12	3.20	3.28
Versailles production capacity(mgd)	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Projected bulk consumption (mgd) (supplemental supply)											0.20	0.24	0.27	0.31	0.35	0.48	0.62	0.70	0.78
VERSAILLES WATER DEMAND (in MGD).....	0.00	0.13	0.07	0.03	0.05	0.07	0.02	0.13	0.02	0.01	0.20	0.24	0.27	0.31	0.35	0.48	0.62	0.70	0.78
SPEARS DISTRICT																			
Jessamine Co.population projections	28911	29338	30610	30559	30508	31016	31524	32032	32540	33049	33495	33941	34387	34833	35277	37017	38756	39792	40828
Average bulk consumption (mgd)	0.12	0.15	0.15	0.11	0.11	0.12	0.14	0.13	0.11	0.10	0.12	0.12	0.12	0.11	0.11	0.12	0.13	0.13	0.13
SPEARS DISTRICT WATER DEMAND (in MGD).....	0.12	0.15	0.15	0.11	0.11	0.12	0.14	0.13	0.11	0.10	0.12	0.12	0.12	0.11	0.11	0.12	0.13	0.13	0.13

Jessamine Co. population projections	28911	29338	30610	30559	30508	31016	31524	32032	32540	33049	33495	33941	34387	34833	35277	37017	38756	39792	40828
Average bulk consumption (mgd)	0.25	0.33	0.41	0.37	0.32	0.35	0.36	0.40	0.39	0.38	0.38	0.39	0.39	0.39	0.39	0.41	0.43	0.44	0.45
SOUTH ELKHORN WATER DEMAND (in MGD)	0.25	0.33	0.41	0.37	0.32	0.35	0.36	0.40	0.39	0.38	0.38	0.39	0.39	0.39	0.39	0.41	0.43	0.44	0.45
NORTH MIDDLETOWN																			
Bourbon Co. population projections	19188	19088	18978	19277	19236	19316	19397	19478	19558	19639	19706	19773	19840	19907	19976	20238	20500	20700	20900
Average bulk consumption (mgd)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
NORTH MIDDLETOWN WATER DEMAND (in MGD)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
BULK SALES																			
TOTAL WATER DEMAND OUTSIDE COUNTIES	0.53	0.77	0.73	0.61	0.58	0.64	0.63	0.78	0.75	0.71	0.92	0.96	1.01	1.04	1.08	1.25	1.41	1.50	1.60

CONSERVATION PROGRAM IMPACTS

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015	2020
RESIDENTIAL RETROFIT PROGRAM																			
SAVINGS PER HOUSEHOLD									22.40	22.40	22.40	22.40	22.40	22.40					
HOUSEHOLDS PARTICIPATING									300	1500	2000	2500	3000	3500	0	0	0	0	0
ANNUAL SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.04	0.06	0.07	0.08	0.00	0.00	0.00	0.00	0.00
CUMULATIVE SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.09	0.14	0.21	0.29	0.29	0.29	0.29	0.29	0.29
RESIDENTIAL LANDSCAPE/TURF SCHEDULE																			
SAVINGS PER HOUSEHOLD										3.80	3.80	3.80	3.80						
HOUSEHOLDS PARTICIPATING										500	3000	10000	12500						
ANNUAL SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.05	0.00	0.00	0.00	0.00	0.00	0.00
CUMULATIVE SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.10	0.10	0.10	0.10	0.10	0.10	0.10
INTERIOR HOME CONSULTATION																			
SAVINGS PER HOUSEHOLD											23.76	23.76	23.76	23.76	23.76	23.76			
HOUSEHOLDS PARTICIPATING											200	200	200	200	200	200			
ANNUAL SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CUMULATIVE SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.05	0.05	0.05	0.05
COMMERCIAL/INDUSTRIAL INTERNAL AUDIT																			
SAVINGS PER COMMERCIAL UNIT											523	523	523	523	523				
UNITS PARTICIPATING											50	150	150	200	200				
ANNUAL SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.08	0.08	0.10	0.10	0.00	0.00	0.00	0.00
SAVINGS PER INDUSTRIAL UNIT											70824	70824	70824	70824					
UNITS PARTICIPATING											1	2	2	2					
ANNUAL SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.14	0.14	0.14	0.00	0.00	0.00	0.00	0.00
CUMULATIVE SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.32	0.54	0.78	0.89	0.89	0.89	0.89	0.89
INDUSTRIAL/UK EXTERIOR AUDIT																			
UNIVERSITY OF KENTUCKY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SAVINGS PER INDUSTRIAL UNIT											1127	1127	1127	1127					
UNITS PARTICIPATING											1	2	2	2					
ANNUAL SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CUMULATIVE SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04
INCREASED LEAK DETECTION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.30	1.32	1.33	1.34	1.35	1.36	1.41	1.46	1.49	1.52
TOTAL SAVINGS FROM CONSERVATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	1.34	1.55	1.88	2.23	2.58	2.70	2.77	2.82	2.85	2.88

PUBLIC SERVICE COMMISSION CASE NO. 93-434
ATTACHMENT A
REBUTTAL TESTIMONY OF LINDA BRIDWELL
ITEM 1

SCHEDULE A
UNIVERSITY OF LOUISVILLE MODERATE GROWTH SERIES POPULATION PROJECTIONS
PAGE 1 OF 5

PUBLIC SERVICE COMMISSION CASE NO. 93-434
ATTACHMENT A
REBUTTAL TESTIMONY OF LINDA BRIDWELL
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SCHEDULE A
UNIVERSITY OF LOUISVILLE MODERATE GROWTH SERIES POPULATION PROJECTIONS
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PUBLIC SERVICE COMMISSION CASE NO. 93-434
ATTACHMENT A
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ITEM 1

SCHEDULE A
UNIVERSITY OF LOUISVILLE MODERATE GROWTH SERIES POPULATION PROJECTIONS
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ITEM 1

SCHEDULE A
UNIVERSITY OF LOUISVILLE MODERATE GROWTH SERIES POPULATION PROJECTIONS
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PUBLIC SERVICE COMMISSION CASE NO. 93-434
ATTACHMENT A
REBUTTAL TESTIMONY OF LINDA BRIDWELL
ITEM 1

SCHEDULE A
UNIVERSITY OF LOUISVILLE MODERATE GROWTH SERIES POPULATION PROJECTIONS
PAGE 5 OF 5

KENTUCKY-AMERICAN WATER COMPANY
HISTORIC CUSTOMER COUNT BY REVENUE CLASS & COUNTY
REVISED: 2/14/02

Directory: \\Files\Excel
Filename: 96DEMFOR.XLW
Sheet: Cntycust

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TOTAL CUSTOMER BASE:																		
RESIDENTIAL	54543	55863	56284	56661	57249	58365	59735	60832	62020	63839	65536	66657	67950	69428	71054	72697	74674	76354
COMMERCIAL	4096	4411	5047	5918	5613	5646	5783	5989	6145	6351	6475	6593	6847	6963	7049	7085	7168	7236
INDUSTRIAL	51	54	51	45	42	38	23	20	21	16	17	17	20	21	18	17	17	17
O.P.A.	309	360	342	409	310	325	340	398	438	435	388	391	422	422	417	423	421	423
FIRE PROTECTION	442	492	532	571	638	656	701	763	813	859	932	995	1035	1037	1062	1079	1102	1150
SUBTOTAL	59441	61180	62256	63604	63852	65030	66582	68002	69437	71500	73348	74653	76274	77871	79600	81301	83382	85180
BOURBON COUNTY:																		
RESIDENTIAL	282	305	334	343	347	354	385	390	394	391	394	407	409	419	427	433	441	477
COMMERCIAL	15	16	18	18	18	19	20	21	21	21	21	22	24	24	26	26	27	26
INDUSTRIAL																		
O.P.A.														1	1	1	1	2
FIRE PROTECTION																		
SUBTOTAL	297	321	352	361	365	373	405	411	415	412	415	429	433	444	454	460	469	505
HARRISON COUNTY:																		
RESIDENTIAL	60	61	66	67	68	70	76	77	78	77	80	80	80	78	79	78	80	83
COMMERCIAL	2	2	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4
INDUSTRIAL																		
O.P.A.																		
FIRE PROTECTION																		
SUBTOTAL	62	63	69	70	71	73	79	80	81	80	83	84	84	82	83	82	84	87
SCOTT COUNTY:																		
RESIDENTIAL	821	833	855	883	906	931	953	984	1055	1149	1287	1373	1446	1507	1571	1628	1716	1799
COMMERCIAL	69	70	72	74	76	78	80	82	88	96	108	125	129	137	159	159	163	172
INDUSTRIAL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2
O.P.A.	2	2	3	3	3	3	3	3	3	3	4	5	5	5	4	6	6	4
FIRE PROTECTION	12	12	12	12	13	14	14	15	16	17	19	28	31	28	35	35	38	43
SUBTOTAL	905	918	943	973	999	1027	1051	1085	1163	1266	1419	1532	1612	1678	1771	1830	1925	2020
WOODFORD COUNTY:																		
RESIDENTIAL	99	107	117	120	121	124	135	136	138	137	142	139	141	142	145	149	151	152
COMMERCIAL	6	6	7	7	7	7	8	8	8	8	8	8	8	9	9	10	12	12
INDUSTRIAL																		
O.P.A.	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
FIRE PROTECTION	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
SUBTOTAL	108	117	128	131	133	136	148	149	151	150	155	152	154	156	159	164	168	169
FAYETTE COUNTY:																		
RESIDENTIAL	53281	54557	54912	55248	55807	56886	58186	59245	60355	62085	63633	64658	65874	67282	68832	70409	72286	73843
COMMERCIAL	4004	4317	4947	5816	5509	5539	5672	5875	6025	6223	6335	6434	6682	6789	6851	6886	6962	7022
INDUSTRIAL	50	53	50	44	41	37	22	19	20	15	16	16	19	20	16	15	15	15
O.P.A.	306	356	337	404	305	320	335	393	433	430	382	384	415	414	410	414	412	415
FIRE PROTECTION	428	478	518	557	622	639	684	745	794	839	910	964	1001	1006	1024	1041	1061	1104
SUBTOTAL	58069	59761	60764	62069	62284	63421	64899	66277	67627	69592	71276	72456	73991	75511	77133	78765	80736	82399

KAW_R_PSC#124-SC#4-021402 Cntycust

TOTAL INDUSTRIAL
WATER USAGE BY APARTMENT CLASS - 1996
100 CU. FT.

USAGE CLASS	USAGE													TOTAL	TOTAL	AVG DAY
	CODE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	100 CU FT	1000 GAL	MGD
Single Family	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Multi-Family	B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Garden Apt	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
High Rise	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farms	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Golf Course	G	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hospital	H	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Industrial	I	83989	105094	99274	102635	107219	123911	115232	124942	126088	107844	119407	88833	1304468	975742.1	2.673266
Laundries	L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Motel/Hotel	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Water Authority	O	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hydrant Meter	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Restaurant	R	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lawn Sprinkler System	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
University of Ky	U	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Car Wash	W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire Service	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL 100 CU FT		83989	105094	99274	102635	107219	123911	115232	124942	126088	107844	119407	88833	1304468		
1000 GALLONS		62823.77	78610.31	74256.95	76770.98	80199.81	92685.43	86193.54	93456.62	94313.82	80667.31	89316.44	66447.08		975742.1	2.673266

TOPA	TOPA	TOPA	TOPA	TOPA	TOPA	TOPA	TOPA	TOPA	TOPA	TOPA	TOPA	TOPA	TOPA	TOPA	TOPA	TOPA
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Filename:	96DEMFOR.XLW		TOTAL OTHER PUBLIC AUTHORITY													
Sheet:	96aptuse		WATER USAGE BY APARTMENT CLASS - 1996													
			100 CU. FT.													

USAGE CLASS	USAGE													TOTAL	TOTAL	AVG DAY
	CODE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	100 CU FT	1000 GAL	MGD
Single Family	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Multi-Family	B	0	34	138	178	14	162	178	18	197	233	139	128	1419	1061.412	0.002908
Garden Apt	C	19392	20044	20860	20739	18535	20425	23342	24064	26071	19417	22773	18217	253879	189901.5	0.520278
High Rise	D	27656	31774	33870	34501	38077	48890	57673	57564	65863	49927	44626	36434	526855	394087.5	1.079692
Farms	F	2855	3851	3306	2760	3051	3421	3931	6310	4904	4251	4478	3921	47039	35185.17	0.096398
Golf Course	G	48	62	27	61	525	1551	3133	15484	14571	3863	4661	498	44484	33274.03	0.091162
Hospital	H	10120	12541	12113	12554	13116	15595	16611	18360	19148	14407	14516	9864	168945	126370.9	0.346222
Industrial	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Laundries	L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Motel/Hotel	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Water Authority	O	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hydrant Meter	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Restaurant	R	72	36	72	24	56	131	119	236	153	140	126	139	1304	975.392	0.002672
Lawn Sprinkler System	S	0	0	0	12	34	27	91	176	104	98	66	18	626	468.248	0.001283
University of Ky	U	17556	22054	22659	19975	22024	22912	21325	22801	27476	29235	29953	19908	277878	207852.7	0.56946
Car Wash	W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire Service	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	Z	44773	51998	45335	47139	53518	62452	56673	64257	65039	54798	65361	42642	653985	489180.8	1.340221
TOTAL 100 CU FT		122472	142394	138380	137943	148950	175566	183076	209270	223526	176369	186699	131769	1976414		
1000 GALLONS		91609.06	106510.7	103508.2	103181.4	111414.6	131323.4	136940.8	156534	167197.4	131924	139650.9	98563.21		1478358	4.050295

KAW_R_PSC#12a_SCH4_021402_96capture
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2/14/02

TOWU	TOWU	TOWU	TOWU	TOWU	TOWU	TOWU	TOWU	TOWU	TOWU	TOWU	TOWU	TOWU	TOWU	TOWU	TOWU	TOWU	TOWU	TOWU	TOWU
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										TOTAL OTHER WATER UTILITY									
										Page 5 of 6									

Sheet:	96aptuse		WATER USAGE BY APARTMENT CLASS - 1996														100 CU. FT.		
		USAGE													TOTAL	TOTAL	AVG DAY		
USAGE CLASS	CODE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	100 CU FT	1000 GAL	MGD			
Single Family	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Multi-Family	B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Garden Apt	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
High Rise	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Farms	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Golf Course	G	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Hospital	H	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Industrial	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Laundries	L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Motel/Hotel	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Other Water Authority	O	29583	32313	31387	29486	29279	36736	36255	39109	39255	33674	32553	21654	391284	292680.4	0.801864			
Hydrant Meter	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Restaurant	R	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Lawn Sprinkler System	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
University of Ky	U	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Car Wash	W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Fire Service	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Other	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
TOTAL 100 CU FT		29583	32313	31387	29486	29279	36736	36255	39109	39255	33674	32553	21654	391284					
1000 GALLONS		22128.08	24170.12	23477.48	22055.53	21900.69	27478.53	27118.74	29253.53	29362.74	25188.15	24349.64	16197.19		292680.4	0.801864			

	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS
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	TOTAL SUMMARY																
	WATER USAGE BY APARTMENT CLASS - 1996																
	100 CU. FT.																