

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

MODEL UPDATE MARCH, 1995
 RUN DATE 02/14/02
 DIRECTORY \FILES\EXC
 FILENAME 94DEMFOF
 SHEET 95UPDTMC

1995 Update with 1995 Moderate Growth Series Population Growth

ASSUMED INFLATION RATE FOR YEAR (CPI) 5.4% 4.21% 3.01%

LOSSES AND NON REVENUE USES FOR YEAR 13.0% 13.0%
 % GROWTH FOR YEAR - REFERENCE CASE 1.1% 1.1% 1.0% 1.0% 0.9%
 1.1% 0.0% 1.1% 1.3% 0.5%

CALENDAR YEAR	1986	1987	1988	1989	1990	1991	1992
TOTAL POPULATION (FAYETTE CO)	217701	220526	222912	222904	225366	228334	229500
APARTMENT POPULATION	70546	71462	72235	72232	75741	76738	77130
U OF K FULL TIME RESIDENTS	8153	8200	8200	8200	8200	8200	8200
INMATES OF INSTITUTIONS	3793	4116	4439	4761	5084	5151	5177
REMAINING POPULATION SERVED	135209	136748	138039	137710	136341	138245	138992
OUTSIDE COUNTY POPULATION SERVED	4707	4982	5256	5491	5671	5835	6013
PER CAPITA USE (in gpd)	85.55	89.11	85.17	76.10	79.49	80.51	76.64
Single Family Residential	11.97	12.63	12.21	10.90	11.29	11.60	11.11
Fayette Co. Residential use (in mgd).....	11.57	12.19	11.76	10.48	10.84	11.13	10.65
APARTMENT POPULATION	70546	71462	72235	72232	75741	76738	77130
PER CAPITA USE (in gpd)	79.66	83.04	78.91	80.71	75.56	74.75	75.11
Multi-Family Residential	1.37	1.41	1.39	1.33	1.40	1.40	1.42
Garden Apartments	4.20	4.47	4.26	4.45	4.27	4.28	4.32
High Rise Apartments	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Apartment use (in mgd).....	5.62	5.93	5.70	5.83	5.72	5.74	5.79
OUTSIDE COUNTIES (see "Counties" files)							
Individual Cust. Use (in mgd)....	0.40	0.44	0.45	0.42	0.45	0.47	0.46
Bulk Sales Use (in mgd).....	0.53	0.77	0.73	0.61	0.58	0.64	0.63
COMMERCIAL USE (mgd)	7.75	8.10	7.74	7.18	7.48	7.79	7.53
TOYOTA USAGE			0.41	0.74	0.89	0.94	1.09
INDUSTRIAL USE (mgd,non-TOYOTA))	1.64	1.58	1.49	1.36	1.44	1.39	1.23
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
U of K Population	23696	22461	22696	22931	23165	23400	23400
U of K per student use (g/d)	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
TOTAL U of K MAIN CAMPUS USAGE(mgd)	1.44	1.53	1.53	1.73	1.69	1.79	1.71

CALENDAR YEAR	1986	1987	1988	1989	1990	1991	1992
OTHER PUBLIC USE (in mgd).....	0.76	1.00	1.40	1.32	1.48	1.50	1.64
TOTAL SYSTEM USAGE (mgd).....	29.70	31.55	31.20	29.67	30.57	31.40	30.73
LOSSES AND NON-REVENUE USE (%)	16.90%	17.60%	15.00%	12.30%	11.60%	15.40%	16.10%
LOSSES AND NON-REVENUE USE (mgd).....	6.04	6.74	5.51	4.16	4.01	5.71	5.90
PLUMBING CODE IMPACTS	0.00	0.00	0.00	0.00	0.00	0.00	-0.18
TOTAL AVERAGE DAY DEMAND (mgd).....	35.74	38.28	36.71	33.83	34.59	37.11	36.63
MAX DAY: 95% EXCEEDANCE (mgd)	60.05	64.32	61.67	56.84	58.10	62.34	61.66
ACTUAL MAXIMUM DAY (mgd)	57.47	54.89	63.91	47.72	58.52	56.42	47.22
CONSERVATION IMPACTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL AVERAGE DAY DEMAND (mgd).....	35.74	38.28	36.71	33.83	34.59	37.11	36.63
MAX DAY: 95% EXCEEDANCE (mgd).....	60.05	64.32	61.67	56.84	58.10	62.34	61.66
IN PLANT USE(mgd)	1.617	2.37	1.91	1.77	1.36	1.40	1.42
TOTAL MAX DAY PRODUCTION (mgd)[95%excd]	59.087	57.26	65.82	49.49	59.88	57.82	48.64
previous forecast (1992 CPS)	59.087	57.26	65.82	49.49	59.88	57.82	63.53

* 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	33.07	31.45	32.41	33.28	32.58
LOSSES AND NON-REVENUE USE (%)	16.90%	17.60%	15.00%	12.30%	11.60%	15.40%	16.10%
LOSSES AND NON-REVENUE USE (mgd).....	6.40	7.14	5.84	4.41	4.25	6.06	6.25
PLUMBING CODE IMPACTS (mgd)	0.00	0.00	0.00	0.00	0.00	0.00	-0.18
TOTAL AVERAGE DAY DEMAND (mgd).....	37.89	40.58	38.91	35.86	36.66	39.34	38.83
MAX DAY: 95% EXCEEDANCE (mgd)	63.65	68.18	65.37	60.25	61.59	66.09	65.35
ACTUAL MAXIMUM DAY (mgd)	57.47	54.89	63.91	47.72	58.52	56.42	47.22
CONSERVATION IMPACTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL AVERAGE DAY DEMAND (mgd).....	37.89	40.58	38.91	35.86	36.66	39.34	38.83
DROUGHT AVG. DAY DEMAND: 95% EXCD. (mgd)	45	48	46	42	43	46	46
MAX DAY: 95% EXCEEDANCE (mgd).....	63.65	68.18	65.37	60.25	61.59	66.09	65.35
IN PLANT USE(mgd)	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

SURROUNDING COUNTIES--INDIVIDUAL CUSTOMER

WATER DEMAND	1986	1987	1988	1989	1990	1991	1992
WOODFORD COUNTY							
Population	18884	19076	19900	19928	19955	20270	20585
No. of resid. connections	138	137	142	139	141	142	145
Per capita use (GPD)	85.55	89.11	85.17	76.10	79.49	80.51	76.64
Persons per household	2.80	2.80	2.81	2.79	2.76	2.74	2.72
WOODFORD CO. WATER DEMAND (in MGD).....	0.03	0.03	0.03	0.03	0.03	0.03	0.03
SCOTT COUNTY							
Population	22689	23501	22760	23314	23867	24135	24403

No. of resid. connections	1055	1149	1287	1373	1446	1507	1571
Per capita use (GPD)	85.55	89.11	85.17	76.10	79.49	80.51	76.64
Persons per household	2.90	2.90	2.77	2.76	2.74	2.73	2.72
SCOTT CO. WATER DEMAND (in MGD).....	0.26	0.30	0.30	0.29	0.31	0.33	0.33
BOURBON COUNTY							
Population	19188	19088	18978	19277	19236	19316	19397
No. of resid. connections	394	391	394	407	409	419	427
Per capita use (GPD)	85.55	89.11	85.17	76.10	79.49	80.51	76.64
Persons per household	2.70	2.70	2.73	2.72	2.70	2.69	2.67
BOURBON CO. WATER DEMAND (in MGD).....	0.09	0.09	0.09	0.08	0.09	0.09	0.09
HARRISON COUNTY							
Population	15722	15907	15887	16195	16248	16387	16526
No. of resid. connections	73	78	80	80	80	78	79
Per capita use (GPD)	85.55	89.11	85.17	76.10	79.49	80.51	76.64
Persons per household	2.70	2.70	2.71	2.70	2.69	2.68	2.68
HARRISON CO. WATER DEMAND (in MGD).....	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

OUTSIDE COUNTIES--BULK SALES
WATER DEMAND

	1986	1987	1988	1989	1990	1991	1992
MIDWAY							
Woodford Co.population projections	18884	19076	19900	19928	19955	20270	20585
Projected bulk consumption (mgd)	0.16	0.17	0.10	0.10	0.10	0.11	0.12
MIDWAY WATER DEMAND (in MGD).....	0.16	0.17	0.10	0.10	0.10	0.11	0.12
VERSAILLES							
Woodford Co.population projections	18884	19076	19900	19928	19955	20270	20585
Versailles projected tot. avg usage							
Versailles production capacity(mgd)	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Projected bulk consumption (mgd) (supplemental supply)							
VERSAILLES WATER DEMAND (in MGD).....	0.00	0.13	0.07	0.03	0.05	0.07	0.02
SPEARS DISTRICT							
Jessamine Co.population projections	28911	29338	30610	30559	30508	31016	31524
Average bulk consumption (mgd)	0.12	0.15	0.15	0.11	0.11	0.12	0.14
SPEARS DISTRICT WATER DEMAND (in MGD)...	0.12	0.15	0.15	0.11	0.11	0.12	0.14
SOUTH ELKHORN DISTRICT							
Jessamine Co.population projections	28911	29338	30610	30559	30508	31016	31524

Average bulk consumption (mgd)	0.25	0.33	0.41	0.37	0.32	0.35	0.36
SOUTH ELKHORN WATER DEMAND (in MGD)...	0.25	0.33	0.41	0.37	0.32	0.35	0.36
NORTH MIDDLETOWN Bourbon Co. population projections	19188	19088	18978	19277	19236	19316	19397
Average bulk consumption (mgd)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NORTH MIDDLETOWN WATER DEMAND (in MG	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BULK SALES TOTAL WATER DEMAND OUTSIDE COUNTIES..	0.53	0.77	0.73	0.61	0.58	0.64	0.63

CONSERVATION PROGRAM IMPACTS

	1986	1987	1988	1989	1990	1991	1992
RESIDENTIAL RETROFIT PROGRAM SAVINGS PER HOUSEHOLD HOUSEHOLDS PARTICIPATING ANNUAL SAVINGS	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
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
CUMULATIVE SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INTERIOR HOME CONSULTATION SAVINGS PER HOUSEHOLD HOUSEHOLDS PARTICIPATING ANNUAL SAVINGS	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
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
SAVINGS PER INDUSTRIAL UNIT UNITS PARTICIPATING ANNUAL SAVINGS	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
INDUSTRIAL/UK EXTERIOR AUDIT UNIVERSITY OF KENTUCKY	0.00	0.00	0.00	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
CUMULATIVE SAVINGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INCREASED LEAK DETECTION	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TOTAL SAVINGS FROM CONSERVATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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PUBLIC SERVICE COMMISSION CASE NO. 93-434
ATTACHMENT A
REBUTTAL TESTIMONY OF LINDA BRIDWELL
ITEM 1

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ELAST. % OF USE

SFR INDOOR 0.1 85.0%
SFR OUTDOOR 0.5 15.0%
COMMERCIAL 0.1 100.0%
INDUSTRIAL 0 100.0%
APARTMENT 0.1 100.0%

	2.99%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%
	0.8%	0.8%	0.7%	0.7%	0.6%	0.6%	0.5%	0.5%	2.2%	1.9%	1.6%	1.1%
	0.9%	0.9%	0.9%	0.8%	0.8%	0.8%	0.7%	0.7%	2.6%	2.6%	0.8%	0.8%
	1993	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015	2020
231567	233634	235701	237504	239306	241108	242911	244713	251167	257621	259779	261936	
77825	78520	79214	79820	80426	81032	81638	82243	84412	86581	87306	88031	
8200	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200	
5224	5271	5317	5358	5398	5439	5480	5520	5666	5812	5860	5909	
140318	141644	142969	144126	145282	146437	147594	148749	152889	157028	158412	159796	
6167	6402	6438	6447	6469	6487	6508	6529	6610	6683	6704	6720	
81.98	86.33	81.42	81.46	81.50	81.54	81.54	81.54	81.54	81.54	81.54	81.54	81.54
12.01	12.78											
11.50	12.23	11.64	11.74	11.84	11.94	12.03	12.13	12.47	12.80	12.92	13.03	
77825	78520	79214	79820	80426	81032	81638	82243	84412	86581	87306	88031	
77.26	78.93	76.70	76.73	76.75	76.77	76.77	76.77	76.77	76.77	76.77	76.77	76.77
1.48	1.57											
4.47	4.57											
0.06	0.06											
6.01	6.20	6.08	6.12	6.17	6.22	6.27	6.31	6.48	6.65	6.70	6.76	
0.51	0.55	0.52	0.53	0.53	0.53	0.53	0.53	0.54	0.54	0.55	0.55	
0.78	0.75	0.90	0.96	1.00	1.05	1.08	1.12	1.29	1.46	1.55	1.64	
7.91	8.29	8.39	8.46	8.53	8.59	8.66	8.72	8.95	9.18	9.26	9.34	
1.05	1.25	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
1.24	1.23	1.25	1.26	1.27	1.28	1.29	1.30	1.33	1.36	1.37	1.39	
1.58	1.73	1.74	1.74	1.74	1.74	1.74	1.74	1.74	1.74	1.74	1.74	1.74
23400	23400	23400	23400	23400	23400	23400	23400	23400	23400	23400	23400	23400
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
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
1.81	1.96	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97

95updtmo

1993	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015	2020
1.66	1.59	1.65	1.66	1.67	1.69	1.70	1.71	1.76	1.80	1.82	1.83
32.48	34.05	33.95	34.24	34.52	34.80	35.07	35.33	36.32	37.31	37.68	38.04
17.64%	15.69%	14.80%	14.80%	14.80%	14.80%	14.80%	14.80%	14.80%	14.80%	14.80%	14.80%
6.96	6.34	5.90	5.95	6.00	6.05	6.09	6.14	6.31	6.48	6.54	6.61
-0.37	-0.55	-0.74	-0.92	-1.10	-1.29	-1.47	-1.66	-2.59	-3.51	-3.51	-3.51
39.44	40.39	39.11	39.26	39.41	39.56	39.68	39.81	40.05	40.28	40.71	41.14
66.51	68.23	66.21	66.59	66.97	67.34	67.67	68.01	69.04	70.06	70.78	71.50
59.49	58.36										
0.00	-0.01	-1.40	-1.60	-1.93	-2.28	-2.63	-2.75	-2.81	-2.85	-2.86	-2.88
39.44	40.38	37.71	37.67	37.48	37.28	37.06	37.06	37.24	37.43	37.85	38.26
66.51	68.22	64.81	64.96	64.98	64.96	64.95	65.17	66.14	67.12	67.82	68.53
1.55	1.58	1.53	1.54	1.55	1.55	1.56	1.56	1.57	1.58	1.60	1.61
61.04	69.80	66.34	66.50	66.52	66.51	66.51	66.73	67.71	68.69	69.42	70.15
63.87	64.67	65.44	65.71	65.79	65.88	65.97	65.81	65.91	65.81	66.81	66.64

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34.43	36.09	35.99	36.29	36.59	36.89	37.17	37.45	38.50	39.55	39.94	40.33
17.64%	15.69%	14.80%	14.80%	14.80%	14.80%	14.80%	14.80%	14.80%	14.80%	14.80%	14.80%
7.38	6.72	6.25	6.30	6.36	6.41	6.46	6.51	6.69	6.87	6.94	7.00
-0.37	-0.55	-0.74	-0.92	-1.10	-1.29	-1.47	-1.66	-2.59	-3.51	-3.51	-3.51
41.80	42.26	41.50	41.67	41.85	42.01	42.15	42.30	42.61	42.91	43.36	43.82
70.48	71.37	70.22	70.64	71.05	71.45	71.82	72.19	73.34	74.47	75.24	76.00
59.49	58.36										
0.00	-0.01	-1.40	-1.60	-1.93	-2.28	-2.63	-2.75	-2.81	-2.85	-2.86	-2.88
41.80	42.25	40.10	40.08	39.92	39.73	39.53	39.55	39.80	40.06	40.50	40.94
49	50	47	47	47	47	47	47	47	47	48	48
70.48	71.36	68.82	69.01	69.06	69.08	69.10	69.35	70.43	71.53	72.28	73.03
1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
61.09	72.96	70.42	70.61	70.66	70.68	70.70	70.95	72.03	73.13	73.88	74.63

1993	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015	2020
20900	21215	21531	21828	22125	22422	22719	23016	24129	25243	25868	26493
147	151	152	153	156	158	162	163	170	178	183	187
81.98	86.33	81.42	81.46	81.50	81.54	81.54	81.54	81.54	81.54	81.54	81.54
2.69	2.67	2.65	2.63	2.61	2.60	2.58	2.56	2.50	2.43	2.38	2.33
0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
24671	24939	25208	25458	25708	25958	26208	26460	27432	28405	29033.5	29662

95updtmo

1634	1716	1735	1752	1769	1786	1803	1821	1888	1954	1998	2041
81.98	86.33	81.42	81.46	81.50	81.54	81.54	81.54	81.54	81.54	81.54	81.54
2.70	2.69	2.68	2.66	2.65	2.63	2.62	2.60	2.55	2.50	2.46	2.42
0.36	0.40	0.38	0.38	0.38	0.38	0.38	0.39	0.39	0.40	0.40	0.40
19478	19558	19639	19706	19773	19840	19907	19976	20238	20500	20700	20900
429	441	443	444	446	447	449	450	456	462	467	471
81.98	86.33	81.42	81.46	81.50	81.54	81.54	81.54	81.54	81.54	81.54	81.54
2.66	2.64	2.63	2.62	2.60	2.59	2.57	2.56	2.51	2.45	2.41	2.36
0.09	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
16665	16804	16943	17073	17204	17335	17465	17596	18110	18623	18935	19246
80	80	83	81	82	83	83	87	89	92	93	95
81.98	86.33	81.42	81.46	81.50	81.54	81.54	81.54	81.54	81.54	81.54	81.54
2.67	2.67	2.66	2.65	2.64	2.63	2.62	2.61	2.57	2.52	2.49	2.45
0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
0.51	0.55	0.52	0.53	0.53	0.53	0.53	0.53	0.54	0.54	0.55	0.55

1993	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015	2020
20900	21215	21531	21828	22125	22422	22719	23016	24129	25243	25868	26493
0.12	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.13
0.12	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.13
20900	21215	21531	21828	22125	22422	22719	23016	24129	25243	25868	26493
		2.70	2.74	2.77	2.81	2.85	2.89	3.03	3.17	3.24	3.32
2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
		0.20	0.24	0.27	0.31	0.35	0.39	0.53	0.67	0.74	0.82
0.13	0.02	0.20	0.24	0.27	0.31	0.35	0.39	0.53	0.67	0.74	0.82
32032	32540	33049	33495	33941	34387	34833	35277	37017	38756	39792	40828
0.13	0.11	0.12	0.12	0.13	0.12	0.12	0.13	0.13	0.14	0.14	0.15
0.13	0.11	0.12	0.12	0.13	0.12	0.12	0.13	0.13	0.14	0.14	0.15
32032	32540	33049	33495	33941	34387	34833	35277	37017	38756	39792	40828

95updtmo

0.40	0.39	0.37	0.38	0.38	0.39	0.39	0.38	0.40	0.42	0.43	0.45
0.40	0.39	0.37	0.38	0.38	0.39	0.39	0.38	0.40	0.42	0.43	0.45
19478	19558	19639	19706	19773	19840	19907	19976	20238	20500	20700	20900
0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
0.78	0.75	0.90	0.96	1.00	1.05	1.08	1.12	1.29	1.46	1.55	1.64

1993	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015	2020
	22.40	22.40	22.40	22.40	22.40	22.40					
	300	1500	2000	2500	3000	3500	0	0	0	0	0
0.00	0.01	0.03	0.04	0.06	0.07	0.08	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
		3.80	3.80	3.80	3.80						
		500	3000	10000	12500						
0.00	0.00	0.00	0.01	0.04	0.05	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
			23.76	23.76	23.76	23.76	23.76	23.76			
			200	200	200	200	200	200			
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	0.01	0.01	0.02	0.02	0.05	0.05	0.05	0.05
			523	523	523	523	523				
			50	150	150	200	200				
0.00	0.00	0.00	0.03	0.08	0.08	0.10	0.10	0.00	0.00	0.00	0.00
			70824	70824	70824	70824					
			1	2	2	2					
0.00	0.00	0.00	0.07	0.14	0.14	0.14	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
0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			1127	1127	1127	1127					
			1	2	2	2					
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	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04
0.00	0.00	1.36	1.37	1.38	1.39	1.40	1.41	1.45	1.49	1.50	1.52

0.00 0.01 1.40 1.60 1.93 2.28 2.63 2.75 2.81 2.85 2.86 2.88

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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	11.7405	12.46582	
OUT CTY	1.481535	1.828623	
MULTI	6.124326	6.480515	
SFR PER CAP USAGE	81.46009	81.53525	
MFR PER CAP USAGE	76.73	76.77	
SFR POPULATION	162313	175316	
MFR POPULATION	79820	84412	
PEOPLE/UNIT	2.64	2.52	
EQU.RESID.CUSTOMERS	91717	103067	
COMM & IND SAVINGS	0.15	0.44	FROM AMY
GOVT AND UK SAVINGS	0.08	0.15	FROM AMY
ESTIMATED APC SAVINGS, MGD			
HIGH	0.98	2.97	
LOW	0.86	2.57	
AVG.	0.92	2.77	

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	1.36	1.37	1.38	1.39	1.40	1.42	1.47	1.51	1.55	1.58
TOTAL SAVINGS FROM CONSERVATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	1.40	1.60	1.93	2.29	2.63	2.75	2.82	2.87	2.90	2.93

KENTUCKY-AMERICAN WATER COMPANY
 HISTORIC CUSTOMER COUNT BY REVENUE CLASS & COUNTY

REVISED: 2/14/02

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

MONTHLY SUMMARY
 WATER USAGE BY APARTMENT CLASS - 1994
 100 CU. FT.

USAGE CLASS	USAGE CODE	USAGE												TOTAL	TOTAL	AVG DAY
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	100 CU FT	1000 GAL	MGD
Single Family	A	157	194	217	240	219	231	224	196	277	223	136	159	2473	1849.804	0.005068
Multi-Family	B	453	304	176	183	375	917	1122	524	537	358	178	136	5263	3936.724	0.010786
Garden Apt	C	110456	111774	98221	97372	95643	105896	109195	99062	120165	104538	104126	106878	1263326	944967.8	2.588953
High Rise	D	1883	1627	1551	1636	1798	2042	2306	2048	2408	2237	2053	1931	23520	17592.96	0.0482
Farms	F	12352	13357	13428	12588	12188	13150	22102	16668	17281	14712	12977	13524	174327	130396.6	0.357251
Golf Course	G	508	456	432	808	2143	14477	16198	29906	17863	21193	12262	1386	117632	87988.74	0.241065
Hospital	H	31987	28272	28114	32432	33231	36213	49485	41975	45159	40345	29410	36888	433511	324266.2	0.888401
Industrial	I	71895	81415	85408	89863	93712	112166	120793	114819	120999	110036	107342	97767	1206215	902248.8	2.471915
Laundries	L	9348	8359	8455	10104	9281	9315	10258	9038	9997	9852	9909	9994	113910	85204.68	0.233437
Motel/Hotel	M	22582	25193	23202	27504	29555	31432	37752	37727	36754	35645	32126	26151	365623	273486	0.749277
Other Water Authority	O	30698	28929	24504	30790	25738	31284	43184	30617	35660	32066	25780	27091	366341	274023.1	0.750748
Hydrant Meter	P	531	361	350	0	753	505	913	2059	1375	659	450	257	8213	6143.324	0.016831
Restaurant	R	8298	7504	7988	9308	9205	10084	12114	11737	12657	12210	10529	9607	121241	90688.27	0.248461
Lawn Sprinkler System	S	0	27	0	0	65	523	2188	1210	1185	711	478	26	6413	4796.924	0.013142
University of Ky	U	134221	61540	57564	65370	68311	66726	101396	87767	92645	91929	69436	64462	961367	719102.5	1.970144
Car Wash	W	3051	2886	6430	3194	3254	3991	3527	2742	3607	2800	3082	3239	41803	31268.64	0.085668
Fire Service	X	15931	1882	122379	755	5017	8436	730	2816	59106	725	30924	698	249399	186550.5	0.511097
Other	Z	116778	121115	110376	126828	133169	159435	201577	181513	174241	163117	133787	124057	1745993	1306003	3.57809
TOTAL 100 CU FT		571129	495195	588795	508975	523657	606823	735064	672424	751916	643356	584985	524251	7206570		
1000 GALLONS		427204.5	370405.9	440418.7	380713.3	391695.4	453903.6	549827.9	502973.2	562433.2	481230.3	437568.8	392139.7		5390514	14.76853