BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Annual reestablishment of authorized range of returns on common equity of water and wastewater utilities, pursuant to Section 367.081(4)(f), Florida Statutes.	DOCKET NO. 970006-WS ORDER NO. PSC-97-0660-FOF-WS ISSUED: June 10, 1997

The following Commissioners participated in the disposition of this matter:

JULIA L. JOHNSON, Chairman
SUSAN F. CLARK
J. TERRY DEASON
JOE GARCIA
DIANE K. KIESLING

NOTICE OF PROPOSED AGENCY ACTION
ORDER ESTABLISHING AUTHORIZED RANGE
OF RETURNS ON COMMON EQUITY

BY THE COMMISSION:

NOTICE is hereby given by the Florida Public Service Commission that the action discussed herein is preliminary in nature and will become final unless a person whose interests are substantially affected files a petition for a formal proceeding, pursuant to Rule 25-22.029, Florida Administrative Code.

Pursuant to Section 367.081 (4) (f), Florida Statutes, this Commission is authorized to establish, not less than once each year, a leverage formula to calculate a reasonable range of returns on equity for water and wastewater utilities. We last established this range of returns in Order No. PSC-96-0729-FOF-WS issued on May 31, 1996, in Docket No. 960006-WS. By that order, we found it appropriate to establish the same range of returns approved by Order No. PSC-95-0892-FOF-WS, issued August 10, 1995, in Docket No. 950006-WS.

Our calculation of an updated leverage formula results in a range of returns on equity from 9.21 percent to 10.46 percent based on a formula of 8.38 percent + .832/Equity Ratio. The midpoint of the 9.21 percent to 10.46 percent range has decreased by 120 basis points when compared to the existing midpoint.

In calculating the updated leverage formula, we utilized the same methodologies used in the 1995 leverage formula docket. The difference between the existing leverage formula and the updated formula is the result of changes in underlying market conditions; that is, changes in bond yields and required rates of return.

The basic assumptions, which remain unchanged from the previous two years, are that: business risk is similar for all water and wastewater utilities; the cost of equity is an exponential function of the equity ratio; the marginal weighted average cost of investor capital is constant over the 40 percent to 100 percent equity ratio range; and the cost rate at an assumed Moody's Baa3 bond rating, plus 25 basis points, is representative of the average marginal cost of debt to a Florida water and wastewater utility over a 40 percent to 100 percent equity ratio range.

The 10.46 percent return on common equity is divided into three segments. First, we derived a 9.49 percent return on equity by averaging the results of two Discounted Cash Flow (DCF) analyses, a Risk Premium analysis, and a Capital Asset Pricing Model (CAPM) analysis. We assigned one third weight to the average of the two DCF analyses, one third weight to the Risk Premium analysis, and one third weight to the CAPM analysis.

We applied the DCF models to an index of publicly traded water and wastewater utilities. The difference between the two applications is that one version relies on historic growth rates and the other version relies on projected growth rates. Prior to 1995, only a DCF analysis using historic growth rates was used because of a lack of projected financial information on publicly traded water and wastewater utilities. (See pages 3-4 of Attachment 1)

We applied the Risk Premium model to an index of publicly traded natural gas utilities. In addition, we added a negative 24 basis point premium to the return indicated by the Risk Premium analysis of natural gas utilities. Using the difference between the average beta of the water and wastewater and natural gas indices (.60 - .64 = -.04) and the prospective market risk premium of 6.01 percent determined in our CAPM analysis, we calculated a natural gas premium of a negative 24 basis points. This adjustment is made to compensate for the perceived difference in risk between the index of natural gas utilities and the index of water and wastewater utilities. We noted in Order No. PSC-95-0982-FOF-WS, issued August 10, 1995, in Docket No. 950006-WS, that this adjustment could be negative in the future if the average beta for the natural gas index were to rise above the average beta for the water and wastewater index, and once this change was adopted, this adjustment would be made regardless of whether the risk differential adjustment was positive or negative. We used this same application in the determination of the existing leverage formula. (See pages 1, 5, and 7 of Attachment 1)

Finally, we performed a CAPM analysis. This return is based on the market return for all dividend-paying stocks followed by Value Line, the yield on the 30 year Treasury bond projected by Blue Chip Financial Forecasts, and the average beta of the water and wastewater utilities followed by Value Line. (See page 6 of Attachment 1)

After determining the return on equity for the indices, we added a bond yield differential adjustment of 49 basis points to reflect the difference in risk between the indices of companies used in the DCF and Risk Premium models and an average water and wastewater utility in Florida. Next, we added a private placement premium of 25 basis points to recognize that Florida water and wastewater utilities do not have access to the public debt and equity markets. Finally, we added an adjustment of 23 basis points to reflect the required return on equity at a 40 percent equity ratio. (See page 1 of Attachment 1)

The bond yield differential adjustment of 49 basis points is comprised of the bond yield differential between the yield on A1-rated bonds and the yield on Baa3-rated bonds. (See page 8 of Attachment 1) The A1 rating is the average bond rating for both the natural gas index and water and wastewater index and the Baa3 rating is the bond rating assumed for the average water and wastewater utility in Florida.

We added the private placement premium of 25 basis points to recognize that, because of their small size, lack of institutional interest in their securities, and the lack of liquidity of their issues, Florida water and wastewater utilities must rely on the private placement market to obtain capital. This premium is based on the results of Commission surveys of participants in the private placement market and a review of the financial literature.

The 23 basis point adjustment represents the difference between the required return on equity at a 40.0 percent equity ratio and the required rate of return at the 45.34 percent equity ratio average for the indices of water and wastewater utilities and natural gas utilities. (See pages 9-10 of Attachment 1) Using the most recently available capital structure for the index of publicly traded water and wastewater utilities and the index of natural gas utilities as a proxy for the capital structure of an average water and wastewater utility in Florida, we calculated the marginal cost of investor capital for an average water and wastewater utility in Florida to be 9.21 percent.

In summary, we find it appropriate to base the authorized range of returns on common equity for Florida water and wastewater utilities on the following formula:

Return on Common Equity = 8.38 percent + 0.832/Equity Ratio

We further limit the authorized return on common equity to a maximum of 10.46 percent for all equity ratios of less than 40 percent. The approved leverage formula produces a range of returns on common equity from 9.21 percent to 10.46 percent.

Upon expiration of the protest period, this docket shall remain open to allow us to monitor the movement in capital costs and to readdress the reasonableness of the leverage formula as conditions warrant.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that the provisions of this Order, issued as proposed agency action, shall become final and effective unless an appropriate petition, in the form provided by Rule 25-22.036, Florida Administrative Code, is received by the Director, Division of Records and Reporting, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on the date set forth in the "Notice of Further Proceedings or Judicial Review" attached hereto. It is further

ORDERED that the appropriate formula for measuring returns on common equity for water and wastewater utilities shall be as set forth in the body of this Order. It is further

ORDERED that returns on common equity are hereby capped at 10.46 percent for all water and wastewater utilities with equity ratios of less than 40 percent in order to discourage imprudent financial risk. It is further

ORDERED that all matters contained in Attachment 1 of this Order are incorporated herein by reference. It is further

ORDERED that upon expiration of the protest period, this docket shall remain open to allow this Commission to monitor the movement in capital costs and to readdress the reasonableness of the leverage formula as conditions warrant.

By ORDER of the Florida Public Service Commission, this 10th day of June, 1997.

BLANCA S. BAYÓ, Director
Division of Records and Reporting

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NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

Mediation may be available on a case-by-case basis. If mediation is conducted, it does not affect a substantially interested person's right to a hearing.

The action proposed herein is preliminary in nature and will not become effective or final, except as provided by Rule 25-22.029, Florida Administrative Code. Any person whose substantial interests are affected by the action proposed by this order may file a petition for a formal proceeding, as provided by Rule 25-22.029(4), Florida Administrative Code, in the form provided by Rule 25-22.036(7)(a) and (f), Florida Administrative Code. This petition must be received by the Director, Division of Records and Reporting, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on July 1, 1997.

In the absence of such a petition, this order shall become effective on the day subsequent to the above date as provided by Rule 25-22.029(6), Florida Administrative Code.

Any objection or protest filed in this docket before the issuance date of this order is considered abandoned unless it satisfies the foregoing conditions and is renewed within the specified protest period.

If this order becomes final and effective on the date described above, any party substantially affected may request judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or by the First District Court of Appeal in the case of a water or wastewater utility by filing a notice of appeal with the Director, Division of Records and Reporting and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days of the effective date of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.

Attachment 1
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SUMMARY OF RESULTS

Leverage Formula Update

	1995	1996	1997
(A) DCF ROE for Water Index (Historic)	10.92%	10.32%	9.28%
(B) DCF ROE for Water Index (Projected)	10.37%	9.13%	8.66%
(C) Risk Premium ROE for Gas Index	10.50%	9.57%	9.52%
(D) Gas Index premium	.18%	.44%	(.24)%
(E) CAPM ROE for Water Index	11.00%	10.17%	10.23%
AVERAGE [(((A+B)/2)+(C+D)+E)/3]	10.78%	9.97%	9.49%
Bond Yield Differential	.51%	.49%	.49%
Private Placement Premium	.25%	.25%	.25%
Adjustment to Reflect Required Equity Return at a 40% Equity Ratio	.34%	.29%	.23%
Cost of Equity for Average Florida WAW Utility at a 40% Equity Ratio	11.88%	11.00%	10.46%

1995 Leverage Formula

Return on Common Equity = 9.05% + 1.131/ER

Range of Returns on Equity = 10.18% - 11.88%

1996 Leverage Formula

Return on Common Equity = 8.51% + .997/ER

Range of Returns on Equity = 9.51% - 11.00%

1997 Leverage Formula

Return on Common Equity = 8.38% + .832/ER

Range of Returns on Equity = 9.21% - 10.46%

Leverage Formula = 8.38 + 0.832 / ER*

Marginal Cost of Investor Capital
Average Water and Wastewater Utility

Capital Component	Ratio	Marginal Cost Rate	Weighted Marginal Cost Rate
Common Equity	44.94%	10.23%	4.60%
Total Debt	55.06%	8.38% **	4.61%
	100.00%		9.21%

A 40% equity ratio is the floor for calculating the required return on common equity. The return on equity at a 40% equity ratio = 8.38% + 0.832/.40 = 10.46%

Marginal Cost of Investor Capital
Average Water & Wastewater Utility at 40% Equity Ratio

Capital Component	Ratio	Marginal Cost Rate	Weighted Marginal Cost Rate
Common Equity	40.00%	10.46%	4.18%
Total Debt	60.00%	8.38% **	5.03%
	100.00%		9.21%

* Where: Equity Ratio = Common Equity/(Common Equity + Preferred Equity + Long-Term Debt + Short-Term Debt)

** Assumed Baa3 rate for February 1997 plus 25 basis point private placement premium
Source: Moody's Bond Survey, 3/1/97

	Arithmetic Average Growth Rate	Current Dividend	Current Average Stock Price	Required Return on Equity %
American Water Works	9.65%	0.76	23.63	13.18
Aquarion Company	1.56%	1.62	27.94	7.45
California Water Services Co.	4.05%	2.11	42.25	9.25
Consumers Water Company	3.67%	1.20	17.63	10.73
Philadelphia Suburban Corp.	2.70%	0.81	20.13	6.83
United Water Resources	2.84%	0.92	17.50	8.24
Average	3.64%	1.24	24.84	9.28

DCF Analysis

K = D(1)/P(0) + g
K = Investors' required rate of return
D(1) = Dividend expected next period = Arithmetic growth rate x current dividend
P(0) = Current stock price = May average stock price
g = Projected long-term growth in dividends = Arithmetic growth rate
K = 9.28

Source: Standard & Poor's Stock Guide, March 1997 Edition
* Standard & Poor's Stock Reports, March 3, 1997

COST OF EQUITY FOR WATER INDEX COMPANIES
DISCOUNTED CASH FLOW MODEL

									FEBRUARY		
COMPANY	DIV1	DIV2	DIV3	DIV4	EPS4	ROE4	GR1-4	GR4+	HI-PR	LO-PR	AVER-PR
AMERICAN WATER WORKS	0.76	0.82	0.88	0.94	1.65	10.00%	1.0734	1.0430	24.500	22.750	23.625
AQUARION CO.	1.62	1.65	1.69	1.72	2.80	12.50	1.0202	1.0423	28.750	27.125	27.938
CALIFORNIA WATER SVC	2.11	2.15	2.20	2.24	3.20	11.00	1.0201	1.0330	43.000	41.500	42.250
CONSUMERS WATER	1.20	1.20	1.20	1.20	1.45	10.00	1.0000	1.0172	18.250	17.000	17.625
PHILADELPHIA SUBURBAN	0.82	0.90	1.00	1.10	1.60	15.50	1.1029	1.0484	20.500	19.750	20.125
UNITED WATER RESOURCES	0.92	0.95	0.97	1.00	1.20	10.50	1.0282	1.0175	18.125	16.875	17.500
AVERAGE	1.2383	1.2785	1.3212	1.3667	1.95	11.5833	1.0408	1.0336			24.844

$24.10 = February 1997 average stock price less 3% flotation costs, or Po(1-fc)

8.68% = Cost of equity required to match the current stock price with the expected cash flows

Sources:
1. Stock Prices - S&P Stock Guide , March 1997 Edition
2. DPS, EPS, ROE - Value Line Edition 9, February 7, 1997

Risk Premium Cost of Equity for Moody's Natural Gas Distribution Index

Estimated Monthly Risk Premium	2.897 % (1)
Blue Chip Forecast for 30-Year Treasury Bond	6.620 % (2)
	9.517 %

Source: (1) Page 7 of Attachment 1
(2) Blue Chip Financial Forecasts, May 1, 1998

Capital Asset Pricing Model Cost of Equity for

Water and Wastewater Industry

CAPM analysis formula

K = RF + Beta(MR - RF)
K = Investor's required rate of return
RF = Risk-free rate (Blue Chip forecast for 30-year Treasury bond)
Beta = Measure of industry-specific risk (Average for water utilities followed by Value Line)
MR = Market return

10.23% = 6.62% + .60(12.83% - 6.62%)

Source: Blue Chip Financial Forecasts, March 1, 1997
ValueScreen, March 1997

ESTIMATED MONTHLY RISK PREMIUMS
MOODY'S NAT'L GAS DISTRIBUTION INDEX
MARCH 1987 - MARCH 1997

YEAR	MONTH	Quarterly Cost of Equity Gas	Risk Free Rate	Risk Premium Quarterly
1987	JAN	11.847	7.37	4.477
	FEB	11.642	7.39	4.252
	MAR	11.563	7.54	4.023
	APR	11.293	7.55	3.743
	MAY	11.759	8.25	3.509
	JUN	11.903	8.78	3.123
	JUL	11.738	8.57	3.168
	AUG	11.856	8.64	3.216
	SEP	11.858	8.97	2.888
	OCT	12.148	9.59	2.558
	NOV	12.926	9.61	3.316
	DEC	13.078	8.95	4.128
1988	JAN	13.226	9.12	4.106
	FEB	12.850	8.83	4.020
	MAR	12.416	8.43	3.986
	APR	12.396	8.63	3.766
	MAY	12.398	8.95	3.448
	JUN	12.378	9.23	3.148
	JUL	12.049	9.00	3.049
	AUG	12.027	9.14	2.887
	SEP	12.314	9.32	2.994
	OCT	12.070	9.06	3.010
	NOV	12.036	8.89	3.146
	DEC	12.088	9.02	3.068
1989	JAN	12.028	9.01	3.018
	FEB	12.050	8.91	3.140
	MAR	12.060	9.00	3.060
	APR	12.580	9.16	3.420
	MAY	12.480	9.02	3.460
	JUN	12.312	8.83	3.482
	JUL	12.071	8.26	3.811
	AUG	11.882	8.07	3.812
	SEP	11.788	8.11	3.678
	OCT	11.450	8.15	3.300
	NOV	11.462	7.99	3.472
	DEC	11.320	7.89	3.430
1990	JAN	10.978	7.89	3.088
	FEB	11.130	8.26	2.870
	MAR	11.252	8.50	2.752
	APR	11.416	8.55	2.866
	MAY	11.620	8.74	2.880
	JUN	11.710	8.72	2.990
	JUL	11.468	8.45	3.018
	AUG	11.550	8.49	3.060
	SEP	11.830	8.85	2.980
	OCT	11.160	9.01	2.150
	NOV	11.340	8.84	2.500
	DEC	11.070	8.54	2.530
1991	JAN	11.031	8.22	2.811
	FEB	11.186	8.25	2.936
	MAR	11.171	8.03	3.141
	APR	10.864	8.27	2.594
	MAY	10.810	8.20	2.610
	JUN	10.820	8.26	2.560
	JUL	10.797	8.47	2.327
	AUG	10.783	8.44	2.343
	SEP	10.680	8.14	2.540
	OCT	10.988	7.94	3.048
	NOV	10.742	7.93	2.812
	DEC	10.719	7.92	2.799
1992	JAN	10.580	7.68	2.900
	FEB	10.640	7.57	3.070
	MAR	10.698	7.85	2.848
	APR	10.684	7.97	2.714
	MAY	10.810	7.95	2.860
	JUN	10.740	7.88	2.860
	JUL	10.525	7.84	2.685
	AUG	10.351	7.60	2.751
	SEP	10.170	7.38	2.790
	OCT	9.812	7.33	2.482
	NOV	10.032	7.54	2.492
	DEC	10.113	7.60	2.513
1993	JAN	9.653	7.43	2.223
	FEB	9.518	7.33	2.188
	MAR	9.306	7.08	2.226
	APR	9.086	6.82	2.266
	MAY	9.222	6.85	2.372
	JUN	9.338	6.92	2.418
	JUL	9.547	6.80	2.747
	AUG	8.769	6.62	2.149
	SEP	8.774	6.31	2.464
	OCT	8.813	5.99	2.823
	NOV	8.843	5.93	2.913
	DEC	9.136	6.21	2.926
1994	JAN	9.133	6.24	2.893
	FEB	8.805	6.28	2.525
	MAR	8.885	6.49	2.395
	APR	9.126	6.90	2.226
	MAY	9.431	7.25	2.181
	JUN	9.550	7.40	2.150
	JUL	9.737	7.39	2.347
	AUG	9.723	7.57	2.153
	SEP	9.802	7.48	2.322
	OCT	9.921	7.69	2.231
	NOV	9.813	7.93	1.883
	DEC	10.198	8.07	2.128
1995	JAN	10.342	7.86	2.482
	FEB	10.071	7.83	2.241
	MAR	9.891	7.60	2.291
	APR	9.865	7.44	2.425
	MAY	9.226	7.35	1.876
	JUN	9.888	6.93	2.958
	JUL	9.858	6.57	3.288
	AUG	9.885	6.71	3.175
	SEP	9.956	6.85	3.106
	OCT	9.502	6.55	2.952
	NOV	9.573	6.37	3.203
	DEC	9.622	6.25	3.372
1996	JAN	9.788	6.06	3.728
	FEB	9.216	6.05	3.166
	MAR	9.255	6.24	3.015
	APR	9.389	6.60	2.789
	MAY	9.748	6.79	2.958
	JUN	9.816	6.92	2.896
	JUL	9.710	7.05	2.660
	AUG	10.158	7.03	3.128
	SEP	9.984	6.84	3.144
	OCT	10.241	7.02	3.221
	NOV	9.930	6.80	3.130
	DEC	9.781	6.48	3.301
1997	JAN	9.894	6.55	3.344
	FEB	9.768	6.82	2.948
	MAR	9.838	6.68	3.158

SOURCE: Value Line 1987-1997
Moody's Bond Survey
U.S. Treasuries - 30-Year Bond
Natural Gas Index

AVERAGE RISK PREMIUM 2.897

BOND YIELD DIFFERENTIALS
Public Utility Long Term Bond Yield Averages
Source Moody's Credit Perspectives
Long-Term Corporate Bond Yield Averages - Avg. Public Utility

UPDATED 01/20/97

120 Month Average -

YEAR	MONTH	Aaa	0.0061 SPREAD	Aa1	0.0061 SPREAD	Aa2	0.0033 SPREAD	Aa3	0.0033 SPREAD	A1	0.0033 SPREAD	A2	0.1000 SPREAD	A3	0.1000 SPREAD	Baa1	0.1000 SPREAD	Baa2	0.1000 SPREAD	Baa3
	FEB	7.47	0.07	7.54	0.07	7.60	0.01	7.61	0.01	7.68	0.01	7.64	0 13	7 77	0 13	7 88	0 13	8 02	0 13	0 13
1997	JAN	7.53	0.07	7.61	0.07	7.68	0.00	7.71	0.00	7.74	0.00	7.77	0 14	7 91	0 14	8 04	0 14	8 18	0 14	0 32
	DEC	7.93	0.06	7.99	0.06	7.68	0.05	7.69	0.05	7.54	0.05	7.59	0 13	7 72	0 13	7 85	0 13	7 98	0 13	0 13
	NOV	7.21	0.06	7.27	0.06	7.32	0.06	7.36	0.06	7.41	0.06	7.77	0 13	7 62	0 13	7 74	0 13	7 87	0 13	0 13
	OCT	7.50	0.05	7.55	0.05	7.60	0.06	7.66	0.06	7.71	0.06	7.77	0 13	7 90	0 13	8 02	0 13	8 15	0 13	0 28
	SEPT	7.76	0.04	7.80	0.04	7.84	0.06	7.90	0.06	7.95	0.06	8.01	0 13	8 14	0 13	8 26	0 13	8 41	0 13	0 54
	AUG	7.59	0.03	7.63	0.03	7.66	0.06	7.72	0.06	7.78	0.06	7.84	0 14	7 98	0 14	8 12	0 14	8 25	0 14	0 39
	JULY	7.78	0.02	7.81	0.02	7.83	0.06	7.89	0.06	7.96	0.06	8.02	0 14	8 16	0 14	8 30	0 14	8 44	0 14	0 58
	JUNE	7.83	0.02	7.85	0.02	7.87	0.06	7.93	0.06	8.00	0.06	8.06	0 13	8 19	0 13	8 32	0 13	8 45	0 14	0 61
	MAY	7.73	0.03	7.76	0.03	7.79	0.06	7.85	0.06	7.92	0.06	7.98	0 14	8 12	0 14	8 26	0 14	8 32	0 14	0 46
	APR	7.68	0.05	7.73	0.05	7.78	0.06	7.79	0.06	7.86	0.06	7.92	0 14	8 06	0 14	8 20	0 14	8 11	0 14	0 29
	MAR	7.63	0.05	7.68	0.05	7.73	0.06	7.73	0.06	7.80	0.06	7.86	0 14	8 00	0 14	8 14	0 14	7 98	0 14	0 12
	FEB	7.58	0.05	7.63	0.05	7.68	0.06	7.67	0.06	7.74	0.06	7.80	0 14	7 94	0 14	8 08	0 14	7 92	0 14	0 08
	JAN	7.53	0.05	7.58	0.05	7.62	0.06	7.61	0.06	7.68	0.06	7.74	0 14	7 88	0 14	8 02	0 14	7 86	0 14	0 02
	DEC	7.48	0.05	7.53	0.05	7.56	0.06	7.55	0.06	7.62	0.06	7.68	0 14	7 82	0 14	7 96	0 14	7 80	0 14	0 04
	NOV	7.43	0.04	7.47	0.04	7.50	0.06	7.49	0.06	7.56	0.06	7.62	0 14	7 76	0 14	7 90	0 14	7 74	0 14	0 04
	OCT	7.39	0.04	7.43	0.04	7.46	0.06	7.43	0.06	7.50	0.06	7.56	0 14	7 70	0 14	7 84	0 14	7 68	0 14	0 06
	SEPT	7.42	0.03	7.45	0.03	7.48	0.06	7.49	0.06	7.56	0.06	7.62	0 14	7 76	0 14	7 90	0 14	7 74	0 14	0 06
	AUG	7.68	0.03	7.71	0.03	7.74	0.06	7.75	0.06	7.82	0.06	7.88	0 14	8 02	0 14	8 16	0 14	8 00	0 14	0 08
	JULY	7.51	0.04	7.55	0.04	7.58	0.06	7.61	0.06	7.68	0.06	7.74	0 14	7 88	0 14	8 02	0 14	7 86	0 14	0 04
	JUNE	7.39	0.05	7.44	0.05	7.48	0.06	7.55	0.06	7.62	0.06	7.68	0 14	7 82	0 14	7 96	0 14	7 80	0 14	0 04
	MAY	7.71	0.05	7.76	0.05	7.80	0.06	7.86	0.06	7.87	0.06	7.95	0 13	8 08	0 13	8 21	0 13	8 34	0 13	0 47
	APR	8.08	0.05	8.13	0.05	8.17	0.01	8.20	0.01	8.24	0.01	8.27	0 13	8 40	0 13	8 54	0 13	8 67	0 13	0 80
	MAR	8.16	7.05	8.24	0.05	8.29	0.03	8.32	0.01	8.34	0.00	8.37	0 13	8 50	0 13	8 63	0 13	8 76	0 13	0 89
	FEB	8.10	7.06	8.19	0.06	8.25	0.02	8.27	0.02	8.30	0.02	8.32	0 14	8 46	0 14	8 59	0 14	8 93	0 14	0 07
1991	JAN	8.53	7.07	8.60	0.07	8.06	0.02	8.68	0.02	8.71	0.02	8.73	0 14	8 87	0 14	9 01	0 14	9 13	0 14	0 29
	DEC	8.55	8.77	8.62	0.07	8.68	0.02	8.71	0.02	8.74	0.02	8.76	0 13	8 89	0 13	9 01	0 13	9 14	0 13	0 29
	NOV	8.77	8.6	8.84	0.06	8.90	0.03	8.93	0.03	8.95	0.05	8.98	0 12	9 10	0 12	9 21	0 12	9 31	0 12	0 47
	OCT	8.61	0.07	8.72	0.07	8.78	0.03	8.81	0.03	8.83	0.05	8.86	0 13	8 99	0 13	9 11	0 13	9 24	0 13	0 37
	SEP	8.41	0.06	8.49	0.08	8.56	0.03	8.59	0.03	8.61	0.05	8.64	0 11	8 75	0 11	8 87	0 11	8 98	0 11	0 09
	AUG	8.13	0.09	8.24	0.09	8.32	0.03	8.35	0.03	8.38	0.05	8.41	0 11	8 52	0 11	8 63	0 11	8 74	0 11	8 85
	JUL	8.21	0.09	8.30	0.09	8.38	0.03	8.41	0.03	8.44	0.05	8.47	0 11	8 58	0 11	8 69	0 11	8 80	0 11	8 91
	JUN	8.07	0.07	8.14	0.07	8.21	0.03	8.24	0.03	8.26	0.05	8.31	0 11	8 42	0 11	8 53	0 11	8 64	0 11	8 75
	MAY	8.11	0.07	8.18	0.07	8.24	0.03	8.27	0.03	8.30	0.03	8.33	0 09	8 42	0 09	8 52	0 09	8 61	0 09	8 70
	APR	8.00	0.06	8.06	0.06	8.12	0.03	8.15	0.03	8.18	0.05	8.22	0 08	8 30	0 08	8 38	0 08	8 47	0 08	8 55
	MAR	7.80	0.07	7.87	0.07	7.94	0.04	7.98	0.04	7.81	0.04	7.85	0 09	7 94	0 09	8 02	0 09	8 11	0 08	8 20
	FEB	7.18	0.06	7.27	0.08	7.34	0.04	7.38	0.04	7.43	0.04	7.47	0 10	7 57	0 10	7 66	0 10	7 76	0 10	7 85
1994	JAN	7.05	0.06	7.12	0.06	7.18	0.05	7.23	0.05	7.28	0.05	7.33	0 11	7 44	0 11	7 55	0 11	7 66	0 11	7 77
	DEC	7.06	0.06	7.12	0.06	7.18	0.05	7.23	0.05	7.28	0.05	7.34	0 13	7 47	0 13	7 60	0 13	7 73	0 13	7 86
	NOV	7.06	0.06	7.12	0.06	7.17	0.04	7.21	0.04	7.25	0.04	7.30	0 13	7 43	0 13	7 56	0 13	7 69	0 13	7 82
	OCT	6.75	0.07	6.82	0.07	6.88	0.06	6.94	0.01	6.98	0.05	7.03	0 08	7 11	0 08	7 19	0 08	7 27	0 08	7 35
	SEP	6.76	0.06	6.83	0.06	6.89	0.05	6.94	0.01	6.99	0.05	7.04	0 10	7 14	0 10	7 24	0 10	7 35	0 10	7 45
	AUG	6.94	0.07	7.01	0.07	7.07	0.06	7.13	0.06	7.19	0.06	7.25	0 11	7 36	0 11	7 47	0 11	7 58	0 11	7 70
	JUL	7.19	0.07	7.32	0.07	7.38	0.07	7.43	0.01	7.48	0.01	7.54	0 13	7 67	0 13	7 80	0 13	7 93	0 10	8 06
	JUN	7.37	0.08	7.46	0.09	7.54	0.07	7.61	0.07	7.68	0.07	7.75	0 10	7 85	0 10	7 95	0 10	8 05	0 10	8 15
	MAY	7.44	0.10	7.54	0.10	7.64	0.07	7.71	0.07	7.79	0.07	7.86	0 11	7 97	0 11	8 07	0 11	8 18	0 11	8 29
	APR	7.50	0.07	7.57	0.07	7.64	0.05	7.70	0.06	7.77	0.06	7.81	0 10	7 91	0 10	8 01	0 10	8 11	0 10	8 21
	MAR	7.64	0.06	7.70	0.06	7.76	0.05	7.81	0.05	7.85	0.05	7.90	0 07	7 97	0 07	8 04	0 07	8 10	0 07	8 17
	FEB	7.71	0.09	7.84	0.09	7.92	0.04	7.96	0.04	8.00	0.04	8.04	0 09	8 13	0 09	8 22	0 09	8 31	0 10	8 40
1993	JAN	7.84	0.10	8.04	0.10	8.14	0.04	8.18	0.04	8.21	0.04	8.27	0 10	8 37	0 10	8 47	0 10	8 57	0 10	8 67
	DEC	8.01	0.13	8.17	0.13	8.32	0.04	8.36	0.04	8.39	0.04	8.43	0 08	8 51	0 08	8 59	0 08	8 68	0 08	8 76
	NOV	8.13	0.20	8.33	0.20	8.51	0.04	8.55	0.04	8.59	0.04	8.63	0 08	8 71	0 08	8 79	0 08	8 87	0 07	8 94
	OCT	8.06	8.18	8.24	0.18	8.42	0.04	8.46	0.04	8.50	0.04	8.54	0 07	8 61	0 07	8 68	0 07	8 75	0 07	8 82
	SEP	8.01	0.12	8.16	0.12	8.28	0.04	8.32	0.04	8.36	0.04	8.40	0 05	8 45	0 05	8 50	0 05	8 54	0 05	8 59
	AUG	8.04	0.13	8.17	0.13	8.30	0.03	8.33	0.03	8.36	0.04	8.40	0 05	8 45	0 05	8 50	0 05	8 55	0 05	8 60
	JUL	8.12	0.17	8.29	0.17	8.45	0.04	8.49	0.04	8.53	0.04	8.57	0 04	8 61	0 04	8 65	0 04	8 69	0 04	8 73
	JUN	8.26	0.18	8.45	0.18	8.63	0.05	8.68	0.05	8.73	0.05	8.78	0 04	8 82	0 04	8 86	0 04	8 90	0 04	8 94
	MAY	8.32	0.18	8.51	0.18	8.69	0.06	8.75	0.06	8.81	0.06	8.87	0 05	8 92	0 05	8 97	0 05	9 02	0 06	9 08
	APR	8.36	0.20	8.56	0.20	8.76	0.06	8.82	0.06	8.88	0.06	8.94	0 06	9 00	0 06	9 06	0 05	9 11	0 06	9 17
	MAR	8.39	0.21	8.61	0.21	8.82	0.06	8.88	0.06	8.94	0.06	9.00	0 07	9 07	0 06	9 13	0 06	9 19	0 06	9 25
	FEB	8.30	0.23	8.53	0.23	8.76	0.06	8.82	0.06	8.87	0.07	8.94	0 06	9 00	0 06	9 06	0 06	9 12	0 06	9 18
1992	JAN	8.12	0.20	8.40	0.20	8.63	0.07	8.70	0.07	8.77	0.07	8.84	0 06	8 90	0 06	8 96	0 06	9 02	0 06	9 08
	DEC	8.08	0.17	8.25	0.17	8.71	0.06	8.77	0.06	8.82	0.06	8.88	0 06	8 94	0 06	9 00	0 06	9 06	0 06	9 12
	NOV	8.12	0.17	8.70	0.17	8.87	0.06	8.93	0.06	8.99	0.06	9.05	0 08	9 13	0 08	9 20	0 08	9 28	0 08	9 36
	OCT	8.17	0.18	8.71	0.18	8.82	0.07	8.89	0.07	8.96	0.07	9.12	0 07	9 19	0 07	9 25	0 07	9 32	0 07	9 39
	SEP	8.65	0.15	8.80	0.15	8.95	0.07	9.02	0.07	9.09	0.07	9.16	0 06	9 22	0 06	9 28	0 06	9 34	0 06	9 40
	AUG	8.81	0.13	8.94	0.13	9.06	0.08	9.14	0.08	9.21	0.08	9.29	0 06	9 35	0 06	9 41	0 06	9 47	0 06	9 53
	JUL	9.10	0.08	9.18	0.08	9.26	0.10	9.36	0.10	9.46	0.10	9.53	0 05	9 58	0 05	9 63	0 05	9 68	0 05	9 73
	JUN	9.10	0.09	9.19	0.09	9.28	0.10	9.38	0.10	9.48	0.10	9.58	0 07	9 65	0 07	9 72	0 07	9 79	0 07	9 86
	MAY	8.89	0.11	9.00	0.11	9.10	0.09	9.19	0.09	9.28	0.09	9.37	0 07	9 44	0 07	9 51	0 07	9 58	0 06	9 64
	APR	8.95	0.10	9.05	0.10	9.14	0.11	9.25	0.11	9.35	0.11	9.46	0 06	9 52	0 06	9 58	0 06	9 64	0 06	9 70
	MAR	9.04	0.09	9.14	0.08	9.23	0.11	9.34	0.11	9.44	0.11	9.55	0 06	9 61	0 06	9 67	0 06	9 73	0 07	9 80
	FEB	8.92	0.12	9.04	0.12	9.16	0.10	9.26	0.10	9.37	0.10	9.47	0 07	9 54	0 07	9 61	0 07	9 68	0 07	9 75
1991	JAN	8.57	0.11	8.68	0.11	9.39	0.13	9.39	0.11	9.48	0.11	9.71	0 08	9 79	0 08	9 86	0 08	9 94	0 08	10 04

12/96 EQUITY RATIOS OF WATER INDEX COMPANIES

	BOOK VALUE PER SHARE	COMMON SHARES OUTSTANDING	COMMON EQUITY	TOTAL DEBT	PREFERRED EQUITY	EQUITY RATIO
AMERICAN WATER WORKS	$13.35	78,198,975	$1,043,929,616	$1,876,600,000	$99,300,000	34.57%
AQUARION COMPANY	17.95	6,970,370	125,118,142	170,800,000	0	42.31%
CALIFORNIA WATER SERVICE CO	24.37	6,299,789	153,525,858	145,500,000	3,500,000	50.75%
CONSUMERS WATER COMPANY	12.51	8,684,331	108,640,981	183,500,000	1,100,000	37.05%
PHILADELPHIA SUBURBAN CORP.	9.05	19,011,390	172,053,080	197,000,000	4,200,000	46.10%
UNITED WATER RESOURCES	10.90	34,281,977	373,673,549	667,400,000	102,300,000	32.68%
AVERAGE						40.58%

SOURCE: Value Line Investment Survey
Edition 9 February 7, 1997
C.A. Turner Utility Reports March 1997

12/96 EQUITY RATIOS OF GAS INDEX COMPANIES

	BOOK VALUE PER SHARE	COMMON SHARES OUTSTANDING	COMMON EQUITY	TOTAL DEBT	PREFERRED EQUITY	EQUITY RATIO
AGL RESOURCES	$10.56	55,867,649	$589,962,373	$773,300,000	$58,500,000	41.50%
BAY STATE GAS	17.58	13,443,594	236,338,383	321,000,000	5,000,000	42.03%
BROOKLYN UNION GAS	18.17	50,074,596	909,855,409	740,000,000	6,600,000	54.93%
INDIANA ENERGY	13.19	22,580,998	297,843,364	235,000,000	0	55.90%
LACLEDE GAS	13.72	17,557,540	240,889,449	271,400,000	2,000,000	46.84%
NORTHWEST NATURAL GAS	14.90	22,484,940	335,025,606	326,400,000	38,700,000	47.85%
PEOPLES ENERGY	19.48	34,981,497	681,439,562	549,100,000	0	55.38%
WASHINGTON GAS LIGHT	12.79	43,703,476	558,967,458	532,800,000	28,400,000	49.90%
AVERAGE						49.29%

SOURCE: Value Line Investment Survey
Edition 3 March 28, 1997
C.A. Turner Utility Reports March 1997