Derivation of Investment Risk Adjustment Based upon
Ibbotson Associates' Size Premia for the Decile Portfolios of the NYSE/AMEX/NASDAQ

Line No.		[1] Market Capitalization on December 31, 2016 (1) (millions)	(times larger)	[2] Applicable Decile of the NYSE/AMEX/ NASDAQ (2)	[3] Applicable Size Premium (3)	[4] Spread from Applicable Size Premium (4)
1.	a. Abenaki Water Company	$ 2.316	1,655.5	10	5.59%	4.35%
	b. Hampstead Area Water Co., Inc.	$ 7.047	544.2	10	5.59%	4.35%
	c. Lakes Region Water Co., Inc.	$ 8.300	462.0	10	5.59%	4.35%
2.	Water Proxy Group	$ 3,834.700		4 - 5	1.25%	

	(A) Decile	(B) Number of Companies (millions)	(C) Recent Total Market Capitalization (millions)	(D) Recent Average Market Capitalization (millions)	(E) Size Premium (Return in Excess of CAPM)		
	1	191	$15,290,475.30	$80,054.84	-0.35%	1 - 2	$47,554.100
	2	200	$3,010,671.02	$15,053.36	0.61%	2 - 3	$11,510.776
	3	202	$1,609,575.62	$7,968.20	0.89%	3 - 4	$6,271.093
	4	221	$1,010,851.81	$4,573.99	0.98%	4 - 5	$3,778.449
	5	227	$677,120.07	$2,982.91	1.51%	5 - 6	$2,535.929
	6	259	$541,038.00	$2,088.95	1.66%	6 - 7	$1,723.148
	7	283	$384,129.20	$1,357.35	1.72%	7 - 8	$1,090.259
	8	361	$297,164.94	$823.17	2.08%	8 - 9	$629.871
	9	487	$212,609.64	$436.57	2.68%	9 - 10	$277.071
Smallest	10	790	$92,882.17	$117.57	5.59%		

* Duff & Phelps 2017 Valuation Handbook Guide to Cost of Capital – Market Results through 2016 (D&P Valuation – 2017) 7-9 to 7-11

Notes:

(1) From page 2 of this Attachment PMA-2.
(2) Gleaned from Column (D) on the bottom of this page. The appropriate decile (Column (A)) corresponds to the market capitalizations found in Column 1.
(3) Corresponding risk premium to the decile is provided on Column (E) on the bottom of this page.
(4) The difference between Abenaki Water Company's, Hampstead Area Water Co. Inc.'s and Lakes Region Water Co., Inc.'s applicable size premiums based upon the Water Utility Group and the size premium applicable to the Water Utility Group, respectively.

Summary of Duff & Phelps Size and Risk Studies for Abenaki Water Company, Hampstead Area Water Company, Lakes Region Water Company and the Water Proxy Group

Size Study

		Interpolated Premium	Spread
Exhibit B-1	Average Market Value of Common Equity at 11/20/2017		
	Water Proxy Group	16.77%	
	Abenaki Water Company	28.31%	8.80%
	Hampstead Area Water Co., Inc.	26.99%	7.48%
	Lakes Region Water Co., Inc.	26.80%	7.29%
Exhibit B-2	Average Book Value of Common Equity (2016)		
	Water Proxy Group	7.80%	
	Abenaki Water Company	12.44%	4.64%
	Hampstead Area Water Co., Inc.	11.75%	3.95%
	Lakes Region Water Co., Inc.	11.65%	3.85%
Exhibit B-3	Average Net Income (5-year average)	8.76%	
	Water Proxy Group		
	Abenaki Water Company	14.53%	5.77%
	Hampstead Area Water Co., Inc.	13.90%	5.14%
	Lakes Region Water Co., Inc.	13.55%	4.79%
Exhibit B-4	Average Value of Invested Capital (2016)		
	Water Proxy Group	17.09%	
	Abenaki Water Company	24.74%	7.65%
	Hampstead Area Water Co., Inc.	21.75%	4.66%
	Lakes Region Water Co., Inc.	19.10%	2.01%
Exhibit B-5	Average Total Assets (2016)		
	Water Proxy Group	8.69%	
	Abenaki Water Company	14.57%	5.88%
	Hampstead Area Water Co., Inc.	13.16%	4.47%
	Lakes Region Water Co., Inc.	13.94%	5.25%
Exhibit B-6	Average EBITDA (5-year average)		
	Water Proxy Group	8.30%	
	Abenaki Water Company	13.32%	5.02%
	Hampstead Area Water Co., Inc.	12.19%	3.89%
	Lakes Region Water Co., Inc.	12.67%	4.37%
Exhibit B-7	Average Operating Revenues (2016)		
	Water Proxy Group	9.84%	
	Abenaki Water Company	15.41%	5.57%
	Hampstead Area Water Co., Inc.	14.30%	4.46%
	Lakes Region Water Co., Inc.	14.49%	4.65%
Exhibit B-8	Average Number of Employees (2016)		
	Water Proxy Group	5.02%	
	Abenaki Water Company	NMF	NMF
	Hampstead Area Water Co., Inc.	9.59%	4.57%
	Lakes Region Water Co., Inc.	9.34%	4.32%

Source: Pages 2 - 9 of this Schedule.

Exhibit B-1: Market Value of Common Equity

Average Market Value of Common Equity ($ mill)

	At 11/30/2017	Interpolated Premium	Spread
Water Proxy Group	$ 3,834.700	19.51%	
Abenaki Water Company Based upon the Water Proxy Group	$ 2.316	28.31%	8.80%
Hampstead Area Water Co., Inc. Based upon the Water Proxy Group	$ 7.047	26.99%	7.48%
Lakes Region Water Co., Inc. Based upon the Water Proxy Group	$ 8.300	26.80%	7.29%

	Constant	Slope
Regression Equation	12.911%	2.733%

Smoothed Premium 12.911% - 2.733% * Log10(Variable)

Source: SNL Financial, Bloomberg Professional Services
Abenaki Water Company, Hampstead Area Water Co., Inc. and Lakes Region Water Co., Inc.
Annual Reports to the New Hampshire Public Utilities Commission

Exhibit B-2: Book Value of Common Equity

Average Book Value of Common Equity ($ mill)

	2016	Interpolated Premium	Spread
Water Proxy Group	$ 1,151.501	7.80%	
Abenaki Water Company	$ 0.655	12.44%	4.64%
Hampstead Area Water Co., Inc.	$ 1.992	11.75%	3.95%
Lakes Region Water Co., Inc.	$ 2.346	11.65%	3.85%

	Constant	Slope
Regression Equation	7.887%	1.430%

Smoothed Premium 7.887% - 1.430% * Log10(Variable)

Source: SNL Financial, Bloomberg Professional Services
Abenaki Water Company, Hampstead Area Water Co., Inc. and Lakes Region Water Co., Inc. Annual Reports to the New Hampshire Public Utilities Commission

Exhibit B-3: Average Net Income

Average Net Income ($ mill)

	2012	2013	2014	2015	2016	5-year Average	Interpolated Premium	Spread
Water Proxy Group	$ 89.628	$ 95.902	$ 109.626	$ 109.534	$ 115.154	$ 103.969	8.76%	
Abenaki Water Company	$ 0.009	$ 0.015	$ 0.040	$ 0.088	$ 0.013	$ 0.033	14.53%	5.77%
Hampstead Area Water Co., Inc.	$ 0.101	$ 0.101	$ 0.128	$ 0.035	$ 0.035	$ 0.080	13.90%	5.14%
Lakes Region Water Co., Inc.	$ 0.149	$ 0.136	$ 0.059	$ 0.076	$ 0.228	$ 0.130	13.55%	4.79%

	Constant	Slope
Regression Equation	7.144%	1.648%

Smoothed Premium 7.144% - 1.648% * Log10(Variable)

Source: SNL Financial, Bloomberg Professional Services
Abenaki Water Company, Hampstead Area Water Co., Inc. and Lakes Region Water Co., Inc. Annual Reports to the New Hampshire Public Utilities Commission

Exhibit B-4: Market Value of Invested Capital

Average Market Value of Invested Capital ($ mill)

		2016	Interpolated Premium	Spread
Water Proxy Group	$	4,768.803	17.09%	
Abenaki Water Company	$	2.507	24.74%	7.65%
Hampstead Area Water Co., Inc.	$	47.965	21.75%	4.66%
Lakes Region Water Co., Inc.	$	659.471	19.10%	2.01%

Regression Equation	Constant	Slope
	11.680%	2.332%

Smoothed Premium: 11.680% - 2.332% * Log10(Variable)

Source: SNL Financial, Bloomberg Professional Services
Abenaki Water Company, Hampstead Area Water Co., Inc. and Lakes Region Water Co., Inc. Annual Reports to the New Hampshire Public Utilities Commission

Exhibit B-5: Total Company Assets

Average Total Assets ($ mill)

		2016	Interpolated Premium	Spread
Water Proxy Group	$	3,961.460	8.69%	
Abenaki Water Company	$	1.882	14.57%	5.88%
Hampstead Area Water Co., Inc.	$	11.771	13.16%	4.47%
Lakes Region Water Co., Inc.	$	4.278	13.94%	5.25%

	Constant	Slope
Regression Equation	9.744%	1.771%

Smoothed Premium 9.744% - 1.771% * Log10(Variable)

Source: SNL Financial, Bloomberg Professional Services
Abenaki Water Company, Hampstead Area Water Co., Inc. and
Lakes Region Water Co., Inc. Annual Reports to the New Hampshire
Public Utilities Commission

Exhibit B-6: Average EBITDA

Average Earnings Before Interest, Taxes, Depreciation & Amortization (EBITDA) ($ mill)

	2012	2013	2014	2015	2016	5-year Average	Interpolated Premium	Spread
Water Proxy Group	$ 280.003	$ 284.506	$ 302.629	$ 312.475	$ 329.302	$ 301.783	8.30%	
Abenaki Water Company	$ 0.145	$ 0.054	$ 0.143	$ 0.198	$ 0.234	$ 0.155	13.32%	5.02%
Hampstead Area Water Co., Inc.	$ 0.745	$ 1.212	$ 0.826	$ 0.793	$ 0.704	$ 0.856	12.19%	3.89%
Lakes Region Water Co., Inc.	$ 0.413	$ 0.408	$ 0.318	$ 0.340	$ 0.597	$ 0.415	12.67%	4.37%

	Constant	Slope
Regression Equation	7.506%	1.526%

Smoothed Premium 7.506% - 1.526% * Log10(Variable)

Source: SNL Financial, Bloomberg Professional Services
Abenaki Water Company, Hampstead Area Water Co., Inc. and Lakes Region Water Co., Inc. Annual Reports to the New Hampshire Public Utilities Commission

Exhibit B-7: Average Net Sales

Average Net Sales (Operating Revenue) ($ mill)

		2016	Interpolated Premium	Spread
Water Proxy Group	$	723.274	9.84%	
Abenaki Water Company	$	0.403	15.41%	5.57%
Hampstead Area Water Co., Inc.	$	1.790	14.30%	4.46%
Lakes Region Water Co., Inc.	$	1.382	14.49%	4.65%

Regression Equation	Constant	Slope
	9.598%	1.711%

Smoothed Premium: 8.598% - 1.711% * Log10(Variable)

Source: SNL Financial, Bloomberg Professional Services
Abenaki Water Company, Hampstead Area Water Co., Inc. and Lakes Region Water Co., Inc. Annual Reports to the New Hampshire Public Utilities Commission

Exhibit B-8: Number of Employees

Average Number of Employees

	2016	Interpolated Premium	Spread
Water Proxy Group	1,417	5.02%	
Abenaki Water Company	-	NMF	NMF
Hampstead Area Water Co., Inc.	6	9.59%	4.57%
Lakes Region Water Co., Inc.	8	9.34%	4.32%

	Constant	Slope
Regression Equation	11.083%	1.925%

11.083% - 1.925% * Log10(Variable)

Source: SNL Financial, Bloomberg Professional Services
Company-provided

Proposed Leverage Formula

Application of the Single-Stage Discounted Cash Flow Model

Water Utility Group	[1] Average Dividend Yield	[2] VL Proj. EPS GR	[3] D * (1+g/2)	[4] DCF
American States Water	1.92%	7.0%	1.99%	8.99%
American Water Works Company	1.93%	8.5%	2.01%	10.51%
Aqua America Inc	2.33%	6.5%	2.41%	8.91%
California Water Service Group	1.74%	9.0%	1.82%	10.82%
Connecticut Water Service Inc	1.97%	4.5%	2.01%	6.51%
Middlesex Water Company	2.11%	8.5%	2.20%	10.70%
SJW Group	1.42%	3.0%	1.44%	4.44%
York Water Company	1.90%	7.0%	1.97%	8.97%
Average				8.73%

Notes: (1) From pages 2 - 9 of this Attachment.

AMER. STATES WATER NYSE-AWR

RECENT PRICE 51.11 | P/E RATIO 26.9 (Trailing: 27.6 Median: 20.0) | RELATIVE P/E RATIO 1.35 | DIV'D YLD 2.0% | VALUE LINE

TIMELINESS 3 Lowered 8/11/17
SAFETY 2 Raised 7/20/12
TECHNICAL 2 Raised 9/29/17
BETA .80 (1.00 = Market)

High:	21.9	23.1	21.0	19.4	19.8	18.2	24.1	33.1	38.7	44.1	47.2	51.8
Low:	15.1	16.8	13.5	14.9	15.6	15.3	17.0	24.0	27.0	35.8	37.3	41.1

Target Price Range 2020 | 2021 | 2022

2020-22 PROJECTIONS

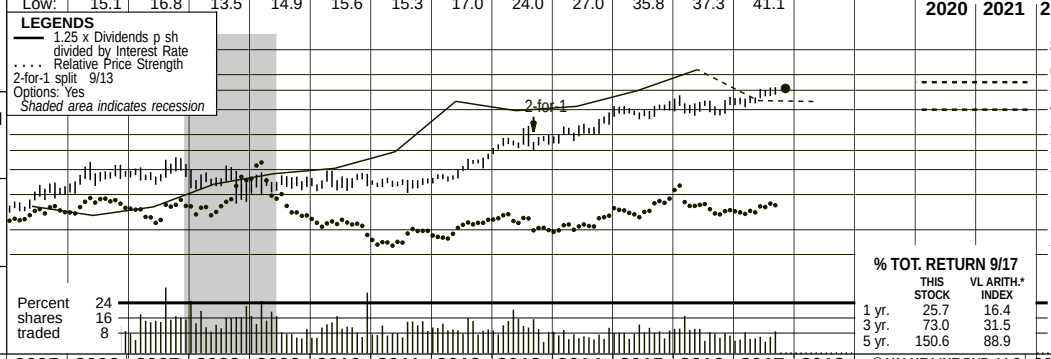
	Price	Gain	Ann'l Total Return
High	55	(+10%)	4%
Low	40	(-20%)	-3%

Insider Decisions

	D	J	F	M	A	M	J	J	A
to Buy	0	0	0	0	0	0	0	0	0
Options	2	3	11	11	0	8	2	0	3
to Sell	1	3	2	3	1	4	3	2	4

Institutional Decisions

	4Q2016	1Q2017	2Q2017
to Buy	102	87	96
to Sell	87	89	84
Hld's(000)	24607	29082	28355



% TOT. RETURN 9/17

	THIS STOCK	VL ARITH.* INDEX
1 yr.	25.7	16.4
3 yr.	73.0	31.5
5 yr.	150.6	88.9

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	© VALUE LINE PUB. LLC	20-22
6.53	6.89	6.99	6.81	7.03	7.88	8.75	9.21	9.74	10.71	11.12	12.12	12.19	12.17	12.56	11.92	*12.40*	*12.65*	Revenues per sh	*15.95*
1.26	1.27	1.04	1.11	1.32	1.45	1.65	1.69	1.70	2.11	2.13	2.48	2.65	2.67	2.81	2.70	*2.85*	*3.05*	"Cash Flow" per sh	*3.85*
.67	.67	.39	.53	.66	.67	.81	.78	.81	1.11	1.12	1.41	1.61	1.57	1.60	1.62	*1.85*	*1.85*	Earnings per sh A	*2.35*
.43	.44	.44	.44	.45	.46	.48	.50	.51	.52	.55	.64	.76	.83	.87	.91	*.98*	*1.05*	Div'd Decl'd per sh B■	*1.35*
1.59	1.34	1.88	2.51	2.12	1.95	1.45	2.23	2.09	2.12	2.13	1.77	2.52	1.89	2.39	3.55	*3.15*	*3.15*	Cap'l Spending per sh	*3.60*
6.61	7.02	6.98	7.51	7.86	8.32	8.77	8.97	9.70	10.13	10.84	11.80	12.72	13.24	12.77	13.52	*14.20*	*14.85*	Book Value per sh	*16.80*
30.24	30.36	30.42	33.50	33.60	34.10	34.46	34.60	37.06	37.26	37.70	38.53	38.72	38.29	36.50	36.57	*36.70*	*36.80*	Common Shs Outst'g C	*37.00*
16.7	18.3	31.9	23.2	21.9	27.7	24.0	22.6	21.2	15.7	15.4	14.3	17.2	20.1	24.6	25.6	*Bold figures are*		Avg Ann'l P/E Ratio	*21.0*
.86	1.00	1.82	1.23	1.17	1.50	1.27	1.36	1.41	1.00	.97	.91	.97	1.06	1.24	1.35	*Value Line*		Relative P/E Ratio	*1.30*
3.9%	3.6%	3.5%	3.6%	3.1%	2.5%	2.5%	2.9%	2.9%	3.0%	3.2%	3.1%	2.7%	2.6%	2.2%	2.2%	*estimates*		Avg Ann'l Div'd Yield	*2.8%*

CAPITAL STRUCTURE as of 6/30/17
Total Debt $365.3 mill. **Due in 5 Yrs** $41.7 mill.
LT Debt $321.0 mill. **LT Interest** $20.0 mill.
(38% of Cap'l)

Leases, Uncapitalized: Annual rentals $2.5 mill.
Pension Assets-12/16 $150.9 mill. **Oblig.** $180.4 mill.

Pfd Stock None.

Common Stock 36,644,758 shs. **as of 7/31/17**

MARKET CAP: $1.9 billion (Mid Cap)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		20-22
301.4	318.7	361.0	398.9	419.3	466.9	472.1	465.8	458.6	436.1	*465*	*470*	Revenues ($mill)	*590*
28.0	26.8	29.5	41.4	42.0	54.1	62.7	61.1	60.5	59.7	*62.0*	*66.0*	Net Profit ($mill)	*87.0*
42.6%	37.8%	38.9%	43.2%	41.7%	39.9%	36.3%	38.4%	38.4%	36.8%	*36.5%*	*35.0%*	Income Tax Rate	*35.0%*
8.5%	6.9%	3.2%	5.8%	2.0%	2.5%	- -	- -	2.5%	.5%	*1.5%*	*2.0%*	AFUDC % to Net Profit	*2.5%*
46.9%	46.2%	45.9%	44.3%	45.4%	42.2%	39.8%	39.1%	41.1%	39.4%	*40.0%*	*42.0%*	Long-Term Debt Ratio	*43.5%*
53.1%	53.8%	54.1%	55.7%	54.6%	57.8%	60.2%	60.9%	58.9%	60.6%	*60.0%*	*58.0%*	Common Equity Ratio	*56.5%*
569.4	577.0	665.0	677.4	749.1	787.0	818.4	832.6	791.5	815.3	*870*	*935*	Total Capital ($mill)	*1100*
776.4	825.3	866.4	855.0	896.5	917.8	981.5	1003.5	1060.8	1150.9	*1200*	*1250*	Net Plant ($mill)	*1400*
6.7%	6.4%	5.9%	7.6%	7.1%	8.3%	8.9%	8.6%	9.0%	8.6%	*8.5%*	*8.5%*	Return on Total Cap'l	*9.0%*
9.3%	8.6%	8.2%	11.0%	10.3%	11.9%	12.7%	12.0%	13.0%	12.1%	*12.0%*	*12.0%*	Return on Shr. Equity	*14.0%*
9.3%	8.6%	8.2%	11.0%	10.3%	11.9%	12.7%	12.0%	13.0%	12.1%	*12.0%*	*12.0%*	Return on Com Equity	*14.0%*
3.9%	3.1%	3.2%	5.8%	5.3%	6.6%	6.8%	5.7%	6.0%	5.3%	*5.0%*	*5.5%*	Retained to Com Eq	*6.0%*
58%	64%	61%	47%	49%	45%	47%	53%	54%	56%	*58%*	*58%*	All Div'ds to Net Prof	*57%*

CURRENT POSITION ($MILL.)	2015	2016	6/30/17
Cash Assets	4.4	.4	2.1
Accts Receivable	18.9	20.0	25.3
Other	109.4	146.5	122.1
Current Assets	132.7	166.9	149.5
Accts Payable	50.6	43.7	45.2
Debt Due	28.3	90.3	44.3
Other	44.6	43.9	51.0
Current Liab.	123.5	177.9	140.5

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '14-'16 to '20-'22
Revenues	5.5%	3.0%	*4.5%*
"Cash Flow"	7.5%	6.5%	*6.0%*
Earnings	10.0%	9.5%	*6.5%*
Dividends	7.0%	10.5%	*7.5%*
Book Value	5.5%	5.0%	*4.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2014	102.0	115.6	138.3	109.9	465.8
2015	100.9	114.6	133.0	110.1	458.6
2016	93.5	112.0	123.8	106.8	436.1
2017	98.8	113.2	*140*	*113*	*465*
2018	*102*	*118*	*135*	*115*	*470*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2014	.28	.39	.54	.36	1.57
2015	.32	.41	.56	.31	1.60
2016	.28	.45	.59	.30	1.62
2017	.34	.62	*.59*	*.30*	*1.85*
2018	*.39*	*.48*	*.60*	*.38*	*1.85*

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2013	.1775	.1775	.2025	.2025	.76
2014	.2025	.2025	.213	.213	.83
2015	.213	.213	.224	.224	.87
2016	.224	.224	.224	.242	.91
2017	.242	.242	.255		

BUSINESS: American States Water Co. operates as a holding company. Through its principal subsidiary, Golden State Water Company, it supplies water to 261,002 customers in 75 cities and 10 counties. Service areas include the greater metropolitan areas of Los Angeles and Orange Counties. The company also provides electric utility services to 23,940 customers in the city of Big Bear Lake and in areas of San Bernardino County. Sold Chaparral City Water of Arizona (6/11). Has 736 employees. BlackRock, Inc. owns 11.7% of out. shares; Vanguard, 9.5%;; off. & dir. 1.5%. (4/17 Proxy). Chairman: Lloyd Ross. President & Chief Executive Officer: Robert J. Sprowls. Inc: CA. Address: 630 East Foothill Blvd., San Dimas, CA 91773. Tel: 909-394-3600. Internet: www.aswater.com.

American States Water was forced to divest an operation for a profit. The water utility's California-based Golden States Water subsidiary sold its Ojai Water System this summer to the municipal district of Casitas for $34.3 million. Ultimately, the company didn't have a choice, as Casitas was using eminent domain to acquire the assets. In any case, the sale resulted in a second-quarter pretax gain of $8.3 million, or about $0.13 a share.

The nonutility sector is performing well. Responsible for about 20% of the company's normalized profits, the ASUS subsidiary provides water services to U.S. military installations. The government is in the midst of privatizing the water systems on many domestic bases. Earlier this year, ASUS snagged a 50-year contract with the Elgin Air Force Base that is expected to generate $510 million in revenues. On October 2nd, the company announced that it was awarded another 50-year contract worth $601 million to service Ft. Riley in Kansas. We expect the company to continue to win a fair share of this business. Since these operations are unregulated, ASUS's return on equity is not limited, however, the business also carries more risk.

Overall, earnings and dividend growth prospects are good. Due mostly to the aforementioned sale of assets, we have raised our 2017 share-earning's estimate for the company $0.15, to $1.85. This represents a hefty 14% year-over-year gain. In 2018, we think that the company will manage to post the same strong share earnings as the nonregulated sector contribution to the bottom line rises.

We think both short- and long-term investors can find better alternatives elsewhere. Shares of AWR have been on a nice run of late. Historically, water utility stocks have been defensive income plays because of their low volatility, high dividend yields, and good dividend growth prospects. At its recent price, AWR's 2.0% yield is only on par with the *Value Line* median. In our opinion, most of the good news associated with the stock appears to be reflected in the recent price. Hence, this neutrally ranked equity has subpar total return prospects through 2020-2022.

James A. Flood *October 13, 2017*

(A) Primary earnings. Excludes nonrecurring gains/(losses): '04, 7¢; '05, 13¢; '06, 3¢; '08, (14¢); '10, (23¢); '11, 10¢. Next earnings report due mid-November.
(B) Dividends historically paid in early March, June, September, and December. ■ Div'd reinvestment plan available.
(C) In millions, adjusted for split.

Company's Financial Strength	A
Stock's Price Stability	75
Price Growth Persistence	70
Earnings Predictability	85

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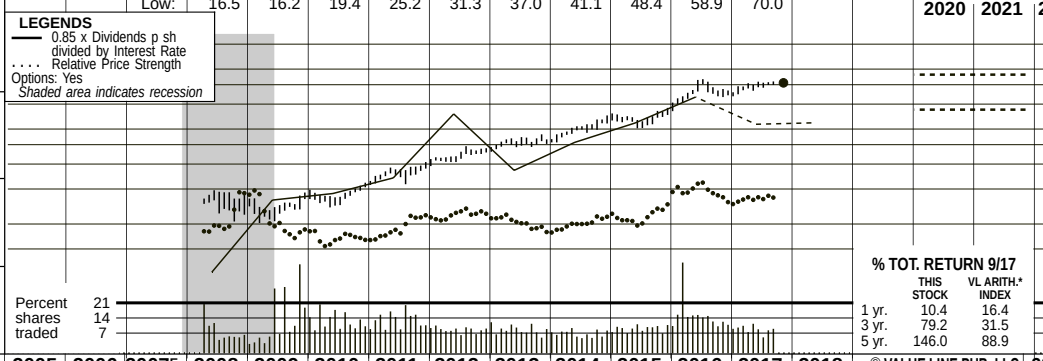
AMERICAN WATER NYSE-AWK

RECENT PRICE 81.75 | P/E RATIO 27.7 (Trailing: 30.8 Median: NMF) | RELATIVE P/E RATIO 1.39 | DIV'D YLD 2.1% | VALUE LINE

TIMELINESS 3 Lowered 8/18/17
SAFETY 3 New 7/25/08
TECHNICAL 2 Raised 10/13/17
BETA .65 (1.00 = Market)

High:	23.7	23.0	25.8	32.8	39.4	45.1	56.2	61.2	85.2	83.1
Low:	16.5	16.2	19.4	25.2	31.3	37.0	41.1	48.4	58.9	70.0

Target Price Range 2020 | 2021 | 2022



2020-22 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	90	(+10%)	5%
Low	60	(-25%)	-4%

Insider Decisions

	D	J	F	M	A	M	J	J	A
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	9	3	0	7	0	0	1
to Sell	0	0	1	2	0	2	0	0	1

Institutional Decisions

	4Q2016	1Q2017	2Q2017
to Buy	316	269	281
to Sell	278	302	291
Hld's(000)	145668	160388	158865

% TOT. RETURN 9/17

	THIS STOCK	VL ARITH.* INDEX
1 yr.	10.4	16.4
3 yr.	79.2	31.5
5 yr.	146.0	88.9

2001	2002	2003	2004	2005	2006	2007E	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	© VALUE LINE PUB. LLC	20-22
- -	- -	- -	- -	- -	13.08	13.84	14.61	13.98	15.49	15.18	16.25	16.28	16.78	17.72	18.54	**19.25**	**20.10**	Revenues per sh	**23.05**
- -	- -	- -	- -	- -	.65	d.47	2.87	2.89	3.56	3.73	4.27	4.36	4.75	5.13	5.26	**5.60**	**6.15**	"Cash Flow" per sh	**7.45**
- -	- -	- -	- -	- -	d.97	d2.14	1.10	1.25	1.53	1.72	2.11	2.06	2.39	2.64	2.62	**2.85**	**3.25**	Earnings per sh A	**4.15**
- -	- -	- -	- -	- -	- -	- -	.40	.82	.86	.90	1.21	.84	1.21	1.33	1.47	**1.62**	**1.76**	Div'd Decl'd per sh B■	**2.35**
- -	- -	- -	- -	- -	4.31	4.74	6.31	4.50	4.38	5.27	5.25	5.50	5.33	6.51	7.36	**6.75**	**6.70**	Cap'l Spending per sh	**6.40**
- -	- -	- -	- -	- -	23.86	28.39	25.64	22.91	23.59	24.11	25.11	26.52	27.39	28.25	29.24	**30.90**	**32.40**	Book Value per sh D	**39.45**
- -	- -	- -	- -	- -	160.00	160.00	160.00	174.63	175.00	175.66	176.99	178.25	179.46	178.28	178.10	**178.50**	**179.00**	Common Shs Outst'g C	**187.50**
- -	- -	- -	- -	- -	- -	- -	18.9	15.6	14.6	16.8	16.7	19.9	20.0	20.5	27.7	*Bold figures are*		Avg Ann'l P/E Ratio	**18.0**
- -	- -	- -	- -	- -	- -	- -	1.14	1.04	.93	1.05	1.06	1.12	1.05	1.03	1.46	*Value Line*		Relative P/E Ratio	**1.15**
- -	- -	- -	- -	- -	- -	- -	1.9%	4.2%	3.8%	3.1%	3.4%	2.0%	2.5%	2.5%	2.0%	*estimates*		Avg Ann'l Div'd Yield	**3.1%**
						2214.2	2336.9	2440.7	2710.7	2666.2	2876.9	2901.9	3011.3	3159.0	3302.0	**3440**	**3600**	Revenues ($mill)	**4325**
						d342.3	187.2	209.9	267.8	304.9	374.3	369.3	429.8	476.0	468.0	**510**	**580**	Net Profit ($mill)	**780**
						- -	37.4%	37.9%	40.4%	39.5%	40.7%	39.1%	39.4%	39.1%	39.2%	**41.0%**	**38.0%**	Income Tax Rate	**36.5%**
						- -	- -	- -	- -	- -	6.2%	5.1%	- -	5.1%	1.4%	**2.0%**	**2.5%**	AFUDC % to Net Profit	**3.5%**
						50.9%	53.1%	56.9%	56.8%	55.7%	53.9%	52.4%	52.4%	53.7%	52.4%	**53.5%**	**55.0%**	Long-Term Debt Ratio	**54.0%**
						49.1%	46.9%	43.1%	43.2%	44.2%	46.1%	47.6%	47.4%	46.2%	47.5%	**46.5%**	**45.0%**	Common Equity Ratio	**46.0%**
						9245.7	8750.2	9289.0	9561.3	9580.3	9635.5	9940.7	10364	10911	10967	**11600**	**12850**	Total Capital ($mill)	**16000**
						9318.0	9991.8	10524	11059	11021	11739	12391	12900	13933	14992	**15675**	**16400**	Net Plant ($mill)	**18000**
						NMF	3.7%	3.8%	4.4%	4.8%	5.4%	5.1%	5.5%	5.7%	5.6%	**6.0%**	**6.0%**	Return on Total Cap'l	**6.5%**
						NMF	4.6%	5.2%	6.5%	7.2%	8.4%	7.8%	8.7%	9.4%	9.0%	**9.5%**	**10.0%**	Return on Shr. Equity	**10.5%**
						NMF	4.6%	5.2%	6.5%	7.2%	8.4%	7.8%	8.7%	9.4%	9.0%	**9.5%**	**10.0%**	Return on Com Equity	**10.5%**
						NMF	3.0%	1.8%	2.8%	3.5%	3.6%	4.7%	4.3%	4.7%	4.0%	**4.5%**	**4.5%**	Retained to Com Eq	**4.5%**
						- -	34%	65%	56%	52%	57%	40%	50%	50%	56%	**57%**	**55%**	All Div'ds to Net Prof	**57%**

CAPITAL STRUCTURE as of 6/30/17
Total Debt $7453.0 mil. **Due in 5 Yrs** $1698.0 mil.
LT Debt $5650.0 mil. **LT Interest** $300.0 mil.
(51% of Cap'l)

Leases, Uncapitalized: Annual rentals $14.0 mill.
Pension Assets 12/16 $1443.0 mill **Oblig.** $1864.0 mill.
Pfd Stock $9.0 mill. **Pfd Div'd** $.5 mill

Common Stock 178,282,329 shs.
as of 7/27/17

MARKET CAP: $14.6 billion (Large Cap)

CURRENT POSITION ($MILL.)	2015	2016	6/30/17
Cash Assets	45.0	75.0	64.0
Accts Receivable	255.0	269.0	288.0
Other	357.0	440.0	456.0
Current Assets	657.0	784.0	808.0
Accts Payable	126.0	154.0	134.0
Debt Due	682.0	1423.0	1803.0
Other	725.0	815.0	724.0
Current Liab.	1533.0	2392.0	2661.0

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '14-'16 to '20-'22
Revenues	3.0%	3.5%	4.5%
"Cash Flow"	23.0%	8.5%	6.5%
Earnings	- -	11.0%	8.5%
Dividends	- -	9.0%	10.0%
Book Value	1.5%	4.0%	5.5%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2014	679.0	754.8	846.1	731.4	3011.3
2015	698.0	782.0	896.0	783.0	3159.0
2016	743.0	827.0	930.0	802.0	3302.0
2017	756.0	844.0	**985**	**855**	**3440**
2018	**770**	**895**	**1040**	**895**	**3600**

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2014	.39	.62	.86	.52	2.39
2015	.44	.68	.96	.56	2.64
2016	.46	.77	.83	.57	2.62
2017	.52	.73	**1.02**	**.58**	**2.85**
2018	**.62**	**.83**	**1.09**	**.71**	**3.25**

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.28	.31	.31	.31	1.21
2015	.31	.34	.34	.34	1.33
2016	.34	.375	.375	.375	1.47
2017	.375	.415	.415		

BUSINESS: American Water Works Company, Inc. is the largest investor-owned water and wastewater utility in the U.S., providing services to over 15 million people in over 47 states and Canada. (Regulated presence in 16 states.) Nonregulated business assists municipalities and military bases with the maintenance and upkeep as well. Regulated operations made up 86.5% of 2016 revenues. New Jersey is its largest market accounting for 25.4% of regulated revenues. Has 6,800 employees. The Vanguard Group, owns 9.6% of outstanding shares; BlackRock, Inc., 8.2%; officers & directors, less than 1.0%. (3/17 Proxy). President & CEO: Susan N. Story. Chair.: George MacKenzie. Address: 1025 Laurel Oak Road, Voorhees, NJ 08043. Tel.: 856-346-8200. Internet: www.amwater.com.

A court has granted preliminary approval to a settlement in a legal suit against American Water Works. In January of 2014, the wholly owned West Virginia-based subsidiary of the water utility was sued over the Freedom Industries chemical spill into the Elk River. According to the proposed deal, American Water would have to pay approximately $126 million to resolve all claims against it. Net of insurance proceeds, management believes that the final aftertax hit to earnings will be about $26 million, or $0.14 a share.

The bottom line has also been hurt by a couple of other factors. A recent ruling in the state of New York, which indicated that water utilities do not qualify for the manufacturer tax break, resulted in a one-time noncash charge of around $7 million in the second quarter. Also, during the same period, operating income from the company's nonutility business declined 30% due largely to reduced capital spending at U.S. military bases.

Still, on the whole, the utility's earning prospects are relatively bright. Even with the penalty from the West Virginia settlement (we have taken it out of this year's fourth quarter), we estimate that American Water's share earnings will rise 9% over 2016's mediocre figure. What's more, with the company earning a return on more assets and demand for the military expected to pick up (there are several military bases seeking bids to privatize their water systems), share earnings can probably climb a hefty 14% in 2018. The company's continued strategy of making many small acquisitions and using economies of scale to make the operations more efficient will also play a major part.

The long-term outlook for dividend growth is excellent. We think that the annual payout can rise 10% over the next 3- to 5-year period. This is the highest of any member of this group.

These shares do not hold any great appeal at this time, however. Despite being the largest and possibly best-run publicly owned water utility in the country, the premium demanded by the market for this group of stocks seems excessive, in our opinion. Hence, investors can probably do better elsewhere.

James A. Flood *October 13, 2017*

(A) Diluted earnings. Excludes nonrecurring losses: '08, $4.62; '09, $2.63; '11, $0.07. Discontinued operations: '06, ($0.04); '11, $0.03; '12, ($0.10); '13,($0.01). GAAP used as of 2014. Next earnings report due mid-November. Quarterly earnings do not sum in '16 due to rounding. (B) Dividends paid in March, June, September, and December. ■ Div. reinvestment available. (C) In millions. (D) Includes intangibles. On 6/30/17: $1.373 billion, $7.70/share. (E) Pro forma numbers for '06 & '07.

Company's Financial Strength	B+
Stock's Price Stability	100
Price Growth Persistence	85
Earnings Predictability	90

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AQUA AMERICA NYSE-WTR

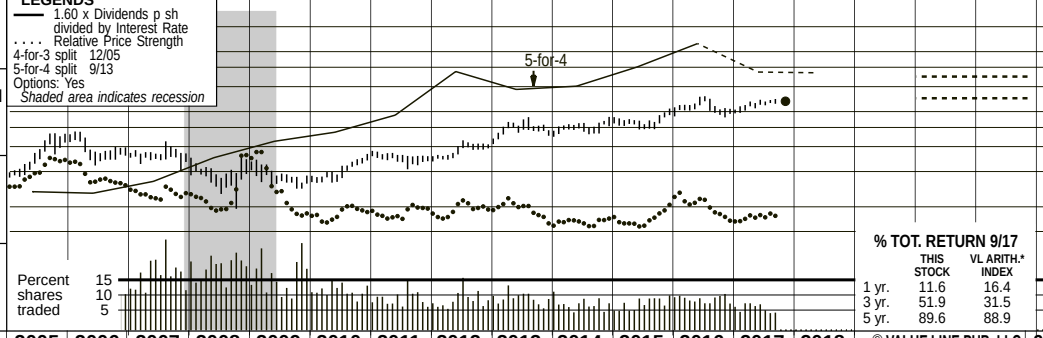
RECENT PRICE	P/E RATIO		RELATIVE P/E RATIO	DIV'D YLD	
33.77	24.3	(Trailing: 25.8 Median: 22.0)	1.21	2.5%	VALUE LINE

TIMELINESS 3 Lowered 8/26/16
SAFETY 2 Raised 4/20/12
TECHNICAL 1 Raised 10/13/17
BETA .70 (1.00 = Market)

High:	23.8	21.3	17.6	17.2	18.4	19.0	21.5	28.1	28.2	31.1	35.8	34.7
Low:	16.1	15.1	9.8	12.3	13.2	15.4	16.8	20.6	22.4	24.4	28.0	29.4

Target Price Range
2020 | 2021 | 2022

LEGENDS
— 1.60 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
4-for-3 split 12/05
5-for-4 split 9/13
Options: Yes
Shaded area indicates recession



2020-22 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	45	(+35%)	*10%*
Low	35	(+5%)	*4%*

Insider Decisions

	D	J	F	M	A	M	J	J	A
to Buy	0	0	0	0	0	0	0	0	0
Options	0	7	6	7	7	0	1	7	0
to Sell	0	0	0	0	0	0	2	0	0

Institutional Decisions

	4Q2016	1Q2017	2Q2017
to Buy	182	179	172
to Sell	171	180	155
Hld's(000)	88568	103594	104564

% TOT. RETURN 9/17

	THIS STOCK	VL ARITH.* INDEX
1 yr.	11.6	16.4
3 yr.	51.9	31.5
5 yr.	89.6	88.9

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	© VALUE LINE PUB. LLC	20-22
2.16	2.28	2.38	2.78	3.08	3.23	3.61	3.71	3.93	4.21	4.10	4.32	4.32	4.37	4.61	4.62	*4.65*	*4.95*	Revenues per sh	*6.05*
.69	.76	.77	.87	.97	1.01	1.10	1.14	1.29	1.42	1.45	1.51	1.82	1.89	1.87	2.07	*2.15*	*2.25*	"Cash Flow" per sh	*2.75*
.41	.43	.46	.51	.57	.56	.57	.58	.62	.72	.83	.87	1.16	1.20	1.14	1.32	*1.36*	*1.45*	Earnings per sh A	*1.85*
.24	.26	.28	.29	.32	.35	.38	.41	.44	.47	.50	.54	.58	.63	.69	.74	*.80*	*.85*	Div'd Decl'd per sh B■	*1.15*
.87	.96	1.06	1.23	1.47	1.64	1.43	1.58	1.66	1.89	1.90	1.98	1.73	1.84	2.07	2.16	*2.55*	*2.45*	Cap'l Spending per sh	*2.25*
3.32	3.49	4.27	4.71	5.04	5.57	5.85	6.26	6.50	6.81	7.21	7.90	8.63	9.27	9.78	10.43	*11.10*	*11.75*	Book Value per sh	*14.85*
142.47	141.49	154.31	158.97	161.21	165.41	166.75	169.21	170.61	172.46	173.60	175.43	177.93	178.59	176.54	177.39	*178.00*	*178.50*	Common Shs Outst'g C	*180.00*
23.6	23.6	24.5	25.1	31.8	34.7	32.0	24.9	23.1	21.1	21.3	21.9	21.2	20.8	23.5	23.9	*Bold figures are*		Avg Ann'l P/E Ratio	*21.0*
1.21	1.29	1.40	1.33	1.69	1.87	1.70	1.50	1.54	1.34	1.34	1.39	1.19	1.09	1.18	1.26	*Value Line*		Relative P/E Ratio	*1.30*
2.5%	2.5%	2.5%	2.3%	1.8%	1.8%	2.1%	2.8%	3.1%	3.1%	2.8%	2.8%	2.4%	2.5%	2.6%	2.3%	*estimates*		Avg Ann'l Div'd Yield	*2.9%*

CAPITAL STRUCTURE as of 6/30/17
Total Debt $2093.6 mill. **Due in 5 Yrs** $430.5 mill.
LT Debt $1882.6 mill. **LT Interest** $76.3 mill.
(51% of Cap'l)

Pension Assets-12/16 $242.4 mill.
Oblig. $308.2 mill.

Pfd Stock None
Common Stock 177,651,543 shares
as of 7/24/17

MARKET CAP: $6.0 billion (Large Cap)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		20-22
602.5	627.0	670.5	726.1	712.0	757.8	768.6	779.9	814.2	819.9	*830*	*880*	Revenues ($mill)	*1085*
95.0	97.9	104.4	124.0	144.8	153.1	205.0	213.9	201.8	234.2	*245*	*260*	Net Profit ($mill)	*335*
38.9%	39.7%	39.4%	39.2%	32.9%	39.0%	10.0%	10.5%	6.9%	8.2%	*9.0%*	*9.0%*	Income Tax Rate	*10.0%*
- -	- -	- -	- -	- -	- -	1.1%	2.4%	3.1%	3.8%	*3.5%*	*3.0%*	AFUDC % to Net Profit	*3.5%*
55.4%	54.1%	55.6%	56.6%	52.7%	52.7%	48.9%	48.5%	50.3%	48.4%	*47.0%*	*49.0%*	Long-Term Debt Ratio	*51.0%*
44.6%	45.9%	44.4%	43.4%	47.3%	47.3%	51.1%	51.5%	49.7%	51.6%	*53.0%*	*51.0%*	Common Equity Ratio	*49.0%*
2191.4	2306.6	2495.5	2706.2	2646.8	2929.7	3003.6	3216.0	3469.5	3587.7	*3735*	*4100*	Total Capital ($mill)	*5500*
2792.8	2997.4	3227.3	3469.3	3612.9	3936.2	4167.3	4402.0	4688.9	5001.6	*5080*	*5275*	Net Plant ($mill)	*5800*
5.9%	5.7%	5.6%	5.9%	6.9%	6.6%	8.0%	7.8%	6.9%	7.6%	*7.5%*	*7.5%*	Return on Total Cap'l	*7.5%*
9.7%	9.3%	9.4%	10.6%	11.6%	11.0%	13.4%	12.9%	11.7%	12.7%	*12.5%*	*12.5%*	Return on Shr. Equity	*12.5%*
9.7%	9.3%	9.4%	10.6%	11.6%	11.0%	13.4%	12.9%	11.7%	12.7%	*12.5%*	*12.5%*	Return on Com Equity	*12.5%*
3.2%	2.8%	2.7%	3.7%	4.6%	4.3%	6.7%	6.1%	4.7%	5.6%	*5.5%*	*5.0%*	Retained to Com Eq	*4.5%*
67%	70%	72%	65%	60%	61%	50%	52%	60%	56%	*58%*	*59%*	All Div'ds to Net Prof	*62%*

CURRENT POSITION ($MILL.)	2015	2016	6/30/17
Cash Assets	3.2	3.7	7.8
Receivables	99.1	97.4	98.9
Inventory (AvgCst)	12.4	13.0	16.8
Other	13.7	14.6	14.6
Current Assets	128.4	128.7	138.1
Accts Payable	56.5	59.9	46.4
Debt Due	52.3	157.2	221.0
Other	84.4	84.4	65.1
Current Liab.	193.2	301.5	332.5

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '14-'16 to '20-'22
Revenues	4.0%	2.0%	*5.0%*
"Cash Flow"	7.5%	7.0%	*6.0%*
Earnings	8.5%	11.0%	*7.0%*
Dividends	8.0%	8.0%	*9.0%*
Book Value	7.0%	7.5%	*6.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	182.7	195.3	210.5	191.4	779.9
2015	190.3	205.8	221.0	197.1	814.2
2016	192.6	203.9	226.6	196.8	819.9
2017	187.8	203.4	*233.8*	*205*	*830*
2018	*200*	*220*	*245*	*215*	*880*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	.24	.31	.38	.27	1.20
2015	.27	.32	.38	.17	1.14
2016	.29	.34	.41	.28	1.32
2017	.28	.34	*.43*	*.31*	*1.36*
2018	*.31*	*.36*	*.47*	*.31*	*1.45*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2013	.14	.14	.152	.152	.58
2014	.152	.152	.165	.165	.63
2015	.165	.165	.178	.178	.69
2016	.178	.178	.1913	.1913	.74
2017	.1913	.1913	.205		

BUSINESS: Aqua America, Inc. is the holding company for water and wastewater utilities that serve approximately three million residents in Pennsylvania, Ohio, North Carolina, Illinois, Texas, New Jersey, Florida, Indiana, and five other states. Has 1,551 employees. Acquired AquaSource, 7/13; North Maine Utilities, 7/15; and others. Water supply revenues '2016: residential, 59%; commercial, 16%; industrial, wastewater & other, 25%. Off. & dir. own less than 1% of the common stock; Vanguard Group, 8.9%; Blackrock, Inc, 8.1%; State Street Capital, 6.0% (3/17 Proxy). President & Chief Executive Officer: Christopher Franklin. Incorporated: Pennsylvania. Address: 762 West Lancaster Avenue, Bryn Mawr, Pennsylvania 19010. Tel.: 610-525-1400. Internet: www.aquaamerica.com.

A large percentage of Aqua America's future growth will likely come via acquisitions. Similar to other large publicly traded water utilities, Aqua has been a continual buyer of small local water districts. Indeed, most of the 100,000-plus water systems in the U.S. do not have the financial wherewithal to replace their aging infrastructures. By constantly purchasing these types of entities, Aqua can gradually increase its customer base. Moreover, since actual synergies do result from mergers in this industry, the new assets can be operated more efficiently.

There's always something happening on the regulatory front. The company has received rate relief in Indiana, New Jersey, North Carolina, Ohio and Pennsylvania. Other rate cases are pending in Virginia and Illinois. Aqua has good relationships with its regulators, so we are not expecting any major negative surprises.

Dividends should increase at a healthy rate for the foreseeable future. Last quarter, the payout was hiked by 7%. This is less than the company's five- and 10-year historical average of 8%. Nevertheless, we think Aqua's strong cash generation should enable its payouts to rise 8%-10% annually through 2020-2022.

Capital outlays are large but manageable. Aqua increased this year's capital expenditure budget to approximately $450 million. The majority of funds will be allocated to repair, maintain, and replace aged pipelines and equipment. We don't expect this figure to change much in 2018. In 2019, though, we think outlays should decline to the $300 million-$325 million range. Of the nine members included in the water group, Aqua is only one of two that rates a Financial Strength rating of at least an A. While the balance sheet may be more leveraged over the next couple of years, it should remain relatively healthy.

The stock has a high yield for a water utility. WTR is yielding 2.5%, or about 50 basis points more than its peers. This is unusual considering the equity's strong projected dividend growth. As a result, even though we still think shares of water utilities are currently trading at too high a premium, WTR is probably the best selection for those investors who must own a stock in this industry.

James A. Flood *October 13, 2017*

(A) Diluted egs. Excl. nonrec. gains: '01, 2¢; '02, 4¢; '03, 3¢; '12, 18¢. Excl. gain from disc. operations: '12, 7¢; '13, 9¢; '14, 11¢. May not sum due to rounding. Next earnings report due mid-November.
(B) Dividends historically paid in early March, June, Sept. & Dec. ■ Div'd. reinvestment plan available (5% discount).
(C) In millions, adjusted for stock splits.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	65
Earnings Predictability	90

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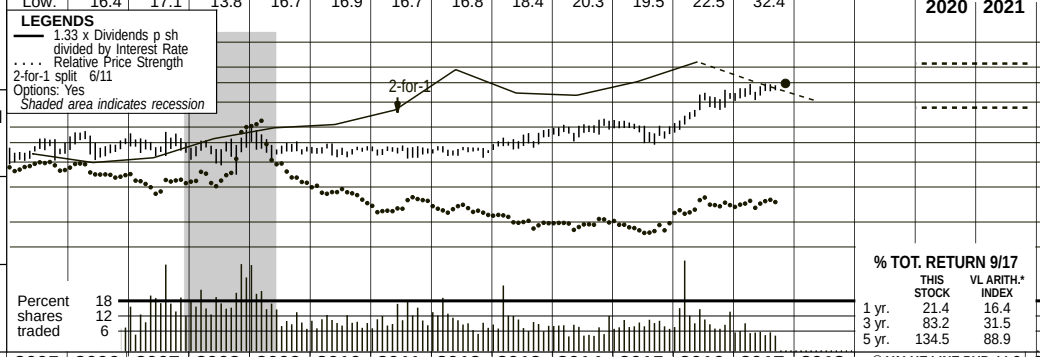
CALIFORNIA WATER NYSE-CWT

RECENT PRICE **39.65** | P/E RATIO **28.3** (Trailing: 33.0 / Median: 20.0) | RELATIVE P/E RATIO **1.41** | DIV'D YLD **1.8%** | VALUE LINE

TIMELINESS 2 Raised 9/1/17
SAFETY 3 Lowered 7/27/07
TECHNICAL 2 Lowered 10/13/17
BETA .80 (1.00 = Market)

High:	22.9	22.7	23.3	24.1	19.8	19.4	19.3	23.4	26.4	26.0	36.8	39.8
Low:	16.4	17.1	13.8	16.7	16.9	16.7	16.8	18.4	20.3	19.5	22.5	32.4

Target Price Range
2020 | 2021 | 2022



2020-22 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	50	(+25%)	8%
Low	30	(-25%)	-4%

Insider Decisions

	D	J	F	M	A	M	J	J	A
to Buy	1	1	1	1	1	1	1	1	1
Options	0	0	0	22	0	0	0	0	0
to Sell	0	0	0	1	0	1	1	0	0

Institutional Decisions

	4Q2016	1Q2017	2Q2017
to Buy	93	97	88
to Sell	82	83	77
Hld's(000)	34200	38886	38422

% TOT. RETURN 9/17

	THIS STOCK	VL ARITH.* INDEX
1 yr.	21.4	16.4
3 yr.	83.2	31.5
5 yr.	134.5	88.9

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	© VALUE LINE PUB. LLC	20-22
8.13	8.67	8.18	8.59	8.72	8.10	8.88	9.90	10.82	11.05	12.00	13.34	12.23	12.50	12.29	12.70	**13.45**	**13.90**	Revenues per sh	**14.70**
1.10	1.32	1.26	1.42	1.52	1.36	1.56	1.86	1.93	1.93	2.07	2.32	2.21	2.47	2.22	2.34	**2.65**	**2.80**	"Cash Flow" per sh	**3.15**
.47	.63	.61	.73	.74	.67	.75	.95	.98	.91	.86	1.02	1.02	1.19	.94	1.01	**1.35**	**1.45**	Earnings per sh A	**1.75**
.56	.56	.56	.57	.57	.58	.58	.59	.59	.60	.62	.63	.64	.65	.67	.69	**.72**	**.75**	Div'd Decl'd per sh B ■	**.99**
2.04	2.91	2.19	1.87	2.01	2.14	1.84	2.41	2.66	2.97	2.83	3.04	2.58	2.76	3.69	4.77	**3.85**	**3.65**	Cap'l Spending per sh	**3.65**
6.48	6.56	7.22	7.83	7.90	9.07	9.25	9.72	10.13	10.45	10.76	11.28	12.54	13.11	13.41	13.75	**14.20**	**14.45**	Book Value per sh C	**16.00**
30.36	30.36	33.86	36.73	36.78	41.31	41.33	41.45	41.53	41.67	41.82	41.98	47.74	47.81	47.88	47.97	**48.25**	**48.50**	Common Shs Outst'g D	**50.00**
27.1	19.8	22.1	20.1	24.9	29.2	26.1	19.8	19.7	20.3	21.3	17.9	20.1	19.7	24.8	29.6	*Bold figures are*		Avg Ann'l P/E Ratio	**23.0**
1.39	1.08	1.26	1.06	1.33	1.58	1.39	1.19	1.31	1.29	1.34	1.14	1.13	1.04	1.25	1.56	*Value Line*		Relative P/E Ratio	**1.45**
4.4%	4.5%	4.2%	3.9%	3.1%	2.9%	3.0%	3.1%	3.1%	3.2%	3.4%	3.5%	3.1%	2.8%	2.9%	2.3%	*estimates*		Avg Ann'l Div'd Yield	**2.5%**

CAPITAL STRUCTURE as of 6/30/17
Total Debt $746.1 mill. **Due in 5 Yrs** $174.0 mill.
LT Debt $519.9 mill. **LT Interest** $35.0 mill.
(44% of Cap'l)

Pension Assets-12/16 $376.5 mill.
Oblig. $564.8 mill.

Pfd Stock None

Common Stock 48,018,000 shs.

MARKET CAP: $1.9 billion (Mid Cap)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		20-22
367.1	410.3	449.4	460.4	501.8	560.0	584.1	597.5	588.3	609.4	**650**	**675**	Revenues ($mill) E	**735**
31.2	39.8	40.6	37.7	36.1	42.6	47.3	56.7	45.0	48.7	**65.0**	**70.0**	Net Profit ($mill)	**88.0**
39.9%	37.7%	40.3%	39.5%	40.5%	37.5%	30.3%	33.0%	36.0%	35.5%	**35.0%**	**35.0%**	Income Tax Rate	**35.0%**
8.3%	8.6%	7.6%	4.2%	7.6%	8.0%	4.3%	2.7%	4.3%	6.1%	**5.0%**	**5.0%**	AFUDC % to Net Profit	**5.0%**
42.9%	41.6%	47.1%	52.4%	51.7%	47.8%	41.6%	40.1%	44.4%	44.6%	**45.0%**	**45.0%**	Long-Term Debt Ratio	**43.0%**
56.6%	58.4%	52.9%	47.6%	48.3%	52.2%	58.4%	59.9%	55.6%	55.4%	**55.0%**	**55.0%**	Common Equity Ratio	**57.0%**
674.9	690.4	794.9	914.7	931.5	908.2	1024.9	1045.9	1154.4	1191.2	**1250**	**1275**	Total Capital ($mill)	**1400**
1010.2	1112.4	1198.1	1294.3	1381.1	1457.1	1515.8	1590.4	1701.8	1859.3	**1900**	**1930**	Net Plant ($mill)	**2000**
5.9%	7.1%	6.5%	5.5%	5.5%	6.3%	6.0%	6.3%	5.2%	5.5%	**6.5%**	**6.5%**	Return on Total Cap'l	**7.0%**
8.1%	9.9%	9.6%	8.6%	8.0%	9.0%	7.9%	9.1%	7.0%	7.4%	**9.5%**	**10.0%**	Return on Shr. Equity	**11.0%**
8.1%	9.9%	9.6%	8.6%	8.0%	9.0%	7.9%	9.1%	7.0%	7.4%	**9.5%**	**10.0%**	Return on Com Equity	**11.0%**
1.8%	3.8%	3.8%	3.0%	2.3%	3.4%	3.4%	4.1%	2.0%	2.4%	**4.5%**	**5.0%**	Retained to Com Eq	**5.0%**
77%	61%	60%	66%	71%	62%	56%	55%	71%	68%	**53%**	**52%**	All Div'ds to Net Prof	**56%**

CURRENT POSITION ($MILL.)	2015	2016	6/30/17
Cash Assets	8.8	25.5	29.1
Other	118.8	116.6	141.5
Current Assets	127.6	142.1	170.6
Accts Payable	66.4	77.8	84.2
Debt Due	40.2	123.3	226.2
Other	41.9	49.1	50.6
Current Liab.	148.5	250.2	361.0

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '14-'16 to '20-'22
Revenues	4.0%	2.0%	*2.5%*
"Cash Flow"	5.0%	3.5%	*5.0%*
Earnings	4.0%	3.0%	*9.0%*
Dividends	1.5%	2.0%	*6.5%*
Book Value	5.0%	5.0%	*3.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.)E Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	110.5	158.4	191.2	137.4	597.5
2015	122.0	144.4	183.5	138.4	588.3
2016	121.7	152.4	184.3	151.0	609.4
2017	122.0	171.1	**200**	**156.9**	**650**
2018	**140**	**170**	**205**	**160**	**675**

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2014	d.11	.36	.70	.24	1.19
2015	.03	.21	.52	.18	.94
2016	d.02	.24	.48	.31	1.01
2017	.02	.39	**.62**	**.32**	**1.35**
2018	**.07**	**.38**	**.67**	**.33**	**1.45**

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2013	.16	.16	.16	.16	.64
2014	.1625	.1625	.1625	.1625	.65
2015	.1675	.1675	.1675	.1675	.67
2016	.1725	.1725	.1725	.1725	.69
2017	.18	.18	.18		

BUSINESS: California Water Service Group provides regulated and nonregulated water service to 482,400 customers in 100 communities in the state of California. Accounts for over 94% of total customers. Also operates in Washington, New Mexico, and Hawaii. Main service areas: San Francisco Bay area, Sacramento Valley, Salinas Valley, San Joaquin Valley & parts of Los Angeles. Acquired Rio Grande Corp; West Hawaii Utilities (9/08). Revenue breakdown, '16: residential, 72%; business, 20%; industrial, 4%; public authorities, 3%; other 1%. Off. and dir. own 1% of common stock (4/17 proxy). Has 1,163 employees. Pres. and CEO: Martin A. Kropelnicki Inc.: DE. Addr.: 1720 North First St., San Jose, CA 95112-4598. Tel.: 408-367-8200. Internet: www.calwatergroup.com.

California Water Service Group benefited from favorable rate activity in the second quarter. The regulated water provider saw revenues surge to $171 million, a 12% annual improvement, and a 40% increase on a sequential basis. The advance can largely be attributed to recent rate changes by the California regulatory authority (effective earlier this year). Specifically, rate increases alone added more than $17 million to the top line in the June period, with unbilled revenue accounting for the remainder of gains.

Profits are on the right track. California Water earned $0.39 a share in the second quarter, besting our $0.35 call. Lower incremental drought costs were positive, but the real takeaway was the 280-basis-point decline in operating expenses, notably slimmer maintenance and administrative costs. Our 2017 bottom-line estimate of $1.35 a share remains intact, equating to year-over-year growth of 34%.

We are tacking $10 million onto our current-year revenue estimate, to $650 million. This is partly owing to the strong second-quarter showing, but also factors in the higher base rate going forward. Meanwhile, our 2018 top-line forecast is unchanged, at $675 million.

The long-term story hasn't changed much. Acquisitions and capital spending remain the main themes here. The company has ample funding to allocate to infrastructure upgrades and water system improvements. Year to date, CWT has spent just over $100 million on investments, leaving approximately $450 million-$500 million at its disposal. Further, bolt-on acquisitions are a possible avenue to explore should management want to supplement organic growth. All this, along with continued inquiry into increased base rates, augurs well for business prospects into next decade.

These shares are trading near all-time highs. No doubt, the market has rewarded the company for returning to growth in 2016, as the stock price is up nearly 75% from last year's lows. This issue is timely (2), and is slated to outperform the year-ahead broader market averages. However, due to the run-up in price, total return potential over the 3- to 5-year stretch is below average.

Nicholas P. Patrikis *October 13, 2017*

(A) Basic EPS. Excl. nonrecurring gain (loss): '01, 2¢; '02, 4¢; '11, 4¢. Next earnings report due late November.
(B) Dividends historically paid in late Feb., May, Aug., and Nov. ■ Div'd reinvestment plan available.
(C) Incl. intangible assets. In '16 : $21.9 mill., $0.46/sh.
(D) In millions, adjusted for splits.
(E) Excludes non-reg. rev.

Company's Financial Strength	B++
Stock's Price Stability	80
Price Growth Persistence	35
Earnings Predictability	70

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CONNECTICUT WATER NDQ-CTWS

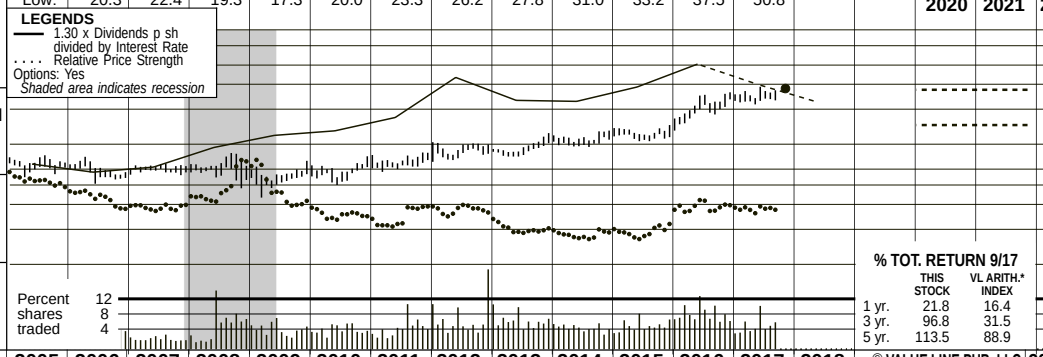
RECENT PRICE 60.93 | P/E RATIO 27.8 (Trailing: 30.5 Median: 20.0) | RELATIVE P/E RATIO 1.39 | DIV'D YLD 2.0% | VALUE LINE

TIMELINESS 3 Raised 10/13/17
SAFETY 3 New 1/18/13
TECHNICAL 3 Lowered 10/13/17
BETA .65 (1.00 = Market)

High:	27.7	25.6	29.0	26.4	27.9	29.1	32.8	36.4	37.5	39.9	58.3	62.2
Low:	20.3	22.4	19.3	17.3	20.0	23.3	26.2	27.8	31.0	33.2	37.5	50.8

Target Price Range 2020 | 2021 | 2022

LEGENDS
— 1.30 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
Options: Yes
Shaded area indicates recession



2020-22 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	60	(Nil)	2%
Low	40	(-35%)	-7%

Insider Decisions

	D	J	F	M	A	M	J	J	A
to Buy	0	0	0	0	0	0	0	0	0
Options	0	5	0	1	0	0	0	0	0
to Sell	0	0	0	0	0	0	0	0	1

Institutional Decisions

	4Q2016	1Q2017	2Q2017
to Buy	59	48	55
to Sell	45	56	44
Hld's(000)	5436	6170	6289

Percent shares traded 12 8 4

% TOT. RETURN 9/17

	THIS STOCK	VL ARITH.* INDEX
1 yr.	21.8	16.4
3 yr.	96.8	31.5
5 yr.	113.5	88.9

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	© VALUE LINE PUB. LLC	20-22
5.93	5.77	5.91	6.04	5.81	5.68	7.05	7.24	6.93	7.65	7.93	9.47	8.29	8.45	8.58	8.77	*9.00*	*9.60*	Revenues per sh	*12.80*
1.78	1.78	1.89	1.91	1.62	1.52	1.90	1.95	1.93	2.04	2.11	2.64	2.63	2.97	3.18	3.31	*3.40*	*3.50*	"Cash Flow" per sh	*3.85*
1.13	1.12	1.15	1.16	.88	.81	1.05	1.11	1.19	1.13	1.13	1.53	1.66	1.92	2.04	2.08	*2.20*	*2.35*	Earnings per sh A	*2.65*
.80	.81	.83	.84	.85	.86	.87	.88	.90	.92	.94	.96	.98	1.01	1.05	1.12	*1.18*	*1.24*	Div'd Decl'd per sh B■	*1.40*
1.86	1.98	1.49	1.58	1.96	1.96	2.24	2.44	3.28	3.06	2.61	2.79	3.02	4.11	4.29	5.93	*4.50*	*4.35*	Cap'l Spending per sh	*3.35*
9.25	10.06	10.46	10.94	11.52	11.60	11.95	12.23	12.67	13.05	13.50	20.95	17.92	18.83	20.01	20.98	*21.70*	*21.65*	Book Value per sh D	*22.80*
7.65	7.94	7.97	8.04	8.17	8.27	8.38	8.46	8.57	8.68	8.76	8.85	11.04	11.12	11.19	11.25	*11.75*	*12.00*	Common Shs Outst'g C	*12.50*
21.5	24.3	23.5	22.9	28.6	29.0	23.0	22.2	18.4	20.7	23.0	19.4	18.4	17.5	17.6	23.3	*Bold figures are*		Avg Ann'l P/E Ratio	*19.0*
1.10	1.33	1.34	1.21	1.52	1.57	1.22	1.34	1.23	1.32	1.44	1.23	1.03	.92	.89	1.22	*Value Line*		Relative P/E Ratio	*1.20*
3.3%	3.0%	3.0%	3.1%	3.4%	3.6%	3.6%	3.6%	4.1%	3.9%	3.6%	3.2%	3.2%	3.0%	2.9%	2.3%	*estimates*		Avg Ann'l Div'd Yield	*2.8%*

CAPITAL STRUCTURE as of 6/30/17
Total Debt $210.6 mill. **Due in 5 Yrs** $19.8 mill.
LT Debt $205.4 mill. **LT Interest** $7.7 mill.
(45% of Cap'l)

Leases, Uncapitalized: Annual rentals $.3 mill.
Pension Assets-12/16 $62.7 mill. **Oblig.** $79.3 mill.

Pfd Stock $0.8 mill. **Pfd Divd** NMF

Common Stock 11,575,400 shs.

MARKET CAP: $700 million (Small Cap)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		20-22
59.0	61.3	59.4	66.4	69.4	83.8	91.5	94.0	96.0	98.7	*106*	*115*	Revenues ($mill)	*160*
8.8	9.4	10.2	9.8	9.9	13.6	18.3	21.3	22.8	23.4	*26.0*	*28.0*	Net Profit ($mill)	*32.0*
32.4%	27.2%	19.5%	35.2%	41.3%	32.0%	28.0%	14.4%	3.5%	9.9%	*19.0%*	*20.0%*	Income Tax Rate	*28.0%*
- -	1.7%	- -	- -	- -	1.7%	2.0%	2.4%	2.3%	5.1%	*3.0%*	*2.5%*	AFUDC % to Net Profit	*2.5%*
47.8%	46.9%	50.6%	49.5%	53.2%	49.0%	46.9%	45.7%	44.1%	45.4%	*46.5%*	*47.0%*	Long-Term Debt Ratio	*46.5%*
51.8%	52.7%	49.1%	50.2%	46.5%	50.8%	52.9%	54.1%	55.7%	54.4%	*53.5%*	*53.0%*	Common Equity Ratio	*53.5%*
193.2	196.5	221.3	225.6	254.2	364.6	373.6	386.8	402.4	433.8	*475*	*490*	Total Capital ($mill)	*535*
284.3	302.3	325.2	344.2	362.4	447.9	471.9	506.9	546.3	601.4	*615*	*635*	Net Plant ($mill)	*675*
5.5%	5.9%	5.5%	5.4%	4.9%	4.8%	5.9%	6.4%	6.5%	6.3%	*6.0%*	*6.5%*	Return on Total Cap'l	*7.0%*
8.7%	9.0%	9.3%	8.6%	8.3%	7.3%	9.2%	10.1%	10.1%	9.9%	*10.0%*	*11.0%*	Return on Shr. Equity	*11.5%*
8.7%	9.1%	9.4%	8.7%	8.3%	7.3%	9.2%	10.2%	10.1%	9.9%	*10.0%*	*11.0%*	Return on Com Equity	*11.5%*
1.6%	1.9%	2.3%	1.6%	1.4%	2.8%	3.8%	4.8%	4.9%	4.6%	*4.5%*	*5.0%*	Retained to Com Eq	*5.5%*
82%	79%	76%	81%	83%	62%	59%	53%	52%	54%	*54%*	*53%*	All Div'ds to Net Prof	*53%*

CURRENT POSITION ($MILL.)	2015	2016	6/30/17
Cash Assets	.7	1.6	2.7
Accounts Receivable	11.0	13.0	12.9
Other	15.3	14.8	16.6
Current Assets	27.0	29.4	32.2
Accts Payable	11.9	13.1	9.6
Debt Due	2.8	4.9	5.2
Other	22.2	37.1	47.8
Current Liab.	36.9	55.1	62.6

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '14-'16 to '20-'22
Revenues	4.0%	3.0%	*7.0%*
"Cash Flow"	6.5%	9.5%	*3.5%*
Earnings	8.0%	12.0%	*4.5%*
Dividends	2.5%	3.0%	*4.5%*
Book Value	6.0%	9.0%	*2.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2014	20.3	25.4	27.6	20.7	94.0
2015	20.0	26.6	28.4	21.0	96.0
2016	21.6	26.1	29.5	21.5	98.7
2017	22.5	27.9	*32.0*	*23.6*	*106*
2018	*25.0*	*30.0*	*35.0*	*25.0*	*115*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2014	.27	.67	.76	.22	1.92
2015	.28	.77	.79	.20	2.04
2016	.28	.89	.84	.07	2.08
2017	.36	.73	*.88*	*.23*	*2.20*
2018	*.35*	*.80*	*.90*	*.30*	*2.35*

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2013	.2425	.2425	.2475	.2475	.98
2014	.2475	.2475	.2575	.2575	1.01
2015	.2575	.2575	.2675	.2675	1.05
2016	.2675	.2825	.2825	.2825	1.12
2017	.2825	.2975	.2975		

BUSINESS: Connecticut Water Service, Inc. is a non-operating holding company, whose income is derived from earnings of its wholly-owned subsidiary companies (regulated water utilities). In 2016, 95% of net income was derived from these activities. Provides water services to 440,000 people in 79 municipalities throughout Connecticut and Maine. Acquired The Maine Water Company, January, 2012; Biddeford and Saco Water, December, 2012; Heritage Village, February, 2017. Inc.: Conn.. Has 266 employees. Chairman/President/Chief Executive Officer: Eric W. Thornburg. Officers and directors own 2.5% of the common stock; BlackRock, Inc., 7.2% (4/17 proxy). Address: 93 West Main Street, Clinton, CT 06413. Telephone: (860) 669-8636. Internet: www.ctwater.com.

Connecticut Water Service delivered second-quarter results that fell short of our expectations. Revenues of $27.9 million improved marginally, on a year-over-year basis, but missed our $28.5 million call. The July period included a full quarter of Heritage Village operations, as well as incremental surcharges in both Connecticut and Maine. Not until the third quarter will the completed acquisition (July 1st) of the Avon Water Company be included in the financials. Similarly, the bottom line was a nickel shy of our estimate, at $0.73 a share. Net income was adversely impacted by several cents due to greater business development costs associated with the above-mentioned deals. Nonetheless, Connecticut Water should right the ship in the recently concluded third quarter, as we look for revenues of $32 million and share net of $0.88.

There has been some activity on the rate front. Earlier this summer, The Maine Water Company filed for a rate increase (pending approval from the Maine Public Utilities Commission) in its Biddeford and Saco division. This could potentially add about $2 million to the top line. Additionally, the company filed for a rate increase of 1.6% on WICA (recovered funds from infrastructure upgrades.)

Long term, acquisitions and higher capital spending are likely in the cards. Indeed, the strategy is starting to bear fruit, as CTWS lifted its customer base by nearly 9,500 via its Avon and Heritage purchases. Financials results should feel the effects beginning in the second half of this year. Moreover, Connecticut plans to take full advantage of WICA and WISC benefits (increase to WICA surcharge pending), and ought to continue to replace aging water mains in the coming years.

This equity has slipped a notch in Timeliness to 3, Average. What's more, the current valuation (28.0x 12-month earnings-per-share estimate) is a bit rich when compared to historical norms, and on a peer-to-peer basis. The stock is trading above our 3- to 5-year Target Price Range, and total return potential is sub-par. Thus, we recommend investors wait for a better entry point before committing funds here.

Nicholas P. Patrikis *October 13, 2017*

(A) Diluted earnings. Next earnings report due late November.
(B) Dividends historically paid in mid-March, June, September, and December. ■ Div'd reinvestment plan available.
(C) In millions
(D) Includes intangibles. In 2016: $30.4 million/$2.70 a share.

Company's Financial Strength	B+
Stock's Price Stability	90
Price Growth Persistence	50
Earnings Predictability	90

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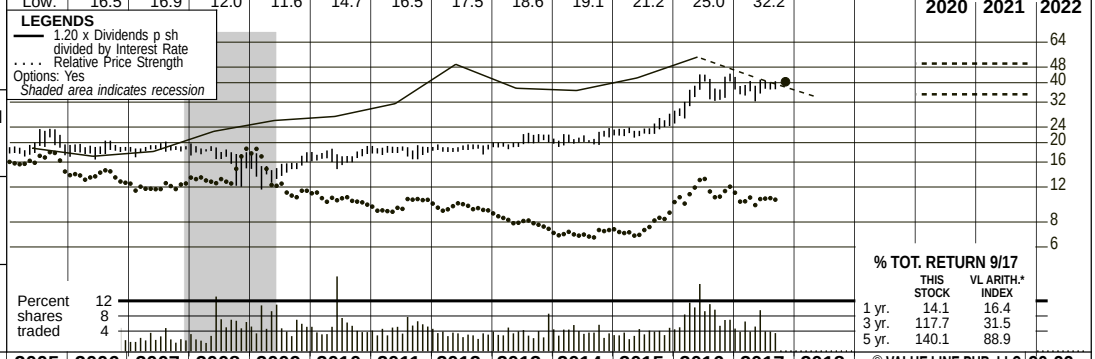
MIDDLESEX WATER NDQ-MSEX

RECENT PRICE 40.47 | P/E RATIO 26.3 (Trailing: 30.4 Median: 20.0) | RELATIVE P/E RATIO 1.32 | DIV'D YLD 2.1% | VALUE LINE

TIMELINESS 4 Lowered 7/7/17
SAFETY 2 New 10/21/11
TECHNICAL 3 Raised 7/14/17
BETA .80 (1.00 = Market)

High:	20.5	20.2	19.8	17.9	19.3	19.4	19.6	22.5	23.7	28.0	44.5	42.8
Low:	16.5	16.9	12.0	11.6	14.7	16.5	17.5	18.6	19.1	21.2	25.0	32.2

Target Price Range 2020 | 2021 | 2022



2020-22 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	50	(+25%)	8%
Low	35	(-15%)	-1%

Insider Decisions

	D	J	F	M	A	M	J	J	A
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	7	0	0	0	0
to Sell	0	0	1	1	0	0	0	0	0

Institutional Decisions

	4Q2016	1Q2017	2Q2017
to Buy	40	45	60
to Sell	62	51	44
Hld's(000)	7874	9400	9201

% TOT. RETURN 9/17

	THIS STOCK	VL ARITH.* INDEX
1 yr.	14.1	16.4
3 yr.	117.7	31.5
5 yr.	140.1	88.9

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	© VALUE LINE PUB. LLC	20-22
5.87	5.98	6.12	6.25	6.44	6.16	6.50	6.79	6.75	6.60	6.50	6.98	7.19	7.26	7.77	8.16	**8.30**	**8.65**	Revenues per sh	**9.40**
1.18	1.20	1.15	1.28	1.33	1.33	1.49	1.53	1.40	1.55	1.46	1.56	1.72	1.84	1.97	2.17	**2.35**	**2.50**	"Cash Flow" per sh	**3.10**
.66	.73	.61	.73	.71	.82	.87	.89	.72	.96	.84	.90	1.03	1.13	1.22	1.38	**1.48**	**1.60**	Earnings per sh A	**2.05**
.62	.63	.65	.66	.67	.68	.69	.70	.71	.72	.73	.74	.75	.76	.78	.81	**.84**	**.87**	Div'd Decl'd per sh B■	**1.02**
1.25	1.59	1.87	2.54	2.18	2.31	1.66	2.12	1.49	1.90	1.50	1.36	1.26	1.40	1.59	2.91	**1.80**	**1.90**	Cap'l Spending per sh	**2.05**
7.11	7.39	7.60	8.02	8.26	9.52	10.05	10.03	10.33	11.13	11.27	11.48	11.82	12.24	12.74	13.40	**13.95**	**14.35**	Book Value per sh	**16.45**
10.17	10.36	10.48	11.36	11.58	13.17	13.25	13.40	13.52	15.57	15.70	15.82	15.96	16.12	16.23	16.30	**16.50**	**16.75**	Common Shs Outst'g C	**17.00**
24.6	23.5	30.0	26.4	27.4	22.7	21.6	19.8	21.0	17.8	21.7	20.8	19.7	18.5	19.1	25.6	*Bold figures are*		Avg Ann'l P/E Ratio	**21.0**
1.26	1.28	1.71	1.39	1.46	1.23	1.15	1.19	1.40	1.13	1.36	1.32	1.11	.97	.96	1.35	*Value Line*		Relative P/E Ratio	**1.30**
3.8%	3.7%	3.5%	3.4%	3.5%	3.7%	3.7%	4.0%	4.7%	4.2%	4.0%	4.0%	3.7%	3.7%	3.3%	2.3%	*estimates*		Avg Ann'l Div'd Yield	**2.4%**

CAPITAL STRUCTURE as of 6/30/17
Total Debt $159.6 mill. **Due in 5 Yrs** $32.1 mill.
LT Debt $136.4 mill. **LT Interest** $6.0 mill.
(Total interest coverage: 8.6x)
(38% of Cap'l)

Pension Assets-12/16 $59.4 mill.
Oblig. $78.6 mill.
Pfd Stock $2.4 mill. **Pfd Div'd:** $.1 mill.

Common Stock 16,337,784 shs.
as of 7/31/17

MARKET CAP: $650 million (Small Cap)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		20-22
86.1	91.0	91.2	102.7	102.1	110.4	114.8	117.1	126.0	132.9	**137**	**145**	Revenues ($mill)	**160**
11.8	12.2	10.0	14.3	13.4	14.4	16.6	18.4	20.0	22.7	**24.5**	**27.0**	Net Profit ($mill)	**35.0**
32.6%	33.2%	34.1%	32.1%	32.7%	33.9%	34.1%	35.0%	34.5%	34.0%	**35.0%**	**36.0%**	Income Tax Rate	**37.0%**
- -	- -	- -	6.8%	6.1%	3.4%	1.9%	1.7%	1.9%	2.7%	**2.0%**	**2.0%**	AFUDC % to Net Profit	**2.5%**
49.0%	45.6%	46.6%	43.1%	42.3%	41.5%	40.4%	40.5%	39.4%	37.9%	**37.5%**	**37.5%**	Long-Term Debt Ratio	**37.5%**
49.6%	51.8%	52.1%	55.8%	56.6%	57.4%	58.7%	58.8%	59.8%	61.5%	**62.0%**	**62.0%**	Common Equity Ratio	**62.0%**
268.8	259.4	267.9	310.5	312.5	316.5	321.4	335.8	345.4	355.4	**370**	**385**	Total Capital ($mill)	**455**
333.9	366.3	376.5	405.9	422.2	435.2	446.5	465.4	481.9	517.8	**525**	**535**	Net Plant ($mill)	**575**
5.6%	5.8%	5.0%	5.7%	5.2%	5.4%	5.9%	6.3%	6.6%	7.1%	**7.5%**	**7.5%**	Return on Total Cap'l	**8.0%**
8.6%	8.6%	7.0%	8.1%	7.5%	7.8%	8.7%	9.2%	9.6%	10.3%	**10.5%**	**11.0%**	Return on Shr. Equity	**12.5%**
8.7%	8.9%	7.0%	8.2%	7.5%	7.8%	8.7%	9.3%	9.6%	10.3%	**10.5%**	**11.0%**	Return on Com Equity	**12.5%**
1.8%	2.0%	.1%	2.1%	1.0%	1.4%	2.4%	3.1%	3.5%	4.3%	**4.5%**	**5.0%**	Retained to Com Eq	**6.0%**
79%	78%	98%	75%	87%	83%	73%	67%	63%	58%	**57%**	**54%**	All Div'ds to Net Prof	**50%**

CURRENT POSITION ($MILL.)	2015	2016	6/30/17
Cash Assets	3.5	3.9	3.7
Other	20.9	22.8	26.0
Current Assets	24.4	26.7	29.7
Accts Payable	6.5	12.3	15.0
Debt Due	8.7	18.2	23.2
Other	13.1	16.6	17.2
Current Liab.	28.3	47.1	55.4

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '14-'16 to '20-'22
Revenues	2.0%	3.0%	*3.5%*
"Cash Flow"	4.5%	6.5%	*7.5%*
Earnings	5.0%	8.0%	*8.5%*
Dividends	1.5%	1.5%	*4.5%*
Book Value	4.0%	3.0%	*4.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2014	27.1	29.2	32.7	28.1	117.1
2015	28.8	31.7	34.7	30.8	126.0
2016	30.6	32.7	37.8	31.8	132.9
2017	30.1	33.0	**39.0**	**34.9**	**137**
2018	**33.0**	**37.0**	**40.0**	**35.0**	**145**

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2014	.20	.29	.42	.22	1.13
2015	.22	.31	.41	.28	1.22
2016	.29	.36	.54	.19	1.38
2017	.27	.33	**.55**	**.33**	**1.48**
2018	**.33**	**.38**	**.57**	**.32**	**1.60**

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2013	.1875	.1875	.1875	.19	.75
2014	.19	.19	.19	.1925	.76
2015	.1925	.1925	.1925	.19875	.78
2016	.19875	.19875	.19875	.21125	.81
2017	.21125	.21125	.21125		

BUSINESS: Middlesex Water Company engages in the ownership and operation of regulated water utility systems in New Jersey, Delaware, and Pennsylvania. It also operates water and wastewater systems under contract on behalf of municipal and private clients in NJ and DE. Its Middlesex System provides water services to 61,000 retail customers, primarily in Middlesex County, New Jersey. In 2016, the Middlesex System accounted for 60% of operating revenues. At 12/31/16, the company had 309 employees. Incorporated: NJ. President, CEO, and Chairman: Dennis W. Doll. Officers & directors own 3.5% of the common stock; BlackRock Institutional Trust Co., 7.2% (4/17 proxy). Add.: 1500 Ronson Road, Iselin, NJ 08830. Tel.: 732-634-1500. Internet: www.middlesexwater.com.

Middlesex Water Company reported soft results for the second quarter. Following a somewhat colder (longer) winter season, customer water usage picked up only moderately through the late spring into early summer months. Indeed, the volatile Northeast region of the U.S. (MSEX's main area of operation) leaves the company subject to weather disruptions. First-quarter revenues came in roughly flat, year over year, at $33.0 million. Delaware operations registered a modest gain thanks to new customer additions, while its New Jersey segment slipped due to a continued trend of weak water consumption. Similar to the first quarter, net income took a step back, compared to the year-earlier figure. Share net of $0.33 missed our mark by $0.04, with increased water production costs weighing on profits.

Our current-year top- and bottom-line estimates are being modestly reduced. We now expect Middlesex to earn $1.48 a share (-$0.02 less than our previous call), on $137 million in revenues (-$1 million).

Infrastructure upgrades are still management's main focus. Under its recently established RENEW program and Water for Tomorrow initiative, the company aims to allocate nearly $12 million in each of the next three years to bolster its water transmission capabilities by replacing old water mains, valves, and services lines throughout New Jersey. Total capital spending on its water distribution infrastructure (approximately $200 million through next decade) ought to be closely monitored, with a portion of those corresponding investment costs being recovered by appropriate rate filings. Finally, a slow but sure pickup in consumption from New Jersey residents should provide an extra boost to the top line further out.

Our Timeliness Ranking System pegs shares of Middlesex Water Company as year-ahead market laggards (4, Below Average). In the same breath, the issue offers unattractive total return potential over the 3- to 5-year pull, and its dividend yield, though average, pales in comparison to its historical norms. Therefore, we suggest investors stay on the sidelines, for now.

Nicholas P. Patrikis *October 13, 2017*

(A) Diluted earnings. Next earnings report due early November.
(B) Dividends historically paid in mid-Feb., May, Aug., and November.■ Div'd reinvestment plan available.
(C) In millions, adjusted for split.

Company's Financial Strength	B++
Stock's Price Stability	70
Price Growth Persistence	40
Earnings Predictability	85

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SJW GROUP NYSE-SJW

RECENT PRICE **57.60** | P/E RATIO **22.7** (Trailing: 21.6 Median: 23.0) | RELATIVE P/E RATIO **1.13** | DIV'D YLD **1.5%** | VALUE LINE

TIMELINESS 3 Raised 6/30/17
SAFETY 3 New 4/22/11
TECHNICAL 3 Lowered 8/11/17
BETA .75 (1.00 = Market)

High:	45.3	43.0	35.1	30.4	28.2	26.8	26.9	30.1	33.7	35.7	56.9	57.8
Low:	21.2	27.7	20.0	18.2	21.6	20.9	22.6	24.5	25.5	27.5	28.6	45.4

Target Price Range
2020 | 2021 | 2022

2020-22 PROJECTIONS

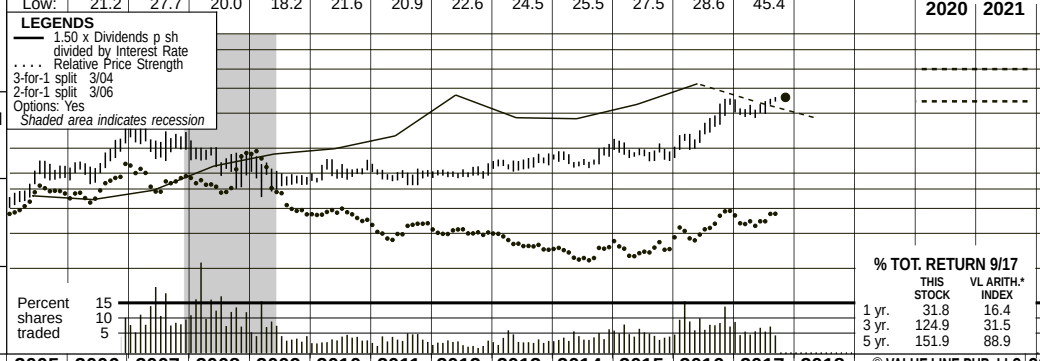
	Price	Gain	Ann'l Total Return
High	80	(+40%)	*10%*
Low	55	(-5%)	*1%*

Insider Decisions

	D	J	F	M	A	M	J	J	A
to Buy	0	0	0	0	0	0	0	0	0
Options	0	8	0	6	8	0	0	0	0
to Sell	1	1	1	0	0	0	0	0	1

Institutional Decisions

	4Q2016	1Q2017	2Q2017
to Buy	81	83	67
to Sell	59	59	73
Hld's(000)	9218	10726	10969



% TOT. RETURN 9/17

	THIS STOCK	VL ARITH.* INDEX
1 yr.	31.8	16.4
3 yr.	124.9	31.5
5 yr.	151.9	88.9

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	© VALUE LINE PUB. LLC	20-22
7.45	7.97	8.20	9.14	9.86	10.35	11.25	12.12	11.68	11.62	12.85	14.01	13.73	15.76	14.97	16.61	***17.15***	***16.80***	Revenues per sh	***20.65***
1.49	1.55	1.75	1.89	2.21	2.38	2.30	2.44	2.21	2.38	2.80	2.97	2.90	4.42	3.86	4.76	***4.60***	***4.65***	"Cash Flow" per sh	***5.15***
.77	.78	.91	.87	1.12	1.19	1.04	1.08	.81	.84	1.11	1.18	1.12	2.54	1.85	2.57	***2.45***	***2.60***	Earnings per sh A	***3.00***
.43	.46	.49	.51	.53	.57	.61	.65	.66	.68	.69	.71	.73	.75	.78	.81	***.87***	***.93***	Div'd Decl'd per sh B■	***1.12***
2.63	2.06	3.41	2.31	2.83	3.87	6.62	3.79	3.17	5.65	3.75	5.67	4.68	5.02	5.24	6.95	***6.00***	***5.50***	Cap'l Spending per sh	***5.00***
8.17	8.40	9.11	10.11	10.72	12.48	12.90	13.99	13.66	13.75	14.20	14.71	15.92	17.75	18.83	20.61	***21.20***	***21.60***	Book Value per sh	***23.90***
18.27	18.27	18.27	18.27	18.27	18.28	18.36	18.18	18.50	18.55	18.59	18.67	20.17	20.29	20.38	20.46	***21.00***	***22.00***	Common Shs Outst'g C	***23.00***
18.5	17.3	15.4	19.6	19.7	23.5	33.4	26.2	28.7	29.1	21.2	20.4	24.3	11.2	16.6	15.7	*Bold figures are*		Avg Ann'l P/E Ratio	***22.0***
.95	.94	.88	1.04	1.05	1.27	1.77	1.58	1.91	1.85	1.33	1.30	1.37	.59	.84	.83	*Value Line*		Relative P/E Ratio	***1.40***
3.0%	3.4%	3.5%	3.0%	2.4%	2.0%	1.7%	2.3%	2.8%	2.8%	2.9%	3.0%	2.7%	2.6%	2.5%	2.0%	*estimates*		Avg Ann'l Div'd Yield	***1.7%***

CAPITAL STRUCTURE as of 6/30/17
Total Debt $430.9 mill. **Due in 5 Yrs** $14.3 mill.
LT Debt $430.9 mill. **LT Interest** $20.0 mill.
(50% of Cap'l)

Leases, Uncapitalized: Annual rentals $6.6 mill.

Pension Assets-12/16 $113.9 mill.
Oblig. $174.1 mill.

Pfd Stock None.

Common Stock 20,506,494 shs.

MARKET CAP: $1.2 billion (Mid Cap)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		20-22
206.6	220.3	216.1	215.6	239.0	261.5	276.9	319.7	305.1	339.7	***360***	***370***	Revenues ($mill)	***475***
19.3	20.2	15.2	15.8	20.9	22.3	23.5	51.8	37.9	52.8	***51.0***	***57.0***	Net Profit ($mill)	***69.0***
39.4%	39.5%	40.4%	38.8%	41.1%	41.1%	38.7%	32.5%	38.1%	38.8%	***39.0%***	***39.0%***	Income Tax Rate	***39.0%***
2.7%	2.3%	2.0%	- -	- -	- -	- -	- -	2.0%	1.0%	***1.5%***	***1.5%***	AFUDC % to Net Profit	***1.5%***
47.7%	46.0%	49.4%	53.7%	56.6%	55.0%	51.1%	51.6%	49.8%	50.7%	***49.0%***	***48.5%***	Long-Term Debt Ratio	***49.0%***
52.3%	54.0%	50.6%	46.3%	43.4%	45.0%	48.9%	48.4%	50.2%	49.3%	***51.0%***	***51.5%***	Common Equity Ratio	***51.0%***
453.2	470.9	499.6	550.7	607.9	610.2	656.2	744.5	764.6	855.0	***870***	***925***	Total Capital ($mill)	***1075***
645.5	684.2	718.5	785.5	756.2	831.6	898.7	963.0	1036.8	1146.4	***1200***	***1250***	Net Plant ($mill)	***1325***
5.7%	5.8%	4.4%	4.3%	4.9%	5.0%	5.0%	8.3%	6.3%	7.4%	***7.0%***	***7.5%***	Return on Total Cap'l	***7.5%***
8.2%	8.0%	6.0%	6.2%	7.9%	8.1%	7.3%	14.4%	9.9%	12.5%	***11.5%***	***12.0%***	Return on Shr. Equity	***12.5%***
8.2%	8.0%	6.0%	6.2%	7.9%	8.1%	7.3%	14.4%	9.9%	12.5%	***11.5%***	***12.0%***	Return on Com Equity	***12.5%***
3.5%	3.3%	1.2%	1.2%	3.1%	3.3%	2.8%	10.2%	5.7%	8.6%	***7.5%***	***7.5%***	Retained to Com Eq	***8.0%***
57%	59%	80%	80%	61%	59%	62%	29%	42%	31%	***36%***	***36%***	All Div'ds to Net Prof	***37%***

CURRENT POSITION ($MILL.)	2015	2016	6/30/17
Cash Assets	5.2	25.3	9.2
Accts Receivable	16.4	16.4	20.6
Other	51.8	57.9	43.1
Current Assets	73.4	99.6	72.9
Accts Payable	16.2	18.7	27.1
Debt Due	38.1	14.3	- -
Other	25.3	30.6	43.3
Current Liab.	79.6	63.6	70.4

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '14-'16 to '20-'22
Revenues	5.0%	5.5%	*4.5%*
"Cash Flow"	7.0%	12.0%	*3.0%*
Earnings	8.0%	20.5%	*4.5%*
Dividends	4.0%	3.0%	*6.0%*
Book Value	5.5%	6.5%	*4.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2014	54.6	70.4	125.4	69.3	319.7
2015	62.1	72.4	83.0	87.6	305.1
2016	61.1	86.9	112.3	79.4	339.7
2017	69.0	102.1	***102***	***87.0***	***360***
2018	***70.0***	***105***	***105***	***90.0***	***370***

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2014	.04	.34	1.88	.28	2.54
2015	.23	.36	.46	.80	1.85
2016	.16	.82	.92	.67	2.57
2017	.18	.90	***.75***	***.62***	***2.45***
2018	***.27***	***.88***	***.80***	***.65***	***2.60***

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2013	.1825	.1825	.1825	.1825	.73
2014	.1875	.1875	.1875	.1875	.75
2015	.1950	.1950	.1950	.1950	.78
2016	.2025	.2025	.2025	.2025	.81
2017	.2175	.2175	.2175		

BUSINESS: SJW Group engages in the production, purchase, storage, purification, distribution, and retail sale of water. It provides water service to approximately 229,000 connections with a total population of roughly one million people in the San Jose area and 13,000 connections that reaches about 39,000 residents in the region between San Antonio and Austin, Texas. The company also offers nonregulated water-related services and owns and operates commercial real estate investments. Has about 406 employees. Officers and directors (including Nancy O. Moss) own 26.9% of outstanding shares (3/17 proxy). Chairman & C.E.O.: Richard Roth. Inc.: California. Address: 110 West Taylor Street, San Jose, CA 95110. Telephone: (408) 279-7800. Internet: www.sjwater.com.

SJW Group is making a change at the helm. Current President and Chief Executive Officer Richard Roth announced his retirement effective November 5th. The board of directors has appointed Eric W. Thornburg as a replacement for both positions, as well as a new board member. Mr. Roth will also step down as Chairman, but will serve until the next annual stockholder's meeting.

The second-quarter performance was better than expected. SJW delivered impressive financial results during the June period, underpinned by cumulative rate increases and higher recordings in its water conservation memorandum account. Customer water usage also ramped up in the period. All told, revenues of $102 million rose 17% from the previous-year tally. Meanwhile, water production and operating costs edged higher, but the company managed to report earnings of $0.90 a share. Note, there was a one-time gain on the sale of real estate assets. Still, the bottom line would have exceeded our expectations.

Our financial projections are being raised across the board. We have added $0.25 to our current-year earnings estimate, to $2.45 a share mainly owing to the recent quarter's beat. For 2018, we now look for share net of $2.60 (+$0.25). Revenues for this year and next are being ratcheded up by $15 million and $20 million, to $360 million and $370 million, respectively.

Capital spending ought to be a key growth driver further out. Year to date, SJW has invested $62 million, and will likely allocate more funds to its Montevina project this year. On balance, only a small dent has been made in its $300 million spending budget. Lastly, the company ought to get a better handle on its operating costs, which should provide a modest boost to margins down the road.

SJW Group stock does not jump out at us at the current quotation. Shares of the San Jose utility have surged almost 15% in value since our July review. Even after raising our 2020-2022 Target Price Range, the issue presents lackluster total return potential over the long haul. Moreover, the dividend yield is below the *Value Line* median.

Nicholas P. Patrikis *October 13, 2017*

(A) Diluted earnings. Excludes nonrecurring losses: '03, $1.97; '04, $3.78; '05, $1.09; '06, $16.36; '08, $1.22; '10, $0.46. GAAP accounting as of 2013. Next earnings report due late November. Quarterly earnings may not add due to rounding.
(B) Dividends historically paid in early March, June, September, and December. ■ Div'd reinvestment plan available.
(C) In millions, adjusted for stock splits.

Company's Financial Strength	B+
Stock's Price Stability	70
Price Growth Persistence	35
Earnings Predictability	45

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YORK WATER NDQ-YORW

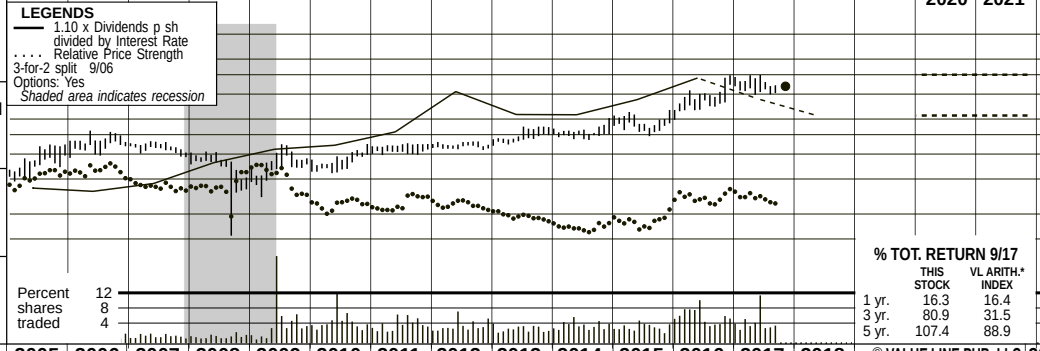
RECENT PRICE **35.05** | P/E RATIO **34.4** (Trailing: 37.7 / Median: 24.0) | RELATIVE P/E RATIO **1.72** | DIV'D YLD **1.8%** | VALUE LINE

TIMELINESS 4 Lowered 8/25/17
SAFETY 3 Lowered 7/17/15
TECHNICAL 2 Raised 10/13/17
BETA .80 (1.00 = Market)

High:	21.0	18.5	16.5	18.0	18.0	18.1	18.5	22.0	24.3	26.7	39.8	39.9
Low:	15.3	15.5	6.2	9.7	12.8	15.8	16.8	17.6	18.8	19.7	23.8	31.7

Target Price Range
2020 | 2021 | 2022

LEGENDS
— 1.10 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
3-for-2 split 9/06
Options: Yes
Shaded area indicates recession



2020-22 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	40	(+15%)	6%
Low	25	(-30%)	-5%

Insider Decisions

	D	J	F	M	A	M	J	J	A
to Buy	1	1	1	1	13	2	2	13	2
Options	1	0	0	0	0	13	0	0	0
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	4Q2016	1Q2017	2Q2017
to Buy	46	38	42
to Sell	34	33	33
Hld's(000)	4284	5127	5206

Percent shares traded 12 8 4

% TOT. RETURN 9/17

	THIS STOCK	VL ARITH.* INDEX
1 yr.	16.3	16.4
3 yr.	80.9	31.5
5 yr.	107.4	88.9

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	© VALUE LINE PUB. LLC	20-22
2.05	2.05	2.17	2.18	2.58	2.56	2.79	2.89	2.95	3.07	3.18	3.21	3.27	3.58	3.68	3.70	*3.90*	*4.10*	Revenues per sh	*5.65*
.59	.57	.65	.65	.79	.77	.86	.88	.95	1.07	1.09	1.12	1.19	1.36	1.45	1.42	*1.60*	*1.65*	"Cash Flow" per sh	*2.05*
.43	.40	.47	.49	.56	.58	.57	.57	.64	.71	.71	.72	.75	.89	.97	.92	*1.00*	*1.05*	Earnings per sh A	*1.40*
.34	.35	.37	.39	.42	.45	.48	.49	.51	.52	.53	.54	.55	.57	.60	.63	*.66*	*.70*	Div'd Decl'd per sh B	*.90*
.75	.66	1.07	2.50	1.69	1.85	1.69	2.17	1.18	.83	.74	.94	.76	1.10	1.11	1.03	*1.50*	*1.25*	Cap'l Spending per sh	*.85*
3.79	3.90	4.06	4.65	4.85	5.84	5.97	6.14	6.92	7.19	7.45	7.73	7.98	8.15	8.51	8.88	*9.15*	*9.55*	Book Value per sh	*11.00*
9.46	9.55	9.63	10.33	10.40	11.20	11.27	11.37	12.56	12.69	12.79	12.92	12.98	12.83	12.81	12.85	*12.90*	*12.75*	Common Shs Outst'g C	*12.00*
17.8	26.9	24.5	25.7	26.3	31.2	30.3	24.6	21.9	20.7	23.9	24.4	26.3	23.1	23.5	32.8	*Bold figures are*		Avg Ann'l P/E Ratio	*22.5*
.91	1.47	1.40	1.36	1.40	1.68	1.61	1.48	1.46	1.32	1.50	1.55	1.48	1.22	1.18	1.72	*Value Line*		Relative P/E Ratio	*1.40*
4.4%	3.3%	3.2%	3.1%	2.9%	2.5%	2.8%	3.5%	3.6%	3.5%	3.1%	3.1%	2.8%	2.8%	2.6%	2.1%	*estimates*		Avg Ann'l Div'd Yield	*2.8%*

CAPITAL STRUCTURE as of 6/30/17
Total Debt $88.2 mill. **Due in 5 Yrs** $30.5 mill.
LT Debt $88.2 mill. **LT Interest** $5.4 mill.
(43% of Cap'l)
Pension Assets 12/16 $35.5 mill.
Oblig. $40.8 mill.
Pfd Stock None
Common Stock 12,845,000 shs.
MARKET CAP: $450 million (Small Cap)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		20-22
31.4	32.8	37.0	39.0	40.6	41.4	42.4	45.9	47.1	47.6	*50.0*	*52.0*	Revenues ($mill)	*68.0*
6.4	6.4	7.5	8.9	9.1	9.3	9.7	11.5	12.5	11.8	*13.0*	*13.5*	Net Profit ($mill)	*17.0*
36.5%	36.1%	37.9%	38.5%	35.3%	37.6%	37.6%	29.8%	27.5%	31.3%	*29.0%*	*30.0%*	Income Tax Rate	*31.5%*
3.6%	10.1%	- -	1.2%	1.1%	1.1%	.8%	1.8%	1.6%	1.9%	*1.5%*	*1.5%*	AFUDC % to Net Profit	*1.0%*
46.5%	54.5%	45.7%	48.3%	47.1%	46.0%	45.1%	44.8%	44.4%	42.6%	*43.5%*	*44.0%*	Long-Term Debt Ratio	*45.0%*
53.5%	45.5%	54.3%	51.7%	52.9%	54.0%	54.9%	55.2%	55.6%	57.4%	*56.5%*	*56.0%*	Common Equity Ratio	*55.0%*
125.7	153.4	160.1	176.4	180.2	184.8	188.4	189.4	196.3	198.7	*210*	*215*	Total Capital ($mill)	*240*
191.6	211.4	222.0	228.4	233.0	240.3	244.2	253.2	261.4	270.9	*275*	*280*	Net Plant ($mill)	*295*
6.7%	5.7%	6.2%	6.5%	6.4%	6.4%	6.5%	7.4%	7.6%	7.2%	*7.5%*	*7.5%*	Return on Total Cap'l	*8.0%*
9.5%	9.2%	8.6%	9.8%	9.5%	9.3%	9.3%	11.0%	11.5%	10.4%	*11.0%*	*11.0%*	Return on Shr. Equity	*12.5%*
9.5%	9.2%	8.6%	9.8%	9.5%	9.3%	9.3%	11.0%	11.5%	10.4%	*11.0%*	*11.0%*	Return on Com Equity	*12.5%*
1.7%	1.4%	1.9%	2.7%	2.5%	2.4%	2.4%	3.9%	4.4%	3.4%	*4.0%*	*3.5%*	Retained to Com Eq	*4.5%*
82%	85%	78%	72%	73%	74%	74%	64%	62%	67%	*66%*	*67%*	All Div'ds to Net Prof	*64%*

CURRENT POSITION ($MILL.)	2015	2016	6/30/17
Cash Assets	2.9	4.2	- -
Accounts Receivable	3.5	4.3	4.2
Inventory (Avg. Cost)	.8	.7	.8
Other	4.6	3.4	3.4
Current Assets	11.8	12.6	8.4
Accts Payable	1.8	3.7	5.1
Debt Due	- -	- -	- -
Other	4.4	4.5	4.7
Current Liab.	6.2	8.2	9.8

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '14-'16 to '20-'22
Revenues	4.0%	3.5%	*7.5%*
"Cash Flow"	6.5%	6.5%	*6.5%*
Earnings	5.5%	6.0%	*7.0%*
Dividends	3.5%	3.0%	*7.0%*
Book Value	5.0%	3.5%	*4.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2014	10.6	11.8	12.0	11.5	45.9
2015	11.2	11.9	12.4	11.6	47.1
2016	11.3	11.8	12.6	11.9	47.6
2017	11.3	12.3	*13.4*	*13.0*	*50.0*
2018	*12.2*	*12.7*	*13.8*	*13.3*	*52.0*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2014	.16	.22	.23	.28	.89
2015	.20	.22	.28	.27	.97
2016	.19	.23	.27	.23	.92
2017	.20	.23	*.29*	*.28*	*1.00*
2018	*.22*	*.24*	*.30*	*.29*	*1.05*

Cal-endar	QUARTERLY DIVIDENDS PAID B Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2013	.138	.138	.138	.138	.552
2014	.1431	.1431	.1431	.1431	.572
2015	.1495	.1495	.1495	.1555	.604
2016	.1555	.1555	.1555	.1602	.627
2017	.1602	.1602	.1602		

BUSINESS: The York Water Company is the oldest investor-owned regulated water utility in the United States. It has operated continuously since 1816. As of December 31, 2016, the company's average daily availability was 35.4 million gallons and its service territory had an estimated population of 196,000. Has more than 67,000 customers. Residential customers accounted for 63% of 2016 revenues; commercial and industrial (29%); other (8%). It also provides sewer billing services. Incorporated: PA. York had 105 full-time employees at 12/31/16. President/CEO: Jeffrey R. Hines. Officers/directors own 1.1% of the common stock (3/17 proxy). Address: 130 East Market Street, York, Pennsylvania 17401. Telephone: (717) 845-3601. Internet: www.yorkwater.com.

Shares of York Water are trading at levels seen three months prior. It has been a relatively quiet summer for the Pennsylvania-based regulated water utility, as the stock price has been somewhat rangebound.

Second-quarter financial results were a mixed bag. Revenues of $12.3 million were in line with our expectations, with help from recent acquisitions and higher surcharges. But the annual jump in revenues did not directly translate to an increase in earnings. Operating expenses, namely maintenance and administrative, rose substantially to almost 39% of total revenues (+240 basis points year over year). Consequently, share net of $0.23 was flat compared to the like-2016 figure.

We are scaling back our 2017 and 2018 share-net estimates accordingly. Due to the rise in operating costs, we are lowering our current-year profit forecast by $0.03, to $1.00 a share. Meanwhile, our 2018 earnings estimate is being reduced by $0.05, to $1.05 a share.

Ensuing benefits from capital expenditures should help offset the uptick in operating costs (lower effective tax rate). York ought to continue to benefit on the tax front thanks to higher maintenance and repair deductions. Year-to-date spending is already 180% above last year's tally. For the remainder of 2017, York estimates an additional $9 million in capital investment on water mains and various infrastructure upgrades. Overall, our model projects top- and bottom-line advances of 5% and 9% this year, and 4% and 5% in the next, respectively.

This issue holds limited investment appeal, at the moment. The stock is an unfavorable selection for relative year-ahead price performance (Timeliness: 4). And from a price-to-earnings perspective, the recent valuation is a bit lofty, in our view. Although York's track record of dividend payout increases is second to none, the current yield is nothing to write home about. Indeed, the recent price surge has pushed the yield below 2.0%, fractionally below the broader market average. All told, those looking to gain exposure to the regulated water utility space will probably find more attractive options elsewhere.

Nicholas P. Patrikis *October 13, 2017*

(A) Diluted earnings. Next earnings report due late November.
(B) Dividends historically paid in late February, June, September, and December.
(C) In millions, adjusted for split.

Company's Financial Strength	B+
Stock's Price Stability	60
Price Growth Persistence	55
Earnings Predictability	95

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Proposed Leverage Formula

Water Utility Group	Value Line Adjusted Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated CAPM Cost Rate
Aqua America Inc	0.70	8.05 %	3.53 %	9.17 %	9.77 %	9.47 %
American Water Works Company	0.65	8.05	3.53	8.76	9.47	9.12
American States Water	0.80	8.05	3.53	9.97	10.37	10.17
California Water Service Group	0.80	8.05	3.53	9.97	10.37	10.17
Connecticut Water Service Inc	0.65	8.05	3.53	8.76	9.47	9.12
Middlesex Water Company	0.80	8.05	3.53	9.97	10.37	10.17
SJW Group	0.75	8.05	3.53	9.57	10.07	9.82
York Water Company	0.80	8.05	3.53	9.97	10.37	10.17
Average Beta	0.744			9.52 %	10.03 %	9.78 %

See page 2 of this Attachment for notes.

Proposed Leverage Formula

Abenaki Water Company, Hampstead Area Water Company & Lakes Region Water Company
Notes to Accompany the Application of the CAPM and ECAPM

Notes:

(1) The market risk premium (MERP) is derived by using three different measures from three sources: D&P - 2017 and *Value Line* , as illustrated below:

Measure 1: Ibbotson Arithmetic Mean MERP (1926-2016)

Arithmetic Mean Monthly Returns for Large Stocks 1926-2016:	11.97 %
Arithmetic Mean Income Returns on Long-Term Government Bonds:	5.17
MERP based on Ibbotson Historical Data:	6.80 %
Measure 2: Application of a Regression Analysis to Ibbotson Historical Data (1926-2016)	8.65 %
Average Ibbotson MERP	7.72 %

Value Line MERP Estimates:

Measure 3: Value Line Projected MERP (Thirteen weeks ending November 30, 2017)

Total projected return on the market 3-5 years hence*:	9.22 %
Projected Risk-Free Rate (see note 2):	3.53
MERP based on Value Line Summary & Index:	5.69 %

*Forecasted 3-5 year capital appreciation plus expected dividend yield

Measure 4: Value Line Projected Return on the Market based on the S&P 500

Total return on the Market based on the S&P 500:	14.59 %
Projected Risk-Free Rate (see note 2):	3.53
MERP based on Value Line data	11.06 %
Average Value Line MERP:	8.38 %
Average of Ibbotson and Value Line MERP:	8.05 %

(2) For reasons explained in the direct testimony, the appropriate risk-free rate for cost of capital purposes is the average forecast of 30 year Treasury Bonds per the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts. (*See* Appendix B, Workpaper PMA-26.) The projection of the risk-free rate is illustrated below:

Fourth Quarter 2017	2.90 %
First Quarter 2018	3.10
Second Quarter 2018	3.30
Third Quarter 2018	3.40
Fourth Quarter 2018	3.50
First Quarter 2019	3.60
2019-2023	4.10
2024-2028	4.30
	3.53 %

(3) Average of Column 6 and Column 7.

Sources of Information:

Value Line Summary and Index
Blue Chip Financial Forecasts, December 1, 2017
Stocks, Bonds, Bills, and Inflation - 2017 SBBI Yearbook, John Wiley & Sons, Inc.
Bloomberg Professional Services

Proposed Leverage Formula

Abenaki Water Company	**Low Size Premium**	**High Size Premium**
Discounted Cash Flow	8.73%	8.73%
Capital Asset Pricing Model	9.78%	9.78%
AVERAGE	9.26%	9.26%
4% Flotation Costs (1)	0.20%	0.20%
Flotation Cost Adjusted Average	9.46%	9.46%
Bond Yield Differential (1)	0.63%	0.63%
Private Placement Premium (1)	0.50%	0.50%
AWC Small Utility Risk Premium (1)	2.64%	5.27%
Adjustment to Reflect Required Equity Return at a 40% Equity Ratio	2.30%	3.12%
Cost of Equity After Adjustment to Reflect ROE at a 40% Equity Ratio	15.53%	18.98%

Derivation of Baa3 Bond Yield for a Small Water & Wastewater Utility

Private Placement Premium (1)	0.50%			0.50%		
Baa2 Public Utility Bond Yield (2)	5.1392%			5.1392%		
Adjustment for Baa3 Public Utility Bond Yield (2)	0.1586%			0.1586%		
Baa Rate	**5.7977%**			**5.7977%**		
CAPITAL COMPONENT			WEIGHT			
CE	52.41%	13.22%	6.93%	52.41%	15.86%	8.31%
TOTAL DEBT	47.59%	5.7977%	2.76%	47.59%	5.7977%	2.76%
	100.00%		9.69%	100.00%		11.07%
CE	40.00%	15.53%	6.21%	40.00%	18.98%	7.59%
TOTAL DEBT	60.00%	5.7977%	3.48%	60.00%	5.7977%	3.48%
	100.00%		9.69%	100.00%		11.07%
ADJ. TO REFLECT REQ. EQUITY RETURN @ 40% EQ.. RATIO			**2.30%**			**3.12%**

A 40% equity ratio is the floor for calculating the required return on common equity. The return on equity at a 40% equity ratio =

	5.80%	+ x/40% =	15.53%	5.80%	+ x/40% =	18.98%
	X =	**3.893%**		X =	**5.274%**	
		40%	100%		40%	100%
		5.7977%	5.7977%		5.7977%	5.80%
		9.7314%	3.893%		13.1841%	5.274%
	Range:	15.53%	9.69%	Range:	18.98%	11.07%

Notes:
(1) See Ms. Ahern's Prefiled Direct Testimony.
(2) Derived on page 4 of this Attachment.

Proposed Leverage Formula

Hampstead Area Water Co., Inc.	**Low Size Premium**	**High Size Premium**
Discounted Cash Flow	8.73%	8.73%
Capital Asset Pricing Model	9.78%	9.78%
AVERAGE	9.26%	9.26%
4% Flotation Costs	0.20%	0.20%
Flotation Cost Adjusted Average	9.46%	9.46%
Bond Yield Differential (1)	0.63%	0.63%
Private Placement Premium (1)	0.50%	0.50%
HAWC Small Utility Risk Premium (1)	2.30%	4.59%
Adjustment to Reflect Required Equity Return at a 40% Equity Ratio	2.20%	2.91%
Cost of Equity After Adjustment to Reflect ROE at a 40% Equity Ratio	15.08%	18.09%

Derivation of Baa3 Bond Yield for a Small Water & Wastewater Utility

Private Placement Premium (1)	0.50%	0.50%
Baa2 Public Utility Bond Yield (2)	5.1392%	5.1392%
Adjustment for Baa3 Public Utility Bond Yield (2)	0.1586%	0.1586%
Baa Rate	**5.7977%**	**5.7977%**

CAPITAL COMPONENT

			WEIGHT			
CE	52.41%	12.88%	6.75%	52.41%	15.18%	7.96%
TOTAL DEBT	47.59%	5.7977%	2.76%	47.59%	5.7977%	2.76%
	100.00%		9.51%	100.00%		10.71%
CE	40.00%	15.08%	6.03%	40.00%	18.09%	7.24%
TOTAL DEBT	60.00%	5.7977%	3.48%	60.00%	5.7977%	3.48%
	100.00%		9.51%	100.00%		10.71%
ADJ. TO REFLECT REQ. EQUITY RETURN @ 40% EQ.. RATIO			**2.20%**			**2.91%**

A 40% equity ratio is the floor for calculating the required return on common equity. The return on equity at a 40% equity ratio =

5.80%	+ x/40% =	15.08%	5.80%	+ x/40% =	18.09%
X =	**3.714%**		X =	**4.917%**	
	40%	100%		40%	100%
	5.7977%	5.80%		5.7977%	0.00%
	9.2859%	3.714%		12.2931%	4.917%
Range:	15.08%	9.51%	Range:	18.09%	4.92%

Notes:
(1) See Ms. Ahern's Prefiled Direct Testimony.
(2) Derived on page 4 of this Attachment.

Proposed Leverage Formula

Lakes Region Water Co., Inc.	**Low Size Premium**	**High Size Premium**
Discounted Cash Flow	8.73%	8.73%
Capital Asset Pricing Model	9.78%	9.78%
AVERAGE	9.26%	9.26%
4% Flotation Costs	0.20%	0.20%
Flotation Cost Adjusted Average	9.46%	9.46%
Bond Yield Differential (1)	0.63%	0.63%
Private Placement Premium (1)	0.50%	0.50%
LRWC Small Utility Risk Premium (1)	2.23%	4.46%
Adjustment to Reflect Required Equity Return at a 40% Equity Ratio	2.18%	2.87%
Cost of Equity After Adjustment to Reflect ROE at a 40% Equity Ratio	15.00%	17.92%

Private Placement Premium (1)	0.50%			0.50%		
Baa2 Public Utility Bond Yield (2)	5.1392%			5.1392%		
Adjustment for Baa3 Public Utility Bond Yield (2)	0.1586%			0.1586%		
Baa Rate	**5.7977%**			**5.7977%**		
CAPITAL COMPONENT			WEIGHT			
CE	52.41%	12.82%	6.72%	52.41%	15.05%	7.89%
TOTAL DEBT	47.59%	5.7977%	2.76%	47.59%	5.7977%	2.76%
	100.00%		9.48%	100.00%		10.65%
CE	40.00%	15.00%	6.00%	40.00%	17.92%	7.17%
TOTAL DEBT	60.00%	5.7977%	3.48%	60.00%	5.7977%	3.48%
	100.00%		9.48%	100.00%		10.65%
ADJ. TO REFLECT REQ. EQUITY RETURN @ 40% EQ.. RATIO			**2.18%**			**2.87%**

A 40% equity ratio is the floor for calculating the required return on common equity. The return on equity at a 40% equity ratio =

	5.80%	+ x/40% =	15.00%	5.80%	+ x/40% =	17.92%
	X =	**3.680%**		X =	**4.849%**	
		40%	100%		40%	100%
		5.7977%	5.7977%		5.7977%	5.80%
		9.2008%	3.680%		12.1227%	4.849%
	Range:	15.00%	9.48%	Range:	17.92%	10.65%

Notes:
(1) See Ms. Ahern's Prefiled Direct Testimony.
(2) Derived on page 4 of this Attachment.

Proposed Leverage Formula

Derivation of a Projected Baa3 / BBB- Rated
Public Utility Bond Yield

Projected Corporate Baa Bond Yield (1)	
Fourth Quarter 2017	4.40%
First Quarter 2018	4.60%
Second Quarter 2018	4.90%
Third Quarter 2018	5.10%
Fourth Quarter 2018	5.20%
First Quarter 2019	5.30%
2019-2023	6.00%
2024-2028	6.20%
Average	5.2125%
Average Spread Between Moody's Baa Rated Public Utility & Corporate Bond Yields (2)	-0.07%
Projected Public Utility Baa2 Bond Yield (3)	5.1392%

Notes:
(1) From Blue Chip Financial Forecasts, December 1, 2017.
(2) Spread between Moody's Baa Public Utility & Corporate Bond Yields derived as follows:

Moody's Bond Yields *	Baa Rated	Rated
Nov-2017	4.27%	4.17%
Oct-2017	4.31%	4.25%
Sep-2017	4.30%	4.24%
Average	4.29%	4.22%
Spread	-0.07%	

* Downloaded from Bloomberg Professional Service, November 30, 2017

The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 85-115 June 10, 1985

Investigation by the Department on its own motion concerning proposed rules that would establish an optional method for determining the allowed rate of return on equity for water companies subject to its jurisdiction.

On April 23, 1985, the Department of Public Utilities ("Department") proposed rules that would establish an optional method for determining the allowed rate of return on equity for water companies subject to its jurisdiction. As set forth in the notice of proposed rules, the purpose of the proposed rules is to facilitate the administrative process with regard to this issue, to reduce the costs of litigation for all parties associated with water company rate cases, and yet to yield allowed rates of return that would otherwise be found to be within the zone of reasonableness required for this particular aspect of water company rate cases. The statutory authority for the establishment of such rules is G.L. c. 165 § 1B. The rules, if adopted, would be designated "220 CMR 31.00: Optional Formula for Determining Allowed Rates of Return on Equity for Water Companies".

Under the proposed rules, a water company could, at the time of filing a rate case, indicate that it is willing to have the Department use the results of the application of a formula in setting the company's allowed return on equity in that rate

case. A company so opting would be deemed to have presented a prima facie case concerning its allowed return on equity. This would establish a rebuttable presumption that the application of the formula would result in a fair and reasonable allowed return on equity.

The proposed formula is based on the concept of the risk premium. A company's allowed return on equity would be set on the basis of an index based on the twelve-month average of United States Treasury three-year maturity bonds published during the course of the rate proceeding. A number of percentage points would be added to the index rate to derive the allowed return on equity for the company, reflecting the presumed greater riskiness of private company common stocks over United States securities. The number of percentage points added to the index rate would vary according to the common equity ratio of the company. This provision seeks to capture the financial leverage and inherent risk differentials in common stocks associated with water companies' having different common equity and long-term debt ratios.

The Department recognized that the proposed rules incorporate a simplification of the many concepts and arguments that are generally presented as expert testimony on allowed return on equity in its rate proceedings. The approach set forth in the proposed rule was designed to balance the possible loss of precision that might be offered by expert testimony in a given rate case with the administrative advantages of a simpler

procedure for determining an allowed return on equity. The rule was proposed in recognition of the high cost of litigating these issues, especially for the relatively small companies represented by water companies under our jurisdiction.

As a safeguard, the proposed formula contains upper and lower limits. As proposed, regardless of the Treasury bond index used, a company's maximum allowed return, if it elects to use the methodology set forth in the rule, would be 16 percent. The minimum allowed return would be 13 percent.

On May 24, 1985, the Department held a hearing to receive comments on the proposed rule. James E. Salser, Vice President and Treasurer of Dedham Water Company, Hingham Water Company, Massachusetts-American Water Company, Oxford Water Company, Salisbury Water Company, and Wannacomet Water Company, and James K. Brown, representing the Witch's Brook Water Company, both commented in favor of the proposed regulations. In addition, Mr. Salser requested that the optional formula contained in the rule be made available for use by any water companies who have filed rate cases during the pendency of these proceedings.

The Department held the record open until June 7, 1985 to receive written comments on the proposed rule. No additional comments were received by the Department.

After considering the comments received concerning the proposed rules, the Department hereby adopts said rules, as set forth as Appendix A to this Order. We accept Mr. Salser's suggestion, and by this Order allow any water company with a

pending rate case to propose the use of the formula set forth in the rules in requesting an allowed rate of return on equity in that proceeding. The Department has made a number of small changes in the wording of the rules as proposed which do not change the intent or purpose in any manner. In adopting the rules, the Department does not purport to make findings of fact concerning any particular water company or about the general applicability of the risk-premium approach or of the specific formula proposed herein.

Accordingly, after notice, hearing, and consideration, it is hereby:

ORDERED: That the rules and regulations of the Department of Public Utilities at 220 Code of Massachusetts Regulations are amended as set forth in Appendix A, attached, effective upon publication in the Massachusetts Register.

By Order of the Department

/s/ PAUL F. LEVY

Paul F. Levy, Chairman

A true copy
Attest;

Mary L. Cottrell
Secretary

Appendix A

220 CMR 31.00: OPTIONAL FORMULA FOR DETERMINING ALLOWED RATES OF RETURN ON EQUITY FOR WATER COMPANIES

Section

31.01 Definitions
31.02 Application of Optional Methodology
31.03 Formula

31.01: Definitions

Under these rules, the following words and phrases shall have the following meanings, unless the context requires otherwise:

(1) Department, the Department of Public Utilities.

(2) Utility, any water company as defined in section one of chapter one hundred sixty-five of the General Laws.

(3) Rate Filing, a notice of any changes proposed to be made in any schedule filed under chapter one hundred sixty-five of the General Laws which represent a general increase in rates, prices and charges for water service.

(4) Allowed Return on Equity, the percentage rate of return on common equity authorized by the Department for a utility and used in calculating an overall return on investment for purposes of establishing the utility's revenue requirement.

(5) Effective Date, the proposed effective date of changes in a utility's rates, prices and charges as set forth in a rate filing.

(6) Index, in percentage points, the most recent twelve-month average of three-year United States Treasury bond interest rates, as derived from Federal Reserve Statistical Release, H.15 (519), "Selected Interest Rates," or a successor or equivalent publication, including the interest rate published on, or as close as possible after, a date four months following the effective date.

(7) Common Equity Ratio, the percentage of a utility's total capitalization (i.e., common equity, preferred stock, and long-term debt) that consists of common equity, retained earnings, and capital surplus.

31.02: Application of Optional Methodology

A utility may, at its option, at the time of making a rate filing with the Department, choose to request the Department to establish its allowed return on equity based on the formula contained in Section 31.03. If a utility elects this option, it shall be deemed to have presented a prima facie case concerning its allowed return on equity and to have established a rebuttable presumption that the application of the formula will result in a fair and reasonable allowed return on equity.

31.03: Formula

The formula used to establish the allowed return on equity shall be as follows:

Allowed return on equity = Index + 3.5%, if the utility has a common equity ratio of 25 percent or lower;

Allowed return on equity = Index + 3.0%, if the utility has a common equity ratio in excess of 25 percent but below 75 percent;

Allowed return on equity = Index + 2.5%, if the utility has a common equity ratio of 75 percent or greater;

Provided, however, that in no event shall the allowed return on equity exceed 16.0% or be below 13.0%.

REGULATORY AUTHORITY

G.L. c. 165, §§1B, 2.

Kelrey

The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

November 27, 1996

D.P.U. 96-90

Investigation by the Department of Public Utilities upon its own motion, pursuant to G.L. c. 25, § 5; G.L. c 164, §§ 76C, 94; G.L. c. 165, §§ 1B, 2, 4, and 220 C.M.R. §§ 2.00 et seq., commencing a rulemaking to rescind 220 C.M.R. § 76, and to amend 220 C.M.R. § 31.

I. INTRODUCTION

On February 7, 1996, then Governor William F. Weld issued Executive Order 384 ("E.O. 384") to reduce unnecessary regulatory burden. E.O. 384 required every state agency to review every regulation under its jurisdiction and to retain or modify only those regulations which are mandated by law or essential to the health, safety, environment or welfare of the Commonwealth's residents.[1]

In response to E.O. 384, the Department of Public Utilities ("Department") conducted such a review and, on September 16, 1996, issued a Notice of Proposed Rulemaking ("Notice"), which was docketed as D.P.U. 96-90. The Department, pursuant to G.L. c. 25, § 5; G.L. c. 159, §§ 12, 19, 20; G.L. c. 164, §§ 76C, 94; G.L. c. 165, §§ 1B, 2, 4, and G.L. c. 30A, §§ 2-7, proposed to rescind 220 C.M.R. §§ 76.00 et seq. - Tariffs, Schedules and Contracts (Other than Commercial Motor Vehicles) and to amend 220 C.M.R. §§ 31.00 et seq. - Optional Formula for Determining Allowed Rates of Return on Equity for Water Companies. The Secretary of the Department ("Secretary") transmitted an attested true copy of the Notice and proposed rules to the Secretary of State of the Commonwealth for

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[1] In order to find that a regulation meets this standard, E.O. 384 requires each agency to demonstrate that

> (a) there is a specific need for governmental intervention that is clearly identified and precisely defined; (b) the costs of the regulation do not exceed the benefits that would be effected by the regulation; (c) less restrictive and intrusive alternatives have been considered and found less desirable based on a sound evaluation of the alternatives; (d) the [agency] has established a process and a schedule for measuring the effectiveness of the regulation; (e) the regulation is time-limited or provides for regular review. E.O. 384 also states that regulations not meeting this standard shall be rescinded.

publication in the Massachusetts Register. In addition, the Secretary, pursuant to 220 C.M.R. §§ 2.00 et seq., published the Notice, in which all interested persons were provided an opportunity to submit a signed letter, brief, or other memorandum to state their views concerning the proposed changes, no later than October 16, 1996. On October 23, 1996, the Department conducted a public hearing on the proposed regulations. On November 27, 1996, the Department issued an Order rescinding 220 C.M.R. §§ 76.00 et seq. and determined that it would be in the public interest to solicit further comment on its proposal to amend 220 C.M.R. §§ 31.00 et seq. Rulemaking to Rescind 220 C.M.R. §§ 76.00 et seq. and to Amend 220 C.M.R. §§ 31.00 et seq., D.P.U. 96-90, at 3 (1996).

On February 10, 1997, the Department conducted an additional public hearing at its offices to receive oral comment on the Department's proposed amendments to 220 C.M.R. §§ 31.00 et seq. and extended the written comment period to February 24, 1997. The following towns and water companies submitted comments: Assabet Water Company ("Assabet"); Barnstable Water Company ("Barnstable"); the Town of Cohasset ("Cohasset"); Dover Water Company ("Dover"); Housatonic Water Works Company ("Housatonic"); Massachusetts-American Water Company ("Mass-American"); Milford Water Company ("Milford"); the New England Chapter of the National Association of Water Companies ("NAWC"); Salisbury Water Supply Company; and Whitinsville Water Company ("Whitinsville"). Dover, Housatonic, Milford, and Whitinsville provided supplemental comments based on the oral comments made at the February 10, 1997 hearing.

II. BACKGROUND

Department regulations allow a water company, at the time of filing for a general rate increase, the option to establish its allowed return on equity ("ROE") based on a particular

formula. 220 C.M.R. § 31.00 et seq. Under this formula, the ROE is generally based on a twelve-month average of three-year United States Treasury bond yields ("index component"), plus a range of 2.5 to 3.5 percentage points ("margin") that varies with a water company's common equity ratio. 220 C.M.R. §§ 31.01, 31.03. The regulations provide for a minimum return of 13.0 percent and a maximum return of 16.0 percent. 220 C.M.R. § 31.03.

The purpose of 220 C.M.R. §§ 31.00 et seq., is to simplify the many concepts and arguments that are generally presented as expert testimony on allowed return on equity and thus reduce costs in litigating water utility rate proceedings. Generic Cost of Capital for Water Companies, D.P.U. 85-115, at 2-3 (1985). This rule is also designed to balance the possible loss of precision that might be obtained by expert testimony in a given water utility rate case with the administrative advantages of a simpler procedure for determining an allowed return on equity. Id.

III. PROPOSED AMENDMENTS TO 220 C.M.R. §§ 31.00 et seq.

After a review of 220 C.M.R. §§ 31.00 et seq., the Department proposed to amend two definitions, the definition of "Common Equity Ratio" and the definition of "Index" in 220 C.M.R § 31.01. The Department proposed to clarify the definition of "Common Equity Ratio". For the definition of "Index," the Department proposed to delete the word "three-year" and insert the word "thirty-year". The Department also proposed to substitute 30-year United States Treasury bonds for three-year United States Treasury bonds in the index component, because the use of a longer term debt instrument better reflects the capital markets available to a water company.

Furthermore, the Department proposed to amend the formula used to establish the allowed ROE by reducing the maximum ROE from 16.0 percent to 13.0 percent, and by reducing the minimum ROE from 13.0 percent to 10.0 percent. The Department proposed this amendment with the intent of aligning ROEs more closely with the changes that have occurred in the financial markets since 1985, and to bring water utility ROEs more in line with those ROEs granted in recent years to gas and electric utilities.

IV. COMMENTS ON THE PROPOSED AMENDMENTS

Cohasset urges the Department to reduce the minimum and maximum ROEs in order to reduce rates to consumers (Cohasset at 1). Cohasset also asserts that the Department should institute a mechanism for review of water utilities' rates of return if the previously allowed returns were no longer reflective of current economic conditions (id.).

The water utilities uniformly object to the proposed reduction in the minimum and maximum allowed ROE. These commentors state that water utilities in Massachusetts exhibit greater financial risks than gas or electric utilities (Barnstable at 1, Dover at 1; Mass-American at 1). They point out that, particularly for smaller companies, year-to-year fluctuations in operating and maintenance ("O&M") expenses may have significant impacts upon the utility's financial position (Dover Supplemental at 2-3; Whitinsville at 1; Tr. 2, at 5-9, 19). Without the additional cushion afforded by a higher ROE, these commentors note that water utilities would be forced to delay or cancel needed capital improvements in order to meet index component expenses, thereby adding to the ultimate costs paid by customers (Whitinsville at 1).

Water utility commentors state that the federal Safe Drinking Water Act ("SDWA") has greatly increased the capital needs of water utilities through the requirement of new

treatment methods and facilities (Barnstable at 2, NAWC at 2; Mass-American at 1; Milford at 1). They contend that a reduced ROE would make it more difficult for water companies to meet other expenses and thus jeopardize their ability to meet federal and state drinking water requirements through an inability to generate necessary capital for the required expenditures (Dover at 1, Milford at 1; NAWC at 2).

The water utilities state that small water systems, as represented in Massachusetts, have difficulties in attracting capital and obtaining conventional financing (Tr. 2, at 16-17, 27, 36-37, 42-44). These commentors note that small water systems are frequently unable to access capital markets unless the shareholders make personal guarantees (NAWC at 2; Tr. 2, at 36). Moreover, a number of commentors state that because shareholder investment in water utilities tends to be highly illiquid as compared to other investment alternatives, investors are placed at greater risks than in the situation where utility securities are frequently traded (Tr. 2, at 12-13). These commentors argue that a reduced ROE would increase the difficulty of small water systems to attract and retain capital (id. at 36-37, 42-44).

Most commentors state that if the minimum ROE were reduced to 10 percent, water utilities would in all likelihood stop using the optional cost of capital formula and seek higher rates of return through the services of outside cost of capital consultants (Milford at 1; NAWC at 1; Whitinsville at 1; Tr. 2, at 14-15). According to them, this would increase the frequency and complexity of rate proceedings and add significant costs that would ultimately be borne by ratepayers (Barnstable at 1; Dover at 1-2; Mass-American at 1-2; Milford

Supplemental at 1; Whitinsville at 1).[2] Noting that 220 C.M.R. §§ 31.00 et seq. were intended to reduce the cost of rate proceedings, the commentors contend that the proposed modification would be a "step backward" for the Department, water utilities, and their customers (Milford at 2; NAWC at 1).

Under the current formula established under 220 C.M.R. §§ 31.00 et seq., a utility's allowed ROE is 13.0 percent. The water company commentors noted that, allowing for the significantly larger water utilities found in other jurisdictions[3] versus those in Massachusetts, this return is consistent with ROEs granted by other regulatory bodies (Barnstable at 2; Mass-American at 2; Tr. 2, at 32-34). The commentors also referred to a 1996 NAWC publication, the "1995 Financial and Operating Data for Investor-Owned Water Companies" ("NAWC Study"). This is NAWC's annual financial and index component data analysis of member companies. The NAWC Study indicated an average authorized ROE of 11.61 percent (Tr. 2, at 32-34).[4] Under prevailing United States Treasury bond yields, the proposed formula would produce an allowed ROE of 10.0 percent. The water company commentors contended that this return is unreasonably low in light of returns granted in other jurisdictions (id.).

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2 One commentor estimated that the services of a cost of capital witness would cost between $20,000 and $40,000 (Tr. 2, at 17).

3 By way of illustration, Mass-American noted that American Water Works Company's subsidiary Pennsylvania-American Water Company has 400,000 customers, while New Jersey-American Water Company has 320,000 customers (Mass-American at 2; Tr. 2, at 20).

4 Pursuant to 220 C.M.R. § 1.10(3), the Department hereby incorporates the NAWC Study into the record of this proceeding.

As an alternative to the proposed modifications to the minimum and maximum ROEs, one commentor suggests that the Department could adopt a graduated index using the current index component (Dover Supplemental at 3). Under this method, the margin would decrease from six percent to three percent as the index component increased (id.). With three-year United States Treasury bonds currently yielding approximately six percent, this would produce an ROE of 12.0 percent (id.). Another commentor stated that the current margin of three percent is inadequate, and proposed increasing the margin to at least four percent to more accurately reflect both market conditions and the spread on three-year United States Treasury bonds (Mass-American at 2-3).

V. ANALYSIS AND FINDINGS

A. 220 C.M.R. § 31.01

With respect to the proposed change in the definition of "Common Equity Ratio" in 220 C.M.R. § 31.01, none of the commentors objected to this proposal. The Department finds that the proposed amendment provides a more precise definition of the common equity component and, therefore, enhances the understanding of the regulation. Accordingly, for the definition of "Common Equity Ratio" stated in 220 C.M.R. § 31.01, the Department hereby deletes the words "that consists of common equity" and adds the words "that consists of common stock, premiums,".

In regard to the definition of "Index" in 220 C.M.R. § 31.01, and its relation to the most recent 12-month average of three-year United States Treasury bond rates, the record in this proceeding confirms that equity investors in Massachusetts water utilities tend to be holding companies or small shareholders who forego liquidity in favor of a longer investment horizon. Therefore, use of a relatively short- to medium-term instrument as is currently used

in the index component may not provide a reliable indicator of the appropriate ROE. With respect to the suggestion to use thirty-year United States Treasury bond yields to determine the index component as a reasonable alternative to an increase in the margin, the Department finds that the use of a longer term debt instrument, such as a thirty-year United States Treasury bond, is more appropriate than using three-year United States Treasury bonds because the long-term investment vehicle is more reflective of water utility investor horizons than mid-term investment vehicles. Additionally, the Department notes that long-term debt instruments are commonly used in certain cost of equity analyses presented by other utilities. See, e.g., Boston Gas Company, D.P.U. 96-50, at 125-126 (1996). Accordingly, the Department hereby deletes the words "three-year" and inserts the words "thirty-year" in the definition of "Index" in 220 C.M.R. § 31.01.

B. 220 C.M.R. § 31.03

With respect to the Department's proposed change in the minimum and maximum ROEs in 220 C.M.R. § 31.03, the Department has carefully considered the comments received in this proceeding. The Department is aware that the allowed ROEs recently granted to water utilities have been higher than those granted to other utilities in Massachusetts, and that market conditions have changed significantly since the promulgation of 220 C.M.R. §§ 31.00 et seq., Massachusetts-American Water Company, D.P.U. 95-118, at 151 n. 78 (1996). The Department notes the relative risk differences between water companies and other regulated utilities. The smaller size of water utilities, their increased susceptibility to earnings variation, and the capital obligations arising from the SDWA, place increased financial risks upon water utilities. In the face of these increased risks, the record demonstrates that water companies have considerable difficulty in accessing capital markets

at reasonable rates. The relatively illiquid nature of water utility equity investment makes it necessary for water utilities to maintain high payout ratios in order to attract and retain shareholder investment and obtain conventional financing. On this basis, the Department concludes that the proposed minimum ROE of 10.0 percent and maximum ROE of 13.0 percent might fail to provide a reasonable return on equity commensurate with the operating and business risk of water utilities operating in Massachusetts.

In establishing the appropriate minimum and maximum ROEs, the Department has considered prevailing United States Treasury bond yields and relative returns granted to water utilities in other jurisdictions. Prior to the promulgation of 220 C.M.R. §§ 31.00 et seq. in 1985, three- and thirty-year United States Treasury bond yields were approximately 11.0 percent and 11.5 percent, respectively, and prevailing ROEs for water companies were 14.5 percent. See, e.g., Federal Reserve Statistical Release, Publication H.15(519), "Selected Interest Rates," issue dated April 22, 1985;[5] Milford Water Company, D.P.U. 84-135, at 41 (1985); Dedham Water Company, D.P.U. 84-32, at 38 (1984). Currently, three- and thirty-year United States Treasury bond yields are approximately 6.00 percent and 6.50 percent, respectively, whereas the minimum ROEs for water companies under 220 C.M.R. §§ 31.00 et seq. remain at 13.0 percent. See, e.g., Federal Reserve Statistical Release, Publication H.15(519), "Selected Interest Rates," issue dated July 28, 1997; South Egremont Water Company, D.P.U. 95-119/122, at 25 (1996); D.P.U. 95-118, at 152. The Department has also evaluated the relative returns granted to similarly situated water utilities in other jurisdictions and compared these returns with those allowed pursuant

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5 Pursuant to 220 C.M.R. § 1.10(3), the Department hereby incorporates the issues of this Federal Reserve publication from March 11, 1985 to September 29, 1997 into the record of this proceeding.

to 220 C.M.R. §§ 31.00 et seq. See, e.g., NAWC Study at Table J-3. Additionally, the Department has considered the financial risks faced by water utilities as described above, and their ability to access the capital markets.

Based on the financial and operating risks faced by water utilities, prevailing interest rates, and returns on equity granted to water utilities in other jurisdictions, the Department concludes that a minimum ROE of 11.5 percent and maximum ROE of 14.5 percent is reasonable for water utilities operating in Massachusetts for purposes of the optional formula set forth in 220 C.M.R. § 31.03. This range is consistent with the ROEs granted to other utilities and ROE indices for investor-owned water companies. Any company may seek a greater ROE by presenting evidence that a higher ROE is justified (see discussion, below). Accordingly, the Department hereby deletes the words "the allowed return on equity may not exceed 16.0% or be below 13.0%" and inserts the words "the allowed return on equity may not exceed 14.5% or be below 11.5%;" in 220 C.M.R. § 31.03.

C. 220 C.M.R. § 31.02

A water utility electing to use the formula in 220 C.M.R. § 31.03 is "deemed to have presented a prima facie case concerning its allowed [ROE] and to have established a rebuttable presumption that the application of the formula will result in a fair and reasonable allowed [ROE]." 220 C.M.R. § 31.02. Commentors state that this rule would not preclude the Department from penalizing an applicant utility in their ROE for service deficiencies (Tr. 2, at 20-21, 44-46). However, these commentors assert that a distinction must be made between companies whose deficiencies are based on their inability to attract capital and those,

whose deficiencies are based on demonstrated lack of effort or management capabilities (id. at 21).[6]

The Department has on numerous occasions set utility ROEs at the low end of a range of reasonableness when it had been demonstrated that the utility's performance had been deficient in certain areas. Cambridge Electric Light Company, D.P.U. 92-250, at 161-162 (1993); Boston Edison Company, D.P.U. 85-261-A/266-A at 14, 272 (1986). More recently, the Department has placed water utilities on notice that continued deficiencies in quality of service would rebut the presumption that a ROE determined pursuant to 220 C.M.R. §§ 31.00 et seq. is fair and reasonable. D.P.U. 95-119/122, at 28-29; D.P.U. 95-118, at 184; Assabet Water Company, D.P.U. 95-92, at 39-40 (1996). Thus, as the commentators have noted, the rebuttable presumption provision of 220 C.M.R. § 31.02 does not hinder the Department's ability to penalize water utilities for poor performance. Additionally, the rebuttable presumption of 220 C.M.R. § 31.02 does not preclude a water utility from proposing an ROE greater than that established under 220 C.M.R. § 31.03, upon presentation through record evidence that a higher ROE should be considered by the Department.

After review of the regulation, comments in this case, and consideration of Department precedent, the Department finds that some water utilities and members of the general public may not readily understand that if the record supports such a finding, the Department can adjust the allowed ROEs beyond those currently stated in 220 C.M.R.

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6 Conversely, one commentor inquired as to whether a well-managed water utility could receive a ROE that was higher than would be determined under 220 C.M.R. §§ 31.00 et seq. (Tr. 2, at 50-51). As noted below, there is nothing in the regulation prohibiting a water utility from making such an argument as part of its rate application.

§ 31.03. Thus, the Department finds it consistent with the directives of E.O. 384 and in the public interest to reiterate more clearly that the Department has both the authority and discretion to adjust a water utilities' ROE beyond the maximum and minimum limits in 220 C.M.R. § 31.03, on a case-by-case basis. This is consistent with the intent of the regulation and Department precedent. See D.P.U. 85-115 at 2-3; D.P.U. 95-119/122, at 28-29; D.P.U. 95-118, at 184; D.P.U. 95-92, at 39-40. This amendment would neither increase administrative costs to water utilities, nor affect the rule in 220 C.M.R. § 31.02 that by selecting the optional method in this regulation, the water utility is "deemed to have presented a prima facie case concerning its allowed [ROE]." The intent of this amendment is to make it readily understandable to all water utilities and the general public that a water utility's election to use the optional method does not necessarily restrict the Department to allowing only a minimum ROE of 11.5 percent and maximum ROE of 14.5 percent. Accordingly, the Department hereby amends 220 C.M.R. § 31.03 by deleting the words "Provided, however, that in no event shall the allowed return on equity exceed" and adding the words "Except where the Department may otherwise determine in specific cases, the allowed return on equity may not exceed".

In conclusion, based on the Department's review of 220 C.M.R. §§ 31.00 et seq. pursuant to E.O. 384, the comments on the Department's draft regulations, and the foregoing analysis, the Department finds that the amendments to 220 C.M.R. §§ 31.00 et seq., discussed herein, are clear, concise, and readily understandable, and essential to the health, safety, and welfare of the residents of the Commonwealth of Massachusetts. Attached hereto is a conformed copy of 220 C.M.R. §§ 31.00 et seq.

III. ORDER

Accordingly, after due notice, hearing and consideration, it is

ORDERED: That, in accordance with G.L. c. 25, § 5; G.L. c. 164, § 94; G.L. c. 165, §§ 1B, 2 and 4; and G.L. c. 30A, §§ 2-7, the amendments to 220 C.M.R. §§ 31.01 and 31.03, are hereby ADOPTED as attached hereto; and it is

FURTHER ORDERED: That the Secretary of the Department attest to a true copy of this Order amending 220 C.M.R. § 31.01 and § 31.03, and transmit said attested true copy to the Office of the Secretary of State for the Commonwealth for publication in the Massachusetts Register; and it is

FURTHER ORDERED: That the changes to the regulations noted in this Order shall take effect upon publication in the Massachusetts Register.

By Order of the Department,

Janet Gail Besser, Acting Chair

John D. Patrone, Commissioner

A true copy
Attest:

MARY L. COTTRELL
Secretary

220 CMR 31.00: OPTIONAL FORMULA FOR DETERMINING ALLOWED RATES OF RETURN ON EQUITY FOR WATER COMPANIES

Section

31.01: Definitions
31.02: Application of Optional Methodology
31.03: Formula

31.01: Definitions

Under 220 CMR 31.00, the following words and phrases shall have the following meanings, unless the context requires otherwise:

Allowed Return on Equity, the percentage rate of return on common equity authorized by the Department for a utility and used in calculating an overall return on investment for purposes of establishing the utility's revenue requirement.

Common Equity Ratio, the percentage of a utility's total capitalization (*i.e.*, common equity, preferred stock, and long-term debt) that consists of common stock, premiums, retained earnings, and capital surplus.

Department, the Department of Public Utilities.

Effective Date, the proposed effective date of changes in a utility's rates, prices and charges as set forth in a rate filing.

Index, in percentage points, the most recent 12-month average of thirty-year United States Treasury bond interest rates, as derived from Federal Reserve Statistical Release, H.15 (519), "Selected Interest Rates," or a successor or equivalent publication, including the interest rate published on, or as close as possible after, a date four months following the effective date.

Rate Filing, a notice of any changes proposed to be made in any schedule filed under M.G.L. c. 165 which represents a general increase in rates, prices and charges for water service.

Utility, any water company as defined in M.G.L. c. 165, § 1.

31.02: Application of Optional Methodology

A utility may, at its option, at the time of making a rate filing with the Department, choose to request the Department to establish its allowed return on equity based on the formula contained in 220 CMR 31.03. If a utility elects this option, it shall be deemed to have presented a prima facie case concerning its allowed return on equity and to have established a rebuttable presumption that the application of the formula will result in a fair and reasonable allowed return on equity.

31.03: Formula

The formula used to establish the allowed return on equity shall be as follows:

Allowed return on equity = Index + 3.5%, if the utility has a common equity ratio of 25% or lower;

Allowed return on equity = Index + 3.0%, if the utility has a common equity ratio in excess of 25% but below 75%;

Allowed return on equity = Index + 2.5%, if the utility has a common equity ratio of 75% or greater;

Except where the Department may otherwise determine in specific cases, the allowed return on equity may not exceed 14.5% or be below 11.5%.

REGULATORY AUTHORITY

220 CMR § 31.00: M.G.L. c. 165, §§ 1B, 2.

STATE OF CONNECTICUT

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
PUBLIC UTILITIES REGULATORY AUTHORITY
TEN FRANKLIN SQUARE
NEW BRITAIN, CT 06051

DOCKET NO. 13-01-29 INVESTIGATION FOR STREAMLINING THE RATEMAKING PROCESS FOR SMALL WATER COMPANIES

October 23, 2013

By the following Commissioners:

John W. Betkoski, III
Arthur H. House
Michael A. Caron

Lead Staff: James K. Sutphin
Legal Advisor: Robert Luysterborghs

DECISION

DECISION

I. INTRODUCTION

A. SUMMARY

In this Decision, the Public Utilities Regulatory Authority approves the Settlement Agreement as submitted on June 20, 2013 by the Parties to this Docket. The Settlement Agreement provides for an allowed return on equity calculated as the current allowed return on equity average of Aquarion Water Company and The Connecticut Water Company plus a 50 basis point fixed adder. The provisions of the Settlement Agreement also include a 50 basis point variable adder for exemplary performance in such areas as management efficiency, customer service, and cost containment initiatives. In addition, the Settlement Agreement includes a provision for the small water companies to manage their capital structures so that the common equity portion is in a range of 40% to 60% of their total capital structure.

B. BACKGROUND

On its own motion, the Public Utilities Regulatory Authority (PURA or Authority) established this docket, pursuant to §§16-19 and 16-19e of the General Statutes of Connecticut (Conn. Gen. Stat.). On March 21, 2013, the PURA held a noticed technical meeting to discuss methods to streamline the rate case process for the small water companies. Issues discussed included:

1. Assigning the PURA's Prosecutorial Staff to assist small water companies in the preparation of rate cases.
2. Benchmarking the allowed return on equity (ROE) for small water companies with allowed ROEs of larger water companies.
3. Developing an ROE using standard ratemaking methodology that will be applied to all small water companies.
4. Developing similar accounting treatment of expense and rate base items for all small water companies.
5. Any other issues relevant to the topic of streamlining small water company rate cases.

The Authority requested that admitted parties submit written comments and preferably a settlement agreement on or before April 26, 2013, addressing the following formula for setting an allowed ROE for small water companies:

Aquarion Water Company (Aquarion Water)	Using the allowed ROE from last rate case, 9.95%, as an example.
The Connecticut Water Company (Connecticut Water)	Using the allowed ROE from last rate case, 9.75%, as an example.
Average	Example the allowed ROE average of Aquarion Water Company and Connecticut Water of 9.85% [(9.95%+9.75%)/2].
Formula adder	Reasonable % adder to be determined by the Settling Parties.
Total ROE	Final result allowed ROE of ???%. Example of (9.85%+adder %).

C. CONDUCT OF THE PROCEEDING

By Notice of Technical Meeting issued on March 5, 2013, the Authority conducted a Technical Meeting on March 21, 2013 at its offices at Ten Franklin Square, New Britain, Connecticut. On April 4, 2013, the Authority issued a Notice of Request for Written Comments and Settlement Agreement (Notice of Settlement Agreement). On April 23, 2013, the Office of Consumer Counsel (OCC) requested an extension to file written comments or a settlement agreement in the subject matter. On April 24, 2013, the small water companies filed a letter of non-opposition to the OCC's request provided that the extension was granted to all parties. On April 25, 2013, the Authority granted the request for extension until May 20, 2013. On May 17, 2013, the OCC requested, and the small water companies did not oppose, a further extension until June 20, 2013 to file a settlement agreement or written comments. The Authority approved that request. The Parties submitted a settlement (Settlement Agreement) on June 20, 2013. A copy of that agreement is attached hereto as Attachment A. By Notice of Hearing dated August 19, 2013, pursuant to Conn. Gen. Stat. §§16-11, 16-19 and 16-19e, the Authority held a public hearing on this matter on August 30, 2013 at its offices.

D. PARTIES TO THE PROCEEDING

The Authority designated the Hazardville Water Company, 281 Hazard Avenue, Enfield, CT 06082; Torrington Water Company, P.O. Box 867, Torrington, CT 06790; Avon Water Company, 14 West Main Street, Avon, CT 06001; Valley Water Systems, Inc. 37 Northwest Drive, Plainville, CT 06062; and the Heritage Village Water Company P.O. Box 873, Southbury, CT 06488; (collectively, Small Water Companies) and the Office of Consumer Counsel, Ten Franklin Square, New Britain, Connecticut 06051, as Parties to this proceeding.

II. AUTHORITY ANALYSIS

A. INTRODUCTION

The Authority received the Settlement Agreement on June 20, 2013, and reviewed its contents. The following is the Authority's analysis of the proposed Settlement Agreement.

B. SETTLEMENT AGREEMENT

The main points of the Settlement Agreement are as follows:

Aquarion Water	Base Allowed ROE from the most recent rate case (i.e., currently 9.95%[1]).
Connecticut Water	Base Allowed ROE from most recent rate case. (i.e., currently 9.75%).
Average	Allowed ROE average of Aquarion Water and Connecticut Water, currently 9.85% [(9.95%+9.75%)/2].
Fixed Formula Adder	Fixed Adder of 0.50%.
Variable Performance Adder	Up to 0.50% based on exemplary performance in such areas as management efficiency, customer service and cost containment initiatives.
Total ROE	Final result allowed ROE of 10.35% - 10.85%. Example of (9.85% + 0.50% fixed adder + 0.00% to 0.50% Performance Adder).

1. Aquarion Water and Connecticut Water Base Allowed ROE. The Base Allowed ROE Average for Aquarion Water and Connecticut Water excludes any bonus, incentive or penalty adjustments made by the PURA to the allowed ROE for the individual company.

2. Fixed Formula Adder. A 50 basis point formula adder is determined as reasonable by the Settling Parties.

3. Variable Performance Adder. The water company filing the rate application can request up to an additional 50 basis point adder based on exemplary performance in such areas as: management efficiency, customer service and cost containment initiatives. Applicant will be responsible for demonstrating these qualitative measures justifying the additional adder.

[1] At the time the Settlement Agreement was signed, the current allowed ROE for Aquarion Water was 9.95%. Recently, this was changed by the Decision dated September 24, 2013 in Docket No. 13-02-20, Application of Aquarion Water Company of Connecticut to Amend Its Rates, to an allowed ROE of 9.63% (9.13% Base ROE plus 0.50% bonus)

Other provisions of the Settlement Agreement are as follows:

1. Capital Structure. Companies will attempt to manage capital structure so that common equity represents 40% – 60% of capital structure. Settlement does not preclude capital structure adjustments if equity weight is outside 40-60% of capital structure or to balance capitalization with rate base.

2. Regulatory Compliance, Management Prudence and Service Quality. The ROE Formula assumes compliance with PURA and the Department of Public Health (DPH) orders, prudent management and satisfactory service quality. The Settlement Agreement does not preclude ROE penalties for inferior customer service, management performance, or imprudence.

Settlement Agreement, pp. 3 and 4.

C. RETURN ON EQUITY

Effective upon the Authority's approval of this Settlement Agreement for rate cases filed through December 31, 2023, the signatories to this agreement will have their allowed return on equity level set based on the above formula. The Settlement Agreement provides for a ROE determined by an average of the large water companies in the state (Aquarion Water and Connecticut Water) which is identical to the formula provided in the Notice of Settlement Agreement together with a 50 basis point fixed adder. The ROE combined with the fixed adder is the average base ROE separately approved in Aquarion Water's and Connecticut Water's last rate cases. The base allowed ROE average for Aquarion Water and Connecticut Water excludes any bonus, incentive or penalty adjustments made by the Authority to the allowed ROE. This base ROE is before an adder as numerated in Public Act 13-78 An Act Concerning Water Infrastructure and Conservation, Municipal Reporting Requirements and Unpaid Utility Accounts at Multi-Family Dwellings or any other adders and before any adjustments downward based on prudency.

The fixed adder of 50 basis points was agreed to by the parties to the Settlement Agreement as outlined in the Notice of Settlement Agreement. Those parties added a variable performance adder, to the ROE, of up to 50 basis points based on exemplary performance in such areas as management efficiency, customer service and cost containment initiatives.

The most significant element of the Settlement Agreement is that it creates administrative efficiencies which could lead to significant cost savings in the rate case process. The OCC believes the Settlement Agreement and methodology will save money and time for each of the companies and their ratepayers, their participants, the OCC, and the Authority. Tr. 8/30/13, pp. 96 and 97. It is expected that these cost savings would be passed on to ratepayers. Cost savings include the following:

1. Decrease of $30,000 to $40,000 in costs to retain cost of capital witnesses per Small Water Company for each rate case.

2. Decrease of $25,000 in costs associated with the OCC hiring an expert witness in rebuttal.
3. The preparation and processing of interrogatories, rebuttal and briefing documents on the part of the Small Water Companies.
4. Cost of hearings will be reduced to perhaps one procedural hearing.
5. Savings in rate case legal fees.

Response to Interrogatory FI-1, Tr. 8/30/13, pp. 101-108.

Additionally, the Small Water Companies will benefit from the Settlement Agreement in time and monetary savings for non-recoverable rate case expenses such as the time value of money for up-fronting rate case expenses. Other savings come from not having to subscribe to financial publications to support their positions and to respond to counter testimony. Other savings that are hard to quantify include employee work time that can be deployed to non-rate case activities and therefore, delay or eliminate the need for incremental employees. The agreed upon ROE formula gives the Small Water Companies a more certain pre-determined ROE range when applying to the Authority for rate relief. Response to Interrogatory FI-2, Tr. 8/30/13, pp. 106 and 107.

The Authority establishes the total cost savings per rate case for the Small Water Companies and the OCC at $80,000 based on cross examination of the parties. This $80,000 includes savings for cost of capital witnesses, attorney fees, preparation and processing of interrogatories, rebuttal, and briefing documents. The OCC and the Small Water Companies, agreed to an estimate of savings of $80,000 for each rate case based on the provisions of the Settlement Agreement. Tr. 8/30/13, p. 108.

The fixed formula adder of 50 basis points was developed through negotiation by the OCC and the Small Water Companies. This fixed formula adder is in recognition of the lack of financial flexibility for the Small Water Companies due to their size and as such lack of access to the financial markets. This 50 basis point adder was believed to be reasonable when compared with the various deciles of micro-cap size adjustments recommended by Ibbotson Associates which is a research firm that compiles stock and other financial data. The 9th and 10th decile companies, of which the Small Water Companies are comparable, all rated at least a 2.22% percentage point adder in a range of 2.22%-3.81%. In addition, when the 9th and 10th deciles are further broken down by size, relative to the Small Water Companies, the Ibbotson adders increase even more. Response to Interrogatory FI-10. The Authority finds the Settlement Agreement's fixed formula adder to be reasonable given the data from Ibbotson Associates.

A variable performance adder of 50 basis points was included as a provision to the Settlement Agreement as an incentive for management efficiency, customer service and cost containment initiatives. The variable performance adder of 50 basis points was found reasonable by the Parties, reasoning that a variable performance adder equal to the fixed formula adder would encourage excellence in performance. The Authority notes that the fixed and variable performance adder when combined is still significantly less than the 9th and 10th decile companies in the 2.22%-3.81% range. Response to Interrogatory FI-11. The Small Water Companies believe that data to support the areas of management efficiency, customer service, and cost containment can be easily generated since they track these measurements. Tr. 8/30/13, pp. 112 and 113. The

Authority is of the opinion that this variable performance adder should provide for better service for water customers.

D. CAPITAL STRUCTURE

A provision was included in the Settlement Agreement for the Small Water Companies to manage the common equity in their capital structures to a range of 40% to 60% of their total capital structure. This was included as a provision ". . . since it was viewed as a reasonable capital structure for ratemaking purposes." Tr. 8/30/13, p. 110. This range was determined by water utility industry comparison. From a recent issue of Value Line analysis of the water utility industry, of 7 publicly traded water utilities, the average common equity ratio in 2013 is 52% with a range from 45.5% to 58%. The Small Water Companies report that this ratio has trended slowly upward coincidental with increased environmental risks. Documentation of this slow trend upward is found in Value Line where in 2003, equity ratios averaged 49.1% and have since climbed to a 52.0% average. One of the principle reasons behind this upward movement in the equity ratio is the perception of increased business risk in the water utility industry and the need to mitigate that risk in the capital structure. The lower limit of 40% was determined as the lowest an equity ratio should be in order to maintain adequate financial coverage on the debt as well as meet many bond indenture capital limitations for investment grade securities. The Small Water Companies assert that their smaller size as micro-cap water utilities renders them even more susceptible to business and financial risks than larger water utilities. Response to Interrogatory FI-3.

The Small Water Companies plan to manage their capital structure by periodically alternating between long term debt and common equity issues. The Small Water Companies believe that they should be able to complete the task of managing their respective common equity ratios between 40% and 60%, on average, as each construction cycle dictates. This is important since the water utility industry is capital intensive and therefore requires constant and significant proportions of capital. This capital comes from periodic long-term sources coupled with short–term bank credit lines used in the interim between major financings. Long-term capital such as debt and equity must be acquired in the financial markets and therefore maintenance of an appropriate capital structure is paramount. Management by the Small Water Companies of their capital ratios will consist of a monitored balancing between internal cash flows of earnings and depreciation and draw downs on bank lines of credit. The start and end of each construction cycle controls the timing between short and long-term financing. Periodically, the Small Water Companies will alternate between long-term debt and common equity issuances as the means to manage their common equity ratio between 40% and 60%, on average, as each construction cycle dictates. Response to Interrogatory FI-4.

The Authority has concern over the affect the 60% top of the equity range has on customers' bills since equity customarily has a greater cost than debt. All the Small Water Companies equity ratios are different but in the 40% to 60% range. Over the life of the Settlement Agreement there may be instances when all the five water utilities, for a legitimate business reason, will have less financial risk and increase or maintain their common equity ratio at or near the 60% level. Conversely, there may also be times when the equity ratio of one of more of the five Small Water Companies drops toward the 40%

level. The Settlement Agreement set this range wide enough to be inclusive of multiple risk circumstances in addition to market fluctuations in debt and equity costs. There was no intent in the Settlement Agreement to restrict common equity movement of the Small Water Companies at the same time and as such, they are being treated as individual entities. Response to Interrogatory FI-6.

The Authority recognizes that depending on the timing of rate filings of one of the Small Water Companies and the concurrent equity ratios that a 60% equity ratio, would generate higher required revenues all other things being equal. However, there may be offsetting savings in debt costs which could offset an increase in revenue requirements. For example if one of the Small Water Companies has just completed a debt financing at costs and terms more favorable than normal and because the additional debt has the effect of bringing the company closer to the lower limit of 40% equity that, small water company may determine to increase its common equity ratio to balance the capital structure at 60% or 50% equity. This balancing of the capital structure may produce a higher incremental cost of the equity component. However, there may be an even greater saving in the debt cost component of capital. Response to Interrogatory FI-7. The Authority finds that the range of equity between 40% to 60% of equity in the capital structure is reasonable.

E. REGULATORY COMPLIANCE, MANAGEMENT PRUDENCE AND SERVICE QUALITY

The Settlement Agreement provides that the ROE formula assumes compliance with the PURA and DPH orders, prudent management and satisfactory service quality. Settlement Agreement, Section B4. The Settlement Agreement does not preclude ROE penalties for inferior customer service, management performance or imprudence. The Authority finds this is reasonable and assures ratepayers are fairly treated and that service quality remains at a high level.

F. PUBLIC ACT 13-78

Public Act 13-78 (PA 13-78), An Act Concerning Water Infrastructure and Conservation, Municipal Reporting Requirements and Unpaid Utility Accounts at Multi-Family Dwellings, was signed into law after the Settlement Agreement was filed with the Authority. PA 13-78 requires the Authority to:

> . . . authorize rates for each water company, as defined in section 16-1 of the general statutes, which promote comprehensive supply-side and demand-side water conservation. In establishing such rates, the authority shall take into consideration state energy policies, the capital intensive nature of sustaining water systems that minimize water losses and the competition for capital for continued investments in such systems. Such rates shall consider (1) demand projections that recognize the effects of conservation, (2) implementation of metering and measures to provide timely price signals to consumers, (3) multiyear rate plans, (4) measures to reduce system water losses, and (5) alternative rate designs that promote conservation.

Thus, PA 13-78 provides for a revenue adjustment mechanism that reconciles in rates, the difference between actual and allowed revenues, an earnings sharing mechanism, and a premium rate of return to a water company that has acquired non-viable systems.

The OCC asserts that PA 13-78 and the Settlement Agreement do not conflict. The OCC also suggests that the only conflict may be from the premium ROE given to a water company that has acquired non-viable systems. In the opinion, of the OCC, the premium section of PA 13-78 was geared to larger water utilities such that there would be an incentive to take over non-viable systems. Tr. 8/30/13, pp. 115 and 116. The Authority finds no conflict between PA 13-78 and this Settlement Agreement.

III. FINDINGS OF FACT

1. The Authority received the Settlement Agreement on June 20, 2013.

2. The Settlement Agreement is effective through December 31, 2023.

3. The Settlement Agreement provided for calculation of the allowed ROE based on the prescribed formula of the average of the latest base allowed ROE of Connecticut Water and Aquarion Water.

4. The Settlement Agreement provides for a fixed formula adder of 0.50%.

5. The Settlement Agreement provides for a variable performance adder of up to 0.50% based on exemplary performance in such areas as management efficiency, customer service and cost containment initiatives.

6. The Settlement Agreement permits the Small Water Companies to manage the common equity in their capital structures to a range of 40% to 60% of their total capital structure.

7. The ROE formula assumes compliance with the PURA and DPH orders, prudent management and satisfactory service quality.

8. The Settlement Agreement does not preclude ROE penalties for inferior customer service, management performance, or imprudence.

IV. CONCLUSION

The Authority hereby approves the Settlement Agreement submitted in its entirety. The Authority finds the Settlement Agreement will lead to cost savings for every rate case submitted by the Small Water Companies which will benefit its ratepayers, the OCC, other rate case participants, and the PURA. Lastly, the Settlement Agreement is in the public interest.

The Connecticut Department of Energy and Environmental Protection is an Affirmative Action/Equal Opportunity Employer that is committed to requirements of the Americans with Disabilities Act. Any person with a disability who may need

information in an alternative format may contact the agency's ADA Coordinator at 860-424-3194 or at deep.hrmed@ct.gov. Any person with limited proficiency in English, who may need information in another language, may contact the agency's Title VI Coordinator at 860-424-3035 or at deep.aaoffice@ct.gov. Any person with a hearing impairment may call the State of Connecticut relay number – 711. Discrimination complaints may be filed with DEEP's Title VI Coordinator. Requests for accommodations must be made at least two weeks prior to any agency hearing, program or event.

DOCKET NO. 13-01-29 INVESTIGATION FOR STREAMLINING THE RATEMAKING PROCESS FOR SMALL WATER COMPANIES

This Decision is adopted by the following Directors:

John W. Betkoski, III

Arthur H. House

Michael A. Caron

CERTIFICATE OF SERVICE

The foregoing is a true and correct copy of the Decision issued by the Public Utilities Regulatory Authority, State of Connecticut, and was forwarded by Certified Mail to all parties of record in this proceeding on the date indicated.

October 24, 2013

Nicholas E. Neeley
Department of Energy and Environmental Protection
Acting Executive Secretary
Public Utilities Regulatory Authority

Date

ATTACHMENT A

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC UTILITY CONTROL

RE:	INVESTIGATION FOR STREAMLINING THE RATEMAKING PROCESS FOR SMALL WATER UTILITIES	:	DOCKET NO. 13-01-29
		:	JUNE 20, 2013

SETTLEMENT AGREEMENT

This Settlement Agreement is made this 20th day of June 2013, by and between Avon Water Company, Hazardville Water Company, Torrington Water Company and Valley Water Systems, Inc. (collectively, the "Small Water Companies") and the Office of Consumer Counsel ("OCC") (collectively, the "Parties", and each individually as a "Party");

On January 31, 2013, the Public Utility Regulatory Authority ("PURA"), on its own motion, established a proceeding to investigate alternatives to the current regulatory process that could be used to reduce time and expense for small water utility rate proceedings. In its motion PURA noted that "Small Water Utilities expend funds for items such as cost of capital and accounting expert testimony during rate proceedings filed in accordance with General Statutes of Connecticut §16-19. Additionally, significant resources in staff and utility time are devoted to these issues."

On March 21, 2013 PURA held a noticed technical meeting to discuss methods to streamline the rate case process for the Small Water Companies. Issues discussed included:

6. Assigning prosecutorial staff to assist small water companies in the preparation of rate cases.
7. Benchmarking the allowed return on equity ("ROE") for small water companies with allowed ROEs of larger water companies.
8. Developing an ROE, using standard ratemaking methodology, that will be applied to all Small Water Companies.
9. Developing similar accounting treatment of expense and rate base items for all Small Water Companies.

10. Any other issues relevant to the topic of streamlining Small Water Company rate cases.

On April 4, 2013, PURA issued a Notice of Request for Written Comments and Settlement Agreement. In its April 4, 2013 Notice PURA requested that admitted Parties and Interveners to the proceeding submit written comments and preferably a settlement agreement on or before April 26, 2013, addressing the following formula for setting an allowed ROE for Small Water Companies:

Aquarion Water	Using allowed ROE from last rate case, 9.95%, as an example.
Connecticut Water	Using allowed ROE from last rate case, 9.75%, as an example.
Average	Example allowed ROE average of Aquarion Water Company and Connecticut Water of 9.85% [(9.95%+9.75%)/2].
Formula adder	Reasonable % adder to be determined by the Settling Parties.
Total ROE	Final result allowed ROE of ???%. Example of (9.85%+adder %).

On April 23, 2013, the OCC requested an extension to file written comments or a settlement agreement in the subject matter. On April 24, 2013, the Small Water Companies filed a letter of non-opposition to OCC's request provided said extension was granted to all parties. On April 25, 2013 PURA granted the request for extension until May 20, 2013. On May 17, 2013 OCC requested, and the Small Water Companies did not oppose, a further extension until June 20, 2013 to file a settlement agreement or written comments. The Department approved the second extension until June 20, 2013 for the parties to file written comments or a settlement agreement.

Since PURA's Notice was filed on April 4, 2013, the Small Water Companies and the OCC have had numerous meetings, discussions and exchanges of proposals surrounding a simplified formula to set an allowed ROE for the Small Water Companies. As a result of these discussions, the Parties reached agreement on the issues raised therein, as set forth below:

WHEREAS, the OCC and Small Water Companies have carefully examined the proposed formula contained in PURA's April 4, 2013, Notice of Request for Written Comments and Settlement Agreement; and

WHEREAS, the Parties engaged in good faith settlement negotiations to address the proceeding's purpose of finding an alternative to the current regulatory process that could be used to reduce time and expense for small water utility rate proceedings associated with cost of capital expert testimony during rate proceedings, and were successful in arriving at an agreement that each of the Parties believes would be a reasonable outcome and disposition of the proceeding; and

WHEREAS, Section 16-19jj of the Connecticut General Statutes establishes a policy to encourage the use of proposed settlements to resolve contested cases and proceedings; and

WHEREAS, the Small Water Companies and the OCC all wish to save future rate case expenses (an expense ultimately borne by customers) and staff time associated with continued lengthy litigation of these issues which is disproportionate to the size of the Small Water Companies from a benefit-cost perspective. The costs for the Smaller Water Companies to hire an outside consultant to address ROE and other related financial issues during a rate case could approach several dollars per customer; and

WHEREAS, this Settlement Agreement represents an integrated set of trade-offs and compromises in order to achieve the goal of a fair resolution of the proceeding; and

WHEREAS, the Parties submit this Settlement Agreement to the Authority for its review and approval in its entirety in the Final Decision in Docket No. 13-01-19; and

WHEREAS, the Parties agree that the resolution of the matters covered by this Settlement Agreement are in the best interests of the Small Water Companies' customers and shareholders.

NOW THEREFORE, the Parties agree as follows:

A. RETURN ON EQUITY FORMULA

Effective upon approval of this Settlement Agreement by the Authority for rate cases filed through December 31, 2023, the Small Water Companies that are signatory to this Settlement Agreement will have their allowed return on equity level set based on the following formula:

Aquarion Water	Base Allowed ROE from most recent rate case. (i.e. currently 9.95%.)
Connecticut Water	Base Allowed ROE from most recent rate case. (i.e. currently 9.75%.)
Average	Allowed ROE average of Aquarion Water Company and Connecticut Water Company, currently 9.85% [(9.95%+9.75%)/2].
Fixed Formula Adder	Fixed Adder of 0.50%.
Variable Performance Adder	Up to 0.50% based on exemplary performance in such areas as management efficiency, customer service and cost containment initiatives.
Total ROE	Final result allowed ROE of 10.35% - 10.85%. Example of (9.85% + 0.50% fixed adder + 0.00% to 0.50% Performance Adder)

4. Aquarion Water and Connecticut Water Base Allowed ROE. The Base Allowed ROE Average for Aquarion and Connecticut Water excludes any bonus, incentive or penalty adjustments made by PURA to the allowed ROE for the individual company.

5. Fixed Formula Adder. A 50 basis point formula adder is determined as reasonable by the Settling Parties.

6. Variable Performance Adder. The water company filing the rate application can request up to an additional 50 basis point adder based on exemplary performance in such areas as: management efficiency, customer service and cost containment initiatives. Applicant will be responsible for demonstrating these qualitative measures justifying the additional adder.

B. OTHER PROVISIONS

3. Capital Structure. Companies will attempt to manage capital structure so that common equity represents 40% – 60% of capital structure. Settlement does not preclude capital structure adjustments if equity weight is outside 40-60% of capital structure or to balance capitalization with rate base.

4. Regulatory Compliance, Management Prudence and Service Quality. The ROE Formula assumes compliance with PURA and DPH orders, prudent management and satisfactory service quality. The Settlement does not preclude ROE penalties for inferior customer service, management performance or imprudence.

5. Sufficient Record Evidence. The record in the proceeding provides sufficient evidence on which PURA can rely to make a determination that this Settlement Agreement is reasonable and in the public interest.

6. Best Interests of Ratepayers. The Parties agree that this Settlement Agreement is in the best interests of ratepayers.

7. Cooperative Advocacy. Without reservation or condition, the Parties agree to support this Settlement Agreement before the Authority during this proceeding, in any other public forum and before any court to which an appeal may be taken. The Parties will do nothing to undermine the integrity of this Settlement Agreement and will take all such action as is necessary on a cooperative basis to secure the expeditious approval and implementation of the provisions of this Settlement Agreement.

8. Integrated Settlement Agreement. This Amended Settlement Agreement is the product of settlement negotiations and will be deemed an integrated solution to the issues addressed herein. As such, the terms contained herein are interdependent and not severable, and they will not be binding upon, or deemed

to be an admission or concession by any Party, or to represent the positions of the Parties, if this Settlement Agreement is not fully approved without modification by the Authority.

9. Acceptance by PURA. If PURA does not approve this Settlement Agreement in its entirety without modification, it will be deemed withdrawn and null and void, it will not constitute a part of the record in this or any other administrative or judicial proceeding, will not be admissible as evidence or be used for any purpose whatsoever in this or any other administrative or judicial proceeding, and each Party will be free to advocate any position on any of the issues addressed by this Settlement Agreement in this or any other administrative or judicial proceeding, unless the Parties agree otherwise.

10. Confidential Settlement Discussions. The discussions that have produced this Settlement Agreement have been conducted on the explicit understanding that all offers of settlement and discussions relating thereto are and will be privileged and confidential, will be without prejudice to the position of any Party presenting such offer or participating in any such discussions, and are not to be used in any manner in connection with this or any other administrative or judicial proceeding involving any or all of the Parties or otherwise.

11. Reservation of Rights. This Settlement Agreement does not represent an admission or concession by the Parties as to the proper disposition of any issue not related to this Settlement Agreement in any future proceeding before the Department, any court or any other administrative agency. It does not signify the Parties' agreement with any claim or claims made by any Party in this case. This Settlement Agreement or any of its terms will not prejudice the positions that the Parties may take on any issue in any future proceeding not related to this Settlement Agreement before the Department, the courts or any other administrative agency, and will not be admissible as evidence therein or in any proceeding not related to the matters covered by this Settlement Agreement before the Department, the courts or any other administrative agency and will not be deemed an admission or concession by any of the Parties in regard to any claim or position taken by any other of the Parties in such proceedings. This Settlement Agreement is not intended to establish precedent in such proceedings and the formula contained herein for utilization for cases involving larger water companies or non-water industries. Nothing contained herein will be construed as a waiver of, or limitation upon, any Party's right to raise any issues contained herein in any subsequent docket not related to this Settlement Agreement.

12. Merger of Agreement. This Settlement Agreement constitutes the entire agreement between the Parties hereto and supersedes any other written or verbal agreements that may relate to any issue covered by this Settlement Agreement.

13. Captions. All titles, subject headings, section titles and similar items herein are provided for the purpose of reference and convenience only and are not intended to affect the meaning, the content or the scope of this Settlement Agreement.

IN WITNESS WHEREOF, each of the Parties has duly executed this Settlement Agreement as of the date set forth above.

ELIN SWANSON KATZ
CONSUMER COUNSEL

By_____
Richard E. Sobolewski
Supervisor of Technical Analysis

THE SMALL WATER COMPANIES:

Avon Water Company
Hazardville Water Company
Torrington Water Company
Valley Water Systems, Inc.

By_____
William Galske, III

Their Attorney

Derivation of Generic ROE Using the Massachusetts Generic ROE Formula

Line No.		30-Year U.S. Treasury Bonds	Massachusetts Premium (1) >75% Common Equity Ratio		25% - 75% Common Equity Ratio		<25% Common Equity Ratio	
1	Average Yield for the 12-months Ended November 30, 2017 (2)	2.92%	2.50%		3.00%		3.50%	
2	Massachusetts ROE		5.42%		5.92%		6.42%	
			Low Size Premium (3)	High Size Premium (3)	Low Size Premium (3)	High Size Premium (3)	Low Size Premium (3)	High Size Premium (3)
3a	Abenaki Water Company		2.64%	5.27%	2.64%	5.27%	2.64%	5.27%
3b	Hampstead Area Water Co., Inc.		2.30%	4.59%	2.30%	4.59%	2.30%	4.59%
3c	Lakes Region Water Co., Inc.		2.23%	4.46%	2.23%	4.46%	2.23%	4.46%
	Risk-Adjusted Massachusetts ROEs (4)							
4a	Abenaki Water Company		8.06%	10.69%	8.56%	11.19%	9.06%	11.69%
4b	Hampstead Area Water Co., Inc.		7.72%	10.01%	8.22%	10.51%	8.72%	11.01%
4c	Lakes Region Water Co., Inc.		7.65%	9.88%	8.15%	10.38%	8.65%	10.88%
			Low Size Premium (3)	High Size Premium (3)				
5	Massachusetts Generic ROE (5)	11.50%						
	Risk-Adjusted Mass. Generic ROE:		14.14%	16.77%				
5a	Abenaki Water Company		13.80%	16.09%				
5b	Hampstead Area Water Co., Inc.		13.73%	15.96%				
5c	Lakes Region Water Co., Inc.							

	Proposed Application of the Massachusetts Generic ROE (3)		
		30-year US Treas. Bond Yield	
6	Projected Yield (6)	3.53%	
7	Market Equity Risk Premium (7)		8.05%
8	Water Proxy Group Average Beta (7)		0.744
9	Equity Risk Premium for an Average Water Company (7)		5.99%

		Low Size Premium (8)	High Size Premium (8)
10a	Abenaki Water Company	2.64%	5.27%
10b	Hampstead Area Water Co., Inc.	2.30%	4.59%
10c	Lakes Region Water Co., Inc.	2.23%	4.46%
	Risk-Adjusted ROEs (9)		
11a	Abenaki Water Company	12.16%	14.79%
11b	Hampstead Area Water Co., Inc.	11.82%	14.11%
11c	Lakes Region Water Co., Inc.	11.75%	13.98%

Notes:
(1) From Attachment PMA-6, page 22.
(2) Downloaded from Bloomberg Professional Service.
(3) As discussed in Ms. Ahern's accompany direct testimony.
(4) Line No. 2 + Line Nos, 3a, 3b and 3c, respectively.
(5) Given the range of ROEs based upon the Massachusetts generic ROE formula for the Companies, the bottom of the range of ROEs, 11.50% applies. (*see* page 22 of Attachment PMA-6.
(6) From *Blue Chip Financial Forecasts* , December 1, 2017.
(7) From Attachment PMA-5, page 1.
(8) Line No. 7 * Line No. 8
From Line Nos. 3a, 3b and 3c above.
(9) Line Nos., 6 and 9 + Line Nos. 10a, 10b, and 10c, respectively

Derivation of Generic ROE Using the Connecticut Generic ROE Formula

Line No.			
1	Average Authorized ROE for New Hampshire Water Utilities (1)	9.60%	
		Low Size Premium (2)	High Size Premium (2)
2a	Abenaki Water Company	2.64%	5.27%
2b	Hampstead Area Water Co., Inc.	2.30%	4.59%
2c	Lakes Region Water Co., Inc.	2.23%	4.46%
		Low ROE (3)	High ROE (3)
3a	Abenaki Water Company	12.24%	14.87%
3b	Hampstead Area Water Co., Inc.	11.90%	14.19%
3c	Lakes Region Water Co., Inc.	11.83%	14.06%

Notes:
(1) Company provided.
(2) As discussed in Ms. Ahern's accompany direct testimony.
(3) Line No. 1 + Line Nos. 2a, 2b and 2c, respectively