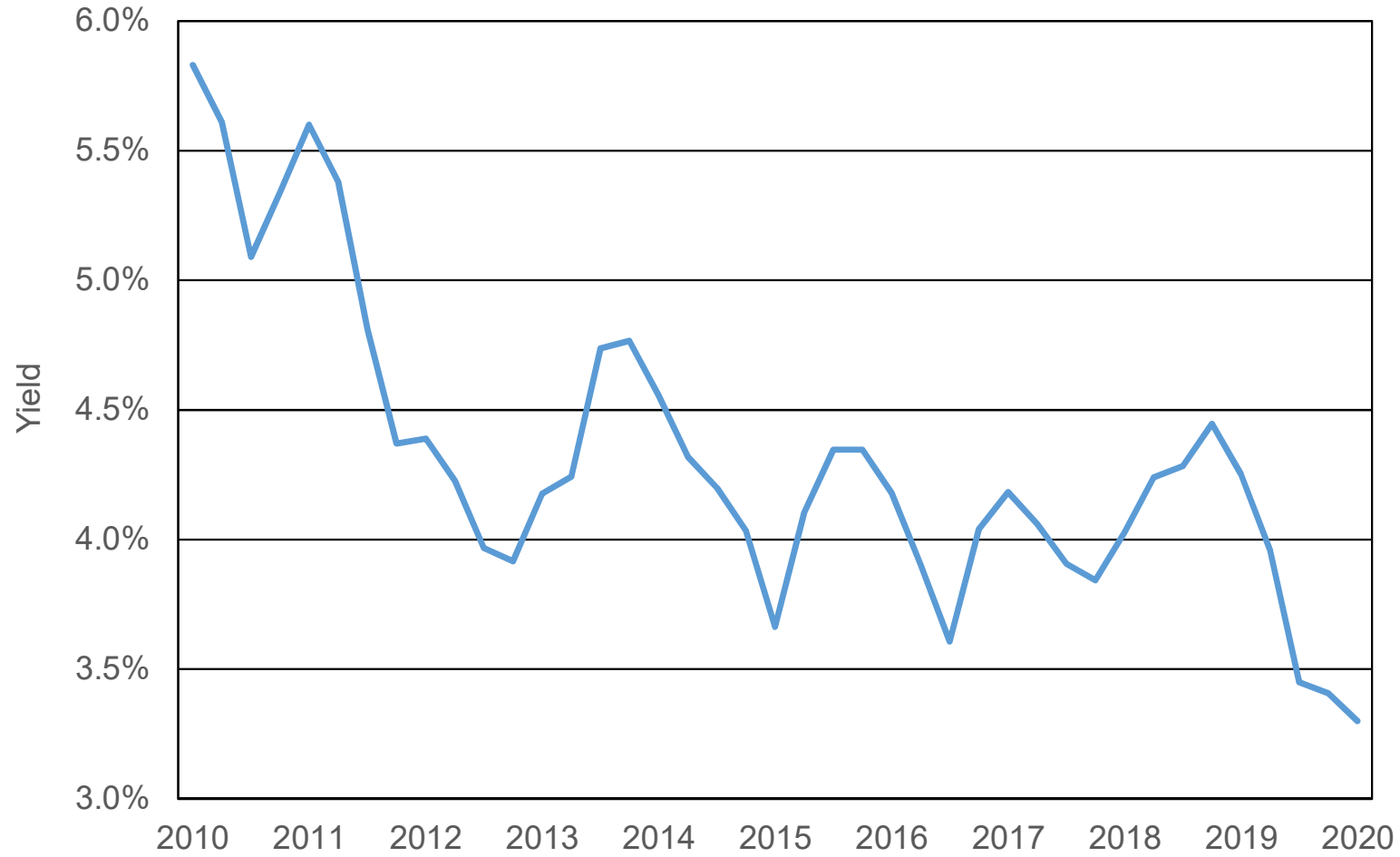


## Moody's A-Rated Utility Bond Yields (averaged over a quarter)



Public Staff  
Hinton Exhibit I

## FINANCIAL FOCUS

# Despite volatility, water utility valuation premiums persist

Monday, March 23, 2020 2:42 PM ET

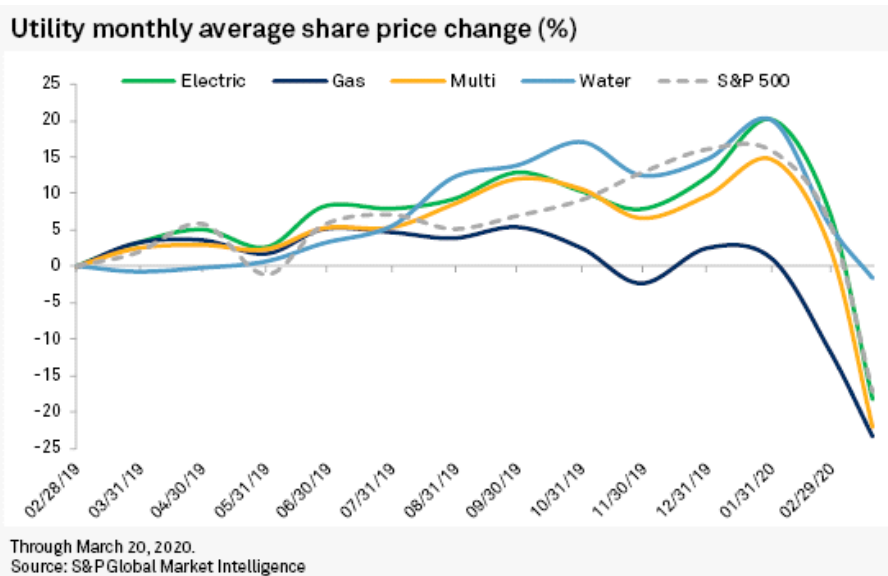
By Heike Doerr  
Market Intelligence

As the stock markets have reacted negatively to the global coronavirus pandemic, water utility stocks have experienced increased volatility, while retaining their valuation premium compared to other utility subsectors.

Water utilities declined an average of 3.4% during the week of March 16 through March 20, while the broader utility group declined over 14%. Within the small water sector, individual stock performance varied widely, as California Water Service Group appreciated 15.8% while neighboring San Jose utility SJW Group declined by a similar amount.

On Friday, American Water Works Co. Inc. and Essential Utilities Inc. each declined 11-12%, in contrast to mid-single-digit declines across the group. Earlier in the week, American States Water stood out in a sea of red trading, appreciating 18% to 20% on consecutive days with no fundamental news having surfaced.

Year-to-date, the Dow Jones Industrial Average has declined 32.8%, while the Dow Jones Utility Index has lost 26.5% of its value, through March 20. Water utilities have declined an average of 13.8% over the same time period and have been the top performers in March, across the 56 company group monitored by Regulatory Research Associates, led by American States Water and Cal Water.



## Increased volatility

As measured by beta, the water utilities have the lowest volatility across the utility sectors, with an average water utility beta of 0.36. Beta is a measure of volatility that compares the risk of an individual stock in comparison to the wider risk of the entire market.

Electric utilities have an average beta of 0.43, similar to the multiutility group at 0.44, while the average beta for the natural gas utility group is quite higher at 0.62.

Betas for the group range from 0.16 for the smallest water utility Global Water Resources Inc. to 0.67 at Essential Utilities Inc., which recently completed its acquisition of Peoples Natural Gas, and mirrors the beta of the natural gas utility group.

## Current valuation

Water utilities currently trade at price/earnings multiples of 27.6x and 25.5x for 2020 and 2021, respectively. This is approximately a 20% contractions from valuation levels in late February, when water utilities were trading at price/earnings multiples of 34.0x and 31.4x. Gas utility valuations have pulled back a similar amount, while electric and multiutility companies have seen valuation pullbacks close to 30%.

Electric utilities trade at P/E multiples of 14.4x and 13.6x, the multiutility group trades at 13.7x and 13x, and natural gas utilities trade at 15.8x and 15.1x for the comparable periods.

Water utilities have historically been considered largely recession-resistant, as residential customers, which comprise a large portion of water utility sales, do not tend to modify their water usage. Additionally, the group has a history of continuous dividend payments dating back decades. These eight utilities, and the many water utilities that have been acquired over the years, have not only been consistent dividend payers but also reliable sources of modest, dividend growth, favored by their strong retail shareholder base.

Water utility market data													
Company	Ticker	Price 03/20/20 (\$)	Market cap. (\$M)	Avg. daily volume, LTM (millions)	Earnings per share (\$)			Price/ earnings (x)		Dividend			Beta
					2019A	2020E	2021E	2020E	2021E	Rate (\$)	Yield (%)	Payout (%)	
American States Water	AWR	86.00	3,170	0.232	2.08	2.28	2.34	37.7	36.8	1.22	1.42	58.6	0.26
American Water Works	AWK	100.69	18,222	1.043	3.62	3.86	4.23	26.1	23.8	2.00	1.99	55.3	0.27
Artesian Resources Corp.	ARTN.A	32.69	303	0.014	1.60	1.68	1.75	19.5	18.7	1.00	3.05	62.4	0.37
California Water Service Group	CWT	53.00	2,572	0.265	1.37	1.50	1.71	35.3	31.0	0.85	1.60	62.1	0.27
Essential Utilities	WTRG	34.92	8,554	1.437	1.48	1.46	1.65	23.9	21.2	0.94	2.68	63.4	0.67
Global Water Resources	GWRS	10.14	229	0.027	0.13	0.11	0.18	NM	NM	0.29	2.85	NA	0.16
Middlesex Water Co.	MSEX	56.86	991	0.065	1.99	2.05	2.19	27.7	26.0	1.03	1.80	51.6	0.41
SJW Group	SJW	52.67	1,501	0.118	2.00	2.32	2.51	22.7	21.0	1.28	2.43	64.0	0.47
The York Water Co.	YORW	36.93	481	0.032	1.11	NA	NA	NA	NA	0.72	1.95	64.9	0.34
Water utility average								27.6	25.5		2.20	60.3	0.36

As of March 20, 2020.  
LTM = last-12-months; NA = not applicable; NM = not meaningful  
Source: S&P Global Market Intelligence

Regulatory Research Associates is a group within S&P Global Market Intelligence.

For a complete, searchable listing of RRA's in-depth research and analysis, please go to the S&P Global Market Intelligence Energy Research Library.

This article was published by S&P Global Market Intelligence and not by S&P Global Ratings, which is a separately managed division of S&P Global.

Public Staff  
Hinton Exhibit 3

## Investment Risk Measures

### Group of Water Utility Companies

Company Name	Value Line <sup>1</sup>					S&P <sup>2</sup>		S&P <sup>3</sup>	Moody's <sup>3</sup>
	Safety Rank	Beta	Price Stability	Earnings Predict.	Financial Strength	S&P <sup>2</sup> Beta	Quality Ranking	Bond Rating	Bond Rating
1 American States Water	2	0.60	85	85	A	-0.03	A	A+	NA
2 American Water Works	3	0.50	100	80	B+	0.25	A-	A	Baa1
3 California Water Service	3	0.60	80	65	B++	0.16	A-	A+	NA
4 Essential Utilities	2	0.60	95	55	A	0.53	A	A	Baa2
5 Middlesex Water	2	0.70	65	75	B++	0.28	A	A	NA
6 SJW Group	3	0.60	70	45	B+	0.29	B+	A-	NA
7 York Water	3	0.65	65	95	B+	0.29	A	A-	NA
Average	2.6	0.61	80	71		0.25			

Source:

<sup>1</sup> Value Line Investment Survey, Standard Edition, April 10, 2020

<sup>2</sup> S&P Global Market Intelligence, CFRA Stock Report, April 9, 2020 - April 14, 2020

<sup>3</sup> S&P Global Market Ratings, downloaded on April 16, 2020.

## DCF ANALYSIS

### Group of Water Utility Companies

Company Name	Yield <sup>1</sup>	Value Line <sup>2</sup> Historical						Value Line <sup>2</sup> Forecast			Yahoo Forecast <sup>3</sup>
		EPS	DPS	BPS	EPS	DPS	BPS	EPS	DPS	BPS	EPS
		10-Yr	10-Yr	10-Yr	5-Yr	5-Yr	5-Yr	5-Yr	5-Yr	5-Yr	5-Yr
1 Amer. States Water	1.5	9.5	8.0	5.5	5.0	7.5	4.0	6.5	9.5	5.5	6.0
2 Amer. Water Works <sup>4</sup>	1.6	45.5	16.0	2.5	6.5	10.5	4.0	8.5	8.5	5.0	8.2
3 California Water	1.6	4.5	2.5	4.5	4.5	3.5	4.5	6.5	5.5	1.0	9.8
4 Essential Utilities	2.2	7.0	7.5	8.0	1.5	8.0	9.0	10.0	7.5	6.5	6.4
5 Middlesex Water	1.7	8.0	2.5	4.5	12.0	4.0	6.0	6.0	5.5	1.5	2.7
6 SJW Group	2.0	8.0	4.5	5.5	18.5	5.0	8.0	6.0	7.0	6.5	14.0
7 York Water Co.	1.6	5.5	3.5	4.5	6.5	4.0	4.0	7.0	5.5	4.5	4.9
Average	1.7	7.1	6.4	5.0	7.8	6.1	5.6	7.2	7.0	4.4	7.4
Estimated Cost of Equity		8.8	8.1	6.7	9.5	7.8	7.4	9.0	8.7	6.1	9.2

#### Sources:

<sup>1</sup> Value Line Investment Survey, Summary and Index from February 14, 2019 to May 8, 2020.

<sup>2</sup> Value Line Investment Survey, Standard Edition, April 10, 2020.

<sup>3</sup> Yahoo Earnings Forecast as of May 13, 2020.

<sup>4</sup> American Water Works 45.5% 10-year EPS Growth Rate is excluded from the analysis.

# REGRESSION ANALYSIS OF ALLOWED RETURNS ON EQUITY FOR WATER UTILITIES

Year	[A] Water Utilities Approved Returns on Equity <sup>1</sup>	[B] Moody's A-Rated Bond Yields <sup>2</sup>	[C]=[A]-[B] Water Utility Risk Premium
2006	10.23%	6.07%	4.16%
2007	10.07%	6.05%	4.02%
2008	10.24%	6.51%	3.73%
2009	10.18%	6.04%	4.14%
2010	10.18%	5.47%	4.71%
2011	10.04%	5.04%	5.00%
2012	9.90%	4.13%	5.77%
2013	9.73%	4.48%	5.25%
2014	9.59%	4.28%	5.31%
2015	9.76%	4.12%	5.64%
2016	9.71%	3.93%	5.78%
2017	9.56%	4.00%	5.56%
2018	9.41%	4.25%	5.16%
2019	9.37%	3.77%	5.60%
2020	9.27% <sup>3</sup>	3.30% <sup>4</sup>	5.97%
		Average	5.05%
		Maximum	5.97%
		Minimum	3.73%

Sources:

<sup>1</sup> Regulatory Research Associates, Water Advisory, February 4, 2020.

<sup>2</sup> Moody's Credittrends.

<sup>3</sup> S&P Global Market Intelligence, Water utility ROE declines due to unfavorable SC decision, May 11, 2020. The 9.27% is the average of 9.50% for CWSNC, 9.50% for SUEZ Water of Delaware, and the 8.80% for SUEZ Water of New York.

<sup>4</sup> Average yield data for the first quarter 2020.

## REGRESSION ANALYSIS OF ALLOWED RETURNS ON EQUITY FOR WATER UTILITIES

<i>Regression Statistics</i>	
Multiple R	0.90098817
R Square	0.81177969
Adjusted R Square	0.7973012
Standard Error	0.00149232
Observations	15

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.000124865	0.00012486	56.068	4.57863E-06
Residual	13	2.89513E-05	2.227E-06		
Total	14	0.000153816			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.08414377	0.001911108	44.0287953	1.55E-15
X Variable 1	0.29429372	0.039302798	7.48785665	4.58E-06

A-Rated Public Utility Bond Yield	
Oct-19	3.39%
Nov-19	3.43%
Dec-19	3.40%
Jan-20	3.29%
Feb-20	3.11%
Mar-20	3.50%
Average	3.35%

Predicted Cost of Equity      **9.40%**

*Note:*

*Predicted Cost of Equity of 9.40% = 0.084144 + 0.294294 x 3.35%.*

Public Staff  
Hinton Exhibit 6

COMMISSION APPROVED COMMON EQUITY RATIOS

State	Utility	Docket No.	Order date	Equity Ratio
IA	Iowa American Water Co.	RPU-2013-0002	2/28/14	52.57%
NC	Carolina Water Service of NC	W-354, Sub 336.	3/10/14	50.27%
NC	Aqua North Carolina	W-218, Sub 363	5/2/14	50.00%
HI	Waikoloa Utilities	2011-0331	5/23/14	50.00%
NJ	Middlesex Water Co.	WR-13111059	6/18/14	50.71%
NY	SUEZ Water New York Inc.	13-W-0295	6/24/14	44.00%
NY	SUEZ Water Westchester	13-W-0564	6/24/14	47.00%
DE	Tidewater Utilities, Inc.	13-466	8/19/14	50.96%
NJ	Aqua New Jersey	WR-14010019	8/20/14	52.47%
OH	Aqua Ohio Water Co.	13-2124-WW-AIR	9/10/14	51.60%
NY	SUEZ Water New Rochelle, Inc.	13-W-0539	11/14/14	47.00%
<b>Average</b>				<b>49.69%</b>
HI	Waikoloa Water	2012-0148	2/19/15	50.00%
ME	Maine Water	2014-00349	3/11/15	48.50%
IL	Aqua Illinois	14-0419	3/25/15	53.26%
HI	Kona Water Service	2013-0375	6/29/15	53.00%
NJ	SUEZ Toms River	WR-15020269	8/19/15	53.00%
NJ	Middlesex Water Co.	WR-15030391	8/19/15	51.36%
NJ	New Jersey American Water Co.	WR-15010035	9/11/15	52.00%
NC	Carolina Water Service of NC	W-354, Sub 344	12/7/15	51.00%
<b>Average</b>				<b>51.52%</b>
VA	Aqua Virginia, Inc.	PUE-2014-00045	1/7/16	49.20%
DE	Artesian Water	14-132	1/19/16	50.54%
NV	Utilities, Inc. of Central Nevada	15-06063	1/25/16	49.45%
WV	West Virginia American Water Co.	15-0676-W-42T	2/24/16	45.84%
NC	CWS Systems, Inc.	W-778 Sub 91	2/24/16	51.00%
NJ	SUEZ New Jersey Inc.	WR-15101177	4/27/16	53.00%
NJ	Aqua New Jersey	WR16010089	8/9/16	52.86%
HI	Hawaii Water Service	2015-0230	9/12/16	53.00%
IL	Illinois American Water Co.	16-0093	12/13/16	49.80%
<b>Average</b>				<b>50.52%</b>
NY	SUEZ Water New York	C-16-W-0130	1/27/17	46.00%
IA	Iowa American Water	D-RPU-2016-0002	2/27/17	52.04%
NY	New York American Water Co.	C-16-W-0259	5/18/17	46.00%
VA	Virginia American Water	C-PUE-2015-00097	5/24/17	46.09%
NC	Carolina Water Service, Inc. of NC	W-354 Sub 356	11/8/17	52.00%
<b>Average</b>				<b>48.43%</b>
IL	Aqua Illinois	D-17-0259	3/7/18	53.22%
CA	California American Water Co.	A17-04-003	3/22/18	55.39%
CA	California Water Service Co.	A17-04-006	3/22/18	53.40%
CA	Golden State Water Co.	A17-04-002	3/22/18	57.00%
CA	San Jose Water Co.	A17-04-001	3/22/18	53.28%
NJ	Middlesex Water Co.	D-WR-17-101049	3/24/18	52.75%
SC	Carolina Water Service, Inc.	D-2017-292-WS	5/2/18	51.89%
NY	SUEZ Water Owego-Nicols Inc.	C-17-W-0528	7/13/18	46.00%
IL	Utility Services of IL, Inc. Water	D-17-1106	9/24/18	52.15%
IL	Utility Services of IL, Inc. Water/Water	D-17-1106	9/24/18	52.15%
RI	Suez Water Rhode Island	D-R-4800	10/5/18	53.91%
NJ	New Jersey American Water	D-WR-17-090985	10/29/18	54.00%
MD	Aquarion Water Co. of Mass.	D.P.U. 17-90	10/31/18	47.04%
NJ	SUEZ Water New Jersey	D-WR-18050593	11/19/18	54.00%
NC	Aqua North Carolina	D-W-218, Sub 497	12/18/18	50.00%
CA	Suburban Water Systems	A-18-05-004	12/20/18	60.00%
VA	Massanutten Public Service Corp.	C-PUR-2017-00069	12/21/18	52.19%
<b>Average</b>				<b>52.85%</b>
HI	Hawaii Water Service	D-2017-0350	1/7/19	53.40%
MD	Maryland American Water	C-9487	2/5/19	48.66%
WV	West Virginia American Water Co.	C-18-0573-W-42T	2/8/19	49.79%
NC	Carolina Water Service of NC	D-W-354, Sub 360	2/21/19	50.91%
NJ	Aqua New Jersey	WR-18121351	5/28/19	53.00%
KY	Kentucky American Water Co.	2018-00358	6/27/19	48.76%
<b>Average</b>				<b>50.75%</b>
<b>Average of Annual Averages</b>				<b>50.81%</b>
<b>Average Across Years</b>				<b>51.04%</b>



Public Staff  
Hinton Exhibit 7

Aqua North Carolina, Inc.  
Cost of Capital as of March 31, 2020

Item	Ratios	Cost Rate	Weighted Cost Rate	Pre-Tax Cost of Capital
Long-Term Debt	50.00%	4.21%	2.11%	2.11%
Common Equity	50.00%	8.90%	4.45%	5.82%
Total	100.00%		6.56%	9.92%
Pre-Tax Interest Coverage				3.7