

Cascadia Water, LLC Docket 240151
 Exhibit MJR 10
 Cost of Capital Schedule 1
 Calculation of WACC

Weighted Average Cost of Capital (WACC)

	Cost	Weight	Weighted Cost
Equity	10.90%	66%	7.19%
Debt	5.22%	34%	1.77%
WACC			8.97%

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Calculation of Cost of Equity

Model	Range	Average
Comparable Earnings	8.2% to 13.8%	10.57%
DCF	7.2% to 13%	10.14%
CAPM	9.8% to 12.29%	10.83%
Average		10.51%
Cost of Equity		10.90%

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 Comparable Earnings Analysis

PROXY GROUP

**Line
 No**

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Historical ROEs						
	<u>Company</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	
	AWR American State	14.0%	13.5%	13.8%	11.0%	
	AWK American Water	10.1%	11.0%	17.3%	10.7%	
	WTRG Essential Utilities	5.8%	6.1%	8.3%	8.7%	
	ARTNA Artesian Resources	9.3%	9.9%	9.5%	9.6%	
	CWT California Water	8.1%	10.5%	8.6%	7.3%	
	MSEX Middlesex Water	10.4%	11.0%	9.9%	10.5%	
	YORW York Water	10.7%	11.6%	11.1%	9.5%	
	Average	9.8%	10.5%	11.2%	9.6%	

Source: Value Line Investment Survey July, 2024

P -- COMPARABLE EARNINGS ANALYSIS

	Projected ROEs			5-Year Historical Average <u>2019-2023</u>	5-Year Projected Average* <u>2024-2029</u>	5-Year Combined Historical & Projected Average
	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2027- 2029</u>		
16.1%	13.5%	14.0%	14.0%	13.7%	13.8%	13.8%
9.6%	10.0%	10.0%	11.0%	11.7%	10.3%	11.0%
8.5%	8.5%	9.0%	9.5%	7.5%	9.0%	8.2%
7.20%	NA	NA	NA			
3.6%	13.0%	10.5%	9.5%	7.6%	11.0%	9.3%
7.4%	10.5%	10.5%	12.5%	9.8%	11.2%	10.5%
10.7%	NA	NA	NA			
9.0%	11.1%	10.8%	11.3%	10.1%	11.1%	10.6%

*Projected ROEs are no longer available for ARTNA and YORW from Value Line.

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Discounted Cash Flow: Dividend Yield

PROXY GROUP -- DIVIDEND YIELD

Line No	<u>Proxy Group Companies</u>	<u>DPS</u>	<u>June 18, 2024 September 18, 2024</u>	
			<u>High</u>	<u>Low</u>
1	AWR American States Water Co.	\$1.72	\$85.38	\$70.42
2	AWK American Water Works Co., Inc.	\$3.06	\$149.90	\$127.76
3	WTRG Essential Utilities, Inc.	\$1.23	\$41.49	\$36.74
4	ARTNA Artesian Resources Corp.	\$1.18	\$40.86	\$34.52
5	CWT California Water Service Gp.	\$1.12	\$55.50	\$47.83
6	MSEX Middlesex Water	\$1.30	\$67.59	\$51.40
7	YORW York Water Company	\$0.84	\$38.58	\$33.33
8	Average			
9				
10	<u>References:</u>			
11	Column (A) - Value Line Investment Survey (July 2024)			
12	(Reflects annualization of most recent quarterly dividend)			
13	Columns (B), (C), and (D) - Yahoo Finance			
14				

<u>Average</u>	<u>Yield</u>
\$79.21	2.17%
\$139.81	2.19%
\$39.19	3.13%
\$37.35	3.17%
\$52.36	2.14%
\$60.38	2.15%
\$36.00	2.34%
	<u><u>2.47%</u></u>

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Discounted Cash Flow: Growth Rates

PROXY GROUP -- PER SHARE GROWTH RATES

Line No	<u>Proxy Group Companies</u>	5-Year Compound Average ¹ Historical Growth		
		<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>
1	AWR American States Water Co.	9.0%	9.0%	6.5%
2	AWK American Water Works Co.	15.0%	9.5%	7.5%
3	WTRG Essential Utilities, Inc.	7.0%	7.0%	14.0%
4	ARTNA Artesian Resources Corp.	3.5%	3.5%	5.0%
5	CWT California Water Service Gp.	4.0%	6.5%	10.0%
6	MSEX Middlesex Water	5.5%	6.5%	9.5%
7	YORW York Water Company	8.0%	4.0%	8.5%
8	<u>Average</u>			
9				
10	Reference:			
11	Value Line Investment Survey (July 2024)			

Annual

<u>Average</u>
8.2%
10.7%
9.3%
4.0%
6.8%
7.2%
6.8%
<u>7.57%</u>

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 DCF Results

Line No			<u>PROXY GROUP</u>	
			Current Dividend Yield (D_0/P_0)	Historical Per Share Growth Rates
1	AWR	American States Water Co.	2.17%	8.2%
2	AWK	American Water Works Co., Inc	2.19%	10.7%
3	WTRG	Essential Utilities, Inc.	3.13%	9.3%
4	ARTNA	Artesian Resources	3.17%	4.0%
5	CWT	California Water Service Group	2.14%	6.8%
6	MSEX	Middlesex Water	2.15%	7.2%
7	YORW	York Water Company	2.34%	6.8%
8	Mean		2.47%	7.57%
9				

P -- DCF ANALYSIS

Dividend Yield (D_1 / P_0)	DCF Rates
2.3%	10.4%
2.3%	13.0%
3.3%	12.6%
3.2%	7.2%
2.2%	9.0%
2.2%	9.4%
2.4%	9.3%
2.56%	10.14%

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CAPM Risk Premium

**STANDARD & POOR'S 500 COMPOSITE
20-YEAR U.S. TREASURY BOND YIELDS
RISK PREMIUMS**

Line		[A]	[B]	[C]	[D]	[E]
No.	Year	EPS	BVPS	ROE	20-YEAR T-BOND	RISK PREMIUM
1	1977		\$79.07			
2	1978	\$12.33	\$85.35	15.00%	7.90%	7.10%
3	1979	\$14.86	\$94.27	16.55%	8.86%	7.69%
4	1980	\$14.82	\$102.48	15.06%	9.97%	5.09%
5	1981	\$15.36	\$109.43	14.50%	11.55%	2.95%
6	1982	\$12.64	\$112.46	11.39%	13.50%	-2.11%
7	1983	\$14.03	\$116.93	12.23%	10.38%	1.85%
8	1984	\$16.64	\$122.47	13.90%	11.74%	2.16%
9	1985	\$14.61	\$125.20	11.80%	11.25%	0.55%
10	1986	\$14.48	\$126.82	11.49%	8.98%	2.51%
11	1987	\$17.50	\$134.07	13.42%	7.92%	5.50%
12	1988	\$23.75	\$141.32	17.25%	8.97%	8.28%
13	1989	\$22.87	\$147.26	15.85%	8.81%	7.04%
14	1990	\$21.73	\$153.01	14.47%	8.19%	6.28%
15	1991	\$16.29	\$158.85	10.45%	8.22%	2.23%
16	1992	\$18.86	\$149.74	12.22%	7.26%	4.96%
17	1993	\$21.89	\$180.88	13.24%	7.17%	6.07%
18	1994	\$30.60	\$193.06	16.37%	6.59%	9.78%
19	1995	\$33.96	\$216.51	16.58%	7.60%	8.98%
20	1996	\$38.73	\$237.08	17.08%	6.18%	10.90%
21	1997	\$39.72	\$249.52	16.33%	6.64%	9.69%
22	1998	\$37.71	\$266.40	14.62%	5.83%	8.79%
23	1999	\$48.17	\$290.68	17.29%	5.57%	11.72%
24	2000	\$50.00	\$325.80	16.22%	6.50%	9.72%
25	2001	\$24.70	\$338.37	7.44%	5.53%	1.91%
26	2002	\$27.59	\$321.72	8.36%	5.59%	2.77%
27	2003	\$48.73	\$367.17	14.15%	4.80%	9.35%
28	2004	\$58.55	\$414.75	14.98%	5.02%	9.96%
29	2005	\$69.93	\$453.06	16.12%	4.69%	11.43%
30	2006	\$81.51	\$504.39	17.03%	4.68%	12.35%
31	2007	\$66.18	\$529.59	12.80%	4.86%	7.94%

32	2008	\$14.88	\$451.37	3.03%	4.45%	-1.42%
33	2009	\$50.97	\$513.58	10.56%	3.47%	7.09%
34	2010	\$77.35	\$579.14	14.16%	4.25%	9.91%
35	2011	\$86.95	\$613.14	14.59%	3.82%	10.77%
36	2012	\$86.51	\$666.97	13.52%	2.46%	11.06%
37	2013	\$100.20	\$715.84	14.49%	2.88%	11.61%
38	2014	\$102.31	\$726.96	14.18%	3.41%	10.77%
39	2015	\$86.53	\$740.29	11.79%	2.55%	9.24%
40	2016	\$94.55	\$768.98	12.53%	2.30%	10.23%
41	2017	\$109.88	\$826.52	13.77%	2.65%	11.12%
42	2018	\$132.39	\$851.62	15.78%	3.11%	12.67%
43	2019	\$139.47	\$914.49	15.79%	2.40%	13.39%
44	2020	\$94.13	\$927.52	10.22%	1.35%	8.87%
45	2021	\$197.84	\$1,008.02	20.44%	1.98%	18.46%
45	2022	\$172.75	\$1,024.56	17.00%	3.30%	13.70%
46	2023	\$192.43	\$1,106.21	18.06%	4.26%	13.80%
Average				13.90%	5.88%	8.02%

[A]: Diluted earnings per share on the S&P 500 Composite Index.

[B]: Book value per share on the S&P 500 Composite Index.

[C]: Average of current- and prior year [B] / current year [A].

[D]: Annual income returns on 20-year U.S. Treasury bonds.

[E]: [C] - [D]

Sources for [A] and [B]:

Standard & Poor's 500 Earnings and Book Value Per Share:

https://ycharts.com/indicators/reports/sp_500_earnings

Quarterly data is annualized

https://ycharts.com/indicators/sandp_500_book_value_per_share

Source for [D]: U.S. Department of the Treasury

<https://www.treasury.gov/Pages/default.aspx>

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 CAPM Results

CAPITAL ASSET PRICING MODEL -- PROXY COMPANIES

Line No	Proxy Group Companies	Risk Free Rate	BETA	
1	AWR American States Water Co.	4.27%	0.70	X
2	AWK American Water Works Co., Inc.	4.27%	0.95	X
3	WTRG Essential Utilities, Inc.	4.27%	1.00	X
4	ARTNA Artesian Resources Corp.	4.27%	0.75	X
5	CWT California Water Service Gp.	4.27%	0.75	X
6	MSEX Middlesex Water	4.27%	0.75	X
7	YORW York Water Company	4.27%	0.82	X
8	Average			
9				
10	<u>Risk Free Rate: 20 year Treasury Bonds</u>			
11	18-Sep-24	4.08%		
12	19-Aug-24	4.23%		
13	18-Jul-24	4.51%		
14	Average	4.27%		
15	20 Year T Bonds Source			
16	https://home.treasury.gov/resource-center/data-chart-center/interest-rates/TextView?type			
17	Beta: Value Line Reports July 2024			

NY COST RATES

<u>Risk Premium</u>		<u>Beta X Risk Premium</u>	<u>CAPM Rates</u>
8.02%	=	5.61%	9.89%
8.02%	=	7.62%	11.89%
8.02%	=	8.02%	12.29%
8.02%	=	6.01%	10.29%
8.02%	=	6.01%	10.29%
8.02%	=	6.01%	10.29%
8.02%	=	6.59%	10.86%
			<u>10.83%</u>

[=daily treasury long term rate&field tdr date value=2024](#)