# **Debt/Equity Ratios**

#### 11 Water Companies

			Percent	Percent
Company	Equity	Change	Equity	Debt
Aqua America Inc.	1,655,000,000	1,620,000,000	50.5%	49.5%
Artesian Resources Corp.	125,605,000	106,199,000	54.2%	45.8%
American States Water Co.	507,000,000	326,000,000	60.9%	39.1%
American Water Works Co.	4,916,000,000	5,509,000,000	47.2%	52.8%
California Water Service Group	627,000,000	426,000,000	59.5%	40.5%
Connecticut Water Service, Inc.	209,451,000	179,058,000	53.9%	46.1%
Global Water Resources Corp.	27,736,000	130,407,000	17.5%	82.5%
Middlesex Water Co.	197,000,000	142,000,000	58.1%	41.9%
New England Service Co.	13,148,390	8,707,981	60.2%	39.8%
SJW Corp.	360,000,000	385,000,000	48.3%	51.7%
York Water Company	104,563	84,885,000	0.1%	99.9%
Average			46.4%	53.6%
Average Excluding Outlier			51.0%	49.0%

Source: S&P Capital IQ; NESC Annual Report.

#### **Real Gross Domestic Product**

Annual Rate of Quarterly Growth

D.	ъ.	ъ.	Percent		Percent	ъ.	Percent
Date	Percent	Date	Change		Change	Date	Change
01/01/79	0.8%	04/01/89	3.1%	07/01/99	5.0%	10/01/09	3.9%
04/01/79	0.5%	07/01/89	3.0%	10/01/99	6.9%	01/01/10	1.7%
07/01/79	2.9%	10/01/89	0.8%	01/01/00	1.2%	04/01/10	3.9%
10/01/79	1.0%	01/01/90	4.4%	04/01/00	7.6%	07/01/10	2.7%
01/01/80	1.3%	04/01/90	1.5%	07/01/00	0.5%	10/01/10	2.5%
04/01/80	-8.1%	07/01/90	0.1%	10/01/00	2.3%	01/01/11	-1.5%
07/01/80	-0.6%	10/01/90	-3.4%	01/01/01	-1.1%	04/01/11	2.9%
10/01/80	7.4%	01/01/91	-1.9%	04/01/01	2.1%	07/01/11	0.8%
01/01/81	8.3%	04/01/91	3.1%	07/01/01	-1.3%	10/01/11	4.5%
04/01/81	-2.9%	07/01/91	1.9%	10/01/01	1.1%	01/01/12	2.7%
07/01/81	4.6%	10/01/91	1.7%	01/01/02	3.7%	04/01/12	1.9%
10/01/81	-4.7%	01/01/92	4.7%	04/01/02	2.2%	07/01/12	0.5%
01/01/82	-6.7%	04/01/92	4.4%	07/01/02	1.9%	10/01/12	0.1%
04/01/82	2.2%	07/01/92	3.9%	10/01/02	0.3%	01/01/13	1.9%
07/01/82	-1.4%	10/01/92	4.0%	01/01/03	2.1%	04/01/13	1.1%
10/01/82	0.4%	01/01/93	0.7%	04/01/03	3.7%	07/01/13	2.9%
01/01/83	5.2%	04/01/93	2.4%	07/01/03	6.7%	10/01/13	3.8%
04/01/83	9.1%	07/01/93	1.9%	10/01/03	4.7%	01/01/14	-0.9%
07/01/83	7.8%	10/01/93	5.3%	01/01/04	2.3%	04/01/14	4.5%
10/01/83	8.3%	01/01/94	3.9%	04/01/04	2.9%	07/01/14	4.2%
01/01/84	7.9%	04/01/94	5.5%	07/01/04	3.6%	10/01/14	2.1%
04/01/84	7.0%	07/01/94	2.4%	10/01/04	3.5%	01/01/15	0.6%
07/01/84	3.9%	10/01/94	4.5%	01/01/05	4.3%	04/01/15	3.9%
10/01/84	3.2%	01/01/95	1.4%	04/01/05	2.1%	07/01/15	2.0%
01/01/85	4.0%	04/01/95	1.4%	07/01/05	3.4%	10/01/15	1.0%
04/01/85	3.7%	07/01/95	3.4%	10/01/05	2.3%		
07/01/85	6.2%	10/01/95	2.8%	01/01/06	4.8%		
10/01/85	3.0%	01/01/96	2.6%	04/01/06	1.2%		
01/01/86	3.7%	04/01/96	7.0%	07/01/06	0.4%		
04/01/86	1.8%	07/01/96	3.7%	10/01/06	3.1%		
07/01/86	4.0%	10/01/96	4.2%	01/01/07	0.2%		
10/01/86	2.1%	01/01/97	3.0%	04/01/07	3.1%		
01/01/87	2.8%	04/01/97	6.0%	07/01/07	2.7%		
04/01/87	4.5%	07/01/97	5.1%	10/01/07	1.4%		
07/01/87	3.6%	10/01/97	3.1%	01/01/08	-2.7%		
10/01/87	6.6%	01/01/98	4.0%	04/01/08	2.0%		
01/01/88	2.2%	04/01/98	3.9%	07/01/08	-1.9%		
04/01/88	5.3%	07/01/98	5.2%	10/01/08	-8.5%		
07/01/88	2.3%	10/01/98	6.6%	01/01/09	-5.5%		
10/01/88	5.3%	01/01/99	3.2%	04/01/09	-0.5%		
01/01/89	4.0%	04/01/99	3.3%	07/01/09	1.3%		

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# **Unemployment Rates**

Annual

Date	Civilian Unemployment	U 6
1990	5.6%	
1991	6.9%	
1992	7.5%	
1993	6.9%	
1994	6.1%	10.8%
1995	5.6%	10.0%
1996	5.4%	9.6%
1997	4.9%	8.8%
1998	4.5%	8.0%
1999	4.2%	7.4%
2000	4.0%	7.0%
2001	4.7%	8.1%
2002	5.8%	9.6%
2003	6.0%	10.1%
2004	5.5%	9.6%
2005	5.1%	8.9%
2006	4.6%	8.2%
2007	4.6%	8.3%
2008	5.8%	10.6%
2009	9.3%	16.3%
2010	9.6%	16.7%
2011	8.9%	15.9%
2012	8.1%	14.7%
2013	7.4%	13.8%
2014	6.2%	12.0%
2015	5.3%	10.5%
Average	6.1%	10.7%

#### **Return on Common Equity**

All Manufacturing Corporations

	4 Quarter Moving Averages					
	First	Second	Third	Fourth		
Year Ended	Quarter	Quarter	Quarter	Quartei		
1970	11.0%	10.45%	9.98%	9.3%		
1971	9.3%	9.33%	9.40%	9.68%		
1972	9.8%	9.98%	10.18%	10.60%		
1973	11.1%	11.80%	12.35%	13.05%		
1974	13.7%	14.40%	15.18%	14.90%		
1975	13.6%	12.35%	11.60%	11.58%		
1976	12.7%	13.63%	13.95%	13.95%		
1977	13.9%	13.95%	13.85%	14.18%		
1978	14.0%	14.18%	14.58%	15.00%		
1979	15.8%	16.20%	16.55%	16.45%		
1980	16.4%	15.25%	14.30%	13.88%		
1981	13.4%	13.93%	14.15%	13.65%		
1982	12.8%	11.50%	10.45%	9.3%		
1983	8.7%	8.80%	9.33%	10.5%		
1984	11.7%	12.55%	12.70%	12.5%		
1985	12.0%	11.08%	10.58%	10.2%		
1986	9.8%	10.10%	9.73%	9.5%		
1987	10.1%	10.58%	12.13%	12.9%		
1988	14.0%	14.80%	15.13%	16.1%		
1989	15.9%	15.23%	14.55%	13.5%		
1990	12.4%	12.13%	11.60%	10.6%		
1991	9.6%	8.40%	7.25%	6.3%		
1992	0.2%	0.88%	1.85%	2.0%		
1993	7.5%	7.03%	6.80%	8.0%		
1994	10.2%	12.03%	13.80%	15.7%		
1995	16.8%	17.18%	17.03%	16.0%		
1996	15.6%	15.38%	15.95%	16.7%		
1997	17.0%	17.18%	16.80%	16.7%		
1998	17.5%	16.60%	16.53%	15.8%		
1999	14.8%	15.60%	15.65%	16.5%		
2000	17.0%	16.75%	16.50%	15.0%		
2000	10.5%	7.50%	4.10%	2.0%		
2002	3.3%	4.58%	6.25%	7.5%		
2003	9.3%	9.68%	10.18%	12.1%		
2004	12.6%	13.93%	15.28%	15.8%		
2005	16.1%	16.18%	16.58%	16.7%		
2006	17.5%	17.55%	17.70%	17.6%		
2007	17.2%	17.30%	15.40%	15.2%		
2008	14.8%	13.63%	14.98%	8.0%		
2009	5.5%	4.78%	4.18%	10.8%		
2010	12.95%	13.90%	14.40%	15.00%		
2011	15.63%	16.50%	16.80%	16.95%		
2012	16.83%	16.60%	16.08%	15.58%		
2013	15.55%	15.25%	15.43%	15.70%		
2014	15.10%	15.03%	15.23%	15.10%		
2015	14.73%	13.98%	13.48%			

#### **Return on Common Equity**

All Manufacturing Corporations

		4 Quarter Moving Av	4 Quarter Moving Averages			
	First	Second	Third	Fourth		
Year Ended	Quarter	Quarter	Quarter	Quarte		
30-year moving averages						
1980-2009	12.3%	12.3%	12.2%	12.22%		
1981-2010	12.2%	12.2%	12.3%	12.26%		
1982-2011	12.3%	12.3%	12.3%	12.37%		
1983-2012	12.4%	12.5%	12.5%	12.58%		
1984-2013	12.6%	12.7%	12.7%	12.75%		
1985-2014	12.8%	12.8%	12.8%	12.84%		
1986-2015	12.9%	12.9%	12.9%			
20-year moving averages						
1990-2009	12.3%	12.2%	12.2%	12.24%		
1991-2010	12.3%	12.3%	12.4%	12.5%		
1992-2011	12.6%	12.7%	12.8%	13.0%		
1993-2012	13.4%	13.5%	13.5%	13.7%		
1994-2013	13.8%	13.9%	14.0%	14.1%		
1995-2014	14.1%	14.1%	14.1%	14.0%		
1996-2015	14.0%	13.9%	13.9%			
15-year moving averages						
1995-2009	13.7%	13.6%	13.5%	13.5%		
1996-2010	13.4%	13.4%	13.4%	13.4%		
1997-2011	13.4%	13.4%	13.4%	13.4%		
1998-2012	13.4%	13.4%	13.4%	13.4%		
1999-2013	13.3%	13.3%	13.3%	13.3%		
2000-2014	13.3%	13.3%	13.3%	13.3%		
2001-2015	13.2%	13.1%	13.1%			
10-year moving averages						
2000-2009	12.4%	12.2%	12.1%	12.1%		
2001-2010	12.0%	11.9%	11.9%	12.1%		
2002-2011	12.5%	12.8%	13.2%	13.6%		
2003-2012	13.8%	14.0%	14.2%	14.4%		
2004-2013	14.4%	14.6%	14.7%	14.7%		
2005-2014	14.7%	14.7%	14.7%	14.6%		
2006-2015	14.6%	14.5%	14.4%			
5-year moving averages						
2005-2009	14.2%	13.9%	13.8%	13.6%		
2006-2010	13.6%	13.4%	13.3%	13.3%		
2007-2011	13.2%	13.2%	13.2%	13.2%		
2008-2012	13.1%	13.1%	13.3%	13.3%		
2009-2013	13.3%	13.4%	13.4%	14.8%		
2010-2014	15.2%	15.5%	15.6%	15.7%		
2011-2015	15.6%	15.5%	15.4%			

# **Monthly Interest Rates**

Month	3 Month T-Bills	20 Year T-Bonds	Moody's Aaa Bonds	Moody's Baa Bonds
	T Dillo	T Donas	Tida Bolida	Dua Donas
2007-09	3.89	4.84	5.74	6.59
2007-10	3.90	4.83	5.66	6.48
2007-11	3.27	4.56	5.44	6.40
2007-12	3.00	4.57	5.49	6.65
2008-01	2.75	4.35	5.33	6.54
2008-02	2.12	4.49	5.53	6.82
2008-03	1.26	4.36	5.51	6.89
2008-04	1.29	4.44	5.55	6.97
2008-05	1.73	4.60	5.57	6.93
2008-06	1.86	4.74	5.68	7.07
2008-07	1.63	4.62	5.67	7.16
2008-08	1.72	4.53	5.64	7.15
2008-09	1.13	4.32	5.65	7.31
2008-10	0.67	4.45	6.28	8.88
2008-11	0.19	4.27	6.12	9.21
2008-12	0.03	3.18	5.05	8.43
2009-01	0.13	3.46	5.05	8.14
2009-02	0.30	3.83	5.27	8.08
2009-03	0.21	3.78	5.50	8.42
2009-04	0.16	3.84	5.39	8.39
2009-05	0.18	4.22	5.54	8.06
2009-06	0.18	4.51	5.61	7.50
2009-07	0.18	4.38	5.41	7.09
2009-08	0.17	4.33	5.26	6.58
2009-09	0.12	4.14	5.13	6.31
2009-10	0.07	4.16	5.15	6.29
2009-11	0.05	4.24	5.19	6.32
2009-12	0.05	4.40	5.26	6.37
2010-01	0.06	4.50	5.26	6.25
2010-02	0.11	4.48	5.35	6.34
2010-03	0.15	4.49	5.27	6.27
2010-04	0.16	4.53	5.29	6.25
2010-05	0.16	4.11	4.96	6.05
2010-06	0.12	3.95	4.88	6.23

# **Monthly Interest Rates**

	3 Month	20 Year	Moody's	Moody's
Month	T-Bills	T-Bonds	Aaa Bonds	Baa Bonds
2010-07	0.16	3.80	4.72	6.01
2010-08	0.16	3.52	4.49	5.66
2010-09	0.15	3.47	4.53	5.66
2010-10	0.13	3.52	4.68	5.72
2010-11	0.14	3.82	4.87	5.92
2010-12	0.14	4.17	5.02	6.10
2011-01	0.15	4.28	5.04	6.09
2011-02	0.13	4.42	5.22	6.15
2011-03	0.10	4.27	5.13	6.03
2011-04	0.06	4.28	5.16	6.02
2011-05	0.04	4.01	4.96	5.78
2011-06	0.04	3.91	4.99	5.75
2011-07	0.04	3.95	4.93	5.76
2011-08	0.02	3.24	4.37	5.36
2011-09	0.01	2.83	4.09	5.27
2011-10	0.02	2.87	3.98	5.37
2011-11	0.01	2.72	3.87	5.14
2011-12	0.01	2.67	3.93	5.25
2012-01	0.03	2.70	3.85	5.23
2012-02	0.09	2.75	3.85	5.14
2012-03	0.08	2.94	3.99	5.23
2012-04	0.08	2.82	3.96	5.19
2012-05	0.09	2.53	3.80	5.07
2012-06	0.09	2.31	3.64	5.02
2012-07	0.10	2.22	3.40	4.87
2012-08	0.10	2.40	3.48	4.91
2012-09	0.11	2.49	3.49	4.84
2012-10	0.10	2.51	3.47	4.58
2012-11	0.09	2.39	3.50	4.51
2012-12	0.07	2.47	3.65	4.63
2013-01	0.07	2.68	3.80	<b>4.7</b> 3
2013-02	0.10	2.78	3.90	4.85
2013-03	0.09	2.78	3.93	4.85
2013-04	0.06	2.55	3.73	4.59

# **Monthly Interest Rates**

Month	3 Month T-Bills	20 Year T-Bonds	Moody's Aaa Bonds	Moody's Baa Bonds
	I-Dill3	1-Dollus	Add Dollus	Dad Dollus
2013-05	0.04	2.73	3.89	4.73
	0.04			
2013-06 2013-07	0.05	3.07 3.31	4.27 4.34	5.19 5.32
	0.04			5.42
2013-08		3.49	4.54	
2013-09	0.02	3.53	4.64	5.47
2013-10	0.05	3.38	4.53	5.31
2013-11	0.07	3.50	4.63	5.38
2013-12	0.07	3.63	4.62	5.38
2014-01	0.04	3.52	4.49	5.19
2014-02	0.05	3.38	4.45	5.10
2014-03	0.05	3.35	4.38	5.06
2014-04	0.03	3.27	4.24	4.90
2014-05	0.03	3.12	4.16	4.76
2014-06	0.04	3.15	4.25	4.80
2014-07	0.03	3.07	4.16	4.73
2014-08	0.03	2.94	4.08	4.69
2014-09	0.02	3.01	4.11	4.80
2014-10	0.02	2.77	3.92	4.69
2014-11	0.02	2.76	3.92	4.79
2014-12	0.03	2.55	3.79	4.74
2015-01	0.03	2.20	3.46	4.45
2015-02	0.02	2.34	3.61	4.51
2015-03	0.03	2.41	3.64	4.54
2015-04	0.02	2.33	3.52	4.48
2015-05	0.02	2.69	3.98	4.89
2015-06	0.02	2.85	4.19	5.13
2015-07	0.03	2.77	4.15	5.20
2015-08	0.07	2.55	4.04	5.19
2015-09	0.02	2.62	4.07	5.34
	0.02	2.50		5.34
2015-10			3.95	
2015-11	0.12	2.69	4.06	5.46
2015-12	0.23	2.61	3.97	5.46
2016-01	0.26	2.49	4.00	5.45
2016-02	0.31	2.20	3.96	5.34

#### **Annual Interest Rates**

	3 Month	20 Year	Moody's	Moody's	
Year	T-Bills	T-Bonds	Aaa Bonds	Baa Bonds	
1994	4.25	7.49	7.96	8.62	
1995	5.49	6.96	7.59	8.20	
1996	5.01	6.82	7.37	8.05	
1997	5.06	6.68	7.26	7.86	
1998	4.79	5.72	6.53	7.22	
1999	4.64	6.19	7.05	7.88	
2000	5.82	6.23	7.62	8.37	
2001	3.40	5.63	7.08	7.95	
2002	1.61	5.43	6.49	7.80	
2003	1.01	4.96	5.66	6.76	
2004	1.37	5.05	5.63	6.39	
2005	3.15	4.65	5.23	6.06	
2006	4.73	4.99	5.59	6.48	
2007	4.36	4.91	5.56	6.48	
2008	1.39	4.36	5.63	7.44	
2009	0.15	4.11	5.31	7.29	
2010	0.14	4.03	4.94	6.04	
2011	0.05	3.62	4.64	5.66	
2012	0.09	2.54	3.67	4.94	
2013	0.06	3.12	4.23	5.10	
2014	0.03	3.07	4.16	4.85	
2015	0.05	2.55	3.89	5.00	

### **Market Returns: Large Companies**

Year	Returns	Year	Returns	Year	Returns
1926	11.6%	1957	-10.8%	1988	16.8%
1927	37.5%	1958	43.4%	1989	31.5%
1928	43.6%	1959	12.0%	1990	-3.2%
1929	-8.4%	1960	0.5%	1991	30.6%
1930	-24.9%	1961	26.9%	1992	7.7%
1931	-43.3%	1962	-8.7%	1993	10.0%
1932	-8.2%	1963	22.8%	1994	1.3%
1933	53.4%	1964	16.5%	1995	37.4%
1934	-1.4%	1965	12.5%	1996	23.1%
1935	47.7%	1966	-10.1%	1997	33.4%
1936	33.9%	1967	24.0%	1998	28.6%
1937	-35.0%	1968	11.1%	1999	21.0%
1938	31.1%	1969	-8.5%	2000	-9.1%
1939	-0.4%	1970	4.0%	2001	-11.9%
1940	-9.8%	1971	14.3%	2002	-22.1%
1941	-11.6%	1972	19.0%	2003	28.7%
1942	20.3%	1973	-14.7%	2004	10.9%
1943	25.9%	1974	-26.5%	2005	4.9%
1944	19.8%	1975	37.2%	2006	15.8%
1945	36.4%	1976	23.8%	2007	5.5%
1946	-8.1%	1977	-7.2%	2008	-37.0%
1947	5.7%	1978	6.6%	2009	26.5%
1948	5.5%	1979	18.4%	2010	15.1%
1949	18.8%	1980	32.4%	2011	2.1%
1950	31.7%	1981	-4.9%	2012	16.0%
1951	24.0%	1982	21.4%	2013	32.4%
1952	18.4%	1983	22.5%	2014	13.7%
1953	-1.0%	1984	6.3%	2015	1.4%
1954	52.6%	1985	32.2%		
1955	31.6%	1986	18.5%		
1956	6.6%	1987	5.2%		

Source: Ibbotson Associates, Stocks Bonds Bills and Inflation, Annual Yearbook; S&P Large Cap Index

#### **Market Returns: Moving Averages**

	5 Year	10 Year	15 Year	20 Year	25 Year	30 Year
Year/Period	Average	Average	Average	Average	Average	Average
1975	11.1%	9.1%	10.0%	10.0%	10.0%	10.3%
1976	16.1%	10.2%	10.9%	10.9%	10.9%	10.1%
1977	16.0%	9.1%	10.3%	10.9%	10.9%	10.9%
1978	6.8%	17.2%	11.3%	11.1%	11.1%	11.1%
1979	18.5%	14.6%	11.6%	11.8%	11.8%	11.8%
1980	11.5%	14.0%	10.9%	11.3%	11.3%	11.3%
1981	11.1%	17.2%	12.3%	12.0%	12.0%	12.0%
1982	16.1%	16.4%	11.1%	11.3%	11.8%	11.8%
1983	18.0%	11.8%	16.9%	11.9%	11.8%	11.8%
1984	15.5%	17.2%	15.2%	11.2%	11.5%	11.5%
1985	15.5%	15.5%	14.4%	11.9%	12.2%	12.2%
1986	20.2%	13.8%	14.9%	11.8%	12.5%	12.5%
1987	16.9%	15.9%	16.7%	12.3%	12.7%	13.1%
1988	15.8%	16.9%	14.6%	16.7%	13.7%	13.5%
1989	20.8%	18.2%	16.1%	16.5%	13.7%	13.7%
1990	13.8%	14.6%	15.7%	16.7%	13.0%	13.1%
1991	16.2%	18.2%	14.7%	18.0%	14.3%	12.5%
1992	16.7%	16.8%	15.7%	17.3%	13.3%	11.3%
1993	15.3%	15.5%	16.4%	13.4%	15.9%	12.2%
1994	9.3%	15.1%	15.2%	16.4%	13.7%	11.9%
1995	17.4%	15.6%	15.5%	15.7%	13.9%	11.6%
1996	15.9%	16.0%	17.4%	16.2%	14.6%	12.4%
1997	21.0%	18.9%	18.2%	17.9%	14.5%	11.9%
1998	24.8%	20.0%	18.6%	18.5%	16.3%	14.6%
1999	28.7%	19.0%	19.6%	18.6%	17.0%	13.6%
2000	19.4%	18.4%	16.8%	16.5%	15.1%	11.7%
2001	12.4%	14.1%	14.8%	16.2%	13.3%	12.8%
2002	1.3%	11.2%	13.0%	14.0%	14.7%	13.0%
2003	1.3%	13.0%	13.8%	14.3%	15.0%	13.6%
2004	-0.7%	14.0%	12.4%	14.5%	14.7%	14.6%
2005	2.1%	10.7%	13.0%	13.2%	13.6%	13.9%
2006	7.6%	10.0%	12.0%	13.0%	14.5%	13.3%
2007	13.2%	7.2%	11.8%	13.0%	13.8%	12.3%
2008	0.0%	0.7%	8.7%	10.4%	11.4%	12.5%
2009	3.1%	1.2%	10.4%	10.1%	12.2%	12.8%
2010	5.2%	3.6%	8.9%	11.0%	11.6%	12.2%
2011 2012	2.4%	5.0%	7.5%	9.6%	10.9%	12.5%
	4.5%	8.8%	6.3%	10.0%	11.3%	12.3%
2013	18.4%	9.2%	6.6%	11.1%	12.0%	12.6%
2014 2015	15.9% 13.1%	9.5% 9.1%	6.1% 6.8%	11.7% 9.9%	11.2% 11.4%	12.8% 11.8%
	13.17.0	5.170	0.070	3.370	111170	111070
Cumulative Averages						
1992-2011	10.8%	12.1%	13.8%	14.3%	14.0%	13.0%
1993-2012	10.2%	11.7%	13.3%	13.9%	13.8%	13.0%
1994-2013	10.4%	11.4%	12.8%	13.6%	13.6%	12.9%
1995-2014	10.7%	11.1%	12.1%	13.3%	13.3%	12.9%
1996-2015	10.5%	10.7%	11.5%	12.8%	12.9%	12.9%
1976-2015	12.9%	13.2%	13.6%	14.0%	13.4%	12.4%
1981-2015	12.8%	13.1%	13.4%	13.9%	13.4%	12.6%
1986-2015	12.4%	12.6%	13.1%	14.2%	13.6%	12.7%
1991-2015	11.4%	11.8%	12.6%	13.7%	13.5%	12.9%
1996-2015	10.5%	10.7%	11.5%	12.8%	12.9%	12.9%

#### **2015 Dividend Yields**

#### 11 Water Companies

	Annual		Dividend
Company	Dividend	Price	Yield
Aqua America Inc.	0.69	27.75	2.5%
Artesian Resources Corp.	0.87	24.58	3.6%
American States Water Co.	0.87	40.62	2.2%
American Water Works Co.	1.33	54.78	2.4%
California Water Service Group	0.67	22.77	2.9%
Connecticut Water Service, Inc.	1.05	36.57	2.9%
Global Water Resources Corp.	0.25	5.43	4.5%
Middlesex Water Co.	0.78	24.63	3.2%
New England Service Co.	1.26	54.10	2.3%
SJW Corp.	0.78	31.64	2.5%
York Water Company	0.60	23.18	2.6%
Average			2.9%

Source: Yahoo Finance

#### **Current Dividend Yields**

#### 11 Water Companies

	Annual		Dividend
Company	Dividend	Price	Yield
Aqua America Inc.	0.71	30.35	2.3%
Artesian Resources Corp.	0.89	28.85	3.1%
American States Water Co.	0.90	43.20	2.1%
American Water Works Co.	1.36	63.97	2.1%
California Water Service Group	0.69	24.52	2.8%
Connecticut Water Service, Inc.	1.07	40.71	2.6%
Global Water Resources Corp.	0.08	5.23	1.5%
Middlesex Water Co.	0.80	27.95	2.8%
New England Service Co.	1.38	58.00	2.4%
SJW Corp.	0.81	33.10	2.5%
York Water Company	0.62	26.84	2.3%
Average			2.4%

Source: Yahoo Finance

**Dividend Growth** 

11 Water Companies

	Aqua America Inc.	Artesian Resources Corp.	American States Water Co.	American Water Works Co.	California Water Service Group	Connecticut Water Service, Inc.
	WTR	ARTNA	AWR	AWK	CWT	CTWS
2007	\$0.38	\$0.67	\$0.48	\$0.00	\$0.58	\$0.85
2008	\$0.41	\$0.71	\$0.50	\$0.40	\$0.59	\$0.87
2009	\$0.44	\$0.72	\$0.51	\$0.82	\$0.59	\$0.89
2010	\$0.47	\$0.75	\$0.52	\$0.86	\$0.59	\$0.92
2011	\$0.50	\$0.76	\$0.55	\$0.90	\$0.61	\$0.94
2012	\$0.54	\$0.79	\$0.64	\$1.21	\$0.63	\$0.77
2013	\$0.58	\$0.82	\$0.76	\$0.84	\$0.64	\$0.97
2014	\$0.63	\$0.85	\$0.83	\$1.21	\$0.65	\$1.01
2015	\$0.69	\$0.87	\$0.87	\$1.33	\$0.67	\$1.05
Ann. Growth Rates (n=6)						
2007-13	7.4%	3.5%	8.1%	NM	1.6%	2.2%
2008-14	7.6%	3.1%	8.8%	20.3%	1.8%	2.4%
2009-15	7.7%	3.2%	9.6%	8.4%	2.1%	2.7%
Ann. Growth Rates (n=4)						
2009-13	7.3%	3.3%	10.8%	0.6%	2.0%	2.2%
2010-14	7.7%	3.0%	12.4%	8.9%	2.2%	2.4%
2011-15	8.0%	3.5%	12.3%	10.3%	2.2%	2.9%
Ann. Growth Rates (n=2)						
2011-13	7.6%	3.9%	17.6%	-3.4%	1.9%	2.0%
2012-14	8.8%	3.5%	14.4%	0.0%	1.6%	14.0%
2013-15	8.4%	3.0%	7.2%	25.8%	2.4%	3.8%

Source: S&P Capital IQ; NESC Annual Report; 10-K's. 140

# **Dividend Growth**11 Water Companies

	Global Water Resources Corp. GWGWF	Middlesex Water Co.	New England Service Co.	SJW Corp.	York Water Company	
		MSEX	NESW	SJW	YORW	Average
Dividends						
2007	\$0.00	\$0.70	\$0.63	\$0.62	\$0.47	
2008	\$0.00	\$0.72	\$0.63	\$0.66	\$0.49	
2009	\$0.00	\$0.68	\$0.70	\$0.64	\$0.48	
2010	\$0.00	\$0.66	\$0.72	\$0.66	\$0.51	
2011	\$0.00	\$0.71	\$0.82	\$0.67	\$0.52	
2012	\$0.00	\$0.73	\$0.98	\$0.70	\$0.54	
2013	\$0.00	\$0.75	\$1.06	\$0.73	\$0.56	
2014	\$0.37	\$0.76	\$1.14	\$0.75	\$0.58	
2015	\$0.25	\$0.78	\$1.26	\$0.78	\$0.60	
Ann. Growth Rates (n=6)						
2007-13	NM	1.0%	9.1%	2.9%	2.7%	4.3%
2008-14	NM	1.0%	10.4%	2.2%	3.0%	6.1%
2009-15	NM	2.1%	10.3%	3.3%	3.7%	5.3%
Ann. Growth Rates (n=4)						
2009-13	NM	2.2%	10.9%	3.3%	3.6%	4.6%
2010-14	NM	3.9%	12.2%	3.1%	3.1%	5.9%
2011-15	NM	2.1%	11.3%	3.7%	3.3%	6.0%
Ann. Growth Rates (n=2)						
2011-13	NM	2.2%	13.7%	4.0%	3.0%	5.3%
2012-14	NM	2.3%	7.9%	3.8%	4.0%	6.0%
2013-15	NM	2.0%	9.0%	3.4%	3.7%	6.9%

Source: S&P Capital IQ; NESC Annual Report; 10-K's.

**Dividend Growth** 11 Water Companies Excluding Outliers

	Aqua America Inc. WTR	Artesian Resources Corp. ARTNA	American States Water Co. AWR	American Water Works Co. AWK	California Water Service Group CWT	Connecticut Water Service, Inc. CTWS
Dividend Growth Excluding Outliers						
2008	7.4%	5.6%	4.7%		0.9%	2.1%
2009	7.8%	2.2%	1.0%		0.8%	2.7%
2010	7.3%	4.1%	3.0%	4.9%	0.8%	2.3%
2011	6.8%	1.3%	5.8%	4.7%	3.3%	2.3%
2012	6.3%	3.9%	15.5%		2.5%	-17.3%
2013	9.0%	4.0%	19.7%		1.4%	
2014	8.6%	3.0%	9.3%		1.8%	3.2%
2015	8.2%	3.0%	5.2%	9.9%	3.1%	4.4%
Ann. Growth Rates (n=6)						
2007-13	7.4%	3.5%	8.3%	4.8%	1.6%	-1.6%
2008-14	7.6%	3.1%	9.0%	4.8%	1.8%	-1.4%
2009-15	7.7%	3.2%	9.7%	6.5%	2.1%	-1.0%
Ann. Growth Rates (n=4)						
2009-13	7.3%	3.3%	11.0%	4.8%	2.0%	-4.2%
2010-14	7.7%	3.0%	12.6%	4.7%	2.2%	-4.0%
2011-15	8.0%	3.5%	12.4%	9.9%	2.2%	-3.2%
Ann. Growth Rates (n=2)						
2011-13	7.3%	3.3%	11.0%	4.8%	2.0%	-4.2%
2012-14	7.7%	3.3%	12.0%	6.4%	2.1%	-3.8%
2013-15	8.0%	3.5%	12.4%	9.9%	2.2%	-3.2%

Source: S&P Capital IQ; NESC Annual Report; 10-K's.

Note: Annual changes of more than 20% and less than -20% were removed.

**Dividend Growth** 11 Water Companies Excluding Outliers

	Global Water Resources Corp. GWGWF	Middlesex Water Co.	New England Service Co.	SJW Corp.	York Water Company	
		MSEX	NESW	SJW	YORW	Average
Dividend Growth Excluding Outliers						
2008		2.3%	0.0%	7.1%	2.7%	
2009		-4.9%	11.1%	-2.7%	-0.9%	
2010		-4.0%	2.9%	3.3%	6.4%	
2011		8.8%	13.9%	1.7%	2.3%	
2012		2.1%	19.5%	3.2%	2.3%	
2013		2.3%	8.2%	4.8%	3.6%	
2014		2.4%	7.5%	2.7%	4.4%	
2015		1.5%	10.5%	4.0%	3.1%	
Ann. Growth Rates (n=6)						
2007-13		1.1%	9.3%	2.9%	2.7%	4.0%
2008-14		1.1%	10.5%	2.2%	3.0%	4.2%
2009-15		2.2%	10.4%	3.3%	3.7%	4.8%
<i>Ann. Growth Rates (n=4)</i>						
2009-13		2.3%	11.1%	3.3%	3.7%	4.4%
2010-14		3.9%	12.3%	3.1%	3.1%	4.9%
2011-15		2.1%	11.4%	3.7%	3.3%	5.3%
Ann. Growth Rates (n=2)						
2011-13		2.3%	11.1%	3.3%	3.7%	4.4%
2012-14		2.8%	11.6%	3.4%	3.4%	4.9%
2013-15		2.1%	11.4%	3.7%	3.2%	5.3%

Source: S&P Capital IQ; NESC Annual Report; 10-K's.

# **Earnings Growth**11 Water Companies

	Aqua America Inc.	Artesian Resources Corp.	American States Water Co.	American Water Works Co.	California Water Service Group	Connecticut Water Service, Inc.
	WTR	ARTNA	AWR	AWK	CWT	CTWS
Earnings						
2007	\$0.58	\$0.92	\$0.79	-\$2.14	\$0.75	\$1.06
2008	\$0.62	\$0.83	\$0.75	-\$3.52	\$0.95	\$1.12
2009	\$0.70	\$0.94	\$0.81	-\$1.39	\$0.98	\$1.20
2010	\$0.80	\$1.04	\$0.84	\$1.53	\$0.91	\$1.14
2011	\$0.86	\$0.79	\$1.22	\$1.73	\$0.90	\$1.31
2012	\$1.26	\$1.14	\$1.42	\$2.11	\$1.17	\$1.55
2013	\$1.19	\$0.96	\$1.61	\$2.06	\$1.02	\$1.68
2014	\$1.25	\$0.99	\$1.57	\$2.39	\$1.19	\$1.95
And Consult Protect (conf.)						
Ann. Growth Rates (n=6) 2007-13	12.7%	0.7%	12.7%		5.3%	8.0%
2007-13	12.7%	3.0%	13.1%		3.8%	9.7%
Ann. Growth Rates (n=4)						
2008-12	19.4%	8.3%	17.3%		5.3%	8.5%
2009-13	14.2%	0.5%	18.7%		1.0%	8.8%
2010-14	11.8%	-1.2%	17.1%	11.8%	6.9%	14.4%
Ann. Growth Rates (n=2)						
2010-12	25.5%	4.7%	30.4%	17.4%	13.4%	16.6%
2011-13	17.6%	10.2%	14.9%	9.1%	6.5%	13.2%
2012-14	-0.4%	-6.8%	5.1%	6.4%	0.9%	12.2%

# **Earnings Growth**11 Water Companies

	Global Water Resources Corp. GWGWF	Middlesex Water Co.	New England Service Co.	SJW Corp.	York Water Company	
		MSEX	NESW	SJW	YORW	Average
Earnings						
2007	\$0.00	\$0.88	\$2.15	\$1.04	\$2.76	
2008	-\$0.75	\$0.90	\$2.56	\$1.15	\$2.61	
2009	-\$0.59	\$0.73	\$1.69	\$0.81	\$0.64	
2010	-\$10.40	\$0.96	\$1.87	\$1.30	\$0.71	
2011	-\$0.39	\$0.85	\$2.73	\$1.11	\$0.71	
2012	-\$4.42	\$0.90	\$2.82	\$1.18	\$0.72	
2013	-\$0.73	\$1.04	\$3.97	\$1.12	\$0.75	
2014	\$8.60	\$1.14	\$4.17	\$2.54	\$0.89	
<i>Ann. Growth Rates (n=6)</i>						
2007-13		2.8%	10.8%	1.2%	-19.5%	3.9%
2008-14		4.0%	8.5%	14.1%	-16.4%	5.8%
Ann. Growth Rates (n=4)						
2008-12	55.8%	0.0%	2.4%	0.6%	-27.5%	9.0%
2009-13	5.5%	9.3%	23.8%	8.4%	4.0%	9.4%
2010-14		4.4%	22.2%	18.2%	5.8%	11.1%
Ann. Growth Rates (n=2)						
2010-12	-34.8%	-3.2%	22.8%	-4.7%	0.7%	8.1%
2011-13	36.8%	10.6%	20.6%	0.4%	2.8%	13.0%
2012-14		12.5%	21.6%	46.7%	11.2%	10.9%

Earnings Growth
11 Water Companies
Excluding Outliers

	Aqua America Inc. WTR	Artesian Resources Corp. ARTNA	American States Water Co.	American Water Works Co.	California Water Service Group CWT	Connecticut Water Service, Inc. CTWS
Earnings Growth						
Excluding Outliers	C 00/	0.00/	4.50/			F 70/
2008 2009	6.9% 12.9%	-9.8%	-4.5%		3.2%	5.7% 7.1%
2009	12.9% 14.3%	13.3% 10.6%	8.0%		3.2% -7.1%	7.1% -5.0%
		10.6%	3.1%	10 10/		
2011 2012	7.5%		1.6 40/	13.1%	-1.1%	14.9%
2012	-5.6%	-15.8%	16.4% 13.4%	-2.4%	-12.8%	18.3% 8.4%
2014	-5.0% 5.0%	-13.6% 3.1%	-2.5%	-2.4% 16.0%	-12.6% 16.7%	6.4% 16.1%
Ann. Growth Rates (n=6)						
2007-2013	7.2%	-0.4%	7.3%	5.4%	-4.5%	8.2%
2008-2014	6.8%	2.8%	7.7%	8.9%	-0.2%	10.0%
Ann. Growth Rates (n=4)						
2008-12	10.4%	4.7%	5.8%	13.1%	-1.7%	8.2%
2009-13	7.3%	2.7%	10.2%	5.4%	-4.5%	8.8%
2010-14	5.3%	-0.7%	7.6%	8.9%	-1.1%	10.5%
Ann. Growth Rates (n=2)						
2010-12	10.4%	3.7%	8.0%	9.2%	-3.1%	8.5%
2011-13	7.7%	2.2%	7.9%	9.1%	-2.4%	9.2%
2012-14	7.7%	1.0%	8.9%	7.1%	-2.8%	9.6%

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# **Earnings Growth**11 Water Companies Excluding Outliers

	Global Water Resources Corp. GWGWF	Middlesex Water Co.	New England Service Co.	SJW Corp.	York Water Company	
		MSEX	NESW	SJW	YORW	Average
Earnings Growth						
Excluding Outliers						
2008		2.3%	19.1%	10.6%	0.0%	3.8%
2009		-18.9%			12.3%	5.4%
2010			10.7%		10.9%	5.4%
2011		-11.5%		-14.6%	0.0%	1.2%
2012		5.9%	3.3%	6.3%	1.4%	8.6%
2013		15.6%		-5.1%	4.2%	0.0%
2014		9.6%	5.0%		18.7%	9.8%
Ann. Growth Rates (n=6)						
2007-2013		-1.3%	11.0%	-0.7%	4.8%	3.7%
2008-2014		0.1%	6.3%	-4.5%	7.9%	4.6%
Ann. Growth Rates (n=4)						
2008-12		-5.5%	11.0%	0.8%	4.9%	5.2%
2009-13		-2.2%	7.0%	-4.5%	5.8%	3.6%
2010-14		4.9%	6.3%	-4.5%	7.0%	4.4%
Ann. Growth Rates (n=2)						
2010-12		-3.9%	9.0%	-1.9%	5.3%	4.5%
2011-13		-1.0%	8.1%	-2.7%	5.9%	4.4%
2012-14		1.3%	6.7%	-4.5%	6.4%	4.1%

Source: S&P Capital IQ; NESC Annual Report; 10-K's.

**Book Value Growth** 11 Water Companies

	Aqua America Inc.	Artesian Resources Corp.	American States Water Co.	American Water Works Co.	California Water Service Group	Connecticut Water Service, Inc.
	WTR	ARTNA	AWR	AWK	CWT	CTWS
Book Value						
2007	\$5.84	\$11.66	\$8.82	\$28.39	\$9.34	\$11.95
2008	\$6.26	\$11.86	\$8.99	\$25.64	\$9.73	\$12.23
2009	\$6.49	\$12.15	\$9.96	\$23.79	\$10.15	\$12.66
2010	\$6.83	\$12.46	\$10.16	\$23.61	\$10.48	\$13.04
2011	\$7.19	\$13.12	\$10.93	\$24.14	\$10.78	\$13.50
2012	\$7.92	\$13.57	\$11.96	\$25.18	\$11.31	\$16.94
2013	\$8.67	\$13.80	\$12.74	\$26.59	\$12.91	\$17.92
2014	\$9.35	\$14.09	\$13.11	\$27.33	\$13.12	\$18.83
Ann. Growth Rates (n=6)						
2007-13	6.8%	2.8%	6.3%	-\$0.01	5.5%	7.0%
2008-14	6.9%	2.9%	6.5%	1.1%	5.1%	7.5%
Ann. Growth Rates (n=4)						
2008-12	6.1%	3.4%	7.4%	-0.5%	3.8%	8.5%
2009-13	7.5%	3.2%	6.4%	2.8%	6.2%	9.1%
2010-14	8.2%	3.1%	6.6%	3.7%	5.8%	9.6%
Ann. Growth Rates (n=2)						
2010-12	7.7%	4.4%	8.5%	3.3%	3.9%	14.0%
2011-13	9.8%	2.5%	8.0%	5.0%	9.5%	15.2%
2012-14	8.7%	1.9%	4.7%	4.2%	7.7%	5.4%

**Book Value Growth** 11 Water Companies

	Resources Corp.	Middlesex Water Co.	New England Service Co.	SJW Corp.	York Water Company	
	GWGWF	MSEX	NESW	SJW	YORW	Average
Book Value						
2007		\$10.23	25.5	\$13.17	\$5.97	
2008	\$0.63	\$10.62	\$27.31	\$14.11	\$6.14	
2009	\$0.07	\$10.00	\$28.22	\$13.32	\$6.92	
2010	\$1.43	\$10.81	\$29.20	\$13.42	\$7.19	
2011	\$1.41	\$11.06	\$30.97	\$13.89	\$7.45	
2012	-\$3.06	\$11.38	\$32.94	\$14.47	\$7.73	
2013	-\$3.76	\$11.81	\$41.33	\$16.05	\$7.98	
2014	\$3.17	\$12.31	\$44.57	\$18.00	\$8.15	
<i>Ann. Growth Rates (n=6)</i>						
2007-13	NM	2.4%	8.4%	3.4%	4.9%	4.7%
2008-14	NM	2.5%	8.5%	4.1%	4.8%	5.0%
Ann. Growth Rates (n=4)						
2008-12	NM	1.7%	4.8%	0.6%	5.9%	4.2%
2009-13	NM	4.3%	10.0%	4.8%	3.6%	5.8%
2010-14	NM	3.3%	11.2%	7.6%	3.2%	6.2%
Ann. Growth Rates (n=2)						
2010-12	NM	2.6%	6.2%	3.8%	3.7%	5.8%
2011-13	NM	3.3%	15.5%	7.5%	3.5%	8.0%
2012-14	NM	4.0%	16.3%	11.5%	2.7%	6.7%

**Book Value Growth** 11 Water Companies Excluding Outliers

	Aqua America Inc.	America Resources	American States Water Co.	American Water Works Co.	California Water Service Group	Connecticut Water Service, Inc.
	WTR	ARTNA	AWR	AWK	CWT	CTWS
Book Value Growth Excluding Outliers						
2008	7.1%	1.7%	1.9%	-9.7%	4.2%	2.3%
2009	3.6%	2.4%	10.7%	-7.2%	4.3%	3.6%
2010	5.2%	2.6%	2.0%	-0.8%	3.3%	3.0%
2011	5.3%	5.3%	7.6%	2.2%	2.8%	3.5%
2012	10.2%	3.4%	9.4%	4.3%	5.0%	
2013	9.5%	1.7%	6.5%	5.6%	14.1%	5.7%
2014	7.8%	2.1%	2.9%	2.8%	1.6%	5.1%
Ann. Growth Rates (n=6)						
2007-13	6.8%	2.9%	6.4%	-0.9%	5.6%	3.6%
2008-14	6.9%	2.9%	6.5%	1.2%	5.2%	4.2%
Ann. Growth Rates (n=4)						
2008-12	6.1%	3.4%	7.4%	-0.4%	3.8%	3.4%
2009-13	7.6%	3.2%	6.4%	2.8%	6.3%	4.1%
2010-14	8.2%	3.1%	6.6%	3.7%	5.9%	4.8%
Ann. Growth Rates (n=2)						
2010-12	6.8%	3.3%	6.9%	2.1%	5.4%	4.1%
2011-13	7.3%	3.3%	6.8%	3.3%	6.1%	4.4%
2012-14	7.5%	3.2%	6.5%	2.9%	5.6%	4.4%

**Book Value Growth** 11 Water Companies Excluding Outliers

	Global Water Resources Corp.	Middlesex Water Co.	New England Service Co.	SJW Corp.	York Water Company	
	GWGWF	MSEX	NESW	SJW	YORW	Average
Book Value Growth Excluding Outliers						
2008		3.8%	7.1%	7.2%	2.8%	
2009		-5.8%	3.3%	-5.6%	12.8%	
2010		8.1%	3.5%	0.8%	3.9%	
2011	-1.4%	2.3%	6.1%	3.5%	3.6%	
2012		2.8%	6.4%	4.2%	3.8%	
2013		3.8%		10.9%	3.2%	
2014		4.2%	7.8%	12.1%	2.2%	
Ann. Growth Rates (n=6)						
2007-13	-1.4%	2.5%	5.3%	3.5%	5.0%	3.6%
2008-14	-1.4%	2.6%	5.4%	4.3%	4.9%	3.9%
Ann. Growth Rates (n=4)						
2008-12	-1.4%	1.9%	4.8%	0.7%	6.0%	3.3%
2009-13	-1.4%	4.3%	5.3%	4.8%	3.6%	4.3%
2010-14	-1.4%	3.3%	6.8%	7.7%	3.2%	4.7%
Ann. Growth Rates (n=2)						
2010-12	-1.4%	3.1%	5.6%	4.4%	3.7%	4.0%
2011-13	-1.4%	3.8%	6.0%	6.3%	3.5%	4.5%
2012-14	-1.4%	3.2%	6.2%	6.0%	3.1%	4.3%

#### **Risk Premiums**

R Premi	T-Bills	S&P 500	Year	Premium	T-Bills	S&P 500	Year
Preim	I-DIIIS	5&P 500	rear	Premium	I-DIIIS	3&P 300	rear
9.9	4.4%	14.3%	1971	8.4%	3.3%	11.6%	1926
15.1	3.8%	19.0%	1972	34.4%	3.1%	37.5%	1927
-21.6	6.9%	-14.7%	1973	40.1%	3.6%	43.6%	1928
-34.5	8.0%	-26.5%	1974	-13.2%	4.8%	-8.4%	929
31.4	5.8%	37.2%	1975	-27.3%	2.4%	-24.9%	.930
18.8	5.1%	23.8%	1976	-44.4%	1.1%	-43.3%	931
-12.	5.1%	-7.2%	1977	-9.2%	1.0%	-8.2%	932
-0.0	7.2%	6.6%	1978	53.1%	0.3%	53.4%	.933
8.3	10.4%	18.4%	1979	-1.6%	0.2%	-1.4%	934
21.2	11.2%	32.4%	1980	47.5%	0.2%	47.7%	.935
-19.6	14.7%	-4.9%	1981	33.7%	0.2%	33.9%	936
10.9	10.5%	21.4%	1982	-35.3%	0.3%	-35.0%	937
13.7	8.8%	22.5%	1983	31.1%	0.0%	31.1%	938
-3.6	9.9%	6.3%	1984	-0.4%	0.0%	-0.4%	939
24.4	7.7%	32.2%	1985	-9.8%	0.0%	-9.8%	940
12.3	6.2%	18.5%	1986	-11.7%	0.1%	-11.6%	941
-0.2	5.5%	5.2%	1987	20.1%	0.3%	20.3%	942
10.5	6.4%	16.8%	1988	25.6%	0.4%	25.9%	943
23.1	8.4%	31.5%	1989	19.4%	0.3%	19.8%	944
-11.0	7.8%	-3.2%	1990	36.1%	0.3%	36.4%	945
25.0	5.6%	30.6%	1991	-8.4%	0.4%	-8.1%	946
4.2	3.5%	7.7%	1992	5.2%	0.5%	5.7%	947
7.1	2.9%	10.0%	1993	4.7%	0.8%	5.5%	948
-2.6	3.9%	1.3%	1994	17.7%	1.1%	18.8%	949
31.8	5.6%	37.4%	1995	30.5%	1.2%	31.7%	950
17.9	5.2%	23.1%	1996	22.5%	1.5%	24.0%	951
28.3	5.3%	33.4%	1997	16.7%	1.7%	18.4%	952 052
23.7	4.9%	28.6%	1998	-2.8% F1.99/	1.8%	-1.0%	953
16.4	4.7%	21.0%	1999	51.8%	0.9%	52.6%	954
-15.0	5.9%	-9.1%	2000	30.0%	1.6%	31.6%	955 oc <i>e</i>
-15.3	3.8%	-11.9%	2001	4.1%	2.5%	6.6%	956 057
-23.8	1.7%	-22.1%	2002	-13.9% 41.00/	3.1%	-10.8%	957
27.7	1.0%	28.7%	2003	41.8%	1.5%	43.4%	958 050
9.7 1.9	1.2% 3.0%	10.9% 4.9%	2004 2005	9.0% -2.2%	3.0% 2.7%	12.0% 0.5%	959 960
	3.0% 4.8%	4.9% 15.8%	2005	-2.2% 24.8%	2.7%	26.9%	960 961
11.0							962
0.0	4.7% 1.6%	5.5% -37.0%	2007 2008	-11.5% 19.7%	2.7% 3.1%	-8.7% 22.8%	962 963
-38.0	0.1%	26.5%	2009	12.9%		16.5%	964
26.4 14.9	0.1%	15.1%	2010	8.5%	3.5% 3.9%	12.5%	
2.0	0.1%	2.1%	2010	-14.8%	4.8%	-10.1%	965 966
15.9 32.3	0.1% 0.1%	16.0% 32.4%	2012 2013	19.8% 5.9%	4.2% 5.2%	24.0% 11.1%	967 968
13.	0.1%	32.4% 13.7%	2013	-15.1%	6.6%	-8.5%	968 969
1	0.0%	1.4%	2014	-2.5%	6.5%	4.0%	970
8.3	3.4%	11.7%				1926-2015	verage 1
8.	3.5%	11.8%				1986-2015	_
7.5	2.4%	9.9%				1996-2015	_
5.3	1.5%	6.8%				2001-2015	_
8.0	1.2%	9.1%				2001-2015	_
152	1,2/0	5.170				_000 _010	r.crage 4

Source: Ibbotson Associates, Stocks Bonds Bills and Inflation, Annual Yearbook; S&P Large Cap Index

#### **Risk Premiums: Moving Averages**

Year/Period	5 Year Average	10 Year Average	15 Year Average	20 Year Average	25 Year Average	30 Year Average
Teal/Period	Average	Average	Average	Average	Average	Average
1975	-1.5%	-1.4%	2.3%	4.8%	8.1%	7.2%
1976	-28.0%	-0.6%	2.3%	3.4%	6.9%	7.3%
1977	-28.0%	-0.2%	2.2%	4.3%	7.0%	8.3%
1978	-17.5%	-2.7%	1.9%	5.3%	6.8%	8.5%
1979	3.7%	-1.7%	1.2%	3.6%	6.9%	8.4%
1980	9.5%	2.2%	1.3%	3.7%	5.5%	8.2%
1981	2.3%	-7.8%	3.3%	4.7%	5.2%	7.9%
1982	4.0%	-5.2%	1.6%	3.2%	4.7%	7.0%
1983	6.8%	-0.1%	0.8%	3.4%	6.1%	7.2%
1984	4.5%	4.3%	3.2%	3.1%	4.8%	7.4%
1985	5.2%	6.8%	3.9%	3.0%	4.7%	6.1%
1986	11.6%	7.4%	1.0%	3.5%	4.7%	5.1%
1987	9.3%	6.7%	0.9%	4.0%	4.9%	5.9%
1988	8.7%	7.8%	3.5%	2.9%	4.9%	6.9%
1989	14.0%	9.3%	8.3%	3.5%	5.4%	6.5%
1990	6.9%	6.0%	6.9%	6.3%	5.9%	6.9%
1991	9.5%	10.5%	8.1%	3.6%	7.0%	7.5%
1992	10.3%	9.8%	7.9%	3.7%	5.8%	6.3%
1993	9.7%	9.2%	8.4%	5.3%	6.2%	5.2%
1994	4.5%	9.3%	7.7%	7.2%	7.4%	4.2%
1995	13.1%	10.0%	8.4%	8.6%	8.0%	4.7%
1996	11.7%	10.6%	10.9%	9.1%	5.5%	5.5%
1997	16.5%	13.4%	12.0%	10.0%	6.6%	4.9%
1998	19.8%	14.7%	12.7%	11.2%	8.6%	4.8%
1999	23.6%	14.1%	14.0%	11.7%	10.9%	5.6%
2000	14.2%	13.6%	11.4%	9.8%	9.8%	6.6%
2001	7.5%	9.6%	9.5%	10.0%	8.7%	5.9%
2002	-2.9%	6.8%	8.0%	8.3%	7.4%	4.8%
2003	-2.1%	8.8%	9.1%	9.0%	8.6%	6.6%
2004	-3.4%	10.1%	8.2%	9.7%	8.6%	8.3%
2005	0.0%	7.1%	9.1%	8.5%	7.9%	8.1%
2006	5.3%	6.4%	8.2%	8.5%	9.1%	8.2%
2007	10.2%	3.7%	7.9%	8.5%	8.7%	7.9%
2008	-3.0%	-2.6%	4.9%	6.1%	6.6%	6.6%
2009	0.3%	-1.6%	6.8%	6.2%	7.8%	7.3%
2010	2.9%	1.4%	5.7%	7.5%	7.4%	7.0%
2011	1.1%	3.2%	4.6%	6.4%	7.0%	7.8%
2012	4.1%	7.2%	3.8%	7.0%	7.7%	7.9%
2013	18.3%	7.6%	4.4%	8.2%	8.5%	8.6%
2014	15.8%	8.0%	4.2%	9.1%	8.2%	9.1%
2015	13.1%	8.0%	5.3%	7.5%	8.6%	8.4%
2013	13.170	0.070	3.570	7.570	0.070	0.470
Cumulative Averages						
1979-2008	7.7%	7.0%	7.1%	6.7%	7.0%	6.3%
1980-2009	7.6%	6.8%	7.1%	6.9%	7.1%	6.3%
1981-2010	7.6%	7.2%	7.3% 7.4%	7.0%	7.1%	6.3%
1981-2010	7.4%	7.5%	7.4% 7.5%	7.0% 7.1%	7.2% 7.3%	6.4%
1983-2012	7.3%	7.7%	7.6%	7.3%	7.4%	6.5%
1984-2013	7.7%	7.8%	7.6%	7.5%	7.5%	6.5%
1985-2014	8.1%	7.9%	7.7%	7.6%	7.7%	6.7%
1986-2015	8.3%	7.9%	7.9%	7.8%	7.8%	6.7%

Source: Ibbotson Associates, Stocks Bonds Bills and Inflation, Annual Yearbook; S&P Large Cap Index 154

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**Betas**11 Water Companies

Company	5 Year Average*	Recent*
Aqua America Inc.	0.30	0.50
Artesian Resources Corp.	0.44	0.40
American States Water Co.	0.43	0.75
American Water Works Co.	0.32	0.29
California Water Service Group	0.40	0.62
Connecticut Water Service, Inc.	0.55	0.64
Global Water Resources Corp.	N/A	N/A
Middlesex Water Co.	0.53	0.66
New England Service Co.	N/A	N/A
SJW Corp.	0.69	0.84
York Water Company	0.50	0.51
Average	0.46	0.58

Source: S&P Capital IQ
Note: \*Most recent published

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# **Abenaki Water Company**

CAPM Analysis

Component	Low Value	High Value
Risk Free Rate	3.11%	3.11%
Beta	0.60	0.60
Risk Premium	6.50%	8.00%
Beta x Risk Premium	3.90%	4.80%
CAPM Cost of Equity	7.01%	7.91%

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# **Abenaki Water Company**

Market Approach to Cost of Equity

		Low	High
Market Returns: S	5&P 500	12.00%	12.50%
	Risk Adjusted cost estimate:	8.25%	9.00%
DCF: 11 Water Co	ompanies		
	Growth	5.00%	6.00%
	Yield	2.50%	3.00%
		7.50%	9.00%
	Risk Adjusted cost estimate:	8.00%	9.00%
САРМ		7.01%	7.91%
Risk Adjusted We	ighted Average	7.92%	8.82%

# **Abenaki Water Company**

Cost of Equity

Method	Low	Mid Point	High
Comparable Earnings	9.50%	9.75%	10.00%
Market Approach	7.92%	8.37%	8.82%
Weighted Average (Emphasizing Market Approach)	8.45%	8.83%	9.21%

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# **Abenaki Water Company**

Overall Cost of Capital

Component	Cost	Weight	Weighted Average
Debt	3.75%	50.00%	1.88%
Equity	8.83%	50.00%	4.41%
Total			6.29%