AQUA ILLINOIS, INC.
KANKAKEE, ILLINOIS

KANKAKEE WATER DIVISION

RATE OF RETURN

EXHIBIT

TO ACCOMPANY THE

REBUTTAL TESTIMONY

OCTOBER 2014

Prepared by:
GANNETT FLEMING
VALUATION AND RATE CONSULTANTS, LLC

Valley Forge, Pennsylvania

Summary of the Staff's Cost of Common Equity Recommendation Docket No. 14-0419

Line	Water Sample		Gas Sample	
1	**Water Sample**		**Gas Sample**	
2				
3	**Constant Growth DCF**		**Constant Growth DCF**	
4				
5	American States Water Co	5.74	AGL Resources	8.59
6	American Water Works Co. Inc.	11.21	Atmos Energy	9.50
7	Aqua America Inc.	9.35	Laclede Group Inc	9.21
8	California Water Service Group	9.00	New Jersey Resources	7.80
9	Connecticut Water Service Inc.	8.03	Northwest Natural Gas	7.65
10	Middlesex Water Co.	7.99	Piedmont Natural Gas	7.40
11	SJW Corp	8.42	South Jersey Industries	9.71
12	York Water Co.	9.19	Southwest Gas	6.91
13			UGI Corp	8.73
14			WGL Holdings	9.16
15	Average	**8.62**	Average	**8.46**
16				
17	**Non-Constant Growth DCF**		**Non-Constant Growth DCF**	
18				
19	American States Water Co	6.98	AGL Resources	8.67
20	American Water Works Co. Inc.	7.90	Atmos Energy	8.15
21	Aqua America Inc.	7.47	Laclede Group Inc	8.69
22	California Water Service Group	7.72	New Jersey Resources	8.07
23	Connecticut Water Service Inc.	7.76	Northwest Natural Gas	8.63
24	Middlesex Water Co.	8.25	Piedmont Natural Gas	8.05
25	SJW Corp	7.44	South Jersey Industries	8.45
26	York Water Co.	7.81	Southwest Gas	7.27
27			UGI Corp	7.45
28			WGL Holdings	9.17
29	Average	**7.67**	Average	**8.26**
30				
31				
32	Average of DCF & NCDCF	**8.15**		**8.36**
33	(line 15 + 29) / 2)			
34				
35				
36	**CAPM**		**CAPM**	
37				
38	Risk-Free Beta Risk Premium		Risk-Free Beta Risk Premium	
39	3.62 + (0.65 * (12.53-3.62))		3.62 + (0.69 * (12.53-3.62))	
40				
41	3.62 0.65 8.91	**9.41**	3.62 0.69 8.91	**9.77**
42				
43				
44	Average (line 32 + 41) / 2)	**8.78**		**9.07**
45				
46				

	Weighting Water Sample	Weighting Gas Sample	Proposed ROE
Recommended Weighting of Results	0%	100%	
Range of Recommendation			**8.36 - 9.77**
Recommended Cost of Equity	0.00	9.07	**9.07**

Average Total Debt Cost Rates (1)
For Aqua Illinois, Inc. and Staff's Water Sample and Gas Sample

	2013	2012	2011	3-Year Average (2011-13)
Aqua Illinois, Inc.	6.69%	6.43%	6.39%	6.50%
Water Sample				
American States Water Co	6.79%	6.80%	6.73%	6.77%
American Water Works Co. Inc.	5.49%	5.50%	5.47%	5.49%
Aqua America Inc.	4.77%	4.80%	4.86%	4.81%
California Water Service Group	5.88%	5.70%	6.24%	5.94%
Connecticut Water Service Inc.	3.40%	5.08%	3.85%	4.11%
Middlesex Water Co.	3.48%	4.06%	4.03%	3.86%
SJW Corp	5.83%	6.02%	6.31%	6.05%
York Water Co.	6.17%	6.18%	6.17%	6.17%
Average	5.23%	5.52%	5.46%	5.40%
Gas Sample				
AGL Resources	3.69%	3.81%	3.58%	3.69%
Atmos Energy	4.87%	5.82%	6.48%	5.72%
Laclede Group Inc	4.11%	6.12%	5.47%	5.23%
New Jersey Resources	2.83%	3.01%	3.44%	3.09%
Northwest Natural Gas	4.99%	5.06%	5.00%	5.02%
Piedmont Natural Gas	3.71%	3.86%	5.31%	4.29%
South Jersey Industries	2.67%	2.90%	3.43%	3.00%
Southwest Gas	4.79%	5.38%	5.73%	5.30%
UGI Corp	6.39%	7.41%	6.13%	6.64%
WGL Holdings	4.00%	4.73%	5.68%	4.80%
Average	4.21%	4.81%	5.03%	4.68%
Aqua Illinois, Inc. LESS Water Sample	1.46%	0.91%	0.93%	1.10%
Aqua Illinois, Inc. LESS Gas Sample	2.49%	1.62%	1.37%	1.82%
Water Sample LESS Gas Sample	1.02%	0.71%	0.43%	0.72%

Note (1) Computed by relating total debt interest to average of beginning and ending balance of total debt.

Schedule 3

Comparison of Average Total Debt Cost Rate, Capitalization, Revenues, Customers, Institutional Holdings of Common Stock, and Annual Trading of Common Stock for Aqua Illinois, the Water Sample and the Gas Sample

	Aqua Illinois, Inc.,	Water Sample	Gas Sample
2013 Average Total Debt Cost Rate (1)	6.69%	5.23%	4.21%
Average Total Debt Cost Rate 2011-2013	6.50%	5.40%	4.68%
Total Capitalization (000's) (2)	$163,462	$2,058,617	$3,224,331
Total Operating Revenues (000's) (2)	$48,483	$644,943	$2,418,527
Number of Customers (2)	62,657	667,836	1,492,005
Percentage of Common Shares Held by Institutions (3)(4)		54%	66%
Percentage Of Common Shares Traded In 2012 (3)		88%	117%

Notes: (1) From Schedule 2.
(2) From Schedule 9 of Exhibit HW-1.
(3) From Schedule 10 of Exhibit HW-1.
(4) Institutional holders are those investment managers having a fair market value of equity assets under management of $100 million or more. Certain banks, insurance companies, investment advisers, investment companies, foundations and pension funds are included in this category.

Summary of the Staff's Cost of Common Equity Recommendation Docket No. 14-0419

(After Removal of NCDCF to be Consistent with AQUA2012)

Line	Water Sample		Gas Sample	
1	**Water Sample**		**Gas Sample**	
2				
3	**Constant Growth DCF**		**Constant Growth DCF**	
4				
5	American States Water Co	5.74	AGL Resources	8.59
6	American Water Works Co. Inc.	11.21	Atmos Energy	9.50
7	Aqua America Inc.	9.35	Laclede Group Inc	9.21
8	California Water Service Group	9.00	New Jersey Resources	7.80
9	Connecticut Water Service Inc.	8.03	Northwest Natural Gas	7.65
10	Middlesex Water Co.	7.99	Piedmont Natural Gas	7.40
11	SJW Corp	8.42	South Jersey Industries	9.71
12	York Water Co.	9.19	Southwest Gas	6.91
13			UGI Corp	8.73
14			WGL Holdings	9.16
15	Average	**8.62**		**8.46**
16				
17	~~**Non-Constant Growth DCF**~~		~~**Non-Constant Growth DCF**~~	
18				
19	~~American States Water Co~~	~~6.98~~	~~AGL Resources~~	~~8.67~~
20	~~American Water Works Co. Inc.~~	~~7.90~~	~~Atmos Energy~~	~~8.15~~
21	~~Aqua America Inc.~~	~~7.47~~	~~Laclede Group Inc~~	~~8.69~~
22	~~California Water Service Group~~	~~7.72~~	~~New Jersey Resources~~	~~8.07~~
23	~~Connecticut Water Service Inc.~~	~~7.76~~	~~Northwest Natural Gas~~	~~8.63~~
24	~~Middlesex Water Co.~~	~~8.25~~	~~Piedmont Natural Gas~~	~~8.05~~
25	~~SJW Corp~~	~~7.44~~	~~South Jersey Industries~~	~~8.45~~
26	~~York Water Co.~~	~~7.81~~	~~Southwest Gas~~	~~7.27~~
27			~~UGI Corp~~	~~7.45~~
28			~~WGL Holdings~~	~~9.17~~
29	~~Average~~	~~7.67~~		~~8.26~~
30				
31				
32	Average of DCF	**8.62**		**8.46**
33	(line 15)			
34				
35				
36	**CAPM**		**CAPM**	
37				
38	Risk-Free / Beta / Risk Premium		Risk-Free / Beta / Risk Premium	
39	3.62 + (0.65 * (12.53-3.62))		3.62 + (0.69 * (12.53-3.62))	
40				
41	3.62 / 0.65 / 8.91	**9.41**	3.62 / 0.69 / 8.91	**9.77**
42				
43				
44	Average (line 32 + 41) / 2)	**9.02**		**9.12**
45				
46				

Line		Weighting Water Sample	Weighting Gas Sample	Proposed ROE
47				
48				
49				
50	Recommended Weighting of Results	0%	100%	
51				
52	Range of Recommendation			**8.46 - 9.77**
53				
54				
55	Recommended Cost of Equity	0.00	9.12	**9.12**
56				

Summary of the Staff's Cost of Common Equity Recommendation Docket No. 14-0419

(After Removal of NCDCF and Use of only EPS Growth Rates to be Consistent with AQUA2012)

	Water Sample		Gas Sample	
1	**Water Sample**		**Gas Sample**	
2				
3	**Constant Growth DCF**		**Constant Growth DCF**	
4				
5	American States Water Co	5.68	AGL Resources	9.21
6	American Water Works Co. Inc.	11.67	Atmos Energy	10.34
7	Aqua America Inc.	10.07	Laclede Group Inc	9.83
8	California Water Service Group	9.27	New Jersey Resources	7.97
9	Connecticut Water Service Inc.	8.96	Northwest Natural Gas	8.16
10	Middlesex Water Co.	7.81	Piedmont Natural Gas	7.62
11	SJW Corp	10.27	South Jersey Industries	9.88
12	York Water Co.	9.53	Southwest Gas	7.30
13			UGI Corp	10.25
14			WGL Holdings	9.34
15	Average	**9.16**		**8.99**
16				
17	~~**Non-Constant Growth DCF**~~		~~**Non-Constant Growth DCF**~~	
18				
19	~~American States Water Co~~	~~6.98~~	~~AGL Resources~~	~~8.67~~
20	~~American Water Works Co. Inc.~~	~~7.90~~	~~Atmos Energy~~	~~8.15~~
21	~~Aqua America Inc.~~	~~7.47~~	~~Laclede Group Inc~~	~~8.69~~
22	~~California Water Service Group~~	~~7.72~~	~~New Jersey Resources~~	~~8.07~~
23	~~Connecticut Water Service Inc.~~	~~7.76~~	~~Northwest Natural Gas~~	~~8.63~~
24	~~Middlesex Water Co.~~	~~8.25~~	~~Piedmont Natural Gas~~	~~8.05~~
25	~~SJW Corp~~	~~7.44~~	~~South Jersey Industries~~	~~8.45~~
26	~~York Water Co.~~	~~7.81~~	~~Southwest Gas~~	~~7.27~~
27			~~UGI Corp~~	~~7.45~~
28			~~WGL Holdings~~	~~9.17~~
29	~~Average~~	~~7.67~~		~~8.26~~
30				
31				
32	Average of DCF	**9.16**		**8.99**
33	(line 15)			
34				
35				
36	**CAPM**		**CAPM**	
37				

	Risk-Free	Beta	Risk Premium		Risk-Free	Beta	Risk Premium	
38								
39	3.62 +	(0.65 *	(12.53-3.62))		3.62 +	(0.69 *	(12.53-3.62))	
40								
41	3.62	0.65	8.91	**9.41**	3.62	0.69	8.91	**9.77**
42								
43								
44	Average (line 32 + 41) / 2)			**9.28**				**9.38**
45								
46								

		Weighting Water Sample	Weighting Gas Sample	Proposed ROE
47				
48				
49				
50	Recommended Weighting of Results	0%	100%	
51				
52	Range of Recommendation			**8.99 - 9.77**
53				
54				
55	Recommended Cost of Equity	0.00	9.38	**9.38**
56				

Comparison of Staff's NCDCF Long-Term Growth Rate to Actual Economic Data

Actual 15-Year Holding Periods Compound Growth Rates (1)

A	B	C	D
15-Year Period	Nominal Growth in GDP	Real Growth in GDP	Inflation in Nominal GDP
1929 to 1944	0.0523	0.0514	0.0009
1930 to 1945	0.0623	0.0569	0.0051
1931 to 1946	0.0746	0.0529	0.0206
1932 to 1947	0.1004	0.0619	0.0363
1933 to 1948	0.1103	0.0656	0.0419
1934 to 1949	0.0983	0.0580	0.0381
1935 to 1950	0.0976	0.0579	0.0375
1936 to 1951	0.0985	0.0548	0.0414
1937 to 1952	0.0960	0.0541	0.0397
1938 to 1953	0.1048	0.0597	0.0426
1939 to 1954	0.1001	0.0539	0.0438
1940 to 1955	0.0994	0.0528	0.0443
1941 to 1956	0.0867	0.0429	0.0420
1942 to 1957	0.0726	0.0323	0.0390
1943 to 1958	0.0593	0.0211	0.0374
1944 to 1959	0.0579	0.0204	0.0368
1945 to 1960	0.0595	0.0228	0.0359
1946 to 1961	0.0622	0.0329	0.0284
1947 to 1962	0.0607	0.0378	0.0221
1948 to 1963	0.0578	0.0379	0.0192
1949 to 1964	0.0634	0.0422	0.0203
1950 to 1965	0.0623	0.0408	0.0207
1951 to 1966	0.0585	0.0398	0.0180
1952 to 1967	0.0584	0.0389	0.0188
1953 to 1968	0.0606	0.0391	0.0207
1954 to 1969	0.0660	0.0416	0.0234
1955 to 1970	0.0637	0.0370	0.0257
1956 to 1971	0.0656	0.0378	0.0268
1957 to 1972	0.0685	0.0399	0.0275
1958 to 1973	0.0751	0.0442	0.0296
1959 to 1974	0.0751	0.0392	0.0345
1960 to 1975	0.0785	0.0373	0.0397
1961 to 1976	0.0836	0.0392	0.0427
1962 to 1977	0.0860	0.0382	0.0460
1963 to 1978	0.0909	0.0390	0.0500
1964 to 1979	0.0938	0.0373	0.0545
1965 to 1980	0.0940	0.0328	0.0593
1966 to 1981	0.0957	0.0301	0.0637
1967 to 1982	0.0946	0.0270	0.0658
1968 to 1983	0.0942	0.0268	0.0656
1969 to 1984	0.0961	0.0295	0.0647
1970 to 1985	0.0976	0.0322	0.0634
1971 to 1986	0.0955	0.0323	0.0612
1972 to 1987	0.0930	0.0311	0.0600
1973 to 1988	0.0907	0.0302	0.0587
1974 to 1989	0.0902	0.0330	0.0554
1975 to 1990	0.0879	0.0345	0.0516
1976 to 1991	0.0826	0.0308	0.0503
1977 to 1992	0.0791	0.0301	0.0476
1978 to 1993	0.0740	0.0283	0.0444
1979 to 1994	0.0705	0.0288	0.0405
1980 to 1995	0.0679	0.0309	0.0359
1981 to 1996	0.0636	0.0317	0.0309
1982 to 1997	0.0650	0.0360	0.0280
1983 to 1998	0.0629	0.0359	0.0261
1984 to 1999	0.0599	0.0343	0.0248
1985 to 2000	0.0591	0.0342	0.0241
1986 to 2001	0.0576	0.0325	0.0243
1987 to 2002	0.0557	0.0314	0.0236
1988 to 2003	0.0537	0.0304	0.0226
1989 to 2004	0.0530	0.0305	0.0218
1990 to 2005	0.0537	0.0315	0.0215
1991 to 2006	0.0554	0.0333	0.0214
1992 to 2007	0.0544	0.0321	0.0216
1993 to 2008	0.0520	0.0301	0.0213
1994 to 2009	0.0463	0.0254	0.0204
1995 to 2010	0.0456	0.0253	0.0198
1996 to 2011	0.0444	0.0240	0.0199
1997 to 2012	0.0432	0.0229	0.0198
1998 to 2013	0.0418	0.0212	0.0202
Average	0.0733	0.0370	0.0350
Median	0.0682	0.0343	0.0352
Midpoint	0.0685	0.0452	0.0649
Staff's Growth Rate	0.045	0.024	0.023

SORTED, Lowest to Highest, 15-Year Compound Growth Rates

E	F	G	H
Rank Lowest to Highest	Nominal Growth in GDP	Real Growth in GDP	Inflation in Nominal GDP
1	**0.0418**	**0.0204**	**0.0009**
2	**0.0432**	**0.0211**	**0.0051**
3	**0.0444**	**0.0212**	**0.0180**
4	0.0456	**0.0228**	**0.0188**
5	0.0463	**0.0229**	**0.0192**
6	0.0520	**0.0240**	**0.0198**
7	0.0523	0.0253	**0.0198**
8	0.0530	0.0254	**0.0199**
9	0.0537	0.0268	**0.0202**
10	0.0537	0.0270	**0.0203**
11	0.0544	0.0283	**0.0204**
12	0.0554	0.0288	**0.0206**
13	0.0557	0.0295	**0.0207**
14	0.0576	0.0301	**0.0207**
15	0.0578	0.0301	**0.0213**
16	0.0579	0.0301	**0.0214**
17	0.0584	0.0302	**0.0215**
18	0.0585	0.0304	**0.0216**
19	0.0591	0.0305	**0.0218**
20	0.0593	0.0308	**0.0221**
21	0.0595	0.0309	**0.0226**
22	0.0599	0.0311	0.0234
23	0.0606	0.0314	0.0236
24	0.0607	0.0315	0.0241
25	0.0622	0.0317	0.0243
26	0.0623	0.0321	0.0248
27	0.0623	0.0322	0.0257
28	0.0629	0.0323	0.0261
29	0.0634	0.0323	0.0268
30	0.0636	0.0325	0.0275
31	0.0637	0.0328	0.0280
32	0.0650	0.0329	0.0284
33	0.0656	0.0330	0.0296
34	0.0660	0.0333	0.0309
35	0.0679	0.0342	0.0345
36	0.0685	0.0343	0.0359
37	0.0705	0.0345	0.0359
38	0.0726	0.0359	0.0363
39	0.0740	0.0360	0.0368
40	0.0746	0.0370	0.0374
41	0.0751	0.0373	0.0375
42	0.0751	0.0373	0.0381
43	0.0785	0.0378	0.0390
44	0.0791	0.0378	0.0397
45	0.0826	0.0379	0.0397
46	0.0836	0.0382	0.0405
47	0.0860	0.0389	0.0414
48	0.0867	0.0390	0.0419
49	0.0879	0.0391	0.0420
50	0.0902	0.0392	0.0426
51	0.0907	0.0392	0.0427
52	0.0909	0.0398	0.0438
53	0.0930	0.0399	0.0443
54	0.0938	0.0408	0.0444
55	0.0940	0.0416	0.0460
56	0.0942	0.0422	0.0476
57	0.0946	0.0429	0.0500
58	0.0955	0.0442	0.0503
59	0.0957	0.0514	0.0516
60	0.0960	0.0528	0.0545
61	0.0961	0.0529	0.0554
62	0.0976	0.0539	0.0587
63	0.0976	0.0541	0.0593
64	0.0983	0.0548	0.0600
65	0.0985	0.0569	0.0612
66	0.0994	0.0579	0.0634
67	0.1001	0.0580	0.0637
68	0.1004	0.0597	0.0647
69	0.1048	0.0619	0.0656
70	0.1103	0.0656	0.0658
Percentile of Staff's Growth	4%	7%	30%

Note: (1) Calculated from annual data shown on Schedule 16, page 3, of Exhibit HW-1

Comparison of Staff's NCDCF Long-Term Growth Rate to Actual Economic Data

Actual 20-Year Holding Periods Compound Growth Rates (1)

A	B	C	D
20-Year Period	Nominal Growth in GDP	Real Growth in GDP	Inflation in Nominal GDP
1929 to 1949	0.0491	0.0326	0.0160
1930 to 1950	0.0608	0.0416	0.0184
1931 to 1951	0.0779	0.0491	0.0275
1932 to 1952	0.0953	0.0585	0.0348
1933 to 1953	0.1007	0.0616	0.0368
1934 to 1954	0.0924	0.0559	0.0346
1935 to 1955	0.0913	0.0550	0.0344
1936 to 1956	0.0870	0.0497	0.0355
1937 to 1957	0.0849	0.0482	0.0350
1938 to 1958	0.0891	0.0496	0.0376
1939 to 1959	0.0898	0.0490	0.0389
1940 to 1960	0.0868	0.0459	0.0391
1941 to 1961	0.0763	0.0388	0.0361
1942 to 1962	0.0668	0.0329	0.0328
1943 to 1963	0.0590	0.0270	0.0312
1944 to 1964	0.0574	0.0259	0.0307
1945 to 1965	0.0609	0.0296	0.0304
1946 to 1966	0.0658	0.0393	0.0255
1947 to 1967	0.0638	0.0413	0.0216
1948 to 1968	0.0636	0.0417	0.0210
1949 to 1969	0.0682	0.0436	0.0236
1950 to 1970	0.0659	0.0393	0.0256
1951 to 1971	0.0625	0.0370	0.0246
1952 to 1972	0.0645	0.0376	0.0259
1953 to 1973	0.0671	0.0380	0.0280
1954 to 1974	0.0712	0.0380	0.0320
1955 to 1975	0.0713	0.0344	0.0357
1956 to 1976	0.0740	0.0360	0.0367
1957 to 1977	0.0768	0.0373	0.0381
1958 to 1978	0.0826	0.0404	0.0406
1959 to 1979	0.0842	0.0386	0.0439
1960 to 1980	0.0866	0.0372	0.0476
1961 to 1981	0.0909	0.0372	0.0518
1962 to 1982	0.0893	0.0331	0.0544
1963 to 1983	0.0909	0.0333	0.0557
1964 to 1984	0.0927	0.0340	0.0568
1965 to 1985	0.0923	0.0329	0.0575
1966 to 1986	0.0903	0.0314	0.0571
1967 to 1987	0.0905	0.0317	0.0570
1968 to 1988	0.0897	0.0314	0.0565
1969 to 1989	0.0894	0.0316	0.0560
1970 to 1990	0.0895	0.0325	0.0552
1971 to 1991	0.0868	0.0308	0.0543
1972 to 1992	0.0849	0.0300	0.0533
1973 to 1993	0.0818	0.0285	0.0518
1974 to 1994	0.0807	0.0308	0.0484
1975 to 1995	0.0786	0.0323	0.0449
1976 to 1996	0.0758	0.0315	0.0429
1977 to 1997	0.0734	0.0315	0.0406
1978 to 1998	0.0698	0.0309	0.0377
1979 to 1999	0.0672	0.0318	0.0343
1980 to 2000	0.0661	0.0340	0.0310
1981 to 2001	0.0617	0.0331	0.0277
1982 to 2002	0.0612	0.0350	0.0253
1983 to 2003	0.0593	0.0341	0.0244
1984 to 2004	0.0571	0.0324	0.0239
1985 to 2005	0.0567	0.0320	0.0239
1986 to 2006	0.0568	0.0316	0.0244
1987 to 2007	0.0560	0.0307	0.0245
1988 to 2008	0.0529	0.0284	0.0238
1989 to 2009	0.0479	0.0251	0.0222
1990 to 2010	0.0469	0.0254	0.0210
1991 to 2011	0.0472	0.0264	0.0203
1992 to 2012	0.0465	0.0260	0.0200
1993 to 2013	0.0457	0.0256	0.0196
Average	0.0732	0.0363	0.0357
Median	0.0734	0.0333	0.0346
Midpoint	0.0550	0.0365	0.0415
Staff's Growth Rate	0.045	0.024	0.023

SORTED, Lowest to Highest, 20-Year Compound Growth Rates

E	F	G	H
Rank Lowest to Highest	Nominal Growth in GDP	Real Growth in GDP	Inflation in Nominal GDP
1	0.0457	0.0251	**0.0160**
2	0.0465	0.0254	**0.0184**
3	0.0469	0.0256	**0.0196**
4	0.0472	0.0259	**0.0200**
5	0.0479	0.0260	**0.0203**
6	0.0491	0.0264	**0.0210**
7	0.0529	0.0270	**0.0210**
8	0.0560	0.0284	**0.0216**
9	0.0567	0.0285	**0.0222**
10	0.0568	0.0296	0.0236
11	0.0571	0.0300	0.0238
12	0.0574	0.0307	0.0239
13	0.0590	0.0308	0.0239
14	0.0593	0.0308	0.0244
15	0.0608	0.0309	0.0244
16	0.0609	0.0314	0.0245
17	0.0612	0.0314	0.0246
18	0.0617	0.0315	0.0253
19	0.0625	0.0315	0.0255
20	0.0636	0.0316	0.0256
21	0.0638	0.0316	0.0259
22	0.0645	0.0317	0.0275
23	0.0658	0.0318	0.0277
24	0.0659	0.0320	0.0280
25	0.0661	0.0323	0.0304
26	0.0668	0.0324	0.0307
27	0.0671	0.0325	0.0310
28	0.0672	0.0326	0.0312
29	0.0682	0.0329	0.0320
30	0.0698	0.0329	0.0328
31	0.0712	0.0331	0.0343
32	0.0713	0.0331	0.0344
33	0.0734	0.0333	0.0346
34	0.0740	0.0340	0.0348
35	0.0758	0.0340	0.0350
36	0.0763	0.0341	0.0355
37	0.0768	0.0344	0.0357
38	0.0779	0.0350	0.0361
39	0.0786	0.0360	0.0367
40	0.0807	0.0370	0.0368
41	0.0818	0.0372	0.0376
42	0.0826	0.0372	0.0377
43	0.0842	0.0373	0.0381
44	0.0849	0.0376	0.0389
45	0.0849	0.0380	0.0391
46	0.0866	0.0380	0.0406
47	0.0868	0.0386	0.0406
48	0.0868	0.0388	0.0429
49	0.0870	0.0393	0.0439
50	0.0891	0.0393	0.0449
51	0.0893	0.0404	0.0476
52	0.0894	0.0413	0.0484
53	0.0895	0.0416	0.0518
54	0.0897	0.0417	0.0518
55	0.0898	0.0436	0.0533
56	0.0903	0.0459	0.0543
57	0.0905	0.0482	0.0544
58	0.0909	0.0490	0.0552
59	0.0909	0.0491	0.0557
60	0.0913	0.0496	0.0560
61	0.0923	0.0497	0.0565
62	0.0924	0.0550	0.0568
63	0.0927	0.0559	0.0570
64	0.0953	0.0585	0.0571
65	0.1007	0.0616	0.0575
Percentile of Staff's Growth	0%	0%	13%

Note: (1) Calculated from annual data shown on Schedule 16, page 3, of Exhibit HW-1

Schedule 8

Summary of Sensitivity Analysis of Staff's NCDCF for
Staff's Water Sample and Gas Sample

Sensitivity Analysis of Staff's NCDCF

		Multi-Stage DCF Estimate	Dividend Yield	First Stage Growth Rate	Third Stage Growth Rate	Last Year of 1st Stage Growth	Last Year of 2nd Stage Growth
	Staff's First Stage Growth Based on Projected EPS Growth Rates						
1.	Staff's Water Sample	7.96%	2.90%	6.20%	4.50%	5	10
2.	Staff's Gas Sample	8.62%	3.60%	5.30%	4.50%	5	10
	Staff's Growth Based on Projected EPS Growth Rates & Actual GDP Growth						
3.	Staff's Water Sample	9.11%	2.90%	6.20%	5.90%	5	10
4.	Staff's Gas Sample	9.68%	3.60%	5.30%	5.90%	5	10

Summary of the Staff's Cost of Common Equity Recommendation Docket No. 14-0419

(From Schedule 5 After Use of Projected EPS Growth Rates & Actual GDP Growth)

	Water Sample		Gas Sample	
1	**Water Sample**		**Gas Sample**	
2				
3	**Constant Growth DCF**		**Constant Growth DCF**	
4				
5	American States Water Co	5.68	AGL Resources	9.21
6	American Water Works Co. Inc.	11.67	Atmos Energy	10.34
7	Aqua America Inc.	10.07	Laclede Group Inc	9.83
8	California Water Service Group	9.27	New Jersey Resources	7.97
9	Connecticut Water Service Inc.	8.96	Northwest Natural Gas	8.16
10	Middlesex Water Co.	7.81	Piedmont Natural Gas	7.62
11	SJW Corp	10.27	South Jersey Industries	9.88
12	York Water Co.	9.53	Southwest Gas	7.30
13			UGI Corp	10.25
14			WGL Holdings	9.34
15	Average	**9.16**	Average	**8.99**
16				
17	**Non-Constant Growth DCF (1)**		**Non-Constant Growth DCF (1)**	
18				
19	American States Water Co	-	AGL Resources	-
20	American Water Works Co. Inc.	-	Atmos Energy	-
21	Aqua America Inc.	-	Laclede Group Inc	-
22	California Water Service Group	-	New Jersey Resources	-
23	Connecticut Water Service Inc.	-	Northwest Natural Gas	-
24	Middlesex Water Co.	-	Piedmont Natural Gas	-
25	SJW Corp	-	South Jersey Industries	-
26	York Water Co.	-	Southwest Gas	-
27			UGI Corp	-
28			WGL Holdings	-
29	Average	**9.11**	Average	**9.68**
30				
31				
32	Average of DCF & NCDCF	**9.14**		**9.34**
33	(line 15 + 29) / 2)			
34				
35				
36	**CAPM**		**CAPM**	
37				
38	Risk-Free Beta Risk Premium		Risk-Free Beta Risk Premium	
39	3.62 + (0.65 * (12.53-3.62))		3.62 + (0.69 * (12.53-3.62))	
40				
41	3.62 0.65 8.91	**9.41**	3.62 0.69 8.91	**9.77**
42				
43				
44	Average (line 32 + 41) / 2)	**9.28**		**9.56**
45				
46				

		Weighting Water Sample	Weighting Gas Sample	Proposed ROE
47				
48				
49				
50	Recommended Weighting of Results	0%	100%	
51				
52	Range of Recommendation			**9.34 - 9.77**
53				
54				
55	Recommended Cost of Equity	0.00	9.56	**9.56**
56				

57

58 Note: (1) Staff's Testimony did not provide the information required to calculated for each individual Company.
59 NCDCF shown was calculated on the average for the group as shown on Schedule 8.

Schedule 10

Summary of the Staff's Cost of Common Equity Recommendation Docket No. 14-0419

(From Schedule 9 After Correction of Size Adjustment Premium)

	Water Sample		Gas Sample	
	Constant Growth DCF		**Constant Growth DCF**	
	American States Water Co	5.68	AGL Resources	9.21
	American Water Works Co. Inc.	11.67	Atmos Energy	10.34
	Aqua America Inc.	10.07	Laclede Group Inc	9.83
	California Water Service Group	9.27	New Jersey Resources	7.97
	Connecticut Water Service Inc.	8.96	Northwest Natural Gas	8.16
	Middlesex Water Co.	7.81	Piedmont Natural Gas	7.62
	SJW Corp	10.27	South Jersey Industries	9.88
	York Water Co.	9.53	Southwest Gas	7.30
			UGI Corp	10.25
			WGL Holdings	9.34
15	Average	**9.16**		**8.99**
	Non-Constant Growth DCF (1)		**Non-Constant Growth DCF (1)**	
	American States Water Co	-	AGL Resources	-
	American Water Works Co. Inc.	-	Atmos Energy	-
	Aqua America Inc.	-	Laclede Group Inc	-
	California Water Service Group	-	New Jersey Resources	-
	Connecticut Water Service Inc.	-	Northwest Natural Gas	-
	Middlesex Water Co.	-	Piedmont Natural Gas	-
	SJW Corp	-	South Jersey Industries	-
	York Water Co.	-	Southwest Gas	-
			UGI Corp	-
			WGL Holdings	-
29	Average	**9.11**		**9.68**
32	Average of DCF & NCDCF (line 15 + 29) / 2)	**9.13**		**9.34**

	CAPM				**CAPM**			
	Risk-Free	Beta	Risk Premium		Risk-Free	Beta	Risk Premium	
	3.62 +	(0.65 *	(12.53-3.62))		3.62 +	(0.69 *	(12.53-3.62))	
41	3.62	0.65	8.91	9.41	3.62	0.69	8.91	9.77
42		Size Adjustment Premium(2)		1.30		Size Adjustment Premium(2)		0.90
43				**10.71**				**10.67**
44	Average (line 32 + 43) / 2)			**9.92**				**10.01**

	Weighting Water Sample	Weighting Gas Sample	Proposed ROE
Recommended Weighting of Results	0%	100%	
Range of Recommendation			**9.34 - 10.67**
Recommended Cost of Equity	0.00	10.01	**10.01**

Notes: (1) Staff's Testimony did not provide the information required to calculated for each individual Company. NCDCF shown was calculated on the average for the group.
(2) Developed on page 4 of Schedule 19 from Exhibit HW-1.