KANE BOROUGH AUTHORITY
KANE BOROUGH AUTHORITY WASTEWATER SYSTEM ASSETS

ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - PUMPING

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2019

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 60-R3							
NET SALVAGE PERCENT.. 0							
1996	821,633.75	60.00	1.67	13,721.28	38.28	0.3620	297,431
2002	11,829.38	60.00	1.67	197.55	43.70	0.2717	3,214
2004	167,754.16	60.00	1.67	2,801.49	45.55	0.2408	40,400
2012	3,635.66	60.00	1.67	60.72	53.16	0.1140	414
	1,004,852.95			16,781.04			341,459

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.67

KANE BOROUGH AUTHORITY
KANE BOROUGH AUTHORITY WASTEWATER SYSTEM ASSETS

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TREATMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2019

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	--ANNUAL ACCRUAL-- AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	--ACCRUED DEPREC.-- AMOUNT (8)
SURVIVOR CURVE.. IOWA 65-R3							
NET SALVAGE PERCENT.. 0							
1994	182,455.78	65.00	1.54	2,809.82	41.39	0.3632	66,273
1996	19,603,772.48	65.00	1.54	301,898.10	43.17	0.3359	6,583,927
1999	33,965.59	65.00	1.54	523.07	45.88	0.2942	9,991
2001	31,788.04	65.00	1.54	489.54	47.72	0.2659	8,451
2002	19,254.14	65.00	1.54	296.51	48.65	0.2515	4,843
2003	12,172.71	65.00	1.54	187.46	49.58	0.2372	2,888
2004	185,315.72	65.00	1.54	2,853.86	50.52	0.2228	41,283
2006	312,652.00	65.00	1.54	4,814.84	52.40	0.1939	60,608
2007	21,011.28	65.00	1.54	323.57	53.35	0.1792	3,766
2008	1,372.70	65.00	1.54	21.14	54.31	0.1645	226
2009	1,857.08	65.00	1.54	28.60	55.26	0.1499	278
2010	7,285.23	65.00	1.54	112.19	56.22	0.1351	984
2012	7,409.79	65.00	1.54	114.11	58.16	0.1052	780
2015	11,377.14	65.00	1.54	175.21	61.07	0.0605	688
2017	6,370.58	65.00	1.54	98.11	63.03	0.0303	193
9999	26,675.63		1.54	410.80		0.3320	8,856
	20,464,735.89			315,156.93			6,794,035

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.54

KANE BOROUGH AUTHORITY
KANE BOROUGH AUTHORITY WASTEWATER SYSTEM ASSETS

ACCOUNT 355.00 POWER GENERATION EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2019

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 30-S2							
NET SALVAGE PERCENT.. 0							
1996	308,244.44	30.00	3.33	10,264.54	10.84	0.6387	196,866
	308,244.44			10,264.54			196,866

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 3.33

KANE BOROUGH AUTHORITY
KANE BOROUGH AUTHORITY WASTEWATER SYSTEM ASSETS

ACCOUNT 360.21 COLLECTION SEWERS - FORCE - MAINS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2019

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 65-R2.5							
NET SALVAGE PERCENT.. 0							
1995	635,813.83	65.00	1.54	9,791.53	43.37	0.3328	211,580
1996	343,330.72	65.00	1.54	5,287.29	44.22	0.3197	109,759
2004	47,885.91	65.00	1.54	737.44	51.18	0.2126	10,182
	1,027,030.46			15,816.26			331,521

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.54

KANE BOROUGH AUTHORITY
KANE BOROUGH AUTHORITY WASTEWATER SYSTEM ASSETS

ACCOUNT 360.22 COLLECTION SEWERS - FORCE - MANHOLES

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2019

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 60-R3							
NET SALVAGE PERCENT.. 0							
1995	22,201.81	60.00	1.67	370.77	37.40	0.3767	8,363
	22,201.81			370.77			8,363

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.67

KANE BOROUGH AUTHORITY
KANE BOROUGH AUTHORITY WASTEWATER SYSTEM ASSETS

ACCOUNT 361.21 COLLECTION SEWERS - GRAVITY - MAINS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2019

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 65-R2.5							
NET SALVAGE PERCENT.. 0							
1968	10,271,115.26	65.00	1.54	158,175.18	23.21	0.6429	6,603,505
1994	1,038,434.39	65.00	1.54	15,991.89	42.53	0.3457	358,976
1995	2,930,810.82	65.00	1.54	45,134.49	43.37	0.3328	975,286
1996	4,231,307.74	65.00	1.54	65,162.14	44.22	0.3197	1,352,707
1998	34,145.49	65.00	1.54	525.84	45.93	0.2934	10,018
1999	23,828.14	65.00	1.54	366.95	46.79	0.2802	6,675
2001	570,014.05	65.00	1.54	8,778.22	48.53	0.2534	144,430
2002	74,150.92	65.00	1.54	1,141.92	49.41	0.2399	17,785
2003	17,750.57	65.00	1.54	273.36	50.30	0.2262	4,014
2004	121,534.29	65.00	1.54	1,871.63	51.18	0.2126	25,841
2007	772.64	65.00	1.54	11.90	53.88	0.1711	132
2009	7,427.57	65.00	1.54	114.38	55.70	0.1431	1,063
2012	34,476.65	65.00	1.54	530.94	58.45	0.1008	3,474
2013	59,229.36	65.00	1.54	912.13	59.38	0.0865	5,121
	19,414,997.89			298,990.97			9,509,027

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.54

KANE BOROUGH AUTHORITY
KANE BOROUGH AUTHORITY WASTEWATER SYSTEM ASSETS

ACCOUNT 361.22 COLLECTION SEWERS - GRAVITY - MANHOLES

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2019

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 60-R3							
NET SALVAGE PERCENT.. 0							
1968	357,613.54	60.00	1.67	5,972.15	16.97	0.7172	256,470
1994	125,229.36	60.00	1.67	2,091.33	36.52	0.3913	49,006
1995	647,080.06	60.00	1.67	10,806.24	37.40	0.3767	243,736
1996	885,219.05	60.00	1.67	14,783.16	38.28	0.3620	320,449
2001	45,243.99	60.00	1.67	755.57	42.78	0.2870	12,985
2004	57,405.83	60.00	1.67	958.68	45.55	0.2408	13,825
2016	11,736.30	60.00	1.67	196.00	57.05	0.0492	577
	2,129,528.13			35,563.13			897,048

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.67

KANE BOROUGH AUTHORITY
KANE BOROUGH AUTHORITY WASTEWATER SYSTEM ASSETS

ACCOUNT 363.20 SERVICES TO CUSTOMERS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2019

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 50-R2.5							
NET SALVAGE PERCENT.. 0							
1995	142,373.98	50.00	2.00	2,847.48	28.82	0.4236	60,310
1996	323,445.71	50.00	2.00	6,468.91	29.62	0.4076	131,836
2004	1,195.22	50.00	2.00	23.90	36.33	0.2734	327
	467,014.91			9,340.29			192,473

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.00

KANE BOROUGH AUTHORITY
KANE BOROUGH AUTHORITY WASTEWATER SYSTEM ASSETS

ACCOUNT 364.20 FLOW MEASURING DEVICES

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2019

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 30-L3							
NET SALVAGE PERCENT.. 0							
1996	19,528.38	30.00	3.33	650.30	10.77	0.6410	12,518
1998	22,157.94	30.00	3.33	737.86	11.68	0.6107	13,531
2011	4,315.45	30.00	3.33	143.70	22.08	0.2640	1,139
2016	2,914.15	30.00	3.33	97.04	27.00	0.1000	291
	48,915.92			1,628.90			27,479

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 3.33

KANE BOROUGH AUTHORITY
KANE BOROUGH AUTHORITY WASTEWATER SYSTEM ASSETS

ACCOUNT 371.30 PUMPING EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2019

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 40-R1.5							
NET SALVAGE PERCENT.. 0							
1996	1,234,608.76	40.00	2.50	30,865.22	22.64	0.4340	535,820
1997	11,871.34	40.00	2.50	296.78	23.32	0.4170	4,950
2001	62,451.20	40.00	2.50	1,561.28	26.10	0.3475	21,702
2002	3,534.04	40.00	2.50	88.35	26.82	0.3295	1,164
2004	9,259.09	40.00	2.50	231.48	28.28	0.2930	2,713
2006	30,877.93	40.00	2.50	771.95	29.76	0.2560	7,905
2012	29,857.79	40.00	2.50	746.44	34.36	0.1410	4,210
2013	6,639.09	40.00	2.50	165.98	35.15	0.1213	805
2015	58,771.13	40.00	2.50	1,469.28	36.74	0.0815	4,790
2016	9,191.51	40.00	2.50	229.79	37.55	0.0613	563
	1,457,061.88			36,426.55			584,622

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.50

KANE BOROUGH AUTHORITY
KANE BOROUGH AUTHORITY WASTEWATER SYSTEM ASSETS

ACCOUNT 380.40 TREATMENT AND DISPOSAL EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2019

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 45-S0.5							
NET SALVAGE PERCENT.. 0							
1968	2,807,409.16	45.00	2.22	62,324.48	13.72	0.6951	1,951,458
1995	342,322.55	45.00	2.22	7,599.56	26.62	0.4084	139,818
1996	5,210,843.20	45.00	2.22	115,680.72	27.22	0.3951	2,058,856
1999	3,753.48	45.00	2.22	83.33	29.08	0.3538	1,328
2001	76,162.99	45.00	2.22	1,690.82	30.39	0.3247	24,728
2002	163,964.76	45.00	2.22	3,640.02	31.06	0.3098	50,793
2003	9,382.09	45.00	2.22	208.28	31.74	0.2947	2,765
2004	17,198.33	45.00	2.22	381.80	32.44	0.2791	4,800
2009	6,834.43	45.00	2.22	151.72	36.18	0.1960	1,340
2012	67,654.43	45.00	2.22	1,501.93	38.62	0.1418	9,592
2013	5,055.08	45.00	2.22	112.22	39.47	0.1229	621
2014	6,178.23	45.00	2.22	137.16	40.34	0.1036	640
2015	78,219.30	45.00	2.22	1,736.47	41.23	0.0838	6,553
2016	23,936.71	45.00	2.22	531.39	42.14	0.0636	1,521
2017	7,346.08	45.00	2.22	163.08	43.07	0.0429	315
2018	14,739.02	45.00	2.22	327.21	44.02	0.0218	321
	8,840,999.84			196,270.19			4,255,449

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.22

KANE BOROUGH AUTHORITY
KANE BOROUGH AUTHORITY WASTEWATER SYSTEM ASSETS

ACCOUNT 381.40 PLANT SEWERS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2019

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 60-R3							
NET SALVAGE PERCENT.. 0							
1996	1,355,228.28	60.00	1.67	22,632.31	38.28	0.3620	490,593
1999	25,076.48	60.00	1.67	418.78	40.96	0.3173	7,958
2002	34,594.97	60.00	1.67	577.74	43.70	0.2717	9,398
2003	761,378.73	60.00	1.67	12,715.02	44.62	0.2563	195,164
2004	57,639.14	60.00	1.67	962.57	45.55	0.2408	13,881
2016	4,100.06	60.00	1.67	68.47	57.05	0.0492	202
	2,238,017.66			37,374.89			717,196

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.67

KANE BOROUGH AUTHORITY
KANE BOROUGH AUTHORITY WASTEWATER SYSTEM ASSETS

ACCOUNT 390.70 OFFICE FURNITURE AND EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2019

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. 5-SQUARE							
NET SALVAGE PERCENT.. 0							
1992	346.03	5.00				1.0000	346
1993	241.31	5.00				1.0000	241
2003	6,194.91	5.00				1.0000	6,195
2004	98.99	5.00				1.0000	99
2005	1,550.45	5.00				1.0000	1,550
2011	5,225.90	5.00				1.0000	5,226
2012	4,494.72	5.00				1.0000	4,495
2016	1,993.10	5.00	20.00	398.62	2.00	0.6000	1,196
	20,145.41			398.62			19,348

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.98

KANE BOROUGH AUTHORITY
KANE BOROUGH AUTHORITY WASTEWATER SYSTEM ASSETS

ACCOUNT 391.70 TRANSPORTATION EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2019

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 12-L1.5							
NET SALVAGE PERCENT.. 0							
1995	22,590.98	12.00	8.33	1,881.83	2.34	0.8050	18,186
2016	32,299.17	12.00	8.33	2,690.52	9.31	0.2242	7,241
	54,890.15			4,572.35			25,427

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 8.33

KANE BOROUGH AUTHORITY
KANE BOROUGH AUTHORITY WASTEWATER SYSTEM ASSETS

ACCOUNT 392.70 STORES EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2019

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. 20-SQUARE							
NET SALVAGE PERCENT.. 0							
2017	10,638.21	20.00	5.00	531.91	18.00	0.1000	1,064
	10,638.21			531.91			1,064

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 5.00

KANE BOROUGH AUTHORITY
KANE BOROUGH AUTHORITY WASTEWATER SYSTEM ASSETS

ACCOUNT 393.70 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2019

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. 20-SQUARE							
NET SALVAGE PERCENT.. 0							
1998	10,343.13	20.00				1.0000	10,343
1999	20,884.88	20.00				1.0000	20,885
2002	12,280.54	20.00	5.00	614.03	3.00	0.8500	10,438
2003	8,654.64	20.00	5.00	432.73	4.00	0.8000	6,924
2004	2,313.52	20.00	5.00	115.68	5.00	0.7500	1,735
2006	10,695.12	20.00	5.00	534.76	7.00	0.6500	6,952
2009	6,708.49	20.00	5.00	335.42	10.00	0.5000	3,354
2013	7,083.14	20.00	5.00	354.16	14.00	0.3000	2,125
2015	19,912.78	20.00	5.00	995.64	16.00	0.2000	3,983
2016	12,784.77	20.00	5.00	639.24	17.00	0.1500	1,918
	111,661.01			4,021.66			68,657

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 3.60

KANE BOROUGH AUTHORITY
KANE BOROUGH AUTHORITY WASTEWATER SYSTEM ASSETS

ACCOUNT 394.70 LABORATORY EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2019

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. 15-SQUARE							
NET SALVAGE PERCENT.. 0							
1995	3,223.83	15.00				1.0000	3,224
2003	5,945.47	15.00				1.0000	5,945
	9,169.30						9,169

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 0.00

KANE BOROUGH AUTHORITY
KANE BOROUGH AUTHORITY WASTEWATER SYSTEM ASSETS

ACCOUNT 395.70 POWER OPERATED EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2019

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. IOWA 15-L4							
NET SALVAGE PERCENT.. 0							
2014	4,486.34	15.00	6.67	299.24	10.00	0.3333	1,495
	4,486.34			299.24			1,495

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 6.67

KANE BOROUGH AUTHORITY
KANE BOROUGH AUTHORITY WASTEWATER SYSTEM ASSETS

ACCOUNT 396.70 COMMUNICATION EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2019

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	--ANNUAL ACCRUAL-- RATE (4)	AMOUNT (5)	EXP. (6)	--ACCRUED DEPREC.-- FACTOR (7)	AMOUNT (8)
SURVIVOR CURVE.. 15-SQUARE							
NET SALVAGE PERCENT.. 0							
1996	806.28	15.00				1.0000	806
2003	806.20	15.00				1.0000	806
2011	3,818.78	15.00	6.67	254.71	7.00	0.5333	2,037
2016	4,482.30	15.00	6.67	298.97	12.00	0.2000	896
	9,913.56			553.68			4,545

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 5.59

Income Approach
Kane Borough Authority Wastewater System
Pro Forma Operations
Earnings Capitalization Model

	Actual			Estimate Year 0
	2016	2017	2018	2019
1. **OPERATING REVENUES (1)**				
2. Charges for services	1,431,778	1,440,478	1,426,380	1,426,380
3. Other operating revenue	835	1,317	7,598	7,598
4. Tap Fees	0	0	0	0
5. **Total Operating Revenues**	1,432,613	1,441,795	1,433,978	1,433,978
6. **Rate Increase**				
7. **OPERATING EXPENSES (1)**				
8. Operating & Maintenance Expenses	751,583	743,861	749,148	749,148
9. **Operating Expenses Before Depreciation**	751,583	743,861	749,148	749,148
10. Depreciation (2)	506,586	512,824	503,158	503,430
11. **Total Operating Expenses**	1,258,169	1,256,685	1,252,306	1,252,578
12. **Operating Income**	174,444	185,110	181,672	181,400
13. Revenues (3)	1,432,613	1,441,795	1,433,978	1,433,978
14. EBITDA (4)	681,030	697,934	684,830	684,830
15. EBIT (5)	174,444	185,110	181,672	181,400
16. EBIT	174,444	185,110	181,672	181,400
17. (-) Income Taxes	0	0	0	0
18. Debt Free Net Income	174,444	185,110	181,672	181,400
19. (+) Depreciation & Amortization	506,586	512,824	503,158	503,430
20. (-) Capital Expenditures (6)	75,233	47,612	45,104	45,104
21. (-) Changes in Working Capital (7)	1,003	1,009	1,004	1,004
22. Debt Free Net Cash Flow	$604,794	$649,313	$638,722	$638,722

Income Approach
Kane Borough Authority Wastewater System
Pro Forma Operations
Earnings Capitalization Model

		2019	Pro Forma 2019 (11)
		3.62% Capitalization Rate Model (No Growth)	3.62% Capitalization Rate Model (No Growth)
23.	Debt Free Net Cash Flow (10)	$638,722	$627,843
24.	Capitalization Factor: (8)	3.62%	3.62%
25.	Indicated Value (line 23 ÷ line 24)	$17,644,260	$17,343,735
		3.62% Capitalization Rate Model (0.00% Growth)	3.62% Capitalization Rate Model (0.00% Growth)
26.	Debt Free Net Cash Flow (10)	$638,722	$627,843
27.	Capitalization Factor: (9)	3.62%	3.62%
28.	Indicated Value (line 26 ÷ line 27)	$17,644,260	$17,343,735

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Kane Borough Authority Wastewater System
Pro Forma Operations
Earnings Capitalization Model

Notes: (1) Assumptions:

Charges for services - Pre-2020 are actual or budget. Post-2019 based on customer growth (EDU) and average revenue per customer.

OPERATING EXPENSES - increase at 2.5% annually after 2019 unless noted elsewhere. Assumed economies of scale are shown on lines below.

(2) Depreciation - Pre-2020 based on actual depreciation rate plus same rate on half of CAPX. Post-2019 based on depreciation rate plus same rate on half of CAPX.

(3) Line 5.

(4) Line 12 + line 10.

(5) Line 12.

(6) Capital Expenditures - Pre-2020 based on financials/budget. Post-2019 years are estimates at 1.70% of prior year-end GROSS Property, plant and equipment.

(7) Changes in Working Capital - based on water industry 0.07% of revenues.

(8) Discount rate is the current MUNI discount rate. Capitalization rate, "K", at 6/30/2019 equal to discount rate, where capitalization rate = K - g.

(10) Final year shown, line 22.

(11) Debt Free Net Cash Flow adjusted for 2016-2018 average CAPX of $55,983 if system is not sold.

Terms:

CAPX - Capital Expenditures
CIP - Capital improvement plan
Dep - Depreciation expense
GROSS PPE - GROSS Property, plant and equipment
IOU - Investor owned utility
MUNI - Large regional municipally owned utility
NET PPE - NET Property, plant and equipment

Income Approach
Kane Borough Authority Wastewater System
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Actual			Estimate Year 0	Estimated Year 1
	2016	2017	2018	2019	2020
1. **OPERATING REVENUES (1)**					
2. Charges for services	1,431,778	1,440,478	1,426,380	1,426,380	1,428,656
3. Other operating revenue	835	1,317	7,598	7,598	7,598
4. Tap Fees	0	0	0	0	0
5. Other (Rate Increase)	0	0	0	0	0
6. **Total Operating Revenues**	1,432,613	1,441,795	1,433,978	1,433,978	1,436,254
7. **Rate Increase**					
8. **OPERATING EXPENSES (1)**					
9. Operating & Maintenance Expenses	751,583	743,861	749,148	749,148	767,877
10. Remove Economies of Scale					
11. LESS: EOS - Wages & Benefits	0	0	0	0	(57,076)
12. LESS: EOS - Professional Services	0	0	0	0	(7,638)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0
14. **Operating Expenses Before Depreciation**	751,583	743,861	749,148	749,148	703,162
15. Depreciation (2)	506,586	512,824	503,158	503,430	364,423
16. **Total Operating Expenses**	1,258,169	1,256,685	1,252,306	1,252,578	1,067,585
17. **Operating Income**	174,444	185,110	181,672	181,400	368,669
18. Revenues (3)	1,432,613	1,441,795	1,433,978	1,433,978	1,436,254
19. EBITDA (4)	681,030	697,934	684,830	684,830	733,092
20. EBIT (5)	174,444	185,110	181,672	181,400	368,669
21. EBIT	174,444	185,110	181,672	181,400	368,669
22. (-) Income Taxes	0	0	0	0	0
23. Debt Free Net Income	174,444	185,110	181,672	181,400	368,669
24. (+) Depreciation & Amortization	506,586	512,824	503,158	503,430	364,423
25. (-) Capital Expenditures (6)	75,233	47,612	45,104	45,104	358,641
26. (-) Changes in Working Capital (7)	1,003	1,009	1,004	1,004	1,005
27. Debt Free Net Cash Flow	$604,794	$649,313	$638,722	$638,722	$373,445
28. PV Time Period (mid-year)				(0.5)	0.5
29. Present Value Factor: 3.62% (8)					0.9824
30. Present Value Debt Free Net Cash Flow					$366,873
31. Present Value Factor: 3.32% (9)					0.9838
32. Present Value Debt Free Net Cash Flow					$367,395

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Kane Borough Authority Wastewater System
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated
	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
	2021	2022	2023	2024	2025	2026
1. **OPERATING REVENUES (1)**						
2. Charges for services	1,430,928	1,435,473	1,800,021	1,803,132	1,836,139	1,836,690
3. Other operating revenue	7,598	7,598	7,598	7,598	7,598	7,598
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	0	358,868	0	32,456	0	45,917
6. **Total Operating Revenues**	1,438,526	1,801,939	1,807,619	1,843,186	1,843,737	1,890,205
7. **Rate Increase**		**25%**		**2%**		**2%**
8. **OPERATING EXPENSES (1)**						
9. Operating & Maintenance Expenses	787,074	806,750	826,919	847,592	868,782	890,502
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	(58,503)	(59,965)	(61,465)	(63,001)	(64,576)	(66,191)
12. LESS: EOS - Professional Services	(7,829)	(8,025)	(8,226)	(8,431)	(8,642)	(8,858)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. **Operating Expenses Before Depreciation**	720,741	738,760	757,229	776,160	795,564	815,453
15. Depreciation (2)	369,698	375,048	380,477	385,984	391,570	397,238
16. **Total Operating Expenses**	1,090,439	1,113,808	1,137,706	1,162,144	1,187,134	1,212,691
17. **Operating Income**	348,087	688,131	669,913	681,042	656,603	677,514
18. Revenues (3)	1,438,526	1,801,939	1,807,619	1,843,186	1,843,737	1,890,205
19. EBITDA (4)	717,785	1,063,179	1,050,390	1,067,026	1,048,173	1,074,752
20. EBIT (5)	348,087	688,131	669,913	681,042	656,603	677,514
21. EBIT	348,087	688,131	669,913	681,042	656,603	677,514
22. (-) Income Taxes	0	0	0	0	0	0
23. Debt Free Net Income	348,087	688,131	669,913	681,042	656,603	677,514
24. (+) Depreciation & Amortization	369,698	375,048	380,477	385,984	391,570	397,238
25. (-) Capital Expenditures (6)	363,832	369,098	374,441	379,860	385,358	390,936
26. (-) Changes in Working Capital (7)	1,007	1,261	1,265	1,290	1,291	1,323
27. Debt Free Net Cash Flow	$352,946	$692,820	$674,684	$685,876	$661,525	$682,493
28. PV Time Period (mid-year)	1.5	2.5	3.5	4.5	5.5	6.5
29. Present Value Factor: 3.62% (8)	0.9481	0.9149	0.8830	0.8521	0.8224	0.7936
30. Present Value Debt Free Net Cash Flow	$334,628	$633,861	$595,746	$584,435	$544,038	$541,626
31. Present Value Factor: 3.32% (9)	0.9522	0.9216	0.8920	0.8633	0.8356	0.8087
32. Present Value Debt Free Net Cash Flow	$336,075	$638,503	$601,818	$592,117	$552,770	$551,932

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Kane Borough Authority Wastewater System
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

		Estimated	Estimated	Estimated	Estimated	Estimated	Estimated
		Year 8	Year 9	Year 10	Year 11	Year 12	Year 13
		2027	2028	2029	2030	2031	2032
1.	**OPERATING REVENUES (1)**						
2.	Charges for services	1,883,172	1,883,737	1,935,178	1,935,759	1,990,557	1,991,154
3.	Other operating revenue	7,598	7,598	7,598	7,598	7,598	7,598
4.	Tap Fees	0	0	0	0	0	0
5.	Other (Rate Increase)	0	50,861	0	54,201	0	59,735
6.	**Total Operating Revenues**	1,890,770	1,942,196	1,942,776	1,997,558	1,998,155	2,058,487
7.	**Rate Increase**		**3%**		**3%**		**3%**
8.	**OPERATING EXPENSES (1)**						
9.	Operating & Maintenance Expenses	912,764	935,583	958,973	982,947	1,007,521	1,032,709
10.	Remove Economies of Scale						
11.	LESS: EOS - Wages & Benefits	(67,845)	(69,542)	(71,280)	(73,062)	(74,889)	(76,761)
12.	LESS: EOS - Professional Services	(9,080)	(9,307)	(9,539)	(9,778)	(10,022)	(10,273)
13.	LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14.	**Operating Expenses Before Depreciation**	835,839	856,735	878,153	900,107	922,610	945,675
15.	Depreciation (2)	402,988	408,820	414,737	420,740	426,830	433,008
16.	**Total Operating Expenses**	1,238,827	1,265,555	1,292,891	1,320,848	1,349,440	1,378,683
17.	**Operating Income**	651,943	676,641	649,885	676,710	648,715	679,804
18.	Revenues (3)	1,890,770	1,942,196	1,942,776	1,997,558	1,998,155	2,058,487
19.	EBITDA (4)	1,054,931	1,085,461	1,064,623	1,097,451	1,075,545	1,112,812
20.	EBIT (5)	651,943	676,641	649,885	676,710	648,715	679,804
21.	EBIT	651,943	676,641	649,885	676,710	648,715	679,804
22.	(-) Income Taxes	0	0	0	0	0	0
23.	Debt Free Net Income	651,943	676,641	649,885	676,710	648,715	679,804
24.	(+) Depreciation & Amortization	402,988	408,820	414,737	420,740	426,830	433,008
25.	(-) Capital Expenditures (6)	396,594	402,334	408,158	414,065	420,058	426,138
26.	(-) Changes in Working Capital (7)	1,324	1,360	1,360	1,398	1,399	1,441
27.	Debt Free Net Cash Flow	$657,013	$681,767	$655,105	$681,987	$654,088	$685,233
28.	PV Time Period (mid-year)	7.5	8.5	9.5	10.5	11.5	12.5
29.	Present Value Factor: 3.62% (8)	0.7659	0.7391	0.7133	0.6884	0.6644	0.6411
30.	Present Value Debt Free Net Cash Flow	$503,207	$503,894	$467,286	$469,480	$434,576	$439,303
31.	Present Value Factor: 3.32% (9)	0.7827	0.7576	0.7332	0.7097	0.6869	0.6648
32.	Present Value Debt Free Net Cash Flow	$514,244	$516,507	$480,323	$484,006	$449,293	$455,543

See last page of this EXHIBIT for notes and assumptions.

Income Approach

Kane Borough Authority Wastewater System
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

DCF With Capitalization of Terminal Value Model @ 3.62%	Terminal Value
Projected Debt Free Net Cash Flow (10)	$685,233
Divided by Capitalization Factor (8)	3.62%
13th Year Terminal Value	18,929,083
13th Year Present Value Factor (11)	0.6411
Present Value of Terminal Value	12,135,435
Present Value Debt Free Net	
Cash Flow for 13 Years	6,418,952
Indicated Value	$18,554,387

DCF With EBIT & EBITDA Terminal Value Model - Discount Rate of 3.62%		Multiples (13)	Terminal Value
Projected EBIT	$679,804	18.8	$12,780,307
Projected EBITDA	1,112,812	12.6	14,021,428
Weighted (1/3 EBIT 2/3 EBITDA) Terminal Value			13,611,858
13th Year Present Value Factor (11)			0.6411
Present Value of Terminal Value			8,726,562
Present Value Debt Free Net			
Cash Flow for 13 Years			6,418,952
Indicated Value			$15,145,514

DCF With Capitalization of Terminal Value Model @ 3.32%	Terminal Value
Projected Debt Free Net Cash Flow (10)	$685,233
Divided by Capitalization Factor (9)	3.32%
13th Year Terminal Value	20,639,542
13th Year Present Value Factor (12)	0.6411
Present Value of Terminal Value	13,232,011
Present Value Debt Free Net	
Cash Flow for 13 Years	6,418,952
Indicated Value	$19,650,962

DCF With EBIT & EBITDA Terminal Value Model - Discount Rate of 3.32%		Multiples (13)	Terminal Value
Projected EBIT	$679,804	18.8	$12,780,307
Projected EBITDA	1,112,812	12.6	14,021,428
Weighted (1/3 EBIT 2/3 EBITDA) Terminal Value			13,611,858
13th Year Present Value Factor (12)			0.6411
Present Value of Terminal Value			8,726,562
Present Value Debt Free Net			
Cash Flow for 13 Years			6,418,952
Indicated Value			$15,145,514

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Kane Borough Authority Wastewater System
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

Notes: (1) Assumptions:

Charges for services - Pre-2020 are actual or budget. Post-2019 based on customer growth (EDU) and average revenue per customer. Rate increases (Other rate increase line item) are added year after they occur.

Other (Rate Increase) - Assumed purchase by MUNI at end of 2019 with shown rate increases.

OPERATING EXPENSES - increase at 2.5% annually after 2019 unless noted elsewhere. Assumed economies of scale are shown on lines below.

Wages & Benefits - Post-2019 assumed 15% savings due to economies of scale. Increase at 2.5% afterwards.

Professional Services - Post-2019 assumed 50% savings due to economies of scale. Increase at 2.5% afterwards.

Electric & Power - Post-2019 assumed 10% savings due to economies of scale. Increase at 2.5% afterwards.

(2) Depreciation - Pre-2020 based on actual depreciation rate plus same rate on half of CAPX. Post-2019 based on depreciation rate plus same rate on half of CAPX.
(3) Line 6.
(4) Line 17 + line 15.
(5) Line 17.
(6) Capital Expenditures - Pre-2020 based on financials/budget. Post-2019 years are estimates at 1.70% of prior year-end GROSS Property, plant and equipment.
(7) Changes in Working Capital - based on water industry 0.07% of revenues.
(8) Discount rate is the current MUNI discount rate. Capitalization rate, "K", at 6/30/2019 equal to discount rate, where capitalization rate = K - g.
(9) Discount rate is the current MUNI discount rate. Capitalization rate, "K", at 6/30/2019 adjusted for stated growth, "g", where capitalization rate = K - g.
(10) Final year shown, line 27.
(11) Final year shown, line 29.
(12) Final year shown, line 29.
(13) Developed on Market Multiples EXHIBIT 15.

Terms:

CAPX - Capital Expenditures
CIP - Capital improvement plan
Dep - Depreciation expense
GROSS PPE - GROSS Property, plant and equipment
IOU - Investor owned utility
MUNI - Large regional municipally owned utility
NET PPE - NET Property, plant and equipment

Income Approach
Kane Borough Authority Wastewater System
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

		Actual			Estimate Year 0	Estimated Year 1
		2016	2017	2018	2019	2020
1.	**OPERATING REVENUES (1)**					
2.	Charges for services	1,431,778	1,440,478	1,426,380	1,426,380	1,428,656
3.	Other operating revenue	835	1,317	7,598	7,598	7,598
4.	Tap Fees	0	0	0	0	0
5.	Other (Rate Increase)	0	0	0	0	0
6.	**Total Operating Revenues**	1,432,613	1,441,795	1,433,978	1,433,978	1,436,254
7.	**Rate Increase**					
8.	**OPERATING EXPENSES (1)**					
9.	Operating & Maintenance Expenses	751,583	743,861	749,148	749,148	767,877
10.	Remove Economies of Scale					
11.	LESS: EOS - Wages & Benefits	0	0	0	0	(57,076)
12.	LESS: EOS - Professional Services	0	0	0	0	(7,638)
13.	LESS: EOS - Eliminated Expenses	0	0	0	0	0
14.	ADD: PURTA & Reg Assessment	0	0	0	0	26,840
15.	**Operating Expenses Before Depreciation**	751,583	743,861	749,148	749,148	730,002
16.	Depreciation (2)	506,586	512,824	503,158	503,430	364,423
17.	**Total Operating Expenses**	1,258,169	1,256,685	1,252,306	1,252,578	1,094,425
18.	**Operating Income**	174,444	185,110	181,672	181,400	341,829
19.	Revenues (3)	1,432,613	1,441,795	1,433,978	1,433,978	1,436,254
20.	EBITDA (4)	681,030	697,934	684,830	684,830	706,252
21.	EBIT (5)	174,444	185,110	181,672	181,400	341,829
22.	EBIT	174,444	185,110	181,672	181,400	341,829
23.	(-) Income Taxes	0	0	0	52,407	98,754
24.	Debt Free Net Income	174,444	185,110	181,672	128,993	243,075
25.	(+) Depreciation & Amortization	506,586	512,824	503,158	503,430	364,423
26.	(-) Capital Expenditures (6)	75,233	47,612	45,104	45,104	358,641
27.	(-) Changes in Working Capital (7)	1,003	1,009	1,004	1,004	1,005
28.	Debt Free Net Cash Flow	$604,794	$649,313	$638,722	$586,315	$247,851
29.	PV Time Period (mid-year)				(0.5)	0.5
30.	Present Value Factor: 6.41% (8)					0.9694
31.	Present Value Debt Free Net Cash Flow					$240,267
32.	Present Value Factor: 7.70% (9)					0.9636
33.	Present Value Debt Free Net Cash Flow					$238,829
34.	Present Value Factor: 6.11% (8)					0.9708
35.	Present Value Debt Free Net Cash Flow					$240,614
36.	Present Value Factor: 7.40% (9)					0.9649
37.	Present Value Debt Free Net Cash Flow					$239,152

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Kane Borough Authority Wastewater System
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated
	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
	2021	2022	2023	2024	2025	2026
1. **OPERATING REVENUES (1)**						
2. Charges for services	1,430,928	1,435,473	2,268,027	2,271,946	2,308,990	2,309,683
3. Other operating revenue	7,598	7,598	7,598	7,598	7,598	7,598
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	0	825,397	0	36,351	0	46,194
6. **Total Operating Revenues**	1,438,526	2,268,468	2,275,625	2,315,895	2,316,588	2,363,475
7. **Rate Increase**		**58%**		**2%**		**2%**
8. **OPERATING EXPENSES (1)**						
9. Operating & Maintenance Expenses	787,074	806,750	826,919	847,592	868,782	890,502
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	(58,503)	(59,965)	(61,465)	(63,001)	(64,576)	(66,191)
12. LESS: EOS - Professional Services	(7,829)	(8,025)	(8,226)	(8,431)	(8,642)	(8,858)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: PURTA & Reg Assessment	26,845	26,850	31,564	31,595	31,816	31,811
15. **Operating Expenses Before Depreciation**	747,586	765,610	788,793	807,755	827,380	847,264
16. Depreciation (2)	369,698	375,048	380,477	385,984	391,570	397,238
17. **Total Operating Expenses**	1,117,284	1,140,658	1,169,270	1,193,739	1,218,950	1,244,502
18. **Operating Income**	321,242	1,127,810	1,106,355	1,122,156	1,097,638	1,118,973
19. Revenues (3)	1,438,526	2,268,468	2,275,625	2,315,895	2,316,588	2,363,475
20. EBITDA (4)	690,940	1,502,858	1,486,832	1,508,140	1,489,208	1,516,211
21. EBIT (5)	321,242	1,127,810	1,106,355	1,122,156	1,097,638	1,118,973
22. EBIT	321,242	1,127,810	1,106,355	1,122,156	1,097,638	1,118,973
23. (-) Income Taxes	92,807	325,824	319,626	324,191	317,108	323,271
24. Debt Free Net Income	228,435	801,986	786,729	797,965	780,530	795,702
25. (+) Depreciation & Amortization	369,698	375,048	380,477	385,984	391,570	397,238
26. (-) Capital Expenditures (6)	363,832	369,098	374,441	379,860	385,358	390,936
27. (-) Changes in Working Capital (7)	1,007	1,588	1,593	1,621	1,622	1,654
28. Debt Free Net Cash Flow	$233,294	$806,348	$791,172	$802,468	$785,121	$800,350
29. PV Time Period (mid-year)	1.5	2.5	3.5	4.5	5.5	6.5
30. Present Value Factor: 6.41% (8)	0.9110	0.8561	0.8046	0.7561	0.7106	0.6678
31. Present Value Debt Free Net Cash Flow	$212,530	$690,315	$636,577	$606,746	$557,907	$534,474
32. Present Value Factor: 7.70% (9)	0.8947	0.8307	0.7713	0.7162	0.6650	0.6174
33. Present Value Debt Free Net Cash Flow	$208,728	$669,833	$610,231	$574,728	$522,105	$494,136
34. Present Value Factor: 6.11% (8)	0.9149	0.8622	0.8126	0.7658	0.7217	0.6801
35. Present Value Debt Free Net Cash Flow	$213,440	$695,233	$642,906	$614,530	$566,622	$544,318
36. Present Value Factor: 7.40% (9)	0.8984	0.8365	0.7789	0.7252	0.6753	0.6287
37. Present Value Debt Free Net Cash Flow	$209,591	$674,510	$616,244	$581,950	$530,192	$503,180

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Kane Borough Authority Wastewater System
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated
	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13
	2027	2028	2029	2030	2031	2032
1. **OPERATING REVENUES (1)**						
2. Charges for services	2,356,583	2,357,290	2,409,873	2,410,596	2,466,780	2,467,520
3. Other operating revenue	7,598	7,598	7,598	7,598	7,598	7,598
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	0	51,860	0	55,444	0	64,156
6. **Total Operating Revenues**	2,364,181	2,416,748	2,417,471	2,473,638	2,474,378	2,539,274
7. **Rate Increase**		**2%**		**2%**		**3%**
8. **OPERATING EXPENSES (1)**						
9. Operating & Maintenance Expenses	912,764	935,583	958,973	982,947	1,007,521	1,032,709
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	(67,845)	(69,542)	(71,280)	(73,062)	(74,889)	(76,761)
12. LESS: EOS - Professional Services	(9,080)	(9,307)	(9,539)	(9,778)	(10,022)	(10,273)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: PURTA & Reg Assessment	32,069	32,064	32,353	32,348	32,658	32,653
15. **Operating Expenses Before Depreciation**	867,908	888,799	910,506	932,455	955,268	978,328
16. Depreciation (2)	402,988	408,820	414,737	420,740	426,830	433,008
17. **Total Operating Expenses**	1,270,896	1,297,619	1,325,244	1,353,196	1,382,098	1,411,336
18. **Operating Income**	1,093,285	1,119,129	1,092,227	1,120,442	1,092,280	1,127,938
19. Revenues (3)	2,364,181	2,416,748	2,417,471	2,473,638	2,474,378	2,539,274
20. EBITDA (4)	1,496,273	1,527,949	1,506,965	1,541,183	1,519,110	1,560,946
21. EBIT (5)	1,093,285	1,119,129	1,092,227	1,120,442	1,092,280	1,127,938
22. EBIT	1,093,285	1,119,129	1,092,227	1,120,442	1,092,280	1,127,938
23. (-) Income Taxes	315,850	323,316	315,544	323,696	315,560	325,861
24. Debt Free Net Income	777,435	795,813	776,683	796,746	776,720	802,077
25. (+) Depreciation & Amortization	402,988	408,820	414,737	420,740	426,830	433,008
26. (-) Capital Expenditures (6)	396,594	402,334	408,158	414,065	420,058	426,138
27. (-) Changes in Working Capital (7)	1,655	1,692	1,692	1,732	1,732	1,777
28. Debt Free Net Cash Flow	$782,174	$800,607	$781,570	$801,690	$781,760	$807,169
29. PV Time Period (mid-year)	7.5	8.5	9.5	10.5	11.5	12.5
30. Present Value Factor: 6.41% (8)	0.6275	0.5897	0.5542	0.5208	0.4894	0.4600
31. Present Value Debt Free Net Cash Flow	$490,814	$472,118	$433,146	$417,520	$382,593	$371,298
32. Present Value Factor: 7.70% (9)	0.5733	0.5323	0.4943	0.4589	0.4261	0.3956
33. Present Value Debt Free Net Cash Flow	$448,420	$426,163	$386,330	$367,896	$333,108	$319,316
34. Present Value Factor: 6.11% (8)	0.6410	0.6040	0.5693	0.5365	0.5056	0.4765
35. Present Value Debt Free Net Cash Flow	$501,373	$483,567	$444,948	$430,107	$395,258	$384,616
36. Present Value Factor: 7.40% (9)	0.5854	0.5451	0.5075	0.4726	0.4400	0.4097
37. Present Value Debt Free Net Cash Flow	$457,885	$436,411	$396,647	$378,879	$343,974	$330,697

See last page of this EXHIBIT for notes and assumptions.

Income Approach

Kane Borough Authority Wastewater System
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

DCF With Capitalization of Terminal Value Model @ 6.41%	Terminal Value
Projected Debt Free Net Cash Flow (10)	$807,169
Divided by Capitalization Factor (8)	6.41%
13th Year Terminal Value	12,592,344
13th Year Present Value Factor (11)	0.4600
Present Value of Terminal Value	5,792,478
Present Value Debt Free Net Cash Flow for 13 Years	6,046,305
Indicated Value	$11,838,784

DCF With EBIT & EBITDA Terminal Value Model - Discount Rate of 6.41%		Multiples (13)	Terminal Value
Projected EBIT	$1,127,938	18.8	$21,205,226
Projected EBITDA	1,560,946	12.6	19,667,916
Weighted (1/3 EBIT 2/3 EBITDA) Terminal Value			20,175,229
13th Year Present Value Factor (11)			0.4600
Present Value of Terminal Value			9,280,605
Present Value Debt Free Net Cash Flow for 13 Years			6,046,305
Indicated Value			$15,326,911

DCF With Capitalization of Terminal Value Model @ 7.70%	Terminal Value
Projected Debt Free Net Cash Flow (10)	$807,169
Divided by Capitalization Factor (9)	7.70%
13th Year Terminal Value	10,482,718
13th Year Present Value Factor (12)	0.3956
Present Value of Terminal Value	4,146,963
Present Value Debt Free Net Cash Flow for 13 Years	5,599,824
Indicated Value	$9,746,787

DCF With EBIT & EBITDA Terminal Value Model - Discount Rate of 7.70%		Multiples (13)	Terminal Value
Projected EBIT	$1,127,938	18.8	$21,205,226
Projected EBITDA	1,560,946	12.6	19,667,916
Weighted (1/3 EBIT 2/3 EBITDA) Terminal Value			20,175,229
13th Year Present Value Factor (12)			0.3956
Present Value of Terminal Value			7,981,321
Present Value Debt Free Net Cash Flow for 13 Years			5,599,824
Indicated Value			$13,581,144

DCF With Capitalization of Terminal Value Model @ 6.11%	Terminal Value
Projected Debt Free Net Cash Flow (10)	$807,169
Divided by Capitalization Factor (8)	6.11%
13th Year Terminal Value	13,210,626
13th Year Present Value Factor (11)	0.4600
Present Value of Terminal Value	6,076,888
Present Value Debt Free Net Cash Flow for 13 Years	6,046,305
Indicated Value	$12,123,193

DCF With Capitalization of Terminal Value Model @ 7.40%	Terminal Value
Projected Debt Free Net Cash Flow (10)	$807,169
Divided by Capitalization Factor (9)	7.40%
13th Year Terminal Value	10,907,693
13th Year Present Value Factor (12)	0.3956
Present Value of Terminal Value	4,315,083
Present Value Debt Free Net Cash Flow for 13 Years	5,599,824
Indicated Value	$9,914,907

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Kane Borough Authority Wastewater System
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

Notes: (1) Assumptions:

Charges for services - Pre-2020 are actual or budget. Post-2019 based on customer growth (EDU) and average revenue per customer. Rate increases (Other rate increase line item) are added year after they occur.

Other (Rate Increase) - Assumed purchase by IOU at end of 2019 with shown rate increases.

OPERATING EXPENSES - increase at 2.5% annually after 2019 unless noted elsewhere. Assumed economies of scale are shown on lines below.

Wages & Benefits - Post-2019 assumed 15% savings due to economies of scale. Increase at 2.5% afterwards.
Professional Services - Post-2019 assumed 50% savings due to economies of scale. Increase at 2.5% afterwards.

Electric & Power - Post-2019 assumed 10% savings due to economies of scale. Increase at 2.5% afterwards.
PURTA & Reg Assessment - 2020 assumed due to IOU purchase at the end of 2019.

(2) Depreciation - Pre-2020 based on actual depreciation rate plus same rate on half of CAPX. Post-2019 based on depreciation rate plus same rate on half of CAPX.

(3) Line 6.

(4) Line 18 + line 16.

(5) Line 18.

(6) Capital Expenditures - Pre-2020 based on budget. Post-2019 years are estimates at 1.70% of prior year-end GROSS Property, plant and equipment.

(7) Changes in Working Capital - based on water industry 0.07% of revenues.

(8) Discount rate is the current lower end of the IOU discount rate. Capitalization rate, "K", at 6/30/2019 adjusted for stated growth, "g", where capitalization rate = K - g.

(9) Discount rate is the current upper end of the IOU discount rate. Capitalization rate, "K", at 6/30/2019 adjusted for stated growth, "g", where capitalization rate = K - g.

(10) Final year shown, line 28.

(11) Final year shown, line 30.

(12) Final year shown, line 32.

(13) Developed on Market Multiples EXHIBIT 15.

Terms:

CAPX - Capital Expenditures
CIP - Capital improvement plan
Dep - Depreciation expense
GROSS PPE - GROSS Property, plant and equipment
IOU - Investor owned utility
MUNI - Large regional municipally owned utility
NET PPE - NET Property, plant and equipment

Market Multiples Method

Kane Borough Authority Wastewater System

2018 Operations

Market Multiple Method

	A	B	C	D	E
				(Col B × Col C)	(Col A × Col D)
	Subject Company Statistic (1)	Comparison Group's Valuation Multiples 6/30/2019	Kane's Growth & Risk Adjustment	Kane's Risk Adjusted Valuation Multiples 6/30/2019	Kane's Market Multiples Valuation

Risk Adjusted Multiple

		A	B	C	D	E
1.	Kane Borough Authority Wastewater System					
2.	Investor Provided Capital	$10,809,115	2.25	70.00%	1.58	$17,078,402
3.	Gross PP&E	$21,023,527	1.40	91.00%	1.27	26,699,879
4.	Net PP&E	$13,503,901	1.83	91.00%	1.67	22,551,515
5.	Revenues	$1,433,978	7.88	70.00%	5.52	7,915,559
6.	EBITDA	$684,830	18.03	70.00%	12.62	8,642,555
7.	EBIT	$181,672	26.89	70.00%	18.82	3,419,067
8.	Customers	2,026	$8,368	90.00%	$7,531	15,257,806
9.	Population	4,645	$2,463	90.00%	$2,217	10,297,965
10.						
11.	Average					$13,982,843

Conclusion of Market Multiple Method Valuation

		Low	High		Conclusion
12.	Capital Items	$17,078,402	$26,699,879		$21,889,140
13.	(Items 3-4)				
14.	Income Statement Items	3,419,067	8,642,555		-
15.	(Items 5 -7)				
16.	Demographics Items	10,297,965	15,257,806		12,777,886
17.	(Item 8)				
				Conclusion	$17,333,513

Market Multiples Method
Kane Borough Authority Wastewater System
Development of Market Multiples Method for the Market Multiples Method

	Latest Quarter End			Latest 12 Months			2018		6/30/2019
	Gross PP&E ($ Mill)	Net PP&E ($ Mill)	Invest. Total Capital ($ Mill)	12 Mos. Rev. ($ Mill)	12 Mos. EBITDA ($ Mill)	12 Mos. EBIT ($ Mill)	Customers	Population	Enterprise Value ($ Mill)
American States Water Co	$1,901.361	$1,331.778	$1,000.862	$443.821	$143.993	$102.402	284,272	1,000,000	$3,205.974
American Water Works Company Inc	$22,260.000	$16,407.000	$14,870.000	$3,492.000	$1,720.000	$1,160.000	3,382,000	14,000,000	$29,793.203
Aqua America Inc	$7,760.617	$6,033.426	$4,662.641	$844.876	$544.382	$395.243	1,005,590	3,000,000	$12,377.449
Artesian Resources Corp	$638.803	$509.131	$291.687	$80.891	$34.535	$24.100	90,440	300,000	$477.993
California Water Service Group	$3,295.277	$2,273.687	$1,675.602	$692.060	$204.224	$118.790	517,500	2,000,000	$3,337.607
Middlesex Water Co	$796.700	$635.123	$478.693	$137.598	$53.294	$37.820	113,300	400,000	$1,195.294
SJW Corp.	$2,019.461	$1,386.547	$1,431.196	$400.339	$152.085	$95.922	247,267	1,114,200	$1,851.235
York Water Company (The)	$382.233	$301.839	$221.271	$48.624	$29.723	$22.663	70,263	199,000	$556.894
Average	$4,881.806	$3,609.816	$3,078.994	$767.526	$360.279	$244.617	713,829	2,751,650	$6,599.456
Max	$22,260.000	$16,407.000	$14,870.000	$3,492.000	$1,720.000	$1,160.000	3,382,000	14,000,000	$29,793.203
Min	$382.233	$301.839	$221.271	$48.624	$29.723	$22.663	70,263	199,000	$477.993
Median	$1,960.411	$1,359.162	$1,216.029	$422.080	$148.039	$99.162	265,770	1,057,100	$2,528.604

	Enterprise Value as a Multiple of								
	Invest. Capital (x)	Gross PP&E (x)	Net PP&E (x)	Rev. (x)	EBITDA (x)	EBIT (x)	Customers ($)	Population ($)	Population Per Customer
American States Water Co	3.20	1.69	2.41	7.22	22.26	31.31	$11,278	$3,206	3.52
American Water Works Company Inc	2.00	1.34	1.82	8.53	17.32	25.68	$8,809	$2,128	4.14
Aqua America Inc	2.65	1.59	2.05	14.65	22.74	31.32	$12,309	$4,126	2.98
Artesian Resources Corp	1.64	0.75	0.94	5.91	13.84	19.83	$5,285	$1,593	3.32
California Water Service Group	1.99	1.01	1.47	4.82	16.34	28.10	$6,449	$1,669	3.86
Middlesex Water Co	2.50	1.50	1.88	8.69	22.43	31.60	$10,550	$2,988	3.53
SJW Corp.	1.29	0.92	1.34	4.62	12.17	19.30	$7,487	$1,661	4.51
York Water Company (The)	2.52	1.46	1.85	11.45	18.74	24.57	$7,926	$2,798	2.83
Average	2.22	1.28	1.72	8.24	18.23	26.46	$8,762	$2,521	3.59
Max	3.20	1.69	2.41	14.65	22.74	31.60	$12,309	$4,126	4.51
Min	1.29	0.75	0.94	4.62	12.17	19.30	$5,285	$1,593	2.83
Median	2.25	1.40	1.83	7.88	18.03	26.89	$8,368	$2,463	3.52

Market Multiples Method
Kane Borough Authority Wastewater System
Quantification of the Effective Risk/Growth Adjustments

		Net PP&E	Gross PP&E	Invest. Capital
Comparable Group Multiple		1.83	1.40	2.25
Implied Capitalization Rate (1÷Multiple)		54.64%	71.43%	44.44%
Ratio of Net PP&E Mult. to Invest. Capital Mult.		123.0%		
Less 1	-	1.00		
Difference in Capital Source due to Contributions		22.95%		
Assumed Investor Financed (1-Difference in Capital Source)		77.05%	77.05%	
Implied Capitalization Rate (1÷Multiple)	x	54.64%	71.43%	
Not Contributed Cap. Rate		42.10%	55.04%	
Not Contributed Multiple (1÷Cap. Rate)		2.38	1.82	
Base Risk Factor	x	70%	70%	
Subject Company Adjusted Multiple		1.66	1.27	
Subject Company Adjusted Multiple		1.66	1.27	
Comparable Group Multiple	÷	1.83	1.40	
Effective Risk/Growth Adjustment		91%	91%	

		Net PP&E	Gross PP&E
Plant Assets		100%	100%
Ratio of Known "Cost Free" Capital		26%	26%
Plant Assets Less Known "Cost Free" Capital		74%	74%
Comparable Group Multiple		1.83	1.40
Plant Assets Less Known "Cost Free" Capital	÷	74%	74%
Mulitple Without "Cost Free" Capital		2.47	1.89
Base Risk Factor	x	70%	70%
Subject Company Adjusted Multiple		1.73	1.32
Subject Company Adjusted Multiple		1.73	1.32
Comparable Group Multiple	÷	1.83	1.40
Effective Risk/Growth Adjustment		95%	94%

		Rev.	EBITDA	EBIT
Comparable Group Multiple		7.88	18.03	26.89
Implied Capitalization Rate (1÷Multiple)		12.69%	5.55%	3.72%
(-) Growth Adjustment	-	0.00%	0.00%	0.00%
Adjusted Capitalization Rate (k-G)		12.69%	5.55%	3.72%
Adjusted Multiple (1÷Adj, Cap. Rate))		7.88	18.03	26.89
Base Risk Factor	x	70%	70%	70%
Subject Company Adjusted Multiple		5.52	12.62	18.82
Subject Company Adjusted Multiple		5.52	12.62	18.82
Comparable Group Multiple	÷	7.88	18.03	26.89
Effective Risk/Growth Adjustment		70%	70%	70%

Selected Transactions Method
For Kane Borough Authority Wastewater System
Summary

		Median	Mid-Point	Value
	All Selected Transactions Companies			
1.	Asset Items			$27,816,249
2.	Ex-Ante (page 2)	$27,014,993	$29,020,103	
3.	Ex-Post (page 3)	$22,409,490	$32,820,410	
4.	Demographics Items			$15,320,395
5.	Ex-Ante (page 2)	$12,833,846	$17,806,944	
6.	Ex-Post (page 3)	$12,833,846	$17,806,944	
7.			Indicated Value	$21,568,322
	Fully Integrated Selected Transactions Companies			
8.	Asset Items			$26,541,430
9.	Ex-Ante (page 2)	$27,014,993	$29,020,103	
10.	Ex-Post (page 3)	$24,417,411	$25,713,213	
11.	Demographics Items			$20,403,571
12.	Ex-Ante (page 2)	$18,498,900	$22,308,241	
13.	Ex-Post (page 3)	$18,498,900	$22,308,241	
14.			Indicated Value	$23,472,500
	Mostly Collection/Distribution Selected Transactions Companies			
15.	Asset Items			$26,461,770
16.	Ex-Ante (page 2)	NA	NA	
17.	Ex-Post (page 3)	$20,103,130	$32,820,410	
18.	Demographics Items			$8,963,984
19.	Ex-Ante (page 2)	$7,370,915	$10,557,053	
20.	Ex-Post (page 3)	$7,370,915	$10,557,053	
21.			Indicated Value	$17,712,877

Selected Transactions Method - Ex-Ante

For Kane Borough Authority Wastewater System

Based on 2016 - 2019 Acquisitions of Assets of Water or Sewer System, Without Discount for Customer Contributions

			Selected Transactions' Metrics								
Name	Service	System	Announced Purchase Price was:	Investor Provided Capital	Gross PP&E	Net PP&E	Revenues	EBITDA	EBIT	Customers	Population
Municipal Authority of the City of Mckeesport	WW	INT	$156,000,000	$83,903,219	$91,435,797	$73,813,794	$13,047,844	$6,180,616	$3,811,679	12,780	50,570
New Garden Township/Authority's WW System's Assets	WW	INT	$29,500,000	$23,001,140	$25,988,330	$17,967,319	$2,261,294	$907,386	$499,638	1,796	12,085
Limerick Township Wastewater System's Assets	WW	INT	$75,100,000	$43,501,755	$60,847,250	$36,113,701	$4,418,775	$2,487,775	$893,600	5,416	18,798
Steelton Borough (Water) Authority	W	INT	$22,500,000	NA	NA	NA	NA	NA	NA	2,472	5,932
Exeter Township Wastewater System Assets	WW	INT	$96,000,000	NA	NA	NA	$7,735,788	$4,660,967	$4,660,967	8,984	27,609
Sadsbury Township Wastewater Utility	WW	C/D	$9,250,000	NA	NA	NA	NA	NA	NA	998	3,850
East Bradford Township Wastewater System Assets	WW	C/D	$5,000,000	$1,298,627	NA	NA	$1,130,372	$49,804	$49,804	1,248	9,942
Township of Mahoning Water System Assets	W	C/D	$4,734,800	NA	NA	NA	$753,857	$151,916	$91,468	1,186	4,218
Township of Mahoning Sewer System Assets	WW	C/D	$4,765,200	NA	NA	NA	$1,193,055	($173,564)	($244,337)	1,451	4,218
Cheltenham Township Wastewater System Assets	WW	C/D	$50,250,000	NA	NA	NA	$9,290,500	$4,506,168	$4,506,168	10,219	37,841
				Subject Company's Metrics							
Kane Borough Authority Wastewater System				$10,809,115	$21,023,527	$13,503,901	$1,433,978	$684,830	$181,672	2,026	4,645
			Subject Company's Selected Transactions Multiples Valuations								
Municipal Authority of the City of Mckeesport	WW	INT	$20,678,749	$20,097,226	$35,868,558	$28,539,497	$17,144,638	$17,285,248	$7,435,262	$24,730,516	$14,329,049
New Garden Township/Authority's WW System's Assets	WW	INT	$19,526,710	$13,863,178	$23,864,329	$22,171,648	$18,707,143	$22,264,488	$10,726,414	$33,277,840	$11,338,643
Limerick Township Wastewater System's Assets	WW	INT	$22,456,725	$18,660,501	$25,948,040	$28,081,945	$24,371,403	$20,673,386	$15,268,092	$28,093,168	$18,557,267
Steelton Borough (Water) Authority	W	INT	$18,029,480	NA	NA	NA	NA	NA	NA	$18,440,534	$17,618,425
Exeter Township Wastewater System Assets	WW	INT	$14,688,570	NA	NA	NA	$17,795,458	$14,105,159	$3,741,823	$21,649,154	$16,151,255
Sadsbury Township Wastewater Utility	WW	C/D	$14,969,061	NA	NA	NA	NA	NA	NA	$18,778,056	$11,160,065
East Bradford Township Wastewater System Assets	WW	C/D	$24,234,110	$41,617,474	NA	NA	$6,342,947	$68,752,510	$18,238,696	$8,116,987	$2,336,049
Township of Mahoning Water System Assets	W	C/D	$10,611,450	NA	NA	NA	$9,006,482	$21,344,220	$9,404,148	$8,088,284	$5,214,117
Township of Mahoning Sewer System Assets	WW	C/D	($943,304)	NA	NA	NA	$5,727,475	($18,802,059)	($3,543,078)	$6,653,546	$5,247,595
Cheltenham Township Wastewater System Assets	WW	C/D	$6,709,881	NA	NA	NA	$7,756,030	$7,636,801	$2,025,894	$9,962,472	$6,168,210

Definitions: Where "INT" is "Fully Integrated Assets" and "C/D" is "Mostly Collection/Distribution Assets".
Where "WW" is wastewater and "W" is water.

Selected Transactions Method - Ex-Post

For Kane Borough Authority Wastewater System

Based on 2016 - 2019 Acquisitions of Assets of Water or Sewer System, Without Discount for Customer Contributions

			Ex-Post Selected Transactions' Metrics								
Name	Service	System	Announced Purchase Price was:	Investor Provided Capital	Ex-POST - OCN - Gross PP&E	Ex-Post - OCNLD - Net PP&E	Revenues	EBITDA	EBIT	Customers	Population
Municipal Authority of the City of Mckeesport	WW	INT	$156,000,000	$83,903,219	$108,231,570	$80,085,602	$13,047,844	$6,180,616	$3,811,679	12,780	50,570
New Garden Township/Authority's WW System's Assets	WW	INT	$29,500,000	$23,001,140	$27,146,852	$18,567,728	$2,261,294	$907,386	$499,638	1,796	12,085
Limerick Township Wastewater System's Assets	WW	INT	$75,100,000	$43,501,755	$63,480,402	$46,153,867	$4,418,775	$2,487,775	$893,600	5,416	18,798
Steelton Borough (Water) Authority	W	INT	$22,500,000	NA	$19,739,906	$14,433,435	NA	NA	NA	2,472	5,932
Exeter Township Wastewater System Assets	WW	INT	$96,000,000	NA	$68,404,345	$42,678,351	$7,735,788	$4,660,967	$4,660,967	8,984	27,609
Sadsbury Township Wastewater Utility	WW	C/D	$9,250,000	NA	$7,480,601	$6,128,876	NA	NA	NA	998	3,850
East Bradford Township Wastewater System Assets	WW	C/D	$5,000,000	$1,298,627	$8,294,931	$5,473,948	$1,130,372	$49,804	$49,804	1,248	9,942
Township of Mahoning Water System Assets	W	C/D	$4,734,800	NA	$5,294,272	$3,507,138	$753,857	$151,916	$91,468	1,186	4,218
Township of Mahoning Sewer System Assets	WW	C/D	$4,765,200	NA	$4,931,649	$3,234,859	$1,193,055	($173,564)	($244,337)	1,451	4,218
Cheltenham Township Wastewater System Assets	WW	C/D	$50,250,000	NA	$19,818,216	$15,408,458	$9,290,500	$4,506,168	$4,506,168	10,219	37,841

				Subject Company's Metrics							
Kane Borough Authority Wastewater System				$10,809,115	$21,023,527	$13,503,901	$1,433,978	$684,830	$181,672	2,026	4,645

			Ex-Post Subject Company's Selected Transactions Multiples Valuations								
Municipal Authority of the City of Mckeesport	WW	INT	$19,703,593	$20,097,226	$30,302,344	$26,304,461	$17,144,638	$17,285,248	$7,435,262	$24,730,516	$14,329,049
New Garden Township/Authority's WW System's Assets	WW	INT	$19,309,788	$13,863,178	$22,845,892	$21,454,702	$18,707,143	$22,264,488	$10,726,414	$33,277,840	$11,338,643
Limerick Township Wastewater System's Assets	WW	INT	$21,558,578	$18,660,501	$24,871,721	$21,973,088	$24,371,403	$20,673,386	$15,268,092	$28,093,168	$18,557,267
Steelton Borough (Water) Authority	W	INT	$20,268,257	NA	$23,963,101	$21,050,968	NA	NA	NA	$18,440,534	$17,618,425
Exeter Township Wastewater System Assets	WW	INT	$19,046,162	NA	$29,504,830	$30,375,459	$17,795,458	$14,105,159	$3,741,823	$21,649,154	$16,151,255
Sadsbury Township Wastewater Utility	WW	C/D	$19,078,782	NA	$25,996,257	$20,380,749	NA	NA	NA	$18,778,056	$11,160,065
East Bradford Township Wastewater System Assets	WW	C/D	$21,301,485	$41,617,474	$12,672,514	$12,334,699	$6,342,947	$68,752,510	$18,238,696	$8,116,987	$2,336,049
Township of Mahoning Water System Assets	W	C/D	$12,870,002	NA	$18,801,867	$18,230,897	$9,006,482	$21,344,220	$9,404,148	$8,088,284	$5,214,117
Township of Mahoning Sewer System Assets	WW	C/D	$5,069,963	NA	$20,313,958	$19,892,301	$5,727,475	($18,802,059)	($3,543,078)	$6,653,546	$5,247,595
Cheltenham Township Wastewater System Assets	WW	C/D	$18,699,199	NA	$53,306,121	$44,038,866	$7,756,030	$7,636,801	$2,025,894	$9,962,472	$6,168,210

Definitions: Where "INT" is "Fully Integrated Assets" and "C/D" is "Mostly Collection/Distribution Assets".
Where "WW" is wastewater and "W" is water.

Selected Transactions Method

For Kane Borough Authority Wastewater System

Based on Recent SJW Group's Bid For Connecticut Water Service Inc., With and Without Discount for Cost Free Capital

Connecticut Water Service Inc.			Kane Borough Authority Wastewater System			
Purchase Price was: $1,106,267			Kane Borough Authority Wastewater	Selected Transactions Multiples		
	Subject Company Statistics	Transaction Multiple				
Investor Provided Capital	$573,223	1.93	$10,809,115	$20,860,586		
Gross PP&E	$939,050	1.18	$21,023,527	$24,767,196		
Net PP&E	$697,723	1.59	$13,503,901	$21,410,962	$22,813,891	
Revenues	$107,054	10.33	$1,433,978	$14,818,340		
EBITDA	$48,920	22.61	$684,830	$15,486,608		
EBIT	$32,236	34.32	$181,672	$6,234,575		$18,392,543
Customers	135,645	$8,156	2,026	$16,523,256		
Population	450,000	$2,458	4,645	$11,419,134	$13,971,195	
Average				$16,440,082		

	Subject Company Statistics	Transaction Multiple				
Investor Provided Capital	$573,223	1.93	$10,809,115	$20,860,586		
Gross PP&E (Less "Cost Free" Capital)	$646,723	1.71	$21,023,527	$35,962,304		
Net PP&E (Less "Cost Free" Capital)	$480,521	2.30	$13,503,901	$31,089,007	$28,411,445	
Revenues	$107,054	10.33	$1,433,978	$14,818,340		
EBITDA	$48,920	22.61	$684,830	$15,486,608		
EBIT	$32,236	34.32	$181,672	$6,234,575		$21,191,320
Customers	135,645	$8,156	2,026	$16,523,256		
Population	450,000	$2,458	4,645	$11,419,134	$13,971,195	
Average				$19,049,226		

Kane Borough Authority Wastewater System
Summary of Approach Results and
Fair Market Value Conclusion at Appraisal Date

Valuation Approach	Indicated Value	Conclusion	Consideration
Cost Approach	$33,693,500		33%
Income Approach	15,125,204		33%
Market Approach	19,926,962		34%
		Conclusion $22,885,000	

WORKPAPERS

FED H.15

DATE	DAAA	DBAA	DGS10	DGS20	DGS30
2019-06-26	3.32	4.37	2.05	2.35	2.57
2019-06-27	3.27	4.32	2.01	2.31	2.52
2019-06-28	3.25	4.31	2.00	2.31	2.52
2019-07-01	3.27	4.32	2.03	2.34	2.55
2019-07-02	3.23	4.27	1.98	2.29	2.51
2019-07-03	3.18	4.22	1.96	2.25	2.47

Daily Bond Yields and Key Indicators

Updated by 11 am ET with data from the previous business day. Data as of 29-Mar-19

Moody's Daily Long-term Corporate Bond Yield Averages			
	Utilities	Industrial	Corporate
Aaa	NA	3.62	3.62
Aa	3.81	3.7	3.76
A	3.99	4.01	4
Baa	4.49	4.84	4.67
Avg	4.1	4.04	4.07

Moody's Daily Treasury Yield Averages			
Short-Term (3-5 yrs)		2.24	
Medium-Term (5-10 yrs)		2.35	
Long-Term (10+ yrs)		2.73	

Index Name: S&P Municipal Bond Revenue Index

As of: Aug 30, 2019

Effective date	Yield To Maturity
6/26/2019	3.24%
6/27/2019	3.25%
6/28/2019	3.25%
7/1/2019	3.24%
7/2/2019	3.24%
7/3/2019	3.23%
7/5/2019	3.24%

FED H.15

		10-yr T-bond	**20-yr T-bond**	**30-yr T-bond**
Spot	6/30/19	2.00	2.31	2.52

FED H.15		**AAA Corp**	**BAA CORP**		A Rated Utility		
	6/30/19	3.25	4.31	Spread	-0.37	-0.36	
Moody's Spot ===>		3.62	4.67	Moody's Spot ===>	3.99	3.99	
		-0.37	-0.36	Implied	3.62	3.63	3.63

Moody's Daily Long-term Corporate Bond Yield Averages

	3/29/2019	Utilities	Industrial	Corporate
Spot	Aaa	NA	3.62	3.62
	Aa	3.81	3.7	3.76
	A	3.99	4.01	4
	Baa	4.49	4.84	4.67
	Avg	4.1	4.04	4.07

S&P Municipal Bond Revenue Index

6/30/19 3.25%

Utilities	
Aa	
A	**3.63**
Baa	

		Decade Spread	**Annual Spread**
10-Year	2.00		
20-Year	2.31	0.310	0.031
30-Year	2.52	0.210	

REVENUE BOND INDEX	3.25
10-20 Yr	0.16
20-30 Yr	0.21
	3.62

30-Yr Rev Bond Est.	**3.62**

2016	Lt Debt	4.1	3.63
	Prf Stk	5.4	132%
Pref Stock Est.		132%	**4.78**

	6/30/19
A-Rated Rev Bonds	**3.62**
A-Rated PU Bonds	**3.63**
A-Rated PU Pref Stk	**4.78**
30-yr T-bond	**2.52**

	SBBI	SBBI
Equity Risk Premium	6.91	6.91
Beta (Value Line Med.)	0.70	0.70
Risk Adjusted Equity Premium	4.84	4.84
Yield (RF)	2.52	2.52
Size Premium	1.60	0.00
	8.96	7.36

High	8.96
Low	7.36

0.70

11.88	Total Return	SBBI 1926-2018
4.97	Income Return	SBBI 1926-2018
2.52	30-yr T-bond	

	Recent Market Value (Mill $)	Market Quartile Name	Market Quartile	Quartile Size Premium	Value Line Beta
American States Water Co	2,768.46	Low-Cap	3	1.6	0.7
American Water Works Co Inc	20,940.20	Large-Cap	1	0	0.55
Aqua America Inc	9,711.45	Mid-Cap	2	0.89	0.7
Artesian Resources -Cl A	341.61	Mico-Cap	4	3.4	0.7
California Water Service Gp	2,437.02	Low-Cap	3	1.6	0.7
Middlesex Water Co	975.73	Low-Cap	3	1.6	0.75
SJW Corp	1,727.99	Low-Cap	3	1.6	0.6
York Water Co	462.79	Mico-Cap	4	3.4	0.75
Average	4,920.660	Mid-Cap	2	0.89	0.68
Median	2,082.510	Low-Cap	3	1.60	0.70

9/3/2019

	12/31/18						**June-19**
Company Name	Ticker Symbol	LT Debt-Total Qtly	Preferred S	Minority In	Common Equity-Total-Qtly	Invested Capital-Total Qtly	Market Value-Mnthly
AMERICAN ST.	**AWR**	376.587	0.000	0.000	558.223	934.810	2,768.456
AMERICAN W/	**AWK**	7,576.000	0.000	0.000	5,864.000	13,440.000	20,940.203
AQUA AMERIC	**WTR**	2,398.464	0.000	0.000	2,009.364	4,407.828	9,711.446
ARTESIAN RES	**ARTNA**	115.862	0.000	0.000	153.251	269.113	341.613
CALIFORNIA W	**CWT**	710.027	0.000	0.000	730.157	1,440.184	2,437.024
MIDDLESEX W	**MSEX**	152.851	2.433	0.000	248.787	404.071	975.729
SJW GROUP	**SJW**	431.424	0.000	0.000	889.312	1,320.736	1,727.995
YORK WATER	**YORW**	93.328	0.000	0.000	126.195	219.523	462.788

	Book Ratios					Market Ratios			
	LTD	**Pref**	**Equity**			**LTD**	**Pref**	**Equity**	
AMERICA	0.403	0.000	0.597	1.000		0.120	0.000	0.880	1.000
AMERICA	0.564	0.000	0.436	1.000		0.266	0.000	0.734	1.000
AQUA AN	0.544	0.000	0.456	1.000		0.198	0.000	0.802	1.000
ARTESIAI	0.431	0.000	0.569	1.000		0.253	0.000	0.747	1.000
CALIFORI	0.493	0.000	0.507	1.000		0.226	0.000	0.774	1.000
MIDDLES	0.378	0.006	0.616	1.000		0.135	0.002	0.863	1.000
SJW GROI	0.327	0.000	0.673	1.000		0.200	0.000	0.800	1.000
YORK WA	0.425	0.000	0.575	1.000		0.168	0.000	0.832	1.000
	0.446	0.001	0.554		Avg	0.196	0.000	0.804	
	0.428	0.000	0.572		Med	0.199	0.000	0.801	

Assumptions:	6/30/2019
Debt Cost	3.63
Pref. Stock Cost	4.78
Equity Cost	8.96
Equity Cost	7.36

Ratio	Cost	Wt	Shield	Overall	
19.90%	3.630	0.72	0.72	0.5201064	
0.00%	4.780	0.00	1	0	
80.10%	8.960	7.18	1	7.17696	
		7.90		**7.70**	**<<<<ANSWER**
19.90%	3.630	0.72	0.72	0.5201064	
0.00%	4.780	0.00	1	0	
80.10%	7.357	5.89	1	5.892957	
		6.62		**6.41**	**<<<<ANSWER**

DSIC Weighted Cost of Capital

Assumptions:	6/30/2019
Debt Cost	3.63
Pref. Stock Cost	4.78
DSIC Equity Cost	9.95

	Ratio	Cost	Wt	Shield	Overall	
Debt	42.80%	3.630	1.55	0.72	1.118621	
Pref	0.00%	4.780	0.00	1	0	
Equity	57.20%	9.950	5.69	1	5.6914	
			7.25		**6.81**	**<<<<ANSWER**

Selected Interest Rates (Daily) - H.15

Current Release

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H.15 Selected Interest Rates RSS DDP

The release is posted daily Monday through Friday at 4:15pm. The release is not posted on holidays or in the event that the Board is closed.

Release date: April 1, 2019

Selected Interest Rates

Yields in percent per annum

Make Full Screen

Instruments	2019 Mar 25	2019 Mar 26	2019 Mar 27	2019 Mar 28	2019 Mar 29
Federal funds (effective) 1 2 3	2.40	2.40	2.41	2.41	2.43
Commercial Paper 3 4 5 6					
Nonfinancial					
1-month	2.46	2.46	2.47	2.46	2.43
2-month	2.49	2.46	n.a.	2.46	2.45
3-month	n.a.	2.47	n.a.	2.47	n.a.
Financial					
1-month	2.42	2.48	2.49	2.48	n.a.
2-month	2.46	n.a.	n.a.	n.a.	n.a.
3-month	2.49	2.51	2.51	2.43	2.43
Bank prime loan 2 3 7	5.50	5.50	5.50	5.50	5.50
Discount window primary credit 2 8	3.00	3.00	3.00	3.00	3.00
U.S. government securities					
Treasury bills (secondary market) 3 4					
4-week	2.42	2.42	2.41	2.40	2.39
3-month	2.41	2.41	2.39	2.38	2.35
6-month	2.42	2.42	2.39	2.37	2.37
1-year	2.35	2.36	2.32	2.32	2.32
Treasury constant maturities					
Nominal 9					
1-month	2.47	2.46	2.45	2.44	2.43
3-month	2.46	2.46	2.44	2.43	2.40
6-month	2.49	2.49	2.46	2.44	2.44
1-year	2.41	2.44	2.40	2.40	2.40
2-year	2.26	2.24	2.22	2.23	2.27
3-year	2.19	2.18	2.16	2.18	2.21
5-year	2.21	2.18	2.18	2.20	2.23
7-year	2.32	2.29	2.28	2.29	2.31
10-year	2.43	2.41	2.39	2.39	2.41
20-year	2.68	2.67	2.63	2.62	2.63
30-year	2.87	2.86	2.83	2.81	2.81
Inflation indexed 10					
5-year	0.44	0.43	0.44	0.48	0.45
7-year	0.48	0.48	0.49	0.51	0.48
10-year	0.55	0.55	0.55	0.56	0.53
20-year	0.75	0.76	0.75	0.75	0.72
30-year	0.93	0.94	0.94	0.93	0.89
Inflation-indexed long-term average 11	0.86	0.88	0.88	0.87	0.83

n.a. Not available.

Aqua America's Pennsylvania Subsidiary Enters Agreement to Purchase Cheltenham Township Wastewater System

July 02, 2018 07:00 AM Eastern Daylight Time

BRYN MAWR, Pa.--(BUSINESS WIRE)--Aqua America announced today that its Pennsylvania subsidiary has signed an asset purchase agreement with Cheltenham Township to purchase its wastewater system, which serves approximately 10,500 connections in Montgomery County, for $50.25 million. The agreement must be approved by the Pennsylvania Public Utility Commission.

The transaction will be Aqua Pennsylvania's fourth acquisition application referred to the Pennsylvania PUC since Act 12, commonly referred to as fair market value legislation, was enacted last year. Aqua Pennsylvania has asset purchase agreements with the 2,100-customer New Garden Township wastewater system in Chester County and the 5,400-customer Limerick Township wastewater system in Montgomery County. The company also has an agreement, signed in December 2017, with East Bradford Township in Chester County to purchase its 1,200-customer wastewater collection system. Aqua already provides water service to East Bradford, as it does with Cheltenham.

These four systems, including Cheltenham, total more than 19,000 wastewater connections and would nearly double Aqua Pennsylvania's current 22,000-customer wastewater operation.

The new law encourages a consolidation of the fragmented industry for the benefit of customers, the environment, and local governments. This transaction will benefit customers by leveraging compliance expertise, purchasing power gained through economies of scale and operational efficiencies to ultimately benefit service to our customers at affordable rates.

"We are pleased with the momentum we are gaining to reach agreements with municipal systems," said Aqua America Chairman and CEO Christopher Franklin. "Act 12 is having its intended impact, allowing municipalities to be compensated for the fair value of their water and wastewater assets and enabling utility professionals to bring expertise to systems in need."

Aqua Pennsylvania President Marc Lucca says his team is ready to work with the Cheltenham community on making needed system improvements.

"As with our pending agreements with New Garden, East Bradford and Limerick, the Aqua Pennsylvania team is looking forward to assuming Cheltenham's sewer utility responsibilities so the township can direct its attention and capital to other priorities," said Lucca. "We are anxious to begin the work necessary to help the township meet the requirements of an outstanding Pennsylvania Department of Environmental Protection consent order, specifically related to inflow and infiltration issues there."

In total, Aqua has plans to spend nearly $50 million over the next 10 years to improve Cheltenham's wastewater system.

Aqua America is one of the largest U.S.-based, publicly traded water utilities and serves nearly 3 million people in Pennsylvania, Ohio, North Carolina, Illinois, Texas, New Jersey, Indiana and Virginia. Aqua America is listed on the New York Stock Exchange under the ticker symbol WTR. Visit AquaAmerica.com for more information.

Forward-Looking Statements

This release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 including, among others: the company's ability to successfully close the acquisition of the wastewater systems noted in this release. There are important factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements including: general economic business conditions, the successful integration of the customers and the facilities, the success of the company's growth efforts including its ability to utilize Act 12, and other factors discussed in our Annual Report on Form 10-K, which is on file with the Securities and Exchange Commission.