

DW 17-118
HAMPSTEAD AREA WATER COMPANY, INC.
STEP II - RECALCULATION OF PERMANENT RATES
REVENUE REQUIREMENT

	STEP II CALCULATION	ORIGINAL	STEP II INCREASE
Pro-forma Rate Base (Attachment A, Schedule 3; Column 6)	\$ 5,087,848	\$ 5,087,848	\$ (0)
Rate of Return (Attachment A, Schedule 2)	x 6.37%	5.69%	0.68%
Operating Income Requirement	324,237	289,322	34,915
Less: Pro-forma Operating Income (Attachment A, Schedule 4, Column 6)	87,569	88,704	(1,135)
Revenue Deficiency / (Surplus) Before Income Tax Effect	236,668	200,618	36,050
Divided by Income Tax Divisor (Attachment A, Schedule 5)	+ 91.80%	91.80%	-
Tax Effected Revenue Deficiency / (Surplus)	257,808	218,538	39,270
Add: Pro-forma Annual Water Revenues (Attachment A, Schedule 4; Column 6)	1,721,167	1,721,167	-
Total Proposed Operating Revenues after Permanent Rates	\$ 1,978,975	\$ 1,938,705	\$ 39,270

Revenue Deficiency Adjusted for 2018 Tax Change:

Tax Effected Revenue Deficiency / (Surplus)	\$ 257,808	\$ 218,538	\$ 39,270
Tax Rate Change Revenue Adjustment (Attachment A, Schedule 4b)	(822)	(845)	(177)
Amortization of Excess Deferred Tax Liability (Company Schedule)	(139)	(139)	-
Adjusted Revenue Deficiency / (Surplus)	\$ 256,847	\$ 217,555	\$ 39,092
Add: Pro-forma Annual Water Revenues (Attachment A, Schedule 4; Column 6)	1,721,167	1,721,167	-
Proposed Operating Revenues Adjusted for Tax Change	\$ 1,978,014	\$ 1,938,922	\$ 39,092

Percentage Increase/Decrease in Annual Water Revenues after Permanent Rates

14.92%	12.65%	2.27%
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Proposed STEP II Revenue Requirement	Increase	Increase %
Tax Effected Revenue Requirement after Permanent Rat \$ 1,978,014	\$ 256,847	14.92%
Step Increase I Revenue Requirement 28,179	28,179	1.64%
\$ 2,006,193	\$ 285,026	16.56%

Proforma Annual Water Revenues + \$ 1,721,167

Percentage Increase in Annual Water Revenues 16.56%

ORIGINAL Revenue Requirement	Increase	Increase %
Tax Effected Revenue Requirement after Permanent Rat \$ 1,938,922	\$ 217,755	12.65%
Step Increase I Revenue Requirement 28,420	28,420	1.54%
\$ 1,965,342	\$ 244,175	14.19%

Proforma Annual Water Revenues + \$ 1,721,167

Percentage Increase in Annual Water Revenues 14.19%

STEP II INCREASE	Increase	Increase %
Tax Effected Revenue Requirement after Permanent Rates \$ 39,092	\$ 39,092	2.27%
Step Increase I Revenue Requirement 1,759	1,759	0.10%
\$ 40,851	\$ 40,851	2.37%

Proforma Annual Water Revenues + \$ 1,721,167

Percentage Increase in Annual Water Revenues 2.37%

DW 17-118
HAMPSTEAD AREA WATER COMPANY, INC.
STEP II - RECALCULATION OF PERMANENT RATES
WEIGHTED AVERAGE COST OF CAPITAL

	ORIGINAL Capital Structure				Cost Rate	Weighted Average Cost
	Unadjusted @ 12/31/16	Pro-forma Adjustments	Adjusted @ 12/31/16	Percent		
Debt						
Long-Term Debt (Sch 2a)	\$ 4,190,886	\$ (13,127) (a)	\$ 4,177,759	63.59%	3.45%	2.19%
Total Debt	<u>4,190,886</u>	<u>(13,127)</u>	<u>4,177,759</u>	<u>63.59%</u>	<u>3.45%</u>	<u>2.19%</u>
Common Equity						
Common Stock	16,767	-	16,767	0.26%		
Additional Paid in Capital	2,754,354	400,000	3,154,354	48.01%		
Retained Earnings	(779,242)	-	(779,242)	-11.86%		
Total Common Equity	<u>1,991,879</u>	<u>400,000</u>	<u>2,391,879</u>	<u>36.41%</u>	<u>9.60%</u>	<u>3.50%</u>
Total Capitalization	<u>\$ 6,182,765</u>	<u>\$ 386,873</u>	<u>\$ 6,569,638</u>	<u>100.00%</u>		<u>5.69%</u>

(a) See Schedule 2a

	STEP II Capital Structure				Cost Rate	Weighted Average Cost
	Unadjusted @ 12/31/16	Pro-forma Adjustments	Adjusted @ 12/31/16	Percent		
Debt						
Long-Term Debt (Sch 2a)	\$ 4,190,886	\$ (13,127) (a)	\$ 4,177,759	55.00%	3.45%	1.90%
Total Debt	<u>4,190,886</u>	<u>(13,127)</u>	<u>4,177,759</u>	<u>55.00%</u>	<u>3.45%</u>	<u>1.90%</u>
Common Equity						
Common Stock	16,767	-	16,767			
Additional Paid in Capital	2,754,354	400,000	3,154,354			
Retained Earnings	(779,242)	-	(779,242)			
Total Common Equity	<u>1,991,879</u>	<u>400,000</u>	<u>2,391,879</u>	<u>45.00%</u>	<u>9.95%</u>	<u>4.48%</u>
Total Capitalization	<u>\$ 6,182,765</u>	<u>\$ 386,873</u>	<u>\$ 6,569,638</u>	<u>100.00%</u>		<u>6.37%</u>

(a) See Schedule 2a

DW 17-118
HAMPSTEAD AREA WATER COMPANY, INC.
STEP II - RECALCULATION OF STEP ADJUSTMENT
REVENUE REQUIREMENT

	STEP II CALCULATION	ORIGINAL	STEP II INCREASE
2017 Plant in Service (Attachment B, Schedule 3; Column 5)	\$ 625,911	\$ 625,911	\$ -
Less: Accumulated Depreciation (Attachment B, Schedule 3; Column 8)	(17,994)	(17,994)	-
NET PLANT IN SERVICE	\$ 607,917	\$ 607,917	\$ -
Contribution in Aid of Construction (Attachment B, Schedule 3a; Column 5)	(394,805)	(394,805)	-
Plus: Accumulated Amortization of CIAC (Attachment B, Schedule 3a; Column 8)	8,545	8,545	-
NET PLANT IN RATE BASE	\$ 221,657	\$ 221,657	\$ -
Return on Additional Plant (Attachment B, Schedule 2)	x 6.35%	5.64%	0.71%
Increase in Operating Income Requirement	\$ 14,076	\$ 12,509	\$ 1,567
O&M Expenses:			
Depreciation Expense (Attachment B, Schedule 3; Column 7)	35,976	35,976	-
Amortization of CIAC (Attachment B, Schedule 3a; Column 7)	(17,090)	(17,090)	-
State Utility Property Taxes (Attachment B, Schedule 3; Column 11)	1,745	1,745	-
Local Property Taxes (Attachment B, Schedule 3; Column 12)	6,937	6,937	-
Income Taxes (Net Plant in Rate Base x Tax Gross up: Attachment B, Schedule 2)	851	660	191
Wells Village Expenses (Attachment B, Schedule 4)	7,136	7,136	0
Total Operating Expenses	\$ 35,555	\$ 35,364	\$ 191
Additional Revenue Requirement	\$ 49,631	\$ 47,873	\$ 1,758
Less additional Revenues from Wells Village System	\$ (21,452)	\$ (21,452)	\$ (0)
Adjusted Revenue Requirement	\$ 28,179	\$ 26,420	\$ 1,759
Total Proposed Proforma Operating Revenues (Attachment A, Schedule 1)	\$ 1,978,014	\$ 1,938,922	\$ 39,092
Percentage of Increase associated with Step Increase	1.42%	1.36%	0.06%

To adjust revenues for the addition of Wells Village System (Per Co Responses to Staff DR#2-2).

Estimated usage of Wells Village System: (ccf)	3,245.50	3,245.50
Current Usage rate (per ccf)	\$ 5.02	\$ 5.02
Annualized Usage Revenues	\$ 16,292.41	\$ 16,292.41
Annualized Fixed Revenues:		
43 Customers times 12 months times Monthly Charge of \$10.00 per month (43x12x10)	\$ 5,160	\$ 5,160
Total Annualized Revenues	\$ 21,452	\$ 21,452

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STEP II - RECALCULATION OF STEP ADJUSTMENT
WEIGHTED AVERAGE COST OF CAPITAL

	ORIGINAL Capital Structure				Cost Rate	Weighted Average Cost
	Unadjusted	Pro-forma Adjustments	Adjusted	Percent		
Debt						
Long-Term Debt (Sch 2a)	\$ 4,240,886	\$ (13,127) (a)	\$ 4,227,759	63.87%	3.41%	2.17%
Total Debt	<u>4,240,886</u>	<u>(13,127)</u>	<u>4,227,759</u>	<u>63.87%</u>	<u>3.41%</u>	<u>2.17%</u>
Common Equity						
Common Stock	16,767	-	16,767	0.25%		
Additional Paid in Capital	2,754,354	400,000	3,154,354	47.65%		
Retained Earnings	(779,242)	-	(779,242)	-11.77%		
Total Common Equity	<u>1,991,879</u>	<u>400,000</u>	<u>2,391,879</u>	<u>36.13%</u>	<u>9.60%</u>	<u>3.47%</u>
Total Capitalization	<u>\$ 6,232,765</u>	<u>\$ 386,873</u>	<u>\$ 6,619,638</u>	<u>100.00%</u>		<u>5.64%</u>

(a) See Schedule 2a

(b) Income Tax on Equity Component:

	Weighted Average Cost of Capital	Tax Multiplier	Pre-Tax Cost	Tax Gross-up
Long Term Debt	2.17%	1.00000	2.17%	0.00%
Common Equity	3.47%	1.08578	3.77%	0.30%
	5.64%		5.94%	0.30%

	STEP Capital Structure				Cost Rate	Weighted Average Cost
	Unadjusted	Pro-forma Adjustments	Adjusted	Percent		
Debt						
Long-Term Debt (Sch 2a)	\$ 4,240,886	\$ (13,127) (a)	\$ 4,227,759	55.00%	3.41%	1.87%
Total Debt	<u>4,240,886</u>	<u>(13,127)</u>	<u>4,227,759</u>	<u>55.00%</u>	<u>3.41%</u>	<u>1.87%</u>
Common Equity						
Common Stock	16,767	-	16,767			
Additional Paid in Capital	2,754,354	400,000	3,154,354			
Retained Earnings	(779,242)	-	(779,242)			
Total Common Equity	<u>1,991,879</u>	<u>400,000</u>	<u>2,391,879</u>	<u>45.00%</u>	<u>9.95%</u>	<u>4.48%</u>
Total Capitalization	<u>\$ 6,232,765</u>	<u>\$ 386,873</u>	<u>\$ 6,619,638</u>	<u>100.00%</u>		<u>6.35%</u>

(a) See Schedule 2a

(b) Income Tax on Equity Component:

	Weighted Average Cost of Capital	Tax Multiplier	Pre-Tax Cost	Tax Gross-up
Long Term Debt	1.87%	1.00000	1.87%	0.00%
Common Equity	4.48%	1.08578	4.86%	0.38%
	6.35%		6.73%	0.38%

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STEP II - RECALCULATION OF STEP ADJUSTMENT
CALCULATION OF RATES

Total Annual Water Revenues Proposed per Settlement (Sch 1) \$ 2,006,193

Less: Fire Protection Revenues

Municipal

\$ 41,336

Private

-

(41,336)

Revenues from General Metered Customers

\$ 1,964,857

Customer Charge Revenues

Meter Size	Proposed Perm Rate	Percent Increase	Proposed Step Rate	Pro-forma # of Customers	Annual Revenues
5/8" Meter	\$ 120	0.00%	\$ 120	3,550	\$ 426,000
3/4" Meter	240	0.00%	\$ 240	-	-
1" Meter	360	0.00%	\$ 360	65	23,400
1 1/2" Meter	720	0.00%	\$ 720	2	1,440
2" Meter	1,200	0.00%	\$ 1,200	4	4,800
			(a)	3,621	\$ 455,640

(455,640)

Consumption Charge Revenues:

\$ 1,509,217

Consumption Charge Revenues

\$ 1,509,217

Total Pro-forma Annual Consumption (ccf)

(b)

÷ 246,870

Consumption Rate per Customer (per ccf)

\$ 6.11

Total Pro-forma Annual Consumption (ccf)

x 246,870

(1,509,217)

Unallocated Water Revenues

\$ -

(a) Pro-forma # of Customers: 3,578 actual customers @ 12/31/16 + 43 customers from New System acquired in 2017

= 3,621

(b) Pro-forma Consumption:

2016 Actual Water Sales:

Gallons	182,243,771	
Conversion to Cubic Feet	+ 7.48	
Cubic Feet	24,362,449	
Conversion to CCF	+ 100	243,624

2017 Estimated New System Sales:

Estimated Usage of New System: (ccf)	3,245.50	
To annualize 2017 usage (12 months / 12 months) (ccf)	x 1.000	3,246

Total Pro-forma Consumption (ccf)

246,870

Average Usage per Staff 1-10:

	Usage (ccf)	Rate	Monthly	Yearly
STEP II RATE:				
Average usage for a Residential Customer per month	5.80	x 6.11	= 35.44	
Meter charge			10.00	
			\$ 45.44	\$ 545.28

ORIGINAL RATE:

Average usage for a Residential Customer per month	5.80	x 5.95	= 34.51	
Meter charge			10.00	
			\$ 44.51	\$ 534.12

AVERAGE MONTHLY INCREASE PER RESIDENTIAL CUSTOMER

\$ 0.93

AVERAGE YEARLY INCREASE PER RESIDENTIAL CUSTOMER

69.60 / year

\$ 11.16

\$ 11.16