## DW 10-159 WEST SWANZEY WATER COMPANY, INC. REVENUE REQUIREMENT

Average Rate Base (Sch 2)	\$ 197,490
Rate of Return (Sch 1a)	 5.27%
Operating Income Requirement	10,398
Adjusted Net Operating Income (Sch 3)	 12,225
Revenue Deficiency / (Surplus) Before Income Taxes	(1,826)
Divided by Tax Factor (Sch 1b)	 86.28%
Revenue Deficiency / (Surplus)	(2,117)
Pro-forma Test Year Water Revenue per Company (Sch 3)	 69,132
Revenue Requirement from Water Sales per Staff	67,015
Less: Adjusted Test Year Water Sales	 (59,006)
Increase / (Decrease) in Revenue Requirement from Water Sales	\$ 8,009
Percent Increase / (Decrease) in Revenue Requirement from Water Sales	 13.57%

#### DW 10-159 WEST SWANZEY WATER COMPANY, INC. WEIGHTED AVERAGE COST OF CAPITAL

			Capital Str	uct	ure						Weighted				
	Per	Test Year	Staff istments (a)		Adjusted Per Staff	Percent	Interest Rate @ 12/31/09 (a)		Annual Interest	Annual Amortization			I Annual t of Debt	Cost Rate	Average Cost
Long-term Debt:			 				,		_	-					
Ocean Bank: 04/28/99	\$	26,201	\$ (550)	\$	25,651	12.09%	6.50%	\$	1,667	\$	-	\$	1,667	6.50%	0.79%
Ocean Bank: 09/23/03		149,334	(115)		149,219	70.35%	3.75%		5,596		274		5,870	3.93%	2.77%
Total Long-term Debt		175,535	 (665)		174,870	82.44%		\$	7,263	\$	274	\$	7,537	4.31%	3.55%
Common Equity:															
Common Stock		30,471	-		30,471	14.37%									
Retained Earnings		6,774	-		6,774	3.19%									
Total Common Equity		37,245	 <u> </u>		37,245	17.56%							-	9.75%	1.71%
Total Capitalization	\$	212,780	\$ (665)	\$	212,115	100.00%									5.27%

<sup>(</sup>a) Per review of Ocean Bank Loan Statements from response to Staff 2-14

## DW 10-159 WEST SWANZEY WATER COMPANY, INC. EFFECTIVE TAX FACTOR

Taxable Income	100.00%
Less: NH Business Profits Tax	8.50%
Federal Taxable Income	91.50%
Federal Income Tax Rate	15.00%
Effective Federal Income Tax Rate	13.73%
Add: NH Business Profits Tax	0.00%
Effective Tax Rate	13.73%
Percent of Income Available if No Tax	100.00%
Effective Tax Rate	13.73%
Percent Used as a Divisor in Determining the Revenue Requirement	86.28%

#### DW 10-159 WEST SWANZEY WATER COMPANY, INC. AVERAGE RATE BASE

Plant in Service		ear End Average Company	Adjus	t <b>aff</b> tments h 2a)	Adj#	A	-Quarter Average Per Staff
	\$	408,370	\$	25	1	\$	408,395
Plant in Service (Sch 2b)	Ф	400,370	Ф	25	'	Φ	400,393
Less: Accumulated Depreciation (Sch 2b)		(139,153)		71	2		(139,082)
Net Plant in Service		269,217		96			269,313
Contributions in Aid of Construction (CIAC) (Sch 2b)		(114,157)		-			(114,157)
Accumulated Amortization of CIAC (Sch 2b)		32,032		1_	3		32,033
Net Contributions in Aid of Construction		(82,125)		1_			(82,124)
Net Plant in Rate Base		187,092		96			187,188
Working Capital							
Materials & Supplies (Sch 2b)		718		(239)	4		479
Prepaid Expenses (Sch 2b)		2,438		(731)	5		1,707
Cash Working Capital (Sch 2b)		7,434		682	6		8,116
Total Working Capital in Rate Base		10,590		(288)			10,302
Total Average Rate Base	\$	197,682	\$	(192)		\$	197,490

## DW 10-159 WEST SWANZEY WATER COMPANY, INC. STAFF PRO-FORMA ADJUSTMENTS TO RATE BASE

#### Adj#

<b>Proforma</b>	Adjustme	nts to	Plant in	Service:
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1	To adjust test year average (Sch 2b): 5-Quarter Average per Staff Less: Year-end average per Company	\$ 408,395 (408,370)	\$ 25
	Accumulated Depreciation		
2	To adjust test year average (Sch 2b): 5-Quarter Average per Staff Less: Year-end average per Company	\$ (139,082) 139,153	\$ 71_
	Accumulated Amortization - CIAC		
3	To adjust test year average (Sch 2b): 5-Quarter Average per Staff Less: Year-end average per Company	\$ 32,033 (32,032)	\$ 1_
	Proforma Adjustments to Working Capital:		
	Materials & Supplies		
4	To adjust test year average (Sch 2b): 5-Quarter Average per Staff Less: Year-end average per Company	\$ 479 (718)	\$ (239)
	Prepaid Expenses		
5	To adjust test year average (Sch 2b): 5-Quarter Average per Staff Less: Year-end average per Company	\$ 1,707 (2,438)	\$ (731)
	Cash Working Capital		
6	To adjust cash working capital (Sch 2b):  Amount per Staff Less: Amount per Company	\$ 8,116 (7,434)	\$ 682

### DW 10-159 WEST SWANZEY WATER COMPANY, INC. CALCULATION OF AVERAGE RATE BASE

	12/31/08		 03/31/09		06/30/09		09/30/09		12/31/09		-Quarter Average Per Staff	Average		Staff Adjustments		Adjustment #								
Plant in Service	\$	408,241	\$ 408,241	\$	408,498	\$	408,498	408,498 \$		\$	\$ 408,395		\$ 408,395		\$ 408,395		\$ 408,395		408,395		408,370	\$	25	1
Accumulated Depreciation		(132,935)	(136,219)		(138,802)		(142,086)		(145,370)		(139,082)		(139,153)		71	2								
Contributions in Aid of Construction (CIAC)		(114,157)	(114,157)		(114,157)		(114,157)		(114,157)		(114,157)		(114,157)		-									
Accumulated Amortization - CIAC		30,537	31,285		32,033		32,780		33,528		32,033		32,032		1	3								
Materials & Supplies		959	639		320		-		477		479		718		(239)	4								
Prepaid Expenses (a)		2,312	1,205		1,584		301		3,134		1,707		2,438		(731)	5								
Cash Working Capital									(	b)	8,116		7,434		682	6								
Total Average Rate Base										\$	197,490	\$	197,682	\$	(192)									

(a) Staff's	Calculation	of Prenaid	Fynenses:

2009 Insurance		2010	2	800	20	800	2009	1	2009		Total		
Pay	ment #1	Payment #2	Insurance	Loc	al Tax	Sta	te Tax	Local <sup>-</sup>	Гах	State T	ax	Pre	epaids
\$	1,216	\$ -	\$ -	\$	831	\$	264	\$	-	\$	-	\$	2,312
	1,106	-	-		554		176		-		-		1,836
	995	-	-		277		99		-		-		1,371
	885	320	-		-		-		-		-		1,205
	774	280	-		-		-		-		197		1,251
	664	240	-		-		-		-		99		1,002
	553	200	-		-		-		831		-		1,584
	442	160	-		-		-		554		197		1,353
	332	120	-		-		-		277		98		827
	221	80	-		-		-		-		-		301
	111	40	-		-		-		-		197		348
	-	-	-		-		-		-		99		99
	-	-	1,284		-		-		,554		296		3,134
	Pay \$	Payment #1 \$ 1,216 1,106 995 885 774 664 553 442 332 221 111	Payment #1         Payment #2           \$ 1,216         \$ -           1,106         -           995         -           885         320           774         280           664         240           553         200           442         160           332         120           221         80           111         40	Payment #1         Payment #2         Insurance           \$ 1,216         \$ -         \$ -           1,106         -         -           995         -         -           885         320         -           774         280         -           664         240         -           553         200         -           442         160         -           332         120         -           221         80         -           111         40         -           -         -         -	Payment #1         Payment #2         Insurance         Loc           \$ 1,216         \$ -         \$ -         \$ \$           1,106         -         -         -           995         -         -         -           885         320         -         -           774         280         -         -           664         240         -         -           553         200         -         -           442         160         -         -           332         120         -         -           221         80         -         -           111         40         -         -	Payment #1         Payment #2         Insurance         Local Tax           \$ 1,216         \$ -         \$ 831           1,106         -         -         554           995         -         -         277           885         320         -         -           774         280         -         -           664         240         -         -           553         200         -         -           442         160         -         -           332         120         -         -           221         80         -         -           111         40         -         -	Payment #1         Payment #2         Insurance         Local Tax         Sta           \$ 1,216         \$ -         \$ 831         \$           1,106         -         -         554           995         -         -         277           885         320         -         -           774         280         -         -           664         240         -         -           553         200         -         -           442         160         -         -           332         120         -         -           221         80         -         -           111         40         -         -	Payment #1         Payment #2         Insurance         Local Tax         State Tax           \$ 1,216         \$ -         \$ 831         \$ 264           1,106         -         -         554         176           995         -         -         277         99           885         320         -         -         -           774         280         -         -         -           664         240         -         -         -           553         200         -         -         -           442         160         -         -         -           332         120         -         -         -           221         80         -         -         -           111         40         -         -         -	Payment #1         Payment #2         Insurance         Local Tax         State Tax         Local Tax           \$ 1,216         \$ -         \$ 831         \$ 264         \$           1,106         -         -         554         176           995         -         -         277         99           885         320         -         -         -           774         280         -         -         -           664         240         -         -         -           553         200         -         -         -           442         160         -         -         -           332         120         -         -         -           221         80         -         -         -           111         40         -         -         -	Payment #1         Payment #2         Insurance         Local Tax         State Tax         Local Tax           \$ 1,216         \$ -         \$ 831         \$ 264         \$ -           \$ 1,106         -         -         554         176         -           \$ 995         -         -         277         99         -           \$ 885         320         -         -         -         -           \$ 664         240         -         -         -         -         -           \$ 553         200         -         -         -         831         831           \$ 442         160         -         -         -         554           \$ 332         120         -         -         -         277           \$ 221         80         -         -         -         -         -           \$ 111         40         -         -         -         -         -	Payment #1         Payment #2         Insurance         Local Tax         State Tax         Local Tax         State Ta           \$ 1,216         \$ -         \$ 831         \$ 264         \$ -         \$ 1,106         -         \$ 1,106         -         -         554         176         -	Payment #1         Payment #2         Insurance         Local Tax         State Tax         Local Tax         State Tax           \$ 1,216         \$ -         \$ 831         \$ 264         \$ -         \$ -           \$ 1,106         -         -         554         176         -         -           \$ 995         -         -         277         99         -         -         -           \$ 885         320         - </td <td>Payment #1         Payment #2         Insurance         Local Tax         State Tax         Local Tax         State Tax         Propried           \$ 1,216         \$ -         \$ -         \$ 831         \$ 264         \$ -</td>	Payment #1         Payment #2         Insurance         Local Tax         State Tax         Local Tax         State Tax         Propried           \$ 1,216         \$ -         \$ -         \$ 831         \$ 264         \$ -

#### (b) Staff's Calculation of Cash Working Capital:

 Adjusted Total O & M Expenses (Sch 3)
 \$ 39,498

 Cash Working Capital % (75 days / 365 days)
 20.55%

 Cash Working Capital
 \$ 8,116

DW 10-159
WEST SWANZEY WATER COMPANY, INC.
OPERATING INCOME STATEMENT

		Per Test Year	Adju	Pro-forma Adjustments Per Company		djusted est Year Company	-	Staff ustments Sch 3a)	Adj#	Te	djusted est Year er Staff	Def	evenue ficiency / furplus)		evenue uirement	
Operating Revenues	Φ	E0 000	Φ	40.400	\$ 69,152		æ	(20)	-			<b>c</b>	(0.447)	Ф	C7 04 F	
Water Sales Other Operating Revenues	\$	59,026 90	\$	10,126	Ф	69,152 90	\$	(20)	7	\$	69,132 90	\$	(2,117)	\$	67,015 90	
Total Operating Revenues		59,116		10,126		69,242		(20)			69,222		(2,117)		67,105	
Operating Expenses																
Operation & Maintenance Expenses:																
Source of Supply Expenses		3,617		-		3,617		(99)	8		3,518				3,518	
Pumping Expenses		6,410		-		6,410		(508)	9		5,902				5,902	
Water Treatment Expenses		1,472		-		1,472		(65)	10		1,407				1,407	
Transmission & Distribution Expenses		1,535	-		1,535			(157)	11		1,378			1,378		
Customer Accounts Expenses		5,202	-			5,202					5,202				5,202	
Administrative & General Expenses		17,939		-		17,939		4,152	12-14		22,091				22,091	
Total Operation & Maintenance Expenses		36,175		-		36,175		3,323			39,498		-		39,498	
Depreciation Expense		12,767		-		12,767		19	15		12,786				12,786	
Amortization Expense - CIAC		(2,991)		-		(2,991)					(2,991)				(2,991)	
Amortization Expense - Other		369		-		369		(162)	16		207				207	
Taxes other than Income		6,989		723		7,712		(601)	17		7,111				7,111	
Total Operating Expenses		53,309		723		54,032		2,579			56,611		-		56,611	
Net Operating Income / (Loss)																
Before Income Taxes		5,807		9,403		15,210		(2,599)			12,611		(2,117)		10,494	
Income Taxes				964		964		(578)	Sch 3b		386		(291)		96	
Net Operating Income (Loss)	\$ 5,807		\$ 8,439		\$ 14,246		\$ (2,021)			\$ 12,225		5 \$ (1,826		\$	10,398	

## DW 10-159 WEST SWANZEY WATER COMPANY, INC. STAFF PRO-FORMA ADJUSTMENTS TO OPERATING REVENUES AND EXPENSES

#### <u>Adj#</u>

	Pro-forma Adjustments to Operating Revenues:			
7	To reduce test year metered water sales per Co's general ledger (Staff 1-1)	_\$	5	(20)
	Proforma Adjustments to Operating Expenses:			
	Source of Supply Expenses			
8	To eliminate expense for purchase of Christmas gift (Staff 2-3)	_\$	5	(99)
	Pumping Expenses			
9	To adjust test year purchased power expense to actual test year billings (Staff 2-17):  Actual test year billings for electricity costs  Less: Purchased power expense per Company filing	\$ 5,902 (6,410) \$	3	(508)
	Water Treatment Expenses			
10	To properly reflect test year expenses (Staff 2-4): 2008 bacteria test recorded in the test year 2008 plowing expenses recorded in the test year 2009 plowing expenses not recorded in the test year	\$ (15) (200) 150 \$	<b>3</b>	(65)
	Transmission & Distribution Expenses			
11	To eliminate 2008 expense recorded in the test year (Staff 2-5)	_\$	5	(157)
	Administrative & General Expenses			
12	To adjust insurance expense to 2010 premium amount (Staff 2-9): 2010 commercial package premium Less: Insurance expense recorded by Co during the test year	\$ 1,401 (1,684) \$	6	(283)
13	To properly reflect test year expenses (Staff 1-1): 2008 corporate fee recorded in the test year Change agent fee recorded in the test year (non-recurring)	\$ (150) (15)		(165)
14	To increase supervision / rental fees to coincide with revised affiliate agreements:  Total annual management / rental fees indicated per revised agreements  Less: Management / rental fees charged to Company during the test year	\$ 19,000 (14,400)		4,600
	Total Adjustments - Administrative & General Expenses	_\$	5	4,152

## DW 10-159 WEST SWANZEY WATER COMPANY, INC. STAFF PRO-FORMA ADJUSTMENTS TO OPERATING REVENUES AND EXPENSES

#### <u>Adj#</u>

#### **Depreciation Expense**

15	To reflect full year depreciation expense for meters installed during the test year (Staff 1-2):  Cost of meters placed in service during 2009  Depreciation Rate  Full year depreciation expense  Depreciation expense recorded during the test year	*	958 4.50% 43 (24) \$	19_
16	Amortization Expense - Other  To eliminate expense for items fully amortized during the test year (Staff 1-2):  Organization Costs	\$	(10)	
	Taxes Other than Income		(152) \$	(162)
17	To adjust test year property tax expense (Staff 1-17; 2-18): 2010 Municipal Property Tax 2010 State Utility Property Tax Total pro-forma property taxes per Staff Less: Pro-forma property taxes per Company (Sch 3)	\$	5,727 1,384 7,111 (7,712) \$	(601)

## DW 10-159 WEST SWANZEY WATER COMPANY, INC. STAFF PRO-FORMA ADJUSTMENTS TO INCOME TAXES

#### **INCOME TAXES**

To reflect the income tax effect of proforma adjustments to revenue and expenses:

#### **Operating Revenues:**

Total Proforma Adjustments to Water Revenues	\$	(20)
Operating Expenses:		
Total Proforma Adjustments to Source of Supply Expenses Total Proforma Adjustments to Pumping Expenses Total Proforma Adjustments to Water Treatment Expenses Total Proforma Adjustments to Transmission & Distribution Expenses Total Proforma Adjustments to Customer Accounts Expenses Total Proforma Adjustments to Administrative & General Expenses Total Proforma Adjustments to Depreciation Expense Total Proforma Adjustments to Amortization Expense - CIAC Total Proforma Adjustments to Amortization Expense - Other Total Proforma Adjustments to Taxes other than Income  Marginal Revenue (Expense) Subject to Income Taxes		99 508 65 157 - (4,152) (19) - 162 601 (2,599)
Less: New Hampshire Business Profits Tax @ 8.5%  Amount Subject to Federal Income Tax  Less: Federal Income Tax @ 15.0%		221 (2,378) 357
Proforma Adjustments net of Income Taxes	Φ	(2,021)

## DW 10-159 WEST SWANZEY WATER COMPANY, INC. CALCULATION OF CUSTOMER RATES

			Present Rates	% Increase	Proposed Rates		Quantity	Total Revenue	_
Fixed	Charge:								
5/8"	Meter	\$	6.82	163.93%	\$	18.00	59 a	\$ 1,062	
3/4"	Meter	\$	7.50	164.00%	\$	19.80	-	·	
1"	Meter	\$	9.55	163.87%	\$	25.20	12 a	302	
1 1/2"	Meter	\$	12.28	163.84%	\$	32.40	-	-	
2"	Meter	\$	19.78	163.90%	\$	52.20	4 a	209	
3"	Meter	\$	75.02	163.93%	\$	198.00	-	-	
4"	Meter	\$	95.48	163.93%	\$	252.00	-	-	
6"	Meter	\$	143.22	163.93%	\$	378.00	-	-	
8"	Meter	\$	197.78	163.93%	\$	522.00	-	-	
							75 a	\$ 1,573	_
							x	4	Quarters
Total A	Annual Fixed Charge Revenue						_	\$ 6,293	_
Consu	imption Charge (per 100 Gallons):	\$	0.566	6.08%	\$	0.600	83,732 b_	\$ 50,274	- -
	e Fire Protection:								
1"	Service	\$	25.00	13.57%	\$	28.39	-	\$ -	
2"	Service	\$	50.00	13.57%	\$	56.79	-	-	
4"	Service	\$	150.00	13.57%	\$	170.36	-	-	
6"	Service	\$	300.00	13.57%	\$	340.72	1 a	341	
8"	Service	\$	500.00	13.57%	\$	567.87	4 a_	2,271	_
							5 a	\$ 2,612	
							x	4	Quarters
Total A	Total Annual Private Fire Protection Revenue						_	\$ 10,449	= <b>-</b>
Total i	Proposed Annual Revenues (Sch 1)						=	\$ 67,015	=

a = Number of Customersb = 100 Gallons Sold

## DW 10-159 WEST SWANZEY WATER COMPANY, INC. STEP ADJUSTMENT: 2011 # 2 WELL and PUMP IMPROVEMENTS REVENUE REQUIREMENT

Additions to Plant in Service: # 307: Wells (Sch 2) # 311: Pumping Equipment (Sch 2)			\$	16,50 16,50	
Total Additions to Plant in Service				33,0	00
Less: Accumulated Depreciation (Sch 2)			_	(1,0	97)
Net Additions to Plant in Service			\$	31,9	03
Adjustments to Working Capital:  Cash Working Capital [75/365] (See "Reduction in Annual Purchased Power Costs" below)	\$ (902) x	20.55%	=	(1	85)
Net Adjustments to Rate Base			\$	31,7	17
Rate of Return			x	8.0	0%
Addition to Operating Income Requirement			\$	2,5	37
Adjustments to Operating Expenses:  Reduction in Annual Purchased Power Costs:  Stipulated Purchased Power Expense Subsequent to 2011 Improvements Less: Current Pro-forma Purchased Power Expense (Attach A; Sch 3)  Annual Depreciation Expense (Sch 2)  Property Tax Expense (Sch 3)	-	\$ 5,000 (5,902)	\$	2,1	02) 95 55
Total Adjustments to Operating Expenses			\$	2,1	48_
Total Addition to Revenue Requirement from Water Sales after Step Adjustment  Revenue Requirement from Water Sales after Permanent Rate Increase (Attach A; Sch 1)			\$	4,66 67,0	
Total Revenue Requirement from Water Sales after Step Adjustment			\$	71,7	00
Additional Percent Increase / (Decrease) in Revenue Requirement from Water Sales			_	6.9	9%

# DW 10-159 WEST SWANZEY WATER COMPANY, INC. STEP ADJUSTMENT: 2011 # 2 WELL and PUMP IMPROVEMENTS PLANT ADDITIONS AND DEPRECIATION

PUC Acct #	Description	 Cost	. <u>—</u>	Deprec Rate	nnual pense	_	Accum Deprec	et Book Value
307 311	Wells Pumping Equipment	\$ 16,500 16.500		3.30% 10.00%	\$ 545 1.650	\$	(272) (825)	\$ 16,228 15,675
	TOTAL	\$ 33,000			\$ 2,195	\$	(1,097)	\$ 31,903

# DW 10-159 WEST SWANZEY WATER COMPANY, INC. STEP ADJUSTMENT: 2011 # 2 WELL and PUMP IMPROVEMENTS PROPERTY TAX EXPENSE

#### **State Utility Property Taxes:**

Net Book Value of Additions to Plant (Sch 2)			\$	31,903
State Valuation Adjustment Percentage: Assessed Valuation per State (2010) Net Plant in Service: 12/31/09	\$ ÷_\$	209,674 265,278	K	79.04%
State Valuation			\$	25,216
State Utility Property Tax Rate (per \$1,000)			\$	6.60
State Utility Property Taxes			\$	166
Town of Swanzey Property Taxes:				
Net Book Value of Additions to Plant (Sch 2)			\$	31,903
Municipal Valuation Adjustment Percentage: Assessed Valuation per Town of Swanzey (2010) Net Plant in Service: 12/31/09	\$ ÷_\$	258,100 265,278	<	97.29%
Municipal Valuation			\$	31,040
2010 Municipal Property Tax Rate (per \$1,000)		2	k <u>\$</u>	22.19
Town of Swanzey Property Taxes			\$	689
Combined Property Tax Expense			\$	855