

Annapolis County Water Utility
Water Rate Study

Prepared By

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in Association with

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09-Jan-13

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**MUNICIPALITY OF THE COUNTY OF ANNAPOLIS
ANNAPOLIS COUNTY WATER UTILITY
NOTES ON WORKSHEETS**

Worksheet B-1

This worksheet includes a summary of the operating revenues, operating expenditures, non-operating revenues and non-operating expenditures for the years 11/12 (actual) and 12/13 (estimated) as provided by the Utility.

Operating Revenues – The operating revenue for 13/14, 14/15 and 15/16 is based on the Utility's budget. There is no projected growth in customers for each of the test years. The fire protection rate is based on rate paid by the Municipality in the last fiscal year.

Operating Expenditures - The projection of expenses for the test years is as derived from Worksheet B-2a/2b/2c/2d/2e. The Depreciation has been calculated based on the addition of the planned infrastructure. The depreciation rate for 2011/12 is based on the approved financial statements for the Utility.

Non-operating Revenues – This worksheet provided the projected non-operating revenue for the test years including interest and sprinkler service revenue.

Non-operating Expenditures – The non-operating expenditures include principal and interest payments for the current debt and for the proposed capital works together with a return on the rate base for the owner.

Accumulated Surplus (Deficit) The Utility has a projected deficit in the last two test years.

Worksheet B-2

This worksheet takes the information from Worksheet B-1 to develop revenue requirements for the years for 13/14 14/15 and 15/16.

Worksheet B-2a/2b/2c/2d/2e

This worksheet provides the breakdown of the estimated operating expenditures as provided by the Utility for the year 12/13. The projected expenditures for 13/14, 14/15 and 15/16 are based on the 12/13 numbers with a 3% increase for inflation. The increase for Power and Chemicals has been set at 6% in 13/14, 5% in 14/15 and 3% in 15/16 due to the uncertainty in these items.

Worksheet B-3

This worksheet calculates the depreciation per year and the depreciation fund balance based on the proposed capital works for the years 12/13, 13/14, 14/15 and 15/16. The depreciation fund balance for the year 11/12 is taken from information provided by the Utility.

Worksheet B-4

This worksheet is used to calculate the amortization on the Capital Contributions to be used in Worksheet C-2.

Worksheet B-5

This worksheet allocates the assets of the Utility between general service and fire protection. Each year includes the addition of the proposed capital works identified in Worksheet B-3. Production assets are allocated 90% general service and 10% fire protection. Demand assets are allocated 40% to general service and 60% to fire protection to reflect the capability of the system. The combined transmission assets were allocated at 84.5 % to production and 15.5% to Fire protection due to the significant proportion of the transmission main in Cornwallis which is between the source and the treatment plant. The Cornwallis transmission assets from the source to the Treatment Plant were allocated at 90% to general service (10% to fire protection) while all the remaining transmission assets were allocated at 40% to general service and 60% to fire protection.

Worksheet C-1

This worksheet uses the percentage of total assets allocated to fire protection from worksheet B-5 to determine the allocation of transmission and distribution; depreciation, taxes and return on rate base to the fire protection charge. The remaining expenses are allocated at 10% to fire protection.

Worksheet C-2

This worksheet calculates the return on rate base.

Worksheet C-3a

This worksheet allocates the expenses to joint use for Annapolis Royal using the principal set out in an agreement between the Town and the Municipality. However, in this rate study the joint use expenses are allocated between Annapolis County and Annapolis Royal based on the percentage of water sold to Annapolis Royal compared to the all water sold by the Annapolis County Water Utility. The calculation for this percentage can be found in Appendix 2. This is different from the last rate application where Annapolis Royal was charged based on the expenses associated with the Granville Ferry water supply. In this rate study Annapolis Royal is treated like all other customers served by the Utility. It is proposed to charge Annapolis Royal a consumption charge per 1,000 gallons in the future (this was a lump sum charge in the previous rate schedule). This change is requested to acknowledge the variable rate of consumption from Annapolis Royal.

Worksheet C-3

This worksheet allocates expenses from Worksheet C-3a among customer charge, base charge, delivery and production for Annapolis County Water Utility. The allocations used are consistent with those used in the last rate application to the Board.

Worksheet C-4

This worksheet sets out the number and size of meters in the Utility and by use of the capacity ratio establishes the system equivalents.

Worksheet C-5

This schedule uses the information from Worksheet's C-3 and C-4 to calculate quarterly base charge for each size of meter. A flat rate charge has been calculated for 4 customers who receive low water pressure.

Worksheet C-6

This worksheet sets out the water consumption by meter size. The data is based on the previous 12 months of data as provided by the Utility for each of the existing systems. It is noted that the consumption for the 5/8 inch customers has been declining since the last rate study. Based on this historic trend the water consumption for the 5/8 inch customers is projected to decline 1.5% per year for each of the test years.

Worksheet C-7

This worksheet uses information from Worksheet's C-3 and C-6 to calculate the consumption charge for years 13/14, 14/15 and 15/16 based on the existing single block system.

Worksheet C-8

This worksheet is used as a check to determine that the potential revenues will be the same as the requirements on Worksheet C-3a.

Worksheet D-1

This worksheet is a comparison of existing and proposed rates.

Worksheet D-2

This worksheet provides a comparative statement of Operations for the test years.

Appendix 1 - This appendix sets out the schedule for repayment of the required loans.

Appendix 2 - This appendix sets the calculation of the percentage of flow for the distribution of costs in Worksheet C-3a.

Annapolis County Water Utility Comparative Statement of Operations

Fiscal Years ending March 31st

	2011/12 (Actual)	2012/13 (Estimated)	Projection Using Current Rates		
			2013/14 Budget	2014/15 Budget	2015/16 Budget
OPERATING REVENUES					
Metered Sales	542,134	540,000	540,000	540,000	540,000
Annapolis Royal Bulk Sales	27,606	25,000	25,000	25,000	25,000
Public Fire Protection	131,439	131,439	131,439	131,439	131,439
Interest on overdue accounts					
Other revenue	0	0	0	0	0
Total	701,179	696,439	696,439	696,439	696,439
OPERATING EXPENDITURES					
Source of Supply	28,137	25,187	25,985	26,795	27,598
Power and Pumping	42,483	43,757	46,343	48,632	50,091
Water Treatment	168,454	174,322	180,403	186,417	192,010
Transmission and Distribution	63,744	68,156	70,201	72,307	74,476
Administration and General	33,697	34,708	35,749	36,822	37,927
Depreciation	110,082	124,158	132,678	143,769	145,259
Other	0	0	0	0	0
Taxes	0	0	0	0	0
Total	446,597	470,289	491,359	514,741	527,361
OPERATING PROFIT (LOSS)	254,582	226,150	205,080	181,698	169,078
NON-OPERATING REVENUES					
Interest income	3,652	3,746	3,746	3,746	3,746
Sprinkler Services	1,000	1,000	1,000	1,000	1,000
Other	0	0	0	0	0
Total	4,652	4,746	4,746	4,746	4,746
NON-OPERATING EXPENDITURES					
Existing Debt Charges - Principal	92,500	92,500	92,500	92,500	92,500
Existing Debt Charges - Interest	37,601	30,396	26,526	22,491	18,269
Loan Interest - Reserve Funds	6,972	9,376	8,615	7,834	5,606
Principal Repayment - Reserve Funds	23,100	15,600	15,600	13,500	13,500
New Debt - Principal			0	0	0
New Debt - Interest			0	0	0
New Debt - Principal				0	0
New Debt - Interest				0	0
New Debt - Principal					0
New Debt - Interest					0
Permit Fee					
Capital out of Revenue	0	0	0	0	0
Dividend to the Owner	0	0	70,000	70,000	85,000
Other			0	0	0
Total	160,173	147,873	213,242	206,326	214,875
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	99,061	83,024	-3,415	-19,882	-41,050
DEFICIT BEGINNING OF THE YEAR	-769,596	-670,535	-587,511	-590,927	-610,809
ACCUMULATED SURPLUS (DEFICIT)	-670,535	-587,511	-590,927	-610,809	-651,859

Worksheet B-2

09-Jan-13

Annapolis County Water Utility Statement of Operating Expenditures and Revenue Requirements				
	2012/13 (Estimated)	2013/14 Budget	2014/15 Budget	2015/16 Budget
OPERATING EXPENDITURES				
Source of Supply	25,187	25,985	26,795	27,598
Power and Pumping	43,757	46,343	48,632	50,091
Water Treatment	174,322	180,403	186,417	192,010
Transmission and Distribution	68,156	70,201	72,307	74,476
Administration and General	34,708	35,749	36,822	37,927
Depreciation	124,158	132,678	143,769	145,259
Other	0	0	0	0
Taxes	0	0	0	0
Total	470,289	491,359	514,741	527,361
ADD NON-OPERATING EXPENDITURES				
Debt Charges - Principal	92,500	92,500	92,500	92,500
Debt Charges - Interest	30,396	26,526	22,491	18,269
Loan Interest - Reserve Funds	9,376	8,615	7,834	5,606
Principal Repayment - Reserve Funds	15,600	15,600	13,500	13,500
New Debt - Principal		0	0	0
New Debt - Interest		0	0	0
New Debt - Principal			0	0
New Debt - Interest			0	0
New Debt - Principal				0
New Debt - Interest				0
Permit Fee	0	0	0	0
Capital out of Revenue	0	0	0	0
Owners Return on Rate Base	0	70,000	70,000	85,000
Other	0	0	0	0
Total	147,873	213,242	206,326	214,875
LESS NON-OPERATING REVENUES				
Interest and other income	3,652	3,746	3,746	3,746
Sprinkler Services	1,000	1,000	1,000	1,000
Other - Sprinkler Service	0	0	0	0
Total	4,652	4,746	4,746	4,746
LESS OTHER OPERATING REVENUE				
Interest and Other Income	0	0	0	0
Private Hydrant Charge		0	0	0
Other				
Total	0	0	0	0
REVENUE REQUIRED FROM FIRE PROTECTION AND WATER CUSTOMERS	613,509	699,854	716,321	737,489

**Annapolis County Water Utility
Statement of Operating Expenditures**

	2012/13 Estimated	2013/14	2014/15	2015/16
SOURCE OF SUPPLY	0	0	0	0
Wages/salaries	1,831	1,886	1,942	2,001
Benefits	454	468	482	496
Courier	209	215	222	228
Electrical	1,408	1,492	1,567	1,614
Bldg/Facility Maint	10,837	11,162	11,496	11,841
Bldg/ Facility Insurance	5,230	5,387	5,548	5,715
Operational Materials/supplies	3,154	3,248	3,346	3,446
Contracts / Agreements	2,065	2,127	2,191	2,257
Other Source of Supply Expenses	0	0	0	0
TOTAL SOURCE OF SUPPLY	25,187	25,985	26,795	27,598
ASSUMPTIONS				
POWER AND PUMPING	0	0	0	0
Electrical	42,428	44,974	47,223	48,639
Bldg/Facility Maintenance	70	72	74	76
Operational Equipment	1,210	1,247	1,284	1,322
Maint. Materials/supplies	49	50	52	53
Other Pumping Expenses	0	0	0	0
TOTAL POWER AND PUMPING	43,757	46,343	48,632	50,091
ASSUMPTIONS				
WATER TREATMENT				
Wages and Salaries	103,686	106,796	110,000	113,300
Benefits	11,202	11,538	11,884	12,241
Training / Education	82	85	87	90
Kilometer Allowance	3,635	3,744	3,856	3,972
Meal Allowance	934	962	991	1,021
Hotel Accomodations	213	219	226	232
Course Fees	819	844	869	895
Dues and Fees	316	326	336	346
Office Supplies	10	10	10	11
Postage	18	19	19	20
Courier	505	521	536	552
Telephone / Fax	32	33	34	35
Bld/Facility Maintenance	6,956	7,165	7,380	7,601
Maint. Tools and Equipment	264	272	280	288
Veh/ Equip Insurance	122	126	129	133
Operational Equipment	4,921	5,069	5,221	5,377
Opt Materials and Supplies	28,389	30,092	31,597	32,545
Maint. Equipment	502	517	533	549
Maint. Materials and Supplies	11,239	11,576	11,923	12,281
Uniforms and Clothing	476	490	505	520
Professional Services	-	0	0	0
Other	0	0	0	0
TOTAL WATER TREATMENT	174,322	180,403	186,417	192,010
ASSUMPTIONS				

Worksheet 2a/2b/2c/2d/2e

TRANSMISSION AND DISTRIBUTION	0	0	0	0
Wages and Salaries	21,849	22,505	23,180	23,875
Benefits	2,608	2,687	2,767	2,850
Office Equipment	101	104	107	110
Courier	83	86	88	91
Bldg/Facility Maint.	26	27	28	29
Tools and Equipment	463	477	491	506
Operational Equipment	8,046	8,287	8,536	8,792
Opt Materials and Supplies	11,055	11,387	11,729	12,080
Maint. Materials and Supplies	23,924	24,642	25,381	26,142
Other				
TOTAL TRANSMISSION AND DISTRIBUTION	68,156	70,201	72,307	74,476
ASSUMPTIONS				
ADMINISTRATION AND GENERAL	0	0	0	0
Salaries		0	0	0
Officers and Executive Salaries		0	0	0
Salaries Allocated from Municipal Unit	0	0	0	0
Other		0	0	0
Dues and fees	174	179	185	190
Office Supplies	20,867	21,493	22,137	22,802
Office Equipment	599	617	636	655
Photo copying supplies	52	54	55	57
Postage	1,453	1,497	1,541	1,588
Telephone / fax	2,082	2,145	2,209	2,275
Property Taxes	5,886	6,063	6,245	6,432
Operational Equipment	653	673	693	714
Main. Materials/Supplies	3	3	3	3
Contracts/agreements	1,347	1,388	1,429	1,472
Regulatory Fees	1,591	1,639	1,688	1,739
Other Admin Expense	0	0	0	0
TOTAL ADMINISTRATION AND GENERAL	34,708	35,749	36,822	37,927
ASSUMPTIONS				
TOTAL OPERATING EXPENSE	346,130	358,681	370,973	382,102

Annapolis County Water Utility
Calculation of Depreciation of Tangible Plant at Total Cost - Ingonish
2012/13

	Additions to Utility Plant in Service	Capital Cost Contribution from Others	Utility Cost of Plant in Service	Depreciation Rate	Annual Depreciation
				Depreciation Rate March 31, 2012	110,082
LAND AND LAND RIGHTS					
Source of Supply Land					0
Land - General	0		0		0
STRUCTURES AND IMPROVEMENTS	0		0		0
Source of Supply Structures	0		0	0.0133	0
Power and Pumping Structures	0		0	0.05	0
Purification Treatment Plant	0		0	0.02	0
Distribution Reservoirs and Standpipes	0	0	0	0.0133	0
Water Treatment Structures	0		0	0.02	0
Source Water Protection Plans	60,000	56,308	3,692	0.05	3,000
Work in Process Cornwallis WTP					
Other - Groundwater Resource Assess.	30,000	28,154	1,846	0.05	1,500
Equipment	0		0		0
Electrical Pumping	0	0	0	0.05	0
Purification Equipment	30,000	28,154	1,846	0.05	1,500
Office Furniture and Equipment	0		0		0
Transportation Equipment	0	0	0	0	0
Tools and Work Equipment	0		0		0
GIS System	0		0		0
Distribution Mains Equipment	0		0	0.2	0
Meter Shop Equipment	0	0	0	0	0
Other Equipment - Vehicals	0	0	0	0.2	0
Mains	0		0		0
Transmission	0	0	0	0.0133	0
Distribution	280,000	262,769	17,231	0.0133	3,724
Meters	10,000	9,385	615	0.05	500
Hydrants	27,000	25,338	1,662	0.0133	359
Sprinkler Connections	0	0	0	0.0133	0
Services	8,000	7,508	492	0.02	160
Other - Rate Study	10,000	0	10,000	0.3333	3,333
TOTAL	455,000	417,615	37,385		14,076

Source of Funding		Depreciation Fund Balance beginning of year	316,704
		Interest on Fund Balance	3,167
Gas tax contribution	417,615	Fund balance before expenditures	319,871
Depreciation fund	37,385	Payment for 2011/12 works	129,585
Long Term Debt	0	Expenditures during the year	37,385
TOTAL	455,000	Balance at end of year	262,983

Annapolis County Water Utility
Calculation of Depreciation of Tangible Plant at Total Cost
2013/14

	Additions to Utility Plant in Service	Capital Cost Contribution from Others	Utility Cost of Plant in Service	Depreciation Rate	Annual Depreciation
		Depreciation rate as of March 31, 2013			124,158
LAND AND LAND RIGHTS					
Source of Supply Land	0	0	0		0
Land - General					0
STRUCTURES AND IMPROVEMENTS					0
Source of Supply Structures	0	0	0	0.0133	0
Power and Pumping Structures	0	0	0	0.05	0
Purification Treatment Plant	0		0	0.02	0
Distribution Reservoirs and Standpipes	0	0	0	0.0133	0
Water Treatment Structures	0	0	0	0.02	0
Source Water Protection Plans					
Work in Process Cornwallis WTP	50,000	47,297	2,703	0.05	2,500
Other -Groundwater Resource Assess.	20,000	18,919	1,081	0.05	1,000
Equipment		0	0		0
Electrical Pumping	0	0	0	0.05	0
Purification Equipment	30,000	0	30,000	0.05	1,500
Office Furniture and Equipment		0	0		0
Transportation Equipment		0	0	0	0
Tools and Work Equipment	0	0	0		0
GIS System		0	0		0
Distribution Mains Equipment	0	0	0	0.2	0
Meter Shop Equipment		0	0	0	0
Other Equipment -generator	0	0	0	0.2	0
Mains		0	0		0
Transmission	0	0	0	0.0133	0
Distribution	215,000	203,378	11,622	0.0133	2,860
Meters	10,000	9,459	541	0.05	500
Hydrants	0	0	0	0.0133	0
Sprinkler Connections		0	0	0.0133	0
Services	8,000	7,568	432	0.02	160
Other	0	0	0	0.3333	0
TOTAL	333,000	286,622	46,378	1	8,520

Source of Funding		Depreciation Fund Balance beginning of year		262,983
			Interest on Fund balance	2,630
Gas tax contribution	286,622		Fund balance before expenditures	265,613
Depreciation fund	46,378		Expenditures during the year	46,378
Long Term Debt	0		Balance after expenditures	343,393
TOTAL	333,000			

Annapolis County Water Utility Calculation of Depreciation of Tangible Plant at Total Cost 2014/15					
	Additions to Utility Plant in Service	Capital Cost Contribution from Others	Utility Cost of Plant in Service	Depreciation Rate	Annual Depreciation
		Depreciation rate as of March 31, 2014			132,678
LAND AND LAND RIGHTS					
Source of Supply Land	0	0	0		0
Land - General	0				0
STRUCTURES AND IMPROVEMENTS					0
Source of Supply Structures	0	0	0	0.0133	0
Power and Pumping Structures	0	0	0	0.05	0
Purification Treatment Plant	0		0	0.02	0
Distribution Reservoirs and Standpipes	0	0	0	0.0133	0
Water Treatment Structures	0	0	0	0.02	0
Source Water Protection Plans					
Work in Process Cornwallis WTP	0	0	0	0.05	0
Other -		0	0	0.05	0
Equipment		0	0		0
Electrical Pumping	0	0	0	0.05	0
Purification Equipment	0	0	0	0.05	0
Office Furniture and Equipment	0	0	0		0
Transportation Equipment		0	0	0	0
Tools and Work Equipment		0	0		0
GIS System		0	0		0
Distribution Mains Equipment	0	0	0	0.2	0
Meter Shop Equipment		0	0	0	0
Other Equipment - Generator	50,000	46,875	3,125	0.2	10,000
Mains		0	0		0
Transmission	0	0	0	0.0133	0
Distribution	70,000	65,625	4,375	0.0133	931
Meters	0	0	0	0.05	0
Hydrants	0	0	0	0.0133	0
Sprinkler Connections		0	0	0.0133	0
Services	8,000	7,500	500	0.02	160
Other				0.3333	0
TOTAL	128,000	120,000	8,000	1	11,091
Source of Funding					
		Depreciation Fund Balance beginning of year			343,393
Gas tax contribution	95,000		Interest on Fund balance		3,434
Depreciation fund	8,000		Fund balance before expenditures		346,827
Long Term Debt	0		Expenditures during the year		8,000
Annapolis Royal Utility	25,000		Balance after expenditures		471,504
TOTAL	128,000				

Annapolis County Water Utility
Calculation of Depreciation of Tangible Plant at Total Cost
2015/16

	Additions to Utility Plant in Service	Capital Cost Contribution from Others	Utility Cost of Plant in Service	Depreciation Rate	Annual Depreciation
		Depreciation rate as of March 31, 2015			143,769
LAND AND LAND RIGHTS					
Source of Supply Land	0		0		0
Land - General					0
STRUCTURES AND IMPROVEMENTS					0
Source of Supply Structures			0	0.0133	0
Power and Pumping Structures			0	0.05	0
Purification Treatment Plant			0	0.02	0
Distribution Reservoirs and Standpipes	0	0	0	0.0133	0
Water Treatment Structures			0	0.02	0
Source Water Protection Plans					
Work in Process Cornwallis WTP		0	0	0.05	0
Other -			0	0.05	0
Equipment			0		0
Electrical Pumping		0	0	0.05	0
Purification Equipment		0	0	0.05	0
Office Furniture and Equipment			0		0
Transportation Equipment		0	0	0	0
Tools and Work Equipment			0		0
GIS System			0		0
Distribution Mains Equipment	0		0	0.2	0
Meter Shop Equipment		0	0	0	0
Other Equipment			0	0.2	0
Mains			0		0
Transmission	0		0	0.0133	0
Distribution	100,000	92,593	7,407	0.0133	1,330
Meters	0		0	0.05	0
Hydrants	0		0	0.0133	0
Sprinkler Connections			0	0.0133	0
Services	8,000	7,407	593	0.02	160
Other				0.3333	0
TOTAL	108,000	100,000	8,000	1	1,490

Source of Funding		Depreciation Fund Balance beginning of year		471,504
			Interest on Fund balance	4,715
Gas tax contribution	100,000		Fund balance before expenditures	476,219
Depreciation fund	8,000		Expenditures during the year	8,000
Long Term Debt	0		Balance after expenditures	611,988
TOTAL	108,000			

Annapolis County Water Utility Calculation of Amortization on Capital Contributions (to Plant) 2013/14			
	Capital Contributions to Utility Plant in Service	Amortization Rate	Annual Amortization
LAND AND LAND RIGHTS			
Source of Supply Land	0	0.00	0
Land - General	0	0.00	0
STRUCTURES AND IMPROVEMENTS	0	0.00	0
Source of Supply Structures	0	0.0133	0
Power and Pumping Structures	0	0.05	0
Purification	0	0.02	0
Distribution Reservoirs and Standpipes	0	0.0133	0
Water Treatment Plant	0	0.02	0
General - Watershed Study	47,297	0.05	2,365
Other Water Source Structures	18,919	0.05	946
Equipment	0		0
Electrical Pumping	0	0.05	0
Purification Equipment	0	0.05	0
Office Furniture and Equipment	0		0
Transportation Equipment	0	0	0
Tools and Work Equipment	0		0
GIS System	0		0
Distribution Mains Equipment	0	0.2	0
Meter Shop Equipment	0	0	0
Other Equipment	0	0.2	0
Mains	0		0
Transmission	0	0.0133	0
Distribution	203,378	0.0133	2,705
Meters	9,459	0.05	473
Hydrants	0	0.0133	0
Sprinkler Connections	0	0.0133	0
Services	7,568	0.02	151
Other Water rate study		0.3333	0
TOTAL	286,622		6,640

Annapolis County Water Utility Calculation of Amoritization on Capital Contributions (to Plant) 2014/15			
	Capital Contributions to Utility Plant in Service	Amortization Rate	Annual Amortization
LAND AND LAND RIGHTS			
Source of Supply Land	0	0.00	0
Land - General	0	0.00	0
STRUCTURES AND IMPROVEMENTS		0	0
Source of Supply Structures	0	0.0133	0
Power and Pumping Structures	0	0.05	0
Purification	0	0.02	0
Distribution Reservoirs and Standpipes	0	0.0133	0
Water Treatment Plant	0	0.02	0
General - Watershed Study	0	0.05	0
Other Water Source Structures	0	0.05	0
Equipment	0		0
Electrical Pumping	0	0.05	0
Purification Equipment	0	0.05	0
Office Fruniture and Equipment	0		0
Transportation Equipment	0	0	0
Tools and Work Equipment	0		0
GIS System	0		0
Distribution Mains Equipment	0	0.2	0
Meter Shop Equipment	0	0	0
Other Equipment	46,875	0.2	9,375
Mains	0		0
Transmission	0	0.0133	0
Distribution	65,625	0.0133	873
Meters	0	0.05	0
Hydrants	0	0.0133	0
Sprinkler Connections	0	0.0133	0
Services	7,500	0.02	150
Other	0	0.3333	0
TOTAL	120,000		10,398

Annapolis County Water Utility Calculation of Amortization on Capital Contributions (to Plant) 2015/16			
	Capital Contributions to Utility Plant in Service	Amortization Rate	Annual Amortization
LAND AND LAND RIGHTS			
Source of Supply Land	0	0.00	0
Land - General	0	0.00	0
STRUCTURES AND IMPROVEMENTS	0	0.00	0
Source of Supply Structures	0	0.0133	0
Power and Pumping Structures	0	0.05	0
Purification	0	0.02	0
Distribution Reservoirs and Standpipes	0	0.0133	0
Water Treatment Plant	0	0.02	0
General - Watershed Study	0	0.05	0
Other Water Source Structures	0	0.05	0
Equipment	0		0
Electrical Pumping	0	0.05	0
Purification Equipment	0	0.05	0
Office Furniture and Equipment	0		0
Transportation Equipment	0	0	0
Tools and Work Equipment	0		0
GIS System	0		0
Distribution Mains Equipment	0	0.2	0
Meter Shop Equipment	0	0	0
Other Equipment	0	0.2	0
Mains	0		0
Transmission	0	0.0133	0
Distribution	92,593	0.0133	1,231
Meters	0	0.05	0
Hydrants	0	0.0133	0
Sprinkler Connections	0	0.0133	0
Services	7,407	0.02	148
Other	0	0.3333	0
TOTAL	100,000		1,380

Annapolis County Water Utility
Allocation of the Total Cost of Utility Plant in Service
Between General Service and Fire Protection
2013/14

	Utility Plant in Service Previous Year	Additions	Utility Plant in Service	Percent	General Service	Percent	Fire Protection
Intangible Plant							
Organization and Working Capital			-	100.0%	0	0.0%	0
Tangible Plant							
LAND AND LAND RIGHTS							
Source of Supply Land	129,933	-	129,933	90.0%	116,940	10.0%	12,993
Land - General	-	-	-	90.0%	0	10.0%	0
STRUCTURES AND IMPROVEMENTS							
Source of Supply Structures	2,473,888	-	2,473,888	90.0%	2,226,499	10.0%	247,389
Power and Pumping Structures	-	-	-	90.0%	0	10.0%	0
Purification Treatment Plant	1,889,688	-	1,889,688	90.0%	1,700,719	10.0%	188,969
Distribution Reservoirs and Standpipes	402,503	-	402,503	40.0%	161,001	60.0%	241,502
Water Treatment Structures	168,390	-	168,390	90.0%	151,551	10.0%	16,839
Source Water Protection Plans	-	-	-	90.0%	0	10.0%	0
Work in Process Cornwallis WTP	255,914	50,000	305,914	90.0%	275,323	10.0%	30,591
Other -	-	20,000	20,000	90.0%	18,000	10.0%	2,000
Equipment							
Electrical Pumping	40,978	-	40,978	90.0%	36,880	10.0%	4,098
Purification Equipment	465,746	30,000	495,746	90.0%	446,171	10.0%	49,575
Office Furniture and Equipment	-	-	-	90.0%	0	10.0%	0
Transportation Equipment	-	-	-	90.0%	0	10.0%	0
Tools and Work Equipment	29,333	-	29,333	90.0%	26,400	10.0%	2,933
GIS System	-	-	-	100.0%	0	0.0%	0
Plant Equipment	3,879	-	3,879	90.0%	3,491	10.0%	388
Meter Shop Equipment	-	-	-	90.0%	0	10.0%	0
Other Equipment	-	-	-	90.0%	0	10.0%	0
Mains							
Transmission	2,010,378	-	2,010,378	83.8%	1,684,697	16.2%	325,681
Distribution	1,397,234	215,000	1,612,234	40.0%	644,894	60.0%	967,340
Meters	162,755	10,000	172,755	100.0%	172,755	0.0%	0
Hydrants	192,169	-	192,169	0.0%	0	100.0%	192,169
Sprinkler Connections	-	-	-	0.0%	0	100.0%	0
Services	189,962	8,000	197,962	100.0%	197,962	0.0%	0
Other	12,844	-	12,844	50.0%	6,422	50.0%	6,422
TOTAL	9,825,594	333,000	10,158,594	77.5%	7,869,705	22.5%	2,288,889

Annapolis County Water Utility Allocation of the Total Cost of Utility Plant in Service Between General Service and Fire Protection 2014/15							
	Utility Plant in Service Previous Year	Additions	Utility Plant in Service	Percent	General Service	Percent	Fire Protection
Intangible Plant							
Organization and Working Capital	-		-	100.0%	0	0.0%	0
Tangible Plant	-						
LAND AND LAND RIGHTS	-						
Source of Supply Land	129,933	0	129,933	90.0%	116,940	10.0%	12,993
Land - General	-	0	-	90.0%	0	10.0%	0
STRUCTURES AND IMPROVEMENTS	-	0	-	0.0%	0		0
Source of Supply Structures	2,473,888	0	2,473,888	90.0%	2,226,499	10.0%	247,389
Power and Pumping Structures	-	0	-	90.0%	0	10.0%	0
Purification	1,889,688	0	1,889,688	90.0%	1,700,719	10.0%	188,969
Distribution Reservoirs and Standpipes	402,503	0	402,503	40.0%	161,001	60.0%	241,502
Water Treatment Plant	168,390	0	168,390	90.0%	151,551	10.0%	16,839
Source Water Protection Plans	-	0	-	90.0%	0	10.0%	0
Other -	20,000	0	20,000	90.0%	18,000	10.0%	2,000
Equipment	-	0	-		0		0
Electrical Pumping	40,978	0	40,978	90.0%	36,880	10.0%	4,098
Purification Equipment	495,746	0	495,746	90.0%	446,171	10.0%	49,575
Office Furniture and Equipment	-	0	-	90.0%	0	10.0%	0
Transportation Equipment	-	0	-	90.0%	0	10.0%	0
Tools and Work Equipment	29,333	0	29,333	90.0%	26,400	10.0%	2,933
GIS System	-	0	-	100.0%	0	0.0%	0
Distribution Mains Equipment	3,879	0	3,879	40.0%	1,552	60.0%	2,327
Meter Shop Equipment	-	0	-	90.0%	0	10.0%	0
Other Equipment	-	50,000	50,000	90.0%	45,000	10.0%	5,000
Mains	-	0	-		0		0
Transmission	2,010,378	0	2,010,378	83.8%	1,684,697	16.2%	325,681
Distribution	1,612,234	70,000	1,682,234	40.0%	672,894	60.0%	1,009,340
Meters	172,755	0	172,755	100.0%	172,755	0.0%	0
Hydrants	192,169	0	192,169	0.0%	0	100.0%	192,169
Sprinkler Connections	-	0	-	0.0%	0	100.0%	0
Services	197,962	8,000	205,962	100.0%	205,962	0.0%	0
Other	305,914	0	305,914	90.0%	275,323	10.0%	30,591
TOTAL	10,145,750	128,000	10,273,750	77.3%	7,942,343	22.7%	2,331,407

Annapolis County Water Utility
Allocation of the Total Cost of Utility Plant in Service
Between General Service and Fire Protection
2015/16

	Utility Plant in Service Previous Year	Additions	Utility Plant in Service	Percent	General Service	Percent	Fire Protection
Intangible Plant							
Organization and Working Capital	-		-	100.0%	0	0.0%	0
Tangible Plant	-						
LAND AND LAND RIGHTS	-						
Source of Supply Land	129,933	0	129,933	90.0%	116,940	10.0%	12,993
Land - General	-	0	-	90.0%	0	10.0%	0
STRUCTURES AND IMPROVEMENTS	-	0	-		0		0
Source of Supply Structures	2,473,888	0	2,473,888	90.0%	2,226,499	10.0%	247,389
Power and Pumping Structures	-	0	-	90.0%	0	10.0%	0
Purification	1,889,688	0	1,889,688	90.0%	1,700,719	10.0%	188,969
Distribution Reservoirs and Standpipes	402,503	0	402,503	40.0%	161,001	60.0%	241,502
Water Treatment Plant	168,390	0	168,390	90.0%	151,551	10.0%	16,839
Source Water Protection Plans	-	0	-	90.0%	0	10.0%	0
Other -	20,000	0	20,000	90.0%	18,000	10.0%	2,000
Equipment	-	0	-		0		0
Electrical Pumping	40,978	0	40,978	90.0%	36,880	10.0%	4,098
Purification Equipment	495,746	0	495,746	90.0%	446,171	10.0%	49,575
Office Furniture and Equipment	-	0	-	90.0%	0	10.0%	0
Transportation Equipment	-	0	-	90.0%	0	10.0%	0
Tools and Work Equipment	29,333	0	29,333	90.0%	26,400	10.0%	2,933
GIS System	-	0	-	100.0%	0	0.0%	0
Distribution Mains Equipment	3,879	0	3,879	40.0%	1,552	60.0%	2,327
Meter Shop Equipment	-	0	-	90.0%	0	10.0%	0
Other Equipment	50,000	0	50,000	90.0%	45,000	10.0%	5,000
Mains	-	0	-		0		0
Transmission	2,010,378	0	2,010,378	83.8%	1,684,697	16.2%	325,681
Distribution	1,682,234	100,000	1,782,234	40.0%	712,894	60.0%	1,069,340
Meters	172,755	0	172,755	100.0%	172,755	0.0%	0
Hydrants	192,169	0	192,169	0.0%	0	100.0%	192,169
Sprinkler Connections	-	0	-	0.0%	0	100.0%	0
Services	205,962	8,000	213,962	100.0%	213,962	0.0%	0
Other	305,914	0	305,914	90.0%	275,323	10.0%	30,591
TOTAL	10,273,750	108,000	10,381,750	77.0%	7,990,343	23.0%	2,391,407

Worksheet C-1

09-Jan-13

Annapolis County Water Utility Allocation of Fire Protection Charges Projected Expenses for 2013/14			
	Estimated Expenses	PerCent Allocation to fire Protection	Fire Protection Charge
Source of Supply	25,985	10.0%	2,599
Power and Pumping	46,343	10.0%	4,634
Water Treatment	180,403	10.0%	18,040
Transmission and Distribution	70,201	22.5%	15,817
Adminstration and General	35,749	10.0%	3,575
Depreciation	132,678	22.5%	29,894
Other	0	10.0%	0
Taxes	0	22.5%	0
Return on Rate Base	208,496	22.5%	46,977
Total	699,854	17.4%	121,537

Annapolis County Water Utility Allocation of Fire Protection Charges Projected Expenses for Year 2014/15			
	Estimated Expenses	PerCent Allocation to fire Protection	Fire Protection Charge
Source of Supply	26,795	10.0%	2,679
Power and Pumping	48,632	10.0%	4,863
Water Treatment	186,417	10.0%	18,642
Transmission and Distribution	72,307	22.7%	16,408
Adminstration and General	36,822	10.0%	3,682
Depreciation	143,769	22.7%	32,625
Other	0	10.0%	0
Taxes	0	22.7%	0
Return on Rate Base	201,580	22.7%	45,744
Total	716,321	17.4%	124,644

Annapolis County Water Utility Allocation of Fire Protection Charges Projected Expenses for Year 2015/16			
	Estimated Expenses	PerCent Allocation to fire Protection	Fire Protection Charge
Source of Supply	27,598	10.0%	2,760
Power and Pumping	50,091	10.0%	5,009
Water Treatment	192,010	10.0%	19,201
Transmission and Distribution	74,476	23.0%	17,155
Adminstration and General	37,927	10.0%	3,793
Depreciation	145,259	23.0%	33,460
Other	0	10.0%	0
Taxes	0	23.0%	0
Return on Rate Base	210,129	23.0%	48,403
Total	737,489	17.6%	129,780

Annapolis County Water Utility
Calculation of rate Base and required Return on rate Base
Years Ending March 31st

	2012/13 (Estimate)	2013/14 (Estimate)	2014/15 (Estimate)	2015/16 (Estimate)
RATE BASE				
Utility plant in Service March 31st	9,825,594	10,145,750	10,273,750	10,381,750
Less Accumulated Depreciaton on actual cost of plant in service (Estimated)	(958,072)	(1,090,750)	(1,234,518)	(1,379,777)
Less unamortized amount of capital contribution for plant in service	-	(286,622)	(399,982)	(482,944)
Estimated Rate Base at Year End	8,867,522	8,768,379	8,639,250	8,519,029
REQUIRED RETURN				
Non-operating Expenditures (B-2)	147,873	213,242	206,326	214,875
Less Non-operating Revenue (B-2)	(4,652)	(4,746)	(4,746)	(4,746)
Less Other Non-operating Revenue (B-2)	-	-	-	-
Return on Rate Base	143,221	208,496	201,580	210,129
Required Rate of Return (Req'd Return/Est Rate Base)	1.62%	2.38%	2.33%	2.47%

Annapolis County Water Utility						
Calculation of Revenue Requirements Between the Town and the Utility						
2013/14						
	Annapolis County Total Revenue Required	Less Fire Protection Charge	Net Amount to be paid by all Customers	Annapolis Royal Percentage (Appendix 2)	Annapolis Royal Total	Revenue Required From Remaining Customers
Source of Supply	25,985	-2,599	23,387	34%	8,827	14,559
Power and Pumping	46,343	-4,634	41,708	34%	15,743	25,966
Water Treatment	180,403	-18,040	162,363	34%	61,283	101,080
Transmission and Distribution	70,201	-15,817	54,383	0%	-	54,383
Adminstration and General	35,749	-3,575	32,174	0%	-	32,174
Depreciation	132,678	-29,894	102,783	0%	-	102,783
Other	0	0	0	0%		0
Taxes	0	0	0			0
Return on Rate Base	208,496	-46,977	161,518			161,518
Sub-Total	699,854	(121,537)	578,317		85,853	492,464
TOTAL	699,854	(121,537)	578,317		85,853	492,464

Total Annapolis Royal Water Charge = 85,853 per year
 Total Annapolis Royal Water Charge = 21,463 per quarter
 Total Water used by Annapolis Royal = 27,963,320 gallons
 Rate for water sold to Annapolis Royal = \$ 3.07 per 1,000 gallons

Annapolis County Water Utility						
Calculation of Revenue Requirements Between the Town and the Utility						
2014/15						
	Annapolis County Total Revenue Required	Less Fire Protection Charge	Net Amount to be paid by all Customers	Annapolis Royal Percentage (Appendix 2)	Annapolis Royal Total	Revenue Required From Remaining Customers
Source of Supply	26,795	-2,679	24,115	34%	9,102	15,013
Power and Pumping	48,632	-4,863	43,769	34%	16,521	27,249
Water Treatment	186,417	-18,642	167,776	34%	63,326	104,449
Transmission and Distribution	72,307	-16,408	55,898	0%	-	55,898
Adminstration and General	36,822	-3,682	33,140	0%	-	33,140
Depreciation	143,769	-32,625	111,143	0%	-	111,143
Other	0	0	0	0%		0
Taxes	0	0	0			0
Return on Rate Base	201,580	-45,744	155,836			155,836
Sub-Total	716,321	(124,644)	591,677		88,949	502,728
TOTAL	716,321	(124,644)	591,677		88,949	502,728

Total Annapolis Royal Water Charge = 88,949 per year
 Total Annapolis Royal Water Charge = 22,237 per quarter
 Total Water used by Annapolis Royal = 27,963,320 gallons
 Rate for water sold to Annapolis Royal = \$ 3.18 per 1,000 gallons

Annapolis County Water Utility						
Calculation of Revenue Requirements Between the Town and the Utility						
2015/16						
	Annapolis County Total Revenue Required	Less Fire Protection Charge	Net Amount to be paid by all Customers	Annapolis Royal Percentage (Appendix 2)	Annapolis Royal Total	Revenue Required From Remaining Customers
Source of Supply	27,598	-2,760	24,839	34%	9,375	15,463
Power and Pumping	50,091	-5,009	45,082	34%	17,016	28,066
Water Treatment	192,010	-19,201	172,809	34%	65,226	107,583
Transmission and Distribution	74,476	-17,155	57,320	0%	-	57,320
Adminstration and General	37,927	-3,793	34,134	0%	-	34,134
Depreciation	145,259	-33,460	111,799	0%	-	111,799
Other	0	0	0	0%		0
Taxes	0	0	0			0
Return on Rate Base	210,129	-48,403	161,726			161,726
Sub-Total	737,489	(129,780)	607,709		91,618	516,091
TOTAL	737,489	(129,780)	607,709			516,091

Total Annapolis Royal Water Charge = 91,618 per year
 Total Annapolis Royal Water Charge = 22,904 per quarter
 Total Water used by Annapolis Royal = 27,963,320 gallons
 Rate for water sold to Annapolis Royal = \$ 3.28 per 1,000 gallons

Annapolis County Water Utility
Calculation of Revenue Required for Each Billing/Cost Category
2013/14

	Revenue Required from Metered Rates	Charge		Commodity Charge			
		Customer	Base	Delivery		Production	
Source of Supply	14,559					100%	14,559
Power and Pumping	25,966					100%	25,966
Water Treatment	101,080					100%	101,080
Transmission and Distribution	54,383		50% 27,192	50%	27,192	0%	0
Adminstration and General	32,174	10%	3,217 90% 28,957	0%	0	0%	0
Depreciation	102,783		100% 102,783	0%	0	0%	0
Other	0		100% 0	0%	0	0%	0
Taxes	0		0%	0			0
Return on Rate Base	161,518		40% 64,607	30%	48,455	30%	48,455
SUBTOTAL	492,464	3,217	223,539		75,647		190,060
Transfer from Surplus							-
TOTAL	492,464	3,217	223,539		75,647		190,060

Annapolis County Water Utility
Calculation of Revenue Required for Each Billing/Cost Category
2014/15

	Revenue Required from Metered Rates	Charge		Commodity Charge			
		Customer	Base	Delivery		Production	
Source of Supply	15,013					100%	15,013
Power and Pumping	27,249					100%	27,249
Water Treatment	104,449					100%	104,449
Transmission and Distribution	55,898		50% 27,949	50%	27,949	0%	0
Adminstration and General	33,140	10%	3,314 90% 29,826	0%	0	0%	0
Depreciation	111,143		100% 111,143	0%	0	0%	0
Other	0		100% 0	0%	0	0%	0
Taxes	0		100% 0				0
Return on Rate Base	155,836		40% 62,334	30%	46,751	30%	46,751
SUBTOTAL	502,728	3,314	231,252		74,700		193,462
Transfer from Surplus							-
TOTAL	502,728	3,314	231,252		74,700		193,462

Annapolis County Water Utility
Calculation of Revenue Required for Each Billing/Cost Category
2015/16

	Revenue Required from Metered Rates	Charge		Commodity Charge			
		Customer	Base	Delivery		Production	
Source of Supply	15,463					100%	15,463
Power and Pumping	28,066					100%	28,066
Water Treatment	107,583					100%	107,583
Transmission and Distribution	57,320		50% 28,660	50%	28,660	0%	0
Adminstration and General	34,134	10%	3,413 90% 30,720	0%	0	0%	0
Depreciation	111,799		100% 111,799	0%	0	0%	0
Other	0		100% 0	0%	0	0%	0
Taxes	0		100% 0				0
Return on Rate Base	161,726		40% 64,690	30%	48,518	30%	48,518
SUBTOTAL	516,091	3,413	235,870		77,178		199,630
TOTAL	516,091	3,413	235,870		77,178		199,630

**Annapolis County Water Utility
Service Connections and Equivalents
2013/14**

Meter Size	Number of Services	Capacity Ratio	System Equivalents
Flat Rate	4	1	4
5/8"	565	1	565
3/4"	4	1.5	6
1"	10	2.5	25
1.5"	14	5	70
2"	5	8	40
3"	2	16	32
4"	0	25	0
6"	0	50	0
8"	0	90	0
TOTAL	604		742

**Annapolis County Water Utility
Service Connections and Equivalents
2014/15**

Meter Size	Number of Services	Capacity Ratio	System Equivalents
Flat Rate	4	1	4
5/8"	565	1	565
3/4"	4	1.5	6
1"	10	2.5	25
1.5"	14	5	70
2"	5	8	40
3"	2	16	32
4"	0	25	0
6"	0	50	0
8"	0	90	0
TOTAL	604		742

**Annapolis County Water Utility
Service Connections and Equivalents
2015/16**

Meter Size	Number of Services	Capacity Ratio	System Equivalents
Flat Rate	4	1	4
5/8"	565	1	565
3/4"	4	1.5	6
1"	10	2.5	25
1.5"	14	5	70
2"	5	8	40
3"	2	16	32
4"	0	25	0
6"	0	50	0
8"	0	90	0
TOTAL	604		742

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**Annapolis County Water Utility
Service Connections and Equivalents
2013/14**

Meter Size	Capacity Ratio	Base Charge	Customer Charge	Total Base Charge	
				Annual	Quarterly
Flat Rate	1	301.27	5.33	306.59	76.65
5/8"	1	301.27	5.33	306.59	76.65
3/4"	1.5	451.90	5.33	457.23	114.31
1"	2.5	753.16	5.33	758.49	189.62
1.5"	5	1,506.33	5.33	1,511.66	377.91
2"	8	2,410.13	5.33	2,415.45	603.86
3"	16	4,820.25	5.33	4,825.58	1,206.39
4"	25	7,531.64	5.33	7,536.97	1,884.24
6"	50	15,063.29	5.33	15,068.62	3,767.15
8"	90	27,113.92	5.33	27,119.25	6,779.81

**Annapolis County Water Utility
Service Connections and Equivalents
2014/15**

Meter Size	Capacity Ratio	Base Charge	Customer Charge	Total Base Charge	
				Annual	Quarterly
Flat Rate	1	311.66	5.49	317.15	79.29
5/8"	1	311.66	5.49	317.15	79.29
3/4"	1.5	467.49	5.49	472.98	118.24
1"	2.5	779.15	5.49	784.64	196.16
1.5"	5	1,558.30	5.49	1,563.79	390.95
2"	8	2,493.29	5.49	2,498.77	624.69
3"	16	4,986.58	5.49	4,992.06	1,248.02
4"	25	7,791.52	5.49	7,797.01	1,949.25
6"	50	15,583.05	5.49	15,588.53	3,897.13
8"	90	28,049.48	5.49	28,054.97	7,013.74

**Annapolis County Water Utility
Service Connections and Equivalents
2015/16**

Meter Size	Capacity Ratio	Base Charge	Customer Charge	Total Base Charge	
				Annual	Quarterly
Flat Rate	1	317.88	5.65	323.54	80.88
5/8"	1	317.88	5.65	323.54	80.88
3/4"	1.5	476.83	5.65	482.48	120.62
1"	2.5	794.71	5.65	800.36	200.09
1.5"	5	1,589.42	5.65	1,595.07	398.77
2"	8	2,543.07	5.65	2,548.72	637.18
3"	16	5,086.14	5.65	5,091.79	1,272.95
4"	25	7,947.10	5.65	7,952.75	1,988.19
6"	50	15,894.19	5.65	15,899.85	3,974.96
8"	90	28,609.55	5.65	28,615.20	7,153.80

**Annapolis County Water Utility
Water Consumption by Block**

Meter Size	Actual Current Consumption		2013/14 Estimated Consumption	
	1st Block (Imperial Gallons)	2nd Block (Imperial Gallons)	1st Block (Imperial Gallons)	2nd Block (Imperial Gallons)
Flat Rate	0		0	
5/8"	12,196,910		12,013,956	
3/4"	90,420		90,420	
1"	770,000		770,000	
1.5"	7,149,910		7,149,910	
2"	646,360	0	646,360	
3"	33,500,280		33,500,280	
4"	0		0	
6"	0	0	0	0
8"	0		0	
TOTAL	54,353,880	0	54,170,926	0
	TOTAL BOTH BLOCKS	54,353,880	TOTAL BOTH BLOCKS	54,170,926

**Annapolis County Water Utility
Water Consumption by Block**

Meter Size	2014/15 Estimated Consumption		2015/16 Estimated Consumption	
	1st Block (Imperial Gallons)	2nd Block (Imperial Gallons)	1st Block (Imperial Gallons)	2nd Block (Imperial Gallons)
Flat Rate	0		0	
5/8"	11,833,747		11,656,241	
3/4"	90,420		90,420	
1"	770,000		770,000	
1.5"	7,149,910		7,149,910	
2"	646,360		646,360	
3"	33,500,280		33,500,280	
4"	0		0	
6"		0		0
8"	0		0	
TOTAL	53,990,717	0	53,813,211	0
	TOTAL BOTH BLOCKS	53,990,717	TOTAL BOTH BLOCKS	53,813,211

Worksheet C-7

09-Jan-13

Annapolis County Water Utility Calculation of Consumption Charge 2013/14	
NET PRODUCTION EXPENSE	BLOCK 1
<u>Total Charge Worksheet C-3</u> Quantity Worksheet C-6	3.51
NET DELIVERY EXPENSES	
<u>Total Charge Worksheet C-3</u> Quantity Worksheet C-6	1.40
CONSUMPTION CHARGE PER 1,000 IMP. GALLONS	4.90

Annapolis County Water Utility Calculation of Consumption Charge 2014/15	
NET PRODUCTION EXPENSE	BLOCK 1
<u>Total Charge Worksheet C-3</u> Quantity Worksheet C-6	3.58
NET DELIVERY EXPENSES	
<u>Total Charge Worksheet C-3</u> Quantity Worksheet C-6	1.38
CONSUMPTION CHARGE PER 1,000 IMP. GALLONS	4.97

Annapolis County Water Utility Calculation of Consumption Charge 2015/16	
NET PRODUCTION EXPENSE	BLOCK 1
<u>Total Charge Worksheet C-3</u> Quantity Worksheet C-6	3.71
NET DELIVERY EXPENSES	
<u>Total Charge Worksheet C-3</u> Quantity Worksheet C-6	1.43
CONSUMPTION CHARGE PER 1,000 IMP. GALLONS	5.14

Worksheet C-8

09-Jan-13

**Annapolis County Water Utility
Water Consumption by Block
2013/14**

BASE CHARGE

<u>Meter Size</u>	<u>Number</u>	<u>Base Rate</u>	<u>Dollar Revenue</u>
Unmetered	4	306.59	1,226
5/8"	565	306.59	173,225
3/4"	4	457.23	1,829
1"	10	758.49	7,585
1.5"	14	1,511.66	21,163
2"	5	2,415.45	12,077
3"	2	4,825.58	9,651
4"	0	7,536.97	0
6"	0	15,068.62	0
8"	0	27,119.25	0
TOTAL BASE REVENUE			226,757

CONSUMPTION CHARGE

	<u>Quantity</u>	<u>\$/ C.M.</u>	
1st Block	54,170,926	4.90	265,707
Annapolis Royal			85,853

TOTAL OPERATING REVENUES FOR YEAR (BASE + CONSUMPTION) **578,317**

**Annapolis County Water Utility
Water Consumption by Block
2014/15**

BASE CHARGE

<u>Meter Size</u>	<u>Number</u>	<u>Base Rate</u>	<u>Dollar Revenue</u>
Unmetered	4	317.15	1,269
5/8"	565	317.15	179,188
3/4"	4	472.98	1,892
1"	10	784.64	7,846
1.5"	14	1,563.79	21,893
2"	5	2,498.77	12,494
3"	2	4,992.06	9,984
4"	0	7,797.01	0
6"	0	15,588.53	0
8"	0	28,054.97	0
TOTAL BASE REVENUE			234,566

CONSUMPTION CHARGE

	<u>Quantity</u>	<u>\$/ C.M.</u>	
1st Block	53,990,717	4.97	268,161
Annapolis Royal			88,949

TOTAL OPERATING REVENUES FOR YEAR (BASE + CONSUMPTION) **591,677**

Annapolis County Water Utility
Water Consumption by Block
2015/16

BASE CHARGE

<u>Meter Size</u>	<u>Number</u>	<u>Base Rate</u>	<u>Dollar Revenue</u>
Unmetered	4	323.54	1,294
5/8"	565	323.54	182,797
3/4"	4	482.48	1,930
1"	10	800.36	8,004
1.5"	14	1,595.07	22,331
2"	5	2,548.72	12,744
3"	2	5,091.79	10,184
4"	0	7,952.75	0
6"	0	15,899.85	0
8"	0	28,615.20	0
TOTAL BASE REVENUE			239,283

CONSUMPTION CHARGE

	<u>Quantity</u>	<u>\$/ C.M.</u>	
1st Block	53,813,211	5.14	276,808
Annapolis Royal			91,618

TOTAL OPERATING REVENUES FOR YEAR (BASE + CONSUMPTION)	607,709
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Annapolis County Water Utility
Comparison of Current Water Rates with Proposed New Rates
2013/14

Meter Size	Average Quarterly Consumption		Base Charge		Percent Change	Commodity Charge		Percent Change	Quarterly Water Bill		Percent Change
	1st Block	2nd Block	Current	Proposed		Current	Proposed		Current	Proposed	
Flat Rate	-		69.05	76.65	11.0%				69.05	76.65	11.0%
5/8"	5,316		69.05	76.65	11.0%	32.37	26.07	-19.5%	101.42	102.72	1.3%
3/4"	5,651		103.12	114.31	10.8%	34.42	27.72	-19.5%	137.54	142.03	3.3%
1"	19,250		171.24	189.62	10.7%	117.23	94.42	-19.5%	288.47	284.04	-1.5%
1.5"	127,677		341.55	377.91	10.6%	777.55	626.25	-19.5%	1,119.10	1,004.17	-10.3%
2"	32,318		545.92	603.86	10.6%	196.82	158.52	-19.5%	742.74	762.38	2.6%
3"	4,187,535		1,090.90	1,206.39	10.6%	25,502.09	20,539.78	-19.5%	26,592.99	21,746.18	-18.2%
4"	-		1,704.01	1,884.24	0.0%	-	-	0.0%	-	-	0.0%
6"	-		3,407.09	3,767.15	0.0%	-	-	0.0%	3,407.09	-	0.0%
8"			6,132.02		0.0%						

Annapolis County Water Utility
Comparison of Current Water Rates with Proposed New Rates - Cornwallis
2014/15

Meter Size	Average Quarterly Consumption		Base Charge		Percent Change	Commodity Charge		Percent Change	Quarterly Water Bill		Percent Change
	1st Block	2nd Block	Current	Proposed		Current	Proposed		Current	Proposed	
Flat Rate			76.65	79.29					76.65	79.29	3.4%
5/8"	5,236		76.65	79.29	3.4%	26.07	26.01	-0.3%	102.72	105.29	2.5%
3/4"	5,651		114.31	118.24	3.4%	27.72	28.07	1.3%	142.03	146.31	3.0%
1"	19,250		189.62	196.16	3.4%	94.42	95.61	1.3%	284.04	291.77	2.7%
1.5"	127,677		377.91	390.95	3.4%	626.25	634.15	1.3%	1,004.17	1,025.09	2.1%
2"	32,318		603.86	624.69	3.4%	158.52	160.52	1.3%	762.38	785.21	3.0%
3"	4,187,535		1,206.39	1,248.02	3.4%	20,539.78	20,798.66	1.3%	21,746.18	22,046.68	1.4%
4"	-		1,884.24	1,949.25	3.5%	-	-	0.0%	-	-	0.0%
6"	-		3,767.15	3,897.13	3.5%	-	-	0.0%	-	-	0.0%
8"	-		-	-		-	-		-	-	

Annapolis County Water Utility
Comparison of Current Water Rates with Proposed New Rates - Cornwallis
2015/16

Meter Size	Average Quarterly Consumption		Base Charge		Percent Change	Commodity Charge		Percent Change	Quarterly Water Bill		Percent Change
	1st Block	2nd Block	Current	Proposed		Current	Proposed		Current	Proposed	
			79.29	80.88					79.29	80.88	2.0%
5/8"	5,158		79.29	80.88	2.0%	26.01	26.53	2.0%	105.29	107.41	2.0%
3/4"	5,651		118.24	120.62	2.0%	28.07	29.07	3.6%	146.31	149.69	2.3%
1"	19,250		196.16	200.09	2.0%	95.61	99.02	3.6%	291.77	299.11	2.5%
1.5"	127,677		390.95	398.77	2.0%	634.15	656.75	3.6%	1,025.09	1,055.52	3.0%
2"	32,318		624.69	637.18	2.0%	160.52	166.24	3.6%	785.21	803.42	2.3%
3"	4,187,535		1,248.02	1,272.95	2.0%	20,798.66	21,540.13	3.6%	22,046.68	22,813.08	3.5%
4"	-		1,949.25	1,988.19	2.0%	-	-	0.0%	-	-	0.0%
6"	-		3,897.13	3,974.96	0.0%	-	-	0.0%	-	-	0.0%
8"	-		-	-		-	-		-	-	

Worksheet D-2

09-Jan-13

Annapolis County Water Utility **Comparative Statement of Operations**

Fiscal Years ending March 31st

	2012/13 Year	Projection Using Projected Rates		
		2013/14 Test Yr 1	2014/15 Test Yr 2	2015/16 Test Yr 3
OPERATING REVENUES				
Flat Rate Sales	0	1,226	1,269	1,294
Metered Sales	540,000	491,238	501,459	514,797
Annapolis Royal Bulk Sales	25,000	85,853	88,949	91,618
Public Fire Protection	131,439	121,537	124,644	129,780
Interest on overdue accounts	0	0	0	0
Other revenue	0	0	0	0
Total	696,439	699,854	716,321	737,489
OPERATING EXPENDITURES				
Source of Supply	25,187	25,985	26,795	27,598
Power and Pumping	43,757	46,343	48,632	50,091
Water Treatment	174,322	180,403	186,417	192,010
Transmission and Distribution	68,156	70,201	72,307	74,476
Administration and General	34,708	35,749	36,822	37,927
Depreciation	124,158	132,678	143,769	145,259
Other	0	0	0	0
Taxes	0	0	0	0
Total	470,289	491,359	514,741	527,361
OPERATING PROFIT (LOSS)	226,150	208,496	201,580	210,129
NON-OPERATING REVENUES				
Interest and other income	3,746	3,746	3,746	3,746
Sprinkler Services	1,000	1,000	1,000	1,000
Other	0	0	0	0
Total	4,746	4,746	4,746	4,746
NON-OPERATING EXPENDITURES				
Existing Debt Charges - Principal	92,500	92,500	92,500	92,500
Existing Debt Charges - Interest	30,396	26,526	22,491	18,269
Loan Interest - Reserve Funds	9,376	8,615	7,834	5,606
Principal Repayment - Reserve Funds	15,600	15,600	13,500	13,500
New Debt - Principal	0	0	0	0
New Debt - Interest	0	0	0	0
New Debt - Principal	0	0	0	0
New Debt - Interest	0	0	0	0
New Debt - Principal	0	0	0	0
New Debt - Interest	0	0	0	0
Permit Fee	0	0	0	0
Capital out of Revenue	0	0	0	0
Owners Return on Rate Base	0	70,000	70,000	85,000
Other	0	0	0	0
Total	147,873	213,242	206,326	214,875
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	83,024	0	0	0

Appendix 1
Loan Calculator
Long Term Debt

Year 2013/14

Interest	6%
Term	20
Capital	(0)

	Principal	Interest	Total	Balance
Year				
1	(\$0.00)	(\$0.00)	(0.00)	0.06
2	(\$0.00)	(\$0.00)	(0.00)	0.06
3	(\$0.00)	(\$0.00)	(0.00)	0.06
4	(\$0.00)	(\$0.00)	(0.00)	0.06
5	(\$0.00)	(\$0.00)	(0.00)	0.06
6	(\$0.00)	(\$0.00)	(0.00)	0.06
7	(\$0.00)	(\$0.00)	(0.00)	0.06
8	(\$0.00)	(\$0.00)	(0.00)	0.06
9	(\$0.00)	(\$0.00)	(0.00)	0.06
10	(\$0.00)	(\$0.00)	(0.00)	0.06
11	(\$0.00)	(\$0.00)	(0.00)	0.06
12	(\$0.00)	(\$0.00)	(0.00)	0.06
13	(\$0.00)	(\$0.00)	(0.00)	0.06
14	(\$0.00)	(\$0.00)	(0.00)	0.06
15	(\$0.00)	(\$0.00)	(0.00)	0.06
16	(\$0.00)	(\$0.00)	(0.00)	0.06
17	(\$0.00)	(\$0.00)	(0.00)	0.06
18	(\$0.00)	(\$0.00)	(0.00)	0.06
19	(\$0.00)	(\$0.00)	(0.00)	0.06
20	(\$0.00)	(\$0.00)	(0.00)	0.06

Year 2014/15

Interest Rate	6%
Term in years	20
Capital \$	-

Payment Schedule

	Principal	Interest	Total	Balance
Year				
1	\$0.00	\$0.00	-	-
2	\$0.00	\$0.00	-	-
3	\$0.00	\$0.00	-	-
4	\$0.00	\$0.00	-	-
5	\$0.00	\$0.00	-	-
6	\$0.00	\$0.00	-	-
7	\$0.00	\$0.00	-	-
8	\$0.00	\$0.00	-	-
9	\$0.00	\$0.00	-	-
10	\$0.00	\$0.00	-	-
11	\$0.00	\$0.00	-	-
12	\$0.00	\$0.00	-	-
13	\$0.00	\$0.00	-	-
14	\$0.00	\$0.00	-	-
15	\$0.00	\$0.00	-	-
16	\$0.00	\$0.00	-	-
17	\$0.00	\$0.00	-	-
18	\$0.00	\$0.00	-	-
19	\$0.00	\$0.00	-	-
20	\$0.00	\$0.00	-	-

Year 2015/16

Interest Rate	6%
Term in years	20
Capital \$	-

Payment Schedule

	Principal	Interest	Total	Balance
Year				
1	\$0.00	\$0.00	-	-
2	\$0.00	\$0.00	-	-
3	\$0.00	\$0.00	-	-
4	\$0.00	\$0.00	-	-
5	\$0.00	\$0.00	-	-
6	\$0.00	\$0.00	-	-
7	\$0.00	\$0.00	-	-
8	\$0.00	\$0.00	-	-
9	\$0.00	\$0.00	-	-
10	\$0.00	\$0.00	-	-
11	\$0.00	\$0.00	-	-
12	\$0.00	\$0.00	-	-
13	\$0.00	\$0.00	-	-
14	\$0.00	\$0.00	-	-
15	\$0.00	\$0.00	-	-
16	\$0.00	\$0.00	-	-
17	\$0.00	\$0.00	-	-
18	\$0.00	\$0.00	-	-
19	\$0.00	\$0.00	-	-
20	\$0.00	\$0.00	-	-

Appendix 2

Percentage of Annapolis County flow used by Annapolis Royal

Average Flow for Annapolis Royal

Annapolis Royal

Year	Metered Usage
2011	22,099,000
2012	33,827,640
Total	55,926,640
Average	27,963,320

	Annapolis Royal		Annapolis County Utility Total	
Year	Average Metered Usage	Percentage	Metered Usage	Percentage
Average	27,963,320	34%	54,353,880	66%

SCHEDULES A, B, AND C
RATES AND CHARGES

SCHEDULE "A"
MUNICIPALITY OF THE COUNTY OF ANNAPOLIS
ANNAPOLIS COUNTY
WATER UTILITY
SCHEDULE OF RATES FOR WATER AND WATER SERVICES

(Effective for water supplied on and after 1 July, 2013)

RATES

The rates set out below are the rates approved by the Board for water and water services when payment is made within 30 days from the date rendered as shown on the bill.

When payment is made after 30 days from the date rendered as shown on the bill, the rates will include interest charges of 1.25 % per month, or part thereof.

Each bill shall show the amount payable within 30 days from the date rendered as shown on the bill.

In this Schedule, the word "Utility" means the Annapolis County Water Utility of the Municipality of the County of Annapolis.

1. **RATES:**

(a) <u>Base Charges</u>		<u>Quarterly</u>
Flat Rate total charge		76.65
(based on no consumption charge due to low water pressure)		
Size of Meter		
5/8"		76.65
3/4"		114.31
1"		189.62
1.5"		377.91
2"		603.86
3"		1,206.39
4"		1,884.24
6"		3,767.15
8"		6,779.81
(b) Consumption Rate		
First Block	\$ 4.90	per 1000 imperial gallons
(c) Annapolis Royal Base and Consumption Rate		
Total Charge	\$ 3.07	per 1000 imperial gallons

(d) Minimum Bill

The minimum bill shall be the Base Charge.

2. PUBLIC FIRE PROTECTION RATE

The Municipality of the County of Annapolis shall pay, annually, to the Annapolis County Water Utility for fire protection services, on or before September 30, 2013, the sum of: \$121,537.

3. RATES FOR SPRINKLER SERVICE

Each building having a sprinkler system installed shall pay annually for the service as follows:

Each building serviced by a sprinkler service pipe of 6" or less in diameter	\$200.00
Each building serviced by a sprinkler service pipe of 8" or more in diameter	\$300.00

4. WATER FOR BUILDINGS OR WORKS UNDER CONSTRUCTION

The Utility may furnish water to any person requiring a supply thereof for the construction of a building or other works. This person shall deposit with the Utility such sum as may be determined by the Utility as is sufficient to defray the cost of making the necessary connection to any water service or main together with the cost of the meter to be installed to measure the water consumed. Upon completion of the work and the return of the meter to the Utility, a refund will be made after deducting the cost, if any, of repairing the meter and of testing the same and payment of the base and connection charges and the consumption rates in respect to such installation.

5. RATES FOR WATER SUPPLIED FROM FIRE HYDRANTS

Whenever the use of any fire hydrant is desired for supplying water for any purpose, excepting those of the Fire Department for fire use, the Utility may grant a permit containing such terms and conditions as it may provide, including arrangements regarding supervision of the opening and closing of the hydrant, and a service charge for commercial consumers of \$60.00 for connection and disconnection and a consumption charge for the amount of water used, as estimated by the water utility, at meter consumption rates.

6. PRIVATE HYDRANT RATES

Per hydrant per year \$200.00.

7. CHARGES FOR RE-ESTABLISHING WATER SERVICE

When water service has been suspended for any violation of the Rules and Regulations of the Utility, such water service shall not be re-established until a reconnection charge of \$50.00 has been paid to the Utility. If reconnection is outside of regular working hours, the charge is \$100.00.

8. CONNECTION FEE

The Utility shall charge a \$50.00 fee for the creation of a water account, notwithstanding the fact that no physical disconnection of the system may have occurred. This fee shall be \$100.00 if water is turned on after regular working hours of the Utility.

9. DISCONNECTION FEE

Whenever a customer, for any reason requests that the water be turned off from any premises, a charge of \$50.00 shall be made for turning off the water, and no additional charge shall be made for turning it on again when this is requested unless such request is after regular working hours of the Utility when a fee of \$100.00 shall apply.

10. CHARGE FOR NON-NEGOTIABLE CHEQUES

The Utility may charge a \$25.00 administration fee for cheques that, due to non-negotiability, have been rejected by the Utility's bank.

11. CHARGE FOR MISSED APPOINTMENT BY CUSTOMERS

Where an appointment has been made by a customer to have a water service hooked up or a meter inspected, or water turned on to a property, or other visits to the property for the inception or maintenance of water service to the property, and the customer fails to keep the appointment or the plumbing is not completed to allow for installation of a water meter and the Utility's staff have to return to the property, there may be a charge of \$25.00 for each visit if, in the judgment of the Utility, it is required.

SCHEDULE "B"

MUNICIPALITY OF THE COUNTY OF ANNAPOLIS
ANNAPOLIS COUNTY WATER UTILITY
SCHEDULE OF RATES FOR WATER AND WATER SERVICES

(Effective for water supplied on and after 1 April, 2014)

RATES

The rates set out below are the rates approved by the Board for water and water services when payment is made within 30 days from the date rendered as shown on the bill.

When payment is made after 30 days from the date rendered as shown on the bill, the rates will include interest charges of 1.25 % per month, or part thereof.

Each bill shall show the amount payable within 30 days from the date rendered as shown on the bill.

In this Schedule, the word "Utility" means the Annapolis County Water Utility of the Municipality of the County of Annapolis.

1. **RATES:**

(a) **Base Charges**

Quarterly

Flat Rate total charge (based on no consumption charge due to low water pressure)	79.29
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Size of Meter

5/8"	79.29
3/4"	118.24
1"	196.16
1.5"	390.95
2"	624.69
3"	1,248.02
4"	1,949.25
6"	3,897.13
8"	7,013.74

(b) **Consumption Rate**

First Block	\$	4.97	per 1,000 imperial gallons
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(c) **Annapolis Royal Base and Consumption Rate**

Total Charge	\$	3.18	per 1000 imperial gallons
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(d) Minimum Bill

The minimum bill shall be the Base Charge.

2. PUBLIC FIRE PROTECTION RATE

The Municipality of the County of Annapolis shall pay, annually, to the Annapolis County Water Utility for fire protection services, on or before September 30, 2014, the sum of: \$124,644.

3. RATES FOR SPRINKLER SERVICE

Each building having a sprinkler system installed shall pay annually for the service as follows:

Each building serviced by a sprinkler service pipe of 6" or less in diameter	\$200.00
Each building serviced by a sprinkler service pipe of 8" or more in diameter	\$300.00

4. WATER FOR BUILDINGS OR WORKS UNDER CONSTRUCTION

The Utility may furnish water to any person requiring a supply thereof for the construction of a building or other works. This person shall deposit with the Utility such sum as may be determined by the Utility as is sufficient to defray the cost of making the necessary connection to any water service or main together with the cost of the meter to be installed to measure the water consumed. Upon completion of the work and the return of the meter to the Utility, a refund will be made after deducting the cost, if any, of repairing the meter and of testing the same and payment of the base and connection charges and the consumption rates in respect to such installation.

5. RATES FOR WATER SUPPLIED FROM FIRE HYDRANTS

Whenever the use of any fire hydrant is desired for supplying water for any purpose, excepting those of the Fire Department for fire use, the Utility may grant a permit containing such terms and conditions as it may provide, including arrangements regarding supervision of the opening and closing of the hydrant, and a service charge for commercial consumers of \$60.00 for connection and disconnection and a consumption charge for the amount of water used, as estimated by the water utility, at meter consumption rates.

6. PRIVATE HYDRANT RATES

Per hydrant per year \$200.00.

7. CONNECTION FEE

The Utility shall charge a \$50.00 fee for the creation of a water account, notwithstanding the fact that no physical disconnection of the system may have occurred. This fee shall be \$100.00 if water is turned on after regular working hours of the Utility.

8. DISCONNECTION FEE

Whenever a customer, for any reason requests that the water be turned off from any premises, a charge of \$50.00 shall be made for turning off the water, and no additional charge shall be made for turning it on again when this is requested unless such request is after regular working hours of the Utility when a fee of \$100.00 shall apply.

9. CHARGES FOR RE-ESTABLISHING WATER SERVICE

When water service has been suspended for any violation of the Rules and Regulations of the Utility, such water service shall not be re-established until a reconnection charge of \$50.00 has been paid to the Utility. If reconnection is outside of regular working hours, the charge is \$100.00.

10. CHARGE FOR NON-NEGOTIABLE CHEQUES

The Utility may charge a \$25.00 administration fee for cheques that, due to non-negotiability, have been rejected by the Utility's bank.

11. CHARGE FOR MISSED APPOINTMENT BY CUSTOMERS

Where an appointment has been made by a customer to have a water service hooked up or a meter inspected, or water turned on to a property, or other visits to the property for the inception or maintenance of water service to the property, and the customer fails to keep the appointment or the plumbing is not completed to allow for installation of a water meter and the Utility's staff have to return to the property, there may be a charge of \$25.00 for each visit if, in the judgment of the Utility, it is required.

B-3

SCHEDULE "C"

MUNICIPALITY OF THE COUNTY OF ANNAPOLIS
ANNAPOLIS COUNTY WATER UTILITY
SCHEDULE OF RATES FOR WATER AND WATER SERVICES

(Effective for water supplied on and after 1 April, 2015)

RATES

The rates set out below are the rates approved by the Board for water and water services when payment is made within 30 days from the date rendered as shown on the bill.

When payment is made after 30 days from the date rendered as shown on the bill, the rates will include interest charges of 1.25 % per month, or part thereof.

Each bill shall show the amount payable within 30 days from the date rendered as shown on the bill.

In this Schedule, the word "Utility" means the Annapolis County Water Utility of the Municipality of the County of Annapolis.

1. **RATES:**

(a) <u>Base Charges</u>		<u>Quarterly</u>
Flat Rate total charge (based on no consumption charge due to low water pressure)		80.88
Size of Meter		
5/8"		80.88
3/4"		120.62
1"		200.09
1.5"		398.77
2"		637.18
3"		1,272.95
4"		1,988.19
6"		3,974.96
8"		7,153.80
(b) Consumption Rate		
First Block	\$ 5.14	per 1,000 imperial gallons
(c) Annapolis Royal Base and Consumption Rate		
Total Charge	\$ 3.28	per 1000 imperial gallons

(d) Minimum Bill

The minimum bill shall be the Base Charge.

2. PUBLIC FIRE PROTECTION RATE

The Municipality of the County of Annapolis shall pay, annually, to the Annapolis County Water Utility for fire protection services, on or before September 30, 2015 the sum of \$129,780, or

For subsequent years, the annual public fire protection rate shall be based on:

(a) the sum of 23.0 % of transmission and distribution, taxes and depreciation expenses of the Utility and return on rate base of the immediately preceding year, plus

(b) 10 % of all other expenses,

whichever is the greater.

3. RATES FOR SPRINKLER SERVICE

Each building having a sprinkler system installed shall pay annually for the service as follows:

Each building serviced by a sprinkler service pipe of 6" or less in diameter	\$200.00
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Each building serviced by a sprinkler service pipe of 8" or more in diameter	\$300.00
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4. WATER FOR BUILDINGS OR WORKS UNDER CONSTRUCTION

The Utility may furnish water to any person requiring a supply thereof for the construction of a building or other works. This person shall deposit with the Utility such sum as may be determined by the Utility as is sufficient to defray the cost of making the necessary connection to any water service or main together with the cost of the meter to be installed to measure the water consumed. Upon completion of the work and the return of the meter to the Utility, a refund will be made after deducting the cost, if any, of repairing the meter and of testing the same and payment of the base and connection charges and the consumption rates in respect to such installation.

5. RATES FOR WATER SUPPLIED FROM FIRE HYDRANTS

Whenever the use of any fire hydrant is desired for supplying water for any purpose, excepting those of the Fire Department for fire use, the Utility may grant a permit containing such terms and conditions as it may provide, including arrangements regarding supervision of the opening and closing of the hydrant, and a service charge for commercial consumers of \$60.00 for connection and disconnection and a consumption charge for the amount of water used, as estimated by the water utility, at meter consumption rates.

6. PRIVATE HYDRANT RATES

Per hydrant per year \$200.00.

7. CHARGES FOR RE-ESTABLISHING WATER SERVICE

When water service has been suspended for any violation of the Rules and Regulations of the Utility, such water service shall not be re-established until a reconnection charge of \$50.00 has been paid to the Utility. If reconnection is outside of regular working hours, the charge is \$100.00.

8. CONNECTION FEE

The Utility shall charge a \$50.00 fee for the creation of a water account, notwithstanding the fact that no physical disconnection of the system may have occurred. This fee shall be \$100.00 if water is turned on after regular working hours of the Utility.

9. DISCONNECTION FEE

Whenever a customer, for any reason requests that the water be turned off from any premises, a charge of \$50.00 shall be made for turning off the water, and no additional charge shall be made for turning it on again when this is requested unless such request is after regular working hours of the Utility when a fee of \$100.00 shall apply.

10. CHARGE FOR NON-NEGOTIABLE CHEQUES

The Utility may charge a \$25.00 administration fee for cheques that, due to non-negotiability, have been rejected by the Utility's bank.

11. CHARGE FOR MISSED APPOINTMENT BY CUSTOMERS

Where an appointment has been made by a customer to have a water service hooked up or a meter inspected, or water turned on to a property, or other visits to the property for the inception or maintenance of water service to the property, and the customer fails to keep the appointment or the plumbing is not completed to allow for installation of a water meter and the Utility's staff have to return to the property, there may be a charge of \$25.00 for each visit if, in the judgment of the Utility, it is required.

SCHEDULE D
RULES AND REGULATIONS

SCHEDULE D

MUNICIPALITY OF THE COUNTY OF ANNAPOLIS ANNAPOLIS COUNTY WATER UTILITY

SCHEDULE OF RULES AND REGULATIONS **GOVERNING THE SUPPLY OF WATER AND WATER SERVICES** **(Effective 1 April, 2013)**

1. In these Rules and regulations, unless the context otherwise requires, the expression:

“Municipality” means the Municipality of the County of Annapolis

“Utility” means the Annapolis County Water Utility of the Municipality of the County of Annapolis

“Customer” means a person, firm or corporation who, or which, contracts to be supplied with water at a specific location or locations.

“Domestic Service” means the type of service supplied to the owner or his authorized agent or to the occupant or tenant of any space or area occupied for the distinct purpose of a dwelling house, rooming house, apartment, flat, etc.

“Metered Rate Service” means that type of service charged for at metered rates and is supplied to customers other than those supplied by fixture and flat rate service. Metered rate service is required for all new services.

“Flat Rate Service” means that type of service charged for at a flat rate.

2. **LIABILITY FOR PAYMENT OF WATER BILL:** An agreement is deemed to exist between a customer and the Utility for the supply of water service at such rates and in accordance with these Regulations by virtue of:

- a) the customer applying for and receiving approval for water service;
- b) the customer consuming or paying for water service from the date that the customer who is a party to an agreement pursuant to clause (a) (the customer of record) moves out of the premises, in which case the customer of record shall remain jointly and severally liable for the water service account up to the date the Utility is notified that the customer of record wishes to terminate the supply of water service.

A property owner who rents or leases a property or self contained unit to a tenant or lessee shall be the customer. The property owner shall be required to open an account for the provision of water at the property that is rented or leased.

- c) Any person, business or corporation that receives water service without the consent of the

Utility, shall be liable for the cost of such water service which cost shall be determined in the sole discretion of the Utility based upon its reasonable estimate of the amount of water utilized.

3. **DEPOSITS:** When required, an applicant for service shall deposit with the Utility a sum equal to the estimated charges for such service for a period of six months. The estimated charges will be based on the minimum bill for metered customers. This deposit shall be held by the Utility as collateral security for the payment of the customer's bills, but is not to be considered as a payment on account thereof. When a customer ceases to use the service, the deposit shall be returned to the customer with interest thereon at the current simple interest rate being paid by the Utility's chartered bank.
4. **REFUSAL OF SERVICE:** Service may be refused or suspended to any customer who has failed to discharge all of his liabilities to the Utility.
5. **BILLING:** If a contract is entered into or terminated at any time other than a regular billing date, the amount to be charged to the customer shall be the pro rata proportion to the next billing date, of the regular service charge for the billing period, plus the consumption charge, if any.

The Utility charges the base rate for the entire year for seasonal customers. The quarterly base rate charge will apply for each quarter regardless of water turn-offs.

6. **PAYMENT OF BILLS:** Bills shall be rendered to each customer at intervals of approximately three months and are due and payable when rendered. Bills not paid within 30 days of the date rendered, shall incur an interest charge as set out in the schedule of rates and charges.
7. **ADJUSTMENT OF BILLS:**
 - (a) Where meters exist - If the seal of a meter is broken or if a meter does not register correctly, the bill for that water service shall be estimated in accordance with the best data available. Any customer desiring to question a water bill must do so in writing within 30 days of the bill being rendered.
 - (b) Customers Under billed - Should it be necessary for the Utility to make a billing adjustment as a result of a customer being under billed for any reason, such adjustment shall be retroactive for a maximum of four billing periods or one year, whichever is the longest. Notwithstanding the above, in the event that a billing adjustment is the result of the customer's illegal connection to the water system or willful interference or damage of metering equipment (where they exist), the billing adjustment in such circumstances will not be limited to one year or four billing periods, but rather the customer shall be responsible for all payments of such accounts from the date such illegal connection or interference to meter equipment took place.
 - (c) Customer Over billed - Shall it become necessary for the Utility to make a billing adjustment as a result of a customer being over billed for any reason, such adjustment will be estimated by the Utility, and the Utility will be responsible for payment of the over billed amount with interest calculated on the basis of current simple interest paid by

the bank.

8. **ESTIMATED READINGS FOR BILLING PURPOSES - METERED CUSTOMERS:** If the Utility is unable to obtain a meter reading for billing purposes, after exercising due diligence in the usual practice of meter reading, the bill for that service shall be estimated in accordance with the best data available, subject, however, to the provision that in no circumstance will an estimated reading be used for more than two (2) consecutive billing periods. If an estimated bill is rendered for two (2) consecutive billing periods, the Utility shall notify the customer by regular mail that arrangements must be made for the Utility to obtain a reading and failing such arrangements, the Utility may suspend service until such arrangements are made. When such meter reading has been obtained the previous estimated bill or bills shall be adjusted accordingly.
9. **SUSPENSION OF SERVICE FOR NON PAYMENT BILLS:** The Utility shall have the right to enter onto customers' premises within reasonable hours to suspend service to customers whose bills remain unpaid for more than forty calendar days after the date rendered. The customer shall pay the total outstanding balance of the account and the sum of \$50.00 for reconnecting after each suspension. If reconnection is made after regular working hours, the charge shall be \$100.00.
10. **PUBLIC FIRE PROTECTION SERVICE CHARGE:** The Utility shall annually render to the Municipality of the County of Annapolis, not later than the last day of August, an account for fire protection service as approved by the Nova Scotia Utility and Review Board. The account shall be payable within 30 days of the date rendered.
11. **WATER TO BE SUPPLIED BY METER:** The Utility may at any time install a meter on the premises of any customer. The Utility shall determine the size and type of meter to be installed in each case. All meters shall be the property of the Utility.
12. **INSTALLATION AND REMOVAL OF METERS:** Meters shall be installed and removed only by employees or duly authorized representatives of the Utility and no other person shall install, alter, change or remove a meter without the written permission of the Utility. The plumbing and connections shall be properly prepared to receive the installation of such meters to the approval of and without expense to the Utility.
13. **METER READERS:** Each meter reader shall be provided with an official identification, which he/she shall exhibit on request.
14. **ACCESS TO CUSTOMER'S PREMISES:** Representatives of the Utility shall have right of access to all parts of a customer's property or premises at all reasonable hours for the purpose of inspecting any water pipes or fittings, or appliances, or discontinuing service, or for the purpose of installing, removing, repairing, reading or inspecting meters. The Utility shall have the right to suspend service to any customer who refuses such access.
15. **LOCATION OF METERS:** The Utility shall have the right to refuse service to, or suspend the service of, any customer who does not provide a place which, in the opinion of the Utility, is suitable for the meter. It should be in the building served, at or near the point of entry of the

service pipe, in a place where it can be easily read and where it will not be exposed to freezing temperatures.

Where the premises of a customer are of such a nature that a meter cannot be properly installed in a building or if the building is not sufficiently frost-proof as to guarantee the safety of the meter, the Utility may order the construction of a suitable frost-proof box in which the meter can be installed. Service to such premises may be refused or suspended until such a frost-proof box approved by the Utility is installed.

16. **DAMAGE TO WATER METERS:** Each customer shall be responsible for the meter installed on his service and shall protect it. He shall be liable for any damage to the meter resulting from carelessness, hot water or steam, or the action of frost or from any other cause not the fault of the Utility or its employees. The cost to the Utility occasioned by such damage to the meter shall be paid by the customer. If after the rendering of a bill by the Utility to the customer for such cost the same is not paid within 40 days from the date rendered, the supply of water to the customer concerned may be suspended until all charges are paid.
17. **METER TESTING.** On the request to have their meter tested, the Utility may charge the sum of \$50.00 to defray, in part, the cost of making the test for meters up to 1 ½ inch in size. In the case of meters 1-1/2 inches and larger, the actual cost of the test will be paid by the customer. If the test shows that the meter is over registering by more than one and one half percent (1 ½%) for positive displacement meters and three percent (3%) for turbine or compound meters, the sum so deposited will be refunded to the customer.
18. **PLUMBING TO BE SATISFACTORY:** All plumbing, pipes and fittings, fixtures, and other devices for conveying, distributing, controlling, or utilizing water which are used by a customer and are not the property of the Utility, shall be installed in the manner provided by the Regulations of and be approved by the proper official of the Municipality and/or the operators of the Utility. The water shall not be turned on (except for construction or testing purposes) until the applicant for service has satisfied the Utility that these requirements have been met. The supply of water may be discontinued to any customer at any time if, in the opinion of the proper official of the Municipality and/or the operator of the Utility, the plumbing, pipes, fittings, fixtures, or other devices as hereinbefore mentioned, or any of them, fail to comply with the above requirements, or if any part of the water system of such customer or the meter is in any unsuitable, dirty, unsanitary or inaccessible place. Service shall not be re-established until such condition is corrected to the satisfaction of the Utility.
19. **REMOTE REGISTERING WATER METERS:** When a remote registering water meter is installed on a customer's premises under a general outside register installation program of the Utility, then the cost of the meter and its installation shall be paid by the Utility. The meter shall become the property of the Utility which shall become responsible for its operation, maintenance and replacement. Any damage to the meter caused by the negligence or wrongful acts or omissions by the customer, his agents or members of his family, shall be paid for by the customer, and the failure by the customer to make the payment shall entitle the Utility, after making a forty day written demand for the payment, to disconnect the water service to the customer.

20. **CROSS CONNECTION CONTROL & BACKFLOW PREVENTION:**

(a) No owner, consumer, customer or other person hereinafter collectively referred to in this rule and regulation as “person” shall connect, cause to be connected, or allow to remain connected to the water system, or plumbing installation, without the express written consent of the Utility, any piping fixtures, fittings container or appliance in a manner which, under any circumstances, may allow water, wastewater, or any other liquid, chemical or substance, to ingress or egress the water system.

(b) Where, in the opinion of the Utility, there may be a risk of contamination to the potable water system, notwithstanding the provisions of subparagraph (a), the Utility may require the customer, at the customers sole cost and expense, to install at any point on the customers water service connection or water service pipe, one or more backflow prevention (BFP) devices, which devices shall be of a quality and type approved by the Utility.

(c) All BFP devices shall be maintained in good working order. Such devices must be inspected and tested by a certified tester, approved by the Utility, at the expense of the customer. Such inspections shall take place upon installation, and thereafter annually, or more often if required by the Utility. The customer shall submit a report in a form approved by the Utility on any or all tests performed on a BFP device within 30 days of a test. A record card shall be displayed on or adjacent to the BFP device on which the tester shall record the name and address of the owner of the device; the location, type, manufacturer, serial number and size of the device; and the test date, the tester’s initials, the tester’s name, the name of his employer, and the tester’s license number.

(d) Installation, maintenance, field-testing and selection of all BFP devices shall fully conform to the latest revision of CSA B64.10 and CSA B64 series.

(e) In the event of any breach, contravention or non-compliance by a person of any of the provision and regulations in a sub-paragraphs (a),(b),(c) or (d) the Utility may:

(i) suspend water service to such person, or

(ii) give notice to the person to correct the breach, contravention or non-compliance within 96 hours, or a specified lesser period. If the person fails to comply with such notice, the Utility may immediately thereafter suspend water service to such person.

21. **DANGEROUS CONNECTIONS:** No connection shall be permitted to any installation; equipment or source in such a manner as may allow any contamination to pass from such installation, equipment or source into the Utility’s water supply system. If any such connection exists the Utility may discontinue the supply of water to such customer.

22. **PROHIBITED DEVICES:** Service may be refused or suspended by the Utility to any customer

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who installs or uses any device or appurtenance, as, for example, booster pumps, quick-opening or quick-closing valves, flushometers, water operated pumps or siphons, standpipes, or large outlets for supplying locomotives or ships, etc., which may occasion sudden large demands of short or long duration, thereby requiring oversize meters and pipe lines, or affect the stability or regulation of water pressure in the Utility's system. Permission to install or use any such device or appurtenance must be obtained from the Utility, which permission shall specify what special arrangements, such as elevated storage tanks, surge tanks or equalizing tanks, etc., must be provided by the customer.

23. **IMPROPER USE OR WASTE OF WATER:** No customer shall permit the improper use or waste of water, nor shall he sell or give water to any person except upon such conditions and for such purposes as may be approved in writing by the Utility.
24. **SERVICE PIPES:** Upon receipt of an application for service to any premises located on any portion of a street through which portion a main water pipe is laid and which premises are not already provided with water service, the Utility shall install a service pipe which is considered to be of suitable size and capacity. No pipe smaller than 3/4" in diameter shall be laid for any service.

The cost of supplying and laying a 3/4" service pipe and fittings shall be paid by the Utility. The necessary excavation for the laying of the service pipe, backfilling, and replacement of the street and sidewalk surfaces from the water main in the street to the street line shall be paid by the customer. From the street line to the premises all costs shall be paid by the customer.

For services larger than 3/4" the whole cost shall be borne by the customer, less the cost of a 3/4" service from the main to the street line.

Should any person make application for more than one service to his premises, the decision as to the necessity of the additional service shall be made by the Utility, and if the additional service is installed, the total cost thereof from the main to the customer's premises shall be paid by such applicant.

All services must be installed in accordance with the Rules and Regulations of the Municipality and to the satisfaction of the Utility.

When a service has been installed without objection from the customer as to the location of the same, no subsequent removal of or alteration to the position of the pipe shall be made except at the expense of the customer requesting such removal or alteration.

25. **REPAIRS TO SERVICES:** If a leak or other trouble occurs it shall be repaired as soon as possible. If the leak or trouble occurs in a service line providing non-fire protection water supplies between the main and the property line it shall be repaired by the Utility at its expense. If the leak or trouble occurs elsewhere in a service line providing non-fire protection water supplies, it shall be repaired by the customer at his/her expense.

If the leak or trouble occurs in a service line which provides private fire protection services

(sprinkler or hydrant) it shall be repaired by the customer at his expense.

The Utility may make such repairs for any customer provided the customer agrees to pay the cost of same. When required, each customer desiring the Utility to do such work shall deposit with the Utility a sum equal to the estimated cost of the work.

If a leak occurs on the customer's portion of his service pipe and, after being notified of same, he refuses or unduly delays to have repairs made, the Utility may discontinue the supply of water to such service pipe if, in its opinion, such action is necessary in order to prevent wastage of water. The Utility shall notify the customer affected of its intention to discontinue such supply.

26. **DEPOSITS IN ADVANCE:** Whenever a customer requests the Utility to do work for which he is required to pay and the Utility agrees to do the work, he shall deposit with the Utility before the work is started, a sum of money equal to the Utility's estimate of the probable cost of said work. When the actual cost is determined, an adjustment in the payment shall be made. Regular service may not be established by the Utility until all charges are paid in full. For any request for service after normal working hours there will be a minimum charge of \$100.00
27. **UNAUTHORIZED EXTENSIONS, ADDITIONS OR CONNECTIONS:** No person shall, without the written consent of the Utility, make or cause to be made any connections to any pipe or main or any part of the water system or in any way obtain or use water therefrom in any manner other than as set out in these Regulations.
28. **SPECIAL SERVICE CHARGE:** A special service charge of \$50.00 (\$100.00 if such work is performed after regular working hours) shall be made to each customer receiving a necessary or requested service, such as the shutting off or turning on of water service or other special services not provided for elsewhere in these regulations. In the case where the shutting off is requested because there is no operable shut off valve serving the dwelling, an isolation valve must be installed.
29. **SEASON FOR LAYING PIPES:** The Utility shall not be required to lay any pipe at any season of the year or at any time which, in its opinion, is not suitable.
30. **PRIVATE FIRE PROTECTION:** Fire protection lines within buildings shall be installed so that all pipes will be open and readily accessible for inspection at any time, and no connection for any purpose other than fire protection shall be made thereto. Unless approved by the Utility in writing, no fire protection line shall be connected in any way to a metered service.
31. **LIABILITY OF UTILITY:** The Utility shall not be deemed to guarantee an uninterrupted supply or a sufficient or uniform pressure and shall not be liable for any damage or injury caused or done by reason of the interruption of supply, variation of pressure or on account of the turning off or turning on of the water for any purpose.
32. **INTERFERENCE WITH UTILITY PROPERTY:** No person, unless authorized by the Utility in writing, shall draw water from, open, close, cut, break, or in any way injure or interfere with any

fire hydrant, water main, water pipe, or any property of the Utility or obstruct the free access to any hydrant, stop cock, meter, building, etc., provided, however, that nothing in this paragraph contained shall be deemed to prevent an officer or member of the Fire Department engaged in the work of such Department, from using any hydrant or other source of water supply of the Utility for such purpose.

33. **SUSPENDING SERVICE FOR VIOLATION:** Whenever, in the opinion of the Utility, violation of any of these Rules and Regulations is existing or has occurred, the Utility may cause the water service to be suspended from the premises where such violation has occurred or is existing and may keep the same so suspended until satisfied that the cause for such action has been removed.
34. **RESUMPTION OF SERVICE:** In all cases where water service has been suspended for violation of any of these rules, service shall not be restored until the cause for violation has been removed and a \$50.00 reconnection charge (\$100.00 if reconnection is completed outside of regular working hours) has been paid.
35. **REQUESTS FOR CONNECTION OR RECONNECTION:** A charge of \$100.00 will be paid for water service connected or reconnected outside of regular working hours.
36. **SPRINKLER SERVICE MAINS AND HYDRANT SYSTEM:** The customer shall be responsible for the cost of installing and maintaining a sprinkler service pipe from the main in the street to the building. It shall include a proper size control valve so that the service may be shut off if necessary. If requested by the applicant, a domestic service pipe may be connected to the sprinkler service pipe, but only if it is connected outside the building foundation wall and is provided with an approved shutoff valve located outside the building to permit control of the domestic service pipe without the necessity to enter the building. Before any domestic service pipe is connected to a sprinkler service pipe, the applicant must obtain approval from the appropriate authority and provide the Utility with a certified copy of such approval. The utility shall supervise the installation of same. When the private fire protection system includes private hydrants, these hydrants must be flushed during the Utility's regular flushing periods, under the supervision of the Utility's personnel. These hydrants shall be maintained in a manner, or on a regular basis as approved by the Utility.
37. **PRESSURE REDUCING VALVES:** Where, in the opinion of the Utility, it is necessary for proper water service, a customer shall install on the service pipe, between the meter and the shut off valve on the supply side of the meter, a pressure reducing valve of a type satisfactory to the Utility. The customer shall be responsible for the cost of installing and maintaining the pressure reducing valve at all times.
38. **PRESSURE RELIEF VALVES:** Whenever a pressure reducing valve has been installed by a customer in accordance with Regulation 35, the customer shall, for his own safety and protection, install on his hot water boiler and any other hot water heating device connected to the building's plumbing system, a pressure relief valve of an approved type, as well as an approved temperature limiting device. It shall be the customer's responsibility to maintain and keep in service the pressure relief valve at all times.

39. **WATER CONSERVATION DIRECTIVES:** The Utility may enact conservation of water directives to its customers if in the opinion of the Utility such directives will permit the Utility to provide a reliable, continuous water supply to all customers served by the Utility. During such times as these directives may be enacted, customers who do not comply with the directives may have their water supply suspended until such time as the customer agrees to comply with the directive or upon suspension of the water conservation directive, whichever occurs first. In the event that the water is temporarily suspended for non-compliance of a water conservation directive, the cost of turning on the service will be billed to the customer.