

EXAMPLE NO. I

LARGE MUNICIPALITIES WITH ALL SERVICES METERED, A 4-STEP RATE SCHEDULE, AND ONE OR MORE VERY LARGE CUSTOMERS

ABBREVIATIONS: C = Contingency Allowance; Dom. = Domestic Rate; G, followed by a number - Guideline Item; Incr. = Increment; Int. = Intermediate rate; M & O = Maintenance & Operation; M.G. = Thousand Gallons; Q = Quarter year; Ratio = Group Capacity Ratio; S = Sewer; Spl. = Special rate; W = Water; Wh. = Wholesale rate.

USE SPACES ( ) TO INSERT YOUR OWN DATA.

Data for preceding year should be projected for 2 years, e.g.: Assured new customers should be added, as well as additional water sales. Cost increases should be added.

CUSTOMERS:	W & S	1,197	( )	If any customers are located
	W only	3	( )	outside Municipality or L.I.D.
	S only	-	( )	limits, (see G.21) these are
				also to be included in the
				number of customers indicated
	Total	1,200	( )	here.

METERS: Services are all metered. Water used through hydrants for fire-fighting, building construction, etc. should be estimated and charged at the appropriate rate.

Meters connected:	5/8 inch	1,159	( )
	3/4 "	8	( )
	1 "	11	( )
	1½ "	12	( )
	2 "	5	( )
	3 "	1	( )
	4 "	2	( )
	6 "	2	( )
	Total	1,200	

Note: Compound meters should be taken at the highest rating: e.g., a 4" & 6" compound meter is rated as 6".

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CAPITAL COST OF SYSTEM: (Total original cost, including cost paid by Government grants, plus cost of additions.) G.5.

	<u>Capital Cost</u>	<u>Contingency Allowance G.5.</u>
Water Production System	\$ 400,000 ( )	\$4,000 ( )
Water Distribution System	300,000 ( )	3,000 ( )
Sewage Collection System	200,000 ( )	2,000 ( )
Sewage Disposal System	<u>100,000 ( )</u>	<u>1,000 ( )</u>
Total	\$1,000,000 ( )	\$10,000 ( )

UTILITY CASH SURPLUS, accumulated to end of previous year ...\$15,000 ( ) G.6.

UTILITY RESERVE FUND, balance end of previous year . . . . . \$30,000 ( )

WATER:	Produced or purchased	122,000 M.G. ( )
	Sold:	
	4th step - Spl	33,000 ( )
	3rd step - Wh.	15,000 ( )
	2nd step - Int.	20,600 ( )
	1st step - Dom.	42,900 ( )
	*Sales through hydrants	- ( )
	Bulk sales	<u>700 ( )</u>
	Total sales	<u>112,200 ( )</u>
	Unaccounted for	9,800 ( )
	= 8% of water produced.	( )

\*Note: Water used through hydrants for fire-fighting, building construction, etc., should be estimated and charged at the appropriate rate, usually the Domestic rate. Water unaccounted for includes water used for flushing sewers, which is a Utility expense.

If it can be clearly shown that a customer uses a substantial amount of water which is not returned to the sewer system (at least 10% of the water sold to such customer), the Municipality may be authorized to deduct such water in calculating the sewer charge to such customer. This authorization shall be applied for by By-law. Such water would also be deducted in calculating sewer rates. See page 4 of this example.

ANNUAL WATER CONSUMPTION (PER QUARTER) NOTE: This data to be filed as additional information

- (a) No. of 5/8" meters and total quarterly consumption through all 5/8" meters.
- (b) Quarterly consumption data for each customer with a meter size larger than 5/8", listing in each case the customer description and meter size.

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RATE CALCULATIONS:

Based on operating cost and contingency allowance. (G.9) If any debenture costs are to be recovered through rates, these should be included as an expense also. (See G.4). Hydrant rentals are charged to recover cost of maintaining and replacing hydrants, which are part of the Water Distribution system, and are deducted from Water Distribution costs in calculating rates.

<u>Annual Costs</u>	<u>Calculation of rates</u>	<u>Rates Derived</u>
\$30,000 ( )	ADMINISTRATION COSTS: G.2. Costs \$30,000 ( ) customers 1,200 ( ) by 4 Q.	<u>Per Quarter</u>
	= <u>Customer Service Charge</u>	= \$6.25 ( )
\$63,000 ( )	VARIABLE WATER PRODUCTION COSTS: G.10. M & O \$61,000 ( ) + C \$2,000 ( ) = \$63,000 ( ) Total Water sales 112,200 M.G. ( )	<u>Per M.G.</u>
	= <u>Spl. Water Rate</u>	= \$0.55 ( )
\$30,000 ( )	WATER PRODUCTION COST NOT INCLUDED ABOVE: M & O \$28,000 ( ) + c \$2,000 ( ) Total sales 112,200 M.G. ( ) Less Spl. Sales 33,000 M.G. ( )  Wh. Incr. \$0.40 per M.G. ( ) = Spl. W. rate \$0.55 ( )	
	= <u>Wh. Water rate</u>	= \$0.95 ( )
\$32,700 ( )	WATER DISTRIBUTION COSTS: M & O \$29,700 ( ) + C \$3,000 ( ) less hydrant rental \$7,000 ( ) = Net cost \$25,700  <u>Half net W. Distribution cost \$12,850 ( )</u> Water sold 112,200 ( ), less sales at Sp. & Wh. 48,000 M.G. ( ) = Int. Incr. \$0.20 per M.G. ( ) + Wh. W. rate \$0.95 ( )	
	= <u>Int. W. Rate</u>	= \$1.15 ( )
	<u>Half net W. Distribution cost \$12,850 ( )</u> Water sales - bulk 700 M.G. ( ) + Dom. 42,900 M.G. ( ) = 43,6000 M.G. ( ) = Dom. Inc. \$0.30 ( ) + Int. W. rate \$1.15 ( )	
	= <u>Dom. W. rate</u>	= \$1.45 ( )

\$14,300                    SEWAGE DISPOSAL COSTS:

(            )            M & O \$13,300 (            ) + c \$1,000 (            )  
Total water sold 112,200 M.G. (            )  
Less: water only customer 2,000 M.G. (            )  
                                 Water not returned  
   to sewers (G.20) 2,450 M.G., (            )  
                                 and bulk sales                 700 M.G. (            )  
                                 Total deductions                 5,150 M.G. (            )

Net returned to sewers        107,050 M.G. (            )

Spl. + Wh. S. rate =  $\frac{\$14,300 (            )}{107,050 (            )}$  = \$0.15 (            )

\$18,900                    SEWAGE COLLECTION COSTS:

(            )            M & O \$16,900 (            ) +  
C \$2,000 (            ) = \$18,900 (            )  
 Water returned to sewers, less sold  
 at Int. & Dom. Rates 63,000 M.G. (            )  
 = Int. & Dom. S. Incr. \$0.30 (            )  
 + Spl. + Wh. S. rate \$0.25 (            )

\_\_\_\_\_ = Int. + Dom. S. rate = \$0.45 (            )

\$193,600 - Total expenses for rate calculation.  
 (            )

SCHEDULE OF QUARTERLY RATES:

1. <u>Commodity Rates per M.G. - G.7.</u>		<u>Water</u>	<u>Sewer</u>	<u>Water &amp; Sewer</u>
Domestic First	20,000 (            ) gallons per quarter	\$1.45 (            )	\$0.45 (            )	\$1.90 (            )
Intermediate-Next	80,000 (            ) gallons per quarter	1.15 (            )	.45 (            )	1.60 (            )
Wholesale- Next	400,000 (            ) gallons per quarter	.95 (            )	.15 (            )	1.10 (            )
Special- Over	500,000 (            ) gallons per quarter	.55 (            )	.15 (            )	.70 (            )

2. Minimum charges per quarter G.8.

Notwithstanding the commodity rates set forth in paragraph 1 hereof, all customers will pay the applicable minimum charges set out below, which will include the water allowance indicated:

Meter Size	Group Capacity Ratio	Water Included, Gallons	Customer Service Charge	Commodity Charges		Total Quarterly Minimum
				Water	Sewer	
<u>Water &amp; Sewer Customers</u>						
5/8"	1 3,000 ( )		\$6.25 ( )	\$ 4.35 ( )	\$ 1.35 ( )	\$ 11.95 ( )
3/4"	2 6,000 ( )		6.25 ( )	8.70 ( )	2.70 ( )	17.65 ( )
1"	4 12,000 ( )		6.25 ( )	17.40 ( )	5.40 ( )	29.05 ( )
1 1/2"	10 30,000 ( )		6.25 ( )	40.50 ( )	13.50 ( )	60.25 ( )
2"	25 75,000 ( )		6.25 ( )	92.25 ( )	33.75 ( )	132.25 ( )
3"	45 135,000 ( )		6.25 ( )	154.25 ( )	50.25 ( )	210.75 ( )
4"	90 270,000 ( )		6.25 ( )	282.50 ( )	70.50 ( )	359.25 ( )
6"	170 510,000 ( )		6.25 ( )	506.50 ( )	106.50 ( )	619.25 ( )

Water only customers

Quarterly minimum charge is the same for each meter size as shown in table above, except that the Sewer Commodity charge is excluded.

Sewer only residential customers

The average quarterly consumption in gallons of water used for residential customers at the domestic sewer rate plus the quarterly service charge.

3. Bulk Sales Rate G 22

See page 12 for method of calculation and insert the rate here.

4. Service to customers outside Municipality, or L.I.D., limits

The council of the Municipality may sign agreements with customers for provision of water and sewer services to properties located outside the legal boundaries of the Municipality, or Local Improvement District. Such agreements shall provide for payment of the appropriate rates set out in paragraphs 1 and 2 of this schedule, as well as a surcharge set by resolution of Council, which shall be equivalent to the frontage levy, general taxes and special taxes for utility purposes in effect at the time, or which may be in effect from time to time, and which would be levied on the property concerned if it were within these boundaries. In addition, all costs of connecting to the utility mains and installing and maintaining service connections will be paid by such customers.

- For: Hydrant rentals, see G. 17.
- Billing clause, see G. 23 & 24.
- Disconnection & Reconnection of Service, See G. 25.



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Surcharge on customers located outside Municipality	-	(	)
Hydrant rentals 140 ( )			
@ \$50 ( )			
	<u>7,000</u>	(	)
TOTAL REVENUE	<u>\$ 193,057</u>	(	)
TOTAL EXPENSE RECOVERED THROUGH RATES	193,600	(	)
ESTIMATED surplus (deficit)	\$ (543)	(	)

Note: Estimated revenue should exceed estimated expenses.