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**PILOT LOCAL  
GOVERNMENT  
PARTNERSHIP PROGRAM**

**PROPOSED GUIDELINES  
FOR WATER AND SEWER  
SERVICE PRICING**

Prepared for



East European Regional Housing Sector Assistance Project  
Project 180-0034  
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## PROPOSED GUIDELINES FOR WATER AND SEWER SERVICE PRICING

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Schedule 1

**GMINA XYZ / WODKAN  
SCHEDULE OF PROPOSED RATES  
FOR THE YEAR 1998**

Line No.	CUSTOMER CLASS	WATER			SEWER		
		Existing Rates	Proposed Rates	% Change	Existing Rates	Proposed Rates	% Change
1	<b>Residential</b>						
2	Base monthly charge		3.88		4.03		
3	Usage per m3		1.28		0.91		
4	<b>General Service</b>						
5	Base monthly charge		3.88		4.03		
6	Usage per m3		1.03		0.91		
7	<b>Industrial</b>						
8	Base monthly charge		3.88		4.03		
9	Usage per m3		0.92		0.99		
10	<b>Bulk</b>						
11	Base monthly charge		3.88		N/A		
12	Usage per m3		1.28				

**GMINA XYZ / WODKAN  
PRO FORMA INCOME STATEMENT  
FOR THE YEAR 1998**

LINE NO.	DESCRIPTION	WATER	SEWER
1	<b>Operating Revenues</b>	<b>5,686</b>	<b>4,705</b>
2	Less:		
3	Operating and maintenance expense	3,295	2,500
4	Depreciation expense	1,571	1,108
5	Interest expense	324	432
6	<b>Income before Income tax</b>	<b>497</b>	<b>664</b>
7	Income tax expense	189	252
	38%		
8	<b>Net Income</b>	<b>308</b>	<b>412</b>
9	<b>Rate Base</b>	<b>20,493</b>	<b>27,387</b>
10	<b>% Return on Rate Base</b>	<b>1.50%</b>	<b>1.50%</b>

**STEP ONE**

**DETERMINING REVENUE REQUIREMENTS**

**GMINA XYZ / WODKAN  
SCHEDULE OF REVENUE REQUIREMENTS  
FOR THE YEAR 1998**

LINE NO.	DESCRIPTION	Rate	WATER	Reference	SEWER	Reference
1	Operating & maintenance expense		3,295	4w	2,500	4s
2	Depreciation expense		1,571	8w	1,108	8s
3	Interest expense		324	9	432	9
4	Income tax expense	38%	189		252	
5	Return on rate base or Profit margin	1.50%	308	9	412	9
6	Total		<u>5,686</u>	2	<u>4,705</u>	2

**GMINA XYZ / WODKAN**  
**SCHEDULE OF OPERATING AND MAINTENANCE EXPENSE - WATER**  
**FOR THE YEAR 1998**

LINE NO.	DESCRIPTION	1996 Actual	1997 Budget	1998 Projection	<i>Reference</i>
1	<b>WATER SUPPLY &amp; TREATMENT</b>	<b>990</b>	<b>1,340</b>	<b>1,545</b>	
2	Labor	300	380	440	
3	Payment to vovoidship for water	30	150	160	
4	Materials and supplies	100	150	170	
5	Energy	400	440	510	
6	Maintenance	10	20	25	
7	Miscellaneous	150	200	240	
8	<b>WATER TRANSMISSION &amp; DISTRIBUTION</b>	<b>410</b>	<b>475</b>	<b>540</b>	
9	Labor	200	240	280	
10	Materials and supplies	10	15	20	
11	Energy				
12	Maintenance	100	110	120	
13	Miscellaneous	100	110	120	
14					
15	<b>ALLOCATED EXPENSES</b>	<b>869</b>	<b>1,020</b>	<b>1,210</b>	<i>from 4g</i>
16	<b>TOTAL EXPENSE - WATER</b>	<b>2,269</b>	<b>2,835</b>	<b>3,295</b>	<i>to 3</i>

**GMINA XYZ / WODKAN**  
**SCHEDULE OF OPERATING AND MAINTENANCE EXPENSE - SEWER**  
**FOR THE YEAR 1998**

LINE NO.	DESCRIPTION	1996 Actual	1997 Budget	1998 Projection	Reference
<b>1</b>	<b>SEWAGE COLLECTION</b>	<b>210</b>	<b>375</b>	<b>285</b>	
2	Labor	100	120	140	
3	Materials and supplies	60	65	75	
4	Energy	-	-	-	
5	Maintenance	10	10	10	
6	Miscellaneous	40	180	60	
<b>7</b>	<b>SEWAGE PUMPING</b>	<b>405</b>	<b>495</b>	<b>595</b>	
8	Labor	180	210	250	
9	Materials and supplies	60	70	80	
10	Energy	140	180	220	
11	Maintenance	10	15	20	
12	Miscellaneous	15	20	25	
<b>13</b>	<b>SEWAGE TREATMENT &amp; DISPOSAL</b>	<b>225</b>	<b>455</b>	<b>915</b>	
14	Labor	100	110	130	
15	Payment to void for disposal	80	280	330	
16	Materials and supplies	10	15	25	
17	Energy	5	10	10	
18	Maintenance	-	-	220	
19	Miscellaneous	30	40	200	
<b>20</b>	<b>ALLOCATED EXPENSES</b>	<b>711</b>	<b>835</b>	<b>990</b>	<i>from 4g</i>
<b>21</b>	<b>TOTAL EXPENSE - SEWER</b>	<b>1,341</b>	<b>1,785</b>	<b>2,500</b>	<i>to 3</i>

**GMINA XYZ / WODKAN**  
**SCHEDULE OF OPERATING AND MAINTENANCE EXPENSE - GENERAL EXPENSES**  
**FOR THE YEAR 1998**

LINE NO.	DESCRIPTION	1996 Actual	1997 Budget	1998 Projection	<i>Reference</i>
1	<b>WORKSHOPS</b>	<b>510</b>	<b>615</b>	<b>720</b>	
2	Labor	300	360	420	
3	Materials and supplies	120	150	180	
4	Energy	-	-	-	
5	Outside services	-	-	-	
6	Other taxes and fees	40	45	50	
7	Other costs	30	40	50	
8	Repairs	20	20	20	
9	<b>METER READING, CUSTOMER ACCOUNTING</b>	<b>160</b>	<b>190</b>	<b>220</b>	
10	Labor	110	130	150	
11	Materials and supplies	40	50	60	
12	Energy	-	-	-	
13	Outside services	-	-	-	
14	Other taxes and fees	10	10	10	
15	Other costs	-	-	-	
16	Repairs	-	-	-	
17	<b>ADMINISTRATIVE AND OVERHEAD</b>	<b>910</b>	<b>1,050</b>	<b>1,260</b>	
18	Labor	600	700	850	
19	Other payments for workers	80	90	100	
20	Materials and supplies	40	50	60	
21	Energy	60	70	90	
22	Outside services	-	-	-	
23	Insurance	-	-	-	
24	Travel	10	10	10	
25	Advertising and promotion	20	20	20	
26	Other taxes and fees	50	60	70	
27	Other costs	50	50	60	
28	Repairs	-	-	-	
29	<b>TOTAL</b>	<b>1,580</b>	<b>1,855</b>	<b>2,200</b>	
30	<b>ALLOCATED TO WATER</b>	55%	<b>869</b>	<b>1,020</b>	<i>to 4w</i>
31	<b>ALLOCATED TO SEWER</b>	45%	<b>711</b>	<b>835</b>	<i>to 4s</i>

GMINA XYZ / WODKAN  
SCHEDULE OF RATE BASE  
FOR THE YEAR 1998

LINE NO.	DESCRIPTION		WATER	Reference	SEWER	Reference
1	Utility Plant in Service	+	37,053	6w	39,498	6s
2	Accumulated Depreciation	-	(16,971)	7w	(12,423)	7s
3	Contributed Property	-	-		-	
4	Accumulated Amortization	+	-		-	
5	Working Capital	+	412		312	
6	Total Rate Base		<u>20,493</u>		<u>27,387</u>	

**GMINA XYZ / WODKAN**  
**SCHEDULE OF UTILITY PLANT IN SERVICE - WATER**  
**FOR THE YEAR 1998**

LINE NO	DESCRIPTION	Balance 31-Dec-96	1997 Additions	Balance 31-Dec-97	1998 Additions	Balance 31-Dec-98	Reference
1	<b>WATER SUPPLY &amp; TREATMENT</b>	<b>13,260</b>	<b>300</b>	<b>13,560</b>	<b>50</b>	<b>13,610</b>	
2	Land and rights			-		-	
3	Structures and improvements	10,000	300	10,300	50	10,350	
4	Power generating equipment	500		500		500	
5	Pumping equipment	2,500		2,500		2,500	
6	Treatment equipment	100		100		100	
7	Technical equipment	150		150		150	
8	Tools, instruments, personal prop	10		10		10	
9	<b>WATER TRANSMISSION &amp; DISTRIBUTION</b>	<b>20,420</b>	<b>300</b>	<b>20,720</b>	<b>550</b>	<b>21,270</b>	
10	Land and rights			-		-	
11	Structures & improvements	100		100		100	
12	Transmission mains	4,000	300	4,300	550	4,850	
13	Distribution mains	16,000		16,000		16,000	
14	Distribution storage			-		-	
15	Hydrants			-		-	
16	Meters and services			-		-	
17	Power generating equipment	50		50		50	
18	Technical equipment	20		20		20	
19	Vehicles	50		50		50	
20	Tools, instruments, personal prop	200		200		200	
21	<b>ALLOCATED GENERAL PROPERTY</b>	<b>1,513</b>	<b>275</b>	<b>1,788</b>	<b>385</b>	<b>2,173</b>	<i>from 6g</i>
22	<b>SUBTOTAL</b>	<b>35,193</b>	<b>875</b>	<b>36,068</b>	<b>985</b>	<b>37,053</b>	<i>to 5</i>
23	<b>LESS: CONTRIBUTED PROPERTY</b>						
24	<b>NET</b>	<b>35,193</b>	<b>875</b>	<b>36,068</b>	<b>985</b>	<b>37,053</b>	<i>to 5</i>

**GMINA XYZ / WODKAN  
SCHEDULE OF UTILITY PLANT IN SERVICE - SEWER  
FOR THE YEAR 1998**

LINE NO	DESCRIPTION	Balance 31-Dec-96	Additions	Balance 31-Dec-97	Projected Additions	Balance 31-Dec-98	Reference
1	<b>SEWAGE COLLECTION</b>	<b>18,410</b>	<b>2,170</b>	<b>20,580</b>	<b>4,900</b>	<b>25,480</b>	
2	Land and rights			-		-	
3	Structures and improvements			-		-	
4	Collecting mains	18,000	2,170	20,170	4,900	25,070	
5	Power generating equipment			-		-	
6	Meters and services			-		-	
7	Technical equipment	10		10		10	
8	Vehicles	400		400		400	
9	Tools, instruments, personal prop						
10	<b>SEWAGE PUMPING</b>	<b>1,120</b>	<b>-</b>	<b>1,120</b>	<b>1,000</b>	<b>2,120</b>	
11	Land and rights			-		-	
12	Structures and improvements	1,000		1,000	1,000	2,000	
13	Power generating equipment	20		20		20	
14	Pumping equipment			-		-	
15	Technical equipment	100		100		100	
16	Vehicles			-		-	
17	Tools, instruments, personal prop			-		-	
18	<b>SEWAGE TREATMENT &amp; DISPOSAL</b>	<b>1,120</b>	<b>1,500</b>	<b>2,620</b>	<b>7,500</b>	<b>10,120</b>	
19	Land and rights			-		-	
20	Structures and improvements	1,100	1,500	2,600	7,500	10,100	
21	Power generating equipment			-		-	
22	Treatment equipment	20		20		20	
23	Technical equipment			-		-	
24	Vehicles			-		-	
25	Tools, instruments, personal prop			-		-	
26	<b>ALLOCATED GENERAL PROPERTY</b>	<b>1,238</b>	<b>225</b>	<b>1,463</b>	<b>315</b>	<b>1,778</b>	<i>from bg</i>
27	<b>SUBTOTAL</b>	<b>21,888</b>	<b>3,895</b>	<b>25,783</b>	<b>13,715</b>	<b>39,498</b>	<i>to 6</i>
28	<b>LESS: CONTRIBUTED PROPERTY</b>						
29	<b>NET</b>	<b>21,888</b>	<b>3,895</b>	<b>25,783</b>	<b>13,715</b>	<b>39,498</b>	<i>to 5</i>

Schedule 6g

**GMINA XYZ / WODKAN**  
**SCHEDULE OF UTILITY PLANT IN SERVICE - GENERAL PROPERTY**  
**FOR THE YEAR 1998**

LINE NO	DESCRIPTION	Balance 31-Dec-96	1997 Additions	Balance 31-Dec-97	1998 Additions	Balance 31-Dec-98	Reference	
1	<b>WORKSHOPS, GENERAL &amp; ADMINISTRATIVE</b>	<b>2,750</b>	<b>500</b>	<b>3,250</b>	<b>700</b>	<b>3,950</b>		
2	Land and rights	1,000		1,000		1,000		
3	Structures and improvements	1,000	200	1,200	300	1,500		
4	Machinery, general office	200		200		200		
5	Technical equipment	100	300	400	400	800		
6	Vehicles	200		200		200		
7	Tools, instruments, personal prop	250		250		250		
8	<b>SUBTOTAL</b>	<b>2,750</b>	<b>500</b>	<b>3,250</b>	<b>700</b>	<b>3,950</b>		
9	<b>ALLOCATED TO WATER</b>	55%	1,513	275	1,788	385	2,173	to 6w
10	<b>ALLOCATED TO SEWER</b>	45%	1,238	225	1,463	315	1,778	to 6s

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**GMINA XYZ / WODKAN**  
**SCHEDULE OF ACCUMULATED DEPRECIATION - WATER**  
**FOR THE YEAR 1998**

LINE NO	DESCRIPTION	Balance 31-Dec-96	Additions	Balance 31-Dec-97	Additions	Balance 31-Dec-98	Reference
1	<b>WATER SUPPLY &amp; TREATMENT</b>	<b>3,150</b>	<b>582</b>	<b>3,732</b>	<b>587</b>	<b>4,319</b>	
2	Land and rights	-	-	-	-	-	
3	Structures and improvements	1,600	254	1,854	258	2,112	
4	Power generating equipment	250	50	300	50	350	
5	Pumping equipment	1,200	250	1,450	250	1,700	
6	Treatment equipment	20	13	33	13	45	
7	Technical equipment	80	15	95	15	110	
8	Tools, instruments, personal prop	-	1	1	1	2	
9	<b>WATER TRANSMISSION &amp; DISTRIBUTION</b>	<b>10,210</b>	<b>841</b>	<b>11,051</b>	<b>860</b>	<b>11,911</b>	
10	Land and rights	-	-	-	-	-	
11	Structures & improvements	10	-	10	3	13	
12	Transmission mains	2,000	166	2,166	183	2,349	
13	Distribution mains	8,000	640	8,640	640	9,280	
14	Distribution storage	-	-	-	-	-	
15	Hydrants	-	-	-	-	-	
16	Meters and services	-	-	-	-	-	
17	Power generating equipment	20	5	25	5	30	
18	Technical equipment	30	3	33	3	36	
19	Vehicles	20	7	27	7	34	
20	Tools, instruments, personal prop	130	20	150	20	170	
21	<b>ALLOCATED GENERAL PROPERTY</b>	<b>523</b>	<b>94</b>	<b>617</b>	<b>124</b>	<b>741</b>	<i>from 6g</i>
22	<b>SUBTOTAL</b>	<b>13,883</b>	<b>1,518</b>	<b>15,400</b>	<b>1,571</b>	<b>16,971</b>	<i>to 5</i>
23	<b>LESS: CONTRIBUTED PROPERTY</b>						
24	<b>NET</b>	<b>13,883</b>	<b>1,518</b>	<b>15,400</b>	<b>1,571</b>	<b>16,971</b>	<i>to 5</i>

**GMINA XYZ / WODKAN  
SCHEDULE OF ACCUMULATED AMORTIZATION - SEWER  
FOR THE YEAR 1998**

LINE NO	DESCRIPTION	Balance 31-Dec-96	Additions	Balance 31-Dec-97	Additions	Balance 31-Dec-98	Reference
<b>1</b>	<b>SEWAGE COLLECTION</b>	<b>9,110</b>	<b>820</b>	<b>9,930</b>	<b>962</b>	<b>10,892</b>	
2	Land and rights	-	-	-	-	-	
3	Structures and improvements	-	-	-	-	-	
4	Collecting mains	8,800	763	9,563	905	10,468	
5	Power generating equipment	-	-	-	-	-	
6	Meters and services	-	-	-	-	-	
7	Technical equipment	10	1	11	1	12	
8	Vehicles	300	56	356	56	412	
9	Tools, instruments, personal prop	-	-	-	-	-	
<b>10</b>	<b>SEWAGE PUMPING</b>	<b>910</b>	<b>41</b>	<b>951</b>	<b>56</b>	<b>1,007</b>	
11	Land and rights	-	-	-	-	-	
12	Structures and improvements	850	30	880	45	925	
13	Power generating equipment	10	1	11	1	12	
14	Pumping equipment	-	-	-	-	-	
15	Technical equipment	50	10	60	10	70	
16	Vehicles	-	-	-	-	-	
17	Tools, instruments, personal prop	-	-	-	-	-	
<b>18</b>	<b>SEWAGE TREATMENT &amp; DISPOSAL</b>	<b>550</b>	<b>76</b>	<b>626</b>	<b>256</b>	<b>882</b>	
19	Land and rights	-	-	-	-	-	
20	Structures and improvements	540	74	614	254	868	
21	Power generating equipment	-	-	-	-	-	
22	Treatment equipment	10	2	12	2	14	
23	Technical equipment	-	-	-	-	-	
24	Vehicles	-	-	-	-	-	
25	Tools, instruments, personal prop	-	-	-	-	-	
<b>26</b>	<b>ALLOCATED GENERAL PROPERTY</b>	<b>428</b>	<b>77</b>	<b>505</b>	<b>101</b>	<b>606</b>	<i>from 7g</i>
<b>27</b>	<b>SUBTOTAL</b>	<b>10,388</b>	<b>928</b>	<b>11,315</b>	<b>1,108</b>	<b>12,423</b>	<i>to 5</i>
<b>28</b>	<b>LESS: CONTRIBUTED PROPERTY</b>						
<b>29</b>	<b>NET</b>	<b>10,388</b>	<b>928</b>	<b>11,315</b>	<b>1,108</b>	<b>12,423</b>	<i>to 5</i>

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Schedule 7g

**GMINA XYZ / WODKAN**  
**SCHEDULE OF ACCUMULATED AMORTIZATION - GENERAL PROPERTY**

LINE NO	DESCRIPTION	Balance 31-Dec-96	Additions	Balance 31-Dec-97	Additions	Balance 31-Dec-98	Reference	
1	<b>WORKSHOPS, GENERAL &amp; ADMINISTRATIVE</b>	<b>950</b>	<b>172</b>	<b>1,122</b>	<b>226</b>	<b>1,347</b>		
2	Land and rights		-	-	-	-		
3	Structures and improvements	600	44	644	54	698		
4	Machinery, general office	100	25	125	25	150		
5	Technical equipment	50	31	81	75	156		
6	Vehicles	150	34	184	34	218		
7	Tools, instruments, personal prop	50	38	88	38	125		
8	<b>SUBTOTAL</b>	<b>950</b>	<b>172</b>	<b>1,122</b>	<b>226</b>	<b>1,347</b>		
9	<b>ALLOCATED TO WATER</b>	55%	523	94	617	124	741	to 7w
10	<b>ALLOCATED TO SEWER</b>	45%	428	77	505	101	606	to 7w

**GMINA XYZ / WODKAN  
SCHEDULE OF DEPRECIATION EXPENSE - WATER  
FOR THE YEAR 1998**

LINE NO	DESCRIPTION	Depreciation Rate	1997		1998		Reference
			Avg Plant Balance	Depreciation Expense	Avg Plant Balance	Depreciation Expense	
1	<b>WATER SUPPLY &amp; TREATMENT</b>		<b>13,410</b>	<b>582</b>	<b>13,585</b>	<b>587</b>	
2	Land and rights	0 0%	-	-	-	-	
3	Structures and improvements	2 5%	10,150	254	10,325	258	
4	Power generating equipment	10 0%	500	50	500	50	
5	Pumping equipment	10 0%	2,500	250	2,500	250	
6	Treatment equipment	12 5%	100	13	100	13	
7	Technical equipment	10 0%	150	15	150	15	
8	Tools, instruments, personal prop	10 0%	10	1	10	1	
9	<b>WATER TRANSMISSION &amp; DISTRIBUTION</b>		<b>20,470</b>	<b>841</b>	<b>20,995</b>	<b>860</b>	
10	Land and rights	0 0%	-	-	-	-	
11	Structures & improvements	2 5%	-	-	100	3	
12	Transmission mains	4 0%	4,150	166	4,575	183	
13	Distribution mains	4 0%	16,000	640	16,000	640	
14	Distribution storage		-	-	-	-	
15	Hydrants		-	-	-	-	
16	Meters and services		-	-	-	-	
17	Power generating equipment	10 0%	50	5	50	5	
18	Technical equipment	14 0%	20	3	20	3	
19	Vehicles	14 0%	50	7	50	7	
20	Tools, instruments, personal prop	10 0%	200	20	200	20	
21	<b>ALLOCATED GENERAL PROPERTY</b>		<b>1,650</b>	<b>94</b>	<b>1,980</b>	<b>124</b>	<i>from 7g</i>
22	<b>SUBTOTAL</b>		<b>35,530</b>	<b>1,518</b>	<b>36,560</b>	<b>1,571</b>	<i>to 3 &amp; 11w</i>
23	<b>LESS: CONTRIBUTED PROPERTY</b>		-	-	-	-	
24	<b>NET</b>		<b>35,530</b>	<b>1,518</b>	<b>36,560</b>	<b>1,571</b>	

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**GMINA XYZ / WODKAN  
SCHEDULE OF DEPRECIATION EXPENSE - SEWER  
FOR THE YEAR 1998**

LINE NO	DESCRIPTION	Depreciation Rate	1997		1998		Reference
			Avg Plant Balance	Depreciation Expense	Avg Plant Balance	Depreciation Expense	
1	<b>SEWAGE COLLECTION</b>		<b>19,495</b>	<b>820</b>	<b>23,030</b>	<b>962</b>	
2	Land and rights	0 0%	-	-	-	-	
3	Structures and improvements	2 5%	-	-	-	-	
4	Collecting mains	4 0%	19,085	763	22,620	905	
5	Power generating equipment		-	-	-	-	
6	Meters and services		-	-	-	-	
7	Technical equipment	10 0%	10	1	10	1	
8	Vehicles	14 0%	400	56	400	56	
9	Tools, instruments, personal prop		-	-	-	-	
10	<b>SEWAGE PUMPING</b>		<b>1,120</b>	<b>41</b>	<b>1,620</b>	<b>56</b>	
11	Land and rights		-	-	-	-	
12	Structures and improvements	3 0%	1,000	30	1,500	45	
13	Power generating equipment	5 0%	20	1	20	1	
14	Pumping equipment		-	-	-	-	
15	Technical equipment	10 0%	100	10	100	10	
16	Vehicles		-	-	-	-	
17	Tools, instruments, personal prop		-	-	-	-	
18	<b>SEWAGE TREATMENT &amp; DISPOSAL</b>		<b>1,870</b>	<b>76</b>	<b>6,370</b>	<b>256</b>	
19	Land and rights	0 0%	-	-	-	-	
20	Structures and improvements	4 0%	1,850	74	6,350	254	
21	Power generating equipment		-	-	-	-	
22	Treatment equipment	10 0%	20	2	20	2	
23	Technical equipment		-	-	-	-	
24	Vehicles		-	-	-	-	
25	Tools, instruments, personal prop		-	-	-	-	
26	<b>ALLOCATED GENERAL PROPERTY</b>		<b>1,350</b>	<b>77</b>	<b>1,620</b>	<b>101</b>	from '8
27	<b>SUBTOTAL</b>		<b>21,845</b>	<b>928</b>	<b>26,150</b>	<b>1,108</b>	to 3 & 11s
28	<b>LESS: CONTRIBUTED PROPERTY</b>		-	-	-	-	
29	<b>NET</b>		<b>21,845</b>	<b>928</b>	<b>26,150</b>	<b>1,108</b>	

Schedule 8g

**GMINA XYZ / WODKAN  
SCHEDULE OF DEPRECIATION EXPENSE - GENERAL PROPERTY**

LINE NO	DESCRIPTION	Depreciation Rate	1997		1998		Reference
			Avg Plant Balance	Depreciation Expense	Avg Plant Balance	Depreciation Expense	
1	<b>WORKSHOPS, GENERAL &amp; ADMINISTRATIVE</b>		<b>3,000</b>	<b>172</b>	<b>3,600</b>	<b>226</b>	
2	Land and rights	0.0%	1,000	-	1,000		
3	Structures and improvements	4.0%	1,100	44	1,350	54	
4	Machinery, general office	12.5%	200	25	200	25	
5	Technical equipment	12.5%	250	31	600	75	
6	Vehicles	17.0%	200	34	200	34	
7	Tools, instruments, personal prop	15.0%	250	38	250	38	
8	<b>SUBTOTAL</b>		<b>3,000</b>	<b>172</b>	<b>3,600</b>	<b>226</b>	
9	<b>ALLOCATED TO WATER</b>	55%	1,650	94	1,980	124	to 8w
10	<b>ALLOCATED TO SEWER</b>	45%	1,350	77	1,620	101	to 8s

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**GMINA XYZ / WODKAN**  
**SCHEDULE OF WEIGHTED AVERAGE COST OF CAPITAL**  
**FOR THE YEAR 1998**

LINE NO.	DESCRIPTION	Balance 31-Dec-98	%	Cost Rate	Weighted Avg Cost of Capital	Reference
1	Long term debt	6,300	13.16%	12.00%	1.58%	to 3
2	Equity	41,580			<u>1.50%</u>	to 3
3	Gmina	37,980	79.32%	0.00%	0.00%	
4	Other	3,600	7.52%	20.00%	1.50%	
5	Total	<u>47,880</u>	100.00%		<u>3.08%</u>	

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**GMINA XYZ / WODKAN  
SCHEDULE OF INTEREST EXPENSE  
FOR THE YEAR 1998**

Loan No.	DESCRIPTION (Purpose of loan, Lender, terms)	Principal Balance	Principal Balance	Average Principal Balance	1998 Debt Service		Reference
		31-Dec-97	31-Dec-98		Principal	Interest	
1	Year of loan: Purpose of loan: Lender: Amount borrowed: Term of loan: Interest rate:						
2	Year of loan: Purpose of loan: Lender: Amount borrowed: Term of loan: Interest rate:						
	<b>Total</b>		<u>6,300</u>				
	Average interest rate on long-term debt					12.00%	to 9

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**STEP TWO**

**ALLOCATING COSTS TO COST FUNCTIONS**

**GMINA XYZ / WODKAN**  
**SUMMARY OF WATER COST BY COST FUNCTION**  
**FOR THE YEAR 1998**

Line No.	DESCRIPTION	Total	Base	Extra Capacity		Customer	Reference
				Max Day	Max Hour		
1	Operating Expense	3,295	2,263	206	359	467	from 13w
2	Depreciation Expense	1,571	776	179	616	-	from 8w & 12w
3	Interest Expense	324	160	37	127	-	from 3 & 12w
4	Return on Rate Base	308	152	35	121	-	from 3 & 12w
5	Income Tax Expense	189	116	15	40	17	from 3
6	<b>Total</b>	<b>5,686</b>	<b>3,468</b>	<b>472</b>	<b>1,263</b>	<b>484</b>	to 14w

Schedule 11s

**GMINA XYZ / WODKAN  
SUMMARY OF SEWER COST BY COST FUNCTION  
FOR THE YEAR 1998**

Line No.	DESCRIPTION	Total	Base	Extra Capacity	Customer	Reference
1	Operating Expense	2,500	1,789	329	382	from 13s
2	Depreciation Expense	1,108	886	223	-	from 8s & 12s
3	Interest Expense	432	346	87	-	from 3 & 12s
4	Return on Rate Base	412	329	83	-	from 3 & 12s
5	Income Tax Expense	252	189	40	24	from 3
6	<b>Total</b>	<b>4,705</b>	<b>3,537</b>	<b>761</b>	<b>406</b>	to 14s

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**GMINA XYZ / WODKAN  
ALLOCATION OF PLANT INVESTMENT TO COST FUNCTIONS - WATER  
FOR THE YEAR 1998**

LINE NO	DESCRIPTION	Balance 1998	Base	Demand		Customer	Reference
				Maximum Day	Maximum Hour		
1	<b>WATER SUPPLY &amp; TREATMENT</b>	<b>4,319</b>	<b>2,598</b>	<b>1,045</b>	<b>676</b>	-	
2	Land and rights	-					
3	Structures and improvements	2,112	1,270	511	331	-	
4	Power generating equipment	350	210	84	56		
5	Pumping equipment	1,700	1,020	408	272		
6	Treatment equipment	45	30	15			
7	Technical equipment	110	66	27	17	-	
8	Tools, instruments, personal prop	2	1	0	0	-	
9	<b>WATER TRANSMISSION &amp; DISTRIBUTION</b>	<b>11,911</b>	<b>5,421</b>	<b>802</b>	<b>5,688</b>	-	
10	Land and rights	-					
11	Structures & improvements	13	6	1	6	-	
12	Transmission mains	2,349	1,574	775			
13	Distribution mains	9,280	3,712		5,568		
14	Distribution storage	-					
15	Hydrants	-					
16	Meters and services	-					
17	Power generating equipment	30	20	10			
18	Technical equipment	36	16	2	17	-	
19	Vehicles	34	15	2	16	-	
20	Tools, instruments, personal prop	170	77	11	81	-	
21	<b>ALLOCATED GENERAL PROPERTY</b>	<b>741</b>	<b>366</b>	<b>84</b>	<b>291</b>	-	<i>from 12g</i>
22	<b>SUBTOTAL</b>	<b>16,971</b>	<b>8,385</b>	<b>1,931</b>	<b>6,655</b>	-	
23	<b>LESS: CONTRIBUTED PROPERTY</b>	<b>-</b>					
24	<b>NET</b>	<b>16,971</b>	<b>8,385</b>	<b>1,931</b>	<b>6,655</b>	-	
25	<b>%</b>	<b>100%</b>	<b>49%</b>	<b>11%</b>	<b>39%</b>	<b>0%</b>	<i>to 11w</i>

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**GMINA XYZ / WODKAN**  
**ALLOCATION OF PLANT INVESTMENT TO COST FUNCTIONS - SEWER**  
**FOR THE YEAR 1998**

LINE NO	DESCRIPTION	Balance 1998	Base	Demand Maximum Month	Customer	Reference
1	<b>SEWAGE COLLECTION</b>	<b>10,892</b>	<b>8,714</b>	<b>2,178</b>	-	
2	Land and rights	-				
3	Structures and improvements	-				
4	Collecting mains	10,468	8,375	2,094		
5	Power generating equipment	-				
6	Meters and services	-				
7	Technical equipment	12	10	2	-	
8	Vehicles	412	330	82	-	
9	Tools, instruments, personal prop	-				
10	<b>SEWAGE PUMPING</b>	<b>1,007</b>	<b>808</b>	<b>199</b>	-	
11	Land and rights	-				
12	Structures and improvements	925	740	185		
13	Power generating equipment	12	12			
14	Pumping equipment	-				
15	Technical equipment	70	56	14	-	
16	Vehicles	-				
17	Tools, instruments, personal prop	-				
18	<b>SEWAGE TREATMENT &amp; DISPOSAL</b>	<b>882</b>	<b>448</b>	<b>434</b>	-	
19	Land and rights	-				
20	Structures and improvements	868	434	434		
21	Power generating equipment	-				
22	Treatment equipment	14	14			
23	Technical equipment	-				
24	Vehicles	-				
25	Tools, instruments, personal prop	-				
26	<b>ALLOCATED GENERAL PROPERTY</b>	<b>606</b>	<b>473</b>	<b>133</b>	-	from 12g
27	<b>SUBTOTAL</b>	<b>12,423</b>	<b>9,927</b>	<b>2,497</b>	-	
28	<b>LESS: CONTRIBUTED PROPERTY</b>	-	-	-	-	
29	<b>NET</b>	<b>12,423</b>	<b>9,927</b>	<b>2,497</b>	-	
	%	100%	80%	20%	0%	to 11s

**GMINA XYZ / WODKAN**  
**ALLOCATION OF OPERATING AND MAINTENANCE EXPENSE - WATER**  
**FOR THE YEAR 1998**

Line No.	DESCRIPTION	1998 Projection	Base	Maximum Day	Maximum Hour	Customer	Reference
1	<b>WATER SUPPLY &amp; TREATMENT</b>	<b>1,545</b>	<b>1,264</b>	<b>171</b>	<b>110</b>	-	
2	Labor	440	265	106	69	-	
3	Payment to vovoidship for water	160	160			-	
4	Materials and supplies	170	170			-	
5	Energy	510	510			-	
6	Maintenance	25	15	6	4	-	
7	Miscellaneous	240	144	58	38	-	
8	<b>WATER TRANSMISSION &amp; DISTRIBUTION</b>	<b>540</b>	<b>257</b>	<b>35</b>	<b>248</b>		
9	Labor	280	127	19	134	-	
10	Materials and supplies	20	20			-	
11	Energy	-	-			-	
12	Maintenance	120	55	8	57	-	
13	Miscellaneous	120	55	8	57	-	
14	<b>ALLOCATED EXPENSES</b>	<b>1,210</b>	<b>742</b>			<b>467</b>	<i>from 13g</i>
15	<b>TOTAL EXPENSE - WATER</b>	<b>3,295</b>	<b>2,263</b>	<b>206</b>	<b>359</b>	<b>467</b>	<i>to 11w</i>

**GMINA XYZ / WODKAN  
ALLOCATION OF OPERATING AND MAINTENANCE EXPENSE - SEWER  
FOR THE YEAR 1998**

Line No.	DESCRIPTION	1998 Projection	Base	Maximum Month	Customer	Reference
1	<b>SEWAGE COLLECTION</b>	<b>285</b>	<b>243</b>	<b>42</b>	-	
2	Labor	140	112	28	-	
3	Materials and supplies	75	75		-	
4	Energy	-	-		-	
5	Maintenance	10	8	2	-	
6	Miscellaneous	60	48	12	-	
7	<b>SEWAGE PUMPING</b>	<b>595</b>	<b>537</b>	<b>58</b>	-	
8	Labor	250	201	49	-	
9	Materials and supplies	80	80		-	
10	Energy	220	220		-	
11	Maintenance	20	16	4	-	
12	Miscellaneous	25	20	5	-	
13	<b>SEWAGE TREATMENT &amp; DISPOSAL</b>	<b>915</b>	<b>644</b>	<b>271</b>	-	
14	Labor	130	66	64	-	
15	Payment to vovoid for disposal	330	330		-	
16	Materials and supplies	25	25		-	
17	Energy	10	10		-	
18	Maintenance	220	112	108	-	
19	Miscellaneous	200	102	98	-	
20	<b>ALLOCATED EXPENSES</b>	<b>990</b>	<b>607</b>		<b>382</b>	<i>from 13g</i>
21	<b>TOTAL EXPENSE - SEWER</b>	<b>2,500</b>	<b>1,789</b>	<b>329</b>	<b>382</b>	<i>to 11s</i>

**GMINA XYZ / WODKAN**  
**ALLOCATION OF OPERATING AND MAINTENANCE EXPENSE - GENERAL EXPENSES**  
**FOR THE YEAR 1998**

Line No	DESCRIPTION	1998 Projection	Base	Customer	Reference
1	<b>WORKSHOPS</b>	<b>720</b>	<b>720</b>	-	
2	Labor	420	420		
3	Materials and supplies	180	180		
4	Energy	-	-		
5	Outside services	-	-		
6	Other taxes and fees	50	50		
7	Other costs	50	50		
8	Repairs	20	20		
9	<b>METER READING, CUSTOMER ACCOUNTING</b>	<b>220</b>	-	<b>220</b>	
10	Labor	150		150	
11	Materials and supplies	60		60	
12	Energy	-		-	
13	Outside services	-		-	
14	Other taxes and fees	10		10	
15	Other costs	-		-	
16	Maintenance	-		-	
17	<b>ADMINISTRATIVE AND OVERHEAD</b>	<b>1,260</b>	<b>630</b>	<b>630</b>	
18	Labor	850	425	425	
19	Other payments for workers	100	50	50	
20	Materials and supplies	60	30	30	
21	Energy	90	45	45	
22	Outside services	-	-	-	
23	Insurance	-	-	-	
24	Travel	10	5	5	
25	Advertising and promotion	20	10	10	
26	Other taxes and fees	70	35	35	
27	Other costs	60	30	30	
28	Maintenance	-	-	-	
29	<b>TOTAL</b>	<b>2,200</b>	<b>1,350</b>	<b>850</b>	
30	<b>ALLOCATED TO WATER</b>	55%	<b>1,210</b>	<b>742</b>	<b>467</b>
31	<b>ALLOCATED TO SEWER</b>	45%	<b>990</b>	<b>607</b>	<b>382</b>

to 13w

to 13s

**STEP THREE**

**ALLOCATING COSTS TO DIFFERENT CLASSES OF CUSTOMERS**

OK

**GMINA XYZ / WODKAN**  
**ALLOCATION OF REVENUE REQUIREMENT TO CUSTOMER CLASSES - WATER**  
**FOR THE YEAR 1998**

Line No	DESCRIPTION	Total	Base		Extra Capacity				Customer		Reference
			%	Amount	Maximum Day %	Maximum Day Amount	Maximum Hour %	Maximum Hour Amount	%	Amount	
1	Residential	4,570	74.2%	2,575	89.6%	423	87.7%	1,108	96.1%	465	to 17
2	General Service	520	11.6%	402	5.6%	26	6.9%	87	1.0%	5	to 17
3	Industrial	519	12.8%	443	3.1%	15	3.8%	48	2.9%	14	to 17
4	Bulk sales to other gminas	77	1.4%	48	1.7%	8	1.6%	21	0.1%	0	to 17
5	<b>Total</b>	<b>5,686</b>	<b>100.0%</b>	<b>3,468</b>	<b>100.0%</b>	<b>472</b>	<b>100.0%</b>	<b>1,263</b>	<b>100.0%</b>	<b>484</b>	
			<i>from 15w</i>	<i>from 11w</i>	<i>from 15w</i>	<i>from 11w</i>	<i>from 15w</i>	<i>from 11w</i>	<i>from 16</i>	<i>from 11w</i>	

**GMINA XYZ / WODKAN  
ALLOCATION OF REVENUE REQUIREMENT TO CUSTOMER CLASSES - SEWER  
FOR THE YEAR 1998**

Line No	DESCRIPTION	Total	Base		Extra Capacity Maximum Day		Customer		Reference
			%	Amount	%	Amount	%	Amount	
1	Residential	2,841	58.7%	2,076	49.6%	378	95.2%	387	to 17
2	General Service	459	10.9%	384	9.2%	70	1.2%	5	to 17
3	Industrial	1,405	30.4%	1,077	41.2%	313	3.6%	15	to 17
4	Bulk sales to other gminas	-	0.0%	-	0.0%	-	0.0%	-	to 17
5	<b>Total</b>	<b>4,705</b>	<b>100.0%</b>	<b>3,537</b>	<b>100.0%</b>	<b>761</b>	<b>100.0%</b>	<b>406</b>	
			<i>from 15s</i>	<i>from 11s</i>	<i>from 15s</i>	<i>from 11s</i>	<i>from 16</i>	<i>from 11s</i>	

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**GMINA XYZ / WODKAN**  
**SCHEDULE OF CUSTOMER CHARACTERISTICS - WATER DEMAND**  
**FOR THE YEAR 1998**

Line No	DESCRIPTION	Annual Use			Maximum Day Characteristics			Maximum Hour Characteristics			Reference
		Total m3	Avg m3/day	%	Factor %	m3/day	%	Factor %	m3/day	%	
1	Residential	3,200	8,767	74.2%	200%	17,534	89.6%	400%	35,068	87.7%	to 14w
2	General Service	500	1,370	11.6%	80%	1,096	5.6%	200%	2,740	6.9%	to 14w
3	Industrial	550	1,507	12.8%	40%	603	3.1%	100%	1,507	3.8%	to 14w
4	Bulk sales to other gminas	60	164	1.4%	200%	329	1.7%	400%	658	1.6%	to 14w
5	<b>Total</b>	<b>4,310</b>	<b>11,808</b>	<b>100.0%</b>		<b>19,562</b>	<b>100.0%</b>		<b>39,973</b>	<b>100.0%</b>	

**GMINA XYZ / WODKAN  
PRO FORMA INCOME STATEMENT  
SCHEDULE OF CUSTOMER CHARACTERISTICS - SEWER DEMAND  
FOR THE YEAR 1998**

Line No.	DESCRIPTION	Annual Use			Maximum Monthly Demand			Reference
		Total m3	Avg m3/month	%	Max m3/month	Rate m3	Max/Avg %	
1	Residential	2,700	7,397	58.7%	250%	18,493	49.6%	to 14s
2	General Service	500	1,370	10.9%	250%	3,425	9.2%	to 14s
3	Industrial	1,400	3,836	30.4%	400%	15,342	41.2%	to 14s
4	Bulk sales to other gminas	-	-	0.0%		-	0.0%	to 14s
5	Total	4,600	12,603	100.0%		37,260	100.0%	

**GMINA XYZ / WODKAN**  
**SCHEDULE OF CUSTOMER CHARACTERISTICS - NUMBER OF METERS**  
**FOR THE YEAR 1998**

Line No	DESCRIPTION	WATER		SEWER		Reference
		Number	% of Total	Number	% of Total	
1	Residential	10,000	96.1%	8,000	95.2%	to 14w & 14s
2	General Service	100	1.0%	100	1.2%	to 14w & 14s
3	Industrial	300	2.9%	300	3.6%	to 14w & 14s
4	Bulk sales to other gminas	10	0.1%	-	0.0%	to 14w & 14s
5	Total	10,410	100.0%	8,400	100.0%	to 14w & 14s

**STEP FOUR**  
**CALCULATING PROPOSED RATES**

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**GMINA XYZ / WODKAN  
CALCULATION OF PROPOSED RATES  
FOR THE YEAR 1998**

Line No.	DESCRIPTION	Residential	General Service	Industrial	Bulk Sales	Reference
<b>WATER</b>						
1	Base	2,575	402	443	48	from 14w
2	Maximum Day	423	26	15	8	from 14w
3	Maximum Hour	1,108	87	48	21	from 14w
4	Total	4,105	515	505	77	
5	Annual usage (m3)	3,200	500	550	60	from 15w
6	Price per m3	1.28	1.03	0.92	1.28	to 1
7	Customer	465	5	14	0	from 14w
8	Number of customers	10,000	100	300	10	from 16
9	Monthly charge per customer	3.88	3.88	3.88	3.88	to 1
<b>WASTEWATER</b>						
10	Base	2,076	384	1,077	-	from 14s
11	Extra capacity	378	70	313	-	from 14s
12	Total	2,454	454	1,390	-	
13	Annual usage (m3)	2,700	500	1,400	-	from 16
14	Price per m3	0.91	0.91	0.99	-	to 1
15	Customer	387	5	15	-	from 14s
16	Number of customers	8,000	100	300	-	from 16
17	Monthly charge per customer	4.03	4.03	4.03	-	to 1