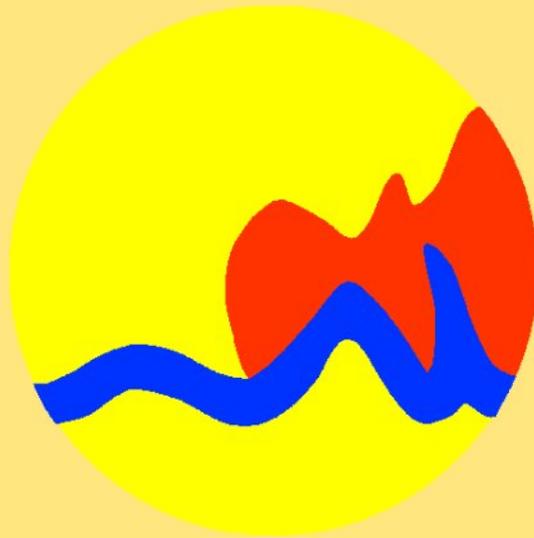


**City of Grand Rapids**

**WATER  
SEWER  
RATE  
STUDY  
2005  
FINAL**



# MEMORANDUM

CITY OF GRAND RAPIDS

**DATE:** January 31, 2006

**TO:** Eric R. DeLong  
Deputy City Manager

**FROM:** Michael E. Wolski   
Utility Financial Officer

**SUBJECT:** 2005 WATER/SEWER RATE REVIEW- FINAL REPORT

This is the final report regarding water and sewer rates as of January 1, 2006 for Grand Rapids and all customer communities. The report continues to be two-tiered in nature, calculating recommended rates for customer communities based upon: (a) adherence to the rate-making methodology established in 1976-1977 for customer communities not party to the uniform water and sewer service agreements; (b) rate methodology changes, based upon the uniform service agreements with our UAB partners.

The 2006 water rates reflect increases for personal service costs (which include phasing-in retiree health care funding requirements) and contractual paving repairs and decreased integrated connection fees. Sewer rates for 2006 reflect increases for WWTP improvements, CSO, personal service costs, electricity and sludge disposal costs, which are partially offset by increased integrated connection fees.

Overall water and sewer revisions for the systems are as follows:

1. Revenue requirements for the Water Supply System increased by \$2,093,010 or 5.94% more than revenues generated by previous rates and charges.
2. Revenue requirements for the Sewage Disposal System increased by \$4,104,757 or 12.76% more than revenues generated by previous rates and charges.

Attached is a schedule of comparative 2005/2006 water/sewer quarterly billings based on consumption averages for a typical domestic user in Grand Rapids and retail customer communities. That schedule also includes a comparison of approximate 2005/2006 monthly sewer charges for Wright Township's REU (Residential Equivalent Unit) rate structure. Comparative rate adjustments are also noted for our wholesale customer communities.

Announcement of proposed 2006 water and sewer rates was made to our UAB partners and other customer communities on Thursday, November 17, 2005. Concurrence of customer community rates by the City Commission was approved by resolution (#74516) on Tuesday, December 20, 2005.

Public hearings for water and sewer rates and charges in Grand Rapids were held on December 6, 2005. The City Commission resolved (#74511 & #74512) final adoption of water and sewer rate ordinances (2005-98 & 2005-99) on December 20, 2005.

MW

Attachment

*Wsrs\05Final-Cover Memo*

**CITY OF GRAND RAPIDS, MICHIGAN  
2005 FINAL WATER/SEWER RATE STUDY  
IMPACT OF RATE ADJUSTMENTS ON DOMESTIC USERS  
BY CUSTOMER COMMUNITY \*  
January 31, 2006**

	<u>APPROXIMATE QUARTERLY BILL</u>		<u>CHANGE</u>	
	<u>2005</u>	<u>2006</u>	<u>DOLLARS</u>	<u>PERCENT</u>
<b>GRAND RAPIDS</b>				
WATER	\$ 63.44	\$ 66.99	\$ 3.55	5.60%
SEWER	60.29	66.95	6.66	11.05%
	<u>\$ 123.73</u>	<u>\$ 133.94</u>	<u>\$ 10.21</u>	8.25%
BASE RATIO	1.00	1.00		
<b>WALKER</b>				
WATER	\$ 66.63	\$ 69.57	\$ 2.94	4.41%
SEWER	64.61	69.32	4.71	7.29%
	<u>\$ 131.24</u>	<u>\$ 138.89</u>	<u>\$ 7.65</u>	5.83%
RATIO TO GR	1.06	1.04		
<b>KENTWOOD</b>				
WATER	\$ 78.34	\$ 82.43	\$ 4.09	5.22%
SEWER	37.92	42.29	4.37	11.52%
	<u>\$ 116.26</u>	<u>\$ 124.72</u>	<u>\$ 8.46</u>	7.28%
RATIO TO GR	0.94	0.93		
<b>CASCADE TWP- Contribution: 2006 Sewer @ \$183,700</b>				
WATER	\$ 108.56	\$ 115.25	\$ 6.69	6.16%
SEWER	80.80	92.81	12.01	14.86%
	<u>\$ 189.36</u>	<u>\$ 208.06</u>	<u>\$ 18.70</u>	9.88%
RATIO TO GR	1.53	1.55		
<b>GRAND RAPIDS TWP</b>				
WATER	\$ 78.97	\$ 88.01	\$ 9.04	11.45%
SEWER	75.25	80.87	5.62	7.47%
	<u>\$ 154.22</u>	<u>\$ 168.88</u>	<u>\$ 14.66</u>	9.51%
RATIO TO GR	1.25	1.26		
<b>TALLMADGE TWP- Contributions: 2005 @ \$28,860 (Water \$12,040- Sewer \$16,820) / 2006 @ \$0</b>				
WATER	\$ 107.60	\$ 130.98	\$ 23.38	21.73%
SEWER	110.35	180.86	70.51	63.90%
	<u>\$ 217.95</u>	<u>\$ 311.84</u>	<u>\$ 93.89</u>	43.08%
RATIO TO GR	1.76	2.33		

\* THE COMPARISONS ABOVE ARE BASED ON AVERAGE DOMESTIC CUSTOMER QUARTERLY CONSUMPTION OF : WATER- 26.00 UNITS OR 19,448 GALLONS  
SEWER - 19.00 UNITS OR 14,212 GALLONS  
NO. OF MONTHS: 3

Note: The average water & sewer consumption depicted above reflects a decline of one (1) unit for each system from last year's rate study. (The average quarterly consumption for water & sewer last year was 27 and 20 units, respectively).

**REU (RESIDENTIAL EQUIVALENT UNIT) CUSTOMER COMMUNITY- APPROXIMATE MONTHLY BILL**

**WRIGHT TWP- Contributions: 2005 @ \$7,768 / 2006 @ \$5,570.**

SEWER (No. of REU 1.00)	<u>\$ 48.77</u>	<u>\$ 49.08</u>	<u>\$ 0.31</u>	0.64%
-------------------------	-----------------	-----------------	----------------	-------

**CITY OF GRAND RAPIDS, MICHIGAN**  
**2005 FINAL WATER/SEWER RATE STUDY**  
**IMPACT OF RATE ADJUSTMENTS ON WHOLESALE USERS**  
**January 31, 2006**

	<u>2005</u>	<u>2006</u>	<u>PERCENTAGE CHANGE</u>
<b>EAST GRAND RAPIDS</b>			
WATER - SERVICE (MONTHLY)	\$ 11,396.00	\$ 14,497.00	27.21%
- COMMODITY (100 CF)	1.00	1.01	1.00%
SEWER - SERVICE (MONTHLY)	1,744.00	1,981.00	13.59%
- COMMODITY (MG)	957.00	1,112.00	16.20%
<b>ADA TWP</b>			
WATER - SERVICE	\$ 29,115.00	\$ 31,992.00	9.88%
- COMMODITY	1.06	1.09	2.83%
SEWER - SERVICE	5,772.00	5,841.00	1.20%
- COMMODITY	1,085.00	1,280.00	17.97%
<b>OTTAWA COUNTY</b>			
WATER - SERVICE	\$ 169.00	\$ -	-100.00%
- COMMODITY	1.11	1.13	1.80%
<b>NORTH KENT AREA</b>			
SEWER - SERVICE	\$ 23,944.00	\$ 24,554.00	2.55%
- COMMODITY	871.00	1,047.00	20.21%
<b>GAINES TWP</b>			
SEWER - SERVICE	\$ 1,592.00	\$ 1,512.00	-5.03%
- COMMODITY	871.00	1,047.00	20.21%
<b>MEIJER - ALGOMA</b>			
SEWER - SERVICE	\$ 103.00	\$ 78.00	-24.27%
- COMMODITY	1,212.00	1,619.00	33.58%

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
ANNUAL RATE REVIEW**

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**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
ANNUAL RATE REVIEW**

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**CITY OF GRAND RAPIDS, MICHIGAN  
FINAL CONSIDERATIONS  
ANNUAL WATER-SEWER RATE REVIEW**

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**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 SYSTEM ADDITIONS AND IMPROVEMENTS  
 FOR THE YEAR ENDED JUNE 30, 2005  
 TASKS NO. 1, 2, & 3**

COMMUNITY	LOCAL		INTERMEDIATE		PRIMARY		TOTALS	
	FEET	MILES	FEET	MILES	FEET	MILES	FEET	MILES
Grand Rapids								
Construction	12,912	2.45	8,653	1.64		0.00	21,565	4.09
Abandonment	(12,949)	(2.45)	(5,389)	(1.02)		0.00	(18,338)	(3.47)
CSO Construction	1,325	0.25		0.00		0.00	1,325	0.25
CSO Abandonment	(1,337)	(0.25)		0.00		0.00	(1,337)	(0.25)
	(49)	0.00	3,264	0.62	0	0.00	3,215	0.62
Kentwood								
Construction	12,413	2.35	4,051	0.77		0.00	16,464	3.12
Abandonment		0.00	(463)	(0.09)		0.00	(463)	(0.09)
	12,413	2.35	3,588	0.68	0	0.00	16,001	3.03
Cascade Twp.								
Construction	9,602	1.82	7,502	1.42		0.00	17,104	3.24
Abandonment		0.00		0.00		0.00	0	0.00
	9,602	1.82	7,502	1.42	0	0.00	17,104	3.24
G.R. Twp.								
Construction	11,029	2.09	1,484	0.28		0.00	12,513	2.37
Abandonment		0.00		0.00		0.00	0	0.00
	11,029	2.09	1,484	0.28	0	0.00	12,513	2.37
Tallmadge Twp.								
Construction	1,421	0.27	1,146	0.22		0.00	2,567	0.49
Abandonment		0.00		0.00		0.00	0	0.00
	1,421	0.27	1,146	0.22	0	0.00	2,567	0.49
Walker								
Construction	7,045	1.33	4,212	0.80		0.00	11,257	2.13
Abandonment		0.00		0.00		0.00	0	0.00
	7,045	1.33	4,212	0.80	0	0.00	11,257	2.13
<b>*TOTAL*</b>	<b>41,461</b>	<b>7.86</b>	<b>21,196</b>	<b>4.02</b>	<b>0</b>	<b>-</b>	<b>62,657</b>	<b>11.88</b>

WATER COSTS

COMMUNITY	COMMUNITY COST
Grand Rapids	\$ 333,928
Kentwood	956,002
Cascade Twp.	796,656
Grand Rapids Twp.	728,167
Tallmadge Twp.	149,786
Walker	584,627
<b>*TOTAL*</b>	<b>\$ 3,549,166</b>

CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 OPERATING EXPENSE ALLOCATION BY COST CENTER - TASK #4, PART 1  
 FISCAL YEAR ENDED JUNE 30, 2005

ACTIVITY CODE	ACTIVITY	EXPENSE BY ACTIVITY	PUMPING STATIONS		WATERMANS		RETAIL CUSTOMER METERING	ENGIN. SERVICES	ADMIN. EXPENSE
			PRIMARY	INTERM.	PRIMARY TRANSPORT	INTERMED. TRANSPORT			
0430	TREASURER-CUSTOMER SERVICE	\$ 225,032					\$ 225,032		
4312	WATER-CUSTOMER SERVICE	2,954,653					2,954,653		
4315	ENGINEERING	1,276,107						1,276,107	
4320	COLDBROOK CONTROL	1,338,807	1,338,807						
4322	COLDBROOK DISTRIBUTION	2,304,346	684,235	1,620,111					
4331	FIELD OPERATIONS	6,696,014			318,730	1,676,414			
4342	FILTRATION	6,081,849							
	SUBTOTAL OPERATING EXPENSE	20,876,808	2,023,042	1,620,111	318,730	1,676,414	3,179,685	1,276,107	-
4311	ADMINISTRATION	2,594,517							2,594,517
	TOTAL	\$ 23,471,325	\$ 2,023,042	\$ 1,620,111	\$ 318,730	\$ 1,676,414	\$ 3,179,685	\$ 1,276,107	\$ 2,594,517

METHOD OF DISTRIBUTION

0430	TREASURER-CUSTOMER SERVICE	100.000%					100.000%		
4312	WATER-CUSTOMER SERVICE	100.000%					100.000%		
4315	ENGINEERING	100.000%						100.000%	
4320	COLDBROOK CONTROL	100.000%	100.000%						
4322	COLDBROOK DISTRIBUTION	100.000%	29.690%	70.310%					
4331	FIELD OPERATIONS	100.000%			4.760%	25.036%			70.204%
	TOTAL MILES OF MAIN	1,133.63			53.96	283.82			795.85
4342	FILTRATION	100.000%							
4311	ADMINISTRATION	100.000%							100.000%

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
OPERATING EXPENSE ALLOCATION BY GOVERNMENTAL UNIT - TASK #4, PART 2  
FISCAL YEAR ENDED JUNE 30, 2005**

COST CENTER	EXPENSE BY COST CENTER	INTEGRATED SYSTEM	RETAIL							WHOLESALE				
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	CITY OF EAST GR	COUNTY OF OTTAWA	ADA TOWNSHIP			
FILTRATION PLANT	\$ 6,081,849	\$ 6,081,849												
PUMPING STATIONS:														
A. PRIMARY TRANSPORT	2,023,042	2,023,042												
B. INTERMEDIATE TRANSPORT	1,620,111		1,309,285	40,733	270,093									
WATERMAINS:														
A. PRIMARY TRANSPORT	318,730		262,914	19,019	26,875		9,922							
B. INTERMEDIATE TRANSPORT	1,676,414		644,766	346,062	310,153		213,525	142,294	19,614					
C. LOCAL DISTRIBUTION	4,700,870		3,530,071	355,245	297,659		242,612	267,856	7,427					
RETAIL CUSTOMER METERING	3,179,685		2,450,107	245,503	200,161		128,364	149,827	5,723					
SUBTOTAL OPERATING EXPENSE	19,600,701	8,104,891	8,197,143	1,006,562	1,104,941		594,423	559,977	32,764					
ENGINEERING SERVICES	1,276,107	527,671	533,681	65,528	71,934		38,704	36,458	2,131					
ADMINISTRATIVE EXPENSE	2,594,517	983,277	1,138,017	145,405	154,571		87,197	81,204	4,846					
<b>TOTAL</b>	<b>\$ 23,471,325</b>	<b>\$ 9,616,839</b>	<b>\$ 9,868,841</b>	<b>\$ 1,217,495</b>	<b>\$ 1,331,446</b>		<b>\$ 720,324</b>	<b>\$ 677,639</b>	<b>\$ 39,741</b>					

**METHOD OF DISTRIBUTION**

FILTRATION PLANTS	100.00%	100.00%												
PUMPING STATIONS														
A. PRIMARY TRANSPORT	100.00%	100.00%												
B. INTERMEDIATE TRANSPORT	100.00%		80.815%	2.514%	16.671%									
MEMO														
WATERMAINS														
TOTAL MILES:	1,133.63													
A. PRIMARY TRANSPORT		100.000%	82.488%	5.967%	8.432%		3.113%							
MILES	53.96		44.51	3.22	4.55		1.68							
B. INTERMEDIATE TRANSPORT		100.000%	38.461%	20.643%	18.501%		12.737%	8.488%	1.170%					
MILES	283.82		109.16	58.59	52.51		36.15	24.09	3.32					
C. LOCAL DISTRIBUTION		100.000%	75.094%	7.557%	6.332%		5.161%	5.698%	0.158%					
MILES	795.85		597.64	60.14	50.39		41.07	45.35	1.26					
RETAIL CUSTOMER METERING (1)		100.000%	77.055%	7.721%	6.295%		4.037%	4.712%	0.180%					
NUMBER OF METERS	78,539.00		60,518.00	6,064.00	4,944.00		3,171.00	3,701.00	141.00					
ENGINEERING SERVICES (2)		100.000%	41.821%	5.135%	5.637%		3.033%	2.857%	0.167%					
ADMINISTRATIVE EXPENSE (3)		100.000%	43.862%	5.604%	5.958%		3.361%	3.130%	0.187%					

NOTES:  
 (1) ALLOCATION BASED ON NUMBER OF METERS.  
 (2) ALLOCATION BASED ON DIRECT OPERATING EXPENSE.  
 (3) ALLOCATION BASED ON DIRECT OPERATING EXPENSE, ADJUSTED FOR ANY COST ASSIGNABLE EXCLUSIVELY TO GR OR RETAIL COMMUNITIES, IF APPLICABLE.

CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 ADJUSTED OPERATING EXPENSE ALLOCATION BY COST CENTER - TASK #5, PART 1  
 FISCAL YEAR ENDED JUNE 30, 2005

ACTIVITY CODE	ACTIVITY	ADJUSTED EXPENSE BY ACTIVITY	PUMPING STATIONS			WATERMAINS			RETAIL CUSTOMER METERING	ENGIN. SERVICES	ADMIN. EXPENSE
			PRIMARY	INTERM.	PRIMARY TRANSPORT	INTERMED. TRANSPORT	LOCAL DISTRIBUTION				
0430	TREASURER-CUSTOMER SERVICE	\$ 229,009						\$ 229,009			
4312	WATER-CUSTOMER SERVICE	3,028,447						3,028,447			
4315	ENGINEERING	1,312,563							1,312,553		
4320	COLDBROOK CONTROL	1,373,221	1,373,221								
4322	COLDBROOK DISTRIBUTION	2,326,291	690,750	1,635,541							
4331	FIELD OPERATIONS	6,792,258			323,311	1,700,510					
4342	FILTRATION	6,210,851				6,210,851					
	SUBTOTAL OPERATING EXPENSE	21,272,630	2,063,971	1,635,541	323,311	1,700,510		3,257,456	1,312,553	-	
4311	ADMINISTRATION	3,072,795								3,072,795	
	TOTAL	\$ 24,345,425	\$ 2,063,971	\$ 1,635,541	\$ 323,311	\$ 1,700,510		\$ 3,257,456	\$ 1,312,553	\$ 3,072,795	

**METHOD OF DISTRIBUTION**

0430	TREASURER-CUSTOMER SERVICE	100.000%						100.000%		
4312	WATER-CUSTOMER SERVICE	100.000%						100.000%		
4315	ENGINEERING	100.000%							100.000%	
4320	COLDBROOK CONTROL	100.000%	100.000%							
4322	COLDBROOK DISTRIBUTION	100.000%	29.690%	70.310%						
4331	FIELD OPERATIONS	100.000%	4.760%	25.036%						
	TOTAL MILES OF MAIN	1,133.63	53.96	283.82						
4342	FILTRATION	100.000%								
4311	ADMINISTRATION	100.000%								100.000%

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
ADJUSTED OPERATING EXPENSE ALLOCATION BY GOVERNMENTAL UNIT - TASK #5, PART 2  
FISCAL YEAR ENDED JUNE 30, 2005**

COST CENTER	ADJUSTED EXPENSE BY COST CENTER	INTEGRATED SYSTEM	RETAIL						WHOLESALE				
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	CITY OF EAST GR	COUNTY OF OTTAWA	ADA TOWNSHIP		
FILTRATION PLANT	\$ 6,210,851	\$ 6,210,851											
PUMPING STATIONS:													
A. PRIMARY TRANSPORT	2,063,971	2,063,971											
B. INTERMEDIATE TRANSPORT	1,635,541		1,321,755	41,121	272,665								
WATERMAINS:													
A. PRIMARY TRANSPORT	323,311		266,692	19,292	27,262	10,065							
B. INTERMEDIATE TRANSPORT	1,700,510		654,034	351,036	314,611	216,594	144,339	19,896					
C. LOCAL DISTRIBUTION	4,768,437		3,580,810	360,351	301,937	246,099	271,706	7,534					
RETAIL CUSTOMER METERING	3,257,456		2,510,034	251,508	205,057	131,503	153,491	5,863					
SUBTOTAL OPERATING EXPENSE	19,960,077	8,274,822	8,333,325	1,023,308	1,121,532	604,261	569,536	33,293					
ENGINEERING SERVICES	1,312,553	544,145	547,991	67,295	73,752	39,731	37,447	2,192					
ADMINISTRATIVE EXPENSE	3,072,795	1,184,100	1,336,010	169,736	181,018	101,532	94,754	5,645					
<b>TOTAL</b>	<b>\$ 24,345,425</b>	<b>\$ 10,003,067</b>	<b>\$ 10,217,326</b>	<b>\$ 1,260,339</b>	<b>\$ 1,376,302</b>	<b>\$ 745,524</b>	<b>\$ 701,737</b>	<b>\$ 41,130</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>

**METHOD OF DISTRIBUTION**

FILTRATION PLANTS													
PUMPING STATIONS													
A. PRIMARY TRANSPORT	100.00%	100.00%											
B. INTERMEDIATE TRANSPORT	100.00%	100.00%	80.815%	2.514%	16.671%								
MEMO													
WATERMAINS													
TOTAL MILES:	1,133.63												
A. PRIMARY TRANSPORT	53.96												
B. INTERMEDIATE TRANSPORT	283.82												
C. LOCAL DISTRIBUTION	795.85												
RETAIL CUSTOMER METERING (1)	78,539.00												
ENGINEERING SERVICES (2)		41.457%	41.750%	5.127%	5.619%	3.027%	2.853%	0.167%					
ADMINISTRATIVE EXPENSE (3)		100.000%	43.479%	5.524%	5.891%	3.304%	3.084%	0.184%					

**NOTES:**

- (1) ALLOCATION BASED ON NUMBER OF METERS.
- (2) ALLOCATION BASED ON DIRECT OPERATING EXPENSE.
- (3) ALLOCATION BASED ON DIRECT OPERATING EXPENSE, ADJUSTED FOR ANY COST ASSIGNABLE EXCLUSIVELY TO GR OR RETAIL COMMUNITIES, IF APPLICABLE.

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 ADJUSTED ACTUAL EXPENSE  
 YEAR ENDED JUNE 30, 2005  
 RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4311- ADMINISTRATION

<u>EXPENDITURE SUB-OBJECT</u>		<u>OPERATING</u>	<u>ADJUSTED</u>	<u>ADJUSTED</u>
<u>NO.</u>	<u>DESCRIPTION</u>	<u>EXPENSES</u>	<u>COST</u>	<u>CURRENT</u>
			<u>FACTORS</u>	<u>ANNUAL</u>
				<u>EXPENSES</u>
703	RETIREE HEALTH CARE	\$ -	\$ 26,962.61	\$ 26,962.61
706	PERMANENT EMPLOYEES	505,638.41	7,584.58	513,222.99
709	TIME & ONE-HALF	1,439.01	21.59	1,460.60
710	ACT.ASSIGNMENT	695.91	10.44	706.35
715	EMPLOYERS SOCIAL SECURITY	37,286.44	559.30	37,845.74
717	SPECIAL PENSION BENEFITS	20,558.92	-	20,558.92
719	HOSPITALIZATION INSURANCE	81,203.62	(7,389.53)	73,814.09
721	LONGEVITY PAY	3,302.15	-	3,302.15
722	RETIREMENT FUND CONTRIBUTION	61,134.35	978.15	62,112.50
	TOTAL PERSONAL SERVICES	<u>711,258.81</u>	<u>28,727.14</u>	<u>739,985.95</u>
728	SUPPLIES	163.47	-	163.47
	TOTAL SUPPLIES	<u>163.47</u>	<u>-</u>	<u>163.47</u>
810	BAD DEBT WRITE-OFFS	1,108.47	-	1,108.47
814	COMPUTER SERVICES	445,497.96	-	445,497.96
818	CONTRACTUAL SERVICES	94,682.53	-	94,682.53
835	FEES	9,472.89	-	9,472.89
872	PROFESSIONAL DEVELOPMENT	3,676.92	-	3,676.92
873	OTHER TRAVEL AND TRAINING	22,779.08	-	22,779.08
874	LOCAL BUSINESS EXPENSE	585.74	-	585.74
875	MEMBERSHIPS	36,711.92	-	36,711.92
876	PUBLICATIONS AND SUBSCRIPTIONS	3,828.57	-	3,828.57
912	CLAIMS	4,553.00	-	4,553.00
919	INSURANCE PREMIUMS	159,600.00	-	159,600.00
921	ELECTRICITY	(397.98)	-	(397.98)
928	TELEPHONE	12,002.83	-	12,002.83
930	MAINTENANCE REPAIR	15.00	-	15.00
943	EQUIPMENT RENTALS OR LEASE	1,129.20	-	1,129.20
945	LAND RENTAL OR LEASE	30,159.48	-	30,159.48
947	VEHICLE RENTAL/CAR MILEAGE	6,320.20	-	6,320.20
	TOTAL OTHER SERVICES & CHARGES	<u>831,725.81</u>	<u>-</u>	<u>831,725.81</u>
982	EQUIPMENT	13,977.95	(14,816.00)	(838.05)
	TOTAL CAPITAL	<u>13,977.95</u>	<u>(14,816.00)</u>	<u>(838.05)</u>
999	OPERATING TRANSFERS OUT	1,037,391.00	464,367.00	1,501,758.00
	TOTAL TRANSFERS/FEES	<u>1,037,391.00</u>	<u>464,367.00</u>	<u>1,501,758.00</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 2,594,517.04</u>	<u>\$ 478,278.14</u>	<u>\$ 3,072,795.18</u>

**CITY OF GRAND RAPIDS, MICHIGAN**  
**WATER SUPPLY SYSTEM FUND**  
**ADJUSTED ACTUAL EXPENSE**  
**YEAR ENDED JUNE 30, 2005**  
**RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4312- CUSTOMER SERVICES

NO.	EXPENDITURE SUB-OBJECT DESCRIPTION	OPERATING EXPENSES	ADJUSTED COST FACTORS	ADJUSTED CURRENT ANNUAL EXPENSES
703	RETIREE HEALTH CARE	\$ -	115,597.28	115,597.28
706	PERMANENT EMPLOYEES	2,154,856.40	32,322.85	2,187,179.25
707	TEMPORARY EMPLOYEES	42,927.12	643.91	43,571.03
708	SHIFT DIFFERENTIAL	962.35	-	962.35
709	TIME & ONE-HALF	117,200.86	1,758.01	118,958.87
710	ACT.ASSIGNMENT	8,824.34	132.37	8,956.71
714	REGULAR HOURLY RATE	1,624.78	24.37	1,649.15
715	EMPLOYERS SOCIAL SECURITY	176,838.31	2,652.57	179,490.88
719	HOSPITALIZATION INSURANCE	722,436.38	(65,741.71)	656,694.67
721	LONGEVITY PAY	27,328.08	-	27,328.08
722	RETIREMENT FUND CONTRIBUTION	355,274.78	5,684.40	360,959.18
	TOTAL PERSONAL SERVICES	<u>3,608,273.40</u>	<u>93,074.05</u>	<u>3,701,347.45</u>
728	SUPPLIES	32,831.27	-	32,831.27
730	POSTAGE	125,545.52	-	125,545.52
	TOTAL SUPPLIES	<u>158,376.79</u>	<u>-</u>	<u>158,376.79</u>
814	COMPUTER SERVICES	213,769.15	-	213,769.15
818	CONTRACTUAL SERVICES	389,377.18	31,599.00	420,976.18
828	MEDICAL/SUPPORTIVE SERVICES	8,087.35	-	8,087.35
872	PROFESSIONAL DEVELOPMENT	99.00	-	99.00
875	MEMBERSHIPS	405.00	-	405.00
876	PUBLICATIONS AND SUBSCRIPTIONS	454.00	-	454.00
880	COMMUNITY PROMOTION	9,434.15	-	9,434.15
900	PRINTING & PUBLISHING	2,900.55	-	2,900.55
928	TELEPHONE	22,339.32	-	22,339.32
930	MAINTENANCE REPAIR	464,888.87	-	464,888.87
943	EQUIPMENT RENTALS OR LEASE	96,566.25	-	96,566.25
947	VEHICLE RENTAL/CAR MILEAGE	8,831.18	-	8,831.18
	TOTAL OTHER SERVICES & CHARGES	<u>1,217,152.00</u>	<u>31,599.00</u>	<u>1,248,751.00</u>
978	BOOKS/OTHER MATERIALS - LIBRARY	136.30	-	136.30
981	FURNITURE	6,149.00	-	6,149.00
982	EQUIPMENT	1,722.51	-	1,722.51
	TOTAL CAPITAL	<u>8,007.81</u>	<u>-</u>	<u>8,007.81</u>
	ORGANIZATIONAL UNIT TOTAL (GROSS)	\$ 4,991,810.00	\$ 124,673.05	\$ 5,116,483.05
	LESS: SDSF CONTRIBUTION	(2,037,156.90)	(50,879.05)	(2,088,035.95)
	ORGANIZATIONAL UNIT TOTAL (NET)	<u>\$ 2,954,653.10</u>	<u>\$ 73,794.00</u>	<u>\$ 3,028,447.10</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 ADJUSTED ACTUAL EXPENSE  
 YEAR ENDED JUNE 30, 2005  
 RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4315- ENGINEERING

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
703	RETIREE HEALTH CARE	\$ -	\$ 38,702.38	\$ 38,702.38
706	PERMANENT EMPLOYEES	725,152.59	10,877.29	736,029.88
707	TEMPORARY EMPLOYEES	39,347.05	590.21	39,937.26
709	TIME & ONE-HALF	5,308.85	79.63	5,388.48
710	ACT.ASSIGNMENT	1,207.57	18.11	1,225.68
712	UNEMPLOYMENT COMPENSATION	6,714.55	-	6,714.55
715	EMPLOYERS SOCIAL SECURITY	57,469.12	862.04	58,331.16
719	HOSPITALIZATION INSURANCE	182,139.79	(16,574.72)	165,565.07
721	LONGEVITY PAY	5,395.00	-	5,395.00
722	RETIREMENT FUND CONTRIBUTION	118,145.11	1,890.32	120,035.43
	TOTAL PERSONAL SERVICES	<u>1,140,879.63</u>	<u>36,445.26</u>	<u>1,177,324.89</u>
728	SUPPLIES	20,474.38	-	20,474.38
	TOTAL SUPPLIES	<u>20,474.38</u>	<u>-</u>	<u>20,474.38</u>
818	CONTRACTUAL SERVICES	6,725.30	-	6,725.30
928	TELEPHONE	6,586.61	-	6,586.61
930	MAINTENANCE REPAIR	274.75	-	274.75
943	EQUIPMENT RENTALS OR LEASE	30,283.65	-	30,283.65
947	VEHICLE RENTAL/CAR MILEAGE	2,052.00	-	2,052.00
	TOTAL OTHER SERVICES & CHARGES	<u>45,922.31</u>	<u>-</u>	<u>45,922.31</u>
982	EQUIPMENT	2,499.00	-	2,499.00
	TOTAL CAPITAL	<u>2,499.00</u>	<u>-</u>	<u>2,499.00</u>
999	OPERATING TRANSFERS OUT	66,332.00	-	66,332.00
	TOTAL TRANSFERS/FEES	<u>66,332.00</u>	<u>-</u>	<u>66,332.00</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 1,276,107.32</u>	<u>\$ 36,445.26</u>	<u>\$ 1,312,552.58</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 ADJUSTED ACTUAL EXPENSE  
 YEAR ENDED JUNE 30, 2005  
 RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4320- COLDBROOK CONTROL

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
703	RETIREE HEALTH CARE	\$ -	\$ 42,268.81	\$ 42,268.81
706	PERMANENT EMPLOYEES	788,970.18	11,834.55	800,804.73
708	SHIFT DIFFERENTIAL	8,214.00	-	8,214.00
709	TIME & ONE-HALF	27,429.64	411.44	27,841.08
710	ACT.ASSIGNMENT	299.33	4.49	303.82
712	UNEMPLOYMENT COMPENSATION	583.40	-	583.40
714	REGULAR HOURLY RATE	3,230.64	48.46	3,279.10
715	EMPLOYERS SOCIAL SECURITY	60,505.32	907.58	61,412.90
719	HOSPITALIZATION INSURANCE	253,143.21	(23,036.03)	230,107.18
721	LONGEVITY PAY	8,942.52	-	8,942.52
722	RETIREMENT FUND CONTRIBUTION	123,418.66	1,974.70	125,393.36
	TOTAL PERSONAL SERVICES	<u>1,274,736.90</u>	<u>34,414.00</u>	<u>1,309,150.90</u>
728	SUPPLIES	4,306.19	-	4,306.19
768	CLOTHING/CLEANING ALLOWANCE	251.75	-	251.75
	TOTAL SUPPLIES	<u>4,557.94</u>	<u>-</u>	<u>4,557.94</u>
928	TELEPHONE	19,552.07	-	19,552.07
930	MAINTENANCE REPAIR	14,412.44	-	14,412.44
943	EQUIPMENT RENTALS OR LEASE	25,034.96	-	25,034.96
947	VEHICLE RENTAL/CAR MILEAGE	513.00	-	513.00
	TOTAL OTHER SERVICES & CHARGES	<u>59,512.47</u>	<u>-</u>	<u>59,512.47</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 1,338,807.31</u>	<u>\$ 34,414.00</u>	<u>\$ 1,373,221.31</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 ADJUSTED ACTUAL EXPENSE  
 YEAR ENDED JUNE 30, 2005  
 RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4322- COLDBROOK DISTRIBUTION

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
703	RETIREE HEALTH CARE	\$ -	\$ 26,272.96	\$ 26,272.96
706	PERMANENT EMPLOYEES	490,938.46	7,364.08	498,302.54
709	TIME & ONE-HALF	3,917.98	58.77	3,976.75
715	EMPLOYERS SOCIAL SECURITY	37,513.75	562.71	38,076.46
719	HOSPITALIZATION INSURANCE	149,444.07	(13,599.41)	135,844.66
721	LONGEVITY PAY	5,010.84	-	5,010.84
722	RETIREMENT FUND CONTRIBUTION	80,389.95	1,286.24	81,676.19
	TOTAL PERSONAL SERVICES	<u>767,215.05</u>	<u>21,945.35</u>	<u>789,160.40</u>
728	SUPPLIES	100,628.81	-	100,628.81
768	CLOTHING/CLEANING ALLOWANCE	635.00	-	635.00
	TOTAL SUPPLIES	<u>101,263.81</u>	<u>-</u>	<u>101,263.81</u>
814	COMPUTER SERVICES	6,846.00	-	6,846.00
921	ELECTRICITY	899,094.54	-	899,094.54
922	WATER	2,174.36	-	2,174.36
923	GAS	84,501.12	-	84,501.12
928	TELEPHONE	4,054.46	-	4,054.46
930	MAINTENANCE REPAIR	375,351.88	-	375,351.88
943	EQUIPMENT RENTALS OR LEASE	61,374.19	-	61,374.19
959	REFUSE COLLECTION CHARGES	2,470.70	-	2,470.70
	TOTAL OTHER SERVICES & CHARGES	<u>1,435,867.25</u>	<u>-</u>	<u>1,435,867.25</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 2,304,346.11</u>	<u>\$ 21,945.35</u>	<u>\$ 2,326,291.46</u>

**CITY OF GRAND RAPIDS, MICHIGAN**  
**WATER SUPPLY SYSTEM FUND**  
**ADJUSTED ACTUAL EXPENSE**  
**YEAR ENDED JUNE 30, 2005**  
**RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4331- FIELD OPERATIONS

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
703	RETIREE HEALTH CARE	\$ -	\$ 110,151.28	\$ 110,151.28
706	PERMANENT EMPLOYEES	2,052,946.33	30,794.19	2,083,740.52
707	TEMPORARY EMPLOYEES	31,655.69	474.84	32,130.53
708	SHIFT DIFFERENTIAL	1,585.28	-	1,585.28
709	TIME & ONE-HALF	307,050.54	4,605.76	311,656.30
710	ACT.ASSIGNMENT	1,211.16	18.17	1,229.33
712	UNEMPLOYMENT COMPENSATION	2,896.00	-	2,896.00
715	EMPLOYERS SOCIAL SECURITY	183,992.82	2,759.89	186,752.71
717	SPECIAL PENSION BENEFITS	290.73	-	290.73
719	HOSPITALIZATION INSURANCE	637,405.20	(58,003.87)	579,401.33
721	LONGEVITY PAY	26,437.21	-	26,437.21
722	RETIREMENT FUND CONTRIBUTION	340,255.51	5,444.09	345,699.60
	TOTAL PERSONAL SERVICES	<u>3,585,726.47</u>	<u>96,244.35</u>	<u>3,681,970.82</u>
728	SUPPLIES/INVENTORY	17,625.50	-	17,625.50
730	POSTAGE	77.80	-	77.80
780	INVENTORY - COST OF GOODS SOLD	62,253.31	-	62,253.31
785	PAVEMENT REPAIR	1,087,424.15	-	1,087,424.15
	TOTAL SUPPLIES	<u>1,167,380.76</u>	<u>-</u>	<u>1,167,380.76</u>
814	COMPUTER SERVICES	27,600.96	-	27,600.96
818	CONTRACTUAL SERVICES	43,478.10	-	43,478.10
835	FEES	6.98	-	6.98
900	PRINTING & PUBLISHING	2.50	-	2.50
921	ELECTRICITY	61,651.63	-	61,651.63
922	WATER	991.95	-	991.95
923	GAS	17,162.54	-	17,162.54
928	TELEPHONE	24,801.42	-	24,801.42
930	MAINTENANCE REPAIR	1,069,406.35	-	1,069,406.35
943	EQUIPMENT RENTALS OR LEASE	672,028.11	-	672,028.11
947	VEHICLE RENTAL/CAR MILEAGE	2,479.50	-	2,479.50
	TOTAL OTHER SERVICES & CHARGES	<u>1,919,610.04</u>	<u>-</u>	<u>1,919,610.04</u>
982	EQUIPMENT	23,296.50	-	23,296.50
	TOTAL CAPITAL	<u>23,296.50</u>	<u>-</u>	<u>23,296.50</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 6,696,013.77</u>	<u>\$ 96,244.35</u>	<u>\$ 6,792,258.12</u>

**CITY OF GRAND RAPIDS, MICHIGAN**  
**WATER SUPPLY SYSTEM FUND**  
**ADJUSTED ACTUAL EXPENSE**  
**YEAR ENDED JUNE 30, 2005**  
**RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4342- LAKE MI. FILTRATION

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
703	RETIREE HEALTH CARE	\$ -	\$ 117,532.28	\$ 117,532.28
706	PERMANENT EMPLOYEES	2,198,304.09	32,974.56	2,231,278.65
708	SHIFT DIFFERENTIAL	7,769.62	-	7,769.62
709	TIME & ONE-HALF	51,612.35	774.19	52,386.54
710	ACT.ASSIGNMENT	2,097.51	31.46	2,128.97
714	REGULAR HOURLY RATE	3,645.44	54.68	3,700.12
715	EMPLOYERS SOCIAL SECURITY	171,113.46	2,566.70	173,680.16
719	HOSPITALIZATION INSURANCE	528,786.40	(48,119.56)	480,666.84
721	LONGEVITY PAY	20,297.68	-	20,297.68
722	RETIREMENT FUND CONTRIBUTION	357,976.04	5,727.62	363,703.66
	TOTAL PERSONAL SERVICES	<u>3,341,602.59</u>	<u>111,541.93</u>	<u>3,453,144.52</u>
728	SUPPLIES	732,242.88	-	732,242.88
730	POSTAGE	200.39	-	200.39
768	CLOTHING/CLEANING ALLOWANCE	2,383.75	-	2,383.75
	TOTAL SUPPLIES	<u>734,827.02</u>	<u>-</u>	<u>734,827.02</u>
814	COMPUTER SERVICES	31,746.96	-	31,746.96
818	CONTRACTUAL SERVICES	193,279.39	-	193,279.39
875	MEMBERSHIPS	400.00	-	400.00
921	ELECTRICITY	1,122,743.63	-	1,122,743.63
923	GAS	341,967.03	-	341,967.03
928	TELEPHONE	18,891.58	-	18,891.58
930	MAINTENANCE REPAIR	202,609.34	-	202,609.34
943	EQUIPMENT RENTALS OR LEASE	59,161.16	-	59,161.16
947	VEHICLE RENTAL/CAR MILEAGE	1,539.00	-	1,539.00
959	REFUSE COLLECTION CHARGES	2,028.47	-	2,028.47
	TOTAL OTHER SERVICES & CHARGES	<u>1,974,366.56</u>	<u>-</u>	<u>1,974,366.56</u>
974	LAND IMPROVEMENTS	150.00	-	150.00
982	EQUIPMENT	30,902.40	17,460.00	48,362.40
	TOTAL CAPITAL	<u>31,052.40</u>	<u>17,460.00</u>	<u>48,512.40</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 6,081,848.57</u>	<u>\$ 129,001.93</u>	<u>\$ 6,210,850.50</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 ADJUSTED ACTUAL EXPENSE  
 YEAR ENDED JUNE 30, 2005  
 RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 0430- TREASURER- CUSTOMER SERV'S

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
703	RETIREE HEALTH CARE	\$ -	\$ 6,514.84	\$ 6,514.84
706	PERMANENT EMPLOYEES	121,532.37	1,822.99	123,355.36
707	TEMPORARY EMPLOYEES	2,385.69	35.79	2,421.48
710	ACT.ASSIGNMENT	47.13	0.71	47.84
715	EMPLOYERS SOCIAL SECURITY	8,905.51	133.58	9,039.09
719	HOSPITALIZATION INSURANCE	32,487.67	(2,956.38)	29,531.29
721	LONGEVITY PAY	1,450.00	-	1,450.00
722	RETIREMENT FUND CONTRIBUTION	19,222.27	307.56	19,529.83
	TOTAL PERSONAL SERVICES	<u>186,030.64</u>	<u>5,859.09</u>	<u>191,889.73</u>
728	SUPPLIES	2,672.95	-	2,672.95
	TOTAL SUPPLIES	<u>2,672.95</u>	<u>-</u>	<u>2,672.95</u>
818	CONTRACTUAL SERVICES	7,366.50	-	7,366.50
835	FEES	19,468.74	(1,882.00)	17,586.74
928	TELEPHONE	519.31	-	519.31
930	MAINTENANCE REPAIR	1,712.75	-	1,712.75
942	BUILDINGS RENTALS OR LEASE	7,261.12	-	7,261.12
	TOTAL OTHER SERVICES & CHARGES	<u>36,328.42</u>	<u>(1,882.00)</u>	<u>34,446.42</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 225,032.01</u>	<u>\$ 3,977.09</u>	<u>\$ 229,009.10</u>

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: September 29, 2005

TO: Eric DeLong  
Deputy City Manager

FROM: Michael Wolski   
Utility Financial Officer

**SUBJECT: 2005 WATER RATE STUDY- TASK #4- BACKGROUND INFORMATION**

The following are the Water System's operating expenses for the test period, as reported in the City's adjusted expenditure ledger as of June 30, 2005.

## NON-INTEGRATED

4311- Administration	\$2,594,517
4312- Customer Services	5,216,842
4315- Engineering	1,276,107
4331- Field Operations	6,696,014

## INTEGRATED

4342- Lake Mi. Filtration	6,081,849
---------------------------	-----------

## INTEGRATED & NON-INTEGRATED

4320- Coldbrook Control	1,338,807
4322- Coldbrook Distribution	2,304,346

Attached is the calculation of integrated and non-integrated adjusted expenses for Coldbrook Distribution (4322) for 2005.

MW

Attachment

*wrslwtask4 2005*

## ALLOCATION OF COLDBROOK PUMPING TO WATER PUMPING FACILITIES

STATION	ENERGY COST	PERCENT	EXPENDITURE ALLOCATION	
			ACTUAL	ADJUSTED
ALGER	\$ 37,429	4.16%	\$ 95,928	\$ 96,842
BOOSTER A	9,791	1.09%	25,094	25,333
BOOSTER D	12,786	1.42%	32,770	33,082
BRISTOL	15,893	1.77%	40,733	41,121
COLDBROOK	192,112	21.37%	492,375	497,066
COVELL	44,818	4.98%	114,867	115,961
EAST PARIS	105,383	11.72%	270,093	272,665
FRANKLIN	237,333	26.40%	608,276	614,068
LEFFINGWELL	30,439	3.39%	78,014	78,757
LIVINGSTON	116,743	12.98%	299,208	302,057
WILSON	45,658	5.08%	117,020	118,134
BURTON	29,200	3.25%	74,839	75,551
DEAN LAKE	21,510	2.39%	55,129	55,654
TOTAL	<u>\$ 899,095</u>	<u>100.00%</u>	<u>\$ 2,304,346</u>	<u>\$ 2,326,291</u>

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: November 7, 2005

TO: Mike Wolski  
Utility Financial Officer

FROM: Scott Buhrer   
Assistant City Manager - Fiscal Services

SUBJECT: 2005 WATER RATE STUDY ANNUAL EXPENSE ADJUSTMENTS-TASK #5

**RECEIVED**

NOV 08 2005

Attached are adjustments to test period actual operating expenses to be included in Task #5 of the Water Rate Study.

Attachment

**CITY OF GRAND RAPIDS  
WATER SUPPLY SYSTEM FUND  
RATE STUDY TASK NO. 5  
NOTES TO ADJUSTED CURRENT ANNUAL EXPENSES  
FOR THE YEAR ENDED JUNE 30, 2005**

Sub-Object - 703

The factor to establish retiree health care cost for calendar year 2006 is 5.22%. The total of calendar year 2006's wages (sub-object 706) and longevity (sub-object 721) multiplied by this factor will establish the cost for calendar year 2006.

Sub-Object - 704, 705, 706, 707, 709, 710, 713, 714, 718, 723, 724

The wage increase factor to translate FY2005 actual costs to estimated calendar 2006 wages will be 1.5%. This wage increase estimate is based on ratified contracts that begin on 1/1/2006.

Sub-Object - 715

Increase FY2005 actual FICA expense by 1.5% to account for the effect of the wage increases.

Sub-Object - 719

Decrease health insurance actual FY2005 costs by 9.1% (multiply FY2005 by 90.9%) to reflect changes effective in FY2006.

Sub-Object - 722

Increase FY2005 actual expense by 1.6% to reflect the effect of a general pension contribution rate change from 16.8% to 16.74% and an estimated wage increase of 1.5% for FY2005, and a general pension contribution rate change from 16.74% to 16.91% with no increase in wages for FY2006.

Sub-Object - 999

Administration - Adjust FY2005 actual cost to reflect adjustments in charges for central services rendered by the Insurance Payment Fund and the General Operating Fund.

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: September 29, 2005

TO: Eric DeLong  
Deputy City Manager

FROM: Michael Wolski   
Utility Financial Officer

**SUBJECT: 2005 WATER RATE STUDY- TASK #5**

Known cost increases by which to adjust FY05 operating costs include fund carry-forwards and FY06 BA#11, which re-appropriated lapsed FY05 funds, if any, for projects that were not completed prior to June 30, 2005. They are as follows:

<u>ACCOUNT</u>	<u>DESCRIPTION</u>	<u>AMOUNT</u>
4312-818	Northrup Grumman Info	\$31,599
4342-982	Weingartz	17,460
0430-835	Bank Fee Services	7,355

MW

wrslwtask5 2005

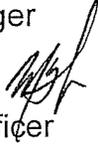
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# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: September 29, 2005

TO: Eric DeLong  
Deputy City Manager

FROM: Michael Wolski   
Utility Financial Officer

**SUBJECT: 2005 WATER RATE STUDY- TASK #6**

Attached are the Water Supply System Fund's revenues and volumes by governmental unit for the year ended June 30, 2005, and volume comparisons for the past five (5) years by governmental unit and for the total system.

MW

Attachment

*wrslwtask6 2005*

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
TASK NO. 6**

DETERMINE WATER VOLUME AND REVENUE BY GOVERNMENTAL ENTITY FOR THE YEAR ENDED JUNE 30, 2005:

RETAIL:	SALES REVENUE			VOLUME BILLED
	A	B	C	(GALLONS)
CITY OF GRAND RAPIDS (1)	\$ 20,408,489.34		\$ 45,587.00	7,412,264,860
CITY OF WALKER	2,827,498.77			1,082,569,180
CITY OF KENTWOOD	3,333,969.68			1,226,744,684
CASCADE TOWNSHIP	2,384,670.97	33,960.00		626,818,764
GRAND RAPIDS TOWNSHIP	1,510,520.03	22,710.00		468,147,768
TALLMADGE TOWNSHIP	80,766.83	8,256.00		13,622,576
SUB-TOTAL RETAIL (2)	<u>\$ 30,545,915.62</u>	<u>\$ 64,926.00</u>	<u>\$ 45,587.00</u>	<u>10,830,167,832</u>
WHOLESALE:				
CITY OF E. GRAND RAPIDS	\$ 845,129.04			517,026,576
OTTAWA CO. (3)	1,379,697.80	1,536.00		676,916,064
ADA TOWNSHIP	1,021,843.54			484,021,076
SUB-TOTAL WHOLESALE	<u>\$ 3,246,670.38</u>	<u>\$ 1,536.00</u>	<u>\$ -</u>	<u>1,677,963,716</u>
TOTAL	<u>\$ 33,792,586.00</u>	<u>\$ 66,462.00</u>	<u>\$ 45,587.00</u>	<u>12,508,131,548</u>

REVENUE CLASSIFICATION:

A) 4311 - 642008 OTTAWA COUNTY WATER SALES	\$ 1,379,697.80
4311 - 642011 RETAIL METERED WATER SALES	30,530,641.50
4311 - 642012 E. GRAND RAPIDS WATER SALES	845,129.04
4311 - 642013 WYOMING WATER SALES	15,274.12
4311 - 642021 ADA WATER SALES	1,021,843.54
SUB-TOTAL	<u>\$ 33,792,586.00</u>
B) 4311 - 607048 FIRE HYDRANT BILLINGS	<u>\$ 66,462.00</u>
C) 4311 - 642024 UNMETERED WATER SALES	<u>\$ 45,587.00</u>
TOTAL	<u>\$ 33,904,635.00</u>

- (1) THE VOLUME & DOLLAR AMOUNT FOR THE CITY OF WYOMING ARE INCLUDED IN THE GRAND RAPIDS TOTALS.
- (2) A REVENUE ACCRUAL OF (\$297,257), (105,382,604) GALLONS, HAS BEEN PRORATED TO ALL RETAIL CUSTOMER COMMUNITIES TO ACCRUE BILLINGS FROM THE LAST READING DATE THROUGH JUNE 30, 2005.
- (3) THE VOLUME EXCLUDES BILLINGS (350,473 HCF) FOR THE SUPPLEMENTAL AGREEMENT, DATED 5/13/2004 (aka, NOWS AGREEMENT), WITH OTTAWA FOR THE PERIOD JULY 1, 2004 TO JUNE 30, 2005.

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
2005 RATE STUDY TASK NO. 6**

VOLUME COMPARISONS FOR FIVE (5) YEARS BY GOVERNMENTAL UNIT  
VOLUME = 1,000 GALLONS

MUNICIPALITY	FY01		FY02		FY03		FY04		FY05		FY01 - FY05 % CHANGE
	VOL BILLED	% CHANGE	VOL BILLED	% CHANGE							
GRAND RAPIDS	8,334,033	-2.04%	8,164,301	1.49%	8,286,321	-2.34%	7,758,545	-6.37%	7,412,265	-4.46%	-11.06%
WALKER	874,465	5.18%	919,799	9.69%	1,008,905	7.57%	985,279	-2.34%	1,082,569	9.87%	23.80%
KENTWOOD	1,220,592	-0.81%	1,210,691	1.33%	1,302,317	14.10%	1,234,019	-9.72%	1,226,745	-0.59%	0.50%
CASCADE TWP	589,876	2.44%	597,721	1.33%	682,002	20.04%	615,680	-6.10%	626,819	1.81%	6.26%
GRAND RAPIDS TWP	396,573	11.55%	406,251	7.44%	487,681	20.04%	457,949	-6.10%	468,148	2.23%	18.05%
TALLMADGE TWP	12,367	11.55%	13,795	11.55%	15,280	10.76%	12,212	-20.08%	13,623	11.55%	10.16%
EAST GRAND RAPIDS	466,186	-7.44%	431,522	-7.44%	588,220	36.31%	447,559	-23.91%	517,026	15.52%	10.91%
OTTAWA COUNTY	553,895	1.17%	560,402	1.17%	626,739	11.84%	576,716	-7.98%	676,916	17.37%	22.21%
ADA TWP	334,281	12.15%	374,898	12.15%	421,983	12.56%	435,365	3.17%	484,021	11.18%	44.79%
<b>TOTAL</b>	<b>12,782,268</b>	<b>-0.80%</b>	<b>12,679,380</b>	<b>5.84%</b>	<b>13,419,448</b>	<b>5.84%</b>	<b>12,523,324</b>	<b>-6.68%</b>	<b>12,508,132</b>	<b>-0.12%</b>	<b>-2.14%</b>
VOLUME PUMPED % BILLED TO PUMPED	14,492,000 87.5%		15,164,000 88.5%		14,065,000 89.0%		14,713,000 85.0%				
GRAND RAPIDS VOLUME COMPARED TO CUSTOMER COMMUNITIES											
VOLUME = 1,000 GALLONS											
GRAND RAPIDS	8,164,301	64.39%	8,286,321	61.75%	8,286,321	61.95%	7,758,545	61.95%	7,412,265	59.26%	
CUSTOMER COMMUNITIES	4,515,079	35.61%	5,133,127	38.25%	5,133,127	38.05%	4,764,779	38.05%	5,095,867	40.74%	
<b>TOTAL</b>	<b>12,679,380</b>	<b>100.00%</b>	<b>13,419,448</b>	<b>100.00%</b>	<b>13,419,448</b>	<b>100.00%</b>	<b>12,523,324</b>	<b>100.00%</b>	<b>12,508,132</b>	<b>100.00%</b>	

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER RATE STUDY  
 WATER SUPPLY SYSTEM FUND  
 TASK NO. 7**

OPERATING REVENUES OTHER THAN FROM SALES OF WATER:

4311-451006	CONTRACTOR UNDERGROUND LICENSE	\$ 11,160.00
4311-476010	PAVING PERMITS	210.00
4311-476012	TAPPING PERMITS	11,610.00
4311-607001	MISCELLANEOUS SERVICE FEES	18,155.33
4311-607027	INSPECTION FEES - UTILITIES	49,765.00
4311-607034	MONTHLY STATEMENT SERVICE FEES	180,483.74
4311-607043	PRELIM/DESIGN/CONSTR ENGINEERING	157,051.11
4311-607049	SERVICES FOR CONTRACTORS	77,234.96
4311-607052	METER SETTING FEES	26,400.00
4311-659002	PENALTIES	814,710.23
		<u>\$ 1,346,780.37</u>

OTHER OPERATING REVENUES NOT INCLUDED:

CAPITAL CONTRIBUTION & LAKELINE CREDIT

4311-607051	WATER FRONT FOOTAGE	\$ 369,531.43
4311-607053	INTEGRATED WATER CONNECTION	<u>1,826,121.00</u>
		<u>\$ 2,195,652.43</u>

OFFSETTING CREDIT TO CUSTOMER ACCOUNTING ACTIVITY EXPENSES:

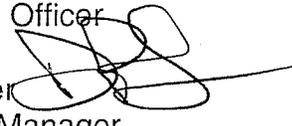
4311-699001	BILLABLE EXPENSE - SEWAGE DISPOSAL SYSTEM	<u>\$ 2,037,156.90</u>
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# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 28, 2005

TO: Michael Wolski  
Utility Financial Officer

FROM: Donald Spencer   
Water System Manager

**SUBJECT: 2005 WATER RATE STUDY- TASK #8**

No significant changes in operating levels are anticipated to take effect by January 1, 2006, which would require adjustments to operating costs for the test period.

DS\MW

wrs\wtask8 2005

**RECEIVED**  
NOV 03 2005

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 28, 2005

TO: Michael Wolski  
Utility Financial Officer

FROM: Donald Spencer   
Water System Manager

**SUBJECT: 2005 WATER RATE STUDY- TASK #9**

No significant changes in water revenues are anticipated to take effect by January 1, 2006, which would require an adjustment to operating revenue estimates as a whole.

DS\MW

*wrs\wtask9 2005*

**RECEIVED**

NOV 03 2005

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: November 4, 2005

TO: Michael Wolski  
Utility Financial Officer

FROM: Donald Spencer   
Water System Manager

**SUBJECT: 2005 WATER RATE STUDY- TASK #10**

The following are major water system projects that for rate study purposes should be considered operative as of January 1, 2006.

<u>Description</u>	<u>Location</u>	<u>Amount</u>
Beverly Hills Ph 1B	Grand Rapids Twp	\$1,047,678
Burke Ave – Spencer St / Diamond Ave	Grand Rapids	523,199
Pearl St-Ottawa/Division & Ionia-Division/Lyon	Grand Rapids	293,874
E Side CSO Contract No 6	Grand Rapids	1,145,365
E Side CSO Contract No 7	Grand Rapids	464,690
Burke Ave – Maybelle St / Carrier Creek Blvd	Grand Rapids	138,744
Okemos Dr – Annchester Dr / Breton Ave	Grand Rapids	406,473
Houseman Ave – Knapp Dr / Washtenaw St	Grand Rapids	255,506
Fountain St – Ransom Ave / Division Ave	Grand Rapids	229,211
Division Ave – Cherry St / Oaks St	Grand Rapids	542,922
Hickory Ave – 36th St / Ravanna St	Grand Rapids	151,683
Rosemary St-Madison/Godwin & Brooklane Ave	Grand Rapids	270,554
Plymouth Ave – Lyon St / Michigan St	Grand Rapids	284,270
Pearl St – Grand River / Campau Ave	Grand Rapids	126,313
LMFP Duct Bank & Fiber Ring	Integrated	674,810
Storage Building – North Yard	Grand Rapids	161,420

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**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
TASK NO. 11**

"COMPUTE ACCUMULATED COST, DEPRECIATION AND DEPRECIATION EXPENSE AS OF JUNE 30, 2005"

**INTEGRATED SYSTEM**

	ORIGINAL COST	ACCUMULATED DEPRECIATION	DEPRECIATION EXPENSE
LAND	\$ 2,507,974	\$ -	\$ -
LAND IMPROVEMENTS	1,021,642	714,838	43,599
BUILDINGS & STRUCTURES	43,341,111	14,656,536	847,507
STORAGE	7,584,993	3,656,025	208,204
PROCESS EQUIPMENT	41,544,660	19,616,720	1,212,436
AUXILIARY EQUIPMENT	11,027,007	9,597,927	536,701
METERS	7,375,481	6,963,179	149,067
MACHINERY & EQUIPMENT	1,980,281	1,846,474	35,814
OFFICE EQUIPMENT & FURNITURE	622,184	590,501	30,882
WATERMAINS	55,592,968	11,367,776	741,240
	<u>\$ 172,598,301</u>	<u>\$ 69,009,976</u>	<u>\$ 3,805,450</u>

**NON-INTEGRATED SYSTEM**

	ORIGINAL COST	ACCUMULATED DEPRECIATION	DEPRECIATION EXPENSE
LAND	\$ 981,022	\$ -	\$ -
LAND IMPROVEMENTS	1,192,503	460,656	51,579
BUILDINGS & STRUCTURES	10,439,628	1,380,916	204,519
STORAGE	7,120,318	3,396,222	129,466
PROCESS EQUIPMENT	4,476,690	1,594,888	140,378
AUXILIARY EQUIPMENT	1,766,619	1,592,451	18,008
MACHINERY & EQUIPMENT	2,056,034	1,580,895	80,570
OFFICE EQUIPMENT & FURNITURE	520,458	230,632	35,587
WATERMAINS - GRAND RAPIDS	78,280,541	17,756,738	993,805
WATERMAINS - WALKER	18,140,394	4,230,880	237,974
WATERMAINS - KENTWOOD	22,613,988	4,429,054	292,095
WATERMAINS - CASCADE TWP	18,455,966	2,991,182	241,979
WATERMAINS - GRAND RAPIDS TWP	12,613,127	2,132,183	162,541
WATERMAINS - TALLMADGE TWP	1,428,614	106,743	18,049
	<u>\$ 180,085,902</u>	<u>\$ 41,883,440</u>	<u>\$ 2,606,550</u>
TOTAL	<u>\$ 352,684,203</u>	<u>\$110,893,416</u>	<u>\$ 6,412,000</u>

SOURCE: FINAL GENERAL LEDGER, AS ADJUSTED, FOR JUNE 30, 2005.

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
TASK NO. 12**

TASK 12A DETERMINE WORKING CAPITAL NEEDS FOR MATERIALS AND SUPPLIES ON HAND.

MATERIALS AND SUPPLIES INVENTORY AS OF JUNE 30, 2005: \$1,786,384

TASK 12B DETERMINE WORKING CAPITAL NEEDS FOR PREPAYMENT OF OPERATING COSTS.

NO REQUIREMENT FOR PREPAYMENT OF OPERATING COSTS IS CALLED FOR IN THE ORDINARY CYCLE OF BUSINESS.

TASK 12C DETERMINE CASH WORKING CAPITAL NEEDS & DETERMINE TOTAL WORKING CAPITAL NEEDS.

MINIMUM CASH WORKING CAPITAL IS DEFINED AS THE SUM OF 90 DAYS ADJUSTED OPERATING EXPENSES.

ADJUSTED CURRENT ANNUAL EXPENSES = \$24,345,425 @ 90/365 = \$6,002,982

TOTAL WORKING CAPITAL NEEDS CONSIST OF THE FOLLOWING:

12A INVESTMENT IN INVENTORY	\$1,786,384
12B PREPAYMENT OF OPERATING EXPENSES	-
12C 90 DAY OPERATING EXPENSES	<u>6,002,982</u>
	<u>\$7,789,366</u>

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
ZONEGATED FACILITIES  
TASK #13  
October 5, 2005**

Lengths and cost of all primary and intermediate transmission mains that are jointly used were prorated based on billed flow. Jointly used storage tanks and pumping stations were also prorated based on billed flow. All zonegating work papers are on file at the Coldbrook Complex and a revised map is on file at Oak Industrial Drive.

MW

*wrs\wtask13 2005*

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: November 4, 2005

TO: Michael Wolski  
Financial Analyst

FROM: Joellen C. Thompson, P.E.  
Assistant Water System Manager

*Joellen C. Thompson P.E.*

**SUBJECT: 2005 Water Rate Study Task #14**

Base maps and zone gating maps for the water rate study, adjusted and revised to reflect minor changes are presently being updated to reflect the 2005 zone gating information.

In this regard, the water maps will be completely updated by the end of the calendar year 2005 for the fiscal year 2005.

JCT/df

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
TASK NO. 15**

COMPUTE CONSTRUCTION COST RATE BASE (DEPRECIATED PLANT, PLUS WORKING CAPITAL, LESS CONTRIBUTIONS BY OTHERS).

ORIGINAL CONSTRUCTION COST	- TASK #10	\$ 6,716,712	
	- TASK #11	352,684,203	
		<hr/>	\$ 359,400,915
LESS: ACCUMULATED DEPRECIATION	- TASK #11	\$ 110,893,416	
	- TASK #10	-	(110,893,416)
		<hr/>	<hr/>
			248,507,499
WORKING CAPITAL REQUIREMENT	- TASK #12	\$ 7,789,366	
		<hr/>	<hr/>
			7,789,366
			256,296,865
CONTRIBUTIONS BY OTHERS	- TASK #21	\$ 79,307,158	
LESS: AMORTIZATION		(17,021,064)	
		<hr/>	<hr/>
			(62,286,094)
CONSTRUCTION COST RATE BASE			<hr/> <hr/>
			\$ 194,010,771

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 31, 2005

TO: Michael E. Wolski  
Utility Financial Officer

FROM: Linda Wagenmaker *LW*  
Financial Analyst

**SUBJECT: 2005 WATER RATE STUDY TASK #15A  
INTEGRATED WATER CONNECTION FEES**

Attached is the Integrated Water Connection Fee Schedule as currently provided for in Chapter 26 of the City Code, with the addition of rates to be effective on January 1, 2006. The City Commission on June 27, 2000 established fees through calendar year 2004. Beginning January 1, 2005, the integrated water connection fees are to be calculated on a yearly basis as part of the annual Water/Sewer Rate Study. The Consumer Price Index used to determine rates effective January 1, 2006 is as follows:

August, 2004 Index	189.5
August, 2005 Index	196.4
Increase	6.9
Percentage increase	3.6%

LW

Attachment

## Section 2.35 Integrated Water Connection Fee Schedule

When a property owner or user is requested or required to connect to the System and has not previously paid or been assessed a connection fee, the following connection fee schedule shall apply:

### Integrated Connection Base Fee Schedule

Water Meter Size (inches)	<u>1/01/05</u>	<u>1/01/06</u>
3/4 or less	\$ 2,250	\$ 2,350
1	3,750	3,900
1 ½	7,500	7,850
2	12,000	12,550
3	26,250	27,400
4	47,250	49,350
6 and over	105,000	109,650

Except as otherwise provided in the immediately succeeding paragraph, the foregoing integrated water connection base fee schedule for single-family and multi-family residential dwelling units shall be adjusted upward and downward as follows: A single-family residential dwelling unit located on a parcel containing twenty thousand (20,000) square feet shall pay the applicable integrated connection fee in accordance with the foregoing schedule. When determining the square footage of a residential parcel for the purposes of determining the appropriate integrated connection fee, parcel size may be adjusted downward to take into consideration such things as wetlands, lakes, streams and other unusual characteristics of the parcel in accordance with policies approved from time to time by the Utility Advisory Board. To the extent the size of a parcel, as adjusted, is greater than or less than twenty thousand (20,000) square feet, one-half the applicable integrated connection fee will increase or decrease by the same percentage increase or decrease in the parcel above or below twenty thousand (20,000) square feet. In the case of multi-family residential dwellings, in order to determine the size of the parcel assigned to each dwelling unit for purposes of calculating the integrated connection fee to be paid by each multi-family residential dwelling unit, the total square footage of the parcel, as adjusted, on which the multi-family residential dwelling is located shall be divided by the total number of residential units. Notwithstanding any other provision in this subsection, the integrated connection fee for a single-family residential dwelling unit or multi-family residential dwelling unit shall not exceed four and one-half times the applicable base integrated connection fee set forth in foregoing schedule.

There shall be no upward adjustment in the integrated water service connection fee payable for a single-family residential dwelling unit connecting to the Water System if (a) each of the following conditions are met (1) a building permit shall have been obtained, (2) the dwelling unit shall have been constructed, and (3) a certificate of occupancy shall have been issued prior to January 1, 2000 or (b) local building permit fees have been paid to the local governmental unit prior to January 1, 2000 for a single-family residential dwelling unit to be constructed on or after January 1, 2000. When connecting to the Water System, Users living

in or owning such single-family residential dwelling units shall pay the applicable base integrated connection fee set forth in the Integrated Connection Base Fee Schedule adjusted downward, if applicable, in accordance with the immediate preceding paragraph.

Effective January 1, 2005 and January 1<sup>st</sup> of every year thereafter, the Integrated Water Connection Base Fees shall be adjusted by a percentage, which is determined by the annual change in the Consumer Price Index (the "index") calculated as follows:

- (1) The Consumer Price Index shall be that Index referred to as the Consumer Price Index, US City Average, All Urban Consumers, published by the U.S. Department of Labor-Bureau of Statistics ((1982-84)=100). In the event the method of determining the Index is substantially altered, the basis for determining the annual change thereafter shall be the Index which is most comparable to the Index described above.
- (2) For the purpose of computing the percentage change each calendar year, the Index for the month of August for the prior calendar year shall be subtracted from the Index for the immediately-preceding August. The result so obtained (if positive) shall be divided by the Index for the month of August for the prior calendar year to obtain the percentage increase which shall be applied to the then current Integrated Water Connection Base Fee Schedule to determine the new calendar year schedule.

The foregoing Integrated Connection fee is due and payable at the time a User receives a permit to connect to the Water System. A permit issued by the City to connect to the Water System shall expire one hundred eighty (180) days from the date the permit was issued.

The user receiving services who applies for a larger water meter than the one presently in service shall pay an Integrated Connection Fee which is the difference in cost between the meter size in service and the one applied for in accordance with the Integrated Connection Fee in effect at the time of application. No credit or rebate shall be made in the case of application for a smaller meter size.

Existing commercial and industrial customers may request the installation of an additional meter to measure water used solely for irrigation purposes. There shall be no Integrated Connection Fee for the additional meter provided combined maximum capacity as defined by the American Water Works Association Standards C700-90 and C702-92, as amended, does not exceed the maximum capacity of the original meter. If the original maximum capacity is exceeded, the customer shall pay as an Integrated Connection Fee the difference between the fee for the original meter and what the fee would be if the maximum capacities of all meters were totaled. The additional Integrated Connection Fee shall be based upon the fees in effect at the time of installation of the additional meter.

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER RATE STUDY  
 WATER SUPPLY SYSTEM FUND  
 TASK NO. 16**

INCLUDE PROJECT COST FOR SYSTEM IMPROVEMENTS (NON-INTEGRATED)

THE ESTIMATED TOTAL PROJECT COST FOR RECOMMENDED WATER SYSTEM IMPROVEMENTS ARE SUMMARIZED IN THE FOLLOWING TABLE.

ITEM NO.	DESCRIPTION	ESTIMATED COST
1	FRANKLIN TRANSMISSION MAIN (SECOND SUPPLY)	\$ 11,286,000
2	SE ELEVATED STORAGE TANK AND WATER MAIN	2,979,000
3	DEAN LAKE WATER MAIN	3,288,600
4	BEVERLY HILLS PLAT PHASE 2	850,000
5	FOUR MILE ROAD WATER MAIN AND ELEVATED TANK	3,453,800
		<u>\$ 21,857,400</u>

NOTE: NONE OF THE PROJECTS ABOVE ARE INCLUDED IN RECOMMENDED REVENUE REQUIREMENTS FOR CALENDAR YEAR 2006.

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER RATE STUDY  
 WATER SUPPLY SYSTEM FUND  
 TASK NO. 17**

**BONDS - PRINCIPAL & INTEREST PAYMENTS**

FISCAL YEAR ENDING JUNE 30,	CASH BASIS		
	PRINCIPAL	INTEREST	PRIN & INT
2006	\$ 5,800,000	\$ 5,978,796	\$ 11,778,796
2007	6,085,000	5,685,306	11,770,306
2008	6,370,000	5,421,197	11,791,197
2009	6,700,000	5,098,771	11,798,771
2010	7,125,000	4,759,626	11,884,626
2011	7,485,000	4,398,795	11,883,795
2012	7,890,000	3,980,108	11,870,108
2013	8,410,000	3,538,666	11,948,666
2014	8,835,000	3,068,387	11,903,387
2015	9,385,000	2,574,203	11,959,203
2016	9,855,000	2,049,457	11,904,457
2017	10,425,000	1,498,218	11,923,218
2018	10,995,000	951,893	11,946,893
2019	3,500,000	375,707	3,875,707
2020	3,700,000	193,071	3,893,071

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
TASK NO. 18**

DETERMINE WATER SYSTEM EQUITY IN THE CONSTRUCTION COST RATE BASE BY  
SUBTRACTING DEBT OUTSTANDING FROM THE TOTAL RATE BASE.

CONSTRUCTION COST RATE BASE - TASK NO. 15	\$ 194,010,771
LESS: BONDED INDEBTEDNESS - TASK NO. 17	(112,560,000)
NET WATER SYSTEM EQUITY	<u>\$ 81,450,771</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER RATE STUDY  
 WATER SUPPLY SYSTEM FUND  
 RATE OF RETURN ON EQUITY - TASK NO. 19**

AT THE APRIL 5, 1977, COMMITTEE OF THE WHOLE MEETING, THE CITY COMMISSION DECIDED THE LEVEL OF RETURN ON WATER SYSTEM EQUITY. THE LEVEL DECIDED UPON WAS ONE PERCENT MORE THAN THE AVERAGE BOND BUYER'S INDEX OF MUNICIPAL BONDS FOR THE PREVIOUS TWELVE MONTH PERIOD.

BOND BUYER'S INDEX OF 20 MUNICIPAL BONDS

<u>DATE</u>	<u>RATE</u>	<u>DATE</u>	<u>RATE</u>
14-Oct-04	4.480%	14-Apr-05	4.490%
21-Oct-04	4.430%	21-Apr-05	4.420%
28-Oct-04	4.440%	28-Apr-05	4.370%
04-Nov-04	4.450%	05-May-05	4.380%
10-Nov-04	4.580%	12-May-05	4.350%
18-Nov-04	4.520%	19-May-05	4.250%
23-Nov-04	4.530%	26-May-05	4.240%
02-Dec-04	4.630%	02-Jun-05	4.180%
09-Dec-04	4.430%	09-Jun-05	4.210%
16-Dec-04	4.390%	16-Jun-05	4.310%
22-Dec-04	4.440%	23-Jun-05	4.230%
29-Dec-04	4.490%	30-Jun-05	4.240%
06-Jan-05	4.470%	07-Jul-05	4.270%
13-Jan-05	4.410%	14-Jul-05	4.300%
20-Jan-05	4.400%	21-Jul-05	4.360%
27-Jan-05	4.370%	28-Jul-05	4.310%
03-Feb-05	4.370%	04-Aug-05	4.380%
10-Feb-05	4.270%	11-Aug-05	4.370%
17-Feb-05	4.350%	18-Aug-05	4.270%
24-Feb-05	4.420%	25-Aug-05	4.250%
03-Mar-05	4.500%	01-Sep-05	4.180%
10-Mar-05	4.570%	08-Sep-05	4.260%
17-Mar-05	4.560%	15-Sep-05	4.300%
24-Mar-05	4.630%	22-Sep-05	4.300%
31-Mar-05	4.610%	29-Sep-05	4.390%
07-Apr-05	4.560%	06-Oct-05	4.440%
		<u>52 WEEKS</u>	<u>4.391%</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER RATE STUDY  
 WATER SUPPLY SYSTEM FUND  
 TASK NO. 20**

DETERMINE COMPOSITE RATE OF RETURN ON CONSTRUCTION COST RATE BASE

	<u>RATE BASE</u>	@	<u>RATE OF RETURN</u>	=	<u>RETURN ON INVESTMENT</u>
WATER SYSTEM EQUITY IN THE CONSTRUCTION COST RATE (CCR) BASE	\$ 81,450,771		5.391%		\$ 4,391,011
WATER SYSTEM INDEBTEDNESS IN THE CCR BASE -1993 Bonds	38,000,000		5.330%		2,025,400
-2000 Bonds	74,560,000		5.285%		3,940,496
LESS: INTEREST EARNED DURING THE TEST PERIOD ON BOND RESERVE AND REPLACEMENT ACCOUNTS					(71,586)
	<u>\$ 194,010,771</u>				<u>\$ 10,285,321</u>
COMPOSITE RATE OF RETURN ON INVESTMENT			<u>\$ 10,285,321</u>	=	5.301%
			194,010,771		

CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 CONSTRUCTION COST RATE BASE & RETURN ON INVESTMENT- TASK NO. 21- PART 1  
 FISCAL YEAR ENDED JUNE 30, 2005

PHYSICAL LOCATION

DESCRIPTION	RETAIL										WHOLESALE			TOTAL
	INTEGRATED SYSTEM	CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	CITY OF EAST GR	COUNTY OF OTTAWA	ADA TOWNSHIP				
COST	\$ 173,273,111	\$ 101,371,481	\$ 18,556,628	\$ 20,980,082	\$ 18,451,028	\$ 13,105,933	\$ 1,428,614	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 347,166,877	
LESS: ACCUMULATED DEPRECIATION	69,009,976	24,769,285	4,283,273	5,079,326	2,990,392	1,900,463	106,743	-	-	-	-	-	108,139,458	
NET BOOK VALUE	\$ 104,263,135	\$ 76,602,196	\$ 14,273,355	\$ 15,900,756	\$ 15,460,636	\$ 11,205,470	\$ 1,321,871	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 239,027,419	
WORKING CAPITAL REQUIREMENT	3,229,236	3,045,331	402,243	450,693	337,591	248,559	14,255	26,562	-	34,896	-	-	7,789,366	
	\$ 107,492,371	\$ 79,647,527	\$ 14,675,598	\$ 16,351,449	\$ 15,798,227	\$ 11,454,029	\$ 1,336,126	\$ 26,562	\$ -	\$ 34,896	\$ -	\$ -	\$ 246,816,785	
CONTRIBUTIONS	-	22,700,364	15,534,822	14,529,979	14,416,300	10,697,079	1,428,614	-	-	-	-	-	79,307,158	
LESS AMORTIZATION	-	(6,599,072)	(3,211,208)	(2,724,040)	(2,691,285)	(1,684,164)	(111,295)	-	-	-	-	-	(17,021,064)	
	\$ -	\$ (16,101,292)	\$ (12,323,614)	\$ (11,805,939)	\$ (11,725,015)	\$ (9,012,915)	\$ (1,317,319)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (62,286,094)	
CONSTRUCTION COST RATE BASE	\$ 107,492,371	\$ 63,546,235	\$ 2,351,984	\$ 4,545,510	\$ 4,073,212	\$ 2,441,114	\$ 18,807	\$ 26,562	\$ -	\$ 34,896	\$ -	\$ -	\$ 184,530,691	
RETURN ON INVESTMENT- TASK 20	5.301%	\$ 3,368,566	\$ 124,679	\$ 240,957	\$ 215,921	\$ 129,403	\$ 997	\$ 1,408	\$ -	\$ 1,850	\$ -	\$ -	\$ 9,781,972	

ZONEGATED

COST	\$ -	\$ (4,752,649)	\$ 616,697	\$ 4,149,687	\$ 6,075,168	\$ 2,312,545	\$ 132,324	\$ 849,505	\$ -	\$ 2,850,761	\$ -	\$ -	\$ 12,294,038
LESS: ACCUMULATED DEPRECIATION	-	(1,402,790)	407,110	622,253	1,591,451	658,352	45,924	187,074	-	644,594	-	-	2,753,958
NET BOOK VALUE	\$ -	\$ (3,349,859)	\$ 209,587	\$ 3,527,434	\$ 4,483,717	\$ 1,654,193	\$ 86,400	\$ 662,431	\$ -	\$ 2,206,177	\$ -	\$ -	\$ 9,480,080
WORKING CAPITAL REQUIREMENT	-	(3,349,859)	209,587	3,527,434	4,483,717	1,654,193	86,400	662,431	-	2,206,177	-	-	9,480,080
CONTRIBUTIONS	-	-	-	13,052	3,335	19,941	-	-	-	10,297	-	-	46,625
LESS AMORTIZATION	-	-	-	(11,869)	(3,032)	(18,133)	-	-	-	(9,363)	-	-	(42,397)
CONSTRUCTION COST RATE BASE	\$ -	\$ (3,349,859)	\$ 209,587	\$ 3,526,251	\$ 4,483,414	\$ 1,652,385	\$ 86,400	\$ 662,431	\$ -	\$ 2,205,243	\$ -	\$ -	\$ 9,475,852
RETURN ON INVESTMENT- TASK 19/20	-	(348,084)	21,778	366,413	465,872	171,699	8,978	68,833	-	229,147	-	-	984,636
RETURN ON INVESTMENT- TASK 19/20	10.391%	10.391%	10.391%	10.391%	10.391%	10.391%	10.391%	10.391%	10.391%	10.391%	5.301%	10.391%	10.391%
TOTAL RETURN ON INVESTMENT	\$ 5,698,171	\$ 3,020,502	\$ 146,457	\$ 607,370	\$ 681,793	\$ 301,102	\$ 9,975	\$ 70,241	\$ -	\$ 230,997	\$ -	\$ -	\$ 10,766,608

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
CONSTRUCTION COST & ACCUMULATED DEPRECIATION- TASK NO. 21- PART 2  
FISCAL YEAR ENDED JUNE 30, 2005**

**CONSTRUCTION COST**

COST CENTER	AMOUNT	RETAIL						WHOLESALE			TOTAL	
		INTEGRATED SYSTEM	CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	CITY OF EAST GR	COUNTY OF OTTAWA		ADA TOWNSHIP
BY PHYSICAL LOCATION- TASK 11		\$ 172,598,301	\$ 104,510,311	\$ 18,753,094	\$ 24,324,790	\$ 18,455,966	\$ 12,613,127	\$ 1,428,614	\$ -	\$ -	\$ -	\$ 352,684,203
IN SERVICE- TASK 10		674,810	4,994,224	-	-	-	1,047,678	-	-	-	-	6,716,712
<b>PUMPING STATIONS:</b>												
KNAPP SERVICE CENTER	\$ 2,416,086	(976,968)	-	-	273,501	69,873	417,838	-	-	-	215,756	-
LIVINGSTON	606,029	(90,911)	-	-	25,484	6,472	38,883	-	-	-	20,072	-
FRANKLIN	6,791,606	(3,588,753)	-	-	1,388,340	759,709	302,430	668,634	-	-	469,640	-
LEFFINGWELL	141,009	(57,018)	-	-	15,962	4,078	24,366	-	-	-	12,592	-
BRISTOL	612,700	-	-	-	-	-	-	-	-	-	-	-
EAST PARIS	1,710,802	-	-	-	(835,042)	835,042	-	-	-	-	-	-
<b>STORAGE TANKS:</b>												
ELKS	236,335	(181,494)	178,048	-	-	-	-	3,446	-	-	-	-
KNAPP	118,570	(17,786)	-	4,986	1,266	7,607	-	-	-	-	3,927	-
CAMBRIDGE	116,070	(86,166)	-	68,956	5,875	-	-	-	11,335	-	-	-
WATERMANS		(7,886,607)	242,183	-	(137,208)	4,387,915	966,529	128,878	169,536	-	2,128,774	-
ADJUSTED BY ZONEGATING		\$ 96,618,832	\$ 19,173,325	\$ 25,129,769	\$ 24,526,196	\$ 15,418,478	\$ 1,560,938	\$ 849,505	\$ 2,850,761	\$ 359,400,915		
LESS: ZONEGATING ADJUSTMENT		\$ -	\$ (4,752,649)	\$ 616,697	\$ 4,149,687	\$ 6,075,168	\$ 132,324	\$ 849,505	\$ 2,850,761	\$ 12,234,038		
PHYSICAL LOCATION		\$ 173,273,111	\$ 101,371,481	\$ 18,556,628	\$ 20,980,082	\$ 18,451,028	\$ 13,105,933	\$ 1,428,614	\$ -	\$ -	\$ 347,166,877	

**ACCUMULATED DEPRECIATION**

BY PHYSICAL LOCATION- TASK 11		\$ 69,009,976	\$ 26,579,988	\$ 4,357,836	\$ 5,715,508	\$ 2,991,182	\$ 2,132,183	\$ 106,743	\$ -	\$ -	\$ -	\$ 110,893,416
IN SERVICE- TASK 10		-	-	-	-	-	-	-	-	-	-	-
<b>PUMPING STATIONS:</b>												
KNAPP SERVICE CENTER	\$ 1,433,625	(579,700)	-	162,286	41,460	247,931	-	-	-	-	128,023	-
LIVINGSTON	484,035	(72,610)	-	20,354	5,169	31,056	-	-	-	-	16,031	-
FRANKLIN	987,798	(521,963)	-	201,926	110,495	43,987	97,249	-	-	-	66,306	-
LEFFINGWELL	128,295	(51,877)	-	14,523	3,710	22,187	-	-	-	-	11,457	-
BRISTOL	126,956	-	-	-	-	-	-	-	-	-	-	-
EAST PARIS	1,286,454	-	-	(627,918)	627,918	-	-	-	-	-	-	-
<b>STORAGE TANKS:</b>												
ELKS	236,335	(181,494)	178,048	-	-	-	-	3,446	-	-	-	-
KNAPP	116,070	(17,412)	-	4,881	1,240	7,447	-	-	-	-	3,844	-
CAMBRIDGE	116,070	(86,166)	-	68,956	5,875	-	-	-	11,335	-	-	-
WATERMANS		(1,702,271)	154,499	-	141,063	794,794	74,024	42,478	78,490	-	416,923	-
ADJUSTED BY ZONEGATING		\$ 69,009,976	\$ 23,366,495	\$ 4,690,383	\$ 5,701,579	\$ 4,581,843	\$ 2,558,915	\$ 152,667	\$ 187,074	\$ -	\$ 644,584	\$ 110,893,416
LESS: ZONEGATING ADJUSTMENT		-	\$ (1,402,790)	\$ 407,110	\$ 622,253	\$ 1,591,451	\$ 658,352	\$ 45,924	\$ 187,074	\$ -	\$ 644,584	\$ 2,753,958
PHYSICAL LOCATION		\$ 69,009,976	\$ 24,769,285	\$ 4,283,273	\$ 5,079,326	\$ 2,990,392	\$ 1,900,463	\$ 106,743	\$ -	\$ -	\$ -	\$ 108,139,458

CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 CONTRIBUTIONS & AMORTIZED CONTRIBUTIONS- TASK NO. 21- PART 3  
 FISCAL YEAR ENDED JUNE 30, 2005

CONTRIBUTIONS BY OTHERS

COST CENTER	INTEGRATED SYSTEM	CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	RETAIL				WHOLESALE				TOTAL
					CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	CITY OF EAST GR.	COUNTY OF OTTAWA	ADA TOWNSHIP	
2004 RATE STUDY- LOCATION		\$ 22,225,489	\$ 14,933,405	\$ 13,461,435	\$ 13,584,287	\$ 9,905,017	\$ 1,278,828						\$ 75,388,461
ADDITIONS:													
FRONT FOOT FEES		140,947	16,790	112,542	35,357	63,895	-	-	-	-	-	-	369,531
FIXED ASSET CONTRIBUTIONS		333,928	584,627	956,002	796,656	728,167	149,786	-	-	-	-	-	3,549,166
		22,700,364	15,534,822	14,529,979	14,416,300	10,697,079	1,428,614	-	-	-	-	-	79,307,158
PUMPING STATIONS: LEFFINGWELL				13,052	3,335	19,941	-	-	-	-	-	10,297	
ADJUSTED BY ZONEGATING		22,700,364	15,534,822	14,543,031	14,419,635	10,717,020	1,428,614	-	-	-	-	10,297	79,307,158
LESS: ZONEGATING ADJUSTMENT		-	-	13,052	3,335	19,941	-	-	-	-	-	10,297	-
PHYSICAL LOCATION		22,700,364	15,534,822	14,529,979	14,416,300	10,697,079	1,428,614	-	-	-	-	-	79,307,158
AMORTIZED CONTRIBUTIONS													
2004 RATE STUDY- LOCATION		\$ 6,215,874	\$ 3,004,109	\$ 2,534,198	\$ 2,503,095	\$ 1,544,372	\$ 93,245						\$ 15,894,893
CURRENT YEAR ADJUSTMENTS		383,198	207,099	189,842	188,190	139,792	18,050	-	-	-	-	-	1,126,171
		6,599,072	3,211,208	2,724,040	2,691,285	1,684,164	111,295	-	-	-	-	-	17,021,064
PUMPING STATIONS: LEFFINGWELL				11,869	3,032	18,133	-	-	-	-	-	9,363	
ADJUSTED BY ZONEGATING		6,599,072	3,211,208	2,735,909	2,694,317	1,702,297	111,295	-	-	-	-	9,363	17,021,064
LESS: ZONEGATING ADJUSTMENT		-	-	11,869	3,032	18,133	-	-	-	-	-	9,363	-
PHYSICAL LOCATION		6,599,072	3,211,208	2,724,040	2,691,285	1,684,164	111,295	-	-	-	-	-	17,021,064

CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 RECONCILIATION OF CONSTRUCTION COST & ACCUMULATED DEPRECIATION- PHYSICAL LOCATION & ZONEGATING  
 FISCAL YEAR ENDED JUNE 30, 2005

CONSTRUCTION COST- BY PHYSICAL LOCATION

COST CENTER	AMOUNT	RETAIL					WHOLESALE			TOTAL		
		INTEGRATED SYSTEM	CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	CITY OF EAST GR		COUNTY OF OTTAWA	ADA TOWNSHIP
COST BY PHYSICAL LOCATION- TASK 11		\$ 172,599,301	\$ 106,833,813	\$ 18,140,394	\$ 22,613,988	\$ 18,455,966	\$ 12,613,127	\$ 1,428,614	\$ -	\$ -	\$ -	\$ 352,884,203
IN SERVICE- TASK 10		674,810	4,994,224	-	-	-	1,047,678	-	-	-	-	6,716,712
BRISTOL			(612,700)	612,700	-	-	-	-	-	-	-	-
EAST PARIS			(1,710,802)	-	1,710,802	-	-	-	-	-	-	-
WATERMAINS			(11,025,025)	(725,425)	(6,451,824)	(6,200)	(854,852)	-	-	-	-	(19,063,326)
LESS: WATERMAINS-TOTAL SUBS-HOME COMM			2,891,970	528,959	3,107,116	1,262	299,980	-	-	-	-	6,829,287
ADD: WATERMAINS-TOTAL ADDS-HOME COMM			\$ 101,371,480	\$ 18,555,628	\$ 20,980,082	\$ 18,451,028	\$ 13,105,933	\$ 1,428,614	\$ -	\$ -	\$ -	\$ 347,166,876
TOTAL-PHYSICAL LOCATION COST		\$ 173,273,111										

CONSTRUCTION COST- ZONEGATING

PUMPING STATIONS:												
KNAPP SERVICE CENTER	\$ 2,416,086	\$ (976,968)	\$ -	\$ 273,501	\$ 69,873	\$ 417,838	\$ -	\$ -	\$ -	\$ -	\$ 215,756	\$ -
LIVINGSTON	606,029	(90,911)	-	25,484	6,472	38,883	-	-	-	-	20,072	-
FRANKLIN	6,791,606	(3,588,753)	-	1,388,340	759,709	302,430	-	668,634	-	-	469,640	-
LEFFINGWELL	141,009	(57,018)	-	15,962	4,078	24,386	-	-	-	-	12,592	-
BRISTOL	612,700	-	-	-	-	-	-	-	-	-	-	-
EAST PARIS	1,710,802	-	-	(835,042)	835,042	-	-	-	-	-	-	-
STORAGE TANKS:												
ELKS	236,335	(181,494)	178,048	-	-	-	-	3,446	-	-	-	-
KNAPP	118,570	(17,786)	-	4,986	1,266	7,607	-	-	-	-	3,927	-
CAMBRIDGE	116,070	(86,166)	-	68,956	5,875	-	-	-	-	-	-	-
WATERMAINS- ZONEGATED COST		246,447	438,649	3,207,500	4,392,853	1,521,401	128,878	169,536	11,335	-	2,128,774	12,234,038
TOTAL- ZONEGATED COST		\$ (4,752,649)	\$ 616,697	\$ 4,149,687	\$ 6,075,168	\$ 2,312,545	\$ 132,324	\$ 849,505	\$ -	\$ -	\$ 2,850,761	\$ 12,234,038
GRAND TOTAL- COST		\$ 96,618,831	\$ 19,173,325	\$ 25,129,769	\$ 24,526,196	\$ 15,418,478	\$ 1,560,938	\$ 849,505	\$ -	\$ -	\$ 2,850,761	\$ 359,400,914

ACCUMULATED DEPRECIATION-BY PHYSICAL LOCATION

ACC. DEPREC BY PHYSICAL LOCATION- TASK 11	\$ 69,009,976	\$ 27,993,398	\$ 4,230,880	\$ 4,429,054	\$ 2,991,182	\$ 2,132,183	\$ 106,743	\$ -	\$ -	\$ -	\$ -	\$ 110,893,416
BRISTOL		(126,956)	126,956	-	-	-	-	-	-	-	-	-
EAST PARIS		(1,286,454)	-	1,286,454	-	-	-	-	-	-	-	-
WATERMAINS		(2,999,905)	(299,424)	(1,263,253)	(992)	(352,900)	-	-	-	-	-	(4,916,474)
LESS: WATERMAINS-TOTAL SUBS-HOME COMM		1,189,202	224,862	627,072	202	121,179	-	-	-	-	-	2,162,517
ADD: WATERMAINS-TOTAL ADDS-HOME COMM		\$ 24,769,285	\$ 4,283,274	\$ 5,079,327	\$ 2,990,392	\$ 1,900,462	\$ 106,743	\$ -	\$ -	\$ -	\$ -	\$ 108,139,459
TOTAL-PHYSICAL LOCATION ACC DEP	\$ 69,009,976	\$ 24,769,285	\$ 4,283,274	\$ 5,079,327	\$ 2,990,392	\$ 1,900,462	\$ 106,743	\$ -	\$ -	\$ -	\$ -	\$ 108,139,459

ACCUMULATED DEPRECIATION-ZONEGATING

PUMPING STATIONS:												
KNAPP SERVICE CENTER	\$ 1,433,625	\$ (579,700)	\$ -	\$ 162,286	\$ 41,460	\$ 247,931	\$ -	\$ -	\$ -	\$ -	\$ 129,023	\$ -
LIVINGSTON	484,035	(72,610)	-	20,354	5,169	31,056	-	-	-	-	16,031	-
FRANKLIN	987,798	(521,963)	-	201,926	110,495	43,987	-	97,249	-	-	68,506	-
LEFFINGWELL	128,295	(51,877)	-	14,523	3,710	22,187	-	-	-	-	11,457	-
BRISTOL	126,956	-	-	-	-	-	-	-	-	-	-	-
EAST PARIS	1,286,454	-	-	(627,918)	627,918	-	-	-	-	-	-	-
STORAGE TANKS:												
ELKS	236,335	(181,494)	178,048	-	-	-	-	3,446	-	-	-	-
KNAPP	116,070	(17,412)	-	4,881	1,240	7,447	-	-	-	-	3,944	-
CAMBRIDGE	116,070	(86,166)	-	68,956	5,875	-	-	-	-	-	-	-
WATERMAINS- ZONEGATED ACC DEP		108,432	229,062	777,245	795,584	305,744	42,478	11,395	-	-	416,923	2,753,958
TOTAL- ZONEGATED ACC DEP		\$ (1,402,790)	\$ 407,110	\$ 622,253	\$ 1,591,451	\$ 658,352	\$ 45,924	\$ 187,074	\$ -	\$ -	\$ 644,584	\$ 2,753,958
GRAND TOTAL- ACC DEP	\$ 69,009,976	\$ 23,366,495	\$ 4,690,394	\$ 5,701,580	\$ 4,581,843	\$ 2,558,814	\$ 152,667	\$ 187,074	\$ -	\$ -	\$ 644,584	\$ 110,893,417

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
ADJUSTED OPERATING EXPENSE ZONEGATED BY GOVERNMENTAL UNIT - TASK #22  
FISCAL YEAR ENDED JUNE 30, 2005**

COST CENTER	ADJUSTED EXPENSE BY COST CENTER	INTEGRATED SYSTEM	RETAIL						WHOLESALE					
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	CITY OF EAST GR	COUNTY OF OTTAWA	ADA TOWNSHIP			
FILTRATION PLANT	\$ 6,210,851	\$ 6,210,851												
PUMPING STATIONS:														
A. PRIMARY TRANSPORT	2,063,971	2,063,971												
B. INTERMEDIATE TRANSPORT	1,635,541		902,813	35,921	293,021	208,892	69,969				60,455			64,470
WATERMAINS:														
A. PRIMARY TRANSPORT	323,311		172,202	34,691	54,943	34,633	9,166	479			7,491			9,706
B. INTERMEDIATE TRANSPORT	1,700,510		637,810	348,349	299,987	243,853	132,569	22,563			119			15,220
C. LOCAL DISTRIBUTION	4,768,437		3,580,810	360,351	301,937	246,099	271,706	7,534						
RETAIL CUSTOMER METERING	3,257,456		2,510,034	251,508	205,057	131,503	153,491	5,863						
SUBTOTAL OPERATING EXPENSE	19,960,077	8,274,822	7,803,669	1,030,820	1,154,945	864,980	636,921	36,459			68,065			89,396
ENGINEERING SERVICES	1,312,553	544,145	513,156	67,780	75,944	56,886	41,884	2,402			4,476			5,880
ADMINISTRATIVE EXPENSE	3,072,795	1,184,100	1,260,206	170,793	185,788	138,862	104,408	6,102			9,740			12,796
<b>TOTAL</b>	<b>\$ 24,345,425</b>	<b>\$ 10,003,067</b>	<b>\$ 9,577,031</b>	<b>\$ 1,269,393</b>	<b>\$ 1,416,677</b>	<b>\$ 1,060,728</b>	<b>\$ 783,213</b>	<b>\$ 44,963</b>			<b>\$ 82,281</b>			<b>\$ 108,072</b>

**METHOD OF DISTRIBUTION**

FILTRATION PLANTS	100.00%	100.00%												
PUMPING STATIONS														
A. PRIMARY TRANSPORT	100.00%	100.00%												
B. INTERMEDIATE TRANSPORT	100.00%	100.00%	55.200%	2.196%	17.916%	12.772%	4.278%				3.696%			3.942%
MEMO														
WATERMAINS														
TOTAL MILES:	1,133.63													
A. PRIMARY TRANSPORT	53.96		53.262%	10.730%	16.994%	10.712%	2.835%	0.148%			2.317%			3.002%
MILES	283.82		28.74	5.79	9.17	5.78	1.53	0.08			1.25			1.62
B. INTERMEDIATE TRANSPORT	795.85		37.507%	20.485%	17.641%	14.340%	7.797%	1.328%			0.007%			0.895%
MILES	78,539.00		106.45	58.14	50.07	40.70	22.13	3.77			0.02			2.54
C. LOCAL DISTRIBUTION			75.094%	7.557%	6.332%	5.161%	5.698%	0.158%						
MILES			597.64	60.14	50.39	41.07	45.35	1.26						
RETAIL CUSTOMER METERING (1)			77.055%	7.721%	6.295%	4.037%	4.712%	0.180%						
NUMBER OF METERS			60,518.00	6,064.00	4,944.00	3,171.00	3,701.00	141.00						
ENGINEERING SERVICES (2)			39.096%	5.164%	5.786%	4.334%	3.191%	0.183%			0.341%			0.448%
ADMINISTRATIVE EXPENSE (3)			41.012%	5.558%	6.046%	4.519%	3.398%	0.199%			0.317%			0.416%

NOTES:  
 (1) ALLOCATION BASED ON NUMBER OF METERS.  
 (2) ALLOCATION BASED ON DIRECT OPERATING EXPENSE.  
 (3) ALLOCATION BASED ON DIRECT OPERATING EXPENSE, ADJUSTED FOR ANY COST ASSIGNABLE EXCLUSIVELY TO GR OR RETAIL COMMUNITIES, IF APPLICABLE.

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER RATE STUDY  
 WATER SUPPLY SYSTEM FUND  
 TASK NO. 23**

ASSIGN OTHER OPERATING REVENUES TO EACH GOVERNMENTAL ENTITY.

BASIS OF ALLOCATION: RETAIL BILLINGS BY GOVERNMENTAL ENTITY - TASK NO. 6 & 7

	<u>RETAIL BILLINGS</u>	<u>PERCENTAGE OF TOTAL</u>	<u>ALLOCATION</u>
CITY OF GRAND RAPIDS	\$ 20,408,489	66.8125%	\$ 899,817
CITY OF WALKER	2,827,499	9.2566%	124,666
CITY OF KENTWOOD	3,333,970	10.9146%	146,996
CASCADE TOWNSHIP	2,384,671	7.8068%	105,140
GRAND RAPIDS TOWNSHIP	1,510,520	4.9451%	66,600
TALLMADGE TOWNSHIP	80,767	0.2644%	3,561
	<u>\$ 30,545,916</u>	<u>100.0000%</u>	<u>\$ 1,346,780</u>

CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 ASSIGN DEPRECIATION EXPENSE TO CUSTOMER COMMUNITIES- TASK NO. 24  
 FISCAL YEAR ENDED JUNE 30, 2005

COST CENTER	DEPRECIATION EXPENSE	INTEGRATED SYSTEM	RETAIL					WHOLESALE				
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	CITY OF EAST GR	COUNTY OF OTTAWA	ADA TOWNSHIP	TOTAL
BY PHYSICAL LOCATION- TASK 11		\$ 3,805,450	\$ 1,604,169	\$ 253,844	\$ 325,988	\$ 241,979	\$ 162,541	\$ 18,049	\$ -	\$ -	\$ -	\$ 6,412,000
IN SERVICE- TASK 10		22,494	67,665	-	-	-	13,969	-	-	-	-	104,128
<b>PUMPING STATIONS:</b>												
KNAPP SERVICE CENTER	\$ 60,233		(24,356)	-	6,818	1,742	10,417	-	-	-	5,379	-
LIVINGSTON	4,153		(623)	-	175	44	266	-	-	-	138	-
FRANKLIN	203,242		(107,395)	-	41,547	22,735	9,050	-	20,009	-	14,054	-
LEFFINGWELL	908		(367)	-	103	26	157	-	-	-	81	-
BRISTOL	15,870		-	-	-	-	-	-	-	-	-	-
EAST PARIS	33,873		-	-	(16,533)	16,533	-	-	-	-	-	-
<b>STORAGE TANKS:</b>												
ELKS	-		-	-	-	-	-	-	-	-	-	-
KNAPP	-		-	-	-	-	-	-	-	-	-	-
CAMBRIDGE	-		-	-	-	-	-	-	-	-	-	-
WATERMANS		3,827,944	(104,737)	3,229	(2,010)	58,490	12,887	1,718	2,039	-	28,384	-
ADJUSTED BY ZONEGATING			1,434,356	257,073	356,068	341,549	209,287	19,767	22,048	-	48,036	-
LESS CONTRIBUTIONS AMORTIZED			(383,198)	(207,099)	(189,842)	(188,190)	(139,792)	(18,050)	-	-	-	(1,126,171)
TASK NO. 21			\$ 1,051,158	\$ 49,974	\$ 166,226	\$ 153,359	\$ 69,495	\$ 1,717	\$ 22,048	\$ -	\$ 48,036	\$ 5,389,957
TOTAL		\$ 3,827,944	\$ 1,051,158	\$ 49,974	\$ 166,226	\$ 153,359	\$ 69,495	\$ 1,717	\$ 22,048	\$ -	\$ 48,036	\$ 5,389,957

CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 ACCUMULATE REVENUE REQUIREMENTS BY CUSTOMER COMMUNITIES- TASK NO. 25  
 FISCAL YEAR ENDED JUNE 30, 2005

COST CENTER	INTEGRATED SYSTEM	RETAIL					WHOLESALE				TOTAL
		CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	CITY OF EAST GR	COUNTY OF OTTAWA	ADA TOWNSHIP	
OPERATION & MAINTENANCE EXPENSE- TASK NO. 22	\$ 10,003,067	\$ 9,577,031	\$ 1,269,393	\$ 1,416,677	\$ 1,060,728	\$ 783,213	\$ 44,963	\$ 82,281	\$ -	\$ 108,072	\$ 24,345,425
DEPRECIATION EXPENSE TASK NO. 24	3,827,944	1,051,158	49,974	166,226	153,359	69,495	1,717	22,048	-	48,036	5,389,957
RETURN ON SYSTEM INVESTMENT TASK NO. 21	5,698,171	3,020,502	146,457	607,370	681,793	301,102	9,975	70,241	-	230,997	10,766,608
REVENUE CREDITS- TASK NO. 23		(899,817)	(124,666)	(146,996)	(105,140)	(66,600)	(3,561)				(1,346,780)
ALLOCATE:											
INTEG CONN. FEE CREDIT *		(1,090,717)	(184,612)	(189,261)	(118,747)	(84,446)	(5,120)	(76,357)	-	(76,861)	(1,826,121)
INTEGRATED SYSTEM *	(19,529,182)	11,054,384	1,871,035	1,918,156	1,203,500	855,851	51,896	773,880	1,021,492	778,988	-
	\$ -	\$ 22,742,541	\$ 3,027,581	\$ 3,772,172	\$ 2,875,493	\$ 1,858,615	\$ 99,870	\$ 872,093	\$ 1,021,492	\$ 1,089,232	\$ 37,329,089

\* ALLOCATED ON THE BASIS OF RELATIVE BILLED VOLUME & LAND AREA. ADJUSTED TO EXCLUDE ANY COST OF COLDBROOK PUMPING TO OTTAWA CO.

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
TASK NO. 25a**

REVIEW THE REVENUE REQUIREMENTS TO ASSURE COMPLIANCE WITH THE APPLICABLE BOND ORDINANCE PROVISIONS.

	YEAR ENDED 6/30/2005	PRO FORMA * YEAR ENDED 6/30/2005
<i>REVENUES:</i>		
RETAIL/WHOLESALE WATER SERVICE	\$ 33,792,586	\$ 36,672,618
CONNECTION FEES/FRONT FOOT/ENG FEES	2,195,652	2,195,652
BILLABLE TO SDS FUND	2,037,157	2,037,157
ENGINEERING FEES	157,051	157,051
OTHER OPERATING REVENUES	1,301,778	1,301,778
INTEREST ON INVESTMENTS	867,600	867,600
MISCELLANEOUS	312,228	312,228
<b>TOTAL REVENUES</b>	<b>40,664,052</b>	<b>43,544,084</b>
 <i>OPERATING EXPENSES:</i>		
OPERATIONS & MAINTENANCE	\$ 25,508,482	\$ 25,508,482
DEPRECIATION	6,412,000	6,412,000
<b>TOTAL EXPENSES</b>	<b>\$ 31,920,482</b>	<b>\$ 31,920,482</b>
 ADDITIONS: DEPRECIATION	6,412,000	6,412,000
 <b>NET EARNINGS OF THE SYSTEM</b>	<b>\$ 15,155,570</b>	<b>\$ 18,035,602</b>
 <i>DEBT SERVICE</i>		
SERIES 1993 BONDS, FY 2005	\$ 3,475,000	\$ 3,475,000
SERIES 2000 BONDS, FY 2005	8,201,150	8,201,150
	<b>\$ 11,676,150</b>	<b>\$ 11,676,150</b>
 COVERAGE RATIO	1.30	1.54

\* WATER SERVICES ADJUSTED FOR RATE REVISIONS OF 4.41% AND 5.94% EFFECTIVE 1/1/05 AND 1/1/06, RESPECTIVELY.

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**SUMMARY**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS \$ 37,329,089

CURRENT REVENUES

MONTHLY METER CHARGE	\$ 8,748,437	
MONTHLY BILLING CHARGE	3,223,128	
COMMODITY CHARGE	22,788,660	
MONTHLY FIRE PROTECTION	410,928	
ANNUAL HYDRANT CHARGE	64,926	(35,236,079)

REQUIRED REVENUE INCREASE (DECREASE) \$ 2,093,010

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES 5.94%

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
TASK NO. 26**

METER SIZE	EQUIV. FACTOR	CITY OF GR		CITY OF WALKER		CITY OF KENTWOOD		CASCADE TWP		GR TWP		TALLMADGE TWP	
		METERS	EQUIV.	METERS	EQUIV.	METERS	EQUIV.	METERS	EQUIV.	METERS	EQUIV.	METERS	EQUIV.
A 3/4" or less	1.0000	54,430	54,430	4,992	4,992	3,148	3,148	2,245	2,245	3,157	3,157	92	92
B 1"	1.7778	2,553	4,539	416	740	605	1,076	300	533	289	514	15	27
C 1 1/4"	2.7778	-	-	-	-	-	-	-	-	-	-	-	-
D 1 1/2"	4.0000	1,076	4,304	196	784	372	1,488	215	860	94	376	3	12
E 2"	7.1111	986	7,012	104	740	192	1,365	100	711	46	327	2	14
F 3"	16.0000	67	1,072	10	160	21	336	5	80	7	112	-	-
G 4"	28.4444	83	2,361	7	199	13	370	3	85	3	85	-	-
H 6" and over	64.0000	22	1,408	2	128	3	192	-	-	-	-	-	-
		59,217	75,126	5,727	7,743	4,364	7,975	2,868	4,514	3,596	4,571	112	145

**FIRE PROTECTION SERVICE**

H 6"	977	224	295	150	84	24
I 8"	289	88	261	125	21	2
J 10"	15	5	9	2	-	-
K 12"	20	20	25	26	-	3
	1,301	337	590	303	105	29
TOTAL	60,518	6,064	4,944	3,171	3,701	141
TOTAL						78,539

Source: Water/Sewage Meter/User Quantity Report, dated November 4, 2005.

**CITY OF GRAND RAPIDS, MICHIGAN**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS						\$ 22,712,541
CURRENT REVENUES						
MONTHLY METER CHARGE						
75,126 meter equivalents	x	\$ 5.82	x	12 =	\$	5,246,800
MONTHLY BILLING CHARGE						
59,217 meters	x	\$ 3.54	x	12 =		2,515,538
COMMODITY CHARGE						
9,909,445 units (100 CF)	x	\$ 1.36	=			13,476,845
MONTHLY FIRE PROTECTION						185,688
ANNUAL HYDRANT CHARGE						-
						(21,424,871)
REQUIRED REVENUE INCREASE (DECREASE)						<u>\$ 1,287,670</u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES						<u>6.01%</u>

**CITY OF GRAND RAPIDS, MICHIGAN**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

$$\frac{\text{COMMODITY CHARGE @ 64\%}}{\text{BILLED UNITS}} = \frac{\$14,536,026}{9,909,445} = \underline{\underline{\$ 1.47 /100 CF *}}$$

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS		\$ 22,712,541
NEW COMMODITY CHARGE		
9,909,445 x \$ 1.47		\$ 14,566,884
NEW MONTHLY BILLING CHARGE		
59,217 x \$ 3.58 x 12		2,543,962
MONTHLY FIRE PROTECTION CHARGE		185,688
ANNUAL HYDRANT CHARGE		-
		<u>(17,296,534)</u>
		<u>\$ 5,416,007</u>

$$\text{MONTHLY METER CHARGE} = \frac{\$5,416,007}{75,126 \times 12} = \underline{\underline{\$ 6.01 \text{ MONTHLY}}}$$

<u>METER SIZE</u>	<u>EQUIVALENT</u>	<u>MONTHLY SERVICE CHARGE</u>			<u>PRESENT</u>
		<u>METER</u>	<u>BILLING</u>	<u>TOTAL</u>	
3/4" or less	1.0000	\$ 6.01	\$ 3.58	\$ 9.59	\$ 9.36
1"	1.7778	10.68	3.58	14.26	13.89
1 1/4"	2.7778	16.69	3.58	20.27	19.71
1 1/2"	4.0000	24.04	3.58	27.62	26.82
2"	7.1111	42.74	3.58	46.32	44.93
3"	16.0000	96.16	3.58	99.74	96.66
4"	28.4444	170.95	3.58	174.53	169.09
6" and over	64.0000	384.64	3.58	388.22	376.02

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2006

**CITY OF WALKER, MICHIGAN**  
**WATER RATE STUDY**  
**WATER SUPPLY SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS \$ 3,027,581

CURRENT REVENUES

MONTHLY METER CHARGE					
	7,743 meter equivalents	x	\$ 6.97	x	12 = \$ 647,625
MONTHLY BILLING CHARGE					
	5,727 meters	x	\$ 3.54	x	12 = 243,283
COMMODITY CHARGE					
	1,447,285 units (100 CF)	x	\$ 1.35	=	1,953,835
MONTHLY FIRE PROTECTION					53,856
ANNUAL HYDRANT CHARGE				-	<u>(2,898,599)</u>
REQUIRED REVENUE INCREASE (DECREASE)					<u>\$ 128,982</u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES					<u>4.45%</u>

**CITY OF WALKER, MICHIGAN**  
**WATER RATE STUDY**  
**WATER SUPPLY SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 1.41 /100 CF \*  
 \$ 1.35 x 104.45%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS		\$ 3,027,581
NEW COMMODITY CHARGE		
1,447,285 x \$ 1.41		\$ 2,040,672
NEW MONTHLY BILLING CHARGE		
5,727 x \$ 3.58 x 12		246,032
MONTHLY FIRE PROTECTION CHARGE		53,856
ANNUAL HYDRANT CHARGE	-	<u>(2,340,560)</u>
		<u>\$ 687,021</u>

MONTHLY METER CHARGE =  $\frac{\$687,021}{7,743 \times 12} = \underline{\underline{\$ 7.39 \text{ MONTHLY}}}$

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 7.39	\$ 3.58	\$ 10.97	\$ 10.51
1"	1.7778	13.14	3.58	16.72	15.93
1 1/4"	2.7778	20.53	3.58	24.11	22.90
1 1/2"	4.0000	29.56	3.58	33.14	31.42
2"	7.1111	52.55	3.58	56.13	53.10
3"	16.0000	118.24	3.58	121.82	115.06
4"	28.4444	210.20	3.58	213.78	201.80
6" and over	64.0000	472.96	3.58	476.54	449.62

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2006

**CITY OF KENTWOOD, MICHIGAN**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS \$ 3,772,172

CURRENT REVENUES

MONTHLY METER CHARGE						
7,975 meter equivalents	x	\$ 10.44	x	12 =	\$	999,108
MONTHLY BILLING CHARGE						
4,354 meters	x	\$ 3.54	x	12 =		184,958
COMMODITY CHARGE						
1,640,033 units (100 CF)	x	\$ 1.40		=		2,296,046
MONTHLY FIRE PROTECTION						98,904
ANNUAL HYDRANT CHARGE					-	<u>(3,579,016)</u>
REQUIRED REVENUE INCREASE (DECREASE)						<u>\$ 193,156</u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES						<u>5.40%</u>

**CITY OF KENTWOOD, MICHIGAN**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 1.48 /100 CF \*  
\$ 1.40 x 105.40%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS		\$ 3,772,172
NEW COMMODITY CHARGE		
1,640,033 x \$ 1.48	\$ 2,427,249	
NEW MONTHLY BILLING CHARGE		
4,354 x \$ 3.58 x 12	187,048	
MONTHLY FIRE PROTECTION CHARGE	98,904	
ANNUAL HYDRANT CHARGE	-	(2,713,201)
		<u>\$ 1,058,971</u>

MONTHLY METER CHARGE =  $\frac{\$1,058,971}{7,975 \times 12} = \underline{\underline{\$ 11.07 \text{ MONTHLY}}}$

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 11.07	\$ 3.58	\$ 14.65	\$ 13.98
1"	1.7778	19.68	3.58	23.26	22.10
1 1/4"	2.7778	30.75	3.58	34.33	32.54
1 1/2"	4.0000	44.28	3.58	47.86	45.30
2"	7.1111	78.72	3.58	82.30	77.78
3"	16.0000	177.12	3.58	180.70	170.58
4"	28.4444	314.88	3.58	318.46	300.50
6" and over	64.0000	708.48	3.58	712.06	671.70

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2006

**CASCADE TOWNSHIP**  
**WATER RATE STUDY**  
**WATER SUPPLY SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS \$ 2,875,493

CURRENT REVENUES

MONTHLY METER CHARGE					
	4,514 meter equivalents	x	\$ 15.40	x	12 = \$ 834,187
MONTHLY BILLING CHARGE					
	2,868 meters	x	\$ 3.54	x	12 = 121,833
COMMODITY CHARGE					
	837,993 units (100 CF)	x	\$ 1.99	=	1,667,606
MONTHLY FIRE PROTECTION					53,808
ANNUAL HYDRANT CHARGE					33,960
					<u>(2,711,394)</u>
REQUIRED REVENUE INCREASE (DECREASE)					<u>\$ 164,099</u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES					<u>6.05%</u>



**GRAND RAPIDS TOWNSHIP**  
**WATER RATE STUDY**  
**WATER SUPPLY SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS \$ 1,858,615

CURRENT REVENUES

MONTHLY METER CHARGE					
	4,571 meter equivalents	x	\$ 9.61	x	12 = \$ 527,128
MONTHLY BILLING CHARGE					
	3,596 meters	x	\$ 3.54	x	12 = 152,758
COMMODITY CHARGE					
	625,866 units (100 CF)	x	\$ 1.52	=	951,316
MONTHLY FIRE PROTECTION					14,112
ANNUAL HYDRANT CHARGE					22,710
					<u>(1,668,024)</u>
REQUIRED REVENUE INCREASE (DECREASE)					<u>\$ 190,591</u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES					<u>11.43%</u>

**GRAND RAPIDS TOWNSHIP**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 1.69 /100 CF \*  
\$ 1.52 x 111.43%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS		\$ 1,858,615
NEW COMMODITY CHARGE		\$ 1,057,714
625,866 x \$ 1.69		
NEW MONTHLY BILLING CHARGE		154,484
3,596 x \$ 3.58 x 12		
MONTHLY FIRE PROTECTION CHARGE		14,112
ANNUAL HYDRANT CHARGE		<u>22,710</u>
		<u>(1,249,020)</u>
		<u>\$ 609,595</u>

MONTHLY METER CHARGE =  $\frac{\$609,595}{4,571 \times 12} = \underline{\underline{\$ 11.11 \text{ MONTHLY}}}$

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 11.11	\$ 3.58	\$ 14.69	\$ 13.15
1"	1.7778	19.75	3.58	23.33	20.62
1 1/4"	2.7778	30.86	3.58	34.44	30.23
1 1/2"	4.0000	44.44	3.58	48.02	41.98
2"	7.1111	79.00	3.58	82.58	71.88
3"	16.0000	177.76	3.58	181.34	157.30
4"	28.4444	316.02	3.58	319.60	276.89
6" and over	64.0000	711.04	3.58	714.62	618.58

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2006

**TALLMADGE TOWNSHIP**  
**WATER RATE STUDY**  
**WATER SUPPLY SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS	\$ 99,870
LESS: CASH CONTRIBUTION	-
SYSTEM REVENUE REQUIREMENTS	\$ 99,870

CURRENT REVENUES

MONTHLY METER CHARGE						
145 meter equivalents	x	\$ 3.12	x	12 =	\$	5,429
MONTHLY BILLING CHARGE						
112 meters	x	\$ 3.54	x	12 =	\$	4,758
COMMODITY CHARGE						
18,212 units (100 CF)	x	\$ 3.37	=		\$	61,374
MONTHLY FIRE PROTECTION						4,560
ANNUAL HYDRANT CHARGE						8,256
REQUIRED REVENUE INCREASE (DECREASE)						(84,377)
						\$ 15,493

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES	18.36%
--	--------



**CITY OF EAST GRAND RAPIDS, MICHIGAN**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 26**

INTEGRATED SYSTEM REVENUE REQUIREMENTS *		\$	697,523
COMMODITY CHARGE			
(100CF)      691,212 units      x      \$ 1.00			691,212
			<hr/>
REQUIRED COMMODITY REVENUE INCREASE (DECREASE)		\$	<u>6,311</u>
NON-INTEGRATED SYSTEM REVENUE REQUIREMENTS		\$	174,570
MONTHLY SERVICE CHARGE			
\$11,396                      x      12 MONTHS			136,752
			<hr/>
REQUIRED SERVICE REVENUE INCREASE (DECREASE)		\$	<u>37,818</u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES			<u>5.33%</u>

\* NET OF INTEGRATED CONNECTION FEE CREDIT.

**CITY OF EAST GRAND RAPIDS, MICHIGAN**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 27**

SYSTEM REVENUE REQUIREMENTS	\$ 872,093
NEW COMMODITY CHARGE	
691,212 x \$1.01 =	(698,124)
	<hr/>
	<u>\$ 173,969</u>

MONTHLY SERVICE CHARGE = \$173,969 / 12 = \$14,497

**ADA TOWNSHIP**  
**WATER RATE STUDY**  
**WATER SUPPLY SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

INTEGRATED SYSTEM REVENUE REQUIREMENTS *	\$	702,127
COMMODITY CHARGE		
(100CF)    647,087 units    x    \$ 1.06		685,912
		685,912
REQUIRED COMMODITY REVENUE INCREASE (DECREASE)	\$	16,215
NON-INTEGRATED SYSTEM REVENUE REQUIREMENTS	\$	387,105
MONTHLY SERVICE CHARGE		
\$29,115                    x        12 MONTHS		349,380
		349,380
REQUIRED SERVICE REVENUE INCREASE (DECREASE)	\$	37,725
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES		5.21%

\* NET OF INTEGRATED CONNECTION FEE CREDIT.

**ADA TOWNSHIP**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 27**

SYSTEM REVENUE REQUIREMENTS	\$ 1,089,232
NEW COMMODITY CHARGE	
647,087 x \$1.09 =	(705,325)
	<hr/>
	<u>\$ 383,907</u>

MONTHLY SERVICE CHARGE = \$383,907 / 12 = \$31,992

**OTTAWA COUNTY**  
**WATER RATE STUDY**  
**WATER SUPPLY SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

INTEGRATED SYSTEM REVENUE REQUIREMENTS		\$ 1,021,492
COMMODITY CHARGE		
(100CF) 904,968 units x \$ 1.11		1,004,514
		1,004,514
REQUIRED COMMODITY REVENUE INCREASE (DECREASE)		\$ 16,978
NON-INTEGRATED SYSTEM REVENUE REQUIREMENTS		\$ -
MONTHLY SERVICE CHARGE		
\$169 x 12 MONTHS		2,028
		2,028
REQUIRED SERVICE REVENUE INCREASE (DECREASE)		\$ (2,028)
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES		1.49%



# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 31, 2005

TO: Mike Wolski  
Financial Analyst

FROM:  Rick DeVries, P.E.  
Assistant City Engineer

SUBJECT: **WATER RATE STUDY - TASK NO. 28 AND 29**

Enclosed are the Front Foot Rates for Watermain (Task 28) and the costs for the Water Service Pipes (Task 29), for the Fiscal Year 2005.

RDV/grt

Enclosures

cc: Jack Stegehuis  
Mark Garvey  
Paul Pratt

**RECEIVED**

NOV 03 2005

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 RE-EVALUATE FRONT FOOT CHARGES  
 TASK NO. 28**

The City Engineer's Office has reviewed current construction costs for water facilities and recommends the following front foot assessment rates:

	<u>2005</u>	<u>2006</u>
Domestic Water User	\$ 45.00	\$ 48.00
Commercial-Industrial User (Watermain over 8 in. diameter)	\$ 57.00	\$ 66.00

The rates are based on an average of prices quoted in bid proposals which have been received by the City Engineer's Office during the period July, 2004 through June, 2005. Calculations of the rates are on file in the City Engineer's Office.

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 EVALUATE WATER SERVICE CHARGES  
 TASK NO. 29**

The City Engineer's Office has evaluated the cost for water services and recommends the following water service charges:

		50 Ft. R.O.W.	60 Ft. R.O.W.	66 Ft. R.O.W.	80 Ft. R.O.W.	100 Ft. R.O.W.
Cost for 1" Water Service	2005	\$ 1,290	\$ 1,450	\$ 1,580	\$ 1,850	\$ 2,200
	2006	\$ 1,220	\$ 1,400	\$ 1,500	\$ 1,750	\$ 2,070
Cost for 1-1/2" Water Service	2005	\$ 1,800	\$ 2,020	\$ 2,150	\$ 2,450	\$ 2,900
	2006	\$ 1,860	\$ 2,090	\$ 2,225	\$ 2,550	\$ 3,000
Cost for 2" Water Service	2005	\$ 1,930	\$ 2,150	\$ 2,300	\$ 2,600	\$ 3,050
	2006	\$ 2,300	\$ 2,600	\$ 2,800	\$ 3,200	\$ 3,700

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# MEMORANDUM

CITY OF GRAND RAPIDS

**DATE:** October 11, 2005

**TO:** Mike Wolski  
Utility Financial Officer

**FROM:** Beth Troyer   
Administrative Services Officer II

**SUBJECT:** 2005 WATER RATE STUDY- TASK #30

Miscellaneous rates and charges contained within the Water System Rules and Regulations have been reviewed with staff.

Based on that review, we recommend the fire protection charges, meter installation fees, tapping permits, meter reading, monthly payment option, most miscellaneous permits and penalties remain as they are in the Rules and Regulations.

The amounts for hydrant use permits and connection size fees, security deposit and the penalty fee for processing non-payment shut-offs have been increased. Under the penalty section, two new fees have been added: one for failure to return hydrant connection equipment and a second for lost or non-returned hydrant wrench. In addition, the language was changed on the penalty for failure to keep appointment to include a charge to obtain a final reading when a customer fails to provide one.

The attached report summarizes those charges and fee changes as well as the City's current returned check charge of \$25.00, which was verified by the City Treasurer on October 10, 2005.

Attachment

# FEES AND CHARGES

## *FIRE PROTECTION CHARGES*

<u>Pipe Size</u>	<u>Monthly</u>	<u>Quarterly</u>
6"	\$10.00	\$30.00
8"	16.00	48.00
10"	24.00	72.00
12"	36.00	108.00

## *HYDRANT USE PERMITS*

	<u>Fee</u>
Deposit (refundable) .....	\$250.00
Minimum charge (one week's use) .....	50.00
Seasonal permit (daily charges after one week based on connection size) .....	250.00

<u>Connection Size</u>	<u>Fee</u>
3/4"	\$5.00
1"	5.50
1-1/4"	7.00
1-1/2", 2"	8.50

## *METER INSTALLATION FEES*

<u>Meter Size</u>	<u>Fee</u>
3/4" or smaller	\$30.00
1"	35.00
1-1/2"	45.00
2"	45.00
3"	80.00
4"	150.00
6" and larger	200.00

## *TAPPING PERMITS*

<u>Connection Size</u>	<u>Fee</u>
1"	\$50.00
1-1/2"	100.00
2"	160.00
3" and larger	Cost

**METER READING**

	<u>Fee</u>
Final reading .....	\$5.00

**WATER AND SEWER RATES**

Chapter 26 and 27, Grand Rapids City Code

**MONTHLY PAYMENT OPTION**

	<u>Fee</u>
Service fee each additional month.....	\$1.00

**SECURITY DEPOSIT**

	<u>Minimum Charge</u>
Three (3) times average quarterly bill .....	\$410.00

**MISCELLANEOUS PERMITS**

	<u>Fee</u>
Street opening permit.....	\$25.00
Water inspection permit (each inspection) .....	20.00
Water inspection permit (outside the City).....	35.00
Repair in yard permit.....	20.00

**PENALTIES**

	<u>Fee</u>
Late-payment penalty .....	10% of net
Processing for non-payment shut-off .....	\$50.00
Penalty for failure to keep appointment or call back with final meter reading.....	10.00
Unauthorized operation of valves.....	100.00
(plus double the commodity rate for estimated volume)	
Unauthorized use of connection pipes for fire protection .....	100.00
(plus double the commodity rate for estimated volume)	
Unauthorized opening of by-pass valve .....	100.00
(plus double the commodity rate for estimated volume)	
Returned check charge (verified with City Treasurer 10/10/05).....	25.00
Returned check processing fee (water) per account .....	5.00
Failure to return hydrant connection equipment.....	500.00
Lost/non-returned hydrant wrench.....	25.00
Back billing for service rendered.....	Section III

revised 101105

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
TASK NO. 31**

*THERE IS NO TASK 31 FOR THE WATER PORTION OF THE RATE STUDY*

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: November 4, 2005

TO: Bill Cole, P.E.  
City Engineer

FROM: Joellen C. Thompson, P.E.  
Assistant Water System Manager



**SUBJECT: WATER MAIN OVERSIZING RATES TASK #32, WATER SEWER RATE STUDY**

Water main oversizing rates are established for this year as noted below:

8 inch to 12 inch .....	\$10.93 per lineal foot
12 inch to 16 inch.....	\$13.34 per lineal foot
8 inch to 16 inch.....	\$24.27 per lineal foot

These rates have been determined in accordance with the Water System Rules and Regulations, and are approved for use from January 1, 2006, through December 31, 2006. Background information and calculations to establish these rates are on file in the Water Engineering, Distribution and Collection Office.

These costs will be reviewed and adjusted again next year. If you have any questions regarding this matter, please call me at extension 4238 (456-4238).

JCT/df

Cc: Donald R. Spencer  
Jeff McCaul  
Mike Wolski  
Bill DeYoung

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER RATE STUDY  
 WATER SUPPLY SYSTEM FUND  
 TASK NO. 33**

SERVICE AREA MAPS AND SERVICE AREA LAND MASS SUMMARIES

The following summarizes Utility Services Districts (USD) land mass square miles for UAB partner communities, per maps on file as of October 21, 2005:

<u>UAB Partners</u>	<u>Sq. Miles of USD by CC</u>	<u>Percent</u>
Grand Rapids	45.36	33.436%
Walker	25.43	18.745%
Kentwood	14.00	10.320%
Cascade	23.53	17.345%
Grand Rapids Township	14.42	10.630%
Tallmadge Township *	2.40	1.769%
East Grand Rapids	3.37	2.484%
Ada	7.15	5.271%
Total	<u>135.66</u>	<u>100.000%</u>

\* Includes revised area approved at October 20, 2005, UAB meeting.

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**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
SYSTEM ADDITIONS AND IMPROVEMENTS  
FOR THE YEAR ENDED JUNE 30, 2005  
TASKS NO. 1, 2, & 3**

COMMUNITY	LOCAL		TRUNK		INTERCEPTOR		TOTALS	
	FEET	MILES	FEET	MILES	FEET	MILES	FEET	MILES
<b>Grand Rapids</b>								
Construction	3,013	0.57	1,774	0.34	60	0.01	4,847	0.92
Abandonment	(820)	(0.16)	(540)	(0.10)		0.00	(1,360)	(0.26)
CSO Construction	1,200	0.23		0.00	544	0.10	1,744	0.33
CSO Abandonment	(600)	(0.11)	(600)	(0.11)	(542)	(0.10)	(1,742)	(0.32)
	<u>2,793</u>	<u>0.53</u>	<u>634</u>	<u>0.13</u>	<u>62</u>	<u>0.01</u>	<u>3,489</u>	<u>0.67</u>
<b>Kentwood</b>								
Construction	10,253	1.94	634	0.12		0.00	10,887	2.06
Abandonment		0.00		0.00		0.00	0	0.00
	<u>10,253</u>	<u>1.94</u>	<u>634</u>	<u>0.12</u>	<u>0</u>	<u>0.00</u>	<u>10,887</u>	<u>2.06</u>
<b>Cascade Twp.</b>								
Construction	14,377	2.72	1,706	0.32		0.00	16,083	3.04
Abandonment		0.00		0.00		0.00	0	0.00
	<u>14,377</u>	<u>2.72</u>	<u>1,706</u>	<u>0.32</u>	<u>0</u>	<u>0.00</u>	<u>16,083</u>	<u>3.04</u>
<b>G.R. Twp.</b>								
Construction	11,353	2.15		0.00		0.00	11,353	2.15
Abandonment		0.00		0.00		0.00	0	0.00
	<u>11,353</u>	<u>2.15</u>	<u>0</u>	<u>0.00</u>	<u>0</u>	<u>0.00</u>	<u>11,353</u>	<u>2.15</u>
<b>Tallmadge Twp.</b>								
Construction	2,882	0.55		0.00		0.00	2,882	0.55
Abandonment		0.00		0.00		0.00	0	0.00
	<u>2,882</u>	<u>0.55</u>	<u>0</u>	<u>0.00</u>	<u>0</u>	<u>0.00</u>	<u>2,882</u>	<u>0.55</u>
<b>Walker</b>								
Construction	15,096	2.86	(16)	0.00		0.00	15,080	2.86
Abandonment		0.00		0.00		0.00	0	0.00
	<u>15,096</u>	<u>2.86</u>	<u>(16)</u>	<u>0.00</u>	<u>0</u>	<u>0.00</u>	<u>15,080</u>	<u>2.86</u>
<b>Wright Twp</b>								
Construction		0.00		0.00		0.00	0	0.00
Abandonment		0.00		0.00		0.00	0	0.00
	<u>0</u>	<u>0.00</u>	<u>0</u>	<u>0.00</u>	<u>0</u>	<u>0.00</u>	<u>0</u>	<u>0.00</u>
<b>*TOTAL*</b>	<u>56,754</u>	<u>10.75</u>	<u>2,958</u>	<u>0.57</u>	<u>62</u>	<u>0.01</u>	<u>59,774</u>	<u>11.33</u>

SEWER COSTS

COMMUNITY	COMMUNITY COST
Grand Rapids	\$ 105,179
Kentwood	679,606
Cascade Twp.	1,025,044
Grand Rapids Twp.	707,478
Tallmadge Twp.	199,631
Walker	1,245,309
Wright Twp.	-
<b>*TOTAL*</b>	<u>\$ 3,962,247</u>

CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
OPERATING EXPENSE ALLOCATION BY COST CENTER - TASK #4, PART 1  
FISCAL YEAR ENDED JUNE 30, 2005

ACTIVITY CODE	ACTIVITY	WASTEWATER TREATMENT PLANT		WASTEWATER LIFT STATIONS			SEWER LINES			BULK METERING STATIONS	CUSTOMER ACCOUNTING	INDUSTRIAL PRETREAT.	ADMIN. EXPENSE
		EXPENSE BY ACTIVITY	PLANT	INTERCEPTOR	TRUNK	LOCAL COLLECTOR	INTERCEPTOR	TRUNK	LOCAL COLLECTOR				
4423	WASTEWATER TREATMENT (LESS 442305)	\$ 12,224,823	\$ 11,342,205	\$ 187,810	\$ 311,540	\$ 365,836				\$ 17,432			
4425	SEWER MAINTENANCE	4,167,361					199,408	469,745	3,498,208				
4413	CUSTOMER SERVICE	2,037,157								2,037,157			
442305	INDUSTRIAL PRETREATMENT	559,558									559,558		
	SUBTOTAL OPERATING EXPENSE	18,988,899	11,342,205	187,810	311,540	365,836	199,408	469,745	3,498,208	17,432	2,037,157	559,558	-
4410	ADMINISTRATION	1,916,794											1,916,794
	TOTAL	\$ 20,905,693	\$ 11,342,205	\$ 187,810	\$ 311,540	\$ 365,836	\$ 199,408	\$ 469,745	\$ 3,498,208	\$ 17,432	\$ 2,037,157	\$ 559,558	\$ 1,916,794

METHOD OF DISTRIBUTION

4423	WASTEWATER TREATMENT	100.000%											
	A. TREATMENT PLANT	92.780%											
	B. LIFT & METER STATIONS	7.220%											
	NO. OF STATIONS	(58)	(1)	(8)	(42)	(7)							
4425	SEWER MAINTENANCE	100.000%											
	TOTAL MILES	881.67											
	A. INTERCEPTOR	4.785%											
	MILES	42.19											
	B. TRUNK LINES	11.272%											
	MILES	99.38											
	C. LOCAL COLLECTOR	83.943%											
	MILES	740.10											
4413	CUSTOMER SERVICE	100.000%											
442305	INDUSTRIAL PRETREATMENT	100.000%											
4410	ADMINISTRATION	100.000%											
													100.000%

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
OPERATING EXPENSE ALLOCATION BY GOVERNMENTAL UNIT - TASK #4, PART 2  
FISCAL YEAR ENDED JUNE 30, 2005**

COST CENTER	EXPENSE BY COST CENTER	INTEGRATED SYSTEM	RETAIL										WHOLESALE							
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	N. KENT AREA	ADA TOWNSHIP	GAINES TOWNSHIP	MEIJER-ALGOMA						
WASTEWATER TREATMENT	\$ 11,342,205	\$ 11,342,205																		
LIFT STATIONS:																				
A. INTERCEPTOR	187,810																			
B. TRUNK	311,540		58,017	43,435	-	210,088	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C. LOCAL COLLECTOR	365,836		70,602	54,399	-	67,926	132,211	20,320	6,850	-	-	-	-	-	13,528	-	-	-	-	-
SEWER LINES:																				
A. INTERCEPTOR	199,408		146,471	16,543	34,597	1,797	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B. TRUNK	469,745		146,528	131,308	116,041	41,314	23,539	10,447	568	-	-	-	-	-	-	-	-	-	-	-
C. LOCAL COLLECTOR	3,498,208		2,231,891	434,512	324,424	201,392	258,568	26,132	21,269	-	-	-	-	-	-	-	-	-	-	-
BULK METERING STATIONS	17,432		-	-	2,123	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CUSTOMER ACCOUNTING	2,037,157		1,632,964	148,101	113,490	42,964	90,450	2,832	6,356	-	-	-	-	-	-	-	-	-	-	-
INDUSTRIAL PRETREATMENT	559,558																			
SUBTOTAL OPERATING EXPENSE	18,988,899	11,901,763	4,474,283	828,298	590,675	565,481	504,788	59,731	35,043	4,706	6,328	15,475	2,328	-	-	-	-	-	-	-
ADMINISTRATIVE EXPENSE	1,916,794	1,018,024	559,965	111,736	83,877	65,534	62,984	7,678	4,530	402	541	1,324	199	-	-	-	-	-	-	-
TOTAL	\$ 20,905,693	\$ 12,919,787	\$ 5,034,248	\$ 940,034	\$ 674,552	\$ 631,015	\$ 567,772	\$ 67,409	\$ 39,573	\$ 5,108	\$ 6,869	\$ 16,799	\$ 2,527	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**METHOD OF DISTRIBUTION**

WASTEWATER TREATMENT	RETAIL										WHOLESALE		
A. TREATMENT PLANT	CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	N. KENT AREA	ADA TOWNSHIP	GAINES TOWNSHIP	MEIJER-ALGOMA	
100.000%													
100.000%	(13)	(6)	(1)	(10)	(17)	(3)	(1)	(1)	(3)	(2)	(1)	-	
TOTAL MILES:	881.67												
A. INTERCEPTOR	73.453%	8.296%	17.350%	0.901%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	
MILES	30.99	3.50	7.32	0.38	-	-	-	-	-	-	-	-	
B. TRUNK LINES	31.193%	27.953%	24.703%	8.795%	5.011%	2.224%	0.121%	0.000%	0.000%	0.000%	0.000%	0.000%	
MILES	31.00	27.78	24.55	8.74	4.98	2.21	0.12	-	-	-	-	-	
C. LOCAL COLLECTOR	63.801%	12.421%	9.274%	5.757%	7.392%	0.747%	0.608%	0.000%	0.000%	0.000%	0.000%	0.000%	
MILES	472.18	91.93	68.64	42.61	54.71	5.53	4.50	-	-	-	-	-	
CUSTOMER ACCTG (2)	80.471%	7.270%	5.571%	2.109%	4.440%	0.139%	0.312%	-	-	-	-	-	
NO. OF METERS	58,298.00	5,287.00	4,052.00	1,534.00	3,223.00	101.00	227.00	-	-	-	-	-	
INDUSTRIAL PRETREATMENT	100.000%												
ADMINISTRATIVE EXPENSE (3)	100.000%	53.111%	29.214%	4.376%	3.419%	0.401%	0.236%	0.021%	0.028%	0.069%	0.010%	0.000%	

NOTES:  
 (1) DIRECT COSTS PER SCHEDULE  
 (2) ALLOCATION BASED ON NUMBER OF METERS, INCLUSIVE OF USERS FOR WRIGHT TWP.  
 (3) ALLOCATED ON DIRECT OPERATING EXPENSE, ADJUSTED FOR ANY COST ASSIGNABLE EXCLUSIVELY TO GR OR RETAIL COMMUNITIES, IF APPLICABLE.

CITY OF GRAND RAPIDS, MICHIGAN  
 SEWAGE DISPOSAL SYSTEM FUND  
 ADJUSTED OPERATING EXPENSE ALLOCATION BY COST CENTER - TASK #5, PART 1  
 FISCAL YEAR ENDED JUNE 30, 2005

ACTIVITY CODE	ACTIVITY	ADJUSTED EXPENSE BY ACTIVITY	WASTEWATER TREATMENT PLANT			WASTEWATER LIFT STATIONS			SEWER LINES			BULK METERING STATIONS	CUSTOMER ACCOUNTING	INDUSTRIAL PRETREAT.	ADMIN. EXPENSE
			INTERCEPTOR	TRUNK	LOCAL COLLECTOR	INTERCEPTOR	TRUNK	LOCAL COLLECTOR	INTERCEPTOR	TRUNK	LOCAL COLLECTOR				
4423	WASTEWATER TREATMENT (LESS 442305)	\$ 12,475,557	\$ 11,574,834	\$ 191,662	\$ 317,930	\$ 373,340					\$ 17,791				
4425	SEWER MAINTENANCE	4,294,055		205,471	484,026	3,604,558									
4413	CUSTOMER SERVICE	2,088,036										2,088,036			
442305	INDUSTRIAL PRETREATMENT	580,500											580,500		
	SUBTOTAL OPERATING EXPENSE	19,438,148	11,574,834	191,662	317,930	373,340	205,471	484,026	3,604,558	17,791		2,088,036	580,500		-
4410	ADMINISTRATION	2,453,813													2,453,813
	TOTAL	\$ 21,891,961	\$ 11,574,834	\$ 191,662	\$ 317,930	\$ 373,340	\$ 205,471	\$ 484,026	\$ 3,604,558	\$ 17,791	\$ 2,088,036	\$ 580,500	\$ 2,453,813		

METHOD OF DISTRIBUTION

4423	WASTEWATER TREATMENT	100.0000%														
	A. TREATMENT PLANT	92.780%														
	B. LIFT & METER STATIONS NO. OF STATIONS (58)	7.220%	(1)	(8)	(42)	(7)										
4425	SEWER MAINTENANCE TOTAL MILES	100.0000%	881.67													
	A. INTERCEPTOR MILES	4.785%					4.785%									
	B. TRUNK LINES MILES	11.272%					11.272%									
	C. LOCAL COLLECTOR MILES	83.943%					83.943%									
4413	CUSTOMER SERVICE	100.0000%										100.0000%				
442305	INDUSTRIAL PRETREATMENT	100.0000%											100.0000%			
4410	ADMINISTRATION	100.0000%														100.0000%

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
ADJUSTED OPERATING EXPENSE ALLOCATION BY GOVERNMENTAL UNIT - TASK #5, PART 2  
FISCAL YEAR ENDED JUNE 30, 2005**

COST CENTER	ADJUSTED EXPENSE BY COST CENTER	INTEGRATED SYSTEM	RETAIL					WHOLESALE						
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	N. KENT AREA	ADA TOWNSHIP	GAINES TOWNSHIP	MEIJER-ALGOMA
WASTEWATER TREATMENT	\$ 11,574,834	\$ 11,574,834												
LIFT STATIONS:														
A. INTERCEPTOR	191,662													
B. TRUNK	317,930													
C. LOCAL COLLECTOR	373,340													
SEWER LINES:														
A. INTERCEPTOR	205,471													
B. TRUNK	484,026													
C. LOCAL COLLECTOR	3,604,558													
BULK METERING STATIONS	17,791													
CUSTOMER ACCOUNTING	2,088,036													
INDUSTRIAL PRETREATMENT	580,500	580,500												
SUBTOTAL OPERATING EXPENSE	19,438,148	12,155,334												
ADMINISTRATIVE EXPENSE	2,453,813	1,351,500												
TOTAL	\$ 21,891,961	\$ 13,506,834												

**METHOD OF DISTRIBUTION**

WASTEWATER TREATMENT														
A. TREATMENT PLANT	100.000%	100.00%												
B. LIFT & METER STATIONS (1)	100.000%													
NO. OF STATIONS (58)														
SEWER LINES:														
TOTAL MILES:	881.67													
A. INTERCEPTOR	100.000%	73.453%												
MILES	42.19	30.99												
B. TRUNK LINES	100.000%	31.193%												
MILES	98.38	27.953%												
C. LOCAL COLLECTOR	100.000%	31.00												
MILES	740.10	12.421%												
CUSTOMER ACCTG (2)	100.000%	472.18												
NO. OF METERS	72,728.00	80.159%												
INDUSTRIAL PRETREATMENT	100.000%	58,298.00												
ADMINISTRATIVE EXPENSE (3)	100.000%	28,059%												

**NOTES:**

- (1) ADJUSTED DIRECT COSTS PER SCHEDULE.
- (2) ALLOCATION BASED ON NUMBER OF METERS, INCLUSIVE OF USERS FOR WRIGHT TWP.
- (3) ALLOCATED ON DIRECT OPERATING EXPENSE, ADJUSTED FOR ANY COST ASSIGNABLE EXCLUSIVELY TO GR OR RETAIL COMMUNITIES, IF APPLICABLE.

**CITY OF GRAND RAPIDS, MICHIGAN**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**ADJUSTED ACTUAL EXPENSE**  
**YEAR ENDED JUNE 30, 2005**  
**RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4410- ADMINISTRATION

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
703	RETIREE HEALTH CARE	\$ -	\$ 6,474.78	\$ 6,474.78
706	PERMANENT EMPLOYEES	120,478.55	1,807.18	122,285.73
715	EMPLOYERS SOCIAL SECURITY	8,515.65	127.73	8,643.38
717	SPECIAL PENSION BENEFITS	3,497.51	-	3,497.51
719	HOSPITALIZATION INSURANCE	18,051.74	(523.50)	17,528.24
721	LONGEVITY PAY	1,752.15	-	1,752.15
722	RETIREMENT FUND CONTRIBUTION	15,379.66	246.07	15,625.73
	TOTAL PERSONAL SERVICES	167,675.26	8,132.26	175,807.52
728	SUPPLIES	815.81	-	815.81
730	POSTAGE	1,355.70	-	1,355.70
	TOTAL SUPPLIES	2,171.51	-	2,171.51
814	COMPUTER SERVICES	646,055.04	-	646,055.04
818	CONTRACTUAL SERVICES	125,533.17	-	125,533.17
872	PROFESSIONAL DEVELOPMENT	527.00	-	527.00
873	OTHER TRAVEL AND TRAINING	1,664.61	-	1,664.61
874	LOCAL BUSINESS EXPENSE	726.16	-	726.16
875	MEMBERSHIPS	9,467.72	-	9,467.72
876	PUBLICATIONS AND SUBSCRIPTIONS	1,125.00	-	1,125.00
900	PRINTING & PUBLISHING	2,067.90	-	2,067.90
919	INSURANCE PREMIUMS	71,820.00	-	71,820.00
928	TELEPHONE	1,099.55	-	1,099.55
942	BUILDINGS RENTALS OR LEASE	16,665.36	-	16,665.36
947	VEHICLE RENTAL/CAR MILEAGE	4,295.00	-	4,295.00
	TOTAL OTHER SERVICES & CHARGES	881,046.51	-	881,046.51
999	OPERATING TRANSFERS OUT	865,901.04	528,885.96	1,394,787.00
	TOTAL TRANSFERS/FEEES	865,901.04	528,885.96	1,394,787.00
	ORGANIZATIONAL UNIT TOTAL	\$ 1,916,794.32	\$ 537,018.22	\$ 2,453,812.54

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
ADJUSTED ACTUAL EXPENSE  
YEAR ENDED JUNE 30, 2005  
RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4413- SDSF- CUST.SERV'S

NO.	EXPENDITURE SUB-OBJECT DESCRIPTION	OPERATING EXPENSES	ADJUSTED COST FACTORS	ADJUSTED CURRENT ANNUAL EXPENSES
999	OPERATING TRANSFERS OUT	\$ 2,037,156.90	\$ 50,879.05	\$ 2,088,035.95
	TOTAL TRANSFERS/FEES	<u>2,037,156.90</u>	<u>50,879.05</u>	<u>2,088,035.95</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 2,037,156.90</u>	<u>\$ 50,879.05</u>	<u>\$ 2,088,035.95</u>

**CITY OF GRAND RAPIDS, MICHIGAN**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**ADJUSTED ACTUAL EXPENSE**  
**YEAR ENDED JUNE 30, 2005**  
**RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4423- WASTEWATER

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
703	RETIREE HEALTH CARE		\$ 185,427.50	\$ 185,427.50
706	PERMANENT EMPLOYEES	3,462,309.06	51,934.64	3,514,243.70
708	SHIFT DIFFERENTIAL	10,076.34	-	10,076.34
709	TIME & ONE-HALF	76,193.31	1,142.90	77,336.21
710	ACT.ASSIGNMENT	4,201.22	63.02	4,264.24
714	REGULAR HOURLY RATE	2,051.19	30.77	2,081.96
715	EMPLOYERS SOCIAL SECURITY	266,405.34	3,996.08	270,401.42
719	HOSPITALIZATION INSURANCE	928,221.53	(26,918.42)	901,303.11
721	LONGEVITY PAY	38,007.21	-	38,007.21
722	RETIREMENT FUND CONTRIBUTION	547,610.68	8,761.77	556,372.45
	TOTAL PERSONAL SERVICES	<u>5,335,075.88</u>	<u>224,438.26</u>	<u>5,559,514.14</u>
728	SUPPLIES	1,218,205.60	-	1,218,205.60
730	POSTAGE	60.00	-	60.00
768	CLOTHING/CLEANING ALLOWANCE	8,056.21	-	8,056.21
	TOTAL SUPPLIES	<u>1,226,321.81</u>	<u>-</u>	<u>1,226,321.81</u>
818	CONTRACTUAL SERVICES	3,056,274.31	26,296.00	3,082,570.31
835	FEES	36,801.68	-	36,801.68
872	PROFESSIONAL DEVELOPMENT	1,130.36	-	1,130.36
873	OTHER TRAVEL AND TRAINING	16,574.82	-	16,574.82
874	LOCAL BUSINESS EXPENSE	56.55	-	56.55
875	MEMBERSHIPS	3,847.46	-	3,847.46
876	PUBLICATIONS AND SUBSCRIPTIONS	2,098.10	-	2,098.10
900	PRINTING & PUBLISHING	9,766.66	-	9,766.66
921	ELECTRICITY	1,627,785.89	-	1,627,785.89
922	WATER	55,269.02	-	55,269.02
923	GAS	228,204.31	-	228,204.31
928	TELEPHONE	116,895.75	-	116,895.75
930	MAINTENANCE REPAIR	320,241.17	-	320,241.17
943	EQUIPMENT RENTALS OR LEASE	143,313.69	-	143,313.69
947	VEHICLE RENTAL/CAR MILEAGE	3,641.00	-	3,641.00
959	REFUSE COLLECTION CHARGES	1,801.39	-	1,801.39
	TOTAL OTHER SERVICES & CHARGES	<u>5,623,702.16</u>	<u>26,296.00</u>	<u>5,649,998.16</u>
982	EQUIPMENT	39,723.17	-	39,723.17
	TOTAL CAPITAL	<u>39,723.17</u>	<u>-</u>	<u>39,723.17</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 12,224,823.02</u>	<u>\$ 250,734.26</u>	<u>\$ 12,475,557.28</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
ADJUSTED ACTUAL EXPENSE  
YEAR ENDED JUNE 30, 2005  
RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 442305- IND. PRETREATMENT

NO.	EXPENDITURE SUB-OBJECT DESCRIPTION	OPERATING EXPENSES	ADJUSTED COST FACTORS	ADJUSTED CURRENT ANNUAL EXPENSES
703	RETIREE HEALTH CARE		\$ 16,954.00	\$ 16,954.00
706	PERMANENT EMPLOYEES	315,610.00	4,734.15	320,344.15
709	TIME & ONE-HALF	3,078.91	46.18	3,125.09
710	ACT.ASSIGNMENT	1,535.15	23.03	1,558.18
715	EMPLOYERS SOCIAL SECURITY	28,455.89	426.84	28,882.73
719	HOSPITALIZATION INSURANCE	76,901.48	(2,230.14)	74,671.34
721	LONGEVITY PAY	4,445.04	-	4,445.04
722	RETIREMENT FUND CONTRIBUTION	61,734.62	987.75	62,722.37
	TOTAL PERSONAL SERVICES	<u>491,761.09</u>	<u>20,941.81</u>	<u>512,702.90</u>
728	SUPPLIES	25,516.25	-	25,516.25
730	POSTAGE	14,573.93	-	14,573.93
	TOTAL SUPPLIES	<u>40,090.18</u>	<u>-</u>	<u>40,090.18</u>
810	BAD DEBT WRITE-OFFS	2,134.22	-	2,134.22
818	CONTRACTUAL SERVICES	11,703.66	-	11,703.66
835	FEES	17.00	-	17.00
872	PROFESSIONAL DEVELOPMENT	30.00	-	30.00
873	OTHER TRAVEL AND TRAINING	5,136.27	-	5,136.27
875	MEMBERSHIPS	1,244.50	-	1,244.50
900	PRINTING & PUBLISHING	646.80	-	646.80
928	TELEPHONE	1,207.02	-	1,207.02
943	EQUIPMENT RENTALS OR LEASE	5,587.20	-	5,587.20
	TOTAL OTHER SERVICES & CHARGES	<u>27,706.67</u>	<u>-</u>	<u>27,706.67</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 559,557.94</u>	<u>\$ 20,941.81</u>	<u>\$ 580,499.75</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
ADJUSTED ACTUAL EXPENSE  
YEAR ENDED JUNE 30, 2005  
RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4425- REPAIR & MAINTENANCE

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
703	RETIREE HEALTH CARE		\$ 56,770.81	\$ 56,770.81
706	PERMANENT EMPLOYEES	1,059,471.28	15,892.07	1,075,363.35
708	SHIFT DIFFERENTIAL	42.28	-	42.28
709	TIME & ONE-HALF	68,677.87	1,030.17	69,708.04
710	ACT.ASSIGNMENT	4,838.65	72.58	4,911.23
714	REGULAR HOURLY RATE	2,477.77	37.17	2,514.94
715	EMPLOYERS SOCIAL SECURITY	83,978.96	1,259.68	85,238.64
719	HOSPITALIZATION INSURANCE	398,916.10	(11,568.57)	387,347.53
721	LONGEVITY PAY	12,200.04	-	12,200.04
722	RETIREMENT FUND CONTRIBUTION	166,758.85	2,668.14	169,426.99
	TOTAL PERSONAL SERVICES	<u>1,797,361.80</u>	<u>66,162.05</u>	<u>1,863,523.85</u>
728	SUPPLIES	131,120.85	-	131,120.85
768	CLOTHING/CLEANING ALLOWANCE	7,706.72	-	7,706.72
	TOTAL SUPPLIES	<u>138,827.57</u>	<u>-</u>	<u>138,827.57</u>
818	CONTRACTUAL SERVICES	1,336,374.37	60,532.00	1,396,906.37
873	OTHER TRAVEL AND TRAINING	560.00	-	560.00
900	PRINTING & PUBLISHING	4.50	-	4.50
912	CLAIMS	229,080.17	-	229,080.17
921	ELECTRICITY	11,368.51	-	11,368.51
922	WATER	4,499.96	-	4,499.96
923	GAS	10,512.60	-	10,512.60
928	TELEPHONE	5,651.20	-	5,651.20
930	MAINTENANCE REPAIR	4,531.19	-	4,531.19
931	HOME REPAIR	11,382.00	-	11,382.00
943	EQUIPMENT RENTALS OR LEASE	578,980.12	-	578,980.12
945	LAND RENTAL OR LEASE	2,745.82	-	2,745.82
947	VEHICLE RENTAL/CAR MILEAGE	1,146.00	-	1,146.00
959	REFUSE COLLECTION CHARGES	1,265.27	-	1,265.27
963	PROPERTY TAXES	-	-	-
	TOTAL OTHER SERVICES & CHARGES	<u>2,198,101.71</u>	<u>60,532.00</u>	<u>2,258,633.71</u>
982	EQUIPMENT	2,990.00	-	2,990.00
	TOTAL CAPITAL	<u>2,990.00</u>	<u>-</u>	<u>2,990.00</u>
999	OPERATING TRANSFERS OUT	30,080.00	-	30,080.00
	TOTAL TRANSFERS/FEES	<u>30,080.00</u>	<u>-</u>	<u>30,080.00</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 4,167,361.08</u>	<u>\$ 126,694.05</u>	<u>\$ 4,294,055.13</u>

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# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 28, 2005

TO: Eric R. DeLong  
Deputy City Manager

FROM: Michael Wolski   
Utility Financial Officer

**SUBJECT: FY 2005 OPERATING EXPENSES- SEWAGE PUMPING STATIONS**

The attached schedule allocates the direct cost for operating and maintaining system pumping and metering stations. The operating expense consists of direct labor, utilities, operating and maintenance supplies, repairs and maintenance and vehicle rental.

The overflow regulators are components of the integrated system and subsequently not included herein.

MW

Attachment

*srs\stask4 2005*

**CITY OF GRAND RAPIDS, MICHIGAN  
INVENTORY OF SEWAGE PUMPING STATIONS  
FOR THE YEAR ENDED JUNE 30, 2005**

<u>Station</u>	<u>Physical Location</u>	<u>Type</u>	<u>FY'05 Expenses</u>
Market Avenue	Grand Rapids	Interceptor	\$ 187,810
Millbank	Grand Rapids	Local	3,799
Eastlake	Grand Rapids	Local	13,485
Eastern	Grand Rapids	Trunk	21,248
Middleboro	Grand Rapids	Trunk	10,771
Oak Hollow	Grand Rapids Twmsp	Local	14,089
Kingsbury	Walker	Trunk	10,278
Bona Vista	Grand Rapids	Trunk	15,202
Aberdeen	Grand Rapids	Local	13,932
O'Brien	Walker	Trunk	23,662
Leonard Heights	Walker	Trunk	9,495
Guild	Grand Rapids	Local	10,924
Orchard Vista	Cascade Twmsp	Local	5,440
Brookview	Grand Rapids	Trunk	10,796
Remembrance Road	Walker	Local	41,895
Kraft Avenue	Cascade Twmsp	Local	9,109
Thornapple	Cascade Twmsp	Trunk	210,088
Thornhills	Cascade Twmsp	Local	8,167
Greenbrier	Grand Rapids Twmsp	Local	11,982
Shore Haven	Grand Rapids Twmsp	Local	9,386
Ada	Ada	Local	13,528
Robinhood	Grand Rapids Twmsp	Local	11,684
Lincoln School	Grand Rapids Twmsp	Local	5,941
Reeds Lake Blvd.	Grand Rapids Twmsp	Local	12,224
6000 28th Street	Cascade Twmsp	Local	7,750
Ada	Ada	Meter	1,947
East Grand Rapids	East Grand Rapids	Meter	4,706
Brandau	North Kent	Meter	2,428
Briggs	North Kent	Meter	1,736
Gaines Township	Gaines Township	Meter	2,328
Kentwood	Kentwood	Meter	2,123
Alpine Township Meter	Alpine Township	Meter	2,164
Rickman Avenue	Grand Rapids	Local	12,474
Michigan Street	Grand Rapids	Local	8,938
Eagle Crest	Grand Rapids Twmsp	Local	8,896
East Paris	Grand Rapids Twmsp	Local	12,886
Alpine Estates	Walker	Local	7,519
Elmdale	Grand Rapids	Local	3,231
Collindale	Walker	Local	4,985
Saddleback	Grand Rapids Twmsp	Local	5,424
Arbor Hills Lift Station	Grand Rapids Twmsp	Local	5,821
Cypress Trails	Grand Rapids Twmsp	Local	1,289
Bird Avenue	Grand Rapids Twmsp	Local	8,998
Valentine	Grand Rapids Twmsp	Local	3,396
Cascade Springs	Cascade Twmsp	Local	8,119
Churchill Downs	Grand Rapids	Local	3,819
Woodsboro Court	Grand Rapids Twmsp	Local	3,658
Meadowood Trails	Cascade Twmsp	Local	4,381
Stonebridge	Grand Rapids Twmsp	Local	5,252
Burton/Cacade	Cascade Twmsp	Local	13,203
Crahen	Grand Rapids Twmsp	Local	6,057
Jonathan Woods	Cascade Twmsp	Local	4,070
Watermark	Cascade Twmsp	Local	7,687
Mountain Ash	Tallmadge Twmsp	Local	7,405
Reeds Hollow	Grand Rapids Twmsp	Local	5,228
16th Avenue Lift Station	Marne	Local	6,850
Hayes West Lift Station	Tallmadge	Local	8,954
Hayes East Lift Station	Tallmadge	Local	3,961
			\$882,618

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: November 7, 2005  
TO: Mike Wolski  
Utility Financial Officer

RECEIVED

NOV 08 2005

FROM: Scott Buhret   
Assistant City Manager - Fiscal Services

SUBJECT: 2005 SEWER RATE STUDY ANNUAL EXPENSE ADJUSTMENTS-TASK #5

Attached are adjustments to test period actual operating expenses to be included in Task #5 of the Sewer Rate Study.

Attachment

**CITY OF GRAND RAPIDS  
SEWER DISPOSAL SYSTEM FUND  
RATE STUDY TASK NO. 5  
NOTES TO ADJUSTED CURRENT ANNUAL EXPENSES  
FOR THE YEAR ENDED JUNE 30, 2005**

Sub-Object - 703

The factor to establish retiree health care cost for calendar year 2006 is 5.22%. The total of calendar year 2006's wages (sub-object 706) and longevity (sub-object 721) multiplied by this factor will establish the cost for calendar year 2006.

Sub-Object - 704, 705, 706, 707, 709, 710, 713, 714, 718, 723, 724

The wage increase factor to translate FY2005 actual costs to estimated calendar 2006 wages will be 1.5%. This wage increase estimate is based on ratified contracts that begin on 1/1/2006.

Sub-Object - 715

Increase FY2005 actual FICA expense by 1.5% to account for the effect of the wage increases.

Sub-Object - 719

Decrease health insurance actual FY2005 costs by 2.9% (multiply FY2005 by 97.1%) to reflect changes effective in FY2006.

Sub-Object - 722

Increase FY2005 actual expense by 1.6% to reflect the effect of a general pension contribution rate change from 16.8% to 16.74% and an estimated wage increase of 1.5% for FY2005, and a general pension contribution rate change from 16.74% to 16.91% with no increase in wages for FY2006.

Sub-Object - 999

Administration - Adjust FY2005 actual cost to reflect adjustments in charges for central services rendered by the Insurance Payment Fund and the General Operating Fund.

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 31, 2005

TO: Eric R. DeLong  
Deputy City Manager

FROM: Michael Wolski   
Utility Financial Officer

**SUBJECT: 2005 SEWER RATE STUDY- TASK #5**

Known cost increases by which to adjust FY05 operating costs include fund carry-forwards and FY06 BA#11, which re-appropriated lapsed FY05 funds, if any, for projects that were not completed prior to June 30, 2005. They are as follows:

<u>ACCOUNT</u>	<u>DESCRIPTION</u>	<u>AMOUNT</u>
4423-818	West MI Environmental	\$35,788
4425-818	American Water Service	172,000

MW

*srs\stask5 2005*

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# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 31, 2005

TO: Eric R. DeLong  
Deputy City Manager

FROM: Michael Wolski   
Utility Financial Officer

**SUBJECT: 2005 SEWER RATE STUDY- TASK #6**

The Sewage Disposal System Fund's revenues and volumes by governmental unit for the year ended June 30, 2005 are disclosed on the following page. In addition, actual volume comparisons for the past five (5) years by governmental unit are included herein.

MW

Attachment

*srs\stask6 2005*

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 6**

DETERMINE SEWAGE VOLUME AND REVENUE BY GOVERNMENTAL ENTITY FOR THE YEAR ENDED JUNE 30, 2005:

RETAIL:	SALES REVENUE		VOLUME BILLED
	METERED SALES	SURCHARGES	(GALLONS)
CITY OF GRAND RAPIDS (1)	\$ 20,878,616.91	\$ 233,637.72	6,125,980,872
CITY OF WALKER	2,283,788.71	22,960.23	791,795,400
CITY OF KENTWOOD	1,919,934.85	148,068.48	1,032,023,080
CASCADE TOWNSHIP	1,037,997.23	30,263.55	342,130,712
GRAND RAPIDS TOWNSHIP	1,172,883.35		298,114,652
TALLMADGE TOWNSHIP	85,795.23		10,938,004
WRIGHT TOWNSHIP (2)	199,639.48	1,520.00	17,499,296
SUB-TOTAL RETAIL (3)	<u>\$ 27,578,655.76</u>	<u>\$ 436,449.98</u>	<u>8,618,482,016</u>
WHOLESAL:			
CITY OF E. GRAND RAPIDS	\$ 432,869.52		436,612,800
NORTH KENT AREA	1,676,856.23		1,513,328,450
ADA TOWNSHIP	399,319.97	191,803.08	319,934,352
GAINES TOWNSHIP	117,673.75		112,218,300
MEIJER - ALGOMA	3,045.16		3,848,250
SUB-TOTAL WHOLESAL	<u>\$ 2,629,764.63</u>	<u>\$ 191,803.08</u>	<u>2,385,942,152</u>
TOTAL	<u>\$ 30,208,420.39</u>	<u>\$ 628,253.06</u>	<u>11,004,424,168</u>

REVENUE CLASSIFICATION:

4410 - 607054 ADA SEWAGE SERVICE CHARGE	\$ 399,319.97
4410 - 607055 RETAIL SEWAGE SERVICE CHARGE	27,502,962.08
4410 - 607056 WYOMING SEWAGE SERVICE CHARGE	75,693.68
4410 - 607058 NORTH KENT SEWAGE SERVICE CHARGE	1,676,856.23
4410 - 607060 E. GRAND RAPIDS SEWAGE SERVICE CHARGE	432,869.52
4410 - 607062 GAINES TWP SEWAGE SERVICE CHARGE	117,673.75
4410 - 607014 MEIJER-ALGOMA SEWAGE SERVICE CHARGE	3,045.16
4423 - 607074 SEWAGE SURCHARGE	628,253.06
	<u>\$ 30,836,673.45</u>

- (1) THE VOLUME & DOLLAR AMOUNT FOR THE CITY OF WYOMING ARE INCLUDED IN THE GRAND RAPIDS TOTALS.
- (2) CHARGES TO USERS IN WRIGHT TOWNSHIP ARE BASED ON A REU (RESIDENTIAL EQUIVALENT UNIT) CHARGE, IN LIEU OF COMMODITY & MONTHLY SERVICE CHARGES, AND AS SUCH DOES NOT RECORD ANY BILLED VOLUME IN RETAIL SERVICE CHARGES TO WRIGHT TOWNSHIP. THE AMOUNT INCLUDED ABOVE REFLECTS THE ESTIMATED BILLED VOLUME BASED ON THE WWTP's LIFT STATION PUMPING REPORT FOR FY 2005.
- (3) A REVENUE ACCRUAL OF (\$191,244), (60,080,868) GALLONS, HAS BEEN PRORATED TO ALL RETAIL CUSTOMER COMMUNITIES HAVING COMMODITY RATES TO ACCRUE BILLINGS FROM THE LAST READING DATE THROUGH JUNE 30, 2005.

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
2005 RATE STUDY TASK NO. 6**

VOLUME COMPARISONS FOR FIVE (5) YEARS BY GOVERNMENTAL UNIT  
VOLUME = 1,000 GALLONS

MUNICIPALITY	FY01		FY02		FY03		FY04		FY05		FY01-FY05 % CHANGE
	VOL BILLED	% CHANGE									
GRAND RAPIDS	6,961,798	-4.05%	6,680,002	-0.10%	6,673,066	-6.28%	6,254,185	-0.90%	6,125,981	-2.05%	-12.01%
WALKER	697,449	1.53%	708,130	2.54%	726,101	-0.90%	719,570	-4.46%	791,795	10.04%	13.53%
KENTWOOD	1,088,280	-4.64%	1,037,751	3.57%	1,067,563	-5.26%	1,019,952	-13.06%	1,032,023	1.18%	-5.17%
CASCADE	346,386	-3.14%	335,493	9.78%	347,477	-2.43%	329,210	-4.84%	342,131	3.92%	-1.23%
GRAND RAPIDS TWP	285,329	-4.16%	273,470	12.90%	300,216	5.99%	292,933	-1.40%	298,115	1.77%	4.48%
TALLMADGE	8,591	11.52%	9,581	10.06%	10,817	19.56%	9,404	15.33%	10,938	7.12%	27.32%
WRIGHT TWP *					17,666	N/A	16,811	4.09%	17,499	4.09%	N/A
EAST GRAND RAPIDS**	464,152	4.72%	486,080	-10.18%	436,600	5.99%	462,732	-1.40%	436,613	-5.64%	-5.93%
NORTH KENT AREA	1,589,927	10.06%	1,749,824	-4.40%	1,482,714	3.83%	1,461,954	15.33%	1,513,329	3.51%	-4.82%
ADA TWP	276,120	0.45%	277,370	-4.51%	265,176	19.56%	305,816	112.218	319,934	4.62%	15.87%
GAINES TWP	88,375		84,389		100,896		104,762		112,218		26.98%
MEIJER - ALGOMA							5,041 *	N/A	3,848	-23.67%	N/A
TOTAL	11,806,407	-1.39%	11,642,090	-1.84%	11,428,292	-3.90%	10,982,370	0.20%	11,004,424	0.20%	-6.79%

\* ESTIMATED FLOW.

\*\* FY02 BILLED VOLUME REFLECTS CREDIT REFERENCED IN TASK 9 OF 2002 RATE STUDY.

GRAND RAPIDS VOLUME COMPARED TO  
CUSTOMER COMMUNITIES

VOLUME = 1,000 GALLONS	FY02		FY03		FY04		FY05	
	VOL BILLED	% OF TOTAL						
GRAND RAPIDS	6,680,002	57.38%	6,673,066	58.39%	6,254,185	56.95%	6,125,981	55.67%
CUSTOMER COMMUNITIES	4,962,088	42.62%	4,755,226	41.61%	4,728,185	43.05%	4,878,443	44.33%
TOTAL	11,642,090	100.00%	11,428,292	100.00%	10,982,370	100.00%	11,004,424	100.00%

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 7**

OPERATING REVENUES OTHER THAN WASTEWATER RECEIPTS:

4410-476009	INDUSTRIAL PRETREATMENT PERMITS	\$ 83,737.96
4410-607001	MISCELLANEOUS SERVICE FEES	9,980.16
4410-607057	INDUSTRIAL DISCHARGE AUTHORIZATION	112,055.40
4410-607043	PRELIM/DESIGN/CONSTR ENGINEERING	157,051.11
4410-658002	PAYMENT IN LIEU OF FINES	-
		<u>\$ 362,824.63</u>

OTHER OPERATING REVENUES NOT INCLUDED:

CAPITAL CONTRIBUTION

4410-607061	SEWAGE FRONT FOOTAGE	\$ 222,090.98
	AUDITOR'S ADJUSTMENT	-
		<u>\$ 222,090.98</u>

4410-607059	INTEGRATED SEWER CONNECTION	<u>\$ 1,651,009.00</u>
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# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 28, 2005

TO: Michael Wolski  
Utility Financial Officer

FROM: Corky Overmyer  
Environmental Protection Services Director

SUBJECT: 2005 SEWER RATE STUDY- TASK #8 *ab*

No significant changes in operating levels are anticipated to take effect by January 1, 2006, which would require adjustments to operating costs for the test period.

COMW

*srs\stask8 2005*

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 28, 2005

TO: Michael Wolski  
Utility Financial Officer

FROM: Corky Overmyer  
Environmental Protection Services Director

SUBJECT: 2005 SEWER RATE STUDY- TASK #9 *OWD*

No significant changes in sewer revenues are anticipated to take effect by January 1, 2006, which would require an adjustment to operating revenue.

COMW

*srs\stask9 2005*

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: November 4, 2005

TO: Michael Wolski  
Utility Financial Officer

FROM: Corky Overmyer   
Environmental Protection Services Director

**SUBJECT: 2005 SEWER RATE STUDY- TASK #10**

The following are major sewage system projects that for rate study purposes should be considered operative as of January 1, 2006.

<u>Description</u>	<u>Location</u>	<u>Amount</u>
Beverly Hills Ph 1B	Grand Rapids Twp	\$ 371,842
College Ave – Crescent St / Michigan St	Grand Rapids	113,631
Burke Ave – Spencer St / Diamond Ave	Grand Rapids	148,193
Marne Connector	Tallmadge / Wright	1,065,841
Division Ave – 28th St / Alger St	Grand Rapids	212,152
Division Ave – Cherry St / Oaks St	Grand Rapids	386,103
Pearl St – Grand River / Campau Ave	Grand Rapids	105,691
WWTP B Section Primary Tank	Integrated	1,453,536
James Ave – Logan St / Wealthy St	Grand Rapids	160,309
WWTP South Plant Aeration & Clarifier Impr	Integrated	7,602,408

CO\LW

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**CITY OF GRAND RAPIDS, MICHIGAN**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**TASK NO. 11**

"COMPUTE ACCUMULATED COST, DEPRECIATION AND DEPRECIATION EXPENSE AS OF JUNE 30, 2005"

**INTEGRATED SYSTEM**

	ORIGINAL COST	ACCUMULATED DEPRECIATION	DEPRECIATION EXPENSE
LAND	\$ 1,041,867	\$ -	\$ -
LAND IMPROVEMENTS	12,093,644	8,237,149	555,233
BUILDINGS & STRUCTURES	47,377,402	21,563,033	890,048
PROCESS EQUIPMENT	40,807,745	20,528,130	991,953
AUXILIARY EQUIPMENT	22,177,984	21,355,222	101,163
MACHINERY & EQUIPMENT	4,555,806	3,664,888	138,139
OFFICE EQUIPMENT & FURNITURE	628,067	547,799	23,765
	<u>\$ 128,682,515</u>	<u>\$ 75,896,221</u>	<u>\$ 2,700,301</u>

**NON-INTEGRATED SYSTEM**

	ORIGINAL COST	ACCUMULATED DEPRECIATION	DEPRECIATION EXPENSE
LAND	\$ 1,302,687		
LAND IMPROVEMENTS	221,358	40,059	11,068
BUILDINGS & STRUCTURES	6,637,205	1,114,006	130,732
PROCESS EQUIPMENT	6,560,637	2,293,429	178,365
AUXILIARY EQUIPMENT	2,139,033	986,659	92,539
MACHINERY & EQUIPMENT	241,686	57,318	23,418
OFFICE EQUIPMENT & FURNITURE	68,632	45,755	4,575
SERVICEMAINS - GRAND RAPIDS	178,184,554	48,414,349	3,304,914
SERVICEMAINS - WALKER	24,400,305	8,342,528	468,267
SERVICEMAINS - KENTWOOD	23,248,268	8,398,331	451,994
SERVICEMAINS - CASCADE TWP	15,733,726	4,343,440	304,424
SERVICEMAINS - GRAND RAPIDS TWP	13,621,332	3,722,153	263,093
SERVICEMAINS - TALLMADGE TWP	1,908,283	262,087	36,159
SERVICEMAINS - WRIGHT TWP	-	-	-
	<u>\$ 274,267,706</u>	<u>\$ 78,020,114</u>	<u>\$ 5,269,548</u>
TOTAL	<u>\$ 402,950,221</u>	<u>\$153,916,335</u>	<u>\$ 7,969,849</u>

SOURCE: FINAL GENERAL LEDGER, AS ADJUSTED, FOR JUNE 30, 2005.

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 12**

TASK 12A DETERMINE WORKING CAPITAL NEEDS FOR MATERIALS AND SUPPLIES ON HAND.

MATERIALS AND SUPPLIES INVENTORY AS OF JUNE 30, 2005: \$ 1,325,212

TASK 12B DETERMINE WORKING CAPITAL NEEDS FOR PREPAYMENT OF OPERATING COSTS.

NO REQUIREMENT FOR PREPAYMENT OF OPERATING COSTS IS CALLED FOR IN THE ORDINARY CYCLE OF BUSINESS.

TASK 12C DETERMINE CASH WORKING CAPITAL NEEDS & DETERMINE TOTAL WORKING CAPITAL NEEDS.

MINIMUM CASH WORKING CAPITAL IS DEFINED AS THE SUM OF 90 DAYS ADJUSTED OPERATING EXPENSES.

ADJUSTED CURRENT ANNUAL EXPENSES = \$21,891,961 @ 90/365 = \$ 5,398,018

TOTAL WORKING CAPITAL NEEDS CONSIST OF THE FOLLOWING:

12A INVESTMENT IN INVENTORY	\$	1,325,212
12B PREPAYMENT OF OPERATING EXPENSES		-
12C 90 DAY OPERATING EXPENSES		5,398,018
		5,398,018
	\$	6,723,230

**SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
ZONEGATED FACILITIES  
TASK #13  
October 28, 2005**

Lengths and cost of all interceptor and trunk sewer mains that are jointly used were allocated according to the percentage of flow from contributing communities per the "Report on Sewage Flow Allocation and Zoning of the Sewage System for Fiscal Year 2002" (B&V zoning report), as adjusted for FY05 characteristics. Jointly used pumping stations were also prorated based on B&V zoning report. All zoning work papers are on file at the Coldbrook Complex. Maps are on file in the City Engineer's Office.

MW

*srs\stask13 2005*

CITY OF GRAND RAPIDS, MICHIGAN  
 SEWER RATE STUDY  
 SEWAGE DISPOSAL SYSTEM FUND  
 METHODOLOGY FOR I/I & OTHER FLOW APPORTIONMENT - TASK NO. 13

	MILLION GALLONS
1.) ANNUAL WASTEWATER TREATMENT PLANT FLOW	17,804.99
LESS: WHOLESALE BILLED FLOW	(2,385.94)
LESS: RETAIL BILLED FLOW	(8,618.48)
TOTAL RETAIL I/I & OTHER FLOW	<u>6,800.57</u>
2.) RETAIL INFLOW FROM SEPARATED AREAS (A)	231.09
RETAIL INFLOW FROM COMBINED AREAS - AMOUNT ESTIMATED (A)	674.70
LESS: ANNUAL BYPASS FROM (3) PUMPING STATIONS	-
LESS: IN-SYSTEM BYPASS & RETENTION BASIN OVERFLOW	(93.33)
TOTAL RETAIL INFLOW	<u>812.46</u>
3.) RETAIL INFILTRATION:	
TOTAL RETAIL I/I & OTHER FLOW	6,800.57
LESS: TOTAL RETAIL INFLOW (#2)	(812.46)
LESS: MARKET AVE RETENTION BASIN (MARB) CAPTURE	5,988.11
TOTAL RETAIL INFILTRATION & OTHER FLOW	<u>(262.48)</u>
4.) ALLOCATION OF RETAIL INFILTRATION & OTHER FLOW - APPORTIONED ON THE BASIS OF B&V SUMMARY OF 1997 MONITORED FLOW DATA (B)	5,725.63

	MILLION GALLONS
GOVERNMENTAL UNIT(S)	5,725.63
UTILITY PARTNERS	5,725.63
TOTAL	<u>5,725.63</u>

(A) BASED ON RECORDED RAINFALL @ WWTP & APPORTIONED PER BLACK & VEATCH'S SUMMARY OF 1997 MONITORED FLOW DATA.  
 (B) BASED ON INFILTRATION & OTHER FLOW APPORTIONED IN PREVIOUS YEAR & ADJUSTED FOR SYSTEM ADDITIONS & IMPROVEMENTS  
 IN EACH CUSTOMER COMMUNITY.

CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
METHODOLOGY FOR I/I & OTHER FLOW APPORTIONMENT - TASK NO. 13 (CONTINUED)

5.) SUMMARY: (IN MILLION GALLONS)

GOVERNMENTAL UNIT(S) UTILITY PARTNERS	BILLED FLOW (TASK #6)	INFLOW (#2 ABOVE)	INFILTRATION & OTHER FLOW (#4 ABOVE)	MARB (A) (#3 ABOVE)	TOTAL PLANT FLOW	PERCENT OF TOTAL	TOTAL PLANT FLOW (MGD)
NORTH KENT	9,378.87	812.46	5,725.63	223.70	16,140.66	90.6525%	44.2210
GAINES TWP	1,513.33	-	-	36.10	1,549.43	8.7022%	4.2450
TOTAL	11,004.42	812.46	5,725.63	262.48	17,804.99	100.0000%	48.7808

(A) BASED ON BILLED FLOW (TASK #6).

# MEMORANDUM

CITY OF GRAND RAPIDS

**Date:** July 12, 2005

**To:** Mr. Cortland Overmyer, Director  
EPSD

**From:** Randall Fisher, Assistant Director  
EPSD

**Subject:** FY05 Wastewater Plant Flow Data

Listed below is the flow data for the last completed fiscal year. Compared to last years report the plant flow decreased by 4.1% from 18,558 million gallons treated in FY04 to 17,805 million gallons treated in FY05. The completion of a major plant wide flow meter replacement project may explain this decrease. Plant staff continued to record flow data from the old meter for approximately 6 months for comparison purposes. On average the new flow metering equipment records approximately 5 MGD less flow than the old meter. Shortly after the new metering equipment went into service staff observed the difference and have verified that the new meters are properly installed, calibrated and their accuracy has been double checked.

If you have any questions, please contact me.

### Monthly data

Month	Total MG
July	1500.81
August	1438.43
September	1364.02
October	1340.01
November	1378.74
December	1560.48
January	1742.74
February	1497.60
March	1626.76
April	1453.92
May	1411.72
June	1489.76
<b>Total</b>	<b>17804.99</b>

### Fiscal year data

Wastewater Treatment Plant (WWTP) average daily flow (MG)	48.78
Rainfall recorded at WWTP (inches)	26.55
Market Avenue Retention Basin (MARB) inflow (MG)	300.29
Market Avenue Retention Basin (MARB) overflow (MG)	37.81
In-System overflows + MARB (MG) (report attached)	55.52

Attachment

Copy

Bill Cole, City Engineer  
Mike Wolski, Utilities Financial Analyst

0860.DOC

CITY OF GRAND RAPIDS, MICHIGAN  
LONG TERM OVERFLOW MONITORING REPORT  
OVERFLOW VOLUME SUMMARY  
FISCAL YEAR 2005

Overflow Date	Rainfall Inches(1)	Pumping Station Overflows					West Side Ditch MG	In-System Overflows		Total Overflow Volume MG
		MAPS(2) MG(5)	F/W(3) MG	MARB(4) MG	Total MG	Monitored MG		Modeled MG		
7/3/2004	1.78	0.000	0.000	0.000	0.000	0.000	0.000	0.676	0.000	0.676
7/21/2004	0.74	0.000	0.000	0.000	0.000	0.000	0.000	4.138	0.000	4.138
8/2/2004	0.04	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.000	0.006
8/4/2004	0.66	0.000	0.000	0.000	0.000	0.000	0.000	0.286	0.000	0.286
8/28/2004	2.85	0.000	0.000	0.000	0.000	0.000	0.000	1.835	0.000	1.835
10/8/2004	1.1	0.000	0.000	0.000	0.000	0.000	0.000	0.085	0.000	0.085
10/23/2004	1.38	0.000	0.000	0.000	0.000	0.000	0.000	1.019	0.000	1.019
12/7/2004	0.78	0.000	0.000	0.000	0.000	0.000	0.000	0.101	0.000	0.101
1/13/2005	1.88	0.000	0.000	26.176	26.176	0.000	0.000	0.000	0.000	26.176
1/14/2005	1.88	0.000	0.000	11.629	11.629	0.000	0.000	0.000	0.000	11.629
1/15/2005	1.88	0.000	0.000	1.470	1.470	0.000	0.000	0.000	0.000	1.470
2/14/2005	0.76	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.007
3/31/2005	0.09	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.007
5/11/2005	0.46	0.000	0.000	0.000	0.000	0.000	0.000	0.063	0.000	0.063
5/13/2005	0.66	0.000	0.000	0.000	0.000	0.000	0.000	0.508	0.000	0.508
5/19/2005	0.81	0.000	0.000	0.000	0.000	0.000	0.000	0.283	0.000	0.283
6/5/2005	1.17	0.000	0.000	0.000	0.000	0.000	0.000	2.556	0.000	2.556
6/8/2005	0.5	0.000	0.000	0.000	0.000	0.000	0.000	0.187	0.000	0.187
6/11/2005	1.34	0.000	0.000	0.000	0.000	0.000	0.000	1.730	0.000	1.730
6/14/2005	1.1	0.000	0.000	0.000	0.000	0.000	0.000	0.911	0.000	0.911
6/30/2005	1.36	0.000	0.000	0.000	0.000	0.000	0.000	1.842	0.000	1.842
		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
									Total	55.515

- (1) Rain gauge at WWTP
- (2) Market Avenue Pumping Station
- (3) Front/Wealthy Pumping Station
- (4) Market Avenue Retention Basin
- (5) MG = Million Gallons

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 28, 2005

TO: Michael Wolski  
Financial Analyst

FROM: Charles Schroeder, PE  
Hydraulic Engineer *CRS*

SUBJECT: 2005 Sewer Rate Study - Task #14

Zonegating maps for the sewage system are included in the "Report on Sewage Flow Allocation and Zonegating of the Sewage System" from Black & Veatch, Ltd dated September 2003. The report also contains comprehensive information with respect to the basis for zonegating service mains and other system components, such as lift stations, that service more than one community.

RECEIVED

NOV 02 2005

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 15**

COMPUTE CONSTRUCTION COST RATE BASE (DEPRECIATED PLANT, PLUS WORKING CAPITAL, LESS CSO REVENUE REQUIREMENTS FOR CSO FIXED ASSETS INCLUDED IN TASK #11/21, LESS CONTRIBUTIONS BY OTHERS).

ORIGINAL CONSTRUCTION COST	- TASK #10	\$ 11,619,706	
	- TASK #11	402,950,221	
	- TASK #16/21	<u>(114,541,496)</u>	\$ 300,028,431
LESS: ACCUMULATED DEPRECIATION	- TASK #10	\$ 48,747	
	TASK #11	153,916,335	
	TASK #16/21	<u>(19,801,159)</u>	<u>(134,163,923)</u>
			165,864,508
WORKING CAPITAL REQUIREMENT	- TASK #12	\$ 6,723,230	
		<u>6,723,230</u>	6,723,230
			172,587,738
CONTRIBUTIONS BY OTHERS	- TASK #21	\$ 172,045,990	
LESS: AMORTIZATION		(90,273,138)	
		<u>(81,772,852)</u>	<u>(81,772,852)</u>
CONSTRUCTION COST RATE BASE			<u>\$ 90,814,886</u>

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 31, 2005

TO: Michael E. Wolski  
Utility Financial Officer

FROM: Linda Wagenmaker *LW*  
Financial Analyst

SUBJECT: **2005 SEWER RATE STUDY TASK#15A  
INTEGRATED SEWER CONNECTION FEES**

Attached is the Integrated Sewer Connection Fee Schedule as currently provided for in Chapter 27 of the City Code, with the addition of rates to be effective on January 1, 2006. The City Commission on June 27, 2000 established fees through calendar year 2004. Beginning January 1, 2005, the integrated sewer connection fees are to be calculated on a yearly basis as part of the annual Water/Sewer Rate Study. The Consumer Price Index used to determine rates effective January 1, 2006 is as follows:

August, 2004 Index	189.5
August, 2005 Index	196.4
Increase	6.9
Percentage increase	3.6%

LW

Attachment

Section 2.96 Integrated Sewer Connection Fee Schedule

When a property owner or user is requested or required to connect to the System and has not previously paid or been assessed a connection fee, the following connection fee schedule shall apply:

Integrated Connection Base Fee Schedule

Water Meter Size (inches)	<u>1/01/05</u>	<u>1/01/06</u>
3/4 or less	\$ 2,250	\$2,350
1	3,750	3,900
1 ½	7,500	7,850
2	12,000	12,550
3	26,250	27,400
4	47,250	49,350
6 and over	105,000	109,650

Except as otherwise provided in the immediately succeeding paragraph, the foregoing integrated sewer connection base fee schedule for single-family and multi-family residential dwelling units shall be adjusted upward and downward as follows: A single-family residential dwelling unit located on a parcel containing twenty thousand (20,000) square feet shall pay the applicable integrated connection fee in accordance with the foregoing schedule. When determining the square footage of a residential parcel for the purposes of determining the appropriate integrated connection fee, parcel size may be adjusted downward to take into consideration such things as wetlands, lakes, streams and other unusual characteristics of the parcel in accordance with policies approved from time to time by the Utility Advisory Board. To the extent the size of a parcel, as adjusted, is greater than or less than twenty thousand (20,000) square feet, one-half the applicable integrated connection fee will increase or decrease by the same percentage increase or decrease in the parcel above or below twenty thousand (20,000) square feet. In the case of multi-family residential dwellings, in order to determine the size of the parcel assigned to each dwelling unit for purposes of calculating the integrated connection fee to be paid by each multi-family residential dwelling unit, the total square footage of the parcel, as adjusted, on which the multi-family residential dwelling is located shall be divided by the total number of residential units. Notwithstanding any other provision in this subsection, the integrated connection fee for a single-family residential dwelling unit or multi-family residential dwelling unit shall not exceed four and one-half times the applicable base integrated connection fee set forth in foregoing schedule.

There shall be no upward adjustment in the integrated sewer service connection fee payable for a single-family residential dwelling unit connecting to the Sewer System if (a) each of the following conditions are met (1) a building permit shall have been obtained, (2) the dwelling unit shall have been constructed, and (3) a certificate of occupancy shall have been issued prior to January 1, 2000 or (b) local building permit fees have been paid to the local governmental unit prior to January 1, 2000 for a single-family residential dwelling unit to be

constructed on or after January 1, 2000. When connecting to the Sewer System, Users living in or owning such single-family residential dwelling units shall pay the applicable base integrated connection fee set forth in the Integrated Connection Base Fee Schedule adjusted downward, if applicable, in accordance with the immediate preceding paragraph.

Effective January 1, 2005 and January 1<sup>st</sup> of every year thereafter, the Integrated Sewer Connection Base Fees shall be adjusted by a percentage, which is determined by the annual change in the Consumer Price Index (the "index") calculated as follows:

- (1) The Consumer Price Index shall be that Index referred to as the Consumer Price Index, US City Average, All Urban Consumers, published by the U.S. Department of Labor-Bureau of Statistics ((1982-84)=100). In the event the method of determining the Index is substantially altered, the basis for determining the annual change thereafter shall be the Index which is most comparable to the Index described above.
- (2) For the purpose of computing the percentage change each calendar year, the Index for the month of August for the prior calendar year shall be subtracted from the Index for the immediately-preceding August. The result so obtained (if positive) shall be divided by the Index for the month of August for the prior calendar year to obtain the percentage increase which shall be applied to the then current Integrated Sewer Connection Base Fee Schedule to determine the new calendar year schedule.

The foregoing Integrated Connection fee is due and payable at the time a User receives a permit to connect to the Sewer System. A permit issued by the City to connect to the Sewer System shall expire one hundred eighty (180) days from the date the permit was issued.

The user receiving services who applies for a larger water meter than the one presently in service shall pay an Integrated Connection Fee which is the difference in cost between the meter size in service and the one applied for in accordance with the Integrated Connection Fee in effect at the time of application. No credit or rebate shall be made in the case of application for a smaller meter size.

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CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
CSO REVENUE REQUIREMENTS - TASK 16  
PRINCIPAL & INTEREST ON REVENUE BONDS & SRF  
DEBT FOR CALENDAR YEAR 2006 - ACCRUAL BASIS

DATE	SRF/REVENUE REFERENCE	5073- SERIES	REVENUE BONDS			STATE REVOLVING FUNDS			TOTAL		TOTAL PRINCIPAL & INTEREST
			PRINCIPAL	INTEREST	TRUSTEE	PRINCIPAL	INTEREST	PRINCIPAL	INTEREST		
07/01/06	N/A	1998	(1)	\$ 770,657.62	\$ 1,250.00						\$ 771,907.62
01/01/07	N/A	1998	(1)	\$ 1,163,233.50	1,250.00				\$ -	\$ 1,163,233.50	1,935,141.12
07/01/06	N/A	2004	(2)	704,250.00	600.00				0.00	704,850.00	704,850.00
01/01/07	N/A	2004	(2)	704,250.00	600.00				0.00	704,850.00	704,850.00
07/01/06	N/A	2005	(3)	524,400.00	800.00				0.00	525,200.00	525,200.00
01/01/07	N/A	2005	(3)	524,400.00	800.00				0.00	525,200.00	525,200.00
04/01/06	01	1991						\$ 2,725.00	0.00	2,725.00	2,725.00
10/01/06		SRF				\$ 65,000.00		5,450.00	65,000.00	5,450.00	70,450.00
04/01/07								2,400.00	0.00	2,400.00	2,400.00
04/01/06	02/03	1992A							0.00	31,975.00	31,975.00
10/01/06		SRF				745,000.00		63,950.00	745,000.00	63,950.00	808,950.00
04/01/07								28,250.00	0.00	28,250.00	28,250.00
04/01/06	04	1992B							0.00	3,825.00	3,825.00
10/01/06		SRF				90,000.00		7,650.00	90,000.00	7,650.00	97,650.00
04/01/07								3,375.00	0.00	3,375.00	3,375.00
04/01/06	06	1993A							0.00	23,350.00	23,350.00
10/01/06		SRF				545,000.00		46,700.00	545,000.00	46,700.00	591,700.00
04/01/07								20,625.00	0.00	20,625.00	20,625.00
04/01/06	07	1993B							0.00	22,050.00	22,050.00
10/01/06		SRF				475,000.00		44,100.00	475,000.00	44,100.00	519,100.00
04/01/07								19,675.00	0.00	19,675.00	19,675.00
04/01/06	09	1994A							0.00	27,675.00	27,675.00
10/01/06		SRF				645,000.00		55,350.00	645,000.00	55,350.00	700,350.00
04/01/07								24,450.00	0.00	24,450.00	24,450.00
04/01/06	10	1994B							0.00	19,075.00	19,075.00
10/01/06		SRF				202,500.00		34,100.00	202,500.00	34,100.00	236,600.00
04/01/07								17,050.00	0.00	17,050.00	227,050.00
04/01/06	11	1995A							0.00	105,868.14	105,868.14
10/01/06		SRF				105,868.14		13,284.52	105,868.14	13,284.52	119,152.66
04/01/07								12,093.51	0.00	12,093.51	120,423.70
04/01/06	12	1995B							0.00	11,728.13	11,728.13
10/01/06		SRF				170,000.00		23,456.25	170,000.00	23,456.25	193,456.25
04/01/07								10,771.88	0.00	10,771.88	10,771.88
									\$ 4,524,931.83	\$ 4,603,236.54	\$ 9,128,168.37

(1) PRORATED AMOUNT OF 1998 ISSUE RELATED TO CSO DEBT  
(2) DS ON ES CSO PORTION OF 2004 ISSUE. (\$28.17M)  
(3) DS ON ES CSO PORTION OF 2005 ISSUE. (\$21.355M)  
(4) PRORATED FOR APPLICABLE THREE (3) MONTH PERIOD IN CALENDAR YEAR 2006

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 16A**

INCLUDE PROJECT COST FOR UPCOMING SYSTEM IMPROVEMENTS (NON-INTEGRATED)

THE ESTIMATED TOTAL PROJECT COST FOR RECOMMENDED SEWAGE SYSTEM IMPROVEMENTS ARE SUMMARIZED IN THE FOLLOWING TABLE.

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>ESTIMATED COST</u>
1	3 MILE/REMEMBRANCE LS IMPROVEMENTS *	\$ 825,000
2	INDIAN MILL CREEK SEWER	13,500,000
3	SADDLEBACK SEWER	15,000,000
4	TALLMAN CREEK SEWER	6,000,000
5	MARKET AVENUE PUMPING STATION IMPROVEMENTS	8,923,550
		<u>\$ 44,248,550</u>

*\*Reflects estimate for initial phase.*

NOTE: NONE OF THE PROJECTS ABOVE ARE INCLUDED IN RECOMMENDED REVENUE REQUIREMENTS FOR CALENDAR YEAR 2006.

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 17**

**BONDS - PRINCIPAL & INTEREST PAYMENTS**

FISCAL YEAR ENDING JUNE 30,	CASH BASIS			ACCRUAL BASIS		
	PRINCIPAL	INTEREST	PRIN & INT	PRINCIPAL	INTEREST	PRIN & INT
2005	660,502.50	1,014,584.48	1,675,086.98	660,502.50	1,000,548.81	1,661,051.31
2006	689,220.00	986,513.14	1,675,733.14	689,220.00	971,436.45	1,660,656.45
2007	721,766.50	956,359.76	1,678,126.26	721,766.50	938,315.60	1,660,082.10
2008	758,142.00	920,271.44	1,678,413.44	758,142.00	899,896.37	1,658,038.37
2009	798,346.50	879,521.30	1,677,867.80	798,346.50	858,065.74	1,656,412.24
2010	842,380.00	836,610.18	1,678,990.18	842,380.00	813,971.22	1,656,351.22
2011	890,242.50	791,332.26	1,681,574.76	890,242.50	767,406.99	1,657,649.49
2012	938,105.00	743,481.72	1,681,586.72	938,105.00	718,270.15	1,656,375.15
2013	991,711.00	693,058.58	1,684,769.58	991,711.00	666,406.34	1,658,117.34
2014	1,047,231.50	639,754.10	1,686,985.60	1,047,231.50	611,609.76	1,658,841.26
2015	1,102,752.00	583,465.42	1,686,217.42	1,102,752.00	553,828.96	1,656,580.96
2016	1,162,101.50	524,192.50	1,686,294.00	1,162,101.50	492,961.02	1,655,062.52
2017	1,223,365.50	461,729.54	1,685,095.04	1,223,365.50	428,086.99	1,651,452.49
2018	1,292,287.50	394,444.44	1,686,731.94	1,292,287.50	358,906.53	1,651,194.03
2019	1,365,038.50	323,368.62	1,688,407.12	1,365,038.50	285,830.06	1,650,868.56
2020	1,439,704.00	248,291.50	1,687,995.50	1,439,704.00	208,699.64	1,648,403.64
2021	1,497,139.00	169,107.78	1,666,246.78	1,497,139.00	127,936.46	1,625,075.46
2022	1,577,548.00	86,765.14	1,664,313.14	1,577,548.00	43,382.57	1,620,930.57

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 18**

DETERMINE SEWER SYSTEM EQUITY IN THE CONSTRUCTION COST RATE BASE BY  
SUBTRACTING DEBT OUTSTANDING FROM THE TOTAL RATE BASE.

CONSTRUCTION COST RATE BASE - TASK NO. 15	\$ 90,814,886
LESS: BONDED INDEBTEDNESS (ACCRUAL) - TASK NO. 17 / 20	(51,001,024) *
NET SEWER SYSTEM EQUITY	\$ 39,813,862

\* INCLUDES 1998/2004 BOND PROCEEDS FOR FOLLOWING:

**1998 BONDS**

BRIGGS BLD/MONROE	\$ 1,535,859
WWTP- MAINT/GEN STORAGE	1,754,062
CSO- W5- #54	486,773
CSO- W5- #53	2,383,405
WWTP- AERATION IMPROVEMENTS	3,636,635
SEWER MAINT. BLD	1,283,535
MONROE AVE	1,838,323
IONIA- BARTLETT/CHERRY	133,922
CELEBRATION VILLAGE/CINEMA	999,935
FULTON- UNION/BENJAMIN	561,301
N PARK- MONROE/COIT	216,677
MONROE- TROWBRIDGE/Newberry	266,804
WEALTH ST EXT JUNC. CHAMBER	458,953
WEALTH ST- EASTERN / FULLER	1,033,837
EAST PARIS LS IMPROVEMENTS	323,478
GRIT UNLOADING STATION	639,596
FINAL EFFLUENT DISINFECTION	4,760,368
FLOW METER REPLACEMENT	751,431
AERATION & CLARIFIERS IMPR's (#10)	7,510,833

**2004 BONDS**

PRIMARY TANK REPAIRS (#10)	1,268,966
JAMES AVE.- LOGAN/WEALTHY (#10)	158,747
	\$ 32,003,440

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
RATE OF RETURN ON EQUITY - TASK NO. 19**

AT THE APRIL 5, 1977, COMMITTEE OF THE WHOLE MEETING, THE CITY COMMISSION DECIDED THE LEVEL OF RETURN ON SEWER SYSTEM EQUITY. THE LEVEL DECIDED UPON WAS ONE PERCENT MORE THAN THE AVERAGE BOND BUYER'S INDEX OF MUNICIPAL BONDS FOR THE PREVIOUS TWELVE MONTH PERIOD.

BOND BUYER'S INDEX OF 20 MUNICIPAL BONDS

<u>DATE</u>	<u>RATE</u>	<u>DATE</u>	<u>RATE</u>
14-Oct-04	4.480%	14-Apr-05	4.490%
21-Oct-04	4.430%	21-Apr-05	4.420%
28-Oct-04	4.440%	28-Apr-05	4.370%
04-Nov-04	4.450%	05-May-05	4.380%
10-Nov-04	4.580%	12-May-05	4.350%
18-Nov-04	4.520%	19-May-05	4.250%
23-Nov-04	4.530%	26-May-05	4.240%
02-Dec-04	4.630%	02-Jun-05	4.180%
09-Dec-04	4.430%	09-Jun-05	4.210%
16-Dec-04	4.390%	16-Jun-05	4.310%
22-Dec-04	4.440%	23-Jun-05	4.230%
29-Dec-04	4.490%	30-Jun-05	4.240%
06-Jan-05	4.470%	07-Jul-05	4.270%
13-Jan-05	4.410%	14-Jul-05	4.300%
20-Jan-05	4.400%	21-Jul-05	4.360%
27-Jan-05	4.370%	28-Jul-05	4.310%
03-Feb-05	4.370%	04-Aug-05	4.380%
10-Feb-05	4.270%	11-Aug-05	4.370%
17-Feb-05	4.350%	18-Aug-05	4.270%
24-Feb-05	4.420%	25-Aug-05	4.250%
03-Mar-05	4.500%	01-Sep-05	4.180%
10-Mar-05	4.570%	08-Sep-05	4.260%
17-Mar-05	4.560%	15-Sep-05	4.300%
24-Mar-05	4.630%	22-Sep-05	4.300%
31-Mar-05	4.610%	29-Sep-05	4.390%
07-Apr-05	4.560%	06-Oct-05	4.440%
		<u>52 WEEKS</u>	<u>4.391%</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 20**

DETERMINE COMPOSITE RATE OF RETURN ON CONSTRUCTION COST RATE BASE.

	RATE BASE	RATE OF RETURN	RETURN ON INVESTMENT
SEWER SYSTEM EQUITY IN THE CONSTRUCTION COST RATE (CCR) BASE	\$ 39,813,862	@ 5.391%	= \$ 2,146,365
SEWER SYSTEM INDEBTEDNESS IN THE CONSTRUCTION COST RATE BASE			
1998 ISSUE (REFIN. AMT. OF 1990 ISSUE)	18,997,584	@ 5.060%	= 961,278
1998 ISSUE	30,575,727	@ 5.060%	= 1,547,132
2004 ISSUE	1,427,713	@ 4.970%	= 70,957
LESS INTEREST ON BOND RESERVE AND REPLACEMENT ACCOUNTS			(44,750)
	\$ 90,814,886		\$ 4,680,982
COMPOSITE RATE OF RETURN ON INVESTMENT		$\frac{\$ 4,680,982}{90,814,886} =$	5.154%

CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
CONSTRUCTION COST RATE BASE & RETURN ON SYSTEM INVESTMENT- TASK NO. 21- PART 1  
FISCAL YEAR ENDED JUNE 30, 2005

PHYSICAL LOCATION

DESCRIPTION	RETAIL										WHOLESALE					MEIJER-ALGOMA	TOTAL
	INTEGRATED SYSTEM	CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	N. KENT AREA	ADA TOWNSHIP	GAINES TOWNSHIP					
COST	\$ 137,738,459	\$ 73,395,617	\$ 24,635,808	\$ 20,809,136	\$ 15,889,196	\$ 14,272,984	\$ 2,265,229	\$ 118,230	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 285,124,659	
LESS: ACCUMULATED DEPRECIATION	73,896,221	29,471,213	8,315,789	7,199,170	4,377,534	3,640,748	276,191	11,016	-	-	-	-	-	-	-	129,187,882	
NET BOOK VALUE	\$ 63,842,238	\$ 43,924,404	\$ 16,320,019	\$ 13,609,966	\$ 11,511,662	\$ 10,632,236	\$ 1,989,038	\$ 107,214	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 155,936,777	
WORKING CAPITAL REQUIREMENT	4,204,306	1,519,853	304,898	202,638	212,185	194,974	15,483	21,716	26,221	12,169	3,967	3,967	67	67	67	6,723,230	
CONTRIBUTIONS	66,046,544	45,444,257	16,624,917	13,812,604	11,723,847	10,827,210	2,004,501	128,930	26,221	12,169	3,967	3,967	67	67	67	166,680,007	
LESS AMORTIZATION	47,596,435	51,280,959	21,987,491	20,665,724	15,759,923	12,842,145	1,913,313	-	-	-	-	-	-	-	-	172,045,990	
CONSTRUCTION COST RATE BASE	\$ (13,827,303)	\$ (16,708,758)	\$ (6,362,574)	\$ (7,296,672)	\$ (4,308,084)	\$ (3,452,165)	\$ (275,777)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (80,273,138)	
RETURN ON INVESTMENT- TASK 20	\$ 2,691,380	\$ 1,481,028	\$ 65,791	\$ 20,799	\$ 14,019	\$ 74,076	\$ 18,913	\$ 6,645	\$ 246	\$ 1,351	\$ 627	\$ 204	\$ 3	\$ 3	\$ 3	\$ 4,375,082	
5.154%																	
ZONEGATED																	
COST	\$ -	\$ (1,069,340)	\$ 1,357,253	\$ 1,604,037	\$ 1,418,538	\$ 1,255,789	\$ 6,172	\$ 762,031	\$ 251,539	\$ 3,617,904	\$ 709,323	\$ 982,314	\$ 8,202	\$ 8,202	\$ 8,202	\$ 10,903,772	
LESS: ACCUMULATED DEPRECIATION	-	(515,457)	1,169,459	830,770	768,155	596,356	46,435	61,443	209,989	1,042,831	422,719	341,117	2,224	2,224	2,224	4,976,041	
NET BOOK VALUE	-	(553,883)	187,794	773,267	650,383	659,433	(40,263)	700,588	41,550	2,575,073	286,604	641,197	5,978	5,978	5,978	5,927,731	
WORKING CAPITAL REQUIREMENT	-	(553,883)	187,794	773,267	650,383	659,443	(40,263)	700,588	41,550	2,575,073	286,604	641,197	5,978	5,978	5,978	5,927,731	
CONTRIBUTIONS	-	-	9,169	1,313,530	342,574	101,862	91	145	-	11,857	213,531	875,904	30	30	30	2,665,693	
LESS AMORTIZATION	-	-	(9,169)	(525,412)	(137,030)	(41,648)	(91)	(145)	-	(11,857)	(85,412)	(270,261)	(30)	(30)	(30)	(1,081,055)	
CONSTRUCTION COST RATE BASE	-	-	-	(788,118)	(205,544)	(60,214)	-	-	-	-	(128,119)	(605,643)	-	-	-	(1,787,638)	
RETURN ON INVESTMENT- TASK 19/21	-	(57,554)	19,514	(1,543)	46,223	62,266	(4,184)	72,798	4,317	132,719	16,468	1,832	621	621	621	293,477	
RETURN ON INVESTMENT- TASK 19/21	10.391%	10.391%	10.391%	10.391%	10.391%	10.391%	10.391%	10.391%	10.391%	5.154%	10.391%	5.154%	10.391%	10.391%	10.391%	10.391%	
TOTAL RETURN ON INVESTMENT	\$ 2,691,380	\$ 1,423,474	\$ 85,305	\$ 19,256	\$ 60,242	\$ 136,342	\$ 14,729	\$ 79,443	\$ 4,553	\$ 134,070	\$ 17,095	\$ 2,036	\$ 624	\$ 624	\$ 624	\$ 4,668,559	

CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
CONSTRUCTION COST & ACCUMULATED DEPRECIATION-TASK NO. 21- PART2  
FISCAL YEAR ENDED JUNE 30, 2005

CONSTRUCTION COST

COST CENTER BY PHYSICAL LOCATION- TASK 11 IN SERVICE- TASK 10	AMOUNT	RETAIL										WHOLESALE			TOTAL
		CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	N. KENT AREA	ADA TOWNSHIP	GAINES TOWNSHIP	MEIER- ALGOMA		
\$ 128,682,515	\$ 194,188,857	\$ 24,991,653	\$ 23,248,288	\$ 15,889,196	\$ 14,041,449	\$ 1,908,283	\$ 580,665	\$ 47,172	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 402,950,221	
9,055,944	1,554,083	(428,004)	(114,541,496)		371,842	356,946	71,058							11,619,706	
TASK 11/16/21- CSO FA AMT														(114,541,496)	
LIFT STATIONS / CHAMBERS:															
FULLER-BROOKVIEW	\$ 1,252,893	(724,323)	-	-	-	369,804	-	-	354,519	-	-	-	-	-	
FULTON-MIDDLEBORROW	37,983	(37,365)	-	-	37,365	-	-	-	-	-	-	-	-	-	
WEALTHY ST EXT. CHAMBER	458,953	(88,091)	-	-	-	4,626	-	-	-	-	-	-	-	-	
WEALTHY	20,444	(12,995)	-	-	-	-	-	237	447	-	-	-	-	-	
MARKET	1,477,180	(475,963)	-	-	-	1,891	-	3,028	247,561	-	-	-	-	635	
VANPORTFLIET	44,816	(6,480)	-	-	-	-	-	-	-	-	-	-	-	-	
REMEMBRANCE / 3 MILE															
16th AVENUE	71,058	-	-	-	-	-	-	-	-	-	-	-	-	-	
HAYES- WEST	141,105	-	-	-	-	(141,105)	-	-	-	-	-	-	-	-	
HAYES- EAST	215,841	-	-	-	-	-	-	-	-	-	-	-	-	-	
O'BRIEN	546,532	-	-	-	-	-	-	-	-	-	-	-	-	-	
THORNAPPLE	89,992	22,140	(49,893)	-	-	27,753	-	-	-	-	-	-	-	-	
CASCADE SPRINGS	65,478	-	-	-	-	-	-	-	-	-	-	-	-	-	
BIRD AVE-ALPINE ESTATES	96,639	-	-	-	-	-	-	-	-	-	-	-	-	-	
EAST PARIS	323,478	-	-	-	-	-	-	-	-	-	-	-	-	-	
SERVICEMAINS															
ADJUSTED BY ZONEGATING		(7,137,046)	770,577	(835,095)	1,418,538	676,903	(477,658)	617,661	251,539	3,015,377	709,323	982,314	7,567	-	
ZONEGATING ADJUSTMENT	\$ 137,738,459	\$ 72,826,277	\$ 25,993,061	\$ 22,413,173	\$ 17,307,734	\$ 15,528,783	\$ 2,271,401	\$ 880,261	\$ 251,539	\$ 3,617,904	\$ 709,323	\$ 982,314	\$ 8,202	\$ 300,028,431	
PHYSICAL LOCATION	\$ -	\$ (1,069,340)	\$ 1,357,253	\$ 1,604,037	\$ 1,418,538	\$ 1,255,799	\$ 6,172	\$ 762,031	\$ 251,539	\$ 3,617,904	\$ 709,323	\$ 982,314	\$ 8,202	\$ 10,909,772	
	\$ 137,738,459	\$ 73,395,617	\$ 24,635,808	\$ 20,809,136	\$ 15,889,196	\$ 14,272,994	\$ 2,265,229	\$ 118,230	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 289,124,659	

ACCUMULATED DEPRECIATION

\$ 75,896,221	\$ 52,746,990	\$ 8,497,015	\$ 8,398,331	\$ 4,377,534	\$ 3,736,157	\$ 262,087	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 153,916,335
	23,233	(23,233)	-	-	-	23,627	1,887	9,129						48,747
	(19,801,159)					14,104								(19,801,159)
TASK 11/16/21- CSO ACC DEP														
LIFT STATIONS / CHAMBERS:														
FULLER-BROOKVIEW	\$ 233,245	(134,844)	-	-	-	68,845	-	-	65,999	-	-	-	-	-
FULTON-MIDDLEBORROW	35,793	(35,210)	-	-	-	35,210	-	-	-	-	-	-	-	-
WEALTHY ST EXT. CHAMBER	33,962	(6,518)	-	-	-	-	342	-	-	-	-	-	-	-
WEALTHY	20,427	(12,984)	-	-	-	-	-	236	447	-	-	-	-	-
MARKET	1,477,180	(475,963)	-	-	-	1,891	-	3,028	247,561	-	-	-	-	635
VANPORTFLIET	44,816	(6,480)	-	-	-	-	-	-	-	-	-	-	-	-
REMEMBRANCE / 3 MILE														
16th AVENUE	9,129	-	-	-	-	-	-	-	-	-	-	-	-	-
HAYES- WEST	14,104	-	-	-	-	-	-	-	-	-	-	-	-	-
HAYES- EAST	109,671	4,443	(10,012)	-	-	-	-	-	-	-	-	-	-	-
O'BRIEN	20,998	-	-	-	-	-	-	-	-	-	-	-	-	-
THORNAPPLE	13,096	-	-	-	-	-	-	-	-	-	-	-	-	-
CASCADE SPRINGS	3,221	-	-	-	-	-	-	-	-	-	-	-	-	-
BIRD AVE-ALPINE ESTATES	10,763	-	-	-	-	-	-	-	-	-	-	-	-	-
EAST PARIS														
SERVICEMAINS														
ADJUSTED BY ZONEGATING		(3,337,479)	794,820	(368,391)	768,155	365,472	29,110	44,075	209,989	728,824	422,719	341,117	1,589	-
ZONEGATING ADJUSTMENT	\$ 75,896,221	\$ 28,955,756	\$ 9,485,248	\$ 8,029,940	\$ 5,145,689	\$ 4,237,104	\$ 322,626	\$ 72,459	\$ 209,989	\$ 1,042,831	\$ 422,719	\$ 341,117	\$ 2,224	\$ 134,163,923
PHYSICAL LOCATION	\$ -	\$ (515,457)	\$ 1,189,459	\$ 830,770	\$ 768,155	\$ 596,356	\$ 46,435	\$ 61,443	\$ 209,989	\$ 1,042,831	\$ 422,719	\$ 341,117	\$ 2,224	\$ 4,976,041
	\$ 75,896,221	\$ 29,471,213	\$ 8,315,789	\$ 7,199,170	\$ 4,377,534	\$ 3,640,748	\$ 276,191	\$ 11,016	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 129,187,882

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
CONTRIBUTIONS & AMORTIZED CONTRIBUTIONS- TASK NO. 21 - PART3  
FISCAL YEAR ENDED JUNE 30, 2005**

**CONTRIBUTIONS BY OTHERS**

COST CENTER	AMOUNT	RETAIL										WHOLESALE			TOTAL		
		INTEGRATED SYSTEM	CITY OF GR	CITY OF WALKER	CITY OF KENWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	N. KENT AREA	ADA TOWNSHIP	GAINES TOWNSHIP	MEIJER-ALGOMA			
2004 RATE STUDY (LOCATION)	\$ 47,596,435	\$ 51,071,702	\$ 20,720,025	\$ 19,939,157	\$ 14,734,879	\$ 12,085,772	\$ 1,713,682	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 167,861,652
ADDITIONS:																	
CONNECTION & FRONT FOOT FEES		104,078	22,157	46,961	-	48,895	-	-	-	-	-	-	-	-	-	-	222,091
FIXED ASSET CONTRIBUTIONS		105,179	1,245,009	679,606	1,025,044	707,478	199,631	-	-	-	-	-	-	-	-	-	3,962,247
PLASTER CREEK INTERCEPTOR	\$ 2,244,621	-	-	1,313,530	342,574	100,357	-	-	-	-	213,531	74,903	-	-	-	-	\$ 172,045,990
GRANT	1,314,819	-	-	-	-	-	-	-	-	-	-	801,001	-	-	-	-	
INTERCEPTOR	70,753	-	9,169	-	-	1,505	91	145	-	11,857	-	-	-	-	-	30	
LIFT STATION		\$ 51,280,959	\$ 21,996,660	\$ 21,979,254	\$ 16,102,497	\$ 12,944,007	\$ 1,913,404	\$ 145	\$ -	\$ 11,857	\$ 213,531	\$ 875,904	\$ -	\$ -	\$ -	\$ 30	\$ 172,045,990
ADJUSTED BY ZONEGATING		\$ -	\$ 9,169	\$ 1,313,530	\$ 342,574	\$ 101,862	\$ 91	\$ 145	\$ -	\$ 11,857	\$ 213,531	\$ 875,904	\$ -	\$ -	\$ -	\$ 30	\$ -
ZONEGATING ADJUSTMENT		\$ -	\$ 21,967,491	\$ 20,665,724	\$ 15,759,923	\$ 12,842,145	\$ 1,913,313	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PHYSICAL LOCATION	\$ 47,596,435	\$ 51,280,959	\$ 21,967,491	\$ 20,665,724	\$ 15,759,923	\$ 12,842,145	\$ 1,913,313	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 172,045,990

**AMORTIZED CONTRIBUTIONS**

2004 RATE STUDY (LOCATION)	\$ 32,770,559	\$ 6,244,822	\$ 6,852,249	\$ 4,003,136	\$ 3,205,882	\$ 239,461	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 86,663,743
CURRENT YEAR ADJUSTMENT	998,573	1,024,567	394,265	404,423	304,948	246,303	36,316	-	-	-	-	-	-	-	-	-	3,409,395
PLASTER CREEK INTERCEPTOR	\$ 33,769,132	\$ 34,572,201	\$ 6,639,087	\$ 7,256,672	\$ 4,308,084	\$ 3,452,185	\$ 275,777	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 90,273,138
GRANT	897,848	-	-	525,412	137,030	40,143	-	-	-	-	85,412	29,961	-	-	-	-	
INTERCEPTOR	394,446	-	-	-	-	-	-	-	-	-	-	240,300	-	-	-	-	
LIFT STATION	70,753	-	9,169	-	-	1,505	91	145	-	11,857	-	-	-	-	-	30	
ADJUSTED BY ZONEGATING	\$ 33,769,132	\$ 34,572,201	\$ 6,648,256	\$ 7,782,084	\$ 4,445,114	\$ 3,493,833	\$ 275,688	\$ 145	\$ -	\$ 11,857	\$ 85,412	\$ 270,261	\$ -	\$ -	\$ -	\$ 30	\$ 90,273,138
ZONEGATING ADJUSTMENT		\$ -	\$ 9,169	\$ 525,412	\$ 137,030	\$ 41,648	\$ 91	\$ 145	\$ -	\$ 11,857	\$ 85,412	\$ 270,261	\$ -	\$ -	\$ -	\$ 30	\$ -
PHYSICAL LOCATION	\$ 33,769,132	\$ 34,572,201	\$ 6,639,087	\$ 7,256,672	\$ 4,308,084	\$ 3,452,185	\$ 275,777	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 90,273,138

CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
RECONCILIATION OF CONSTRUCTION COST & ACCUMULATED DEPRECIATION- PHYSICAL LOCATION & ZONEGATING  
FISCAL YEAR ENDED JUNE 30, 2005

COST CENTER	AMOUNT	RETAIL										WHOLESALE			TOTAL
		INTEGRATED SYSTEM	CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CITY OF CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	N. KENT AREA	ADA TOWNSHIP	GAINES TOWNSHIP	MELIER-ALGOMA	
<b>CONSTRUCTION COST- BY PHYSICAL LOCATION:</b>															
BY PHYSICAL LOCATION- TASK 11		\$ 128,682,515	\$ 195,355,792	\$ 24,400,305	\$ 23,248,268	\$ 15,733,726	\$ 13,621,332	\$ 1,908,283	\$ 47,172	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 402,650,221
IN SERVICE- TASK 10		9,055,944	1,554,083	-	-	-	371,842	590,665	-	-	-	-	-	-	11,619,706
TASK 11/16/21- CSO COST		(114,541,496)	(546,532)	546,532	-	-	-	-	-	-	-	-	-	-	(114,541,496)
O'BRIEN			(44,816)	44,816	-	-	-	-	-	-	-	-	-	-	
VANPORTLIET			(71,058)	-	-	-	-	-	71,058	-	-	-	-	-	
REMEMBRANCE /3 MILE			(141,105)	-	-	-	-	141,105	-	-	-	-	-	-	
16th AVENUE			(215,841)	-	-	-	-	215,841	-	-	-	-	-	-	
HAYES- WEST			(89,992)	-	-	-	-	89,992	-	-	-	-	-	-	
HAYES- EAST			(65,478)	-	-	-	-	65,478	-	-	-	-	-	-	
THORNAPPLE			(96,639)	-	-	-	-	96,639	-	-	-	-	-	-	
CASCADE SPRINGS			(323,478)	-	-	-	-	323,478	-	-	-	-	-	-	
BIRD AVE-ALPINE ESTATES															
EAST PARIS															
SERVICE MAINS															
LESS- SERVICE MAINS- TOTAL SUBS- PHY. LOC.			(12,608,162)	(2,505,143)	(4,323,453)	(92,355)	(140,457)	(590,665)	-	-	-	-	-	-	(20,260,235)
ADD- SERVICE MAINS- TOTAL ADDS- PHY. LOC.			5,230,339	2,149,298	1,884,321	92,355	150	-	-	-	-	-	-	-	9,356,463
TOTAL- PHYSICAL LOCATION COST		\$ 137,738,459	\$ 73,395,617	\$ 24,635,808	\$ 20,809,136	\$ 15,889,196	\$ 14,272,984	\$ 2,265,229	\$ 118,230	\$ -	\$ -	\$ -	\$ -	\$ 289,124,659	
<b>CONSTRUCTION COST- ZONEGATING:</b>															
LIFT STATIONS / CHAMBERS:															
FULLER-BROOKVIEW	\$ 1,252,893		(724,323)	-	-	-	369,804	-	-	354,519	-	-	-	-	
FULTON- MIDDLEBORROW	37,983		(37,365)	-	-	-	37,365	-	-	-	-	-	-	-	
WEALTHY ST EXT. CHAMBER	458,953		(88,091)	83,465	-	-	-	4,626	-	-	-	-	-	-	
WEALTHY MARKET	20,444		(12,995)	12,311	-	-	-	-	237	447	-	-	-	-	
VANPORTLIET	1,477,180		(475,963)	191,428	-	-	31,420	1,891	3,028	247,561	-	-	-	635	
REMEMBRANCE /3 MILE	44,816		6,480	(6,480)	-	-	-	-	-	-	-	-	-	-	
16th AVENUE	71,058		-	-	-	-	-	-	-	-	-	-	-	-	
HAYES- WEST	141,105		-	-	-	-	-	-	-	-	-	-	-	-	
HAYES- EAST	215,841		-	-	-	-	-	(141,105)	141,105	-	-	-	-	-	
O'BRIEN	546,532		22,140	(49,893)	-	-	-	-	-	-	-	-	-	-	
THORNAPPLE	89,992		-	-	-	-	-	-	-	-	-	-	-	-	
CASCADE SPRINGS	65,478		-	-	-	-	-	-	-	-	-	-	-	-	
BIRD AVE-ALPINE ESTATES	96,639		-	-	-	-	-	-	-	-	-	-	-	-	
EAST PARIS	323,478		-	-	-	-	-	-	-	-	-	-	-	-	
SERVICE MAINS- ZONEGATED COST			240,777	1,126,422	1,604,037	1,418,538	817,210	113,007	617,661	251,539	3,015,377	982,314	7,567	10,903,772	
TOTAL- ZONEGATED COST		\$ -	\$ (1,069,340)	\$ 1,357,253	\$ 1,604,037	\$ 1,418,538	\$ 1,255,799	\$ 6,172	\$ 762,031	\$ 251,539	\$ 3,617,904	\$ 982,314	\$ 8,202	\$ 10,903,772	
GRAND TOTAL- COST		\$ 137,738,459	\$ 72,326,277	\$ 25,993,061	\$ 22,413,173	\$ 17,307,734	\$ 15,528,783	\$ 2,271,401	\$ 880,261	\$ 251,539	\$ 3,617,904	\$ 982,314	\$ 8,202	\$ 300,028,431	



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**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
ADJUSTED OPERATING EXPENSE ZONEGATING ALLOCATION BY GOVERNMENTAL UNIT - TASK #22  
FISCAL YEAR ENDED JUNE 30, 2005**

COST CENTER	ADJUSTED EXPENSE BY COST CENTER	INTEGRATED SYSTEM	RETAIL										WHOLESALE							
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	N. KENT AREA	ADA TOWNSHIP	GAINES TOWNSHIP	MEIJER-ALGOMA						
WASTEWATER TREATMENT	\$ 11,574,834	\$ 11,574,834																		
LIFT STATIONS:																				
A. INTERCEPTOR	191,662		129,907	24,837	-	-	-	4,077	245	393	-	-	-	32,121	-	-	-	-	82	
B. TRUNK	317,930		44,404	40,721	-	214,397	-	14,065	1,226	-	-	-	-	3,117	-	-	-	-	-	
C. LOCAL COLLECTOR	373,340		72,050	44,788	-	69,321	-	134,923	11,599	19,840	-	-	-	7,014	13,805	-	-	-	-	
SEWER LINES:																				
A. INTERCEPTOR	205,471		150,925	17,046	35,649	1,851	-	-	-	-	-	-	-	-	-	-	-	-	-	
B. TRUNK	484,026		150,981	135,300	119,569	42,570	24,255	10,765	586	-	-	-	-	-	-	-	-	-	-	
C. LOCAL COLLECTOR	3,604,558		2,299,744	447,722	334,287	207,514	266,449	26,926	21,916	-	-	-	-	-	-	-	-	-	-	
D. ZONEGATING			(127,507)	19,335	(22,111)	33,800	27,274	(8,961)	13,491	-	-	-	-	27,177	19,384	9,010	49	-	-	
BULK METERING STATIONS	17,791		-	-	2,167	-	-	-	-	-	-	-	-	4,803	1,987	2,376	-	-	-	
CUSTOMER ACCOUNTING	2,088,036		1,673,749	151,800	116,324	44,037	92,709	2,902	6,515	-	-	-	-	-	-	-	-	-	-	
INDUSTRIAL PRETREATMENT	580,500	580,500																		
SUBTOTAL OPERATING EXPENSE	19,438,148	12,155,334	4,394,253	881,549	565,885	613,490	563,752	44,702	62,741	13,862	75,887	35,176	11,386	8,437	3,911	1,266	14			
ADMINISTRATIVE EXPENSE	2,453,813	1,351,501	665,833	138,903	98,495	85,376	92,488	7,539	8,509	1,541	8,437	3,911	1,266	-	-	-	-	-	-	
TOTAL	\$ 21,891,961	\$ 13,506,835	\$ 5,060,086	\$ 1,020,452	\$ 664,380	\$ 698,866	\$ 646,240	\$ 52,241	\$ 71,250	\$ 15,403	\$ 84,324	\$ 39,087	\$ 12,652	\$	\$	\$	\$	\$	\$	\$

**METHOD OF DISTRIBUTION**

WASTEWATER TREATMENT	100.000%	100.00%																		
LIFT STATIONS:																				
A. INTERCEPTORS	100.000%		(1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B. TRUNK	100.000%		(4)	(3)	-	(1)	-	-	-	-	-	-	-	-	-	-	-	-	-	
C. LOCAL	100.000%		(6)	(3)	-	(9)	(17)	(3)	(1)	-	-	-	-	-	-	-	-	-	-	
SEWER LINES:																				
TOTAL MILES:	881.67		73,453%	8,296%	17,350%	0.901%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	
A. INTERCEPTOR	42.19		30.99	3.50	7.32	0.38	-	-	-	-	-	-	-	-	-	-	-	-	-	
B. TRUNK LINES	99.38		31,193%	27,953%	24,703%	8,795%	5.011%	2.224%	0.121%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	
C. LOCAL COLLECTOR	740.10		63,801%	12,421%	9,274%	5,757%	7,392%	0.747%	0.608%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	
D. ZONEGATING	MILES		472.16	91.93	68.64	42.61	54.71	5.53	4.50	-	-	-	-	-	-	-	-	-	-	
BULK METERING STATIONS	(7)		(26.16)	3.97	(4.54)	6.94	5.60	(1.84)	2.77	1.66	5.58	3.98	1.85	(3)	(1)	(1)	-	-	-	
CUSTOMER ACCTG (1)	NO. OF METERS		80,159%	7,270%	5,571%	2,109%	4,440%	0.139%	0.312%	0.063%	0.344%	0.159%	0.052%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	
INDUSTRIAL PRETREATMENT	27,135%	55.076%	58,298.00	5,287.00	4,052.00	1,534.00	3,229.00	101.00	227.00	0.063%	0.344%	0.159%	0.052%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	
ADMINISTRATIVE EXPENSE (2)			27,135%	5,661%	4,014%	3,479%	3,362%	0.307%	0.347%	0.063%	0.344%	0.159%	0.052%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	

NOTES:  
 (1) MAINTENANCE & COLLECTION COSTS ARE ALLOCATED ON THE NUMBER OF METERS, INCLUSIVE OF USERS FOR WRIGHT TWP.  
 (2) ALLOCATED ON DIRECT OPERATING EXPENSE, ADJUSTED FOR ANY COST ASSIGNABLE EXCLUSIVELY TO GR OR RETAIL COMMUNITIES, IF APPLICABLE.

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 23**

ASSIGN OTHER OPERATING REVENUES TO EACH GOVERNMENTAL ENTITY.

BASIS OF ALLOCATION: RETAIL BILLINGS BY GOVERNMENTAL ENTITY - TASK NO. 6 & 7

	<u>RETAIL BILLINGS</u>	<u>PERCENTAGE OF TOTAL</u>	<u>ALLOCATION</u>
CITY OF GRAND RAPIDS	\$ 20,878,617	75.7056%	\$ 274,678
CITY OF WALKER	2,283,789	8.2810%	30,046
CITY OF KENTWOOD	1,919,935	6.9617%	25,259
CASCADE TOWNSHIP	1,037,997	3.7638%	13,656
GRAND RAPIDS TOWNSHIP	1,172,883	4.2529%	15,431
TALLMADGE TOWNSHIP	85,795	0.3111%	1,129
WRIGHT TOWNSHIP	199,639	0.7239%	2,626
	<u>\$ 27,578,655</u>	<u>100.0000%</u>	<u>\$ 362,825</u>

CITY OF GRAND RAPIDS, MICHIGAN  
 SEWAGE DISPOSAL SYSTEM FUND  
 ASSIGN DEPRECIATION EXPENSE TO CUSTOMER COMMUNITIES- TASK NO. 24  
 FISCAL YEAR ENDED JUNE 30, 2005

COST CENTER	DEPRECIATION EXPENSE	RETAIL						WHOLESALE						
		CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	N. KENT AREA	ADA TOWNSHIP	GAINES TOWNSHIP	MEIJER-ALGOMA	TOTAL
BY PHYSICAL LOCATION-TASK 11		\$ 3,724,761	\$ 483,934	\$ 451,994	\$ 309,607	\$ 263,093	\$ 36,159	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,969,849
IN SERVICE-TASK 10		44,032	-	-	-	7,437	11,813	943	-	-	-	-	-	366,090
TASK 11/16/21-CSO DEP. EXP.		(2,317,642)	-	-	-	-	-	-	-	-	-	-	-	(2,317,642)
LIFT STATIONS / CHAMBERS:														
FULLER-BROOKVIEW	\$ 46,649	(26,959)	-	-	-	13,769	-	-	13,200	-	-	-	-	-
FULTON- MIDDLEBORROW	183	(180)	-	-	180	-	-	-	-	-	-	-	-	-
WEALTHY ST EXT. CHAMBER	11,321	(2,173)	2,059	-	-	-	114	-	-	-	-	-	-	-
WEALTHY MARKET	17	(10)	10	-	-	-	-	-	5,810	-	-	-	-	-
MARKET	34,667	(11,169)	4,492	-	737	-	44	71	-	-	-	-	15	-
VANPORTELJET	-	-	-	-	-	-	-	-	-	-	-	-	-	-
REMEMBRANCE / 3 MILE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
O'BRIEN	15,667	635	(1,431)	-	-	-	796	-	-	-	-	-	-	-
THORNAPPLE	3,000	-	-	-	-	-	-	-	-	-	-	-	-	-
CASCADE SPRINGS	2,183	-	-	-	-	-	-	-	-	-	-	-	-	-
16TH AVE	4,565	(4,565)	-	-	-	-	-	4,565	-	-	-	-	-	-
HAYES- WEST	7,052	(7,052)	-	-	-	-	-	7,052	-	-	-	-	-	-
HAYES- EAST	9,893	(9,893)	-	-	-	-	9,893	-	-	-	-	-	-	-
BIRD AVE-ALPINE ESTATES	3,221	(3,221)	-	-	-	3,221	-	-	-	-	-	-	-	-
EAST PARIS	10,783	(10,783)	-	-	-	10,783	-	-	-	-	-	-	-	-
SERVICEMANS		(123,693)	4,377	(18,798)	27,823	12,336	(9,564)	12,175	57,882	13,845	19,527	146	6,018,297	
ADJUSTED BY ZONEGATING		1,252,078	493,441	433,196	337,430	311,556	49,255	24,806	76,892	13,845	19,527	161	6,018,297	
LESS CONTRIBUTIONS AMORTIZED		(988,573)	(394,265)	(388,403)	(304,948)	(246,303)	(36,316)	-	-	-	(16,020)	-	(3,409,395)	
TASK NO. 21		(227,511)	98,176	44,793	32,482	65,253	12,939	24,806	76,892	13,845	3,507	161	2,608,902	
TOTAL		\$ 2,003,593	\$ 98,176	\$ 44,793	\$ 32,482	\$ 65,253	\$ 12,939	\$ 24,806	\$ 76,892	\$ 13,845	\$ 3,507	\$ 161	\$ 2,608,902	

CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
ACCUMULATE REVENUE REQUIREMENTS BY CUSTOMER COMMUNITIES- TASK NO. 25  
FISCAL YEAR ENDED JUNE 30, 2005

COST CENTER	RETAIL										WHOLESALE				TOTAL
	INTEGRATED SYSTEM	CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	N. KENT AREA	ADA TOWNSHIP	GAINES TOWNSHIP	MEIJER-ALGOMA		
OPERATION & MAINTENANCE EXPENSE- TASK NO. 22	\$ 13,506,835	\$ 5,060,086	\$ 1,020,452	\$ 684,380	\$ 698,866	\$ 646,240	\$ 52,241	\$ 71,250	\$ 15,403	\$ 84,324	\$ 39,087	\$ 12,652	\$ 145	\$ 21,891,961	
DEPRECIATION EXPENSE TASK NO. 24	2,003,593	227,511	99,176	44,793	32,482	65,253	12,939	24,806	3,944	76,892	13,845	3,507	161	2,608,902	
RETURN ON SYSTEM INVESTMENT TASK NO. 21	2,691,380	1,423,474	85,305	19,256	60,242	136,342	14,729	79,443	4,563	134,070	17,095	2,036	624	4,668,559	
REVENUE CREDITS- TASK NO. 23		(274,678)	(30,046)	(25,259)	(13,656)	(15,431)	(1,129)	(2,626)						(362,825)	
CSO DEBT SERVICE REQUIREMENTS ALLOCATE:		9,128,168												9,128,168	
INTEGRATED CONN. FEE CREDIT		(1,062,825)	(154,407)	(185,509)	(85,695)	(63,547)	(4,850)	(3,982)	(63,964)		(45,537)		(693)	(1,651,009)	
INTEGRATED SYSTEM *		10,522,155	1,543,171	1,854,023	856,449	635,111	48,470	39,796	539,334	1,583,815	455,114	117,446	6,924	16,500,547	
	\$	\$ 25,033,891	\$ 2,563,651	\$ 2,391,684	\$ 1,548,688	\$ 1,403,968	\$ 122,400	\$ 208,687	\$ 509,280	\$ 1,879,101	\$ 479,604	\$ 135,641	\$ 7,161	\$ 36,283,756	

\* ALLOCATED TO CUSTOMER COMMUNITIES UNDER OLD CONTRACT BASED ON PLANT FLOW. REMAINING ALLOCATION TO COMMUNITIES UNDER UNIFORM CONTRACT BASED ON PLANT FLOW & LAND, AS FOLLOWS:

COST CENTER	RETAIL										WHOLESALE				TOTAL
	INTEGRATED SYSTEM	CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	N. KENT AREA	ADA TOWNSHIP	GAINES TOWNSHIP	MEIJER-ALGOMA		
OLD METHOD- PLANT FLOW		\$ 10,522,155	\$ 1,543,171	\$ 1,854,023	\$ 856,449	\$ 635,111	\$ 48,470	\$ 39,796	\$ 539,334	\$ 1,583,815	\$ 455,114	\$ 117,446	\$ 6,924	\$ 17,012,261	
NEW METHOD- PLANT FLOW / LAND		\$ 10,522,155	\$ 1,543,171	\$ 1,854,023	\$ 856,449	\$ 635,111	\$ 48,470	\$ 39,796	\$ 539,334	\$ 1,583,815	\$ 455,114	\$ 117,446	\$ 6,924	\$ 18,201,808	

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 25a**

REVIEW THE REVENUE REQUIREMENTS TO ASSURE COMPLIANCE WITH THE APPLICABLE BOND ORDINANCE PROVISIONS.

	<u>YEAR ENDED 6/30/2005</u>	<u>PRO FORMA * YEAR ENDED 6/30/2005</u>
<b>REVENUES:</b>		
RETAIL/WHOLESALE SEWAGE SERVICE	\$ 30,208,421	\$ 35,572,761
CONNECTION FEES/FRONT FOOT/ENG FEES	1,873,100	1,873,100
ENGINEERING FEES	157,051	157,051
SEWAGE SURCHARGES	628,253	628,253
OTHER OPERATING REVENUES	83,738	83,738
INTEREST ON INVESTMENTS	1,440,595	1,440,595
MISCELLANEOUS	268,431	268,431
<b>TOTAL REVENUES</b>	<u>\$ 34,659,589</u>	<u>\$ 40,023,929</u>
 <b>OPERATING EXPENSES:</b>		
OPERATIONS & MAINTENANCE	\$ 20,905,693	\$ 20,905,693
DEPRECIATION	7,980,013	7,980,013
<b>TOTAL EXPENSES</b>	<u>\$ 28,885,706</u>	<u>\$ 28,885,706</u>
 ADDITIONS: DEPRECIATION	<u>7,980,013</u>	<u>7,980,013</u>
 <b>NET EARNINGS OF THE SYSTEM</b>	<u><u>\$ 13,753,896</u></u>	<u><u>\$ 19,118,236</u></u>
 <b>DEBT SERVICE</b>		
SERIES 2004 BONDS, FY 2005	\$ 865,087	\$ 865,087
SERIES 1998 BONDS, FY 2005	5,893,550	5,893,550
<b>TOTAL SENIOR DEBT SERVICE</b>	<u>\$ 6,758,637</u>	<u>\$ 6,758,637</u>
SRF DEBT (Junior Lien)	3,973,529	3,973,529
	<u>\$ 10,732,166</u>	<u>\$ 10,732,166</u>
 COVERAGE RATIO- SENIOR DEBT	<u>2.04</u>	<u>2.83</u>
 COVERAGE RATIO- ALL DEBT	<u>1.28</u>	<u>1.78</u>

\* SEWAGE SERVICES ADJUSTED FOR RATE REVISIONS OF 9.03% AND 12.76% EFFECTIVE 1/1/05 AND 1/1/06, RESPECTIVELY.

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**SUMMARY**

**SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS \$ 36,283,756

CURRENT REVENUES

REU CHARGE \$ 201,847

MONTHLY METER CHARGE 6,814,344

MONTHLY BILLING CHARGE 2,416,288

COMMODITY CHARGE 22,746,520 (32,178,999)

REQUIRED REVENUE INCREASE (DECREASE) \$ 4,104,757

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES 12.76%



**CITY OF GRAND RAPIDS, MICHIGAN**

**SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS \$ 25,033,891

CURRENT REVENUES

MONTHLY METER CHARGE

71,668 meter equivalents x \$ 5.30 x 12 = \$ 4,558,085

MONTHLY BILLING CHARGE

58,298 meters x \$ 2.32 x 12 = 1,623,016

COMMODITY CHARGE

8,189,814 units (100 CF) x \$ 1.97 = 16,133,934 (22,315,035)

REQUIRED REVENUE INCREASE (DECREASE) \$ 2,718,856

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES 12.18%

**CITY OF GRAND RAPIDS, MICHIGAN**

**SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

$$\frac{\text{INTEGRATED SYSTEM COST}}{\text{BILLED UNITS}} = \frac{\$18,597,498}{8,189,814} = \underline{\underline{\$ 2.27 /100 CF *}}$$

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS \$ 25,033,891

NEW COMMODITY CHARGE  
8,189,814 x \$ 2.27 \$ 18,590,878

NEW MONTHLY BILLING CHARGE  
58,298 x \$ 2.39 x 12 1,671,987 (20,262,865)

\$ 4,771,026

$$\text{MONTHLY METER CHARGE} = \frac{\$4,771,026}{71,668 \times 12} = \underline{\underline{\$ 5.55 \text{ MONTHLY}}}$$

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 5.55	\$ 2.39	\$ 7.94	\$ 7.62
1"	1.7778	9.87	2.39	12.26	11.74
1 1/4"	2.7778	15.42	2.39	17.81	17.04
1 1/2"	4.0000	22.20	2.39	24.59	23.52
2"	7.1111	39.47	2.39	41.86	40.01
3"	16.0000	88.80	2.39	91.19	87.12
4"	28.4444	157.87	2.39	160.26	153.08
6" and over	64.0000	355.20	2.39	357.59	341.52

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2006

**CITY OF WALKER, MICHIGAN**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS \$ 2,563,651

CURRENT REVENUES

MONTHLY METER CHARGE

6,879 meter equivalents x \$ 11.49 x 12 = \$ 948,477

MONTHLY BILLING CHARGE

5,287 meters x \$ 2.32 x 12 = 147,190

COMMODITY CHARGE

1,058,550 units (100 CF) x \$ 1.22 = 1,291,431 (2,387,098)

REQUIRED REVENUE INCREASE (DECREASE) \$ 176,553

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES 7.40%



**CITY OF KENTWOOD, MICHIGAN**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS \$ 2,391,684

CURRENT REVENUES

MONTHLY METER CHARGE

7,148 meter equivalents x \$ 1.77 x 12 = \$ 151,824

MONTHLY BILLING CHARGE

4,052 meters x \$ 2.32 x 12 = 112,808

COMMODITY CHARGE

1,379,710 units (100 CF) x \$ 1.35 = 1,862,609 (2,127,241)

REQUIRED REVENUE INCREASE (DECREASE) \$ 264,443

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES 12.43%

**CITY OF KENTWOOD, MICHIGAN**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 1.52 /100 CF \*  
 \$ 1.35 x 112.43%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS \$ 2,391,684

NEW COMMODITY CHARGE \$ 2,097,159  
 1,379,710 x \$ 1.52

NEW MONTHLY BILLING CHARGE 116,211 (2,213,370)  
 4,052 x \$ 2.39 x 12

\$ 178,314

MONTHLY METER CHARGE =  $\frac{\$178,314}{7,148 \times 12} = \underline{\underline{\$ 2.08 \text{ MONTHLY}}}$

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 2.08	\$ 2.39	\$ 4.47	\$ 4.09
1"	1.7778	3.70	2.39	6.09	5.47
1 1/4"	2.7778	5.78	2.39	8.17	7.24
1 1/2"	4.0000	8.32	2.39	10.71	9.40
2"	7.1111	14.79	2.39	17.18	14.91
3"	16.0000	33.28	2.39	35.67	30.64
4"	28.4444	59.16	2.39	61.55	52.67
6" and over	64.0000	133.12	2.39	135.51	115.60

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2006

**CASCADE TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS	\$ 1,548,688
LESS: CASH CONTRIBUTION	(183,700)
SYSTEM REVENUE REQUIREMENTS	\$ 1,364,988

CURRENT REVENUES

MONTHLY METER CHARGE	
2,583 meter equivalents	x \$ 15.43 x 12 = \$ 478,268
MONTHLY BILLING CHARGE	
1,534 meters	x \$ 2.32 x 12 = 42,707
COMMODITY CHARGE	
457,394 units (100 CF)	x \$ 1.45 = <u>663,221</u> <u>(1,184,196)</u>
REQUIRED REVENUE INCREASE (DECREASE)	\$ 180,792

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES	15.27%
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**CASCADE TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 1.67 /100 CF \*  
 \$ 1.45 x 115.27%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS		\$ 1,364,988
NET OF CONTRIBUTION OF \$ 183,700		
NEW COMMODITY CHARGE		
457,394 x \$ 1.67	\$ 763,848	
NEW MONTHLY BILLING CHARGE		
1,534 x \$ 2.39 x 12	<u>43,995</u>	<u>(807,843)</u>
		<u>\$ 557,145</u>

MONTHLY METER CHARGE =  $\frac{\$557,145}{2,583 \times 12} = \underline{\underline{\$ 17.97 \text{ MONTHLY}}}$

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 17.97	\$ 2.39	\$ 20.36	\$ 17.75
1"	1.7778	31.95	2.39	34.34	29.75
1 1/4"	2.7778	49.92	2.39	52.31	45.18
1 1/2"	4.0000	71.88	2.39	74.27	64.04
2"	7.1111	127.79	2.39	130.18	112.04
3"	16.0000	287.52	2.39	289.91	249.20
4"	28.4444	511.15	2.39	513.54	441.22
6" and over	64.0000	1,150.08	2.39	1,152.47	989.84

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2006

**GRAND RAPIDS TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS \$ 1,403,968

CURRENT REVENUES

MONTHLY METER CHARGE

3,952 meter equivalents x \$ 13.96 x 12 = \$ 662,039

MONTHLY BILLING CHARGE

3,229 meters x \$ 2.32 x 12 = 89,895

COMMODITY CHARGE

398,549 units (100 CF) x \$ 1.39 = 553,983 (1,305,917)

REQUIRED REVENUE INCREASE (DECREASE) \$ 98,051

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES 7.51%

**GRAND RAPIDS TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 1.49 /100 CF \*  
 \$ 1.39 x 107.51%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS		\$ 1,403,968
NEW COMMODITY CHARGE		
398,549 x \$ 1.49	\$	593,838
NEW MONTHLY BILLING CHARGE		
3,229 x \$ 2.39 x 12	<u>92,608</u>	<u>(686,446)</u>
		<u>\$ 717,522</u>

MONTHLY METER CHARGE =  $\frac{\$717,522}{3,952 \times 12} = \underline{\underline{\$ 15.13 \text{ MONTHLY}}}$

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 15.13	\$ 2.39	\$ 17.52	\$ 16.28
1"	1.7778	26.90	2.39	29.29	27.14
1 1/4"	2.7778	42.03	2.39	44.42	41.10
1 1/2"	4.0000	60.52	2.39	62.91	58.16
2"	7.1111	107.59	2.39	109.98	101.59
3"	16.0000	242.08	2.39	244.47	225.68
4"	28.4444	430.36	2.39	432.75	399.40
6" and over	64.0000	968.32	2.39	970.71	895.76

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2006

**TALLMADGE TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS	\$ 122,400
LESS: CASH CONTRIBUTION	-
SYSTEM REVENUE REQUIREMENTS	\$ 122,400

CURRENT REVENUES

MONTHLY METER CHARGE			
127 meter equivalents	x	\$ 10.27	x 12 = \$ 15,651
MONTHLY BILLING CHARGE			
101 meters	x	\$ 2.32	x 12 = 2,812
COMMODITY CHARGE			
14,623 units (100 CF)	x	\$ 3.82	= <u>55,860</u>

	<u>(74,323)</u>
REQUIRED REVENUE INCREASE (DECREASE)	\$ 48,077

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES	64.69%
--	--------

**TALLMADGE TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 6.29 /100 CF \*  
 \$ 3.82 x 164.69%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS \$ 122,400

NEW COMMODITY CHARGE \$ 91,979  
 14,623 x \$ 6.29

NEW MONTHLY BILLING CHARGE 2,897  
 101 x \$ 2.39 x 12 (94,876)

\$ 27,524

MONTHLY METER CHARGE =  $\frac{\$27,524}{127 \times 12} = \underline{\underline{\$ 18.06 \text{ MONTHLY}}}$

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 18.06	\$ 2.39	\$ 20.45	\$ 12.59
1"	1.7778	32.11	2.39	34.50	20.58
1 1/4"	2.7778	50.17	2.39	52.56	30.85
1 1/2"	4.0000	72.24	2.39	74.63	43.40
2"	7.1111	128.43	2.39	130.82	75.35
3"	16.0000	288.96	2.39	291.35	166.64
4"	28.4444	513.71	2.39	516.10	294.44
6" and over	64.0000	1,155.84	2.39	1,158.23	659.60

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2006

**WRIGHT TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS	\$	208,687
LESS: CASH CONTRIBUTION		(5,570)
SYSTEM REVENUE REQUIREMENTS	\$	<u>203,117</u>

CURRENT REVENUES

REU CHARGE

344.896 meter equivalents x \$ 48.77 x 12 = \$ 201,847

MONTHLY METER CHARGE

344.896 meter equivalents x \$ - x 12 = -

MONTHLY BILLING CHARGE

227 meters x \$ - x 12 = -

COMMODITY CHARGE

23,395 units (100 CF) x \$ - = - (201,847)

REQUIRED REVENUE INCREASE (DECREASE) \$ 1,270

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES 0.63%

**WRIGHT TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

**MONTHLY REU CHARGE:**

$$\frac{\text{TOTAL REVENUE REQUIREMENTS}}{\text{TOTAL REU'S * 12 MONTHS}} = \frac{\$203,117}{344.896 \times 12} = \$ \underline{\underline{49.08}} \quad \text{MONTHLY REU CHARGE *}$$

TOTAL REVENUE REQUIREMENTS ARE NET OF CONTRIBUTION OF \$ 5,570

**EXAMPLES OF APPROXIMATE MONTHLY CHARGE BY NUMBER OF REU:**

<u>NUMBER OF REU</u>	<u>AMOUNT</u>	<u>NUMBER OF REU</u>	<u>AMOUNT</u>	<u>NUMBER OF REU</u>	<u>AMOUNT</u>
1.0000	\$ 49.08	7.5000	\$ 368.10	19.0000	\$ 932.52
1.5000	73.62	8.0000	392.64	20.0000	981.60
2.0000	98.16	8.5000	417.18	25.0000	1,227.00
2.5000	122.70	9.0000	441.72	30.0000	1,472.40
3.0000	147.24	9.5000	466.26	35.0000	1,717.80
3.5000	171.78	10.0000	490.80	40.0000	1,963.20
4.0000	196.32	11.0000	539.88	50.0000	2,454.00
4.4000	215.95	12.0000	588.96	60.0000	2,944.80
4.5000	220.86	13.0000	638.04	70.0000	3,435.60
5.0000	245.40	14.0000	687.12	80.0000	3,926.40
5.5000	269.94	15.0000	736.20	90.0000	4,417.20
6.0000	294.48	16.0000	785.28	100.0000	4,908.00
6.5000	319.02	17.0000	834.36	150.0000	7,362.00
7.0000	343.56	18.0000	883.44	200.0000	9,816.00

\* NEW RATES EFFECTIVE ON JANUARY 1, 2006

**CITY OF EAST GRAND RAPIDS, MICHIGAN**

**SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
RATE ANALYSIS - TASK NO. 26**

INTEGRATED SYSTEM REVENUE REQUIREMENTS		\$	485,370
COMMODITY CHARGE			
436.613 units	x	\$	957.00
			417,839
			<hr/>
REQUIRED COMMODITY REVENUE INCREASE (DECREASE)		\$	<u>67,531</u>
NON-INTEGRATED SYSTEM REVENUE REQUIREMENTS		\$	23,910
MONTHLY SERVICE CHARGE			
\$1,744	x		12 MONTHS
			20,928
			<hr/>
REQUIRED SERVICE REVENUE INCREASE (DECREASE)		\$	<u>2,982</u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES			<u>16.07%</u>

**CITY OF EAST GRAND RAPIDS, MICHIGAN**

**SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
RATE ANALYSIS - TASK NO. 27**

SYSTEM REVENUE REQUIREMENTS \$ 509,280

NEW COMMODITY CHARGE  
436.613 x \$ 1,112.00 = (485,514)

---

\$ 23,766

MONTHLY SERVICE CHARGE = \$ 23,766 / 12 = \$1,981

**NORTH KENT**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

INTEGRATED SYSTEM REVENUE REQUIREMENTS	\$ 1,583,815
COMMODITY CHARGE	
1,513.328 units     x     \$ 871.00	1,318,109
	<hr/>
REQUIRED COMMODITY REVENUE INCREASE (DECREASE)	<u>\$ 265,706</u>
NON-INTEGRATED SYSTEM REVENUE REQUIREMENTS	\$ 295,286
MONTHLY SERVICE CHARGE	
\$23,944             x     12 MONTHS	287,328
	<hr/>
REQUIRED SERVICE REVENUE INCREASE (DECREASE)	<u>\$ 7,958</u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES	<u>17.05%</u>

**NORTH KENT**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

SYSTEM REVENUE REQUIREMENTS \$ 1,879,101

NEW COMMODITY CHARGE  
1,513.328 x \$ 1,047.00 = (1,584,454)

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\$ 294,647

MONTHLY SERVICE CHARGE = \$294,647 / 12 = \$24,554

**ADA TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

INTEGRATED SYSTEM REVENUE REQUIREMENTS	\$	409,577
COMMODITY CHARGE		
319.934 units      x      \$ 1,085.00		347,128
		347,128
REQUIRED COMMODITY REVENUE INCREASE (DECREASE)	\$	62,449
NON-INTEGRATED SYSTEM REVENUE REQUIREMENTS	\$	70,027
MONTHLY SERVICE CHARGE		
\$5,772              x      12 MONTHS		69,264
		69,264
REQUIRED SERVICE REVENUE INCREASE (DECREASE)	\$	763
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES		15.18%

**ADA TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

SYSTEM REVENUE REQUIREMENTS \$ 479,604

NEW COMMODITY CHARGE  
319.934 x \$ 1,280.00 = (409,516)

---

\$ 70,088

MONTHLY SERVICE CHARGE = \$ 70,088 / 12 = \$5,841

**GAINES TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

INTEGRATED SYSTEM REVENUE REQUIREMENTS	\$	117,446
COMMODITY CHARGE		
112.218 units      x      \$    871.00		97,742
		97,742
REQUIRED COMMODITY REVENUE INCREASE (DECREASE)	\$	19,704
NON-INTEGRATED SYSTEM REVENUE REQUIREMENTS	\$	18,195
MONTHLY SERVICE CHARGE		
\$1,592                      x            12 MONTHS		19,104
		19,104
REQUIRED SERVICE REVENUE INCREASE (DECREASE)	\$	(909)
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES		16.09%

**GAINES TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

SYSTEM REVENUE REQUIREMENTS	\$ 135,641
NEW COMMODITY CHARGE	
112.218 x \$ 1,047.00 =	(117,492)
	<hr/>
	<u>\$ 18,149</u>

MONTHLY SERVICE CHARGE = \$ 18,149 / 12 = \$1,512

**MEIJER - ALGOMA**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

INTEGRATED SYSTEM REVENUE REQUIREMENTS	\$	6,231
COMMODITY CHARGE		
3.848 units     x     \$ 1,212.00		4,664
		4,664
REQUIRED COMMODITY REVENUE INCREASE (DECREASE)	\$	1,567
NON-INTEGRATED SYSTEM REVENUE REQUIREMENTS	\$	930
MONTHLY SERVICE CHARGE		
\$103             x     12 MONTHS		1,236
		1,236
REQUIRED SERVICE REVENUE INCREASE (DECREASE)	\$	(306)
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES		21.37%

**MEIJER - ALGOMA**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

SYSTEM REVENUE REQUIREMENTS	\$ 7,161
COMMODITY CHARGE	
3.848 x \$ 1,619.00 =	(6,230)
	<hr/>
	<u>\$ 931</u>

MONTHLY SERVICE CHARGE = \$ 931 / 12 = \$78

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***CALCULATION OF INCREMENTAL COMMODITY CHARGE TO MEIJER-ALGOMA FROM CITY***

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COMMODITY CHARGE- ABOVE	\$ 1,619
LESS: COMMODITY CHARGE- NORTH KENT	(1,047)
INCREMENTAL COMMODITY CHARGE (CREDIT)	<u>\$ 572</u>

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 31, 2005

TO: Mike Wolski  
Financial Analyst

FROM:  Rick DeVries, P.E.  
Assistant City Engineer

SUBJECT: **SEWER RATE STUDY - TASK NO. 28 AND 29**

Enclosed are the Front Foot Rates for Sanitary Sewer (Task 28) and the costs for Sanitary Sewer Laterals (Task 29), for the Fiscal Year 2005.

RDV/grt

Enclosures

cc: Jack Stegehuis  
Mark Garvey  
Paul Pratt

RECEIVED

NOV 02 2005

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
RE-EVALUATE FRONT FOOT CHARGES  
TASK NO. 28**

The City Engineer's Office has reviewed current construction costs for sewer facilities and recommends the following front foot assessment rates:

	<u>2005</u>	<u>2006</u>
Domestic Sewer User	\$ 55.00	\$ 56.00
Commercial-Industrial User (Sewer over 8 in. diameter)	\$ 76.00	\$ 92.00

The rates are based on an average of prices quoted in bid proposals which have been received by the City Engineer's Office during the period July, 2004 through June, 2005. Calculations of the rates are on file in the City Engineer's Office.

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
EVALUATE SEWER LATERAL CHARGES  
TASK NO. 29**

The City Engineer's Office has evaluated the cost for a six inch (6") sanitary sewer lateral and recommends that sewer lateral costs should be as follows:

<u>R.O.W. WIDTH</u>	<u>COST FOR 6-INCH LATERAL</u>	
	<u>2005</u>	<u>2006</u>
50 ft.	\$ 1,450	\$ 1,500
60 ft.	\$ 1,700	\$ 1,770
66 ft.	\$ 1,850	\$ 1,940
80 ft.	\$ 2,200	\$ 2,300
100 ft.	\$ 2,700	\$ 2,820

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: November 1, 2005

TO: Michael Wolski  
Utility Financial Officer

FROM: Cortland V. Overmyer, Director   
Environmental Protection Services Department

**SUBJECT: Sewer Rate Study - Task #30 – Surcharges**

The Wastewater Treatment plant has a limited amount of remaining capacity which is typically allocated to industries having discharges exceeding ordinance limits. These industries are charged for utilizing this remaining plant capacity in four categories of conventional pollutants. These pollutants are: 1) Biochemical Oxygen Demand (BOD); 2) Total Suspended Solids (TSS); 3) Total Phosphorus (Phos); 4) and Ammonia Nitrogen (NH3). This benefits the industries in that it reduces their pretreatment requirements and benefits the system by utilizing available system capacity.

The surcharge rates as noted on the following page (Task #30-Part 1) were recently developed as part of surcharge rate analysis project. As shown on the attached sheets, the methodology includes evaluating various cost centers at the Wastewater Treatment plant and allocating costs based on unit processes. Consequently, accumulated costs could then be assigned to the four pollutant categories to determine appropriate surcharge rates.

In certain instances, the proposed surcharge rates increased significantly and staff recognized the need to work with industry in phasing in these new rates. Informational meetings were held with industry, resulting in a plan to phase in the rates over a three year period beginning 1/1/2004. The proposed rates for 2006 (final year of phase in) are disclosed on the following sheets.

CO

Srs\stask30 2005

**City of Grand Rapids Michigan**  
**Sewage Disposal System Fund**  
**Evaluation of Wastewater Surcharges for Industrial Customers- BOD, TSS, Phos & NH3**  
**TASK NO. 30- Part 1**

Description	Wastewater Surcharges							
	Rate Study Year 2005	Volume	BOD	TSS	Phos	NH3	Industrial	Other
Operation & Maintenance (See Part 2)	\$ 21,891,961	\$ 3,444,714	\$ 3,672,796	\$ 3,287,008	\$ 778,126	\$ 392,190	\$ 580,500	\$ 9,736,627
Depreciation (See Part 3)	2,608,902	596,289	635,760	568,980	134,702	67,882	-	605,309
Return on System Investment (See Part 3)	4,668,559	800,955	854,002	764,298	180,941	91,184	-	1,977,179
<b>Total</b>	<b>\$ 29,169,422</b>	<b>\$ 4,841,938</b>	<b>\$ 5,162,558</b>	<b>\$ 4,620,286</b>	<b>\$ 1,093,769</b>	<b>\$ 551,256</b>	<b>\$ 580,500</b>	<b>\$ 12,319,115</b>

**Recommended Surcharge Rate - 2006**

**\$ 0.203    \$ 0.211    \$ 1.479    \$ 0.220**

**Actual Surcharge Rate - 2005**

**\$ 0.164    \$ 0.159    \$ 1.064    \$ 0.167**

**Change in Surcharge Rate - Amount- 2005 to 2006**

**\$ 0.039    \$ 0.052    \$ 0.415    \$ 0.053**

**Change in Surcharge Rate - Percent- 2005 to 2006**

**23.78%    32.70%    39.00%    31.74%**

Task No. 30 - Part 2

City of Grand Rapids Michigan  
Sewage Disposal System Fund  
Evaluation of High Strength Surcharges- BOD, TSS, Phos & NH3  
Allocation of Operation & Maintenance Expense & Determination of WWTP Allocation Factors

Wastewater Treatment Plant	Primary Allocation		Component Allocation (3)											
	Base Year-	Calendar Year-	Allocation (1)	Allocation (2)	Basis	Line No. Ref.	Volume	Wastewater Surcharges						
	2005	2006						BOD	TSS	Phos	NH3	Industrial	Other	
Pre-Treatment	\$ 919,509	\$ 935,408	WWTP	WWTP	WWTP	(1)	\$ 935,408	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Primary Treatment	1,083,533	1,102,268	WWTP	WWTP	WWTP	(2)	-	661,361	-	110,227	-	-	-	-
Secondary Treatment	4,173,790	4,245,959	WWTP	WWTP	WWTP	(3)	1,061,489	849,192	-	212,298	-	-	-	-
Disinfection/Dechlorination	848,666	863,340	WWTP	WWTP	WWTP	(4)	863,340	-	-	-	-	-	-	-
Phosphorus Removal	928,558	944,614	WWTP	WWTP	WWTP	(5)	236,153	-	708,461	-	-	-	-	-
Residue Handling/Disposal	3,424,039	3,483,245	WWTP	WWTP	WWTP	(6)	348,324	1,776,455	69,665	69,665	-	-	-	-
	\$ 11,378,095	\$ 11,574,834					\$ 3,444,714	\$ 3,287,008	\$ 778,126	\$ 392,190	\$ -	\$ -	\$ -	
Lift Stations														
Interceptor		191,662	Collection	Collection	Collection	(11)	-	-	-	-	-	-	-	191,662
Trunk		317,930	Collection	Collection	Collection	(11)	-	-	-	-	-	-	-	317,930
Local Collector		373,340	Collection	Collection	Collection	(11)	-	-	-	-	-	-	-	373,340
Sewer Lines														
Interceptor		205,471	Collection	Collection	Collection	(11)	-	-	-	-	-	-	-	205,471
Trunk		484,026	Collection	Collection	Collection	(11)	-	-	-	-	-	-	-	484,026
Local Collector		3,604,558	Collection	Collection	Collection	(11)	-	-	-	-	-	-	-	3,604,558
Bulk Meter Stations		17,791	Collection	Collection	Collection	(7)	-	-	-	-	-	-	-	17,791
Customer Accounting		2,088,036	Admin	Admin	Admin	(8)	-	-	-	-	-	-	-	2,088,036
Industrial Pretreatment		580,500	Industry	Industry	Industry	(9)	-	-	-	-	-	-	580,500	-
Subtotal	\$ 19,438,148	\$ 19,438,148					\$ 3,444,714	\$ 3,287,008	\$ 778,126	\$ 392,190	\$ 580,500	\$ 580,500	\$ 7,282,814	
Admin		2,453,813	Admin	Admin	Admin	(10)	-	-	-	-	-	-	-	2,453,813
Total	\$ 21,891,961	\$ 21,891,961					\$ 3,444,714	\$ 3,287,008	\$ 778,126	\$ 392,190	\$ 580,500	\$ 580,500	\$ 9,736,627	
<b>WWTP Allocation Factors</b>		<b>100.000%</b>					<b>29.760%</b>	<b>28.398%</b>	<b>6.723%</b>	<b>3.388%</b>	<b>0.000%</b>	<b>0.000%</b>	<b>0.000%</b>	

(1) Based on October 21, 2005 update from Randall Fisher regarding 2005 WWTP Surcharge Rate Evaluation.

(2) Primary Allocation of Current Year for Calendar 2006, based on 2005 Base Year.

(3) Refer to Task 30- Part 4 as noted.

Task No. 30 - Part 3

City of Grand Rapids Michigan  
 Sewage Disposal System Fund  
 Evaluation of High Strength Surcharges- BOD, TSS, Phos & NH3  
 Allocation of Depreciation Expense & Return on System Investment

Depreciation Expense- Task 24

Description	Amount	Volume	Wastewater Surcharges					Industrial	Other
			BOD	TSS	Phos	NH3			
Integrated System (1)	\$ 2,003,593	\$ 596,269	\$ 635,760	\$ 568,980	\$ 134,702	\$ 67,882	\$ -	\$ -	
Other	605,309	-	-	-	-	-	-	605,309	
<b>Total</b>	<b>\$ 2,608,902</b>	<b>\$ 596,269</b>	<b>\$ 635,760</b>	<b>\$ 568,980</b>	<b>\$ 134,702</b>	<b>\$ 67,882</b>	<b>\$ -</b>	<b>\$ 605,309</b>	

Return on System Investment- Task 21

Description	Amount	Volume	Wastewater Surcharges					Industrial	Other
			BOD	TSS	Phos	NH3			
Integrated System (1)	\$ 2,691,380	\$ 800,955	\$ 854,002	\$ 764,298	\$ 180,941	\$ 91,184	\$ -	\$ -	
Other	1,977,179	-	-	-	-	-	-	1,977,179	
<b>Total</b>	<b>\$ 4,668,559</b>	<b>\$ 800,955</b>	<b>\$ 854,002</b>	<b>\$ 764,298</b>	<b>\$ 180,941</b>	<b>\$ 91,184</b>	<b>\$ -</b>	<b>\$ 1,977,179</b>	

(1) Allocated on WWTP Allocation Factors \*

29.7600%      31.7310%      28.3980%      6.7230%      3.3880%

\* Refer to Task No. 30 - Part 2

Task No. 30 - Part 4

City of Grand Rapids Michigan  
 Sewage Disposal System Fund  
 Evaluation of High Strength Surcharges- BOD, TSS, Phos & NH3  
 Functional Cost Allocation Factors

Line No. Ref.	Cost Function	2002 %	Allocation Basis	Volume %	Wastewater Surcharges						
					BOD %	TSS %	Phos %	NH3 %	Industrial %	Other %	
(1)	Pre-Treatment	100.000%	WWTP	100.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
(2)	Primary Treatment	100.000%	WWTP	0.000%	30.000%	60.000%	0.000%	10.000%	0.000%	0.000%	0.000%
(3)	Secondary Treatment	100.000%	WWTP	25.000%	50.000%	20.000%	0.000%	5.000%	0.000%	0.000%	0.000%
(4)	Disinfection/Dechlorination	100.000%	WWTP	100.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
(5)	Phosphorus Removal	100.000%	WWTP	25.000%	0.000%	0.000%	75.000%	0.000%	0.000%	0.000%	0.000%
(6)	Residue Handling/Disposal	100.000%	WWTP	10.000%	35.000%	51.000%	2.000%	2.000%	0.000%	0.000%	0.000%
(7)	Bulk Metering Stations	100.000%	Collection	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	100.000%	0.000%
(8)	Customer Accounting	100.000%	Admin	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	100.000%	0.000%
(9)	Industrial Pretreatment	100.000%	Industry	0.000%	0.000%	0.000%	0.000%	0.000%	100.000%	0.000%	0.000%
(10)	Admin	100.000%	Admin	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	100.000%	0.000%
(11)	Collection System	100.000%	Collection	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	100.000%

(a) Based on "Final Allocation Table" in August 1, 2003 memo from Randall Fisher & Mike Lunn to Eric DeLong regarding 2001 Surcharge Rate Evaluation. Evaluation by WWTP staff for 2005 RS Review concluded percentages should remain in effect to recommend 2006 rate adjustments.

**CITY OF GRAND RAPIDS, MICHIGAN**  
**SEWER RATE STUDY**  
**IPP PERMIT FEE STRUCTURE – TASK NO. 31**

The City of Grand Rapids IPP Permit fee structure is based on the actual cost of administration and implementation. Administration includes all the costs associated with document generation and handling as well as one annual site visit. The implementation costs include all sampling and associated laboratory analyses required by the permit. These two fees are identified on permit documents as a Permit Fee and an Analytical Fee.

**Permit Fee:** This fee is based on the actual costs associated with administering the permit program, including time spent on permit required inspections, clerical requirements, data handling requirements and all trunkline monitoring. This fee will be specific to the costs associated with the permit category.

**Analytical Fee:** This fee is based on actual costs associated with each permit. The costs, and an explanation of how they are determined, are outlined in an accompanying attachment. Labor time, including sampling and sample delivery to our laboratory, was derived from experience:

Composite samples:	1.5 hours each
Grab samples:	1.0 hours each

Four examples of analytical fees are attached herewith.

City of Grand Rapids  
 Industrial Pretreatment Program  
**Service Costs**  
**November 2005**

Category	Cost	Parameter	Cost
Labor:	\$53.72/hr		
Vehicle:	\$3.00/hr		
Sampler:	\$35.00/day		
Lab analysis:			
		metal (each)	\$9.90
		Total suspended solid	\$6.00
		BOD	\$12.00
		Total phosphate (as P)	\$11.00
		pH	\$5.00
		EPA 624 (volatiles)	\$100.00
		EPA 625 (semi-volatiles)	\$229.00
		BTEX/MTBE	\$36.00
		Sulfide	\$15.00
		Oil & grease	\$25.00
		Total cyanide	\$19.00
		Chromium-hexavalent	\$15.50
		Fecal coliform	\$40.00

**Explanation of Costs**

**Labor:** Labor is the 2006 hourly pay rate of a Water Pollution Control Inspector (classification 21A @ "F" step) per the Jan 1, 2003 to Dec 31, 2006 agreement between the City of Grand Rapids and the Grand Rapids Employees Independent Union plus 100% as specified in section 2.81(1) of the City of Grand Rapids Sewage Disposal System Ordinance. If personnel in a different classification are required, time will be billed based on that classification's pay scale plus 100%.

**Vehicle:** Hourly rate is the actual cost charged to City departments for vehicle use plus 25% for overhead. Figure is rounded to the nearest dollar.

**Sampler:** Sampler costs are derived from an average of the lowest quoted prices obtained from private suppliers in the greater Grand Rapids area.

**Lab Analysis:** Laboratory costs are based on the most recently approved competitive bid obtained for contract work provided to the Grand Rapids Wastewater Treatment Plant's Laboratory.

**City of Grand Rapids**  
**Cost of Services Provided by IPP**

Last Update: Nov-05

Permit Fee: \$ 300.00

**IPP Costs:**

Labor: \$ 53.72 per hour  
Vehicle: \$ 3.00 per hour  
Sampler: \$ 35.00 per day

**IPP Accounting:**

Composite Labor: 1.5 hours per sample  
Grab Sample Labor: 1.0 hours per sample

**Laboratory Costs:**

metals	\$ 9.90	ea.
TSS	\$ 6.00	ea.
BOD	\$ 12.00	ea.
total phosphate	\$ 11.00	ea.
pH	\$ 5.00	ea.
EPA 624	\$ 100.00	ea.
EPA 625	\$ 229.00	ea.
BTEX/MTBE	\$ 36.00	ea.
sulfide	\$ 15.00	ea.
oil & grease	\$ 25.00	ea.
total cyanide	\$ 19.00	ea.
hex chrome	\$ 15.50	ea.
fecal coliform	\$ 40.00	ea.

Permit No: Example 1

Company: Typical Metal Finisher  
Facility Address:  
City, State, Zip

Permit Fee: \$ 300.00  
Analytical Fee: \$ 812.00  
Amount Due: \$ 1,112.00

Composite Samples: 4

*IPP Requirements:* man hours = 6.0 x \$ 53.72 = \$ 322.00  
sampler days = 4.0 x \$ 35.00 = \$ 140.00  
vehicle hours = 6.0 x \$ 3.00 = \$ 18.00

Total IPP Composite Costs: \$ 480.00

*Laboratory Analysis:* metals 6 x \$ 9.90 = \$ 59.00  
(each composite) TSS x \$ 6.00 = \$ -  
BOD x \$ 12.00 = \$ -  
total phosphate x \$ 11.00 = \$ -  
pH x \$ 5.00 = \$ -  
EPA 625 x \$ 229.00 = \$ -  
sulfide x \$ 15.00 = \$ -  
oil & grease x \$ 25.00 = \$ -  
hex chrome x \$ 15.50 = \$ -  
fecal coliform x \$ 40.00 = \$ -  
other x = \$ -

total per composite: \$ 59.00

Total Laboratory Composite Costs: \$ 236.00

Total Composite Sample Costs: \$ 716.00

Grab Samples: 4

*IPP Requirements:* man hours = 0.0 x \$ 53.72 = \$ -  
vehicle hours = 0.0 x \$ 3.00 = \$ -

Total IPP Grab Costs: \$ -

*Laboratory Analysis:* metals x \$ 9.90 = \$ -  
(each grab) TSS x \$ 6.00 = \$ -  
BOD x \$ 12.00 = \$ -  
total phosphate x \$ 11.00 = \$ -  
pH 1 x \$ 5.00 = \$ 5.00  
EPA 624 x \$ 100.00 = \$ -  
EPA 625 x \$ 229.00 = \$ -  
BTEX/MTBE x \$ 36.00 = \$ -  
sulfide x \$ 15.00 = \$ -  
oil & grease x \$ 25.00 = \$ -  
total cyanide 1 x \$ 19.00 = \$ 19.00  
hex chrome x \$ 15.50 = \$ -  
fecal coliform x \$ 40.00 = \$ -  
other x = \$ -

total per grab: \$ 24.00

Total Laboratory Grab Costs: \$ 96.00

Total Grab Sample Costs: \$ 96.00

Total Analytical Permit Costs: \$ 812.00

Permit No: Example 2

Company: Litho process  
Facility Address:  
City, State, Zip

Permit Fee: \$ 300.00  
Analytical Fee: \$ 62.00  
Amount Due: \$ 362.00

Composite Samples:

IPP Requirements: man hours = 0.0 x \$ 53.72 = \$ -  
sampler days = 0.0 x \$ 35.00 = \$ -  
vehicle hours = 0.0 x \$ 3.00 = \$ -

Total IPP Composite Costs: \$ -

Laboratory Analysis: (each composite)  
metals x \$ 9.90 = \$ -  
TSS x \$ 6.00 = \$ -  
BOD x \$ 12.00 = \$ -  
total phosphate x \$ 11.00 = \$ -  
pH x \$ 5.00 = \$ -  
EPA 625 x \$ 229.00 = \$ -  
sulfide x \$ 15.00 = \$ -  
oil & grease x \$ 25.00 = \$ -  
hex chrome x \$ 15.50 = \$ -  
fecal coliform x \$ 40.00 = \$ -  
other x = \$ -

total per composite: \$ -

Total Laboratory Composite Costs: \$ -

Total Composite Sample Costs: \$ -

Grab Samples: 1

IPP Requirements: man hours = 1.0 x \$ 53.72 = \$ 54.00  
vehicle hours = 1.0 x \$ 3.00 = \$ 3.00

Total IPP Grab Costs: \$ 57.00

Laboratory Analysis: (each grab)  
metals x \$ 9.90 = \$ -  
TSS x \$ 6.00 = \$ -  
BOD x \$ 12.00 = \$ -  
total phosphate x \$ 11.00 = \$ -  
pH 1 x \$ 5.00 = \$ 5.00  
EPA 624 x \$ 100.00 = \$ -  
EPA 625 x \$ 229.00 = \$ -  
BTEX/MTBE x \$ 36.00 = \$ -  
sulfide x \$ 15.00 = \$ -  
oil & grease x \$ 25.00 = \$ -  
total cyanide x \$ 19.00 = \$ -  
hex chrome x \$ 15.50 = \$ -  
fecal coliform x \$ 40.00 = \$ -  
other x = \$ -

total per grab: \$ 5.00

Total Laboratory Grab Costs: \$ 5.00

Total Grab Sample Costs: \$ 62.00

Total Analytical Permit Costs: \$ 62.00

Permit No: Example 3

Company: Stripping process  
Facility Address:  
City, State, Zip

Permit Fee: \$ 300.00  
Analytical Fee: \$ 112.00  
Amount Due: \$ 412.00

Composite Samples:

IPP Requirements: man hours = 0.0 x \$ 53.72 = \$ -  
sampler days = 0.0 x \$ 35.00 = \$ -  
vehicle hours = 0.0 x \$ 3.00 = \$ -

Total IPP Composite Costs: \$ -

Laboratory Analysis: metals x \$ 9.90 = \$ -  
(each composite) TSS x \$ 6.00 = \$ -  
BOD x \$ 12.00 = \$ -  
total phosphate x \$ 11.00 = \$ -  
pH x \$ 5.00 = \$ -  
EPA 625 x \$ 229.00 = \$ -  
sulfide x \$ 15.00 = \$ -  
oil & grease x \$ 25.00 = \$ -  
hex chrome x \$ 15.50 = \$ -  
fecal coliform x \$ 40.00 = \$ -  
other x = \$ -

total per composite: \$ -

Total Laboratory Composite Costs: \$ -

Total Composite Sample Costs: \$ -

Grab Samples: 1

IPP Requirements: man hours = 1.0 x \$ 53.72 = \$ 54.00  
vehicle hours = 1.0 x \$ 3.00 = \$ 3.00

Total IPP Grab Costs: \$ 57.00

Laboratory Analysis: metals 5 x \$ 9.90 = \$ 50.00  
(each grab) TSS x \$ 6.00 = \$ -  
BOD x \$ 12.00 = \$ -  
total phosphate x \$ 11.00 = \$ -  
pH 1 x \$ 5.00 = \$ 5.00  
EPA 624 x \$ 100.00 = \$ -  
EPA 625 x \$ 229.00 = \$ -  
BTEX/MTBE x \$ 36.00 = \$ -  
sulfide x \$ 15.00 = \$ -  
oil & grease x \$ 25.00 = \$ -  
total cyanide x \$ 19.00 = \$ -  
hex chrome x \$ 15.50 = \$ -  
fecal coliform x \$ 40.00 = \$ -  
other x = \$ -

total per grab: \$ 55.00

Total Laboratory Grab Costs: \$ 55.00

Total Grab Sample Costs: \$ 112.00

Total Analytical Permit Costs: \$ 112.00

Permit No: Example 4

Company: Silver User - photoprocessor  
Facility Address:  
City, State, Zip

Permit Fee: \$ 300.00  
Analytical Fee: \$ 67.00  
Amount Due: \$ 367.00

**Composite Samples:**

*IPP Requirements:* man hours = 0.0 x \$ 53.72 = \$ -  
sampler days = 0.0 x \$ 35.00 = \$ -  
vehicle hours = 0.0 x \$ 3.00 = \$ -

**Total IPP Composite Costs: \$ -**

*Laboratory Analysis:* metals x \$ 9.90 = \$ -  
(each composite) TSS x \$ 6.00 = \$ -  
BOD x \$ 12.00 = \$ -  
total phosphate x \$ 11.00 = \$ -  
pH x \$ 5.00 = \$ -  
EPA 625 x \$ 229.00 = \$ -  
sulfide x \$ 15.00 = \$ -  
oil & grease x \$ 25.00 = \$ -  
hex chrome x \$ 15.50 = \$ -  
fecal coliform x \$ 40.00 = \$ -  
other x = \$ -

**total per composite: \$ -**

**Total Laboratory Composite Costs: \$ -**

**Total Composite Sample Costs: \$ -**

**Grab Samples: 1**

*IPP Requirements:* man hours = 1.0 x \$ 53.72 = \$ 54.00  
vehicle hours = 1.0 x \$ 3.00 = \$ 3.00

**Total IPP Grab Costs: \$ 57.00**

*Laboratory Analysis:* metals 1 x \$ 9.90 = \$ 10.00  
(each grab) TSS x \$ 6.00 = \$ -  
BOD x \$ 12.00 = \$ -  
total phosphate x \$ 11.00 = \$ -  
pH x \$ 5.00 = \$ -  
EPA 624 x \$ 100.00 = \$ -  
EPA 625 x \$ 229.00 = \$ -  
BTEX/MTBE x \$ 36.00 = \$ -  
sulfide x \$ 15.00 = \$ -  
oil & grease x \$ 25.00 = \$ -  
total cyanide x \$ 19.00 = \$ -  
hex chrome x \$ 15.50 = \$ -  
fecal coliform x \$ 40.00 = \$ -  
other x = \$ -

**total per grab: \$ 10.00**

**Total Laboratory Grab Costs: \$ 10.00**

**Total Grab Sample Costs: \$ 67.00**

**Total Analytical Permit Costs: \$ 67.00**

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# CITY OF GRAND RAPIDS

DATE: October 31, 2005

TO: Mr. Michael E. Wolski  
Financial Analyst

FROM: Charles R. Schroeder, PE  
Hydraulic Engineer *CRS*

**SUBJECT: Sanitary Sewer Oversizing Rates (Task #32, Water/Sewer Rate Study)**

Sanitary Sewer Oversizing rates are established for this year as noted below:

8" to 10"..... \$ 3.91 per lineal foot  
8" to 12".....\$ 10.36 per lineal foot  
8" to 15".....\$ 19.21 per lineal foot  
10" to 12".....\$ 6.45 per lineal foot  
10" to 15".....\$ 15.30 per lineal foot  
12" to 15".....\$ 8.85 per lineal foot

These rates have been determined in accordance with the Sewage Disposal System Rules and Regulations and are approved for use from January 1, 2006 through December 31, 2006. Background information and calculations to establish these rates are on file in the Wastewater Treatment Engineering Office. If you have any questions regarding this matter, please call me at extension 3690 (456-3690)

Cc: Corky Overmyer  
Bill Cole, PE  
Bill DeYoung, PE

MEMORANDUM

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 33**

SERVICE AREA MAPS AND SERVICE AREA LAND MASS SUMMARIES

The following summarizes Utility Service Districts (USD) land mass square miles for UAB partner communities, per maps on file as of October 21, 2005:

UAB Partners	Sq. Miles of USD by CC	Percent
Grand Rapids	45.36	35.192%
Walker	20.17	15.649%
Kentwood	14.00	10.862%
Cascade	23.53	18.256%
Grand Rapids Township *	11.82	9.171%
Tallmadge Township *	2.40	1.862%
Wright Township	0.89	0.691%
East Grand Rapids	3.37	2.615%
Ada	7.15	5.547%
Meijer - Algoma	0.20	0.155%
Total	128.89	100.000%

\* Includes revised area approved at October 20, 2005, UAB meeting.

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INTRODUCTION OF RATE ORDINANCES

# MEMORANDUM

CITY OF GRAND RAPIDS

**DATE:** November 22, 2005

**TO:** Eric R. DeLong  
Deputy City Manager

**FROM:** Michael E. Wolski   
Utility Financial Officer

**SUBJECT:** 2005 WATER/SEWER RATE REVIEW- PRELIMINARY REPORT

The preliminary report, recommending water and sewer rates as of January 1, 2006 for Grand Rapids and all customer communities, is submitted for consideration. The report continues to be two-tiered in nature, calculating recommended rates for customer communities based upon: (a) adherence to the rate-making methodology established in 1976-1977 for customer communities not party to the uniform water and sewer service agreements; (b) rate methodology changes, based upon the uniform service agreements with our UAB partners.

Proposed 2006 water rates reflect increases for personal service costs (which include phasing-in retiree health care funding requirements) and contractual paving repairs and decreased integrated connection fees. Proposed 2006 sewer rates reflect increases for WWTP improvements, CSO, personal service costs, electricity and sludge disposal costs, which are partially offset by increased integrated connection fees.

Summaries of proposed overall revisions for the systems are as follows:

1. Water Supply System revenue requirements will increase \$2,093,010 or 5.94% more than revenues generated by existing rates and charges.
2. Sewage Disposal System revenue requirements will increase \$4,104,757 or 12.76% more than revenues generated by existing rates and charges.

Attached is a schedule summarizing revenue requirements changes by community. Comparative 2005/2006 water/sewer quarterly billings based on consumption averages for a typical domestic user in Grand Rapids and retail customer communities is also attached. That schedule includes a comparison of approximate 2005/2006 monthly charges for Wright Township's REU (Residential Equivalent Unit) rate structure. Comparative rate adjustments are also noted for our wholesale customer communities.

Announcement of proposed 2006 water and sewer rates to our UAB partners and other customer communities is scheduled for Thursday, November 17, 2005. All customer communities have a thirty-day comment period following notification of the rates as provided in our water/sewer service agreements. Concurrence of customer community rates by the City Commission is scheduled for Tuesday, December 20, 2005.

Resolutions are being prepared providing for publication of proposed ordinances amending the Water and Sewer Rates and Charges and establish December 6, 2005, as the date for public hearing and December 20, 2005, to consider adoption of the proposed ordinances.

MW

Attachment

**CITY OF GRAND RAPIDS, MICHIGAN**  
**2005 PRELIMINARY WATER/SEWER RATE STUDY**  
**SUMMARY OF REVENUE REQUIREMENT CHANGES (1)**  
**November 14, 2005**

	WATER		SEWER	
	AMOUNT	PERCENT	AMOUNT	PERCENT
GRAND RAPIDS	\$ 1,287,670	6.01%	\$ 2,718,856	12.18%
WALKER	128,982	4.45%	176,553	7.40%
KENTWOOD	193,156	5.40%	264,443	12.43%
CASCADE TWP	164,099	6.05%	364,492	30.78%
GRAND RAPIDS TWP	190,591	11.43%	98,051	7.51%
TALLMADGE TWP (2)	15,493	18.36%	48,077	64.69%
WRIGHT TWP (3)	NA	NA	6,840	3.39%
EAST GRAND RAPIDS	44,129	5.33%	70,513	16.07%
ADA TWP	53,940	5.21%	63,212	15.18%
OTTAWA COUNTY	14,950	1.49%	NA	NA
NORTH KENT AREA	NA	NA	273,664	17.05%
GAINES TWP	NA	NA	18,795	16.09%
MEIJER - ALGOMA	NA	NA	1,261	21.37%
<b>SYSTEM</b>	<b>\$ 2,093,010</b>	<b>5.94%</b>	<b>\$ 4,104,757</b>	<b>12.76%</b>

- (1) Change in revenue requirements based on revenues currently generated from rates, customer base and volumes reported in the preliminary rate study.
- (2) Tallmadge Twp contributed \$28,860 in 2004 (Water \$12,040- Sewer \$16,820) @ to offset 2005 revenue requirements & rates. If Tallmadge Twp were to contribute the same amount to offset proposed 2006 revenue requirements & rates, the proposed rate adjustments for water & sewer users would be 4.09% & 42.06%, respectively.
- (3) Wright Twp contributed \$7,768 in 2004 to offset 2005 revenue requirements & rates. If Wright Twp were to contribute the same amount to offset proposed 2006 revenue requirements & rates, the proposed rate adjustments for users would be -0.46%.

**CITY OF GRAND RAPIDS, MICHIGAN  
2005 PRELIMINARY WATER/SEWER RATE STUDY  
IMPACT OF RATE ADJUSTMENTS ON DOMESTIC USERS  
BY CUSTOMER COMMUNITY \*  
November 14, 2005**

	<u>APPROXIMATE QUARTERLY BILL</u>		<u>CHANGE</u>	
	<u>CURRENT</u>	<u>PROPOSED</u>	<u>DOLLARS</u>	<u>PERCENT</u>
<b>GRAND RAPIDS</b>				
WATER	\$ 63.44	\$ 66.99	\$ 3.55	5.60%
SEWER	60.29	66.95	6.66	11.05%
	<u>\$ 123.73</u>	<u>\$ 133.94</u>	<u>\$ 10.21</u>	8.25%
BASE RATIO	1.00	1.00		
<b>WALKER</b>				
WATER	\$ 66.63	\$ 69.57	\$ 2.94	4.41%
SEWER	64.61	69.32	4.71	7.29%
	<u>\$ 131.24</u>	<u>\$ 138.89</u>	<u>\$ 7.65</u>	5.83%
RATIO TO GR	1.06	1.04		
<b>KENTWOOD</b>				
WATER	\$ 78.34	\$ 82.43	\$ 4.09	5.22%
SEWER	37.92	42.29	4.37	11.52%
	<u>\$ 116.26</u>	<u>\$ 124.72</u>	<u>\$ 8.46</u>	7.28%
RATIO TO GR	0.94	0.93		
<b>CASCADE TWP</b>				
WATER	\$ 108.56	\$ 115.25	\$ 6.69	6.16%
SEWER	80.80	104.80	24.00	29.70%
	<u>\$ 189.36</u>	<u>\$ 220.05</u>	<u>\$ 30.69</u>	16.21%
RATIO TO GR	1.53	1.64		
<b>GRAND RAPIDS TWP</b>				
WATER	\$ 78.97	\$ 88.01	\$ 9.04	11.45%
SEWER	75.25	80.87	5.62	7.47%
	<u>\$ 154.22</u>	<u>\$ 168.88</u>	<u>\$ 14.66</u>	9.51%
RATIO TO GR	1.25	1.26		
<b>TALLMADGE TWP- Contributions: Current \$28,860K (Water \$12,040- Sewer \$16,820) / Proposed \$0.</b>				
WATER	\$ 107.60	\$ 130.98	\$ 23.38	21.73%
SEWER	110.35	180.86	70.51	63.90%
	<u>\$ 217.95</u>	<u>\$ 311.84</u>	<u>\$ 93.89</u>	43.08%
RATIO TO GR	1.76	2.33		

\* THE COMPARISONS ABOVE ARE BASED ON AVERAGE DOMESTIC CUSTOMER QUARTERLY CONSUMPTION OF: WATER- 26.00 UNITS OR 19,448 GALLONS  
SEWER - 19.00 UNITS OR 14,212 GALLONS  
NO. OF MONTHS: 3

Note: The average water & sewer consumption depicted above reflects a decline of one (1) unit for each system from last year's rate study. (The average quarterly consumption for water & sewer last year was 27 and 20 units, respectively).

**REU (RESIDENTIAL EQUIVALENT UNIT) CUSTOMER COMMUNITY- APPROXIMATE MONTHLY BILL**

<b>WRIGHT TWP- Contributions: Current \$7,768 / Proposed \$0.</b>				
SEWER (No. of REU 1.00)	<u>\$ 48.77</u>	<u>\$ 50.42</u>	<u>\$ 1.65</u>	3.38%

**CITY OF GRAND RAPIDS, MICHIGAN**  
**2005 PRELIMINARY WATER/SEWER RATE STUDY**  
**IMPACT OF RATE ADJUSTMENTS ON WHOLESALE USERS**  
**November 14, 2005**

	<u>CURRENT</u>	<u>PROPOSED</u>	<u>PERCENTAGE CHANGE</u>
<b>EAST GRAND RAPIDS</b>			
WATER - SERVICE (MONTHLY)	\$ 11,396.00	\$ 14,497.00	27.21%
- COMMODITY (100 CF)	1.00	1.01	1.00%
SEWER - SERVICE (MONTHLY)	1,744.00	1,981.00	13.59%
- COMMODITY (MG)	957.00	1,112.00	16.20%
<b>ADA TWP</b>			
WATER - SERVICE	\$ 29,115.00	\$ 31,992.00	9.88%
- COMMODITY	1.06	1.09	2.83%
SEWER - SERVICE	5,772.00	5,841.00	1.20%
- COMMODITY	1,085.00	1,280.00	17.97%
<b>OTTAWA COUNTY</b>			
WATER - SERVICE	\$ 169.00	\$ -	-100.00%
- COMMODITY	1.11	1.13	1.80%
<b>NORTH KENT AREA</b>			
SEWER - SERVICE	\$ 23,944.00	\$ 24,554.00	2.55%
- COMMODITY	871.00	1,047.00	20.21%
<b>GAINES TWP</b>			
SEWER - SERVICE	\$ 1,592.00	\$ 1,512.00	-5.03%
- COMMODITY	871.00	1,047.00	20.21%
<b>MEIJER - ALGOMA</b>			
SEWER - SERVICE	\$ 103.00	\$ 78.00	-24.27%
- COMMODITY	1,212.00	1,619.00	33.58%

74433 Com. Rabaut, supported by Com. Schmidt, moved adoption of the following resolution:

RESOLVED that the following Ordinance to amend sections 2.34, 2.35, 2.40 and 2.45 of Chapter 26 of Title II of the City Code be published as part of the proceedings, that a public hearing on the proposed Ordinance be held on December 6, 2005, at 7:00 p.m., that the City Clerk be directed to publish notice of Public Hearing and that the proposed Ordinance be considered for adoption on December 20, 2005.

AN ORDINANCE TO AMEND CHAPTER 26 OF TITLE II OF THE CODE OF THE CITY OF GRAND RAPIDS AMENDING THE WATER RATES AND CHARGES.

ORDINANCE NO. 2005-\_\_

THE PEOPLE OF THE CITY OF GRAND RAPIDS DO ORDAIN:

Section 1. That Section 2.34 of Chapter 26 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

"2.34 Local Distribution Charges.

- (1) Whenever a watermain used for local distribution is constructed either through a special assessment project or as may be ordered or required by law, the property owners for whom the line is designed shall each pay their share of the cost of installation. Similarly, any property owner requesting service who has not previously paid his or her share of the cost of constructing the watermain used for local distribution shall pay those costs before service is permitted.
- (2) The charge shall be known as the front foot rate and be determined by multiplying the rate per foot by the number of feet the property owner has fronting on the watermain used for local distribution. The front foot rate shall be as follows:
  - (a) Domestic User: \$48.00;
  - (b) Commercial or Industrial User;
    1. The same as a domestic user if the connection is made to a line eight (8) inches or less in diameter.
    2. For a line larger than eight (8) inches in diameter: \$66.00.

This charge will be annually reviewed and may change to reflect the current average cost of installation of local distribution lines.

- (3) If the City Commission shall determine that it is not advisable to collect the front foot rate at the time of construction or connection (if not previously paid at the time of construction), it may direct that the cost be borne initially by the System and subsequently be collected from the property owner in accordance with this Section.
- (4) Upon completion of construction or at the time connection is requested (if this cost has not been paid at the time of construction), the City Engineer shall certify to the City Comptroller the cost to be charged to the property owner. The Comptroller shall in turn certify the amount thereof to the City Treasurer. The City Treasurer shall bill the owner of the premises affected advising him or her that unless the amount so billed is paid within thirty (30) days from the date of mailing that the same shall be presented to the City Commission at the first meeting thereof after the expiration of thirty (30) days for assessment against said premises as a special assessment. In the event the bill for such installation and connection is not paid within thirty (30) days from the date said notice is mailed, the City Treasurer shall report the same to the City Commission which shall examine the same and if found by it to be correct shall confirm it as a special assessment against the premises affected, at which time the City Commission shall also direct the number of installments into which the same shall be divided, and shall direct the City Assessor to extend the same upon the tax roll as a special assessment in the manner

provided in Chapter 10 of this Code. All collection procedures for special assessments established in Chapter 10 of this Code shall be applicable to assessments made hereunder.

- (5) In lieu of the procedure above described, such installations and connections may be made at the expense of the System when the owner of the premises signs a written agreement agreeing to pay the expense of such installation and connections upon terms agreeable to the City Manager and that the unpaid balance shall constitute a lien upon his or her property of the same character and subject to the same methods of collection as prescribed for special assessments in Chapter 10 of this Code."

Section 2. That Section 2.35 of Chapter 26 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

"2.35 Integrated Water Connection Fee Schedule.

When a property owner or user is requested or required to connect to the System and has not previously paid or been assessed a connection fee, the following connection fee schedule shall apply:

Integrated Water Connection Base Fee Schedule

Water Meter (or equivalent) Size (inches)	Base Fee
3/4 or less	\$ 2,350
1	3,900
1 1/2	7,850
2	12,550
3	27,400
4	49,350
6 and over	109,650

Except as otherwise provided in the immediately succeeding paragraph, the foregoing integrated water connection base fee schedule for single-family and multi-family residential dwelling units shall be adjusted upward and downward as follows: A single-family residential dwelling unit located on a parcel containing twenty thousand (20,000) square feet shall pay the applicable integrated connection fee in accordance with the foregoing schedule. When determining the square footage of a residential parcel for the purposes of determining the appropriate integrated connection fee, parcel size may be adjusted downward to take into consideration such things as wetlands, lakes, streams and other unusual characteristics of the parcel in accordance with policies approved from time to time by the Utility Advisory Board. To the extent the size of a parcel, as adjusted, is greater than or less than twenty thousand (20,000) square feet, one-half the applicable integrated connection fee will increase or decrease by the same percentage increase or decrease in the parcel above or below twenty thousand (20,000) square feet. In the case of multi-family residential dwellings, in order to determine the size of the parcel assigned to each dwelling unit for purposes of calculating the integrated connection fee to be paid by each multi-family residential dwelling unit, the total square footage of the parcel, as adjusted, on which the multi-family residential dwelling is located shall be divided by the total number of residential units. Notwithstanding any other provision in this subsection, the integrated connection fee for a single-family residential dwelling unit or multi-family residential dwelling unit shall not exceed four and one-half times the applicable base integrated connection fee set forth in foregoing schedule.

There shall be no upward adjustment in the integrated water service connection fee payable for a single-family residential dwelling unit connecting to the Water System if (a) each of the following conditions are met (1) a building permit shall have been obtained, (2) the dwelling unit shall have been constructed, and (3) a certificate of occupancy shall have been issued prior to January 1, 2000 or (b) local building permit fees have been paid to the local governmental unit prior to January 1, 2000 for a single-family residential dwelling unit to be constructed on or after January 1, 2000. When connecting to the Water System, Users living in or owning such single-family residential dwelling units shall pay the applicable base integrated connection fee set forth in the Integrated Water Connection Base Fee Schedule adjusted downward, if applicable, in accordance with the immediate preceding paragraph.

Effective January 1, 2005 and January 1<sup>st</sup> of every year thereafter, the Integrated Water Connection Base Fees shall be adjusted by a percentage, which is determined by the annual change in the Consumer Price Index (the "index") calculated as follows:

- (1) The Consumer Price Index shall be that Index referred to as the Consumer Price Index, US City Average, All Urban Consumers, published by the U.S. Department of Labor-Bureau of Statistics ((1982-84)=100). In the event the method of determining the Index is substantially altered, the basis for determining the annual change thereafter shall be the Index which is most comparable to the Index described above.
- (2) For the purpose of computing the percentage change each calendar year, the Index for the month of August for the prior calendar year shall be subtracted from the Index for the immediately-preceding August. The result so obtained (if positive) shall be divided by the Index for the month of August for the prior calendar year to obtain the percentage increase which shall be applied to the then current Integrated Water Connection Base Fee Schedule to determine the new calendar year schedule.

The foregoing Integrated Connection fee is due and payable at the time a User receives a permit to connect to the Water System. A permit issued by the City to connect to the Water System shall expire one hundred eighty (180) days from the date the permit was issued.

The user receiving services who applies for a larger water meter than the one presently in service shall pay an Integrated Connection Fee which is the difference in cost between the meter size in service and the one applied for in accordance with the Integrated Connection Fee in effect at the time of application. No credit or rebate shall be made in the case of application for a smaller meter size.

Existing commercial and industrial customers may request the installation of an additional meter to measure water used solely for irrigation purposes. There shall be no Integrated Connection Fee for the additional meter provided combined maximum capacity as defined by the American Water Works Association Standards C700-90 and C702-92, as amended, does not exceed the maximum capacity of the original meter. If the original maximum capacity is exceeded, the customer shall pay as an Integrated Connection Fee the difference between the fee for the original meter and what the fee would be if the maximum capacities of all meters were totaled. The additional Integrated Connection Fee shall be based upon the fees in effect at the time of installation of the additional meter."

Section 3. That Section 2.40 of Chapter 26 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

"2.40 Rates and Charges for Retail Customers Within the City of Grand Rapids.

The following charges for water service provided retail users within the City of Grand Rapids shall be made.

	<u>Commodity Rate</u>
Domestic	\$1.47 per 100 cubic feet
Commercial	\$1.47 per 100 cubic feet
Industrial	\$1.47 per 100 cubic feet

	<u>Monthly Service Charge</u>
<u>Size of Meter</u>	<u>Charge</u>
3/4 inch or less	\$ 9.59
1 inch	14.26
1 1/4 inch	20.27
1 1/2 inch	27.62
2 inches	46.32
3 inches	99.74
4 inches	174.53
6 inches or larger	388.22"

Section 4. That Section 2.45 of Chapter 26 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

"2.45 Effective Date.

The rates, charges and fees set forth in Section 2.34, 2.35 and 2.40 shall be effective on January 1, 2006."

Adopted:            Yeas: -7            Nays: -0

I hereby certify that the foregoing is a true transcript of the action of the City Commission of the City of Grand Rapids, Michigan, in public session held November 22, 2005.

  
\_\_\_\_\_  
Mary Therese Hegarty, City Clerk

74434 Com. Rabaut, supported by Com. Schmidt, moved adoption of the following resolution:

RESOLVED that the following Ordinance to amend section 2.95, 2.96, 2.101, 2.102 and 2.105 of Chapter 27 of Title II of the City Code be published as part of the proceedings, and that a public hearing on the proposed Ordinance be held on December 6, 2005, at 7:00 p.m., that the City Clerk be directed to publish notice of Public Hearing and that the proposed Ordinance be considered for adoption on December 20, 2005.

AN ORDINANCE TO AMEND CHAPTER 27 OF TITLE II OF THE CODE OF THE CITY OF GRAND RAPIDS AMENDING THE SEWER RATES AND CHARGES.

ORDINANCE NO. 2005-\_\_

THE PEOPLE OF THE CITY OF GRAND RAPIDS DO ORDAIN:

Section 1. That Section 2.95 of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

"2.95 Local Collector Sewer Line Installation Charges.

- (1) Whenever a local collector sewer line is constructed either through a special assessment project or as may be ordered or required by law, the property owners for whom the line is designed to serve shall each pay their share of the cost of installation. Similarly, any property owner requesting service who has not previously paid his or her share of the cost of constructing the local collector sewer shall pay those costs before service is permitted.
- (2) The charge shall be known as the front foot rate and be determined by multiplying the rate per foot by the number of feet the property owner has fronting on the local collector sewer line from which he or she will receive service. The front foot rate shall be as follows:
  - (a) Domestic User: \$56.00;
  - (b) Commercial or Industrial User;
    1. The same as a domestic user if the connection is made to a local collector sewer line eight (8) inches or less in diameter.
    2. For a line larger than eight (8) inches in diameter: \$92.00.

This charge will be annually reviewed and may change to reflect the current average cost of installation of local collector sewer lines.

- (3) If the City Commission shall determine that it is not advisable to collect the front foot rate at the time of construction or connection (if not previously paid at the time of construction), it may direct that the cost be borne initially by the System and subsequently be collected from the property owner in accordance with this Section.
- (4) Upon completion of construction or at the time connection is requested (if this cost has not been paid at the time of construction), the City Engineer shall certify to the City Comptroller the cost to be charged to the property owner. The Comptroller shall in turn certify the amount thereof to the City Treasurer. The City Treasurer shall bill the owner of the premises affected advising him or her that unless the amount so billed is paid within thirty (30) days from the date of mailing that the same shall be presented to the City Commission at the first meeting thereof after the expiration of thirty (30) days for assessment against said premises as a special assessment. In the event the bill for such installation and connection is not paid within thirty (30) days from the date said notice is mailed, the City Treasurer shall report the same to the City Commission which shall examine the same and if found by it to be correct shall confirm it as a special assessment against the premises affected, at which time the City Commission shall also direct the number of installments into which the same shall be divided, and shall direct the City Assessor to extend the same upon the tax roll as a special assessment in the manner

provided in Chapter 10 of this Code. All collection procedures for special assessments established in Chapter 10 of this Code shall be applicable to assessments made hereunder.

- (5) In lieu of the procedure above described, such costs may be made at the expense of the System when the owner of the premises signs a written agreement agreeing to pay the cost upon terms agreeable to the City Manager and that the unpaid balance shall constitute a lien upon his or her property of the same character and subject to the same methods of collection as prescribed for special assessments in Chapter 10 of this Code."

Section 2. That Section 2.96 of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

"2.96 Integrated Sewer Connection Fee Schedule.

When a property owner or user is requested or required to connect to the System and has not previously paid or been assessed a connection fee, the following connection fee schedule shall apply:

Integrated Sewer Connection Base Fee Schedule

Water Meter (or equivalent) <u>Size (inches)</u>	<u>Base Fee</u>
3/4 or less	\$ 2,350
1	3,900
1 ½	7,850
2	12,550
3	27,400
4	49,350
6 and over	109,650

Except as otherwise provided in the immediately succeeding paragraph, the foregoing integrated sewer connection base fee schedule for single-family and multi-family residential dwelling units shall be adjusted upward and downward as follows: A single-family residential dwelling unit located on a parcel containing twenty thousand (20,000) square feet shall pay the applicable integrated connection fee in accordance with the forgoing schedule. When determining the square footage of a residential parcel for the purposes of determining the appropriate integrated connection fee, parcel size may be adjusted downward to take into consideration such things as wetlands, lakes, streams and other unusual characteristics of the parcel in accordance with policies approved from time to time by the Utility Advisory Board. To the extent the size of a parcel, as adjusted, is greater than or less than twenty thousand (20,000) square feet, one-half the applicable integrated connection fee will increase or decrease by the same percentage increase or decrease in the parcel above or below twenty thousand (20,000) square feet. In the case of multi-family residential dwellings, in order to determine the size of the parcel assigned to each dwelling unit for purposes of calculating the integrated connection fee to be paid by each multi-family residential dwelling unit, the total square footage of the parcel, as adjusted, on which the multi-family residential dwelling is located shall be divided by the total number of residential units. Notwithstanding any other provision in this subsection, the integrated connection fee for a single-family residential dwelling unit or multi-family residential dwelling unit shall not exceed four and one-half times the applicable base integrated connection fee set forth in foregoing schedule.

There shall be no upward adjustment in the integrated sewer service connection fee payable for a single-family residential dwelling unit connecting to the Sewer System if (a) each of the following conditions are met (1) a building permit shall have been obtained, (2) the dwelling unit shall have been constructed, and (3) a certificate of occupancy shall have been issued prior to January 1, 2000 or (b) local building permit fees have been paid to the local governmental unit prior to January 1, 2000 for a single-family residential dwelling unit to be constructed on or after January 1, 2000. When connecting to the Sewer System, Users living in or owning such single-family residential dwelling units shall pay the applicable base integrated connection fee set forth in the Integrated Sewer Connection Base Fee Schedule adjusted downward, if applicable, in accordance with the immediate preceding paragraph.

Effective January 1, 2005 and January 1<sup>st</sup> of every year thereafter, the Integrated Sewer Connection Base Fees shall be adjusted by a percentage, which is determined by the annual change in the Consumer Price Index (the "index") calculated as follows:

- (1) The Consumer Price Index shall be that Index referred to as the Consumer Price Index, US City Average, All Urban Consumers, published by the U.S. Department of Labor-Bureau of Statistics ((1982-84)=100). In the event the method of determining the Index is substantially altered, the basis for determining the annual change thereafter shall be the Index which is most comparable to the Index described above.
- (2) For the purpose of computing the percentage change each calendar year, the Index for the month of August for the prior calendar year shall be subtracted from the Index for the immediately-preceding August. The result so obtained (if positive) shall be divided by the Index for the month of August for the prior calendar year to obtain the percentage increase which shall be applied to the then current Integrated Sewer Connection Base Fee Schedule to determine the new calendar year schedule.

The foregoing Integrated Connection fee is due and payable at the time a User receives a permit to connect to the Sewer System. A permit issued by the City to connect to the Sewer System shall expire one hundred eighty (180) days from the date the permit was issued.

The user receiving services who applies for a larger water meter than the one presently in service shall pay an Integrated Connection Fee which is the difference in cost between the meter size in service and the one applied for in accordance with the Integrated Connection Fee in effect at the time of application. No credit or rebate shall be made in the case of application for a smaller meter size."

Section 3. That Section 2.101 of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

"2.101 Rates and Charges for Retail Users Within the City of Grand Rapids.

The following rates and charges for sewage disposal service shall apply for users within the City of Grand Rapids:

	<u>Commodity Rate</u>	
Domestic		\$2.27 per 100 cubic feet
Commercial		\$2.27 per 100 cubic feet
Industrial		\$2.27 per 100 cubic feet
	<u>Monthly Service Charge</u>	
<u>Size of Meter</u>		<u>Charge</u>
3/4 inch or less		\$ 7.94
1 inch		12.26
1 1/4 inches		17.81
1 1/2 inches		24.59
2 inches		41.86
3 inches		91.19
4 inches		160.26
6 inches or larger		357.59"

Section 4. That Section 2.102 of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

"2.102 Surcharges and Permit Fees.

- (1) If the City Manager determines that a discharge will not cause pass through or interference as defined in this Chapter, Industrial or Commercial users whether they are located within a retail service area or a bulk service area shall be charged a surcharge if the concentration of their discharge exceeds a five-day BOD of two hundred fifty (250) mg/l, and/or TSS of two hundred fifty (250) mg/l, or any phosphorus of fifteen (15) mg/l. That charge shall be twenty and three-tenths cents (\$0.203) per pound of BOD and twenty-one and one-tenth cents (\$0.211) per pound of TSS and one dollar and forty-seven and nine-tenths cents

(\$1.479) per pound of phosphorus in excess of the above limits. In addition, all industrial or commercial users shall be charged a surcharge for ammonia concentrations exceeding thirty-eight (38) mg/l. The charge shall be twenty-two cents (\$0.220) per pound of ammonia in excess of the above limit. Discharge concentrations of these substances and the resulting surcharge shall be based on at least three composite samples per quarter. This sampling shall be performed by either the City or the Industrial User as determined by the City Manager.

- (2) The fee for a Significant Industrial User Discharge Permit as provided for in Section 2.70 of this Chapter whether they are located within a retail service area or a bulk service area shall be three hundred dollars (\$300.00) per year and an analytical fee based upon Section 2.102(3).
- (3) The following schedule of charges shall apply to any analysis which may be required as a part of a Significant Industrial User Discharge Permit:

Metals	\$ 9.90	each
TSS	6.00	each
BOD	12.00	each
Total Phosphate	11.00	each
pH	5.00	each
EPA 624	100.00	each
EPA 625	229.00	each
BTEX/MTBE	36.00	each
Sulfide	15.00	each
Oil and Grease	25.00	each
Total Cyanide	19.00	each
Hexavalent Chromium	15.50	each
Fecal Coliform	40.00	each
Labor	53.72	hour
Sampler	35.00	day
Vehicle	3.00	hour

- (4) These charges will be reviewed annually and may change to reflect the current cost of providing these services."

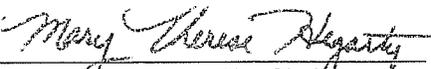
Section 5. That Section 2.105 of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

"2.105 Effective Date.

The rates, charges and fees set forth in Section 2.95, 2.96, 2.101 and 2.102 shall be effective on January 1, 2006."

Adopted:            Yeas: -7            Nays: -0

I hereby certify that the foregoing is a true transcript of the action of the City Commission of the City of Grand Rapids, Michigan, in public session held November 22, 2005.

  
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 Mary Therese Hegarty, City Clerk

NOTICE OF PUBLIC HEARING

# THE GRAND RAPIDS PRESS

Be someone who gets it.

STATE OF MICHIGAN,  
COUNTY OF KENT } SS.

The Advertising Director of THE GRAND RAPIDS, PRESS , a newspaper published in the County of Kent, and circulated throughout West Michigan, being duly sworn, deposes and says that the following advertising was inserted.

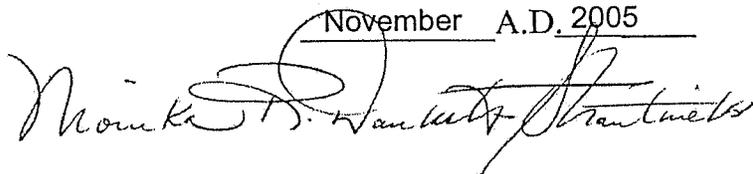
November 26, 2005



Advertising Director

Sworn and subscribed before me this 26th day of

November A.D. 2005



NOTARY PUBLIC, KENT COUNTY, MI

My commission expires:

MONIKA R. DAUKSTS-STRAUTNIEKS  
Notary Public, State of Michigan  
County of Kent  
My Commission Expires July 27, 2012  
Acting in the County of Kent

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**CITY OF  
GRAND  
RAPIDS**

**A PUBLIC HEARING  
ON PROPOSED  
WATER/SEWER  
RATES AND  
CHARGES FOR 2006**

will be held at 7:00 p.m. on Tuesday, December 6, 2005, in the Grand Rapids City Commission Chambers, 9th floor of City Hall, 300 Monroe Avenue, NW, Grand Rapids, MI.

Public Works & Economic Development Services has completed the "Preliminary Water-Sewer 2005 Rate Study" report, which is the basis for recommending rates to become effective January 1, 2006 for all residential, commercial, and industrial users. That report is available for public inspection in the City Clerk's Office, 2nd floor of City Hall, between 8:00 a.m. and 5:00 p.m. weekdays. We encourage water/sewer users to attend this public hearing on December 6, 2005.

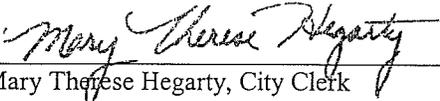
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## PUBLIC HEARINGS - GRAND RAPIDS ORDINANCES

**74464** Pursuant to Commission File No. 74433, dated November 22, 2005, a public hearing was held on this date to consider an Ordinance to amend Chapter 26 of Title II of the City Code amending the Water Rates and Charges.

At the conclusion of said hearing, the Mayor declared the hearing closed and referred the matter to the Committee of the Whole.

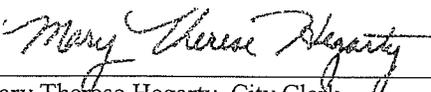
I hereby certify that the foregoing is a true transcript of the action of the City Commission of the City of Grand Rapids, Michigan, in public session held December 6, 2005.

  
Mary Therese Hegarty, City Clerk

74465 Pursuant to Commission File No. 74434, dated November 22, 2005, a public hearing was held on this date to consider an Ordinance to amend Chapter 27 of Title II of the City Code amending the Sewer Rates and Charges.

At the conclusion of said hearing, the Mayor declared the hearing closed and referred the matter to the Committee of the Whole.

I hereby certify that the foregoing is a true transcript of the action of the City Commission of the City of Grand Rapids, Michigan, in public session held December 6, 2005.

  
\_\_\_\_\_  
Mary Therese Hegarty, City Clerk

## FINAL ADOPTION OF RATE ORDINANCES

74511 An Ordinance to amend Chapter 26 of Title II of the City Code entitled "Water Rates and Charges" was presented to the City Commission on November 22, 2005 under File No. 74433, and a hearing was held on December 6, 2005 under File No. 74464 to be considered for adoption this date.

Com. Rabaut, supported by Com. Dean, moved adoption of the following Ordinance:

AN ORDINANCE TO AMEND CHAPTER 26 OF TITLE II OF THE CODE OF THE CITY OF GRAND RAPIDS AMENDING THE WATER RATES AND CHARGES.

ORDINANCE NO. 2005-98

THE PEOPLE OF THE CITY OF GRAND RAPIDS DO ORDAIN:

Section 1. That Section 2.34 of Chapter 26 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

"2.34 Local Distribution Charges.

- (1) Whenever a watermain used for local distribution is constructed either through a special assessment project or as may be ordered or required by law, the property owners for whom the line is designed shall each pay their share of the cost of installation. Similarly, any property owner requesting service who has not previously paid his or her share of the cost of constructing the watermain used for local distribution shall pay those costs before service is permitted.
- (2) The charge shall be known as the front foot rate and be determined by multiplying the rate per foot by the number of feet the property owner has fronting on the watermain used for local distribution. The front foot rate shall be as follows:
  - (a) Domestic User: \$48.00;
  - (b) Commercial or Industrial User;
    1. The same as a domestic user if the connection is made to a line eight (8) inches or less in diameter.
    2. For a line larger than eight (8) inches in diameter: \$66.00.

This charge will be annually reviewed and may change to reflect the current average cost of installation of local distribution lines.

- (3) If the City Commission shall determine that it is not advisable to collect the front foot rate at the time of construction or connection (if not previously paid at the time of construction), it may direct that the cost be borne initially by the System and subsequently be collected from the property owner in accordance with this Section.
- (4) Upon completion of construction or at the time connection is requested (if this cost has not been paid at the time of construction), the City Engineer shall certify to the City Comptroller the cost to be charged to the property owner. The Comptroller shall in turn certify the amount thereof to the City Treasurer. The City Treasurer shall bill the owner of the premises affected advising him or her that unless the amount so billed is paid within thirty (30) days from the date of mailing that the same shall be presented to the City Commission at the first meeting thereof after the expiration of thirty (30) days for assessment against said premises as a special assessment. In the event the bill for such installation and connection is not paid within thirty (30) days from the date said notice is mailed, the City Treasurer shall report the same to the City Commission which shall examine the same and if found by it to be correct shall confirm it as a special assessment against the premises affected, at which time the City Commission shall also direct the number of installments into which the same shall be divided, and shall direct the City Assessor to extend the same upon the tax roll as a special assessment in the manner

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provided in Chapter 10 of this Code. All collection procedures for special assessments established in Chapter 10 of this Code shall be applicable to assessments made hereunder.

- (5) In lieu of the procedure above described, such installations and connections may be made at the expense of the System when the owner of the premises signs a written agreement agreeing to pay the expense of such installation and connections upon terms agreeable to the City Manager and that the unpaid balance shall constitute a lien upon his or her property of the same character and subject to the same methods of collection as prescribed for special assessments in Chapter 10 of this Code."

Section 2. That Section 2.35 of Chapter 26 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

"2.35 Integrated Water Connection Fee Schedule.

When a property owner or user is requested or required to connect to the System and has not previously paid or been assessed a connection fee, the following connection fee schedule shall apply:

Integrated Water Connection Base Fee Schedule

Water Meter (or equivalent) <u>Size (inches)</u>	<u>Base Fee</u>
3/4 or less	\$ 2,350
1	3,900
1 1/2	7,850
2	12,550
3	27,400
4	49,350
6 and over	109,650

Except as otherwise provided in the immediately succeeding paragraph, the foregoing integrated water connection base fee schedule for single-family and multi-family residential dwelling units shall be adjusted upward and downward as follows: A single-family residential dwelling unit located on a parcel containing twenty thousand (20,000) square feet shall pay the applicable integrated connection fee in accordance with the foregoing schedule. When determining the square footage of a residential parcel for the purposes of determining the appropriate integrated connection fee, parcel size may be adjusted downward to take into consideration such things as wetlands, lakes, streams and other unusual characteristics of the parcel in accordance with policies approved from time to time by the Utility Advisory Board. To the extent the size of a parcel, as adjusted, is greater than or less than twenty thousand (20,000) square feet, one-half the applicable integrated connection fee will increase or decrease by the same percentage increase or decrease in the parcel above or below twenty thousand (20,000) square feet. In the case of multi-family residential dwellings, in order to determine the size of the parcel assigned to each dwelling unit for purposes of calculating the integrated connection fee to be paid by each multi-family residential dwelling unit, the total square footage of the parcel, as adjusted, on which the multi-family residential dwelling is located shall be divided by the total number of residential units. Notwithstanding any other provision in this subsection, the integrated connection fee for a single-family residential dwelling unit or multi-family residential dwelling unit shall not exceed four and one-half times the applicable base integrated connection fee set forth in foregoing schedule.

There shall be no upward adjustment in the integrated water service connection fee payable for a single-family residential dwelling unit connecting to the Water System if (a) each of the following conditions are met (1) a building permit shall have been obtained, (2) the dwelling unit shall have been constructed, and (3) a certificate of occupancy shall have been issued prior to January 1, 2000 or (b) local building permit fees have been paid to the local governmental unit prior to January 1, 2000 for a single-family residential dwelling unit to be constructed on or after January 1, 2000. When connecting to the Water System, Users living in or owning such single-family residential dwelling units shall pay the applicable base integrated connection fee set forth in the Integrated Water Connection Base Fee Schedule adjusted downward, if applicable, in accordance with the immediate preceding paragraph.

Effective January 1, 2005 and January 1<sup>st</sup> of every year thereafter, the Integrated Water Connection Base Fees shall be adjusted by a percentage, which is determined by the annual change in the Consumer Price Index (the "index") calculated as follows:

- (1) The Consumer Price Index shall be that Index referred to as the Consumer Price Index, US City Average, All Urban Consumers, published by the U.S. Department of Labor-Bureau of Statistics ((1982-84)=100). In the event the method of determining the Index is substantially altered, the basis for determining the annual change thereafter shall be the Index which is most comparable to the Index described above.
- (2) For the purpose of computing the percentage change each calendar year, the Index for the month of August for the prior calendar year shall be subtracted from the Index for the immediately-preceding August. The result so obtained (if positive) shall be divided by the Index for the month of August for the prior calendar year to obtain the percentage increase which shall be applied to the then current Integrated Water Connection Base Fee Schedule to determine the new calendar year schedule.

The foregoing Integrated Connection fee is due and payable at the time a User receives a permit to connect to the Water System. A permit issued by the City to connect to the Water System shall expire one hundred eighty (180) days from the date the permit was issued.

The user receiving services who applies for a larger water meter than the one presently in service shall pay an Integrated Connection Fee which is the difference in cost between the meter size in service and the one applied for in accordance with the Integrated Connection Fee in effect at the time of application. No credit or rebate shall be made in the case of application for a smaller meter size.

Existing commercial and industrial customers may request the installation of an additional meter to measure water used solely for irrigation purposes. There shall be no Integrated Connection Fee for the additional meter provided combined maximum capacity as defined by the American Water Works Association Standards C700-90 and C702-92, as amended, does not exceed the maximum capacity of the original meter. If the original maximum capacity is exceeded, the customer shall pay as an Integrated Connection Fee the difference between the fee for the original meter and what the fee would be if the maximum capacities of all meters were totaled. The additional Integrated Connection Fee shall be based upon the fees in effect at the time of installation of the additional meter."

Section 3. That Section 2.40 of Chapter 26 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

"2.40 Rates and Charges for Retail Customers Within the City of Grand Rapids.

The following charges for water service provided retail users within the City of Grand Rapids shall be made.

	<u>Commodity Rate</u>
Domestic	\$1.47 per 100 cubic feet
Commercial	\$1.47 per 100 cubic feet
Industrial	\$1.47 per 100 cubic feet

	<u>Monthly Service Charge</u>
<u>Size of Meter</u>	<u>Charge</u>
3/4 inch or less	\$ 9.59
1 inch	14.26
1 1/4 inch	20.27
1 1/2 inch	27.62
2 inches	46.32
3 inches	99.74
4 inches	174.53
6 inches or larger	388.22"

Section 4. That Section 2.45 of Chapter 26 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

"2.45 Effective Date.

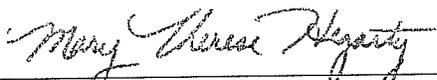
The rates, charges and fees set forth in Section 2.34, 2.35 and 2.40 shall be effective on January 1, 2006."

Carried by a roll call vote: Yeas: -6 Coms. Dean, Jendrasiak, Rabaut, Schmidt, White, Mayor  
Heartwell Nays: -1 Com. Tormala

Com. Dean, supported by Com. Rabaut, moved that the ordinance take immediate effect pursuant to Section 9 of Title V of the City Charter.

Adopted: Yeas: -7 Nays: -0

I hereby certify that the foregoing is a true transcript of the action of the City Commission of the City of Grand Rapids, Michigan, in public session held December 20, 2005.

  
\_\_\_\_\_  
Mary Therese Hegarty, City Clerk

74512 An Ordinance to amend Chapter 27 of Title II of the City Code entitled "Sewer Rates and Charges" was presented to the City Commission on November 22, 2005 under File No. 74434, and a hearing was held on December 6, 2005 under File No. 74465 to be considered for adoption this date.

Com. Dean, supported by Com. Rabaut, moved adoption of the following Ordinance:

AN ORDINANCE TO AMEND CHAPTER 27 OF TITLE II OF THE CODE OF THE CITY OF GRAND RAPIDS AMENDING THE SEWER RATES AND CHARGES.

ORDINANCE NO. 2005-99

THE PEOPLE OF THE CITY OF GRAND RAPIDS DO ORDAIN:

Section 1. That Section 2.95 of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

"2.95 Local Collector Sewer Line Installation Charges.

- (1) Whenever a local collector sewer line is constructed either through a special assessment project or as may be ordered or required by law, the property owners for whom the line is designed to serve shall each pay their share of the cost of installation. Similarly, any property owner requesting service who has not previously paid his or her share of the cost of constructing the local collector sewer shall pay those costs before service is permitted.
- (2) The charge shall be known as the front foot rate and be determined by multiplying the rate per foot by the number of feet the property owner has fronting on the local collector sewer line from which he or she will receive service. The front foot rate shall be as follows:
  - (a) Domestic User: \$56.00;
  - (b) Commercial or Industrial User;
    1. The same as a domestic user if the connection is made to a local collector sewer line eight (8) inches or less in diameter.
    2. For a line larger than eight (8) inches in diameter: \$92.00.

This charge will be annually reviewed and may change to reflect the current average cost of installation of local collector sewer lines.

- (3) If the City Commission shall determine that it is not advisable to collect the front foot rate at the time of construction or connection (if not previously paid at the time of construction), it may direct that the cost be borne initially by the System and subsequently be collected from the property owner in accordance with this Section.
- (4) Upon completion of construction or at the time connection is requested (if this cost has not been paid at the time of construction), the City Engineer shall certify to the City Comptroller the cost to be charged to the property owner. The Comptroller shall in turn certify the amount thereof to the City Treasurer. The City Treasurer shall bill the owner of the premises affected advising him or her that unless the amount so billed is paid within thirty (30) days from the date of mailing that the same shall be presented to the City Commission at the first meeting thereof after the expiration of thirty (30) days for assessment against said premises as a special assessment. In the event the bill for such installation and connection is not paid within thirty (30) days from the date said notice is mailed, the City Treasurer shall report the same to the City Commission which shall examine the same and if found by it to be correct shall confirm it as a special assessment against the premises affected, at which time the City Commission shall also direct the number of installments into which the same shall be divided, and shall direct the City Assessor to extend the same upon the tax roll as a special assessment in the manner

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provided in Chapter 10 of this Code. All collection procedures for special assessments established in Chapter 10 of this Code shall be applicable to assessments made hereunder.

- (5) In lieu of the procedure above described, such costs may be made at the expense of the System when the owner of the premises signs a written agreement agreeing to pay the cost upon terms agreeable to the City Manager and that the unpaid balance shall constitute a lien upon his or her property of the same character and subject to the same methods of collection as prescribed for special assessments in Chapter 10 of this Code."

Section 2. That Section 2.96 of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

"2.96 Integrated Sewer Connection Fee Schedule.

When a property owner or user is requested or required to connect to the System and has not previously paid or been assessed a connection fee, the following connection fee schedule shall apply:

Integrated Sewer Connection Base Fee Schedule

Water Meter (or equivalent) Size (inches)	Base Fee
3/4 or less	\$ 2,350
1	3,900
1 ½	7,850
2	12,550
3	27,400
4	49,350
6 and over	109,650

Except as otherwise provided in the immediately succeeding paragraph, the foregoing integrated sewer connection base fee schedule for single-family and multi-family residential dwelling units shall be adjusted upward and downward as follows: A single-family residential dwelling unit located on a parcel containing twenty thousand (20,000) square feet shall pay the applicable integrated connection fee in accordance with the foregoing schedule. When determining the square footage of a residential parcel for the purposes of determining the appropriate integrated connection fee, parcel size may be adjusted downward to take into consideration such things as wetlands, lakes, streams and other unusual characteristics of the parcel in accordance with policies approved from time to time by the Utility Advisory Board. To the extent the size of a parcel, as adjusted, is greater than or less than twenty thousand (20,000) square feet, one-half the applicable integrated connection fee will increase or decrease by the same percentage increase or decrease in the parcel above or below twenty thousand (20,000) square feet. In the case of multi-family residential dwellings, in order to determine the size of the parcel assigned to each dwelling unit for purposes of calculating the integrated connection fee to be paid by each multi-family residential dwelling unit, the total square footage of the parcel, as adjusted, on which the multi-family residential dwelling is located shall be divided by the total number of residential units. Notwithstanding any other provision in this subsection, the integrated connection fee for a single-family residential dwelling unit or multi-family residential dwelling unit shall not exceed four and one-half times the applicable base integrated connection fee set forth in foregoing schedule.

There shall be no upward adjustment in the integrated sewer service connection fee payable for a single-family residential dwelling unit connecting to the Sewer System if (a) each of the following conditions are met (1) a building permit shall have been obtained, (2) the dwelling unit shall have been constructed, and (3) a certificate of occupancy shall have been issued prior to January 1, 2000 or (b) local building permit fees have been paid to the local governmental unit prior to January 1, 2000 for a single-family residential dwelling unit to be constructed on or after January 1, 2000. When connecting to the Sewer System, Users living in or owning such single-family residential dwelling units shall pay the applicable base integrated connection fee set forth in the Integrated Sewer Connection Base Fee Schedule adjusted downward, if applicable, in accordance with the immediate preceding paragraph.

Effective January 1, 2005 and January 1<sup>st</sup> of every year thereafter, the Integrated Sewer Connection Base Fees shall be adjusted by a percentage, which is determined by the annual change in the Consumer Price Index (the "index") calculated as follows:

- (1) The Consumer Price Index shall be that Index referred to as the Consumer Price Index, US City Average, All Urban Consumers, published by the U.S. Department of Labor-Bureau of Statistics ((1982-84)=100). In the event the method of determining the Index is substantially altered, the basis for determining the annual change thereafter shall be the Index which is most comparable to the Index described above.
- (2) For the purpose of computing the percentage change each calendar year, the Index for the month of August for the prior calendar year shall be subtracted from the Index for the immediately-preceding August. The result so obtained (if positive) shall be divided by the Index for the month of August for the prior calendar year to obtain the percentage increase which shall be applied to the then current Integrated Sewer Connection Base Fee Schedule to determine the new calendar year schedule.

The foregoing Integrated Connection fee is due and payable at the time a User receives a permit to connect to the Sewer System. A permit issued by the City to connect to the Sewer System shall expire one hundred eighty (180) days from the date the permit was issued.

The user receiving services who applies for a larger water meter than the one presently in service shall pay an Integrated Connection Fee which is the difference in cost between the meter size in service and the one applied for in accordance with the Integrated Connection Fee in effect at the time of application. No credit or rebate shall be made in the case of application for a smaller meter size."

Section 3. That Section 2.101 of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

"2.101 Rates and Charges for Retail Users Within the City of Grand Rapids.

The following rates and charges for sewage disposal service shall apply for users within the City of Grand Rapids:

	<u>Commodity Rate</u>
Domestic	\$2.27 per 100 cubic feet
Commercial	\$2.27 per 100 cubic feet
Industrial	\$2.27 per 100 cubic feet

<u>Size of Meter</u>	<u>Monthly Service Charge</u>
3/4 inch or less	\$ 7.94
1 inch	12.26
1 1/4 inches	17.81
1 1/2 inches	24.59
2 inches	41.86
3 inches	91.19
4 inches	160.26
6 inches or larger	357.59"

Section 4. That Section 2.102 of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

"2.102 Surcharges and Permit Fees.

- (1) If the City Manager determines that a discharge will not cause pass through or interference as defined in this Chapter, Industrial or Commercial users whether they are located within a retail service area or a bulk service area shall be charged a surcharge if the concentration of their discharge exceeds a five-day BOD of two hundred fifty (250) mg/l, and/or TSS of two hundred fifty (250) mg/l, or any phosphorus of fifteen (15) mg/l. That charge shall be twenty and three-tenths cents (\$0.203) per pound of BOD and twenty-one

and one-tenth cents (\$0.211) per pound of TSS and one dollar and forty-seven and nine-tenths cents (\$1.479) per pound of phosphorus in excess of the above limits. In addition, all industrial or commercial users shall be charged a surcharge for ammonia concentrations exceeding thirty-eight (38) mg/l. The charge shall be twenty-two cents (\$0.220) per pound of ammonia in excess of the above limit. Discharge concentrations of these substances and the resulting surcharge shall be based on at least three composite samples per quarter. This sampling shall be performed by either the City or the Industrial User as determined by the City Manager.

- (2) The fee for a Significant Industrial User Discharge Permit as provided for in Section 2.70 of this Chapter whether they are located within a retail service area or a bulk service area shall be three hundred dollars (\$300.00) per year and an analytical fee based upon Section 2.102(3).
- (3) The following schedule of charges shall apply to any analysis which may be required as a part of a Significant Industrial User Discharge Permit:

Metals	\$ 9.90	each
TSS	6.00	each
BOD	12.00	each
Total Phosphate	11.00	each
pH	5.00	each
EPA 624	100.00	each
EPA 625	229.00	each
BTEX/MTBE	36.00	each
Sulfide	15.00	each
Oil and Grease	25.00	each
Total Cyanide	19.00	each
Hexavalent Chromium	15.50	each
Fecal Coliform	40.00	each
Labor	53.72	hour
Sampler	35.00	day
Vehicle	3.00	hour

- (4) These charges will be reviewed annually and may change to reflect the current cost of providing these services."

Section 5. That Section 2.105 of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

"2.105 Effective Date.

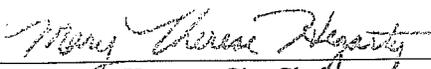
The rates, charges and fees set forth in Section 2.95, 2.96, 2.101 and 2.102 shall be effective on January 1, 2006."

Carried by a roll call vote: Yeas: -7 Nays: -0

Com. Dean, supported by Com. Rabaut, moved that the ordinance take immediate effect pursuant to Section 9 of Title V of the City Charter.

Adopted: Yeas: -7 Nays: -0

I hereby certify that the foregoing is a true transcript of the action of the City Commission of the City of Grand Rapids, Michigan, in public session held December 20, 2005.

  
 \_\_\_\_\_  
 Mary Therese Hegarty, City Clerk

*ku*

# MEMORANDUM

CITY OF GRAND RAPIDS

**DATE:** December 13, 2005

**TO:** Eric R. DeLong  
Deputy City Manager

**FROM:** Michael E. Wolski  
Utility Financial Officer

**SUBJECT: 2006 CUSTOMER COMMUNITY WATER-SEWER RATES**

The 2005 Preliminary Water-Sewer Rate Study recommended water and sewer rate adjustments as of January 1, 2006, for Grand Rapids and each customer community served by the water and sewage systems. City Commission approval of rate adjustments for customer communities is required.

UAB partners and other customer communities were notified of the recommended rate adjustments on November 17, 2005. The water-sewer service agreements provide customer communities a thirty-day comment period following notification of rate adjustments.

Wright Township and Cascade Township have elected to contribute \$5,570 and \$183,700, respectively, to offset proposed sewer rate increases as recommended in the preliminary rate study.

The attached resolution approves the recommended water and sewer rates for the City's retail and wholesale communities for calendar year 2006. A rate schedule for each customer community is attached to the resolution.

MW

Attachments

Your COMMITTEE OF THE WHOLE recommends adoption of the following resolution approving the attached revised Water and Sewer Rates in accordance with the 2005 Water-Sewer Rate Review.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
COMMITTEE OF THE WHOLE

Com. \_\_\_\_\_, supported by Com. \_\_\_\_\_,  
recommends adoption of the following resolution:

WHEREAS, The Water-Sewer rate studies have been undertaken and completed for the years 1976 through 2004, and,

WHEREAS, The 2005 Water-Sewer Rate Review has been completed using the same general methodology as the 1976 through 2004 Water-Sewer Rate Studies, as adjusted where appropriate for the uniform water and sewer service agreements.

RESOLVED that the attached water and sewer rates are approved and shall be effective January 1, 2006.

RESOLVED that the City Clerk is directed to notify the contractual water and sewer service customers in writing of the water and sewer rates, and the Mayor and City Clerk are authorized to take any other action as may be required to evidence the new water and sewer rates.

*Prepared by Michael Wolski, Public Works & Economic Development Services*

*CW 2006 Customer Community Rates*

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Page has been removed from the published Rate Study.

**WRIGHT TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS	\$ 208,687
LESS: CASH CONTRIBUTION	(5,570)
SYSTEM REVENUE REQUIREMENTS	\$ 203,117

CURRENT REVENUES

REU CHARGE	344.896 meter equivalents x \$ 48.77 x 12 = \$ 201,847	
MONTHLY METER CHARGE	344.896 meter equivalents x \$ - x 12 =	-
MONTHLY BILLING CHARGE	227 meters x \$ - x 12 =	-
COMMODITY CHARGE	23,395 units (100 CF) x \$ - =	-
		(201,847)
REQUIRED REVENUE INCREASE (DECREASE)		\$ 1,270
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES		0.63%

**WRIGHT TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

**MONTHLY REU CHARGE:**

$$\frac{\text{TOTAL REVENUE REQUIREMENTS}}{\text{TOTAL REU'S * 12 MONTHS}} = \frac{\$203,117}{344.896 \times 12} = \$ \underline{\underline{49.08}} \quad \text{MONTHLY REU CHARGE *}$$

TOTAL REVENUE REQUIREMENTS ARE NET OF CONTRIBUTION OF \$ 5,570

**EXAMPLES OF APPROXIMATE MONTHLY CHARGE BY NUMBER OF REU:**

<u>NUMBER OF REU</u>	<u>AMOUNT</u>	<u>NUMBER OF REU</u>	<u>AMOUNT</u>	<u>NUMBER OF REU</u>	<u>AMOUNT</u>
1.0000	\$ 49.08	7.5000	\$ 368.10	19.0000	\$ 932.52
1.5000	73.62	8.0000	392.64	20.0000	981.60
2.0000	98.16	8.5000	417.18	25.0000	1,227.00
2.5000	122.70	9.0000	441.72	30.0000	1,472.40
3.0000	147.24	9.5000	466.26	35.0000	1,717.80
3.5000	171.78	10.0000	490.80	40.0000	1,963.20
4.0000	196.32	11.0000	539.88	50.0000	2,454.00
4.4000	215.95	12.0000	588.96	60.0000	2,944.80
4.5000	220.86	13.0000	638.04	70.0000	3,435.60
5.0000	245.40	14.0000	687.12	80.0000	3,926.40
5.5000	269.94	15.0000	736.20	90.0000	4,417.20
6.0000	294.48	16.0000	785.28	100.0000	4,908.00
6.5000	319.02	17.0000	834.36	150.0000	7,362.00
7.0000	343.56	18.0000	883.44	200.0000	9,816.00

\* NEW RATES EFFECTIVE ON JANUARY 1, 2006

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Page has been removed from the published Rate Study.

**CASCADE TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS	\$ 1,548,688
LESS: CASH CONTRIBUTION	(183,700)
SYSTEM REVENUE REQUIREMENTS	\$ 1,364,988

CURRENT REVENUES

MONTHLY METER CHARGE					
2,583 meter equivalents	x	\$ 15.43	x	12 =	\$ 478,268
MONTHLY BILLING CHARGE					
1,534 meters	x	\$ 2.32	x	12 =	42,707
COMMODITY CHARGE					
457,394 units (100 CF)	x	\$ 1.45	=	663,221	(1,184,196)
REQUIRED REVENUE INCREASE (DECREASE)					\$ 180,792

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES	15.27%
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## APPROVAL OF CUSTOMER COMMUNITY RATES

\*74516 Com. White, supported by Com. Schmidt, moved adoption of the following resolution under the Consent Agenda:

WHEREAS, The Water-Sewer rate studies have been undertaken and completed for the years 1976 through 2004, and,

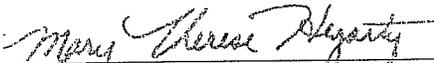
WHEREAS, The 2005 Water-Sewer Rate Review has been completed using the same general methodology as the 1976 through 2004 Water-Sewer Rate Studies, as adjusted where appropriate for the uniform water and sewer service agreements.

RESOLVED that the attached water and sewer rates are approved and shall be effective January 1, 2006.

RESOLVED that the City Clerk is directed to notify the contractual water and sewer service customers in writing of the water and sewer rates, and the Mayor and City Clerk are authorized to take any other action as may be required to evidence the new water and sewer rates.

### \* CONSENT AGENDA APPROVAL

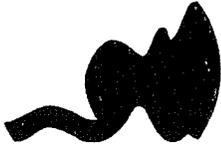
I hereby certify that the foregoing is a true transcript of the action of the City Commission of the City of Grand Rapids, Michigan, in public session held December 20, 2005.

  
\_\_\_\_\_  
Mary Therese Hegarty, City Clerk

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CITY CLERK



CITY OF GRAND RAPIDS

December 22, 2005

Ms. Sandra Wisniewski, City Clerk  
City of Walker  
4243 Remembrance Road NW  
Grand Rapids, MI 49504

Dear Sandra:

The "2005 Preliminary Water-Sewer Rate Study" recommended water and sewer rate adjustments for the City of Grand Rapids and each customer community contracting with the City of Grand Rapids for water and sewer service.

Customer communities were notified of the recommended rate changes at a meeting on November 17, 2005, followed by a thirty-day comment period.

On December 20, 2005, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2006. A certified copy of the resolution and the approved rate schedules for the City of Walker are attached for your information.

If you need any further information, please call me at 456-3015.

Sincerely,

  
Mary Therese Hegarty  
City Clerk

MTH/slp

Enclosures

cc: Scott Buhner, Assistant to the City Manager, Fiscal Services  
Mike Wolski, Utility Financial Officer

**RECEIVED**

DEC 27 2005

MARY THERESE HEGARTY, CITY CLERK  
300 MONROE, N.W., GRAND RAPIDS, MICHIGAN 49503  
TELEPHONE (616) 456-3010 • FAX (616) 456-4607

**CITY OF WALKER, MICHIGAN**  
**WATER RATE STUDY**  
**WATER SUPPLY SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 1.41 /100 CF \*  
 \$ 1.35 x 104.45%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS	\$ 3,027,581
NEW COMMODITY CHARGE 1,447,285 x \$ 1.41	\$ 2,040,672
NEW MONTHLY BILLING CHARGE 5,727 x \$ 3.58 x 12	246,032
MONTHLY FIRE PROTECTION CHARGE	53,856
ANNUAL HYDRANT CHARGE	-
	<u>(2,340,560)</u>
	<u>\$ 687,021</u>

MONTHLY METER CHARGE =  $\frac{\$687,021}{7,743 \times 12} = \underline{\underline{\$ 7.39 \text{ MONTHLY}}}$

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 7.39	\$ 3.58	\$ 10.97	\$ 10.51
1"	1.7778	13.14	3.58	16.72	15.93
1 1/4"	2.7778	20.53	3.58	24.11	22.90
1 1/2"	4.0000	29.56	3.58	33.14	31.42
2"	7.1111	52.55	3.58	56.13	53.10
3"	16.0000	118.24	3.58	121.82	115.06
4"	28.4444	210.20	3.58	213.78	201.80
6" and over	64.0000	472.96	3.58	476.54	449.62

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2006

**CITY OF WALKER, MICHIGAN**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 1.31 /100 CF \*  
 \$ 1.22 x 107.40%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS	\$ 2,563,651
NEW COMMODITY CHARGE	
1,058,550 x \$ 1.31	\$ 1,386,701
NEW MONTHLY BILLING CHARGE	
5,287 x \$ 2.39 x 12	<u>151,631</u>
	<u>(1,538,332)</u>
	<u>\$ 1,025,319</u>

MONTHLY METER CHARGE =  $\frac{\$1,025,319}{6,879 \times 12} = \underline{\underline{\$ 12.42 \text{ MONTHLY}}}$

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 12.42	\$ 2.39	\$ 14.81	\$ 13.81
1"	1.7778	22.08	2.39	24.47	22.75
1 1/4"	2.7778	34.50	2.39	36.89	34.24
1 1/2"	4.0000	49.68	2.39	52.07	48.28
2"	7.1111	88.32	2.39	90.71	84.03
3"	16.0000	198.72	2.39	201.11	186.16
4"	28.4444	353.28	2.39	355.67	329.15
6" and over	64.0000	794.88	2.39	797.27	737.68

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2006

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CITY CLERK



CITY OF GRAND RAPIDS

December 22, 2005

Mr. Dan Kasunic, Clerk  
City of Kentwood  
4900 Breton Avenue SE  
Kentwood, MI 49518-8848

Dear Dan:

The "2005 Preliminary Water-Sewer Rate Study" recommended water and sewer rate adjustments for the City of Grand Rapids and each customer community contracting with the City of Grand Rapids for water and sewer service.

Customer communities were notified of the recommended rate changes at a meeting on November 17, 2005, followed by a thirty-day comment period.

On December 20, 2005, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2006. A certified copy of the resolution and the approved rate schedules for the City of Kentwood are attached for your information.

If you need any further information, please call me at 456-3015.

Sincerely,

Mary Therese Hegarty  
City Clerk

MTH/slp

Enclosures

cc: Scott Buhner, Assistant to the City Manager, Fiscal Services  
Mike Wolski, Utility Financial Officer

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DEC 27 2005

MARY THERESE HEGARTY, CITY CLERK  
300 MONROE, N.W., GRAND RAPIDS, MICHIGAN 49503  
TELEPHONE (616) 456-3010 • FAX (616) 456-4607



**CITY OF KENTWOOD, MICHIGAN**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 1.52 /100 CF \*  
 \$ 1.35 x 112.43%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS	\$ 2,391,684
NEW COMMODITY CHARGE	
1,379,710 x \$ 1.52	\$ 2,097,159
NEW MONTHLY BILLING CHARGE	
4,052 x \$ 2.39 x 12	<u>116,211</u>
	<u>(2,213,370)</u>
	<u>\$ 178,314</u>

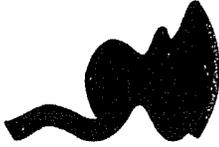
MONTHLY METER CHARGE =  $\frac{\$178,314}{7,148 \times 12} = \underline{\underline{\$ 2.08 \text{ MONTHLY}}}$

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 2.08	\$ 2.39	\$ 4.47	\$ 4.09
1"	1.7778	3.70	2.39	6.09	5.47
1 1/4"	2.7778	5.78	2.39	8.17	7.24
1 1/2"	4.0000	8.32	2.39	10.71	9.40
2"	7.1111	14.79	2.39	17.18	14.91
3"	16.0000	33.28	2.39	35.67	30.64
4"	28.4444	59.16	2.39	61.55	52.67
6" and over	64.0000	133.12	2.39	135.51	115.60

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2006

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CITY CLERK



CITY OF GRAND RAPIDS

December 22, 2005

Mr. Ronald Goodyke, Clerk  
Cascade Charter Township  
2865 Thornhills SE  
Grand Rapids, MI 49546-7192

Dear Mr. Goodyke:

The "2005 Preliminary Water-Sewer Rate Study" recommended water and sewer rate adjustments for the City of Grand Rapids and each customer community contracting with the City of Grand Rapids for water and sewer service.

Customer communities were notified of the recommended rate changes at a meeting on November 17, 2005, followed by a thirty-day comment period.

On December 20, 2005, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2006. A certified copy of the resolution and the approved rate schedules for Cascade Township are attached for your information.

If you need any further information, please call me at 456-3015.

Sincerely,

Mary Therese Hegarty  
City Clerk

MTH/slp

Enclosures

cc: Scott Buhner, Assistant to the City Manager, Fiscal Services  
Mike Wolski, Utility Financial Officer

**RECEIVED**

DEC 27 2005

MARY THERESE HEGARTY, CITY CLERK  
300 MONROE, N.W., GRAND RAPIDS, MICHIGAN 49503  
TELEPHONE (616) 456-3010 • FAX (616) 456-4607

**CASCADE TOWNSHIP**  
**WATER RATE STUDY**  
**WATER SUPPLY SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 2.11 /100 CF \*  
 \$ 1.99 x 106.05%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS	\$ 2,875,493
NEW COMMODITY CHARGE	
837,993 x \$ 2.11	\$ 1,768,165
NEW MONTHLY BILLING CHARGE	
2,868 x \$ 3.58 x 12	123,209
MONTHLY FIRE PROTECTION CHARGE	53,808
ANNUAL HYDRANT CHARGE	<u>33,960</u>
	<u>(1,979,142)</u>
	<u>\$ 896,351</u>

MONTHLY METER CHARGE =  $\frac{\$896,351}{4,514 \times 12} = \underline{\underline{\$ 16.55 \text{ MONTHLY}}}$

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 16.55	\$ 3.58	\$ 20.13	\$ 18.94
1"	1.7778	29.42	3.58	33.00	30.92
1 1/4"	2.7778	45.97	3.58	49.55	46.32
1 1/2"	4.0000	66.20	3.58	69.78	65.14
2"	7.1111	117.69	3.58	121.27	113.05
3"	16.0000	264.80	3.58	268.38	249.94
4"	28.4444	470.75	3.58	474.33	441.58
6" and over	64.0000	1,059.20	3.58	1,062.78	989.14

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2006

**CASCADE TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 1.67 /100 CF \*  
 \$ 1.45 x 115.27%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS		\$ 1,364,988
NET OF CONTRIBUTION OF \$ 183,700		
NEW COMMODITY CHARGE	\$ 763,848	
457,394 x \$ 1.67		
NEW MONTHLY BILLING CHARGE	<u>43,995</u>	<u>(807,843)</u>
1,534 x \$ 2.39 x 12		
		<u>\$ 557,145</u>

MONTHLY METER CHARGE =  $\frac{\$557,145}{2,583 \times 12} = \underline{\underline{\$ 17.97 \text{ MONTHLY}}}$

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 17.97	\$ 2.39	\$ 20.36	\$ 17.75
1"	1.7778	31.95	2.39	34.34	29.75
1 1/4"	2.7778	49.92	2.39	52.31	45.18
1 1/2"	4.0000	71.88	2.39	74.27	64.04
2"	7.1111	127.79	2.39	130.18	112.04
3"	16.0000	287.52	2.39	289.91	249.20
4"	28.4444	511.15	2.39	513.54	441.22
6" and over	64.0000	1,150.08	2.39	1,152.47	989.84

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2006

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CITY CLERK



# CITY OF GRAND RAPIDS

December 22, 2005

Ms. Janice Hulbert, Clerk  
Grand Rapids Charter Township  
1836 East Beltline NE  
Grand Rapids, MI 49505 25

Dear Janice:

The "2005 Preliminary Water-Sewer Rate Study" recommended water and sewer rate adjustments for the City of Grand Rapids and each customer community contracting with the City of Grand Rapids for water and sewer service.

Customer communities were notified of the recommended rate changes at a meeting on November 17, 2005, followed by a thirty-day comment period.

On December 20, 2005, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2006. A certified copy of the resolution and the approved rate schedules for Grand Rapids Township are attached for your information.

If you need any further information, please call me at 456-3015.

Sincerely,

Mary Therese Hegarty  
City Clerk

MTH/slp

Enclosures

cc: Scott Buhner, Assistant to the City Manager, Fiscal Services  
Mike Wolski, Utility Financial Officer

**RECEIVED**

DEC 27 2005

MARY THERESE HEGARTY, CITY CLERK  
300 MONROE, N.W., GRAND RAPIDS, MICHIGAN 49503  
TELEPHONE (616) 456-3010 • FAX (616) 456-4607



**GRAND RAPIDS TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 1.49 /100 CF \*  
 \$ 1.39 x 107.51%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS	\$ 1,403,968
NEW COMMODITY CHARGE	
398,549 x \$ 1.49	\$ 593,838
NEW MONTHLY BILLING CHARGE	
3,229 x \$ 2.39 x 12	<u>92,608</u>
	<u>(686,446)</u>
	<u>\$ 717,522</u>

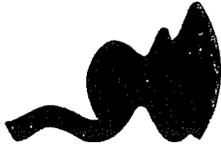
MONTHLY METER CHARGE =  $\frac{\$717,522}{3,952 \times 12} = \underline{\underline{\$ 15.13 \text{ MONTHLY}}}$

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 15.13	\$ 2.39	\$ 17.52	\$ 16.28
1"	1.7778	26.90	2.39	29.29	27.14
1 1/4"	2.7778	42.03	2.39	44.42	41.10
1 1/2"	4.0000	60.52	2.39	62.91	58.16
2"	7.1111	107.59	2.39	109.98	101.59
3"	16.0000	242.08	2.39	244.47	225.68
4"	28.4444	430.36	2.39	432.75	399.40
6" and over	64.0000	968.32	2.39	970.71	895.76

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2006

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CITY CLERK



CITY OF GRAND RAPIDS

December 22, 2005

Ms. Lenore Cook, Clerk  
Tallmadge Township Offices  
0-1451 Leonard Street NW  
Grand Rapids, MI 49504

Dear Ms. Cook:

The "2005 Preliminary Water-Sewer Rate Study" recommended water and sewer rate adjustments for the City of Grand Rapids and each customer community contracting with the City of Grand Rapids for water and sewer service.

Customer communities were notified of the recommended rate changes at a meeting on November 17, 2005, followed by a thirty-day comment period.

On December 20, 2005, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2006. A certified copy of the resolution and the approved rate schedules for Tallmadge Township are attached for your information.

If you need any further information, please call me at 456-3015.

Sincerely,

Mary Therese Hegarty  
City Clerk

MTH/slp

Enclosures

cc: Scott Buhner, Assistant to the City Manager, Fiscal Services  
Mike Wolski, Utility Financial Officer

**RECEIVED**  
DEC 27 2005

MARY THERESE HEGARTY, CITY CLERK  
300 MONROE, N.W., GRAND RAPIDS, MICHIGAN 49503  
TELEPHONE (616) 456-3010 • FAX (616) 456-4607

**TALLMADGE TOWNSHIP**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 3.99 /100 CF \*  
 \$ 3.37 x 118.36%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS		\$	99,870
NEW COMMODITY CHARGE		\$	72,666
18,212 x \$ 3.99			
NEW MONTHLY BILLING CHARGE			4,812
112 x \$ 3.58 x 12			
MONTHLY FIRE PROTECTION CHARGE			4,560
ANNUAL HYDRANT CHARGE			<u>8,256</u>
			<u>(90,294)</u>
		\$	<u>9,576</u>

MONTHLY METER CHARGE =  $\frac{\$9,576}{145 \times 12} = \underline{\underline{\$ 5.50 \text{ MONTHLY}}}$

<u>METER SIZE</u>	<u>EQUIVALENT</u>	<u>MONTHLY SERVICE CHARGE</u>			<u>PRESENT</u>
		<u>METER</u>	<u>BILLING</u>	<u>TOTAL</u>	
3/4" or less	1.0000	\$ 5.50	\$ 3.58	\$ 9.08	\$ 6.66
1"	1.7778	9.78	3.58	13.36	9.09
1 1/4"	2.7778	15.28	3.58	18.86	12.21
1 1/2"	4.0000	22.00	3.58	25.58	16.02
2"	7.1111	39.11	3.58	42.69	25.73
3"	16.0000	88.00	3.58	91.58	53.46
4"	28.4444	156.44	3.58	160.02	92.29
6" and over	64.0000	352.00	3.58	355.58	203.22

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2006

**TALLMADGE TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 6.29 /100 CF \*  
 \$ 3.82 x 164.69%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS \$ 122,400

NEW COMMODITY CHARGE \$ 91,979  
 14,623 x \$ 6.29

NEW MONTHLY BILLING CHARGE 2,897 194,876  
 101 x \$ 2.39 x 12 \$ 27,524

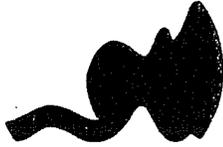
MONTHLY METER CHARGE =  $\frac{\$27,524}{127 \times 12} = \underline{\underline{\$ 18.06 \text{ MONTHLY}}}$

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 18.06	\$ 2.39	\$ 20.45	\$ 12.59
1"	1.7778	32.11	2.39	34.50	20.58
1 1/4"	2.7778	50.17	2.39	52.56	30.85
1 1/2"	4.0000	72.24	2.39	74.63	43.40
2"	7.1111	128.43	2.39	130.82	75.35
3"	16.0000	288.96	2.39	291.35	166.64
4"	28.4444	513.71	2.39	516.10	294.44
6" and over	64.0000	1,155.84	2.39	1,158.23	659.60

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2006

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CITY CLERK



CITY OF GRAND RAPIDS

December 22, 2005

Ms. Theresa Molyneux, Township Clerk  
Wright Township  
1565 Jackson  
P.O. Box 255  
Marne, MI 49435

Dear Ms. Molyneux:

The "2005 Preliminary Water-Sewer Rate Study" recommended water and sewer rate adjustments for the City of Grand Rapids and each customer community contracting with the City of Grand Rapids for water and sewer service.

Customer communities were notified of the recommended rate changes at a meeting on November 17, 2005, followed by a thirty-day comment period.

On December 20, 2005, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2006. A certified copy of the resolution and the approved rate schedule for Wright Township are attached for your information.

If you need any further information, please call me at 456-3015.

Sincerely,

  
Mary Therese Hegarty  
City Clerk

MTH/slp

Enclosures

cc: Scott Buhrer, Assistant to the City Manager, Fiscal Services  
Mike Wolski, Utility Financial Officer

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DEC 27 2005

MARY THERESE HEGARTY, CITY CLERK  
300 MONROE, N.W., GRAND RAPIDS, MICHIGAN 49503  
TELEPHONE (616) 456-3010 • FAX (616) 456-4607

**WRIGHT TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

**MONTHLY REU CHARGE:**

$$\frac{\text{TOTAL REVENUE REQUIREMENTS}}{\text{TOTAL REU'S * 12 MONTHS}} = \frac{\$203,117}{344.896 \times 12} = \$ \underline{\underline{49.08}} \quad \text{MONTHLY REU CHARGE *}$$

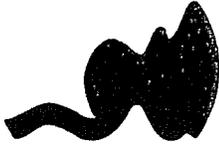
TOTAL REVENUE REQUIREMENTS ARE NET OF CONTRIBUTION OF \$ 5,570

**EXAMPLES OF APPROXIMATE MONTHLY CHARGE BY NUMBER OF REU:**

<u>NUMBER OF REU</u>	<u>AMOUNT</u>	<u>NUMBER OF REU</u>	<u>AMOUNT</u>	<u>NUMBER OF REU</u>	<u>AMOUNT</u>
1.0000	\$ 49.08	7.5000	\$ 368.10	19.0000	\$ 932.52
1.5000	73.62	8.0000	392.64	20.0000	981.60
2.0000	98.16	8.5000	417.18	25.0000	1,227.00
2.5000	122.70	9.0000	441.72	30.0000	1,472.40
3.0000	147.24	9.5000	466.26	35.0000	1,717.80
3.5000	171.78	10.0000	490.80	40.0000	1,963.20
4.0000	196.32	11.0000	539.88	50.0000	2,454.00
4.4000	215.95	12.0000	588.96	60.0000	2,944.80
4.5000	220.86	13.0000	638.04	70.0000	3,435.60
5.0000	245.40	14.0000	687.12	80.0000	3,926.40
5.5000	269.94	15.0000	736.20	90.0000	4,417.20
6.0000	294.48	16.0000	785.28	100.0000	4,908.00
6.5000	319.02	17.0000	834.36	150.0000	7,362.00
7.0000	343.56	18.0000	883.44	200.0000	9,816.00

\* NEW RATES EFFECTIVE ON JANUARY 1, 2006

CITY CLERK



CITY OF GRAND RAPIDS

December 22, 2005

Ms. Karen Brower, Clerk  
City of East Grand Rapids  
750 Lakeside Drive SE  
East Grand Rapids, MI 49506

Dear Karen:

The "2005 Preliminary Water-Sewer Rate Study" recommended water and sewer rate adjustments for the City of Grand Rapids and each customer community contracting with the City of Grand Rapids for water and sewer service.

Customer communities were notified of the recommended rate changes at a meeting on November 17, 2005, followed by a thirty-day comment period.

On December 20, 2005, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2006. A certified copy of the resolution and the approved rate schedules for the City of East Grand Rapids are attached for your information.

If you need any further information, please call me at 456-3015.

Sincerely,

Mary Therese Hegarty  
City Clerk

MTH/slp

Enclosures

cc: Scott Buhrer, Assistant to the City Manager, Fiscal Services  
Mike Wolski, Utility Financial Officer

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**DEC 27 2005**

MARY THERESE HEGARTY, CITY CLERK  
300 MONROE, N.W., GRAND RAPIDS, MICHIGAN 49503  
TELEPHONE (616) 456-3010 • FAX (616) 456-4607

**CITY OF EAST GRAND RAPIDS, MICHIGAN**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 27**

SYSTEM REVENUE REQUIREMENTS \$ 872,093

NEW COMMODITY CHARGE  
691,212 x \$1.01 =

(698,124)

---

\$ 173,969

MONTHLY SERVICE CHARGE = \$ 173,969 / 12 = \$14,497

**CITY OF EAST GRAND RAPIDS, MICHIGAN**

**SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
RATE ANALYSIS - TASK NO. 27**

SYSTEM REVENUE REQUIREMENTS		\$	509,280
NEW COMMODITY CHARGE			
436.613 x \$ 1,112.00 =			(485,514)
			<hr/>
		\$	<u>23,766</u>
MONTHLY SERVICE CHARGE	= \$ 23,766 / 12 =		\$1,981

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CITY CLERK



CITY OF GRAND RAPIDS

December 22, 2005

Ms. Deborah Ensing-Millhuff, Clerk  
Ada Township  
7330 Thornapple River Drive  
P.O. Box 370  
Ada, MI 49301

Dear Deborah:

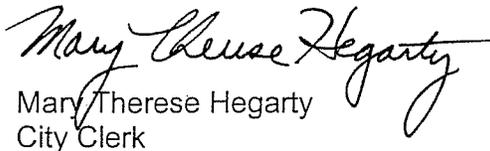
The "2005 Preliminary Water-Sewer Rate Study" recommended water and sewer rate adjustments for the City of Grand Rapids and each customer community contracting with the City of Grand Rapids for water and sewer service.

Customer communities were notified of the recommended rate changes at a meeting on November 17, 2005, followed by a thirty-day comment period.

On December 20, 2005, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2006. A certified copy of the resolution and the approved rate schedules for Ada Township are attached for your information.

If you need any further information, please call me at 456-3015.

Sincerely,

  
Mary Therese Hegarty  
City Clerk

MTH/slp

Enclosures

cc: Scott Buhner, Assistant to the City Manager, Fiscal Services  
Mike Wolski, Utility Financial Officer

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DEC 27 2005

MARY THERESE HEGARTY, CITY CLERK  
300 MONROE, N.W., GRAND RAPIDS, MICHIGAN 49503  
TELEPHONE (616) 456-3010 • FAX (616) 456-4607

**ADA TOWNSHIP**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 27**

SYSTEM REVENUE REQUIREMENTS \$ 1,089,232

NEW COMMODITY CHARGE  
647,087 x \$1.09 =

(705,325)

---

\$ 383,907

MONTHLY SERVICE CHARGE = \$ 383,907 / 12 = \$31,992

**ADA TOWNSHIP**

**SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
RATE ANALYSIS - TASK NO. 27**

SYSTEM REVENUE REQUIREMENTS \$ 479,604

NEW COMMODITY CHARGE  
319.934 x \$ 1,280.00 = (409,516)

\$ 70,088

MONTHLY SERVICE CHARGE = \$ 70,088 / 12 = \$5,841

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CITY CLERK



CITY OF GRAND RAPIDS

December 22, 2005

Mr. Ron Landis  
North Kent Sewage Disposal System  
Kent County Dept. of Public Works  
1500 Scribner NW  
Grand Rapids, MI 49504

Dear Mr. Landis:

The "2005 Preliminary Water-Sewer Rate Study" recommended water and sewer rate adjustments for the City of Grand Rapids and each customer community contracting with the City of Grand Rapids for water and sewer service.

Customer communities were notified of the recommended rate changes at a meeting on November 17, 2005, followed by a thirty-day comment period.

On December 20, 2005, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2006. A certified copy of the resolution and the approved sewer rate schedule for the North Kent System are attached for your information.

If you need any further information, please call me at 456-3015.

Sincerely,

Mary Therese Hegarty  
City Clerk

MTH/slp

Enclosures

cc: Scott Buhner, Assistant to the City Manager, Fiscal Services  
Mike Wolski, Utility Financial Officer

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DEC 27 2005

MARY THERESE HEGARTY, CITY CLERK  
300 MONROE, N.W., GRAND RAPIDS, MICHIGAN 49503  
TELEPHONE (616) 456-3010 • FAX (616) 456-4607

*NORTH KENT*

*SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
RATE ANALYSIS - TASK NO. 27*

SYSTEM REVENUE REQUIREMENTS \$ 1,879,101

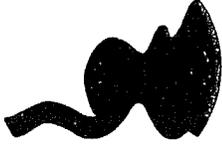
NEW COMMODITY CHARGE  
1,513.328 x \$ 1,047.00 = (1,584,454)

---

\$ 294,647

MONTHLY SERVICE CHARGE = \$ 294,647 / 12 = \$24,554

CITY CLERK



CITY OF GRAND RAPIDS

December 22, 2005

Ms. Crystal Osterink, Clerk  
Gaines Charter Township  
8555 Kalamazoo Ave., S.E.  
Caledonia, MI 49316-8270

Dear Crystal:

The "2005 Preliminary Water-Sewer Rate Study" recommended water and sewer rate adjustments for the City of Grand Rapids and each customer community contracting with the City of Grand Rapids for water and sewer service.

Customer communities were notified of the recommended rate changes at a meeting on November 17, 2005, followed by a thirty-day comment period.

On December 20, 2005, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2006. A certified copy of the resolution and the approved sewer rate schedule for Gaines Township are attached for your information.

If you need any further information, please call me at 456-3015.

Sincerely,

  
Mary Therese Hegarty  
City Clerk

MTH/slp

Enclosures

cc: Scott Buhner, Assistant to the City Manager, Fiscal Services  
Mike Wolski, Utility Financial Officer

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**DEC 27 2005**

MARY THERESE HEGARTY, CITY CLERK  
300 MONROE, N.W., GRAND RAPIDS, MICHIGAN 49503  
TELEPHONE (616) 456-3010 • FAX (616) 456-4607

**GAINES TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

SYSTEM REVENUE REQUIREMENTS \$ 135,641

NEW COMMODITY CHARGE  
112.218 x \$ 1,047.00 = (117,492)

---

\$ 18,149

MONTHLY SERVICE CHARGE = \$ 18,149 / 12 = \$1,512

CITY CLERK



CITY OF GRAND RAPIDS

December 22, 2005

Mr. Ken Zarzecki  
Director of Public Utilities  
County of Ottawa  
Board of County Road Commissioners  
U.S. 31 at Rosy Mound Drive, P.O. Box 739  
Grand Haven, MI 49417

Dear Mr. Zarzecki:

The "2005 Preliminary Water-Sewer Rate Study" recommended water and sewer rate adjustments for the City of Grand Rapids and each customer community contracting with the City of Grand Rapids for water and sewer service.

Customer communities were notified of the recommended rate changes at a meeting on November 17, 2005, followed by a thirty-day comment period.

On December 20, 2005, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2006. A certified copy of the resolution and the approved water rate schedule for Ottawa County are attached for your information.

If you need any further information, please call me at 456-3015.

Sincerely,

  
Mary Therese Hegarty  
City Clerk

MTH/slp

Enclosures

cc: Scott Buhner, Assistant to the City Manager, Fiscal Services  
Mike Wolski, Utility Financial Officer

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DEC 27 2005

MARY THERESE HEGARTY, CITY CLERK  
300 MONROE, N.W., GRAND RAPIDS, MICHIGAN 49503  
TELEPHONE (616) 456-3010 • FAX (616) 456-4607

**OTTAWA COUNTY**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 27**

SYSTEM REVENUE REQUIREMENTS					\$ 1,021,492
NEW COMMODITY CHARGE					
904,968	x	\$1.13	=		(1,022,614)
					<hr/>
					<u>\$ (1,122)</u>
MONTHLY SERVICE CHARGE	=	\$	- / 12	=	\$0

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