

2008/2009 Water & Sewage Rate Review Committee Recommendation to City Council

W&S Rate Review Committee

■ Resident and City Council Members

Donald Atkinson, Resident Rep

Frank Cosenza, Resident Rep

Tim Jacobson, Resident Rep

George Karas, Resident Rep

Richard R. Rowe, Resident Rep

Jennifer Stein, Resident Rep

Gerard Verschueren, Resident Rep

Sarah Bachleda, Youth Council Rep

Regina Wong, Youth Council Rep

Marty Brennan, City Councilman

Greg Hooper, City Councilman

Ravi Yalamanchi, City Councilman

Committee's Purpose

- *To review, discuss and make water and sanitary sewage disposal rate recommendations to the City Council (effective this summer)*

Major Influences on Rates

- City Charter and ordinances
- W&S financial policies
- W&S Funds' financial condition and trends
- Detroit Water & Sewerage Department (DWSD) water and sewage disposal rates
- DWSD/Oakland County Drain Commission (OCDC) sewage disposal rates
- Rochester Hills W&S rate mark-up (operating and capital revenues and expenses)
- Consumption/usage
- System's infrastructure conditions

City Charter

Section 11.4

- The Council shall establish from time to time such just and equitable rates as may be deemed advisable for supplying the inhabitants of the City and others with water and sewage disposal

City Ordinance

Section 102.62

- ***Rate revisions authorized***

The rates fixed in this section shall be reviewed annually and are estimated to be sufficient to provided for the payment of the expenses of administration and operation, such expenses for maintenance of the water and sewage disposal system that are necessary to preserve the system in good repair and working order and to provide for such other expenditures and funds for the system as this article may require.

W&S Financial Policies

(Operating Fund and Capital Fund)

- System revenues support the full (direct and indirect) cost of the water and sewage disposal services
- Two separate Funds - Operating Fund and a Capital Fund
 - ◆ The W&S Capital Fund was created in 2005
 - ★ to provide for a means to keep the operating and capital monies separate

W&S Financial Policies *continued*

- **W&S OPERATING FUND**
 - ◆ 90 days operating costs + annual depreciation = target balance
 - ◆ the Capital & Lateral (non-operating) revenue is transferred to the W&S Capital Fund
 - ◆ An amount equal to annual depreciation is transferred to the W&S Capital Fund

W&S Financial Policies *continued*

■ W&S CAPITAL FUND

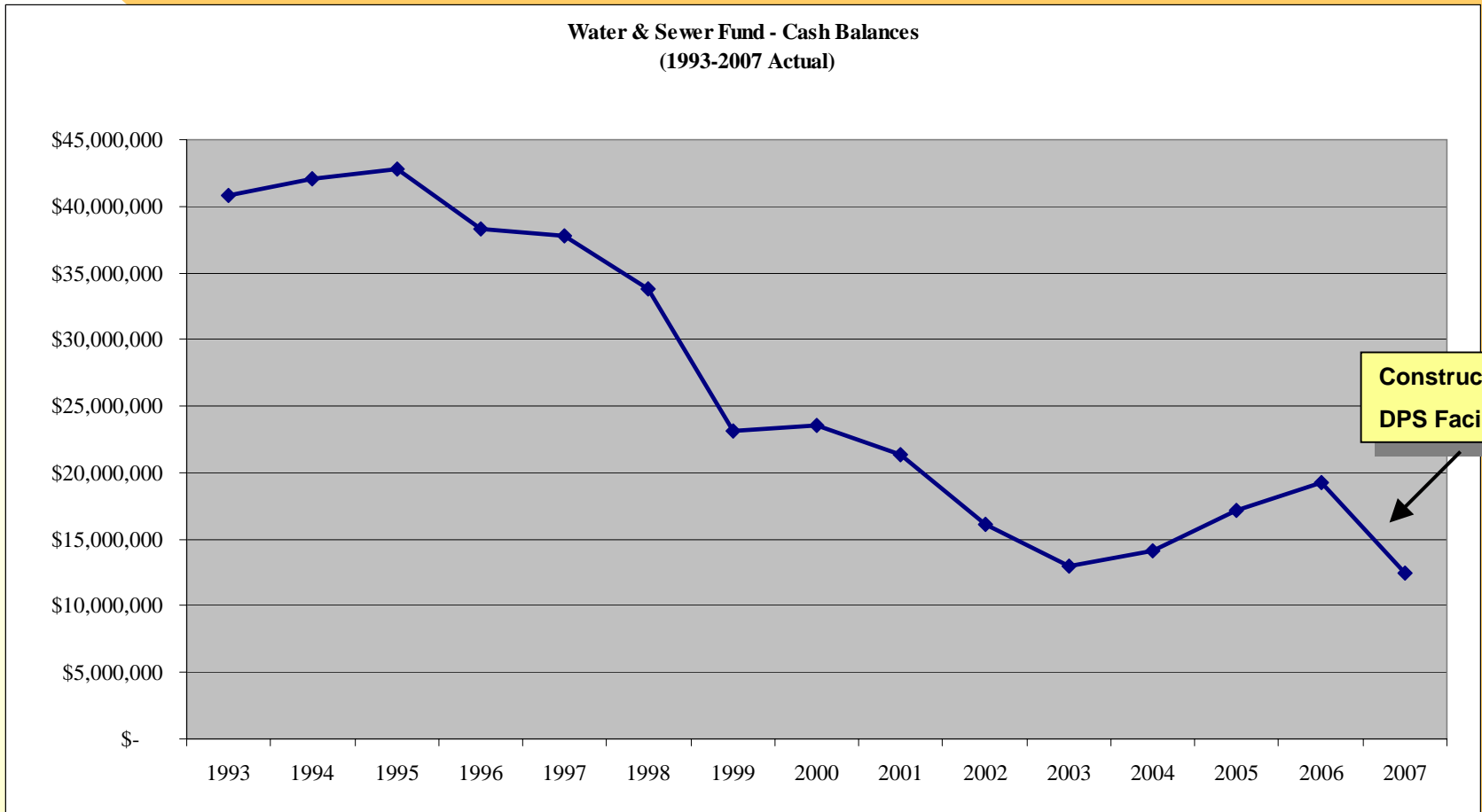
- ◆ annual depreciation is transferred out of the W&S Operating Fund to the W&S Capital Fund to help finance future infrastructure/capital
- ◆ the Capital & Lateral revenue is transferred to the Capital Fund to fund future infrastructure/capital
- ◆ Currently there is no official policy on the usage or build-up of the monies

W&S Funds – significant changes to financial conditions

- current cash balances
1993 = \$44 million
2007 = \$12.5 million

see graph on next slide

Water & Sewer Fund – Current Assets (Cash)



W&S Funds – significant changes to financial conditions *continued*

- annual interest income (operating fund only)

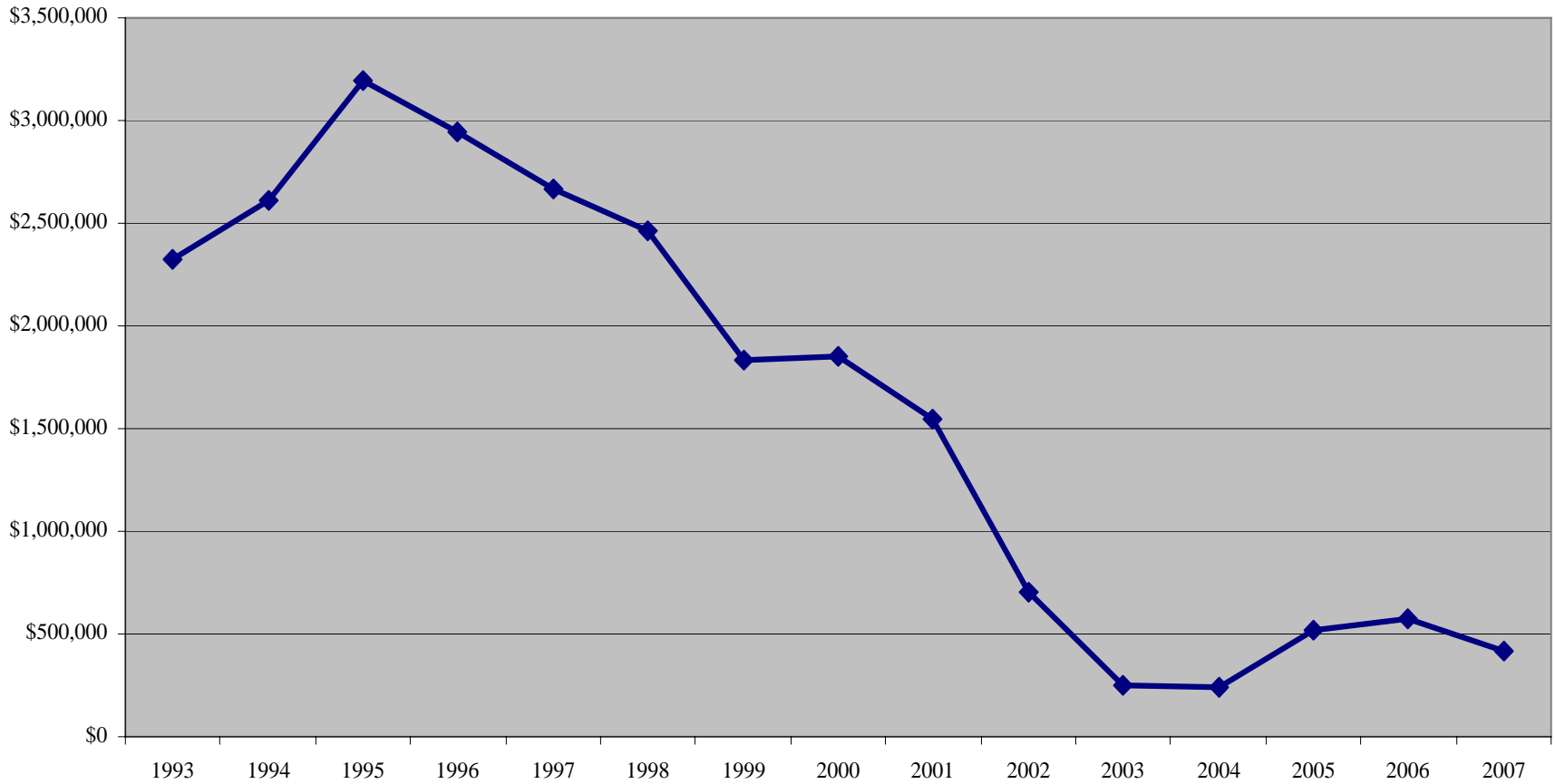
1995 = \$3.2 million 2007 = \$419,000

see graph on next slide

Water & Sewer *Operating* Fund – Investment Income Revenue

*does not include newly established Capital Fund

Water & Sewer Investment Earnings Revenue (1993-2007 Actual)



W&S Funds – significant changes to financial conditions *continued*

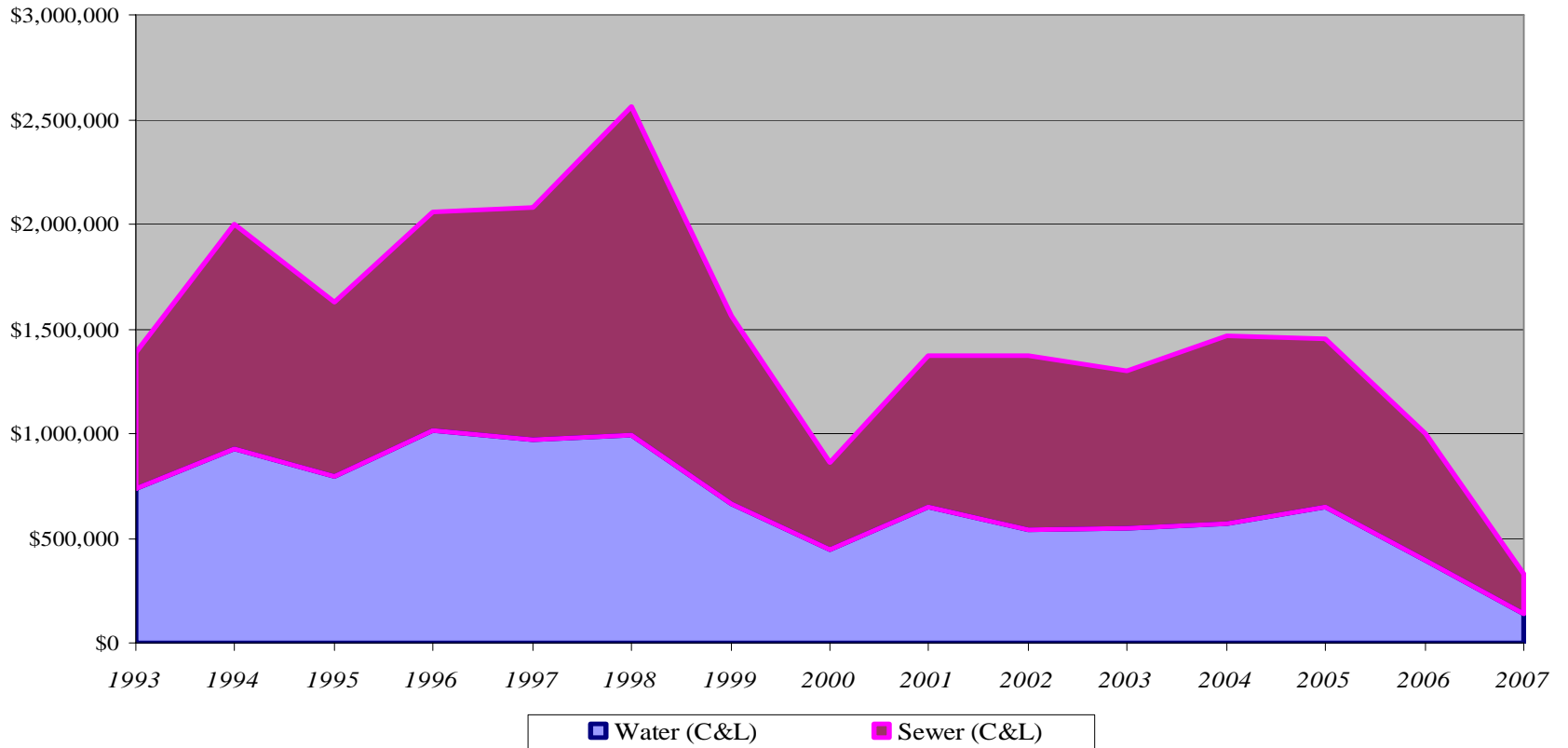
- Capital & Lateral (non-operating) revenue

1998 = \$2.5 million 2007 = \$329,500

see graph on next slide

Water & Sewer Fund – Capital & Lateral Revenue

Water & Sewer / Capital & Lateral Summary (1993 - 2007 Actual)



W&S System – significant financial conditions

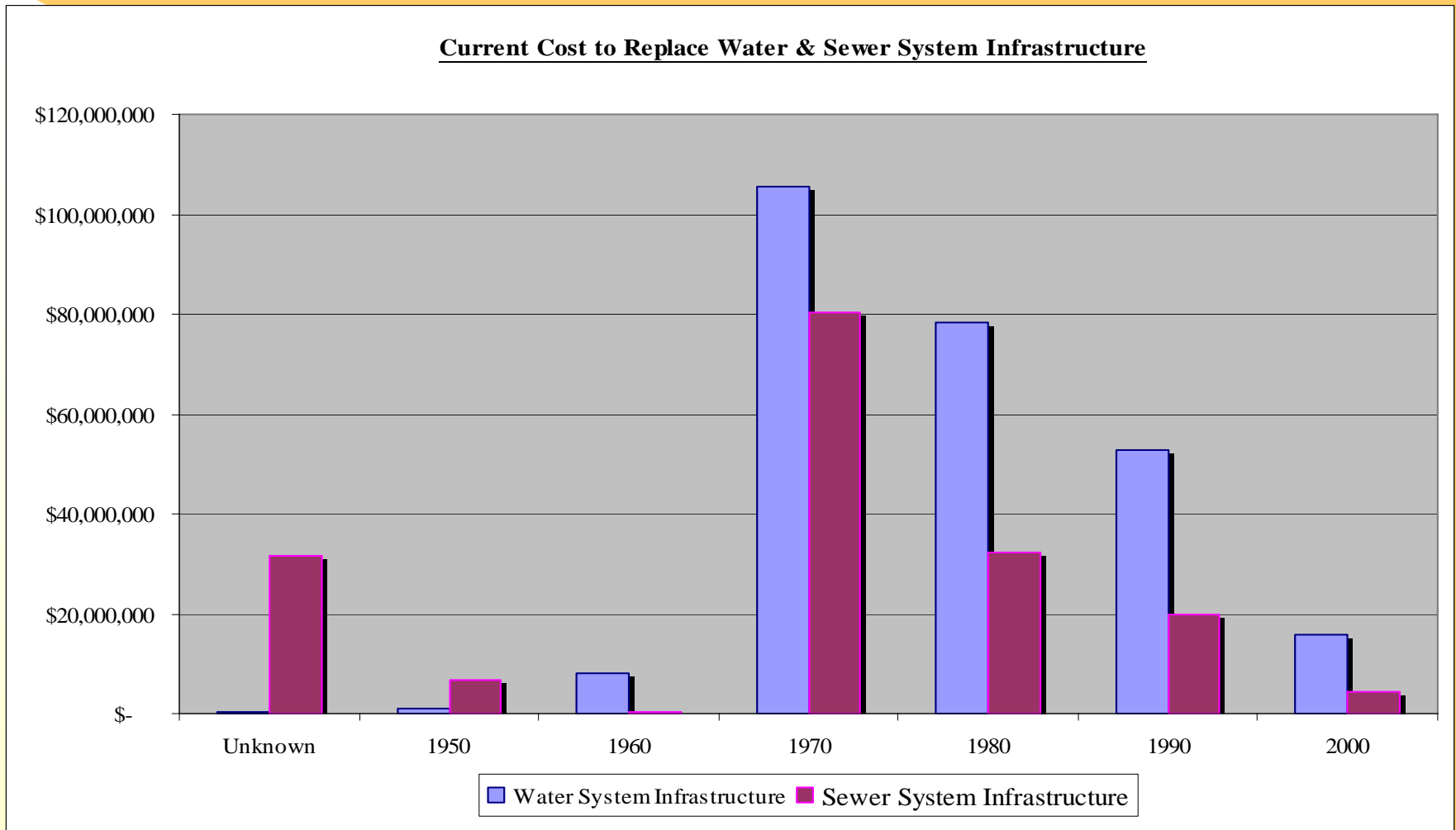
- Estimated infrastructure replacement costs - if City replaced the system's infrastructure today

watermain = \$247 million

sewer = \$165 million**

**lining of sewer is present procedure as opposed to complete replacement

Water & Sanitary Sewer Estimated Capital Infrastructure Replacement Costs by Decade Constructed



W&S system – significant changes to financial trends

continued

In summary

- The City is a developed community receiving less capital and lateral revenue, which was once subsidizing operations, now C&L revenue is funding a portion of the capital costs (but for how much longer will the City see C&L revenue?)
- The City's infrastructure is aging but cash balances are now much lower than in prior years (less cash available for future replacement of capital)
- Some of the infrastructure was donated by developers, but it's the City's cost to replace
- The City utilized a significant amount of interest income to help offset operating expenses

Other Influences on RH Rates

- Detroit Water and Sewage Department (DWSD)
- Oakland County Drain Commission (OCDC)

Water & Sewage Disposal Rates

- DWSD provides the city's water (RH is a first tier customer)
- DWSD and OCDC provide the city's sewage disposal (RH is a second tier customer)

2008/2009 DWSD's Water Rates

- System-wide increase is approx. 8.5%
- Rochester Hills increase from DWSD is 11.9%
 - ◆ From \$2.014 per 100 CF to \$2.254 per 100 CF
 - ◆ DWSD's rate formula favors communities with lower elevations, lower overall consumption, lower peak usage and in close proximity to Detroit

NOTE: Detroit City Council approved the rates late therefore the rate will go into effect Sept 3, 2008

OCDC Sewage Disposal Rates

- City is a 2nd tier sewage disposal customer to DWSD

OCDC is 1st tier sewage disposal customer of DWSD, City purchases sewage disposal from OCDC

OCDC Sewage Disposal Rates

continued

- DWSD and OCDC Sewage Disposal combined increase is 24%
- OCDC's mark-up increased 147% due to Oakland-Macomb Interceptor repair costs
- DWSD's sewage disposal increase is 5.3%
- Current rate = \$1.337 per 100 CF
- 2008/2009 rate = \$1.659 per 100 CF
CF = cubic feet

NOTE: OCDC rate will go into effect July 1, 2008

OCDC Sewage Disposal Rates

continued

- Beginning in July 2007, the City's sewage flow is measured by OCDC as opposed to charging the units of water consumed. This change caused the City to be charged for an increased number of units (mostly due to inflow and infiltration).

Sewage Disposal continued

- The City continues to bill sewage disposal to its customers by utilizing the consumption of water measured through the water meter (with the exception of deduct meters, common areas etc)
 - ◆ Therefore the City bills for inflow and infiltration by building the costs into the per unit sewage disposal cost

Sewage Disposal continued

- Rochester Hills is one of the few communities that allow for Deduct Meters for outdoor usage
- Results of RH having Deduct Meters
 - ◆ The City spreads its mark-up costs on fewer units, resulting in higher sewage rates per unit
 - ◆ Encourages the use of outside watering
 - ◆ Drive-up overall consumption and the peak factor, (increasing the cost of DWSD water) which in turn increases all RH water customers' rates

Rochester Hills W&S Rates

- Commodity
- Customer
- Capacity

W&S Rate Committee Recommendations Effective July 1, 2008

Water & Sewage Customer Charge – no change

Water Commodity Charge – 11.9% increase

Sewage Commodity Charge – 19.6% increase

(includes 19.6% increase for flat rate sewer customers)

Capacity Charge – 3% increase

2008 - 2009 Proposed Water Rates [Example #7 = Change Customer Charge in 2009, B/E in 2009, Meet Target in 2014]

Water Rate - Model	<i>Actual 2005</i>	<i>Actual 2006</i>	<i>Actual 2007</i>	Forecasted 2008	Forecasted 2009	<i>Forecasted 2010</i>	<i>Forecasted 2011</i>	<i>Forecasted 2012</i>	<i>Forecasted 2013</i>	<i>Forecasted 2014</i>	<i>Forecasted 2015</i>
<i>Rochester Hills Rate Increase %</i>	104.43%	1.86%	0.00%	0.00%	-24.77%	-11.57%	3.18%	3.21%	3.24%	3.26%	3.29%
Customer - (per bill)	\$ 6.46	\$ 6.58	\$ 6.58	\$ 6.58	\$ 4.95	\$ 4.38	\$ 4.52	\$ 4.66	\$ 4.81	\$ 4.97	\$ 5.13
<i>Rochester Hills Rate Increase %</i>	5.16%	3.07%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Capacity - (per ERU)	\$ 3.26	\$ 3.36	\$ 3.46	\$ 3.56	\$ 3.67	\$ 3.78	\$ 3.89	\$ 4.01	\$ 4.13	\$ 4.25	\$ 4.38
<i>Rochester Hills Rate Increase %</i>	12.39%	6.94%	17.18%	11.92%	5.90%	5.90%	5.90%	5.90%	5.90%	5.90%	6.00%
Commodity - (per Ccf)	\$ 2.45	\$ 2.62	\$ 3.07	\$ 3.44	\$ 3.64	\$ 3.85	\$ 4.08	\$ 4.32	\$ 4.58	\$ 4.85	\$ 5.14
Rochester Hills Rate Increase \$\$'s	\$ 0.27	\$ 0.17	\$ 0.45	\$ 0.37	\$ 0.20	\$ 0.21	\$ 0.23	\$ 0.24	\$ 0.25	\$ 0.27	\$ 0.29
<i>DWSD Rate Increase %</i>	6.79%	3.12%	17.23%	11.92%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
Anticip. DWSD Water Rates (Ccf)	\$ 1.666	\$ 1.718	\$ 2.014	\$ 2.254	\$ 2.389	\$ 2.533	\$ 2.685	\$ 2.846	\$ 3.016	\$ 3.197	\$ 3.389
	<i>actual</i>	<i>actual</i>	<i>actual</i>	4-Year Ave.	4-Year Ave.	4-Year Ave.	4-Year Ave.	4-Year Ave.	4-Year Ave.	4-Year Ave.	4-Year Ave.
City Metered Water Sold (Units)	4,254,748	3,892,267	4,292,252	4,069,167	4,127,108	4,095,198	4,145,931	4,109,351	4,119,397	4,117,470	4,123,037
%-age Change in Water Consumed	10.9%	-8.5%	10.3%	-5.2%	1.4%	-0.8%	1.2%	-0.9%	0.2%	0.0%	0.1%
Revenue by Increasing Rates 1 Cent	\$ 42,547	\$ 38,923	\$ 42,923	\$ 40,692	\$ 41,271	\$ 40,952	\$ 41,459	\$ 41,094	\$ 41,194	\$ 41,175	\$ 41,230

2008 - 2009 Proposed Sewer Rates [Example #7 = Change Customer Charge in 2009, B/E in 2009, Meet Target in 2014]

Sewer Rate - Model	<i>Actual 2005</i>	<i>Actual 2006</i>	<i>Actual 2007</i>	Forecasted 2008	Forecasted 2009	<i>Forecasted 2010</i>	<i>Forecasted 2011</i>	<i>Forecasted 2012</i>	<i>Forecasted 2013</i>	<i>Forecasted 2014</i>	<i>Forecasted 2015</i>
<i>Rochester Hills Rate Increase %</i>	153.54%	2.17%	0.00%	0.00%	-24.77%	-11.57%	3.18%	3.21%	3.24%	3.26%	3.29%
Customer - (per bill)	\$ 6.44	\$ 6.58	\$ 6.58	\$ 6.58	\$ 4.95	\$ 4.38	\$ 4.52	\$ 4.66	\$ 4.81	\$ 4.97	\$ 5.13
<i>Rochester Hills Rate Increase %</i>	5.10%	2.91%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Capacity - (per ERU)	\$ 2.06	\$ 2.12	\$ 2.18	\$ 2.26	\$ 2.33	\$ 2.40	\$ 2.47	\$ 2.54	\$ 2.62	\$ 2.70	\$ 2.78
<i>Rochester Hills Rate Increase %</i>	7.62%	7.52%	13.17%	19.64%	3.49%	3.49%	3.49%	3.49%	3.49%	3.49%	3.00%
Commodity - (per Ccf)	\$ 2.26	\$ 2.43	\$ 2.75	\$ 3.29	\$ 3.40	\$ 3.52	\$ 3.65	\$ 3.77	\$ 3.91	\$ 4.04	\$ 4.16
<i>Sewer Disposal Rate Increase %</i>	3.81%	3.59%	3.00%	24.08%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Anticipated Sewer Disposal Rates (Ccf)	\$ 1,253	\$ 1,298	\$ 1,337	\$ 1,659	\$ 1,709	\$ 1,760	\$ 1,813	\$ 1,867	\$ 1,923	\$ 1,981	\$ 2,040
<i>Flat Rate Increase %</i>		43.36%	13.16%	19.67%	3.47%	3.49%	3.49%	3.49%	3.49%	3.49%	3.00%
Flat Rate - (per bill)	\$ 36.16	\$ 51.84	\$ 58.66	\$ 70.20	\$ 72.64	\$ 75.18	\$ 77.80	\$ 80.52	\$ 83.34	\$ 86.25	\$ 88.84
	<i>Actual</i>	<i>Actual</i>	<i>Actual</i>	<i>4-Year Ave.</i>	<i>4-Year Ave.</i>	<i>4-Year Ave.</i>	<i>4-Year Ave.</i>	<i>4-Year Ave.</i>	<i>4-Year Ave.</i>	<i>4-Year Ave.</i>	<i>4-Year Ave.</i>
City Metered Sewer Sold (Units)	3,287,944	3,096,117	3,287,029	3,214,085	3,221,294	3,204,631	3,231,760	3,217,942	3,218,907	3,218,310	3,221,730
%-age Change in Wastewater Treated	3.2%	-5.8%	6.2%	-2.2%	0.2%	-0.5%	0.8%	-0.4%	0.0%	0.0%	0.1%
Revenue by Increasing Rates 1 Cent	\$ 32,879	\$ 30,961	\$ 32,870	\$ 32,141	\$ 32,213	\$ 32,046	\$ 32,318	\$ 32,179	\$ 32,189	\$ 32,183	\$ 32,222

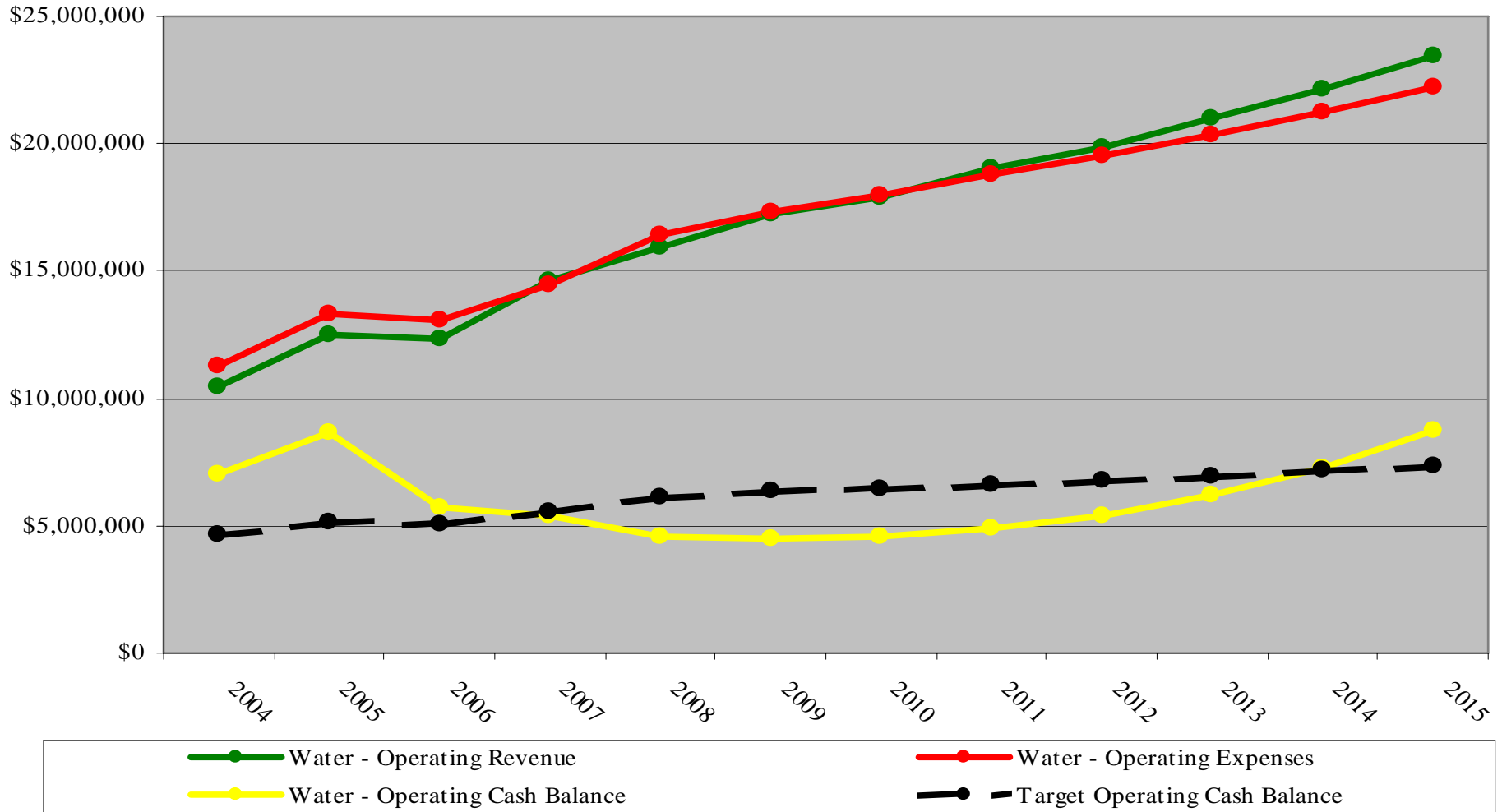
Recommendations in Relation to Policies

Recommendation will allow for:

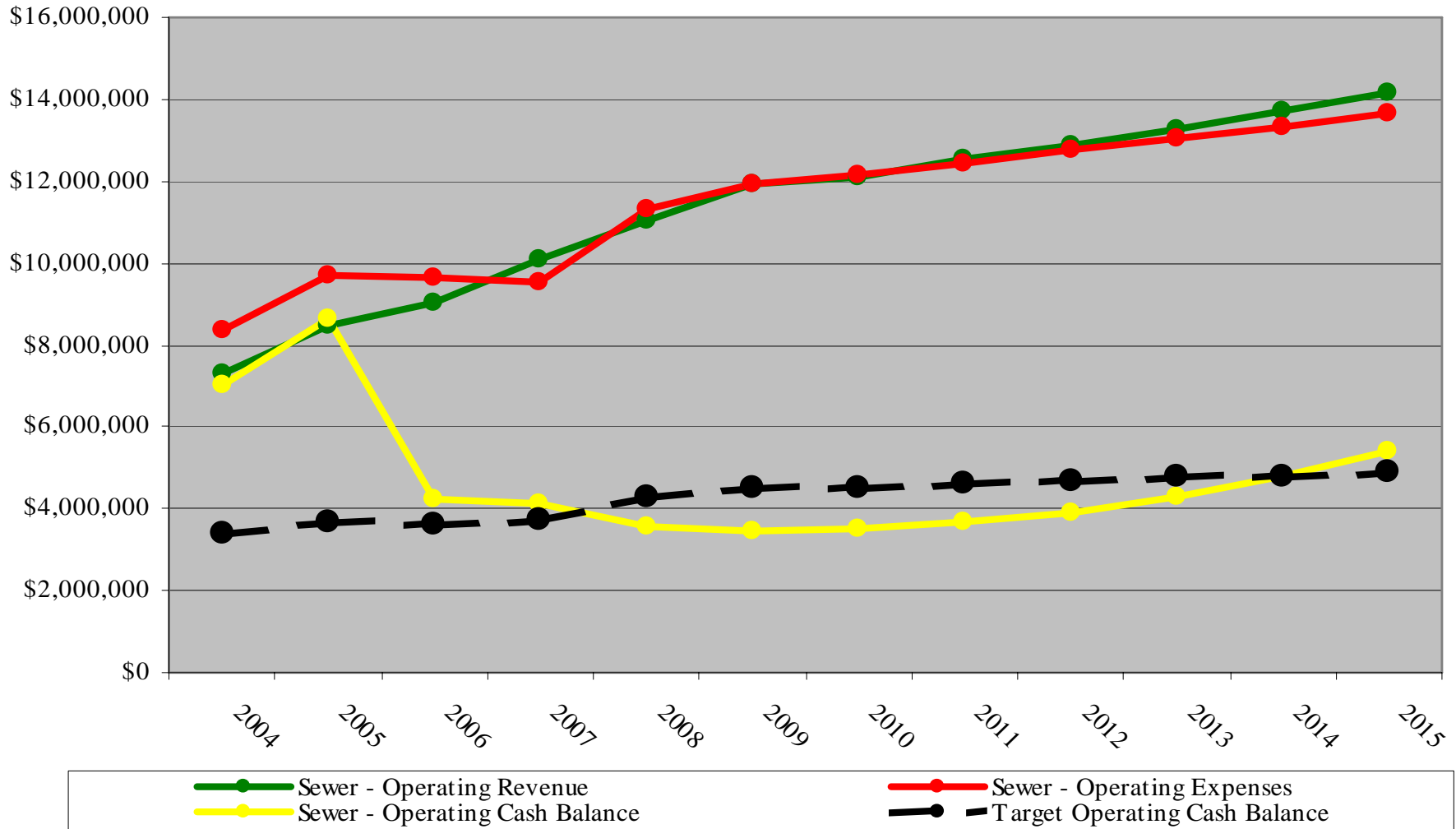
- Breakeven in 2009 (Revenues meet Expenses)
- Target cash balance meets actual cash balance in 2014

see graphs on next slides

Water Operating Fund = Revenue / Expense / Cash + Investments Balance



Sewer Operating Fund = Revenue / Expense / Cash + Investment Balance



Total W&S Bill Scenarios

2008 - 2009 Proposed Water & Sewer Average Bi-Monthly Bill [Example #7 = Change Customer Charge in 2009, B/E in 2009, Meet Target in 2014]

	Actual 2004	Actual 2005	Actual 2006	Actual 2007	Forecasted 2008	Forecasted 2009	Forecasted 2010	Forecasted 2011	Forecasted 2012	Forecasted 2013	Forecasted 2014	Forecasted 2015
Total Water Charged by City	3,837,402	4,254,748	3,892,267	4,292,252	4,069,167	4,127,108	4,095,198	4,145,931	4,109,351	4,119,397	4,117,470	4,123,037
Total Sewage Charged by City	3,185,250	3,287,944	3,096,117	3,287,029	3,214,085	3,221,294	3,204,631	3,231,760	3,217,942	3,218,907	3,218,310	3,221,730
Ave. Water Consumed / House (per Bill)	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00
Ave. Sewage Disposed / House (per Bill)	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00
Water Rate / Unit	\$ 2.18	\$ 2.45	\$ 2.62	\$ 3.07	\$ 3.44	\$ 3.64	\$ 3.85	\$ 4.08	\$ 4.32	\$ 4.58	\$ 4.85	\$ 5.14
Sewer Rate / Unit	\$ 2.10	\$ 2.26	\$ 2.43	\$ 2.75	\$ 3.29	\$ 3.40	\$ 3.52	\$ 3.65	\$ 3.77	\$ 3.91	\$ 4.04	\$ 4.16
Average Water Use - Bill Projection												
Commodity Charge - Water	\$ 39.24	\$ 44.10	\$ 47.16	\$ 55.26	\$ 61.85	\$ 65.49	\$ 69.36	\$ 73.45	\$ 77.78	\$ 82.36	\$ 87.22	\$ 92.45
Capacity Charge (1" Meter) - Water	\$ 4.96	\$ 5.20	\$ 5.36	\$ 5.52	\$ 5.68	\$ 5.85	\$ 6.03	\$ 6.21	\$ 6.39	\$ 6.58	\$ 6.78	\$ 6.99
Customer Charge - Water	\$ 3.16	\$ 6.46	\$ 6.58	\$ 6.58	\$ 6.58	\$ 4.95	\$ 4.38	\$ 4.52	\$ 4.66	\$ 4.81	\$ 4.97	\$ 5.13
Average Bill - Water	\$ 47.36	\$ 55.76	\$ 59.10	\$ 67.36	\$ 74.11	\$ 76.29	\$ 79.76	\$ 84.17	\$ 88.83	\$ 93.76	\$ 98.97	\$ 104.57
Ave. Percentage Increase - Water	15.1%	17.7%	6.0%	14.0%	10.0%	3.0%	4.5%	5.5%	5.5%	5.5%	5.6%	5.7%
Average Sewer Use - Bill Projection												
Commodity Charge - Sewer	\$ 37.80	\$ 40.68	\$ 43.74	\$ 49.50	\$ 59.22	\$ 61.29	\$ 63.43	\$ 65.65	\$ 67.94	\$ 70.31	\$ 72.77	\$ 74.95
Capacity Charge (1" Meter) - Sewer	\$ 3.14	\$ 3.29	\$ 3.38	\$ 3.48	\$ 3.59	\$ 3.70	\$ 3.81	\$ 3.92	\$ 4.04	\$ 4.16	\$ 4.28	\$ 4.41
Customer Charge - Sewer	\$ 2.54	\$ 6.44	\$ 6.58	\$ 6.58	\$ 6.58	\$ 4.95	\$ 4.38	\$ 4.52	\$ 4.66	\$ 4.81	\$ 4.97	\$ 5.13
Average Bill - Sewer	\$ 43.48	\$ 50.41	\$ 53.70	\$ 59.56	\$ 69.39	\$ 69.94	\$ 71.61	\$ 74.08	\$ 76.64	\$ 79.29	\$ 82.03	\$ 84.50
Ave. Percentage Increase - Sewer	12.7%	15.9%	6.5%	10.9%	16.5%	0.8%	2.4%	3.4%	3.5%	3.5%	3.5%	3.0%
AVERAGE W&S Use - Bill Projection * = Average Household (18 Units/mo)												
Commodity Charge - W&S	\$ 77.04	\$ 84.78	\$ 90.90	\$ 104.76	\$ 121.07	\$ 126.78	\$ 132.79	\$ 139.09	\$ 145.72	\$ 152.68	\$ 159.99	\$ 167.41
Capacity Charge (1" Meter) - W&S	\$ 8.10	\$ 8.49	\$ 8.74	\$ 9.00	\$ 9.27	\$ 9.55	\$ 9.83	\$ 10.13	\$ 10.43	\$ 10.74	\$ 11.07	\$ 11.40
Customer Charge - W&S	\$ 5.70	\$ 12.90	\$ 13.16	\$ 13.16	\$ 13.16	\$ 9.90	\$ 8.76	\$ 9.03	\$ 9.32	\$ 9.63	\$ 9.94	\$ 10.27
AVERAGE Water & Sewer Bill	\$ 90.84	\$ 106.17	\$ 112.80	\$ 126.92	\$ 143.49	\$ 146.23	\$ 151.38	\$ 158.26	\$ 165.47	\$ 173.05	\$ 181.00	\$ 189.08
Ave. W&S Bill - Percentage Increase	13.9%	16.9%	6.3%	12.5%	13.1%	1.9%	3.5%	4.5%	4.6%	4.6%	4.6%	4.5%
LIGHT W&S Use - Bill Projection * = 1/2 the Use of Average Household (9 Units/mo)												
Commodity Charge - W&S (Light)	\$ 38.52	\$ 42.39	\$ 45.45	\$ 52.38	\$ 60.53	\$ 63.39	\$ 66.39	\$ 69.55	\$ 72.86	\$ 76.34	\$ 80.00	\$ 83.70
Capacity Charge (1") - W&S (Light)	\$ 8.10	\$ 8.49	\$ 8.74	\$ 9.00	\$ 9.27	\$ 9.55	\$ 9.83	\$ 10.13	\$ 10.43	\$ 10.74	\$ 11.07	\$ 11.40
Customer Charge - W&S (Light)	\$ 5.70	\$ 12.90	\$ 13.16	\$ 13.16	\$ 13.16	\$ 9.90	\$ 8.76	\$ 9.03	\$ 9.32	\$ 9.63	\$ 9.94	\$ 10.27
LIGHT W&S Bill	\$ 52.32	\$ 63.78	\$ 67.35	\$ 74.54	\$ 82.96	\$ 82.84	\$ 84.98	\$ 88.71	\$ 92.61	\$ 96.71	\$ 101.00	\$ 105.37
Ave. W&S Bill - % Change (Light)	21.7%	21.9%	5.6%	10.7%	11.3%	-0.1%	2.6%	4.4%	4.4%	4.4%	4.4%	4.3%
HEAVY W&S Use - Bill Projection * = 1.5 times the Use of Average Household (27 Units/mo)												
Commodity Charge - W&S (Heavy)	\$ 115.56	\$ 127.17	\$ 136.35	\$ 157.14	\$ 181.60	\$ 190.18	\$ 199.18	\$ 208.64	\$ 218.58	\$ 229.02	\$ 239.99	\$ 251.11
Capacity Charge (1") - W&S (Heavy)	\$ 8.10	\$ 8.49	\$ 8.74	\$ 9.00	\$ 9.27	\$ 9.55	\$ 9.83	\$ 10.13	\$ 10.43	\$ 10.74	\$ 11.07	\$ 11.40
Customer Charge - W&S (Heavy)	\$ 5.70	\$ 12.90	\$ 13.16	\$ 13.16	\$ 13.16	\$ 9.90	\$ 8.76	\$ 9.03	\$ 9.32	\$ 9.63	\$ 9.94	\$ 10.27
HEAVY W&S Bill	\$ 129.36	\$ 148.56	\$ 158.25	\$ 179.30	\$ 204.03	\$ 209.62	\$ 217.77	\$ 227.80	\$ 238.33	\$ 249.39	\$ 261.00	\$ 272.78
Ave. W&S Bill - % Change (Heavy)	11.1%	14.8%	6.5%	13.3%	13.8%	2.7%	3.9%	4.6%	4.6%	4.6%	4.7%	4.5%

City Council Discussion