

## The Going Rate III (Abridged)

Over the years, we have conducted sewer and water rate surveys and discussed the results in past issues of *etcetera*. In this issue, "The Going Rate III" presents abbreviated results from the 2007 Sewer and Water Rate Survey, as well as a summary of results from the 1999, 2001, 2003, 2005, and 2007 surveys. The data from the 1999 through 2007 surveys have been narrowed down to include only Pennsylvania facilities that have responded to our inquiry at least twice since CET began conducting the surveys; most data reported, however, are from facilities that have responded three or more times. Trends are noted as a result of the analysis of data.

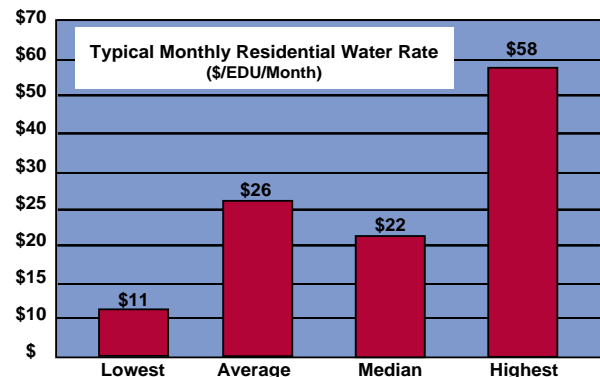
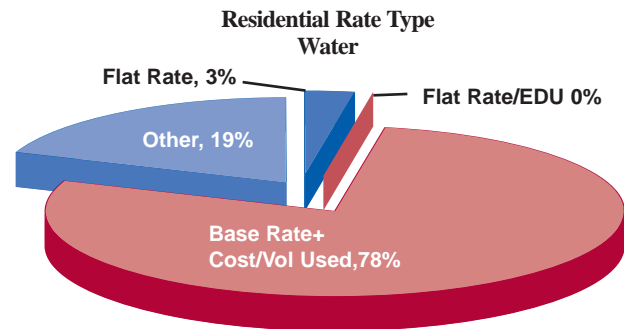
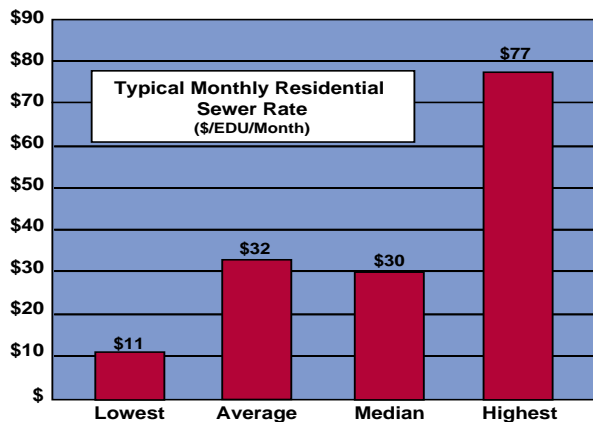
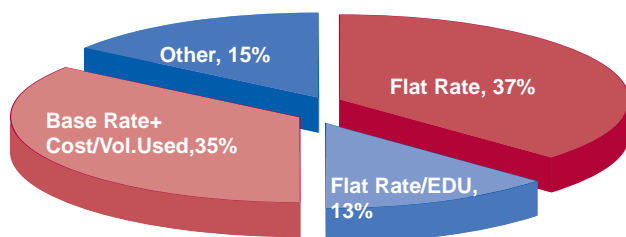
The information provided in this newsletter is intended to be used by municipalities and municipal authorities to compare their rates, rate structure, budget information, delinquency policies, etc. with those of other similar municipal entities.

To provide an equitable method to compare rates with an individual municipality or municipal authority, sewer and water rates are normalized, and are calculated based on 4,000 gal/month water usage and a 5/8-inch meter for residential rates and 40,000 gal/month water usage and a 2-inch meter for non-residential rates.

### 2007 Sewer and Water Rate Survey Results

A complete summary of the results of the sewer and water rate information collected in 2007 is available on our website at [www.cet-inc.com](http://www.cet-inc.com). Abbreviated results for residential users follow:

#### Residential Rate Type Sewer



### Sewer Rates and Data 1999 - 2007

Sewer survey data are compiled from 29 facilities. Data on the facilities surveyed are shown in Table 1.

Table 1. Wastewater Treatment Facility Data

	Average	Range
Age of Facilities	26 years	5 - 99 years
Treatment Plant Capacity	3.5 MGD	0.03 - 15.0 MGD
Annual Avg. Flow as % of Capacity	62%	-----
Annual Budget	\$1,950,000	\$45,800 - \$8,600,000
Debt Service	\$854.00	\$24,000 - \$4,938,000

The highest percentage of borrowed money is owed to PennVest (35%), which has consistently been the leader in source of borrowed money since 1999. Two percent of the respondents reported no debt.

Sixty-nine percent of facility owners use a flat rate type fee structure. The second most common rate structure is a base-rate-plus-cost-per-volume-used based on water consumption (25%). Six percent of facility owners use some other method of billing.

The reported typical residential sewer rates from 1999 to 2007 are shown in Table 2. Of the 29 sewer facility respondents, 22 provided sewer rate information for more than one survey and are included in Table 2.

**Table 2. Monthly Sewer Rates per EDU Reported by Survey Respondents from 1999-2007**

Respondent	Sewer Rate \$/EDU/Month				
	1999	2001	2003	2005	2007
3		\$48		\$55	
4	\$52			\$52	
5	\$13	\$15		\$17	
7	\$24			\$26	\$26
9	\$50		\$50	\$50	\$50
10			\$24	\$24	\$25
11	\$20	\$23	\$23	\$23	\$23
12	\$23		\$24	\$24	
14			\$25	\$33	
15	\$50	\$50	\$50	\$50	\$50
16	\$23	\$23	\$23	\$26	
17			\$37	\$37	
19	\$12	\$28		\$28	
20	\$19			\$21	
21		\$25		\$35	
22		\$25		\$25	
23			\$25	\$25	
24	\$12			\$11	
25			\$32	\$32	\$34
26	\$40	\$30	\$25	\$25	
27		\$13		\$25	
28			\$30	\$32	\$36

Overall, the typical average residential sewer rate shows either an increasing trend or remains constant, which is the case for several municipalities who have not changed their rates since 1999. Over the course of the past eight years, sewer rates for the respondents in Table 2 have increased \$5/EDU/month, or three percent per year.

### Water Rates and Data 1999 - 2007

Water survey data are compiled for 13 facilities. Data on the facilities surveyed are shown in Table 3.

**Table 3. Water Treatment Facility Data**

	Average	Range
Age of Facilities	57 years	3 - 124 years
Treatment Plant Capacity	1.4 MGD (median)	0.085 - 11.7 MGD
Annual Avg. Flow as % of Capacity	43%	21% - 60%
Annual Budget	\$1,560,000	\$52,000 - \$5,412,000
Debt Service	\$510,00	\$56,000 - \$1,600,000

The highest percentage of borrowed money is owed to PennVest (32%), which has consistently been the leader in source of borrowed money since 1999. Only four percent of the respondents reported no debt.

Eighty percent of facility owners charge a base-rate-plus-cost-per-volume-used fee. In fact, each year the survey was conducted, more than 65 percent of the facilities reported using a base-rate-plus-cost-per-volume-used rate structure.

The reported typical residential water rates from 1999 through 2007 are shown in Table 4.

**Table 4. Monthly Water Rates per EDU Reported by Survey Respondents from 1999-2007**

Respondent	Water Rate \$/EDU/Month				
	1999	2001	2003	2005	2007
1	\$28	\$28		\$28	
2		\$16		\$19	
4	\$23				\$23
5		\$14		\$18	
6		\$18	\$19		
7		\$25		\$25	
8		\$20		\$32	
9	\$13	\$15			
11		\$30	\$30	\$30	
12	\$16	\$14			\$14
13		\$17		\$20	\$20

Of the 11 water systems reporting over multiple years, six indicate rate increases during that time, four show no change in reported rates, and one indicates a small decrease. Over the course of the past eight years, water rates for the respondents listed in Table 4 have increased an average of \$4/EDU/month.

### Collection Woes

Sewer and water facility owners commonly experience difficulties when it comes to receiving payments on time and consistently report delinquency rates ranging from 6 to 10 percent and 2 to 5 percent, respectively. The most common form of penalty for delinquent water customers is shutting off water service (64%). The most common penalty for sewer customers is taking legal action (40%). These penalties have consistently been the most common each year the survey was conducted from 1999 through 2007. Approximately two-thirds of sewer facility owners and half of water facility owners reported that late charges do discourage delinquency.

### Rate Increases

From the surveys, the next anticipated rate increase for sewer and water facilities averaged 10 percent and 11 percent respectively. These increases are often due to increasing costs incurred for improvements to the treatment facility itself to meet increasingly strict environmental regulations, system expansion to accommodate growth within the community, or increasing operation and maintenance costs.

Rate increases are an inevitable fact for municipalities and authorities. As a result, they are often forced to deal with public scrutiny when a rate increase is anticipated. An interesting article was presented at the Water Environment Federation's 2006 Technical Conference (WEFTEC<sup>®</sup> 2006) entitled "How to Nearly Double Sewer Rates without Ratepayer Revolt," by Perras & Associates. Timely in light of the current pressures to increase rates, the article presents a case study of one method used by the City of Indianapolis to garner support from the public when a rate increase was necessary to help fund sewer infrastructure improvement projects. Additional information on the City's method to garner support, and how successful it was, is included in our unabridged version of "The Going Rate III", available on our website.

### Closing Remarks

We are interested in gathering information from facility owners on their experiences implementing rate increases, including such aspects as what was expected by the facility owner versus what the outcome actually was in terms of the customer's response. As always, we welcome the opportunity to speak with anyone who has a question or concern regarding the information presented, or any topic relative to water and wastewater engineering. If you would like to share your experiences, please call us at 1-800-238-3644.

*Written by Nancy Adams, Staff Environmental Scientist with CET Engineering Services*

### Question

"Should rates be raised a little each year or all at once?"

*"After 35 years in this business, I am convinced there is no right or wrong answer to this question. It's a local decision. In either case, educating the public as to why an increase is necessary is the key to acceptance."*

Al Drayovitch,  
Borough of Quarryville  
Manager/Secretary

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