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Newsletter
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The Going Rate III (Unabridged)

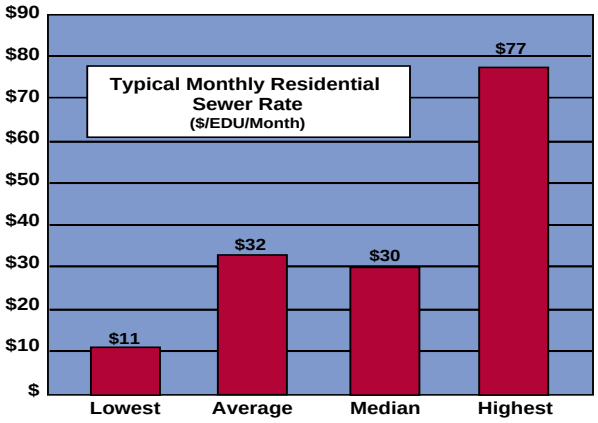
Over the years, we have conducted sewer and water rate surveys and discussed the results in past issues of ***etcetera***. In this issue, "The Going Rate III" presents abbreviated results from the 2007 Sewer and Water Rate Survey, as well as a summary of results from the 1999, 2001, 2003, 2005, and 2007 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.

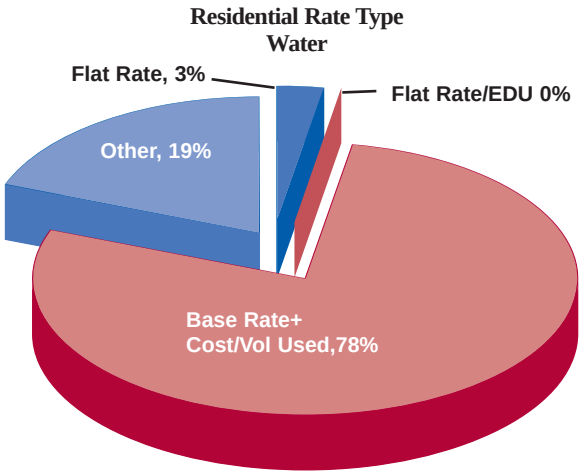
The information provided in this newsletter is intended to be used by municipalities and municipal authorities to compare their rates, rate structure, budget information, delinquency policies, etc. with those of other similar municipal entities.

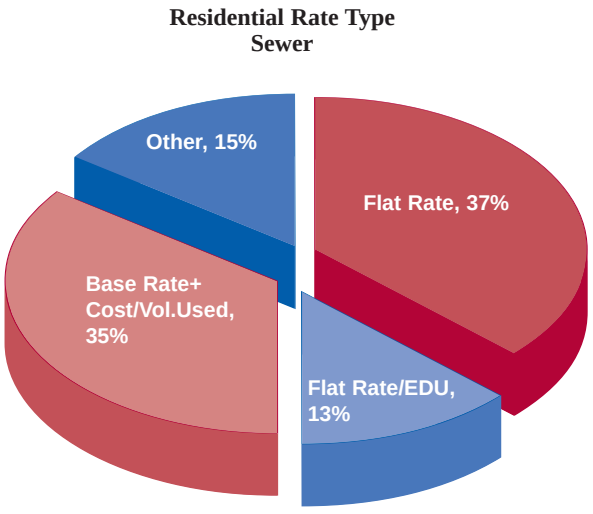
To provide an equitable method to compare rates with an individual municipality or municipal authority, sewer and water rates are normalized, and are calculated based on 4,000 gal/month water usage and a 5/8-inch meter for residential rates and 40,000 gal/month water usage and a 2-inch meter for non-residential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

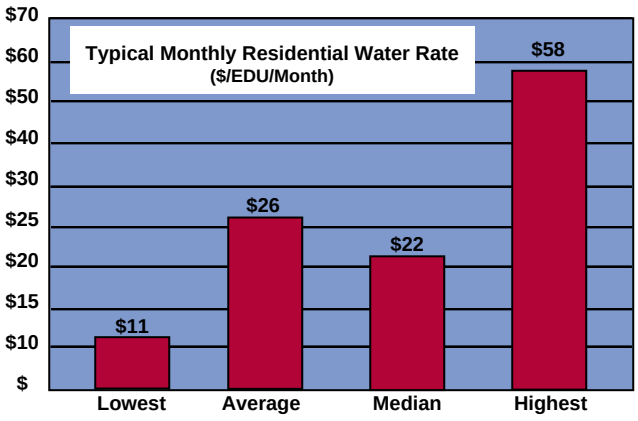
2007 Sewer and Water Rate Survey Results

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. Abbreviated results for residential users follow:









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Sewer Rates and Data 1999 - 2007

Sewer survey data are compiled from 29 facilities. Data on the facilities surveyed are shown in Table 1. We encourage facility owners to examine past rates and to note trends that are specific to their facility's situation, and compare their information with the trends noted in this newsletter. The budgetary information, average facility capacity, and age of the facility should help to determine if your particular facility fits within the range of selected facilities presented in this newsletter.

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, followed by banks (22%), bonds (17%), other sources (13%), and RUS (12%). 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, using the aforementioned standardized definition to calculate rates, are shown in Table 2. Of the 29 sewer facility respondents, which are the focus of this newsletter, 22 respondents 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. The highest monthly residential sewer rate reported is $55/EDU and is from the 2005 survey results. 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.

One respondent (number 26 on the list) indicates a decrease in rates from 1999 through 2003. This particular entity completed a new wastewater treatment facility in 1996. Rates were higher at start-up, but were lowered as new development in the service area increased. The table shows that rates stabilized from 2003 through 2005.

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. PennVest is followed by bonds (24%), banks (21%), other sources (16%), and RUS (3%). Only four percent of the respondents reported no debt.

Eighty percent of facility owners charge a base-rate-plus-cost-per-volume-used fee. "Other methods" unique to each facility is the second most common rate structure and only two percent charge a flat rate. 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.

Based on information provided by the survey respondents, an average EDU is defined by 235 gallons per day (gpd). The average has consistently decreased since 2001 (there was insufficient data from 1999) from an average of 308 gpd in 2001 to an average of 198 gpd in 2007.

The reported typical residential water rates from 1999 through 2007, using the aforementioned standardized definition for an EDU, are shown in Table 4.

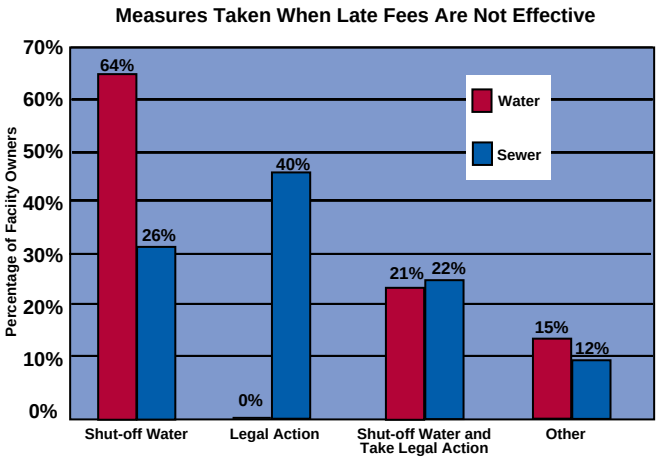
Table 4. Monthly Water Rates per EDU Reported by Survey Respondents from 1999-2007

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. The highest monthly residential water rate reported is $32/EDU from the 2005 survey results. 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. Late fees collected in the form of a flat fee range from $1 to $11 for sewer facilities.There are insufficient data from the surveys to determine a flat fee range for water, however a fee based on the percentage of the bill was more common for water facilities than for sewer facilities. Late fees for water averaged 7.5 percent of the balance. A chart depicting actions facility owners take when late fees are ineffective follows.



The most common form of penalty for delinquent water customers is shutting off water service (64%), followed by shutting water off and taking legal action such as filing a lien (21%). Fifteen percent impose some other form of penalty. The most common penalty for sewer customers is taking legal action (40%), followed by shutting off water service (26%) and shutting off water and taking legal action (22%). Twelve percent impose some other form of penalty. 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.

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

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© 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. The case study targeted funds needed for the reduction of combined sewer overflows (CSOs). The article highlights an outreach campaign that was implemented to educate the public and provide reasoning behind the rate increases and how the city would benefit from the project as a means to gain support for the rate increase. Working closely with the media and press releases was the key avenue used to educate the public and key stakeholders in the project. In the press releases, emphasis was placed on eliminating the use of technical jargon and instead phrasing key benefits of the project in layman's terms. For example, use of the phrase "raw sewage overflowing into streams" replaced terms like CSOs. The outreach campaign provided for open communication among sewer customers, business owners, and politicians who would be impacted by the project. The outreach campaign was successful, the proposed rate increase gained support throughout the course of the campaign, and at the time of implementation of the rate increase, there was very little opposition from the public.

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

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