

7 Things to Consider when Comparing Water Rates

By **Peter Galant, P.E.**

If you work for a public water system, one of your least favorite conversations with a customer might start out with “I was at a party last weekend, talking with a friend who lives in the town next to us. He told me how much he pays for water, and I was embarrassed to say how much more I’m paying. Why are our rates so high?”

While the bottom line to the customer is clearly how big a check they need to write each month or quarter, here are seven things to consider when comparing water rates, and water bills, between neighboring communities:

- 1. Where does the water come from, and how is it treated and distributed?** Two of the largest expense categories in a water utility budget are power and chemicals. These costs can vary quite a bit between water systems depending on whether the water needs to be pumped out of the ground from wells or can flow by gravity from reservoirs. Costs also depend on the level of treatment required, and how much pumping is needed to deliver water to customers at adequate pressure.
- 2. Do the water rates cover the full cost of service?** Some municipalities gain efficiencies by sharing resources across departments, while others don’t (and private water companies can’t). For example, the tax collector may help with water billings and collections, and the Finance Department may help with utility financing. Hiring, payroll and benefits can be handled by the town’s Personnel Department. Purchasing can be centralized, and the Public Works Department can perform facilities maintenance and management of capital improvements. Similarly, the cost of capital improvements might or might not be shared. For example, if a water main needs replacing, the Water Department can pay for the water main construction, and the Public Works Department can pay for the road re-pavement. If these costs aren’t fully allocated back to the Water Department budget, water rates are kept lower and don’t reflect the true cost of providing service. This can help keep down the cost of water service – but it may mean higher property taxes, or that other possible municipal needs don’t get funded.

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1. Water supply sources	Where water comes from (wells or reservoirs), and how hilly the terrain is, determines variability in water pumping and treatment costs.
2. Water rates versus true service cost	Some communities partially cover water costs under the umbrella of their municipal budgets, while others do not.
3. Customer base	Water systems with many customers, and/or large commercial users, can spread costs out over a larger customer base to keep rates lower.
4. Water consumption	Differences in the amount of water that communities consume impact water rates (\$/gallon).
5. Asset Management	Communities that invest in water system upgrades to ensure water quality and system reliability tomorrow, can have higher rates than those that defer maintenance on aging infrastructure to keep rates down today.
6. Fire protection	Communities that supply a network of firefighting pipelines and hydrants have higher costs than those that do not.
7. Public versus private ownership	Public and private rates can vary for many reasons. One significant difference is that private utilities typically pay local property taxes, and state and federal income taxes.

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- 3. How many, and what type of, customers do the systems serve?** There are costs in a water system that don’t vary significantly based on the amount of water produced – like the cost of land and treatment, pumping, storage and distribution infrastructure. Systems with a large number of customers, or with large commercial or industrial users, can spread these costs out and keep water rates lower.
- 4. How much water do people use?** As described above, there are many water system costs that aren’t directly related to the amount of water produced. Although there are plenty of reasons to conserve water (e.g., protect the environment, avoid the need for new sources of supply), these high fixed costs mean that water rates go up when

people use less water. However, if water rates go up less than usage comes down, conservation may still result in lower water bills. This is important to take into account when using the results of rate surveys that assume the same water usage across all systems. These surveys compare water rates (cost per gallon) but, due to different water usage per customer, may not be representative of the actual water bill that a “typical” customer pays.



Peter Galant, P.E. is a vice president and the technical director for Tighe and Bond's water business line. He has broad water system planning, engineering and operations expertise gained from more than 30 years in the industry. For more about Peter's background, contact him at PBGalant@tighebond.com.

- 5. What is the condition of the systems' assets?** Another way to keep water rates down is to defer maintenance and investment in the rehabilitation and replacement of aging infrastructure. As presented in Tighe & Bond's recent blog *8 Reasons to Invest in Your Infrastructure*, there are many reasons not to delay this spending. When comparing water rates between systems, customers should consider the value that they are receiving – including things like water quality, service quality and reliability, in addition to the dollar amounts of their water bills.

- 6. Do the water systems provide fire protection?** The size of the pipes, pumps and storage tanks in a water system are often determined by whether, and how much, fire protection is needed. Systems that don't provide fire service have smaller infrastructure, and therefore lower costs. The added cost for fire protection is typically charged directly to the municipality because everyone in town benefits from public fire protection. When these costs are allocated appropriately, they shouldn't impact residential water rates.

- 7. Do the water systems have the same type of ownership?** In addition to having a higher cost of capital when borrowing money for infrastructure improvements, privately-owned utilities typically pay taxes (including income, sales and property taxes). Property taxes are paid on land, buildings and equipment, including assets like the pipes in the ground. Consequently, you'll often see private water companies on the top 10 tax payer list in town. While the need to pay these taxes results in increased water rates, it also helps keep the local mil rate down, and therefore helps reduce property taxes.

When comparing rates between water systems, it's important to understand the costs that go into setting those rates. Sometimes, the best comparison is not just with the adjacent municipality, but with systems of similar age, ownership type and customer base. In addition to comparing water rates, it's important to understand water usage to determine what “typical” customers pay for water, and to compare metrics like water affordability. Most importantly, water rates shouldn't be set based on what other systems charge - they should be set based on the cost of providing water, and should be part of a strategy that considers the level of capital investment that will be needed to maintain high quality water and service for customers.

For more information:
Ph: 413.562.1600
info@TigheBond.com

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