

Conservation Rates

Minnesota Statutes, section 103G.291, was amended in 2008 to include a requirement for public water suppliers serving more than 1,000 people to adopt a water rate structure that encourages conservation:

Minnesota Statutes, section 103G.291, subd. 4. **Conservation rate structure required.** (a) For the purposes of this section, "conservation rate structure" means a rate structure that encourages conservation and may include increasing block rates, seasonal rates, time of use rates, individualized goal rates, or excess use rates. The rate structure must consider each residential unit as an individual user in multiple-family dwellings.

(b) To encourage conservation, a public water supplier serving more than 1,000 people in the metropolitan area, as defined in section 473.121, subdivision 2, shall use a conservation rate structure by January 1, 2010. All remaining public water suppliers serving more than 1,000 people shall use a conservation rate structure by January 1, 2013.

(c) A public water supplier without the proper measuring equipment to track the amount of water used by its users, as of the effective date of this act, is exempt from this subdivision and the conservation rate structure requirement under subdivision 3, paragraph (c).

In addition, *Minnesota Statutes*, section 103G.291, was further amended to read:

Subd. 3. **Water supply plans; demand reduction.** (c) Public water suppliers serving more than 1,000 people must employ water use demand reduction measures, including a conservation rate structure, as defined in subdivision 4, paragraph (a), unless exempted under subdivision 4, paragraph (c). before requesting approval from the commissioner of health under section 144.383, paragraph (a), to construct a public water supply well or requesting an increase in the authorized volume of appropriation. Demand reduction measures must include evaluation of conservation rate structures and a public education program that may include a toilet and showerhead retrofit program.

A conservation rate structure must be employed before requesting well construction approval for a public water supply well or before requesting an increase in permitted volume for their water appropriation permit.

Examples of Conservation Rates:

Commercial and industrial rates can be based on cost of service and do not necessarily need to be the same rate as that used for residential water users.

Below are examples of rate structures that encourage conservation. Many variations and combinations of these examples are possible.

NOTE: Rate structures often include a service charge (base rate) and a volume based charge. Service charges may cover fixed costs (capital improvements) and the volume charge is often for operation and maintenance costs. Volume charges usually use units of 1,000 gallons or 100 cubic feet (748 gallons).

Increasing Block Rates: Cost per unit increases as water use increases within specified "blocks" or volumes. The increase in cost between each block should be significant enough (25% or more and 50% between the last two steps) to encourage conservation.

Example: 0-6,000 gallons = \$2.50/1000 gallons
6,000-12,000 gallons = \$3.15/1000 gallons
12,000-24,000 gallons = \$4.00/1000 gallons
Above 24,000 gallons = \$6.00/1000 gallons.

Seasonal Rates: The rate per unit increases in the summer to encourage the efficient use of water during peak demand periods caused by outdoor water uses. Seasonal rates can take the form of a surcharge added to the normal rate or a separate fee schedule for winter and summer periods.

Example: Surcharge method - \$1.00/1000 gallons is added on top of the regular fee schedule for all water use between May 1 and October 1.

Time of Use Rates: Water rates are higher at times of the day when water use demands are high. This rate requires specialized meters that can monitor water use during specified segments of time, for instance, every 15 minutes.

Example: Water rates are reduced by \$0.75 for customers that agree not to use water for certain purposes or over a set volume of water during certain times of the day or periods of high water demands.

Individualized Goal Rate (Water Budget Rate): A rate with tailored allocations developed for each customer. The rates increase as the allocation is used or exceeded by the customer. The allocation is generally based upon winter or January use.

Example: A family of four used 6,200 gallons in January. Summer use is higher than January use so a factor is applied to determine a summer allocation (1.5 x 6,200 gallons = 9,300 gallons).

0-6,000 gallons = \$2.50/1000 gallons
6,000-9,300 gallons = \$2.75/1000 gallons
9,300-18,600 gallons = \$4.00/1000 gallons. (Allocation is exceeded.)
Above 18,600 gallons = \$6.00/1000 gallons.

Excess Use Rates: Cost per unit increases greatly above an established level in order to trigger a strong price signal that discourages excessive use. This rate is similar to an increasing block rate but with much higher charges for the larger volume blocks.

Example: 0-6,000 gallons = \$2.50/1000 gallons
6,000-12,000 gallons = \$3.15/1000 gallons
12,000-24,000 gallons = \$5.00/1000 gallons (Excessive Use Rate)
Above 24,000 gallons=\$7.50/1000 gallons (Excessive Use Rate)

Multiple-Family Dwellings: Total water use in a multiple-family dwelling, which has only one water meter for the entire dwelling, may exceed that of a single-family dwelling. The statute does not require individual water meters for each residential unit within a multiple-family dwelling; however, the required conservation rate at which the multiple-family dwelling's water use is billed must consider the number of residential units within that multiple-family dwelling.

Example: A four-plex uses a total of 18,000 gallons per month or approximately 4,500 gallons per residential unit. Water use for each residential unit falls within the first block (0-6,000 gallons) of the above Excess Use Rate example. A rate of \$2.50/1000 gallons would apply up to a total use of 24,000 gallons for the multiple-family dwelling. Thereafter, the rate increases according to the rate schedule, always considering each residential unit as an individual user.

Non-conservation rate examples:

Declining (Decreasing) Block Rates: The cost per unit of water (cubic foot or gallon) decreases as the water use increases beyond the basic block. This rate structure provides no incentive to conserve because the cost of water per unit decreases with increased use.

Flat Rates: A set fee allows the use of an indefinite amount of water. This rate structure is used where water is unmetered and provides no incentive to conserve water because cost is unrelated to volume used.

Uniform Rates: The cost per unit is the same regardless of the volume used. This rate structure is considered conservation neutral.

Service Charge (Base Rate) that includes a Minimum Water Volume: The inclusion of a minimum volume of water in the service charge (base rate) discourages conservation especially if the minimum volume exceeds average customer usage.