

West Des Moines Water Rates Remain Stable in 2011

The Board of Trustees of the West Des Moines Water Works has determined that city water rates will not increase in 2011. The board's decision follows a thorough review and approval of the Water Works' annual \$11-million budget that details managing expenses against increases in water treatment and operational costs.

"With leadership from the board, we have carefully managed our expenses, and, as a result, we



will be able to maintain our current rate structure," said Jerry Stevens, general manager of West Des Moines Water

Works. "We believe it is especially important in this economic environment to do everything we can to keep rates affordable and stable."

West Des Moines Water Works continues to make improvements in the water system, including a total of 3,650 feet of water mains being upgraded as part of the Water Works program to replace old mains this past summer. Approximately 22 miles of the older cast iron water mains have been replaced since 1992.

"We're going into 2011 with ample water capacity to meet the needs of our customers without an increase in our rates, while at the same time, maintaining our high level of customer service," Stevens added.

Contact West Des Moines Water Works customer service at 515-222-3460 or waterworks@wdmww.com if you have billing questions or want additional information on payment options.

Hard v. Soft Water: A Few Things You Should Know

The hardness of water generates a number of questions from homeowners particularly as they decide whether to add a softener. While most people tend to think that softer is better, it's worth understanding exactly what these terms mean and how they affect your home and your health.

Hard water typically contains higher levels of certain minerals, namely calcium and magnesium—the higher the concentration, the harder the water. The presence of minerals in water depends on an area's geological rock formations and the length of time water is contact with them.

In Iowa, for example, the primary rock formation is limestone and as water passes over and

through it, significant levels of calcium and magnesium are dissolved, making the water hard. Water treated by West Des Moines Water Works is supplied from 19 shallow wells (about 50 feet deep) and three deep wells (2,500 feet deep) in proximity of the West Des Moines Water Works treatment plant. The raw water from these wells averages a hardness of 370 milligrams per liter.

Making Water Softer

In the treatment process, West Des Moines Water Works dedicates two different and separate steps to softening. First, water travels through solid contact units, where lime and soda ash are added to the water. This raises the pH of water, which in turn assists in softening. The calcium and magnesium settle out with the aid of ferric chloride, and these solids, known as lime residuals, are pumped out to a water recovery facility where any remaining water is extracted and recycled.

Later in the treatment process, water is filtered through huge beds of sand and anthracite where iron, manganese and additional hardness is removed.

Hard Water (continued on page 2)

Water Hardness Scale

Milligrams/Liter	Water Hardness
0 - 17.1	Soft
17.2 - 60	Slightly Hard
61 - 120	Moderately Hard
121 - 180	Hard
181 and higher	Very Hard

DID YOU KNOW



The average American household uses 127,400 gallons of water each year or 350 gallons per day.

Source: www.drinktap.org presented by the American Water Works Association

Test Your H₂O I.Q. With 8 Fun Fact Questions

1. **True or False:** There is less water on the Earth today than there was 10,000 years ago.

(False. There is exactly the same amount of water – 326 cubic miles—on the earth today as there was 10,000 years ago)

2. **True or False:** Water use in the U.S. has dramatically increased since 1985.

(False. Though the population in the U.S. continues to increase, due to changes in technology as well as in State and Federal Laws, along with increased awareness of the need for conservation, water consumption actually decreased after 1980 and has remained relatively stable since 1985. Source: www.nationalatlas.gov/articles/water/a_wateruse.html)

3. When was the first Waterworks established?

- a. 1652 b. 1734 c. 1899

(a. Boston incorporated the country's first waterworks, formed to provide water for firefighting and domestic use. Source: American Water Works Association (AWWA))

4. When was WDM Water Works established?

- a. 1734 b. 1899 c. 1909



(b. WDMWW was originally founded as the Valley Junction Water and Light Company.)

5. Most water is used for what in the United States?

- a. Thermoelectric power b. Irrigation
c. Domestic d. Industrial

(a. Domestic use only accounts for about 1 percent of the country's daily water use. Source: US Geological Survey <http://pubs.usgs.gov/circ/1344/pdf/c1344.pdf>)

6. **True or false:** Only 3 percent of domestic tap water is used for drinking.

(True. The rest goes for outdoor watering, bathroom uses, washing, etc. Source: AWWA)

7. Which feature uses the most water in American households:

- a. Shower b. Toilet
c. Leaks d. Clothes Washers

(b. 26.7% of indoor water usage is flushed away. Source: AWWA)

8. **True or false:** Ground water is generally safer than surface water.

(True. The ground acts as a purification filter. Source: AWWA)

Hard and Soft Water Both Have Their Pros & Cons

Hard Water (continued from page 1)

“While the Environmental Protection Agency offers no set of standards for hardness, the treatment process cuts the average hardness of West Des Moines water by more than half to 150 milligrams per liter,” noted Jerry Stevens, general manager of the West Des Moines Water Works. “This is comparable to other softened drinking water in Central Iowa, though personal preference may prompt people to soften their water further with in-home treatment.”

Depending on the level of hardness, an in-home softener, which uses sodium or salt to remove the minerals, can reduce water hardness to 0. The Water Works neither recommends nor discourages the use of residential water softeners.

Too Soft Can Be Detrimental

Studies conducted by the World Health Organization and Colorado State University among others

point out that hard water has its advantages too. Moreover, too much softening can have adverse health consequences, namely an increase in sodium intake and a decrease in calcium and magnesium intake, both of which are essential nutrients for a healthy body. Excessively soft water can also be corrosive to your water pipes and shorten the life of your water heater.

“When installing and adjusting settings on home treatment devices, such as softeners, it’s important to know the hardness of your water,” noted Stevens. “Many new appliances such as washing machines have recommended settings based on the hardness of the water.”

If you would like to know more about our water treatment process or have questions about any water-related issue, please call the West Des Moines Water Works at 222-3460.

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