SERVICE LINE
WEST DES MOINES WATER WORKS

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Rate Changes Reflect Increased Costs for Purchased Water

The Board of Trustees of West Des Moines Water Works unanimously voted for a 5-percent rate increase for 2019. This rate structure reflects an increase in the utility's expenses, most notably a 7-percent across-the-board increase on water purchased from Des Moines Water Works.

WDMWW purchases about 35 percent of its distributed water from Des Moines Water Works.

"Since 2016, we have seen a compounded 26-percent cost increase for the water we buy from Des Moines Water Works," said **Diana Wilson**, general manager of WDMWW. "We have managed our costs to maintain the most affordable water rates possible. Yet, we understand that we must prepare for capital projects that will ensure access to water sources and the continued integrity of our distribution system."

Residential rates in 2019 will move to $5.11 per thousand gallons of water, an increase of 24 cents from the 2018 rate. For the typical family using 4,000 gallons of water per month, the new rate structure reflects an increase of 96 cents month. Irrigation rates will increase to $6.17 per thousand gallons used.

Even with the 2019 increase, West Des Moines water rates are ***the lowest*** in the metro area. WDMWW treats its own source water from a combination of deep and shallow wells, which is far more cost-effective than purchasing water. The utility's longtime relationship with Des Moines Water Works provides additional capacity during peak usage.

"We continue to look at cooperative solutions with our neighbors that will increase our capacity and best serve the interests of our ratepayers," said **Board Chairman Brian Rickert**. "For example, we have identified productive source water in Dallas County and are studying this project with Waukee and Van Meter as a regional solution for the future water needs of our communities."

WDMWW Out-Performs Industry Goals for Limiting Main Breaks as a Result of Its Aggressive Replacement Program

Main breaks pose the most serious risk to the quality and economic viability of a water utility. In fact, the peril caused by declining water infrastructure has been so worrisome in North America that in 2017, the American Society of Civil Engineers issued a "D" grade for drinking water and waste water systems, and that was an improvement from its 2009 grade of a "D-." Closer to home, the Iowa Section of ASCE gave the tall-corn state a "C+" grade on its water infrastructure.

When water mains fall into disrepair or simply outlive their useful life; they break, and cost utilities and their customers money, service interruptions and a host of other problems. Understanding the potentially crippling effects of a crumbling distribution system, the WDMWW Board of Trustees back in 1993 adopted a plan and funding program for replacing old water mains. Since then, more than 35 miles of mains—most of which were old cast-iron pipes—have been replaced.

"When it comes to planning for, funding and replacing old water mains, West Des Moines stands out among our peers," **General Manager Diana Wilson** said. "That decision nearly 30 years ago has paid big dividends for our customers in terms of fewer breaks and service interruptions as well as a higher quality infrastructure."

Example of a water main break featured in Folkman's report.

In 2018, WDMWW tallied 10 main breaks, down from 13 in 2017 and the lowest reported

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NEWS FROM THE WEST DES MOINES WATER WORKS

DID YOU KNOW ?

About 20 percent of a person's daily fluid intake comes from food. Eating healthy foods high in water content complements, but isn't a substitute for, H_2O. Foods that are 92 percent or more in water content include: watermelon, strawberries, grapefruit, cantaloupe, celery, zucchini, radish, tomato and green cabbage.

Source: www.mayoclinic.org

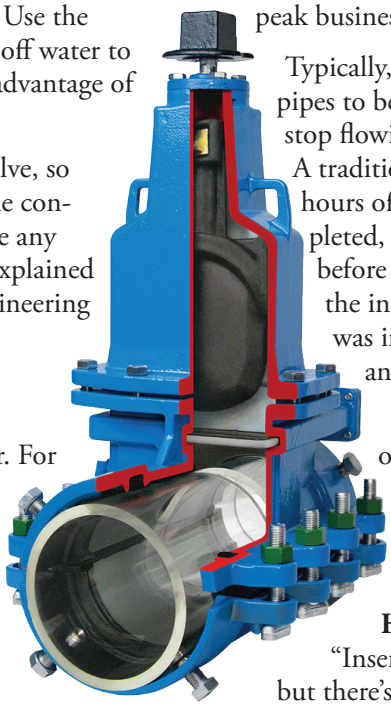
High-Tech Valves Installed Without Service Interruption

When a water valve near E.P. True Parkway failed and needed repair, Water Works was faced with a decision: Use the traditional repair method and shut off water to more than 400 customers; or take advantage of a new technology.

"We chose to use an 'insertion' valve, so while people might have noticed the construction site, they didn't experience any disruption to their water service," explained **William Mabuce,** WDMWW engineering project manager.

Water valves are installed along water mains to allow for pipe isolation during maintenance and repair. For most folks, they are out of sight and out of mind until something dreadful happens. As part of its replacement initiative, WDMWW actively replaces old mains and valves before they cause major breaks and water outages. Insertion valves provide a valuable alternative to the traditional replacement process.

"The affected area included the Police Department, several commercial businesses, apartment complexes and hundreds of homes," Mabuce added. "With a typical valve, those users would have been without water for several hours during peak business time."



Typically, valve replacements require the pipes to be depressurized and water would stop flowing, creating service interruption. A traditional replacement requires several hours of construction, and once completed, the pipe needs to be chlorinated before returning to service. In contrast, the insertion valve (shown to the left) was installed in approximately an hour and the water never stopped flowing.

"If we had used a normal valve, our customers probably would have been asked to boil any water used for drinking or cooking for a prescribed period of time after the pipe was repressurized," said **Mark Hanasz**, distribution manager. "Insertion valves cost more to install, but there's clear benefits to our customers."

Water Works used the insertion technology this fall for the installation of four valves on three major water mains including E.P. True Parkway, 50th Street and Mills Civic Parkway and near Stillwell Junior High School.

WDMWW Maintenance Program Minimizes Main Breaks

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in the past decade. West Des Moines' experience is also considerably below the goal established by the American Water Works Association (AWWA) Partnership for Safe Water Distribution System Optimization Program of 15 breaks per 100 miles of pipe. With 283 miles of water mains in place, WDMWW's goal for breakage is fewer than 42.5.

"The most we have had in the past 10 years is 32, and our average is 19. Only 10 in 2018 seems worthy of an 'A' grade," explained Josh Heggen, business manager. "Our record reflects our practice of staying ahead of problem mains and addressing breaks as soon as possible."

WDMWW's experience looks even better in the context of Utah State University Professor Steven Folkman's report, "Water Main Break Rates in the USA and Canada: A Comprehensive Study," which found that break rates for water mains increased by 27 percent and cast-iron main breaks soared 40 percent over the past six years. Moreover, the study found that 16 percent of all water pipes are beyond their useful lives and utilities lack the funds to replace them.

While 77 percent of utilities have a plan for replacing water mains, only 58 percent regularly replace water mains as WDMWW does.

"Interestingly, we often find out about main breaks from our customers who observe unusual activity and contact us," Heggen said.

Tell-tale Signs of a Main Break

- Sidewalks or streets that are suddenly wet or inundated with running water.
- Water bubbling from the ground.
- Sudden and prolonged loss of water pressure.

If you see any of these signs, please contact WDMWW Customer Service at 515-222-3460.