

News & Updates from  
Des Moines Water Works

**JULY 2018**

# H2O LINE

**THINK DOWNSTREAM**

## New Aquifer Storage and Recovery Well Now Serving Regional Customers

**D**es Moines Water Works has utilized aquifer storage and recovery (ASR) wells as sources of water since late 1990s. These wells are installed deep into the Cambrian-Ordovician Aquifer, also referred to as the Jordan Aquifer, and are used to store drinking water that is needed when water demand is high. When water demand is low, mainly during winter months, drinking water is injected into the wells which displaces the native Jordan Aquifer water. Up to 450 million gallons can be stored in an ASR well during the winter months when Des Moines Water Works has excess water treatment capacity. In summer months, during higher water demand, the drinking water is pumped out of the ASR well and into the water distribution system for use by customers.

West Des Moines Water Works, a wholesale customer of Des Moines Water Works, needed to purchase additional water from Des Moines Water Work to meet the needs of Microsoft Corporation. To meet the water demand requirements of Microsoft, West Des Moines Water Works, City of West Des Moines and Des Moines Water Works entered into a Chapter 28E Agreement to construct a new ASR Well facility. The Army Post Road ASR Well facility will be placed in service this summer and will provide an additional 3 million gallons of water per day to help serve Microsoft and other Des Moines Water Works' customers.

The total cost of this project is \$6.1 million. The City of West Des Moines and the West Des Moines Water Works paid \$4.655 million of the cost while the Des Moines Water Works paid \$1.4 million dollars. The Des Moines Water Works also provided the 5.28 acre site for the Army Post Road ASR Well facility along with the engineering design and construction management for the project.

## Annual Water Quality Report

**D**es Moines Water Works is committed to delivering safe, affordable and abundant drinking water to our customers. Safe drinking water is treated water that has been tested for harmful and potentially harmful substances and has met or exceeded drinking water quality standards set by the United States Environmental Protection Agency (EPA) and the State of Iowa. The EPA sets drinking water standards to define the limits of contaminants considered safe for drinking water. These levels are based on studies of the health effects associated with each contaminant and include a sufficient safety margin to ensure that water meeting these standards is safe for nearly everyone to drink.

The Consumer Confidence Report is an annual water quality report that helps customers understand the quality and safety of tap water provided by Des Moines Water Works.

The current Consumer Confidence Report is now available at: [www.dmww.com/upl/documents/library2018ccr.pdf](http://www.dmww.com/upl/documents/library2018ccr.pdf).

If you would like a printed copy of the Consumer Confidence Report mailed to you or have any questions about your drinking water, please contact a Customer Service Representative at (515) 283-8700.



# New Study: Iowa is a Substantial Contributor of Nitrate to Mississippi and Missouri Rivers

**A**s consumers, we think of “nutrients” as something good and even necessary to support maximum crop yields. But pollution occurs when the amount of nutrients present or applied to land are more than can be used by plants. Excess nutrients (nitrogen and phosphorus) that are discharged into our water are wasted resources and pose significant, costly risks to human health and the environment, both here in Iowa and the Gulf of Mexico.

Under the Safe Drinking Water Act, Des Moines Water Works is required to meet the United States Environmental Protection Agency’s standards for the maximum contaminate level (MCL) in its finished drinking water. When nitrate concentrations in Des Moines Water Works’ source waters (Raccoon and Des Moines Rivers) are above 10 mg/L, the utility must deploy costly nitrate removal solutions in order to meet the Safe Drinking Water Standard for its finished drinking water.

The voluntary Iowa Nutrient Reduction Strategy was introduced in 2013, with a stated goal to reduce the state’s contribution of nutrients in rivers, streams and lakes by 45%. As Iowa political leadership and agricultural commodity groups celebrate “successes” (i.e. counting the number of educational events) on the five year anniversary of the Nutrient Reduction Strategy, a new University of Iowa study (*Iowa stream nitrate and the Gulf of Mexico*, Jones, et al., 2018) found Iowa’s nitrate contribution to the Mississippi and Missouri Rivers is disproportionate compared to surrounding states, and Iowa’s landscape and land management practices are driving this phenomenon.

Not only does Iowa have a much larger percentage of its land in crop production than other states in the Mississippi River Basin, the study found that the supply of nitrate escaping farm fields is higher in Iowa. The authors concluded landscape changes that have been driving nitrate loading include crop and field management and specifically, drainage tile in Iowa:

*Although accurate records are sparse to non-existent, much of Iowa’s farmland requires artificial drainage to optimize conditions for corn and soybean production. There is anecdotal evidence that improvements in Iowa’s drainage infrastructure have been extensive in recent years. Since this is the primary nitrate delivery mechanism for Iowa streams, it would seem reasonable that this could be affecting nitrate loads in Iowa more than other states where constructed drainage is less common.*

The study’s authors suggest since Iowa contributes such a large share of the nitrate in these Midwest river basins, financial resources should be concentrated here to reduce the overall problem:

*Land managers, policy makers and conservationists should view this as an opportunity to implement nitrate reducing practices in Iowa where they are likely to produce measurable improvements in Missouri and Mississippi River nitrate loads.*

Des Moines Water Works is committed to protecting the health of 500,000 central Iowans customers by advocating for agriculture accountability for environmental protection, just like any other business who discharges into Iowa’s waterways. In addition, in order to see the Nutrient Reduction Strategy’s intended results, many things need to happen, including effective monitoring, adequate and sustained funding, accountability for public funds, and a non-voluntary framework.

## Updated Security for Credit Card Payments

**A**s of June 1, 2018, industry online security standards have changed because previous versions have been shown to be vulnerable to attack. Companies that accept payments by credit card, including Des Moines Water Works, are no longer supporting the security protocol known as TLS 1.0, and are instead supporting versions TLS 1.1 and TLS 1.2. In order to initiate online transactions from older browsers, it may be necessary to update your PC to include the latest version of your browser. The minimum accepted versions after June 1, 2018 are:

- Internet Explorer: 11 (Current 11)
- Google Chrome: 44 (Current 60)
- Firefox: 38.1 (Current 55)
- Edge: 12 (Current 15)
- Opera: 30 (Current 47)
- Safari: 9 (Current 11)
- Safari Mobil: 8 (Current 11)
- Android OS Browser 5.1 (Current 8)

We strongly recommend users upgrade their internet browser and anti-virus software to the latest version available to maintain the highest level of security. Customers will be unable to initiate payments online at [www.dmww.com](http://www.dmww.com) until their browser has been updated to the minimum version listed above.

This change is mandated by the PCI (Payment Card Industry) Security Council and affects all merchants and service providers that transmit credit card data. Please update your operating system and browsers to ensure compliance with these new safety protocols.