



Poor Water Infrastructure Threatens Iowa Economy

Clean Water is Good for Business

America is fortunate to have thousands of municipal water systems to provide reliable, plentiful clean drinking water and sanitary waste disposal. But most of this water infrastructure is deteriorating badly. Ranging from several decades to over a century old, our water infrastructure suffers from neglect and age and urgently needs repair and replacement. In 2017, The American Society of Civil Engineers (ASCE) issued an infrastructure report card that gave the U.S. drinking water infrastructure a “D” grade for overall quality. Nationwide, an estimated 240,000 water main breaks occur every year.

To maintain U.S. drinking water service at current levels requires replacing pipes that are already past, or at, their useful lives, and expanding systems to support growing populations. The American Water Works Association says completing these updates will require an estimated \$1 trillion in infrastructure investments over the next 25 years.

Both the Democrats and Republicans have stated that America’s water systems need repair. Groups ranging from the U.S. Chamber of Commerce to the AFL-CIO have called for Congress to address this issue. Unfortunately, Congress has yet to pass any substantial funding bill to address America’s ailing water infrastructure.

Business survival as well as public health depends on saving America’s water infrastructure now.

Water infrastructure is as vital to business as it is to human health. American businesses rely on municipal water systems



IN A SNAPSHOT

- To maintain U.S. drinking water service at current levels requires updates costing an estimated \$1 trillion in infrastructure repair and replacement over the next 25 years.
- In Iowa alone, \$9.3 billion will need to be invested over the next 20 years to bring our water infrastructure back into proper working condition
- Iowa’s farming and agriculture-related businesses produce approximately \$112.2 billion worth of goods and services a year, and employ about one in every five Iowans. Both agriculture and food processing rely heavily on a constant, reliable supply of clean water.
- Conserving and restoring natural infrastructure mitigates water quality problems at a low cost. Some U.S. cities have saved up to 60% of costs for revitalizing their water infrastructure by restoring natural infrastructure.
- Polk County, Iowa, is leading an important trend: It recently passed an \$18 million bond measure investing in natural infrastructure.

for food production, manufacturing, energy production, and much more. Even companies that do not directly rely on clean water infrastructure to create their products need it to fulfill their day-to-day functions. Faulty infrastructure inflicts disruptions on business operations, including utility service interruptions, polluted drinking water, and higher water bills.

Investing in water infrastructure cannot be delayed any longer. The American Society of Civil Engineers says that the fallout from America’s water infrastructure’s degradation will result in:

- \$147 billion in increased costs to businesses due to higher water rates,
- 700,000 jobs lost due to the resulting squeeze on company budgets,
- \$416 billion in lost GDP due to increased costs and the loss of worker productivity.

ASCE says these losses will occur by the year 2020. This deterioration — and resulting costs — will only get worse the longer we delay. Failing to update infrastructure will result in failed water delivery to Iowa residents, with resultant danger to public health, attendant legal exposure costs, and business loss.



Iowa Agriculture, Food Processing and Other Business at Risk

Iowa's infrastructure sorely needs improvement. Reporting on the condition of America's infrastructure, the American Society of Civil Engineers (ASCE) states that Iowa's drinking water infrastructure earns a C+ and wastewater infrastructure earns a C- grade. ASCE reports that, over the next 20 years, \$9.3 billion is needed to bring Iowa's water infrastructure back into proper working condition. The dangers — and costs — will only get worse the longer we delay.

Deteriorating water infrastructure puts many Iowa businesses at risk, including those in two of its biggest industries, food processing and agriculture. Iowa's agriculture-related businesses produce approximately \$112.2 billion worth of goods and services a year, and about one in every five Iowans works in agriculture or a related sector. Both agriculture and food processing rely heavily on a constant, reliable supply of clean water, and the current state of Iowa's water infrastructure puts their survival at risk. If the water system is allowed to crumble, Iowa's economy will go with it.

Private businesses and government leaders can both take common-sense action to restore America's safe, reliable water infrastructure. We can:

- **Increase human capital** in the water infrastructure industry. Upgrading America's water infrastructure will require increasing investment human capital. Funding is needed to train outreach staff, technical science providers, planners, watershed coordinators, designers and construction teams. A successful watershed project requires the same blueprints, structuring, supervision and trained labor of any major construction project, and requires the same investment in these resources. An investment of \$188.4 billion in water infrastructure over the next years will generate \$256.6 billion in economic activity and create nearly 2 million jobs nationwide. This could prove enormously beneficial to Iowa: Currently, 2,150 people in the state are already employed by utility and wastewater treatment facilities, and investing in human capital to provide an efficient water infrastructure will increase these numbers.
- **Expand availability and increase transparency** and accountability for the Clean Water State Revolving Fund. The Clean Water State Revolving Fund, a state-federal partnership administered by the EPA, provides low-interest loans for water infrastructure projects. The program can fund infrastructure efficiency, extensions to underserved communities, construction of treatment plants, or lead

removal. Increasing the EPA's annual grant size would allow more investment in water infrastructure; especially vital to Iowa as businesses use surface-water sources including the Mississippi River every day. The Iowa Finance Authority administers the state revolving fund and must broaden eligibility and improve transparency in financing these essential loans.

- **Restore Iowa's natural water infrastructure.** Iowa's water infrastructure includes engineered structures — dams, reservoirs, canals, drainage ditches, wastewater treatment plants and irrigation systems — and natural structures like mangroves and floodplains. Iowa must invest in conserving and restoring natural infrastructure because it mitigates water quality problems at a low cost. Some U.S. cities have saved up to 60% of costs for revitalizing their water infrastructure by restoring natural infrastructure. Conservation of this infrastructure also increases the value of ecosystem services, in turn helping businesses in the recreation, tourism, and manufacturing industries.

Polk County, Iowa, is leading an important trend: It recently passed an \$18 million bond measure investing in natural infrastructure. Other government units in the state should do so as soon as possible.

- **Invest in water reuse technologies** using the Clean Water State Revolving Fund. For decades, recycled greywater (water that's been treated after use in sinks, showers and washing clothes) has been used to irrigate crops. With today's technologies, it can be made reusable for bathing, cleaning, cooking and drinking. States suffering drought, including Texas and California, are already successfully cleaning and reusing greywater in beer-making, and plans are to eventually render this water, still considered non-potable, appropriate for tap water.

Meanwhile, recycled graywater is extremely cost-effective, and is used to cool water for power plants and to create artificial lakes for agriculture as well as for crop irrigation. Further advancements in water reuse technologies have the potential to decrease the amount of energy needed in the water treatment process, which would lower water costs for businesses and consumers. Water reuse technologies development has also increased the amount of water available for businesses. In California, water recycling generates 21 million gallons of water per day that can be used for industrial processes. Iowa can make good use of these technologies in our own production operations. ★



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The American Sustainable Business Council is a growing coalition of business organizations and companies committed to advancing market solutions and policies to support a sustainable economy. ASBC and its organizational members represent more than 250,000 businesses and more than 325,000 business leaders across the U.S.

To take action on clean water issues, please visit asbcouncil.org