



CHOOSING THE RIGHT SOLUTION FOR SOUTH DAKOTA'S WATER INFRASTRUCTURE CHALLENGE

CORE & MAIN CASE STUDY: Core & Main offers a wide range of solutions for clean water infrastructure, working with communities across the nation to deliver the best products for their project, balancing local specifications and preferences, installation requirements, costs and lead times. On this South Dakota project, fusible PVC was chosen for its durability, leak-free installation, and ability to be directionally drilled under highways and bridges.

Building for the Future

In South Dakota's rural landscape, reliable water infrastructure is the backbone of everything. Minnehaha Community Water Corporation and Big Sioux Community Water have been serving their communities for years, but rapid growth—averaging 5 to 8% annually—meant they needed to think bigger.

"We're in a pretty highly populated area where we have a lot of people moving into the area" said Ryan A., Operations Supervisor at Minnehaha Community Water Corporation. "We've got a 40-year growth potential plan, and at this point we needed a third plant along with Big Sioux Community Water to supply our 40-year required need."

The solution was ambitious: a shared water treatment plant called "Shared Resources" located west of Trent that would serve both systems, encompassing 34,000 to 36,000 people across five counties. The complete project includes an 8.0 MGD (Million Gallons per Day) groundwater treatment plant, well field, ground and elevated storage reservoirs, and booster pump station. But getting water from the new plant to existing distribution systems would require 82.5 miles of pipeline, including a critical section beneath Interstate 29.

The Right Technology for the Challenge

The project demanded a pipeline solution that could handle long directional bores and provide decades of leak-free service. Core & Main worked with engineers to evaluate options, ultimately recommending fusible PVC for the most challenging sections.



"We have a great relationship with Core & Main. I can't think of a better supplier that we would rather work with."

RYAN A.,
Operations Supervisor,
Minnehaha Community Water Corporation

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"We were brought in early and presented fusible PVC as an option," explained Clint H., Core & Main's outside sales representative. "I suggested that given the diameter of the pipe, I would recommend fusible just because there's not going to be any joints and the longevity is what they needed."

For Minnehaha Community Water, this wasn't a new technology. "We've been utilizing fused PVC for several years. The primary reason we like to use it is that it's a really good product," Ryan explained. "It's a product that we know that we can put in the ground and we're not going to have to worry about for an extended period of time. We're a cooperative and my primary job is to build something that is satisfactory for a long time for the patrons of the co-op."

The technical advantages were clear. Fusible PVC pipe is heat-fused into continuous sections—for this project, crews fused individual 45-foot lengths into a single 360-foot section with no joints except at the very ends. "The interstate bore is a 350-to-380-foot bore," Ryan noted. "We really don't want to have any issues under the roadways."

Partnership in Action

The project came together through a competitive bidding process, but success depended on relationships built over many years. Clint has worked with both water systems for more than a decade, and Winter Contracting was selected as the installation contractor—creating a three-way partnership with proven results.



"Clint is an amazing person to work with. He takes care of us when we need him, he always answers the phone and has been great for us," said Nick W. of Winter Contracting. The collaboration extended to onsite support, with Core & Main coordinating fusion technicians to work alongside Winter's crews.

"Fusing is a process, but it's pretty amazing. You got to make sure you got the pressures and the heat and the timing and everything exact to make it work," Nick explained. "Once that process is done, it's going to last a lifetime."



Of the 43,000 feet of 24-inch pipe in this first phase, approximately 1,800 feet utilized fusible PVC specifically for directional bores and highway crossings, while traditional gasketed joint pipe was used for open-cut sections. When complete, the full project will encompass 82.5 miles of pipeline.



Lasting Impact

This project represents more than infrastructure—it's about enabling communities to thrive. The pipeline will support current residents and future growth across five counties, allowing for agricultural expansion and new housing development.

"Rural Water's primary focus has always been to supply a clean, dependable water source for the people of the community," Ryan explained. "Our other primary focus is to ensure that that water source is available for the foreseeable future, which is the primary reason for this project."



"Through the whole process, Clint and the team at Core & Main and Nick with Winter has been just a fantastic group of people to work with. If I have to pick my contractors and suppliers, they are my first choice."

RYAN A.,
Operations Supervisor,
Minnehaha Community Water Corporation



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