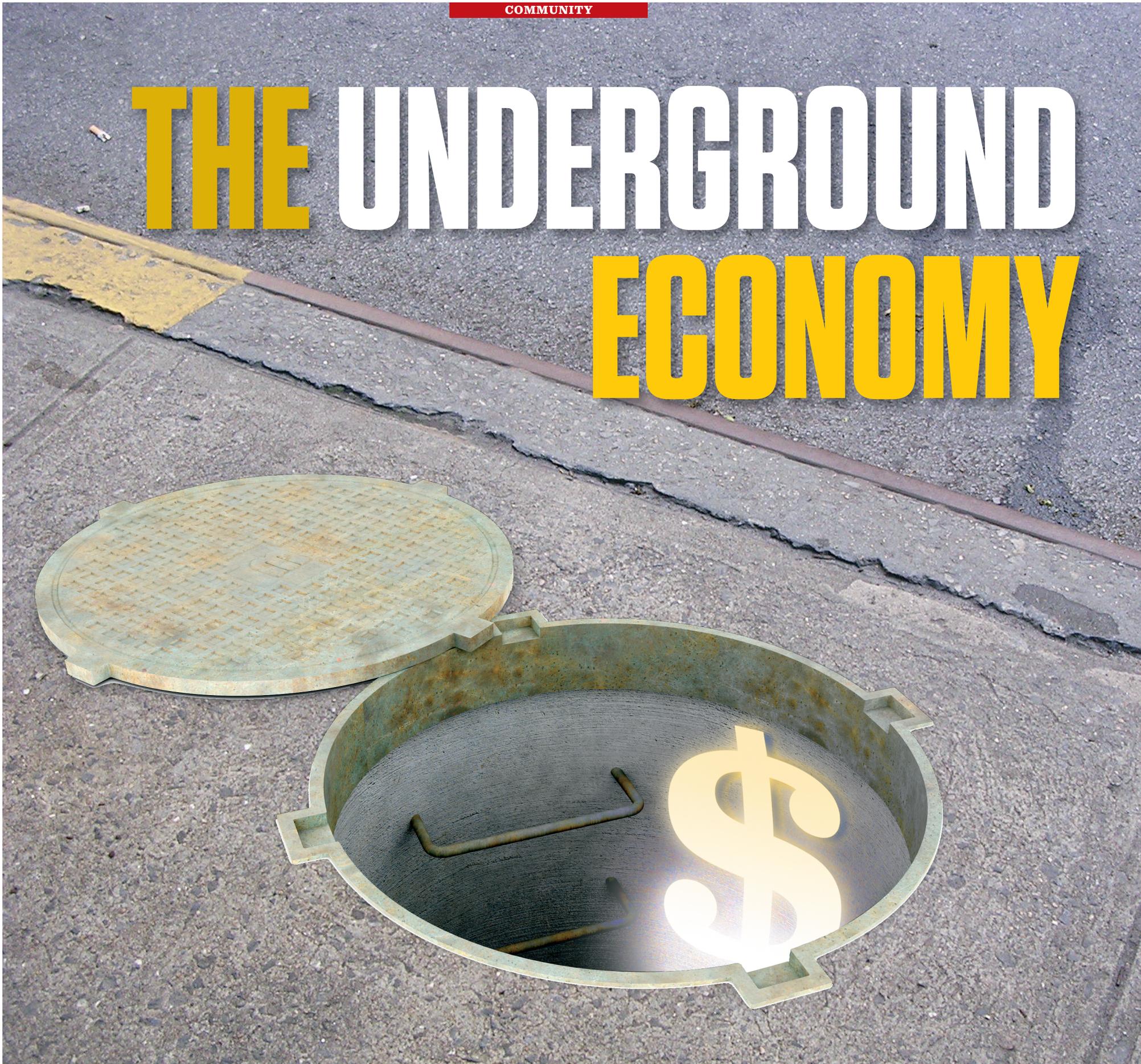


# THE UNDERGROUND ECONOMY





## With SRF loans, towns large and small modernize infrastructure

People rarely talk about drinking water and wastewater treatment systems; faucets run and toilets flush with absent-minded consistency. A highway improvement project, a new interchange—infrastructure like this gets the occasional headline. But the other stuff? Drinking water and wastewater treatment systems are buried underground and hidden on the edge of town.

They are a feat of engineering and technology, a cornerstone of modern civilization, but in reality they're invisible.

Until something breaks. Or wears out. Or when a community experiences rapid growth.

When one of the above happens, people notice something right away: fixing a drinking water or wastewater treatment system is expensive. And when one or both systems need to be modernized or expanded, there's no getting around it. Homes, businesses, schools—without this kind of infrastructure, everything comes to a halt.

The Montana Legislature established two State Revolving Fund (SRF) Loan Programs—one for wastewater and the other for drinking water projects. Both programs provide at- or below-market interest rate loans to eligible Montana communities. They are funded with capitalization grants from the U.S. Environmental Protection Agency and are matched by 20 percent with state-issued general obligation bonds. When communities borrow from the fund, their payments “revolve” to finance loans for future projects.

The program is administered jointly by DNRC and the Montana Department of Environmental Quality (DEQ). The DEQ oversees the technical aspects of each water or sewer project. DNRC issues the general obligation bonds and administers the loans.

The SRF program delivers economic benefits in several ways. Communities that face expensive upgrades get the cheapest possible financing, mitigating impacts to ratepayers. Contracts for improvement projects generate hundreds of jobs for Montana-based engineering and construction firms every year. Substandard wastewater treatment systems can negatively impact valuable natural resources, including soils, groundwater and surface water; protecting these resources maintains their productivity for other services, and avoids costly remediation efforts if they're impaired. Finally, a city or town with sufficient water and sewer capacity is equipped to attract new growth and development, which means new jobs and economic opportunities on Main Street.

Tom Jentz and his colleagues saw it coming: Kalispell was going to grow—and grow—and grow. Jentz, Planning and Building Director for the City of Kalispell, was hard at work beginning in the late 1990s along with the Parks and Public Works departments, developing plans for city parks, stormwater systems, and water and sewer infrastructure.

“We weren't reacting. We were anticipating,” he says.

Between 2000 and 2009, Kalispell grew at a rate of 42.5 percent, according to Census figures

cited by Flathead County. To keep pace, the city invested heavily in its water and sewer infrastructure, obtaining five SRF loans worth \$19.4 million. The loans financed four new wells to supply drinking water and a 2-million-gallon water storage tank, along with upgrades to the sewage treatment plant, which boosted its daily processing capacity from 3 million gallons to 5.2 million gallons.

“We were actually building capacity to accommodate future growth,” says Jentz. “We were able to absorb the boom.”

With a short pause for the Great Recession, Kalispell’s growth has continued. The city added 120 new homes in 2013. Cabela’s opened a store in November; by next year there will be eight more businesses in the same area, 150,000 square feet of retail space and more new jobs. The investment in water and sewer infrastructure pays dividends every time a developer walks into Jentz’s office.

“Economic development is very time-sensitive.

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“We were actually building capacity to accommodate future growth. We were able to absorb the boom.” —Tom Jentz



**Above:** Aerial view of the Kalispell Wastewater Treatment Plant

If we can’t accommodate a developer, he’ll go someplace else,” says Jentz. “The last thing you want to do is bring a developer into your office, and he’s talking about a new commercial development that’ll generate 150 jobs, or a new subdivision, and you have to tell him, ‘we just don’t have the capacity to serve you.’ They want it now, and if you don’t have it, they won’t come again.”

Having water and sewer service in place “adds tremendous predictability. We have hard facts. We can tell a new business what lines they can hook up to, what the costs will be, what the user rates are. Businesses don’t want to get involved in the logistics of new infrastructure.”

In 1992, Kalispell’s wastewater treatment system ranked among the most technologically-advanced in the U.S., and went on to win EPA and Flathead Basin awards for exceeding the most stringent discharge limits. The upgrades financed in 2007 maintained those high standards. At the time of discharge, Kalispell’s treated wastewater is just short of drinking water quality.

In 2013, the city needed to fix a problem with the treatment system and came back to DNRC for financing. In addition to authorizing a \$1.3 million SRF loan for the project, DNRC was able to refinance the city’s five previous loans at a lower interest rate, providing \$2.3 million in debt forgiveness.

Jentz says the city’s stringent water-treatment standards reflect community values.

“Clean water is paramount for us. It’s a community image, a marketing image, but also an environmental reality. We discharge into watersheds with very high water quality. We have a responsibility there.”

## SRF LOANS AUTHORIZED IN FY 2013:

	<b>\$27.1M</b>	Drinking Water Projects
	<b>\$34.1M</b>	Wastewater Projects

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In Fairfield, (population 718), 2004 was a year to remember. Mayor Lillian Alfson still has the photographs: A row of portable toilets lined up outside Fairfield High School, at strategic locations along Main Street, gas stations and other businesses.

Alfson laughs. “There was practically one on every street corner. They got us through until the water table came back up again.”

Portable toilets don’t belong in Fairfield, well-kept and prosperous, the malting barley capital of Montana. Anheuser-Busch operates a 225,000-bushel storage and transfer facility here; its tall metal silos are the town’s skyline, with the Rocky Mountain Front beyond. The Sun River Electric Cooperative, Teton Banks, and Three Rivers Telephone Cooperative are all based here. Fairfield has what all small towns want—a stable employment base.

What Fairfield didn’t have was a dependable water system.

Built in the 1940s and expanded several times, it consisted of eight wells, five well houses with chlorination equipment, and two elevated storage tanks, along with a network of service lines and sewer mains. The key problem involved the wells.

“Four of the eight wells are very shallow,” says Alfson. “Fairfield is surrounded by the Greenfield Irrigation District, and when it’s irrigating season and water is flowing through the canals, the wells produce just fine. But when ir-



Anheuser-Busch grain elevators and transfer facility.

rigation season ends and there's no recharge to the aquifer, the shallower wells don't provide enough water."

A related problem involved lack of monitoring: the town had no way of measuring water volume in any of its wells.

"It was very difficult to coordinate the supply from the wells with demand from the town," says Alfson. "Part of that was not knowing what the supply or demand was, because we didn't have any meters."

As for the sewer system, the problem was simpler. "In a word, old," says Alfson. "A lot of sections of line were plugged with tree roots, and water infiltration was a major issue."

The sewer system upgrade commenced in 2008. NCI Engineering of Great Falls developed the preliminary engineering report and designed the new collection system. Two SRF loans were part of the financing package, one for \$333,900, another for \$307,100. The town applied for and received forgiveness on the former loan. Construction began in 2009 and included new sewer

mains, service lines, and manholes.

The drinking water system improvements, set to begin in 2014, will include up-to-date monitoring technology.

"We're putting in a control system that can measure water levels in each well, along with water levels in the storage tanks," says Alfson. "The system will also determine which well to draw from at any given time. Our utilities manager will be able to control the entire city system from a laptop computer."

Another key upgrade includes water meters, which will give the town something it hasn't ever had: an accurate breakdown of water consumption.

"We've always operated on a flat rate," says Alfson. "Now we can collect data for a year and use it to determine a new rate structure."

NCI Engineering continues

"I don't think you'll find anybody more appreciative of the SRF program than the town of Fairfield"

—Mayor Lillian Alfson

to work with the town on the water system improvements. The town was able to hire Montana construction firms for all phases of both projects.

Financing for the water system improvements includes two SRF loans, one for \$248,637 and another for \$322,000. When the project is complete, the town will receive forgiveness on the former loan.

"The cost of doing any substantial infrastructure work is way beyond what a small town can afford," says Alfson. "Without the loan forgiveness, without the grant funds, we would have been looking at a monthly rate increase of 21 dollars. Instead it's going to be seven dollars. I don't think you'll find anybody more appreciative of the SRF program than the town of Fairfield." 



SRF PROJECT SIGN AT FAIRFIELD.