



# Addressing Aging Water and Wastewater Infrastructure

GALLATIN GATEWAY, MONTANA

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**T**hroughout America, small rural communities have historically relied on a mix of options when it came to providing water and treating wastewater. Onsite septic systems, individual wells, central sewer or water were all mixed and matched based on prevailing technology, cost and what made the most sense at the time. An example of this is Gallatin Gateway, a small unincorporated community located in Gallatin County, Montana. The town was originally laid out in 1883 with 135 small lots, many of which were only 0.16 acres in size.

Historically, these lots were developed with individual wells and onsite septic systems. However, over the years, a combination of factors including; porous soils, gravel, high ground water, poorly constructed wells and septic systems and a lack of horizontal separation led to contaminated wells within the community. It became apparent that what had “worked” for the last 130 years would not serve the community going forward.

Additionally, beginning in the early 1990’s Gallatin County experienced what would be a period of rapid growth and

development that has lasted through present day. Gallatin Gateway, situated on Montana State Highway 191, began to regain its popularity as an entrance corridor to the recreational and residential opportunities of the Gallatin Canyon, the Big Sky Area as well as to Yellowstone National Park. As a result, the Gateway area was presented with many opportunities for growth and development. However due to the state of its infrastructure, the area was unable realize its potential. The community recognized this and in 2007 formed a study group to develop a plan addressing the area’s future

needs as well as its immediate concerns.

The plan was formally conceived as a mission statement establishing the future goals of the community. A reoccurring theme throughout the plan linked the community's continued health, growth and vibrancy directly to the state of its water and wastewater infrastructure. The community understood that without addressing the issues facing their infrastructure that it would remain stagnant even in the climate of rapid growth that was occurring around them. In 2009, the community took another step forward and created the Gallatin Gateway County Water and Sewer District. The District allowed the unincorporated community to act as a formal entity capable of making decisions and entering into legal agreements and contracts for properties located within its boundaries. A set of By-Laws adopted by the District outlined its day to day operation, the scope of its authority and its legal requirements.

Following its formation, the District began to take the steps necessary to initiate a civil infrastructure project. It investigated available options for planning grants and the possibility of matching funds, including both grants and loans. Concurrently, the District Board interviewed several civil engineering firms who specialized in community wastewater projects. Once funding was

secured and an engineering firm was chosen, the process of drafting a preliminary engineering report (PER) began. As a part of the initial planning phase, aided by the Midwest Assistance Program, the District conducted a survey to gather low to moderate income data for its residents. The data, gathered anonymously, was used to qualify the District for project funding through both CDBG and USDA Rural Development (RD). The completed PER outlined three wastewater treatment (handling) options; a lagoon system with irrigation discharge, level two treatment with a subsurface drain field and wastewater transport to a nearby treatment facility.

The District's preference was to go with level 2 treatment discharging to a subsurface drain field. This option required that the District acquire land to accommodate the planned drain field, a lift station and treatment units. With financial backing from RD, MT TSEP, MT DNRC and CDBG, the District and their engineers set about finalizing the project. The planning and land acquisition process stretched out over the years with many twists and turns. In the end, factors including the availability of suitable land at a reasonable cost, legal and design issues and the overall cost of the planned system began to erode the idea that Gateway would operate its own wastewater treatment system. The District Board found itself reconsidering the direction of the project and, as an existing

wastewater treatment plant was available at a reasonable distance from the community (four miles), it was determined that transporting wastewater to the treatment facility would be the most economically feasible option. In 2018, the community connected to the Four Corners Water and Sewer District treatment system. The Gateway system is now composed of new collection lines, a lift station and a force main. Effluent is transported approximately 4 miles.

The question is, "Did the infrastructure upgrade meet the intended goals"? From a public health perspective, the upgrade was more than worth it. The community's individual wells were now safe from contamination. However, walking down Gateway's main street it appeared that not a lot had changed, given the absence of new development. In order to view the effects of the new infrastructure one had to look outside of the community to the areas surrounding it. Here, new residential and commercial development was increasing in a manner in line with the rest of the county, taking advantage of the new infrastructure. So, the answer to the question is that while the upgrade did not transform the face of the original community, it stabilized it and allowed the areas outside of the community (in the District) to take advantage of the climate of county-wide growth. So ultimately it follows, that the growth within the District will support the future of the community.