

Located approximately 32 miles south of Boston, the town of Raynham, Mass., (population 13,383) is a suburban community that also boasts a strong commercial base.

As such, Raynham deals with the everyday difficulties typical of many similar-sized communities in the U.S.—including sewer system problems.

The sewer department of Raynham has 4,240 customers and encompasses 75 miles of sewer line. Raynham presently has 27 lift stations in its municipal sewage system. The town is preparing to add additional lift stations to help serve the growing community.

for a host of sewage system problems, including sewer backups and pump breakdowns and overflows. Focusing specifically on the role of nonwoven wipes in this dirty situation, the circumstances are that the wipes do not degrade and break down quickly or sufficiently enough from the time they enter the sewage system to the time they encounter the sewage pump. The wet wipes bunch together with other random solids and semisolids, creating clumps that can clog the sewer system and disrupt pump operation.

In the ensuing years since the rise in the popularity of nonwoven wipes, the town of Raynham began experiencing sewage pump clogging problems. The clogging issues were so disruptive and frequent that two to four of the 27 total pump stations were affected every week. Raynham's sewer department was spending a substantial amount of money on the clogging problem. Every individual problem required two to three man-hours in travel time and maintenance to remedy. The alarms signaling clogging issues sounded day and night, each alarm requiring immediate attention by sewer department personnel, regardless of the hour. As a result, the town of Raynham was spending more money in overtime than what it had budgeted.

To find a solution to the continuous clogging problems, Raynham's sewer department called on the expertise of longtime distributor Hayes Pump and its representative, Gerry Nye, to troubleshoot the issues. Hayes Pump has worked with the town of Raynham since 1989, when the town's first Gorman-Rupp lift station was installed, and Nye was well informed as to the town's sewer system configuration and lift stations. Hayes Pump worked closely with sewer department officials to determine the town's sewage pumping needs. Through the years, with the assistance of Hayes Pump, the sewer department expanded the town's sewer system to 27 lift stations, 24 of which were fitted with Gorman-Rupp equipment.

Creating Technology

After hearing from Raynham sewer department officials, Nye consulted with his Gorman-Rupp district manager, who began working with the research and technology staff at Gorman-Rupp to devise a solution to the town's problem. The goal was to respond to the customer's problem with an immediate, economical solution that could be implemented quickly in the field.

Within days, the company offered a solution to the clogging problem in Raynham—a self-cleaning wear plate.

The design of the self-cleaning wear plate allows for peak pumping efficiency while shedding the solids of new sewage that lead to clogging. The self-cleaning wear plate also is easily installed in the field.

In the case of the town of Raynham, the new self-cleaning wear plates were installed in several lift station pumps. The sewer department indicated that clogging problems diminished from weekly incidences to only once every six or eight months. Personnel overtime expenses dropped dramatically, easing the strain on the sewage department's budget.

Having solved the sewer clogging issues with the assistance of Hayes Pump and Gorman-Rupp, the town of Raynham continues preparations for additional lift stations to accommodate the community's requirements and chose Gorman-Rupp ReliaSource lift stations for the new installations. **w&wd**

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New Sewage, New Technology



By Linda Baney

Self-cleaning wear plates help diminish sewer clogging issues in Raynham, Mass.

Rise of New Sewage

The past two decades have seen the dawn and daily use of nonwoven wipes in ever-increasing numbers. The nonwoven wipes industry is a multibillion-dollar business globally, and a variety of these wipes are marketed in the U.S., designed for personal hygiene and childcare use, as well as for disinfecting and cleaning. Nonwoven wipes are especially useful in hospitals and long-term care facilities, having become a vital component of daily routine patient care.

While some of these wipes are designed to be flushed (as indicated by the manufacturer on the packaging), the vast majority of nonwoven wipes are not flushable and ideally should be disposed of as trash. Consumers and health care workers, however, have taken to heart the convenience aspect of these wipes and flush the wipes rather than throwing them in trash or solid waste bins, regardless of the manufacturers' intent. This has led to the creation of the term "new sewage."

"New sewage" refers to the increasing amount of solid debris—such as many varieties of nonwoven wipes—that finds its way into the sewage system. New sewage, according to experts, is responsible