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New high-tech sewer system crosses milestone

Residents, public officials get first-hand view of Jeffers Gardens, Miles Crossing treatment plant

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The sun shone down brightly on the crowd assembled last week on U.S. Highway 101-Business in Jeffers Gardens/Miles Crossing for a long-awaited celebration. It was ribbon-cutting time for the rural community's Vacuum Sewer System.

The project has been in the works since 1999, when the Miles Crossing Sanitary Sewer District was formed. Homes and businesses began connecting to the new system in November.

Excited residents toured the vacuum station building June 24, examined the pipes and pumps, then climbed the steps to the top of the big storage tank with its view of Astoria's south slope. They chatted with neighbors and sampled cookies and other refreshments provided for the festive occasion.

The \$8.3 million sewer system has taken the place of cesspools and septic systems, which worked poorly in the low-lying area with its high groundwater and poor soil conditions, and it has eliminated the need for "blue rooms," the euphemistic term for portable toilets used by many businesses in the area.

"It's great," said longtime sewer district board member Becky Hampton. "I can't wait to landscape my back yard. It was so wet, with nasty black water."

"There was raw sewage in the ditches at high tide," agreed Hampton's mother, Jeannie Petermann, a former Jeffers Gardens resident who now lives in Warrenton. Hampton was the one who got the ball rolling in the early 1990s, when she wrote a letter to then-Clatsop County Manager Bill Barrons complaining about the wastewater situation in Jeffers Gardens. She said Barrons took up the matter and community meetings were held to decide what to do. Eventually the sewer district was formed.

Hampton, her father Richard McNeill, and Arne Jylha were among the original sewer district board members. McNeill died two years ago and Jylha is living in a retirement home. "My kids grew up going to meetings. He was a baby then," Hampton said, turning to 16-year-old Nathan Hampton, who was on hand for the ribbon-cutting.

ALEX PAJUNAS — *The Daily Astorian*
Melanie Olson, the regional coordinator for the Oregon Business Development Department, tours the inside of the vacuum station building with Tom Tetlow, Miles Crossing Sanitary Sewer District board president and his daughters Erin, middle, 9, and Cammy, right, 12.



ALEX PAJUNAS — *The Daily Astorian*
The pump station building, the 85,000-gallon sewage overflow tank, and the

Useful for many

The new sewer system was a godsend for Donovan Duchene and Laurie Olds, who opened the High Wheeler restaurant Jan. 31 on Youngs Bay. The restaurant could not have existed without replacing the leaking septic tank that came with the old building. They were among the first to hook up to the new sewer. "It was pretty much do or die for us," Duchene said.

Fred Mestrich, owner of Clatsop Power Equipment, is another business owner who's thrilled with the new sewer system. He said his business at Miles Crossing had a blue room for 20 years and no running water inside the building. "We were one of the first eight to get hooked up. It was the best Christmas present we could have gotten," Mestrich said.

backup generator form the Miles Crossing Vacuum Sewer System project.

Like just about everyone else in the community, Mestrich gives much of the credit to Tom Tetlow, president of the sewer district's board of directors, for making the sewer system a reality. "Tom's the one we owe the biggest thanks to. It was a fulltime job for Tom," Mestrich said.

"This is a huge deal, a testimony to Tom and an acknowledgment of the power of a committed volunteer," state Sen. Betsy Johnson, D-Scappoose, told the people gathered for the ribbon-cutting last week. "Anywhere along the line, Tom could have said no, and he didn't."

Tetlow modestly responded that the sewer project could not have taken place without dedicated board members, the support of citizens in the district and people like Johnson.

Tetlow's real full-time job is running Springer's Garage on Lewis and Clark Road. But he took on the sewer system project and stuck with it. Over the last dozen years Tetlow has guided the project through a lengthy series of bureaucratic hoops and doggedly pursued state and federal funding. Along the way, he has become an amateur expert on sewage.

Tetlow also helped negotiate an intergovernmental agreement with the city of Astoria, which will accept the Miles Crossing Sewer District's wastewater into the city's system for treatment. The effluent travels through an 8-inch diameter, 9,500-foot plastic pressure main buried underneath Youngs Bay and enters Astoria's sewage system through a receiving manhole at Fifth Street and Olney Avenue. The sewer district pays Astoria for the service.

As part of the agreement with Astoria, the sewer district built an 85,000 gallon storage tank next to its vacuum station building at Miles Crossing to store effluent any time Astoria's sewer system is in danger of being overburdened. The receiving manhole is equipped with level-sensors and there's a radio telemetry system that would indicate to the Miles Crossing pump station if sewage needed to be diverted into the storage tank. The city must guard against overflows of sewage into surrounding waters during heavy storms, or face penalties from the state Department of Environmental Quality.

R&G Excavating of Scio, general contractor for Miles Crossing's state of the art vacuum sewer system, began work in Fall 2008. The system was designed and engineered by Portland-based Murray, Smith & Associates. It serves a population of about 900 people in 375 households and businesses. The district's DEQ permit allows for up to 470 sewer hook-ups, expected to be enough for a 20-year growth cycle. The project included installing 42,000 feet of vacuum sewer pipes along Highway 101 Business and other roads in the community.

Here's how it works

Traditional sewer systems use the force of gravity to channel sewage to treatment plants. But the patented AIRVAC vacuum system installed in the Miles Crossing/Jeffers Gardens sewer district depends on gravity only for the short distance from the customer's home or business to a valve pit. When 10 gallons of wastewater is collected, a valve opens and creates differential pressure that propels the wastewater into a vacuum main. From there the wastewater travels to the collection tank at the vacuum station. Once a certain amount is collected, sewage pumps send the contents through a grinder and then through underground pipes to the sewer main under Youngs Bay and on to Astoria, where it enters the city's sewer system. That's what happens unless the Astoria system is overloaded. In that case, the sewage heads for the huge storage tank behind the vacuum station, where it remains until Astoria has room to accept it.

If anything were to go wrong at the vacuum station, many alarms would go off and an automatic dialer would summon the person on duty, Randy Trevillian, sewer district representative explained. Trevillian, who was Clatsop County's roadmaster for many years, said someone is always on duty. There's also an emergency generator that would kick in if the power failed.

Funding for the Miles Crossing Sewer Project comes from a bond measure passed by voters in the sewer district in 2003, grants and loans from the U.S. Department of Agriculture Rural Development and Business Oregon (formerly the Oregon Economic and Community Development Department) and a monthly service charge that people in the sewer district have been paying for nearly six years.

"This is the largest system of its kind in Oregon. It's an exciting and unique project to be a part of," said David Leibbrandt, with Murray, Smith & Associates. "It's a fine example of government agencies working together."

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