

**Water and Environment Program  
Engineering Success Story**

**State:** Minnesota

**Borrower Name:** City of Spring Hill, Minnesota

**Engineering Firm:** Widseth Smith Nolting Associates  
North American Wetland Engineering

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**Congressional Information:** Congressman Collin Peterson

**Counties:** Stearns

**Keywords:** Constructed Wetlands, Affordable, Leveraging

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**Spring Hill's Wastewater System – Innovative Technology  
Offers Affordability**

**Description:**

The City of Spring Hill, population 77, had nonconforming septic tanks connected by a community sewer that ultimately discharged to the Sauk River without further treatment. The unauthorized discharge needed to be corrected, but the cost of compliance was of great concern.

**Solution:**

Spring Hill, located in Stearns County, Minnesota, has a new wastewater treatment system consisting of a subsurface flow constructed wetland followed by disposal by drip irrigation. The treatment system is capable of treating 9,200 gallons per day of domestic wastewater. The construction cost of the treatment and disposal system was approximately \$285,000. The sewage collection system, designed by the city engineer, added another \$310,000 to the total capital cost of the system. The original Preliminary Engineering Report recommended regionalization at a capital cost of \$805,000 plus approximately \$200,000 of improvements at the regional pond system. The cost of the original plan, at over \$25,000 per connection, was beyond the City's financial capability.

With the application of constructed wetland technology, the costs became affordable.

Each year, the Minnesota office of Rural Development selects a project funded by the US Department of Agriculture for special recognition. The team of North American Wetland Engineering and Widseth Smith Nolting Associates won the 1999 Project of the Year award for the design and construction of the Spring Hill facility.

Rural Development recognized the need to match the community's ability to finance and operate a new wastewater system with innovative treatment options. At Spring Hill, the constructed wetland technology and the cost met this challenge. In the end, Rural Development, Minnesota Department of Trade and Economic Development, and Minnesota Pollution Control Agency teamed together in a leveraged funding package.

At the ribbon cutting for the facility, Mayor Mary Wuertz of Spring Hill said: "We couldn't have solved our wastewater problems without the assistance of Rural Development, Widseth Smith Nolting and North American Wetland Engineering. This is a very proud day for our small community."