

PROJECT:

Forest Lake School District



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LOCATION

Forest Lake, Minnesota

PROJECT TYPE

School Wastewater Treatment

COMPLETION DATE

1999

NEED

The Forest Lake School District selected JW NAWE to design wastewater treatment systems for the Scandia, Linwood and Columbus Elementary Schools. Each school was under expansion and the existing wastewater treatment systems did not meet current code.

Each school presented engineering challenges due to the varying nature of the soil and available land for the school and its high-demand recreational land uses. Each site required wastewater pre-treatment prior to infiltration of water into the soil.

SOLUTION

An engineering report was prepared by JW NAWE for presentation to the District's Buildings and Grounds Committee. They selected a single pass sand filter for treating up to 7,000 gallons per day of the wastewater from each school. The sand filters are designed to accommodate high-strength wastewater generated by the low-water-use plumbing appliances and kitchen facilities. Daily and seasonal flow variations are wide which present special design requirements.

BENEFIT

Special plantings are planned for the schools to enhance the appearance and to protect the drip irrigation disposal site. The Scandia disposal site was incorporated into the native prairie restoration at the site. A prairie planting was done at the Linwood site to enhance the appearance of the disposal area. The wastewater treatment systems are not only efficient, but also cost effective and the variety of wetland plants offers an interesting educational experience for the students and the surrounding community.



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