

EZflow[®] by Infiltrator Replaces Old Drywell on Sensitive Lakefront Site



Project Name
Madeline Island

Type of System
EZflow

Installation Date
Fall 2010

Installer
Adrien Cady, MP
Washburn, WI
715-292-0656

Owner
Tom Gavin

Engineer
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Baudhuin Engineering
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Health Officer
Carl Lippert
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Ashland Office



When a Madeline Island, Wisconsin homeowner needed to replace an old lakeside dry well, it was a challenge to find a quality leachfield system that also met Wisconsin regulations which focus on protecting surface water. In addition to the environmental factors, the location of this island property in Lake Superior made delivery of construction materials a key factor in choosing the right system.

An initial ruling by Ashland County stated a septic drainfield could not be installed on the site because it would need to be located below the high-water mark. The homeowner elected to commission a wave impact study to determine if a new system could be designed and installed that would meet the required setbacks. After presenting the results of the study to the county, he received approval to proceed and began to explore his options with the contractor and system designer.

A traditional stone and pipe leachfield was one option. However, the designer suggested an alternative approach and recommended EZflow by Infiltrator for the drainfield. What made EZflow particularly attractive, in addition to the improvement in performance over traditional stone and pipe, was the fact that the product was lightweight and could be easily delivered by the local ferry. According to system installer and Master Plumber, Adrien Cady, this resulted in substantial savings when compared to the material and delivery costs of gravel being brought to the site.

EZflow by Infiltrator engineered geosynthetic aggregate provides an environmentally friendly replacement to traditional stone and pipe drainfields in a modular, lightweight design. Adaptable to meet any parameter, EZflow contours along slopes, around trees or landscaping. The engineered 30-sieve geotextile netting filters soil particles to prevent clogging and the polystyrene aggregate features over 50% void area for greater water movement and will not crush, degrade, or breakdown over time.

The Madeline Island system is designed to handle 450 gpd and serves the original two-bedroom house plus an addition over the garage that includes another bedroom and bath. Cady kept the existing 1,000-gallon concrete septic tank but added a filter canister to further treat the effluent before being discharged to the drainfield. In order to move the effluent from the garage apartment, Cady installed a 500-gallon pump tank to pump the wastewater to the existing septic tank. A distribution box evenly splits the flow from the septic tank to two, 65-foot runs of EZflow drainfield bundles. The drainfield rows are located three-feet apart with one six-inches lower than the other to accommodate the angle of the hill. A pipe transports the effluent from the septic tank and filter near the house, down the hill at a steep angle to the EZflow drainfield system, which is located four feet above the lake level.

“The lightweight units were easy and quick to install,” commented Cady. “The whole installation was complete in a day using a single backhoe.”

System installation was completed in the fall of 2010.



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