

SEAWALL REPLACEMENT



Vegetated Environmental Solutions

LAKE WAUBESA RESIDENCE

MCFARLAND, WI

THE PROBLEM

Replace a failing railroad tie seawall with an environmentally sound solution.

In August 2007, a homeowner on Lake Waubesa, just minutes south of Madison, Wisconsin contacted Agrecol LLC about the Envirolok Vegetated Retaining Wall System.

Later that month, near record rain caused flash floods and high water throughout the Midwest. The seawall failed completely drifting into the lake.

During the site visit, it was determined that the site also presented several stormwater management challenges. A discharge pipe, meant to collect impervious surface runoff from the roof of the house, the neighboring roof, the patio and the street, as well as the turf areas of the lawn was undirected, causing erosion in the backyard and resulting in standing water.



ENVIROLOK ADVANTAGE

Envirolok's soft armor solution presented a responsible option. Made from a soft, durable fabric, Envirolok is safe for children, pets and recreational water sports equipment.

Planted with the appropriate vegetation an Envirolok system provides additional stability and habitat to enhance the shoreline. It also reduces reflective wave energy, heat transfer and potential safety hazards, unlike traditional Rip Rap and other seawalls, diminishing the effects on adjacent shorelines and the lake's ecosystem..



SEAWALL REPLACEMENT



Vegetated Environmental Solutions

LAKE WAUBESA RESIDENCE

MCFARLAND, WI

ENVIROLOK RESULTS

The property owner's chose a solution that echoed their desire to permanently fix the erosion issues but to also act in the best interests of their family and the lake. The approach from Envirolok allowed an economical and environmentally sound shoreline repair.

Benefits:

Eliminate erosion

Maintain a natural shoreline

Protect people and property

Capture and clean stormwater runoff

A 65' x 4' structure was constructed, 3' of which was below the waterline. A floating turbidity barrier was installed to protect the lake from sedimentation during the removal of the failing railroad tie wall.

A transitional mix of approximately 600 native plants was planted between the bag courses during construction. In addition to removing and replacing the existing seawall, a 1,000 ft² rainwater garden and shoreline buffer zone utilizing over 1,800 native plants was constructed down slope from the existing stormwater discharge pipe. The rainwater garden will assist in filtering and controlling run-off into the lake.

Permitting and regulatory agencies are pleased with the shoreline enhancement and recognize the value on it will bring the property as well as the lake ecosystem. The Envirolok system will last indefinitely and continue to renew itself for years to come.



PROJECT PARTNERS

Earth & Road
10101 Skyline Dr.
Arlington, WI 53911
P: (608) 635-7755
F: (608) 635-7765
www.earthandroad.com

Agrecol LLC
10101 N. Casey Rd.
Evansville, WI 53536
P: (608) 223-3571
F: (608) 884-4640
www.agrecol.com
ecosolutions@agrecol.com

**Wisconsin Department
of Natural Resources**
101 S. Webster St.
P.O. Box 7921
Madison, WI 53707
P: (608) 266-2621
P: (888) 936-7463
www.dnr.wi.gov