

Ashland County WDNR Surface Water Grant Streambank Protection on Brunswailer River

The Ashland County Land & Water Conservation Department (LWCD) is grateful to the Wisconsin DNR for the funding granted to increase protection of the high class Brunswailer River through reduction of soil erosion and sediment loading.

This section of river faced fast onset erosion in 2015, and lost approximately 30 feet of bank by the time construction began. The LWCD began initial conversation with the landowner in 2016, followed by project design in 2017, and eventual construction in 2018. The department worked with the landowner to stabilize 390 linear feet of streambank. In addition, 16 Root Wads, 15 feet long, were laid on the streambed at the bank toe, and were anchored into the bank using Duck Bill Anchors and 15-foot cables. Class I Non-Woven Geotextile was placed along the graded streambank. 774 cubic yards of rock was placed along the bank and toe to provide protection from high stream flows.

470 linear feet of stream was fenced off from grazing cattle. The disturbed area was seeded and 210 live willow stakes were installed including *Salix discolor*, *Salix exigua*, and *Salix nigra*. Construction was completed in early September right in time for a rainy fall, and the state engineer signed off on construction approval in October. The area has stabilized well and is already beginning to grow back native vegetation. The site will no longer contribute sediment to the Brunswailer and it will provide a bounty of habitat for both aquatic and terrestrial organisms.



Above: Brunswailer River looking south, BEFORE.
Below: Brunswailer River looking south, AFTER.



Above right: Root Wads laid on streambed and duckbills anchored into the bank.

Left: Brunswailer River looking north, eroding banks, BEFORE.

Right: Brunswailer River looking south, stabilized banks. AFTER.

