

ELK CONSERVATION DISTRICT  
BIO ENGINEERING PROJECT

HAMRIC FARM  
VERNON AND DEBBIE HAMRIC  
TATE CREEK -- BRAXTON COUNTY

Bruce Skidmore Conservation Specialist WVCA

The Hamrics own and operate a 125 head  
beef cattle farm in southern Braxton County



Tate Creek flows through the Hamric Farm and empties into the Elk River



# Problems

- Stream bank erosion
- Livestock in stream
- Sediment and fecal material in stream
- Poor water quality

# Stream bank erosion on Tate Creek before the project

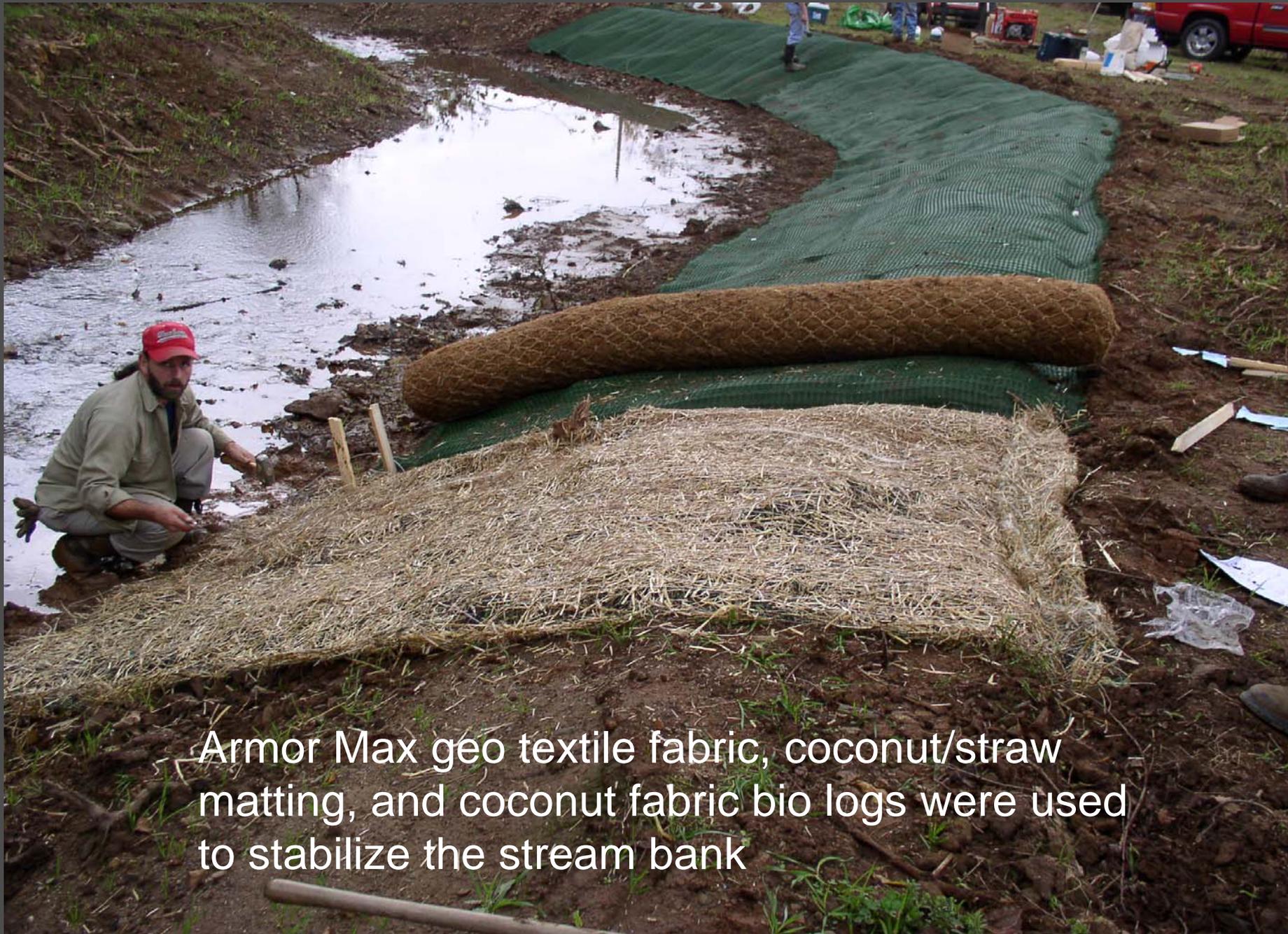


Mr. Hamric was loosing approximately 50 ton/ac/year of soil from his pasture



To start the project the stream banks were cleared, excavated to a 2:1 slope, and seeded using a contractors mix and winter rye





Armor Max geo textile fabric, coconut/straw matting, and coconut fabric bio logs were used to stabilize the stream bank



Armor Max fabric being unrolled for installation, this fabric was used on the high impact areas of the stream

To start we fastened the armor max in the trench at the top of the stream bank using 12” pins





The 12" pins were then installed the entire length of the armor max

After the pins were installed, 2 foot duck bill earth anchors were also installed the length of the armor max





Coconut/Straw matting was used on the non impact areas of the stream, the matting was anchored using 8" metal staples in the top trench, and the entire length of the matting

Where the coconut matting and armor max overlapped a bio log was installed to prevent water from getting under the stabilization materials



Bio logs were also installed at the bottom of the stream bank to help anchor the armor max and prevent the stream from undercutting the bank



The bio logs were anchored by using wooden stakes, rope, and duckbill earth anchors



Completed portions of the project : armor max, coconut matting, bio logs installed and trench on top of stream bank filled



# The Armor Max fabric and bio logs were installed at 5 different impact areas of the stream



# Coconut/Straw matting was used on all of the low impact areas



# Vegetation becoming established two weeks after the stabilization project





Different views of the project after completion

Approximately 1600 linear feet of stream bank was stabilized, roughly 12,800 square feet



To complete the project the following BMP's were installed



- A watering facility



# Stream Crossing



# Livestock were fenced out of the stream



# Progress

- Stabilized approximately 1600 linear feet of stream bank
- Reduced soil loss to less than 1 ton/ac/year
- Fenced livestock out of stream – reducing fecal material
- Installed BMP's – watering facility, stream crossing, exclusion fence, heavy use area protection
- Improved over all water quality

# Partners

- Vernon and Debbie Hamric
- Elk Conservation District
- West Virginia Conservation Agency
- USDA Natural Resources Conservation Service
- USDA Farm Service Agency
- ACF Environmental