

DES MOINES RIVER, FLORIDA

# Des Moines River stabilization with PROPEX Armormax



**Industry:** Water  
**Application:** Flood mitigation  
**Location:** Florida  
**Product:** **PROPEX**<sup>®</sup> Armormax<sup>®</sup>,  
**PROPEX** Scourlok<sup>®</sup>

remaining pin-connected Pratt high-truss bridge in the United States, and dates back to 1881.

## Overview

The west fork of the Des Moines River in Palo Alto County, had experienced years of erosion and flooding. From 2006 to 2019, the riverbank had receded up to 215 feet in the middle of the bend. Approximately three acres of soil had been lost during that time, and the receding shoreline was approaching an existing roadway. The historic Kirby-Flynn Bridge was also in jeopardy of approaching waters. This bridge is the only

**A combination of PROPEX Scourlok and PROPEX Armormax was selected because it provided long-term protection from erosion, promoted reinforced vegetation, and helped improve water quality at a lower cost than rock.**

## CASE STUDY

Des Moines River stabilization with **PROPEX Armormax**

### Challenge

The Sioux City Natural Resource Conservation Service (NRCS) wanted to stabilize approximately 264 m (865 ft) of the bank, and reinstate channel alignment to what it was in 2006. Initially the project engineer considered using rock riprap, but wanted to find a more cost effective solution.

### Solution

A combination of **PROPEX Scourlok** and **PROPEX Armormax** was selected because it provided long-term protection from erosion, promoted reinforced vegetation, and helped improve water quality at a lower cost than rock. Both systems are designed to resist extreme hydraulic stresses and can withstand wave action.

The design included two rows of **PROPEX Scourlok** along the 2006 channel alignment with a benched area protected by **PROPEX Armormax** to the current bank condition. Additionally, an upper wall section with one row of **PROPEX Scourlok** was installed to protect the current bank location.



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