

HR-255 Submerged Vanes for Flow Control & Bank Protection in Streams

Key Words: Stream flow, Iowa vanes, Erosion, Bank stability

ABSTRACT

The study has evaluated the effectiveness of Iowa Vanes in reducing depth and velocity near the outer bank in a curved, alluvial channel flow. A procedure for the design of a vane system for a given river curve has been developed and tested in a laboratory model. The procedure has been used for the design of an Iowa Vane bank protection structure for a section of East Nishnabotna River along U.S. Highway 34 at Red Oak, Iowa.