

CEAP RELEVANT RESEARCH WATERSHED STUDY

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| <p>Name of Project Effects of Riparian Buffers on Stream Quality in 70 Midwestern Streams in the Upper Mississippi River Basin (National Water Quality Assessment Program-- NAWQA)</p> | <p>Location (State, River, HUC) Minnesota, Wisconsin, Iowa, Illinois</p> |
| <p>Principal Investigator (Name, contact info) George Groschen, U.S. Geological Survey (217) 344-0037, Ext. 3012; gegrosch@usgs.gov</p> | <p>Website report is available at http://pubs.usgs.gov/circ/circ1209/#pdf -</p> |
| <p>Purpose of Project (Goals and Objectives) The riparian buffer zone study is one aspect of a larger study performed to assess sources, transport, and fate of chemicals applied to crops in selected agricultural basins across the Upper Mississippi River Basin. The effects of riparian buffer zones on stream quality and ecology were investigated.</p> | |
| <p>Description of Project (Landscape, Models, Practices) There were several significant findings related to stream riparian buffers. Streams with significant riparian zone tree cover had better stream quality, less algal growth, and increased dissolved oxygen to support more diverse aquatic organisms than streams with little or no riparian zone tree cover. Streams with less tree cover had relatively large growths of phytoplankton at levels indicative of eutrophication, and also had significantly reduced levels of nitrate due to increased algal uptake. Additional information can be found in the report.</p> | |