

### SCOPE OF PROJECT

The Hurley Creek watershed consists of more than 2,200 acres with more than 64 percent of this area considered urban land use. BARKER LEMAR was retained to develop a watershed improvement plan.



### IMPLEMENTATION

BARKER LEMAR used stream visual assessment protocol programmed into tablet computer technology to collect data on land use, erosion, bank stability, illegal dumping activity, and other watershed characteristics. BARKER LEMAR collected data for 147 100-foot stream segments and 80 specific points.

Before the assessment began, BARKER LEMAR developed relationships with strategic partners (e.g. Iowa State University, United States Department of Agriculture, National Resources Conservation Services, IOWATER, city of Creston, etc.) to assist in collecting water samples, provide background regarding recent commercial development, as well as proposed development.



BARKER LEMAR used the field observations and discussions with stakeholders to develop a nine-year watershed improvement plan for the Hurley Creek watershed.

The plan included phased activities to be completed over a seven- to nine-year period, as well as cost estimates, designed to improve the water quality within the watershed. Components of the plan included riparian buffer strips, streambank stabilization, controlled livestock crossings, residential and commercial rain gardens and bioswales, storm water detention ponds, and other erosion control systems as identified in the field observations.



The Hurley Creek watershed improvement plan was crucial to the city of Creston receiving Watershed Improvement Review Board (WIRB) funding in 2007, which will be utilized to implement the plan.

### SERVICES

Watershed assessment; grant development; cost estimates for water quality improvements; sustainable and traditional civil engineering services.

### TIMELINE

Project Start Date: Spring 2007  
Project Completed: Summer 2007