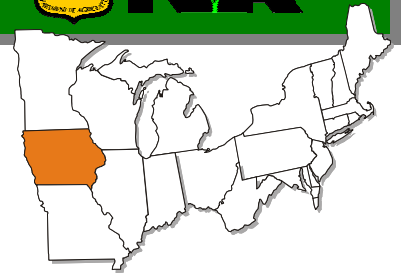


## BDPs and Forest Stewardship Practices in the Urbanizing Cedar River Watershed Area



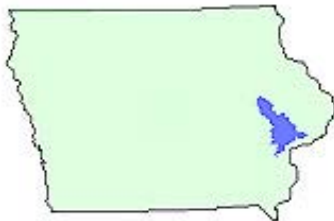
### BACKGROUND

The Cedar River serves as an important recreational attraction, particularly for boaters and water skiers. A number of city and county parks are located along the Cedar River. Several major industries in the area use the river as a source of water.

The Middle and Lower Cedar River Watershed units converge just north of Cedar Rapids, one of Iowa's most rapidly urbanizing metropolitan areas. Cedar Rapids has experienced significant urban growth during the past decade, with greatly accelerated development in the past five years. This rapidly expanding urban fringe has led to concerns regarding pressures placed on the few remaining natural systems in the area, including natural forest areas and the riparian systems of the Cedar River and its tributaries.

### LOCATION

The project area includes the southern end of the Middle Cedar River Watershed and the northern end of the Lower Cedar River Watershed. The Middle Cedar River Watershed is the larger of the two units, covering over 2,400 square miles. Approximately 80 percent of its area is agricultural/urban riparian systems and the remaining 20 percent is riparian forest. The Lower Cedar River Watershed covers approximately 1,070 square miles and is comprised of nearly 60 percent agricultural/urban riparian systems and 40 percent riparian forest.



Cedar River Watershed.

### ISSUES BEING ADDRESSED

Work done previously in the urbanizing area of the watershed emphasized on-site erosion control or water quality education with little emphasis on implementation of best practices and evaluation of results.

Accelerated development and the rapidly expanding urban fringe of Cedar Rapids have led to concern on the part of local citizens and agencies about pressures placed on the few

remaining natural systems in the area, including natural forest areas and the riparian systems of the Cedar River and its tributaries.

### GOALS

The overall project goal is to enhance water quality of the Middle and Lower Cedar River Watersheds by creating and integrating urban land stewardship approaches with rural forest stewardship. Specifically, project goals are to:

- Use a participatory approach with diverse constituents to formulate a set of Best Development Practices (BDPs) to be used during site development in urban fringe areas in conjunction with expansion of forestry Best Management Practices (BMPs) in adjacent rural areas.
- Accelerate Forest Stewardship planning and implementation of forestry BMPs on private land.
- Involve urban developers and rural landowners in model projects to demonstrate the connectivity of urban and rural forest stewardship practices.
- Document and publicize successes in coupled urban-rural stewardship projects.
- Prepare an illustrated guide to BDPs in rapidly urbanizing watershed areas dominated by agricultural and forest riparian systems.

### METHODOLOGY

The project will involve two simultaneous avenues of work: one in urbanizing areas targeting development practices in proximity to riparian zones, and one in rural areas targeting agricultural and forested riparian land use practices. In both settings, the project will focus on preserving or creating forests in riparian zones and providing education on stewardship of those ecosystems. Specific objectives include:

- Formulate BDPs. Four focus groups that combine developers, planners, realtors, homebuilder associations, citizens, and natural resource managers working in the region will generate initial sets of practices and evaluate potential sets of BDPs. The project will integrate forestry BMPs into planning efforts prior to development in forested areas near waterways. The connectivity between urban and rural land use and stewardship practices will be emphasized. This approach will focus on alternative ways to plan and develop rather than mitigation after the fact.
- Identify and Deliver Assistance to Rural Forest Landowners. The project will target efforts in Linn and Benton Counties to identify and deliver forest stewardship

Since 1999, the Northeastern Area and the Northeastern Area Association of State Foresters have sponsored a cooperative challenge grants program to promote watershed health and restoration through the conservation, restoration, and sound stewardship of trees and forests.

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planning and implementation assistance to new landowners throughout the Cedar River Watershed. Current Iowa forestry BMPs will be expanded to specifically include practices focused on watershed protection in rural areas located near rapidly urbanizing areas.

- **Model Projects.** Participating developers will implement draft BDPs in subwatersheds within the metropolitan area. Model projects will include adjacent urban and rural partners engaged in urban BDPs and expanded forestry BMPs. Impacts to natural systems will be monitored and evaluated on at least two coupled sites implementing BDPs/BMPs and comparable sites where development has occurred without forestry BMPs.
- **Publicizing Results.** Visual presentations showing sites before, during, and after implementation of best practices, as well as ongoing GIS documentation of activities in the watershed, will be available at meetings, forums, and workshops.
- **Illustrated Guide to BDPs.** A booklet will be developed documenting BDP development and implementation.

## OUTCOMES AND ACCOMPLISHMENTS

The project will directly improve water quality in the Middle and Lower Cedar River Watershed units by providing support for the following:

- **Formulate BDPs.** Participatory formulation of BDPs and expansion of forestry BMPs will focus on watershed protection and enhancement. About 100 constituents are expected to participate, including all stakeholders. Draft copies of BDPs and expanded BMPs will be produced.
- **Identify and Deliver Assistance to Rural Forest Landowners.** Development of 50 new stewardship plans involving 1,000 acres of land and reforestation/afforestation of 150 acres are expected for the two-county area in the Middle and Lower Cedar River Watershed. Participant numbers, number of new stewardship plans, and acreage affected will be documented, and GIS will be used to display and assess results.
- **Model Projects.** Model projects will couple urban and rural land stewardship practices to demonstrate implementation methods for watershed enhancement. There will be at least six participants. Areas affected by implementation of best practices will be documented for model projects as a specific subset of the total area enhanced by the project. Model projects will be highlighted in larger project GIS representations.
- **Publicizing Results.** All project partners will be involved in the presentation of results. At least five public meetings, workshops, or forums will occur.
- **Illustrated Guide to BDPs.** A 20-page booklet with color photographs describing best practices and focusing on rapidly urbanizing watershed areas will be produced. Approximately 2,000 copies will be printed and

distributed for local use and at specific conferences in the Midwest.

## PARTNERS

- Iowa Department of Natural Resources – Division of Forests and Prairies (IDNR)
- Iowa State University – Department of Forestry (ISU)
- Iowa State University – Extension (“Life in Iowa” Service Learning Program)
- Trees Forever – Iowa Buffer Initiative (TF)
- Linn County Conservation Board
- Linn Soil and Water Conservation District
- Linn County “PURE” Water Quality Project (Partners for Urban and Rural Environment)
- City of Cedar Rapids, Parks (Forestry Division)

## FUTURE PLANS

The project is being implemented. The results will be used to promote BDPs in other areas of Iowa and in other states.

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