

# CEDAR RIVER WATERSHED

# PARTNERS

- The Nature Conservancy
- Soil and Water Conservation Boards
- Iowa Department of Natural Resources
- U.S. Fish and Wildlife Service
- Black Hawk, Benton, Linn, Franklin, and Floyd County Conservation Boards
- Ducks Unlimited
- Creek View HOA
- City of Cedar Rapids
- City of Cedar Falls
- HUD-IWA
- IDALS-USDA
- Iowa Flood Center
- Wildlife Conservation Society

## QUESTIONS? Contact:

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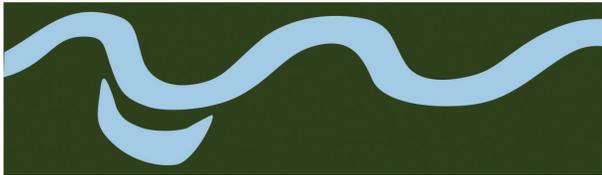
- Cedar River Watershed
- River
- City/Town
- County



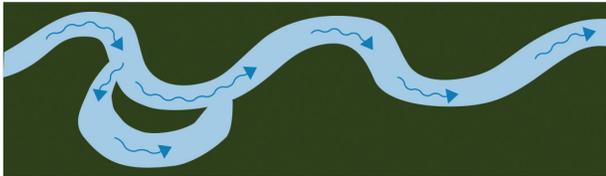
Cedar River Watershed —  
**OXBOW RESTORATION**

## WHAT IS AN OXBOW?

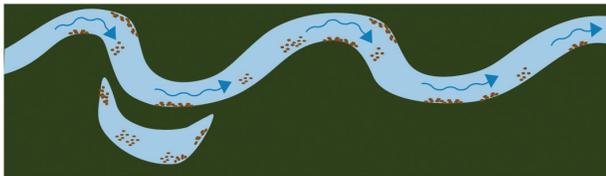
An oxbow is a meander of a stream that has been cut off from the present flow of water. Over time oxbows may fill in with sediment and lose the benefits they once provided.



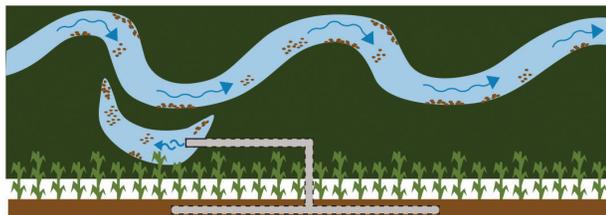
Restoring oxbow features reconnects streams to their floodplains and provides temporary storage within the feature.



With temporary storage and slower moving streams, the timing of flood peaks is delayed.



Natural stream meanders create slower moving water, allowing sediment to fall out of suspension.



The meandering stream system can naturally process and cycle nutrients. Discharging tile lines into the oxbow can therefore serve as a tile nitrate treatment practice.

## BENEFITS

### • Improved water quality:

Oxbows can remove an estimated **45-90% of nitrate** from intercepted tile water.

### • Floodwater storage:

Each one acre oxbow provides an estimated **one million gallons of floodwater** storage each year.

### • Wildlife habitat:

Critical habitat for amphibians, fish, birds and reptiles that prefer slow-moving water.

- **Thousands of fish** representing 40 species have been found utilizing restored oxbow habitat.
- **54 species of birds** have been identified at restored oxbows.

## RESTORATION

- Excavate soil to historic riverbed depth
- Re-slope and re-seed banks
- Average surface area size of 1/4 acre
- Typically located in low lying wet areas not currently in production
- Surface water of oxbows only reconnect to river during floods



Oxbow before restoration



Oxbow during restoration

Oxbow after restoration

