Improving Surface Water Quality in Decatur County

The Iowa Rural Water Association works with local community to decrease turbidity in Little River Lake

The Problem:
Little River Lake is the water supply for the city of Leon and provides water to southern Iowa Rural Water Association, which supplies water to several rural communities, residents, and livestock. The water department has been experiencing problems with turbidity in the lake water, potentially caused by the fine clays from watershed sediment erosion, but also wind action on the lake shore, and stirring of lake sediments by an infestation of common carp. The local recreation has suffered because of the poor water quality, despite upgrades to the county park with cabins and improved public hunting grounds. A decision was made by local entities to develop a plan to clean up the lake.

The Approach:
A watershed assessment was completed to identify the target areas. The assessment involved water monitoring, a GIS model of erosion and sediment delivery, and evaluation of the publicly owned property around the lake co-owned by Decatur County Conservation Board and Iowa Department of Natural Resources.

The Outcome:
From this assessment, the watershed was prioritized by the areas with the most sediment delivered to the lake. Goals were developed and practices were selected to accomplish them. These included agricultural BMPs, natural area restoration, storm water control on the shoreline, and a lake fish kill, as a start.

From there the group was able to move forward with seeking funding sources, and getting the local community behind the project, which in turn is making the project very successful.

For More Information:
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Key Collaborators

- City of Leon Council and Water Department
- Decatur County Conservation Board and Director
- Decatur County Natural Resources Conservation Service
- Decatur Soil and Water Conservation District
- Iowa Department of Natural Resources Fisheries Department and Parks and Recreation Department
- Iowa Rural Water Association