

Sugar Creek AgNPS SALT Project Final Report

Harrison County Soil & Water Conservation District

The Sugar Creek AgNPS SALT Project began in FY 1999 as one of the pilot projects approved by the Soil and Water Districts Commission. This project was shared by Harrison, Daviess and Grundy county Soil & Water Conservation Districts (SWCD). A group of community leaders and landowners in the project area collectively agreed that the water quality of Sugar Creek needed protection. A meeting was held inviting all landowners in the project area to come and discuss their ideas and concerns and a steering committee was formed to collectively develop a watershed plan.

The project area consisted of 68,630 acres located in the Grand River Basin of northwest Missouri. The project positively impacted the water quality of Sugar Creek, one of the northwest Missouri's highest quality streams. Sugar Creek is home to the Topeka Shiner, a fish species that is an indicator of good water quality.

The principle concern of Sugar Creek was degradation of stream habitat and water quality within the unique high quality prairie stream system. Factors adversely affecting Sugar Creek included: sediment, nutrients (livestock manure and commercial fertilizer), pesticides and riparian degradation. The chart below illustrates the goals accomplished in the Sugar Creek Watershed through AgNPS SALT cost share. Total state cost-share dollars spent in the project was \$1,564,355.

Practice	Amount completed
Terrace systems	2,715 acres
Riparian buffers	60,480 ft
Structures (dams)	72 each
Pasture/hayland planting	732 acres
Grazing systems	525 acres
Well decommissioning	23 each
Waterways	19 acres
Diversions	-0-
Spring developments	-0-
Filter strips	285 acres
Critical area plantings	56 acres
Forest stand improvement	85 acres
No-till planting	741 acres
Nutrient or pesticide mgmt.	4,609 acres

The project completed 89% of its original goals established at the beginning of the project. The nutrient and pest management practices were slow to catch on, but once they did, there were not enough funds to meet the landowner requests. The landowner's participation in the rotational grazing practice was hindered because of the schooling requirements of the DSP-3 practice.

There were also a few additional practices that were funded through other agencies:

- 3 acre tile-outlet wetland
- Riparian easement on 17 acres, payment through the Missouri Conservation Heritage Foundation's Stream Stewardship Trust Fund
- 3 rock-reinforced stream crossings
- Rotational grazing system that included a shallow floodplain well/spring for an alternative water supply for cattle
- Riparian protection of 2000 ft of the stream which included fencing, tree planting and shallow pond for alternative livestock water
- Streambank stabilization on 175 ft., funded from USFWS's Partners for Fish and Wildlife program

Outreach and information/education is always important to enhance a project. A "kick-off" event was held at the start of this project. There was also a tour held for vo-ag teachers, a well plugging demonstration, tours of different types of conservation practices, and nutrient and pest management workshops.

Each year of the project, the soil districts sponsored an annual educational field day for all 4th graders in the county in the project area along with continuing education workshops for teachers. There were also periodic newsletters and radio programs that provided landowners information about the project. One of the local schools organized a stream team that monitored Sugar Creek.

In the fall of 2000, the Sugar Creek AgNPS was recognized by CF Industries as one of the top watershed projects in the nation. The project was awarded for its efforts in protecting the watershed by landowners voluntarily implementing best management practices.

During the project period, the Topeka shiners and other critters in the stream were monitored annually. The number decreased during drought conditions but increased again as the project ended. This suggests a trend toward a more sustainable population density.

Harrison County feels this project was a success and the project accomplishments will continue to protect the water quality of Sugar Creek for many years. With the joint help from the Soil & Water Conservation Districts, Missouri Department of Natural Resources, Natural Resource Conservation Service, Missouri Department of Conservation and US Fish & Wildlife Service, the landowners were able to get more concentrated technical and cost-share assistance to correct soil erosion problems and address nonpoint source pollution.