Illinois River / Eucha-Spavinaw Watersheds Initiative

Conservation Beyond Boundaries IRWI

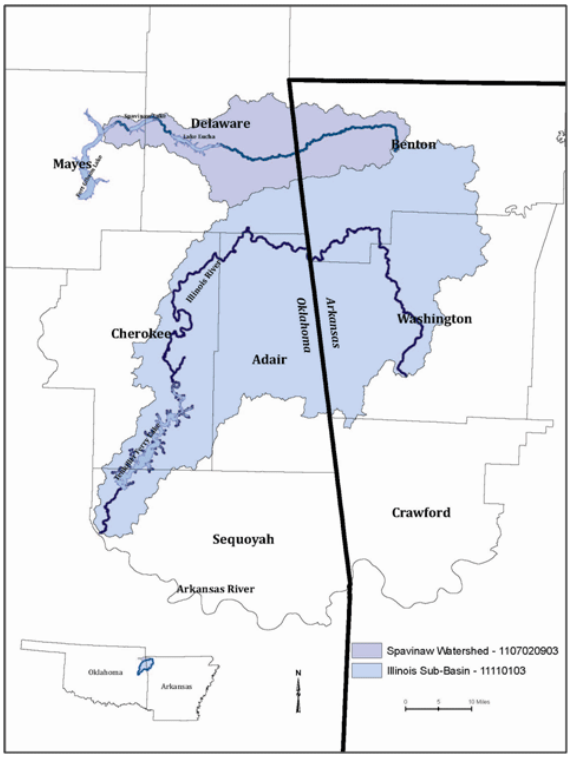
The Illinois River Sub-Basin and Eucha-Spavinaw Lakes watershed in Arkansas and Oklahoma include 1.32 million acres of agricultural land, supply drinking water to more than one million people and provide fishing, recreation and tourism opportunities.

The U.S. Geological Survey has identified significant water quality problems in these watersheds, including high concentrations of nitrogen, phosphorus, sediments and bacteria. Water quality enhancement is crucial to ensuring an adequate supply of clean water for the urban center of Tulsa, Okla., as well as the many smaller municipalities and individuals who rely on these water resources for their water supply. Improving water quality will also benefit recreational activities within the Illinois River, a state-designated scenic river.

NRCS and the Illinois River Sub-Basin and Eucha-Spavinaw Watershed Initiative

In 2011, NRCS launched the Illinois River/Eucha-Spavinaw Watersheds Initiative (IRWI), to reduce nutrient, sediment and pathogen impacts from agricultural land in Arkansas and Oklahoma. Primary land uses in the watersheds are forest, pasture, and hay, with significant poultry production, as well as beef cattle, dairy and hog production.

Through the Environmental Quality Incentives Program, NRCS provides technical and financial assistance to agricultural producers to implement practices that avoid, control, and trap nutrients, pathogens and sediments to keep them out of surface waters. These practices include prescribed grazing, animal manure storage and treatment, access control, and watering facilities, which enable landowners to improve water quality in the area and increase farm profitability.



Outcomes and Impacts

The initiative brings together conservation partners to accelerate conservation treatment and expand their capacity to improve water quality and maintain productivity throughout the basin and watershed. Among the benefits to the region, better water quality will improve fishing, recreation and tourism on the Illinois

River and save taxpayer dollars by decreasing public water treatment costs.

The initiative has also been very successful in assisting a diverse group of producers. From FY 2011-2016, 17% of active/completed contracts in the basin were with American Indian/Alaska natives and 14% were with producers of Asian descent. Arkansas Association of Conservation Districts hired a bi-lingual translator and conservation district technician to work with the Hmong/Laotian land users in the Illinois River Sub--Basin and Eucha--Spavinaw Lake Watershed. The translator worked throughout the IRWI region to provide bi--lingual assistance with NRCS conservation practices and programs.

Fiscal Year 2016 IRWI NRCS Financial Assistance (EQIP FA) for Active and Completed Contracts				
		Contracts	Treated Acres	NRCS Investment
Arkansas		24	1,208	$1,455,945
Oklahoma		19	8,494	$1,097,734
	TOTAL	43	9,702	$2,553,679

Progress to Date:

EQIP FA (Active and Completed Contracts	**# Contracts**	**Total Treated Acres**	**NRCS Investment**
FY11-15	634	71,601	$18,712,463
FY16	43	9,702	$2,553,679
TOTAL FY11-16	677	81,303	$21,266,142

Conservation practices installed along Spavinaw Creek are helping improve water quality in the Illinois River Sub-Basin.

Illinois River Reach Delisted

In 2014, a portion of the Illinois River in Arkansas was removed from the state's Clean Water Act section 303(d) impaired waters list. Landowners in the watershed implemented a variety of conservation practices to address water quality, with assistance from NRCS and partners including Arkansas Natural Resources Commission (ANRC), Illinois River Watershed Partnership (IRWP) and the Washington and Benton county conservation districts. The delisting of one 2.5 mile reach of the Illinois River for turbidity was in part the result of landowners' conservation efforts. Six small watersheds (Goose Creek-Illinois River, Headwaters Illinois River, Lake Weddington-Illinois River, Lower Muddy Fork – Illinois River, Moores Creek-Muddy Fork, and Upper Muddy Fork-Illinois River) contribute to this 2.5 mile segment of the river that was delisted. Practices implemented by producers included waste storage facilities, forage and biomass planting, prescribed grazing, fencing, and amendments for the treatment of agricultural waste.

"This delisting highlights the efforts of federal, state and county agencies as well as watershed groups and local landowners working together to implement best management practices on agricultural lands along this stream reach that ultimately improved water quality along a significant portion of the river," said Randy Young, ANRC executive director.

Mike Sullivan, the NRCS state conservationist in Arkansas, said, "By bringing all of the partners to the table to address the water quality concerns in the Illinois River, we were able to get results. The Initiative has shown that improving water quality and maintaining viable agricultural operations can go hand in hand." **Source: Arkansas NRCS**

https://www.nrcs.usda.gov/wps/portal/nrcs/detail/ar/newsroom/stories/?cid=nrcseprd397816

NRCS works with poultry and livestock producers to implement conservation practices to improve water quality.

Key Livestock Conservation Practices Implemented FY11-16:

Animal Mortality Facilities	64
Waste Storage Facilities	90
Watering Facilities	410
Prescribed Grazing	7,275 acres

Preliminary Water Quality Monitoring Results in the Eucha-Spavinaw and Illinois River watersheds in Oklahoma

According to paired watershed monitoring by the Oklahoma Conservation Commission (OCC), the Eucha-Spavinaw and Illinois River watersheds are showing downward trends in pollutant loading over expected values, based on the relationship between paired watersheds. From 2008 to 2011, monitoring in Spavinaw Creek showed a reduction in total phosphorus by 37%, a 64% reduction in dissolved phosphorus, and a 46% reduction in nitrates, compared to Saline Creek (control). Monitored watersheds (Flint Creek and Baron Fork Creek) in the Illinois River showed total phosphorus load reductions of 30%, dissolved phosphorus load reductions ranging from 15%-54%, and nitrate load reductions ranging from 47-60%, when compared to their controls. Flint Creek watershed showed a 41% reduction in e-coli. Monitoring in Baron Fork watershed at the Arkansas/Oklahoma state line has indicated a reduction in pollutants not only from upstream to downstream, but also has shown significantly reduced bacteria at the state line. OCC indicated this suggests that treatments within the watershed on the Arkansas side are also having a positive impact.

Source: OCC presentation at the 10th National Monitoring Conference (NWQMC), May 2-6, 2016