

CYPRESS DITCH AGNPS SALT FINAL REPORT (Stoddard County)

Water Quality Problems

The Cypress Ditch AgNPS SALT Project Steering Committee and Stoddard County Soil & Water Conservation District identified the primary concern in the project area as the pesticide and nutrient movement from agricultural lands to surface water systems, streams, the St. Francis River and the alluvial aquifer. Irrigation and rain-induced runoff of water and soil particles contained undesirable and potentially harmful chemicals and fertilizers absorbed into the ground water. The sheer size of the watershed and the immense upland areas created an ideal setting for transporting these infused soil particles to the underground water supplies and surface streams and rivers.

A U.S. Geological Survey found several pesticides commonly used on crops in the SALT area in Southeast Missouri streams. These pesticides include trifluralin, alachlor, propanil, cyanazine, and molinate. Inefficient designs and poor management of irrigation systems are the most likely sources of these contaminants. The shallow alluvium allows infiltration of these agents into the water sources, thereby creating a potential threat to water supply for humans and wildlife.

An advisory committee was formed to achieve additional insight and assistance in identifying and addressing these problems. Mayors from the three municipalities expressed concern about the quality of drinking water. The consensus of the committee was that any contaminants are undesirable. Statements and findings which indicate even "safe" levels were not acceptable. The committee felt that the highest attainable quality of water for humans and animals should be the ultimate goal of all persons in the watershed area.

Progress Completed

Practice Offered	Quantity Implemented
PHAUCET PLANS (IWM)	440 plans
CROWN REGRADES	11.37 miles
SURGE VALVES	97 valves
WEIR BOXES	93 boxes
PERMANENT OUTSIDE LEVEES	6.31 miles
UNDERGROUND PIPELINE	45.91 miles
PIVOT RENNOZZLE	1 system
TAILWATER RECOVERY	1 system
NUTRENT MANAGEMENT	20,803 acres
GRADE STABILIZATION STRUCTURES	125 structures
WILDLIFE HABITAT	2487 acres
FARM*A*SYST	0 systems
SIDE INLET	6 systems
FIELD BORDERS	76.4 acres
PEST MANAGEMENT	9095 acres
PERMANENT VEGATATIVE COVER	18 acres

INFORMATION AND EDUCATION ACTIVITIES

Landowners in the project area participated in two tours sponsored by the district. The tours were designed to demonstrate the benefits of improved irrigation efficiency and reduced soil erosion. District staff members also wrote articles for the local newspaper, utilized direct mailings to landowners, spoke at both schools in the watershed, and published a brochure about the project that was distributed at field days attended by interested producers.

PROJECT SYNOPSIS

One of the goals of the Cypress Ditch Project was to improve water quality in the watershed. Landowners now believe that the project benefited both people and wildlife. Long-term studies are not available to document reduction in nutrient and pesticide levels in the watershed's streams, but the application of Irrigation Water Management plans on over 20,000 acres of cropland has provided significant benefits.

Crown Regrades, Permanent Outside Levees, and Tailwater Recovery Systems were all requested by producers in large numbers during the application process. It was later determined that the installation of these practices on most of the potential sites would not meet NRCS Standards and Specifications. The Committee and the Board later responded to landowner requests by adding Field Borders, Nutrient Management and Pest Management to the list of approved practices offered in the project.

Follow-up with producers in the watershed indicates that the implementation of the various practices has improved their opinion about conservation efforts proposed by government agencies. Many producers have expressed their belief that benefits of conservation definitely outweigh the costs.

OTHER COMMENTS

Stoddard County has soils that are among the most productive in the state of Missouri and the yields of our crop ground are consistently at the top of the list. Unfortunately, some of the streams in the county also make the top of the list when it comes to pollution. With funding from the Parks and Soils Tax we can make a difference in our streams. Water Quality can certainly be preserved and hopefully even improved when farmers implement proven conservation measures. Natural resource concerns are numerous in Stoddard County and the landowners are trying to address these concerns by participating in projects like the Cypress Ditch AgNPS SALT Project.