



Loose Creek AgNPS SALT Project Final Report Submitted by Osage County Soil and Water Conservation District

The Loose Creek Agricultural Nonpoint Source Special Area Land Treatment Project began in 1997. The Loose Creek Watershed has a high concentration of poultry and swine operations. Initially, the Osage County Board of Supervisors utilized the Environmental Protection Agency's Clean Water Act Section 319 nonpoint source grants to educate producers about nutrient management and environmental concerns associated with their livestock operations. The next logical step was to follow the 319 grant with an Agricultural Nonpoint Source (AgNPS) Special Area Land Treatment (SALT) Project. This would provide both technical assistance and funding for cost-share practices and best management practices (BMP's) incentives.

The AgNPS SALT steering committee and technical staff developed a list of cost-share practices and incentives that would enable producers to implement BMP's for improved water quality and decreased soil erosion. These include the following:

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| ➤ Woodland Protection Through Livestock Exclusion | ➤ Sediment Retention, Erosion and Water Control Structure |
| ➤ Permanent Vegetative Cover Establishment | ➤ Sod Waterway |
| ➤ Permanent Vegetative Cover Improvement | ➤ Waste Management System |
| ➤ Terrace Systems | ➤ Waste Handling Facilities |
| ➤ Diversion | ➤ Contour Buffer Strip |
| ➤ Critical Area Shaping and Seeding | ➤ Cover and Green Manure Crops |
| ➤ Permanent Vegetative Cover-Feed Lots | ➤ Well Decommissioning |
| ➤ No-till System | ➤ Field Border |
| ➤ Planned Grazing System | ➤ Filter Strip |
| ➤ Planned Grazing System with a Pond | ➤ Spring Development |
| ➤ Planned Grazing System with a Well | ➤ Alternative Watering System |
| ➤ Water Impoundment Reservoir | ➤ Alternative Watering System with a Well |
| | ➤ Stream Stabilization |

The district's Semi-Annual Progress Report shows that the project met over 93 percent of its goals. Several of the individual goals were exceeded by a significant amount. The streambank and woodland protection goals were exceeded by an additional 84 percent. This is especially significant considering the landowners' early resistance to excluding livestock from woodlands and streams. Incentive payments helped encourage turkey and swine producers to build waste management structures and to haul their animal waste off-site to operations that could better utilize the nutrients. These goals were met and exceeded due to the educational efforts of the staff.

One-on-one meetings were the most effective means to educate landowners about the benefits of BMP's and new technology. In addition, newsletters and field days helped broaden the producers' knowledge of practices and innovative technologies available for nutrient utilization. Landowners within the watershed hosted field days and provided tours of stackhouses, composters, grazing systems and spring developments. They also helped demonstrate new technology, such as pit agitators, a hard hose reel and an irrigation gun.

The number of confined animal feeding operations (CAFO's) working with a nutrient management plan did not meet the goal of the project. A possible explanation is that the number of swine producers decreased due to a severe and prolonged drop in prices. The project also experienced difficulty meeting the nutrient management goals. Information and education efforts for the nutrient management (N590) and waste utilization (N633) incentives were hampered because of the turnover in project managers. In spite of the shortcomings with the nutrient management incentives, more than 9,800 acres of soil were tested in conjunction with the incentives. The summary of specific practice accomplishment is listed below.

| Practice | Amount Completed | Cost-Share Funds |
|------------------------------------|------------------|------------------|
| Exclusion Fencing | 29,152 feet | \$5,744.25 |
| Permanent Vegetative Establishment | 100.8 acres | \$4,207.93 |
| Permanent Vegetative Improvement | 121.2 acres | \$5,396.45 |
| Terrace System | 30 feet | \$1,732.62 |
| Diversions | 257 feet | \$ 418.16 |
| Critical Area Shaping and Seeding | 9.2 acres | \$4,013.63 |
| Grazing System* | 6 | \$22,694.37 |
| Water Impoundment* | 31 | \$169,523.80 |
| Erosion Control Structure | 1 | \$2,301.31 |
| Composter and/or Stackhouse* | 16 | \$296,583.80 |
| Pasture & Hayland Management | 10,435.20 acres | \$72,121.39 |
| Spring Development | 6 | \$2,345.45 |
| Nutrient Management | 2,706.48 acres | \$45,725.69 |
| Waste Utilization | 15,562.8 acres | \$154,258.00 |
| Manure Transfer* | 11,213.50 tons | \$70,153.00 |

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| TOTAL COST-SHARE AND INCENTIVE FUNDS | \$857,219.85 |
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* Includes practices under construction, but not completed.

Within the watershed, producers' attitudes and practices have changed during the past seven years. More turkey litter is being transferred to other farms that need phosphorus. Landowners are more aware of the importance of soil testing and litter and manure analysis. A few have commented that "the creeks run cleaner now than they did in the past" and "I've been wasting my money on lime and fertilizer when I didn't use soil tests." Many producers have realized the economic value and environmental importance of implementing conservation practices and soil testing. The Loose Creek Watershed AgNPS SALT is responsible for changing attitudes and

practices, which will result in cleaner streams and a brighter future for those living and working within the watershed.