



Organizational Background and Mission:

Delta Wildlife was founded in 1990 for the specific purpose of conserving, enhancing and restoring native wildlife habitats, wildlife populations and natural resources found in the Yazoo-Mississippi Delta region of Northwest Mississippi. With a membership that owns and/or manages a majority of the land in the region, the organization has found success through the development and implementation of science-based projects and programs, targeted education and outreach, and, by demonstration, the highest possible level of accountability to organizational members and professional peers.

Problem Identification:

While the Yazoo Basin in the Lower Mississippi Valley contributes less than 5 percent of the total nitrogen and phosphorus reaching the Mississippi River, the watershed is still ranked among the top 10 contributors of nutrients among all Mississippi River watersheds. While some minor waste water treatment issues have been identified in this basin by the Mississippi Department of Environmental Quality, it is thought that a majority of the nutrient loading comes from the naturally occurring phosphorus rich soils within the region and unsequestered nitrogen-based fertilizers.

Project Overview:

Delta Wildlife will install Best Management Practices (BMPs) on approximately 1,000 sites on working farms in the Yazoo-Mississippi Delta Region of the Lower Mississippi Valley. BMPs will be designed to reduce off-site movement of nutrients and sediments while providing secondary environmental benefits through improvements to fish and wildlife habitat and water conservation. The project will include a monitoring and assessment component that will thoroughly document accrued environmental benefits.

Project Methods:

Delta Wildlife shall reduce nutrient loading associated with agricultural, non-point source run-off in the Yazoo-Mississippi Delta by installing engineered BMPs that include, but are not limited to: water control structures, treatment wetlands, sediment basins, vegetative buffers and vegetative drainage systems. Secondary benefits will include the impoundment of winter water that supports migrating birds, impounding additional surface water for irrigation use, establishment of moist soil units that accelerate denitrification and provide food for waterfowl, reduction of sediment loading to address sediment TMDLs and improve fisheries habitat, carbon sequestration and wildlife habitat improvements in the form of newly established riparian forest buffers and grass filter strips.

Delta Wildlife will recruit landowners and farmer cooperators within the watershed to participate in the project, develop and manage cooperative agreements, identify potential sites for treatment, provide technical support for BMP design, fabrication and installation and monitor environmental benefits. Specific plans for project implementation and monitoring methodology will be developed by a diverse Technical Committee of natural resource professionals, public and private, that represent crop production, wildlife, water quality and water supply interests.

Primary Project Partners:

Delta Council, Delta F.A.R.M., Delta Wildlife, The Nature Conservancy (Mississippi Chapter), Ducks Unlimited, Quail Forever, Mississippi Department of Environmental Quality, Mississippi Farm Bureau Federation, Mississippi State University, Mississippi Department of Wildlife, Fisheries, and Parks, Monsanto, USDA Natural Resources Conservation Service, USDA-Farm Service Agency, U. S. Environmental Protection Agency (Region 4), U. S. Fish and Wildlife Service.

Projected Outcomes:

Based upon its previous experience and research, Delta Wildlife believes this project will significantly reduce offsite movement of nutrients applied to crops in the Yazoo Basin. Most importantly, the project will “empower” a proactive approach among mainstream farmers in the region that have proven conservation credentials and want to address nutrient management concerns.