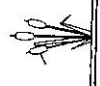
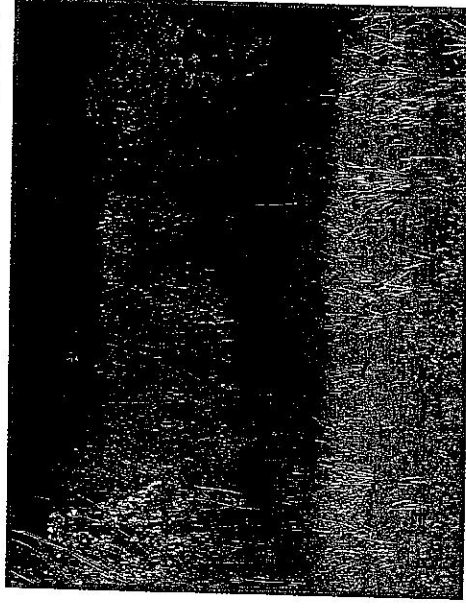


- * Kansas Biological Survey
- * Kansas Department of Health & Environment
- * Kansas Department of Wildlife & Parks
- * Kansas State University
 - * Department of Landscape Architecture
 - * Department of Regional Community Planning
 - * State and Extension Forestry
- * Kansas Water Office
- * State Board of Agriculture
- * State Conservation Commission
- * U.S. Army Corps of Engineers
- * U.S. Department of Agriculture, Soil Conservation Service
- * U.S. Department of Interior Fish & Wildlife Service
- * U.S. Environmental Protection Agency

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WETLAND CONSERVATION



KANSAS

*Equal opportunity to participate and benefit from programs described herein is available to all individuals without regard to their race, color, religion, national origin or ancestry, sex, age, sexual preference, mental or physical handicap or disability status, or political affiliation. Complaints of discrimination should be sent to Office of the Secretary, Kansas Department of Wildlife and Parks, 900 Jackson, Suite 502, Topeka, KS 66612 or to the Department of Interior, 1849 C. St., N.W., Washington, D.C., 20240.



WETLAND CONSERVATION

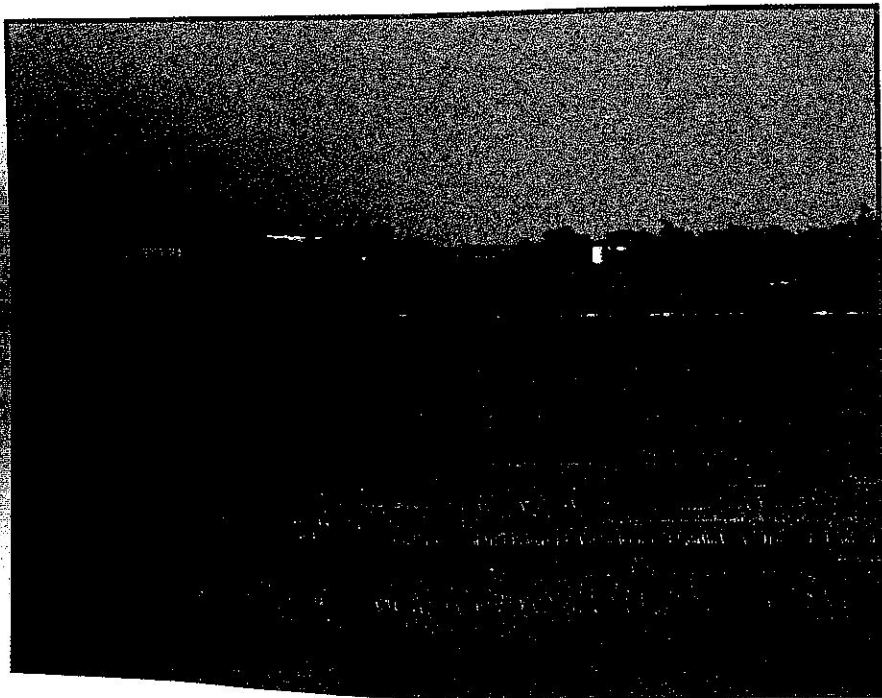
Wetlands are low areas where standing water or wet soils exist during part of the growing season of most years. These wet conditions hinder the growth of plants that are not adapted to wet conditions. Wetlands are valuable components of the total natural resource picture. Understanding them and how they function has led to a greater appreciation of the benefits they pro-

vide. Wetlands provide important **economic** benefits by reducing flood damage, controlling erosion, and providing lease hunting income; **ecological** benefits by filtering pollutants and supplying habitat for many plants and animals; and **social** values by way of open spaces that support outdoor recreation and aesthetic appreciation. Interest in the sound steward-

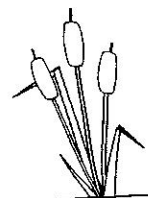
ship of Kansas' wetlands extends beyond the state's border. Wetlands in Kansas provide important habitats for many migratory birds that breed in Canada and winter in Mexico or South America.

Several government agencies and private organizations have programs to promote the stewardship of Kansas' wetlands. These agencies and organizations are working together through the **Wetland and Riparian Areas Project (WRAP)**.

WRAP was developed to help coordinate state wetland and riparian area programs and promote public awareness of the value of wetlands and riparian areas. A goal of **WRAP** is to provide a foundation for interagency cooperation and public education for the conservation of wetland areas in Kansas.



Wetland & Riparian Areas Project



WETLAND BENEFITS

WATER QUALITY BENEFITS

Wetlands help cleanse polluted water. Wetlands occur in natural depressions and help filter out eroded soil. Abundant wetland vegetation extracts dissolved nutrients that come from sewage, animal wastes, and fertilizers. Some wetlands are not wet all year. Seasonal drying of wetland areas helps break down dead plant material and accelerates the natural nutrient cycling process. Many wetlands act like sponges to hold and purify water over an extended period of time.

WATER QUANTITY BENEFITS

In many areas, wetlands are the path that surface water follows to the ground water. Draining or filling

wetlands allows rainwater to run off faster and reduces the amount of water that can filter into the ground water. Wetlands control flooding by impounding water during storms; this helps reduce peak flows and distributes runoff over a longer period.

ECONOMIC BENEFITS

Wetlands can contribute direct economic benefits to landowners. Wet meadows can supply pasture for livestock and can be used for hay production. In dry years, wet meadows often have better forage production than adjacent uplands. Marshes can be leased for waterfowl hunting. Properly managed wetlands in urban areas may increase property values because of their scenic benefits.

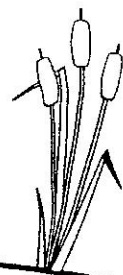
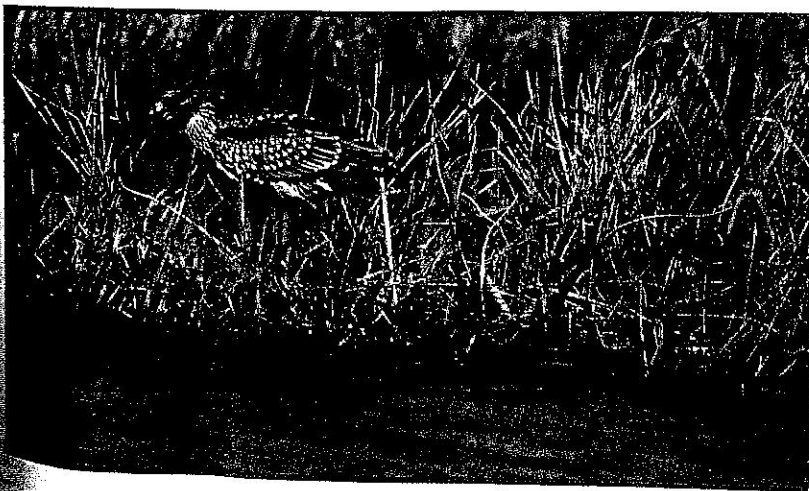
Some of the economic

values that wetlands provide are indirect. Wetlands improve water quality and provide flood protection. As we drain and convert wetlands to other uses, we increase the need to spend tax money on water treatment, soil conservation, and flood control.

BIOLOGICAL VALUES

Kansas is situated between important breeding and wintering grounds for waterfowl and other wetland birds. Playa lake wetlands in southwest Kansas are critical habitat for migrating waterfowl. Cheyenne Bottoms in central Kansas has been designated as a wetland of international importance for migrating shorebirds.

Aquatic insects and wetland plants provide essential food and cover for a variety of animals. Many species that depend on wetlands are threatened or endangered. The recovery of wetland-dependent species is directly linked to improved stewardship of the wetland resources.

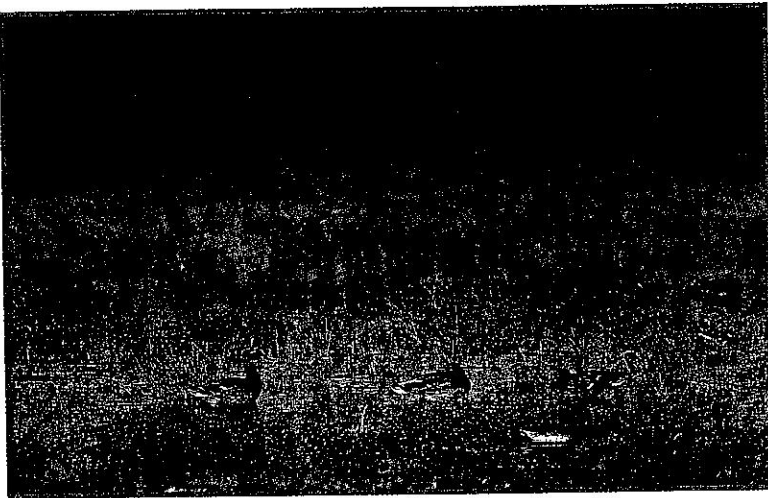
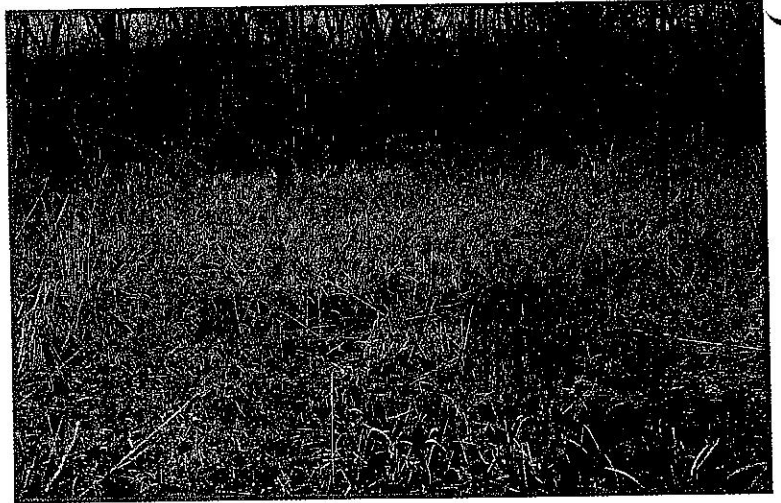


Wetland & Riparian Areas Project

WETLANDS IN KANSAS

Forested Wetland

These temporarily-flooded areas occupy shallow depressions or they may be adjacent to other wetland types. Their soils are moist enough to support unique tree species that are absent in the adjacent uplands. Wetland tree species include cottonwood, green ash, pin oak, and black willow. When these wetlands occur along rivers or streams, they are also called riparian forests.

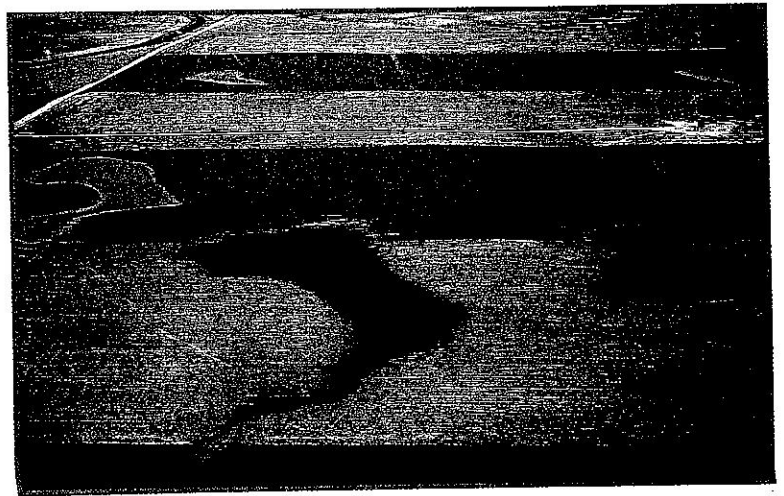


Shallow Freshwater Marsh

These wetlands occur within distinct depressions or around the perimeter of deepwater habitats. The soils are saturated and standing water occurs for extended periods. Plant communities are dominated by emergent species such as grasses, arrow-head, cattails, spikerushes, and bulrushes. Submergent plant species may be present.

Flooded Basins

These wetlands occupy shallow depressions where soils usually contain a layer of clay. Such basins often fill after heavy rains or snow melt. In wet years, these basins may support wetland plants such as spikerush and cattails. During dry years, they may support annual wetland plants such as smartweed and barnyard grass. Playa lakes are an example of flooded basin wetlands.



Other wetland types that are less common in Kansas are wet meadows, salt marshes, streambed wetlands, deep freshwater marshes, and ground water seeps.

MANAGING WETLANDS

The best management option for wetlands that have not been greatly disturbed is to protect them from potential threats. Wetlands that have been converted, filled, or drained should be managed to restore or enhance wetland characteristics.

RESTORING DRAINED WETLANDS

In Kansas, drained or converted wetlands are typically associated with agricultural activities. In many cases, these converted areas still maintain some wetland characteristics. This makes them difficult and often uneconomical to farm. These nuisance "wet spots" can be easily restored to provide benefits of a natural wetland. This process is often inexpensive, easily done, and can be engineered to provide the landowner with wetland or cropping management options.

Wetlands are not always wet; in dry years some wetlands may be cropped. This provides the landowner with additional income and can enhance "new growth" of wetland plants the following year.



FENCING WETLANDS

Extended livestock grazing in wetlands can eliminate benefits wetlands provide. Fencing allows the land manager to control grazing, yet maintain the integrity of the wetland. If the wetland is to serve as a livestock water source, part of the wetland can be fenced. This would help keep the water clean, protect wildlife habitat, and still allow cattle access to water.

ENHANCING AND CREATING WETLANDS

Creating a wetland may be a good way to gain wetland benefits. Wetlands

can be created by placing a small dike or dam across a drainage-way. Water will be impounded and wetland conditions will be established. Dikes also can be used to enlarge small or temporary wetlands. When creating or enlarging wetlands, care must be taken not to make them too deep. Deep water does not provide the same wetland benefits that shallow water does.

It is essential to get technical advice when building dikes or dams. Permits may be required and improper construction could result in flooding adjacent areas.



WHERE DO I GET HELP?

COUNTY CONSERVATION DISTRICTS

Each county has its own district office. The county conservation districts administer the state Riparian and Wetland Protection Program. Each conservation district is responsible for developing a plan to protect and restore riparian areas and wetlands. Cost-share assistance to Kansas landowners is available for long-term conservation practices, such as tree planting, critical area planting, and fencing.

STATE AND EXTENSION FORESTRY

State Office
2610 Claflin Road
Manhattan, KS 66502
Phone: 913-537-7050
State and Extension Forestry provides technical and financial assistance to landowners for management of forested riparian areas. The program focuses on proper manage-

ment and water quality improvement, erosion reduction, and other benefits that forested wetlands can provide. Assistance is also provided in planning tree and shrub plantings.

KANSAS DEPARTMENT OF WILDLIFE AND PARKS

Route 2, Box 54A
Pratt, KS 67124
Phone: 316-672-5911
Wildlife and Parks helps landowners improve wildlife habitat on their lands. Funds are available for grass seed, forb seed, trees, and shrubs. Field staff provide technical assistance, and sometimes labor and equipment. Landowners can voluntarily enroll their riparian areas into Wildlife and Parks conservation easements. Easements can be short-term or perpetual arrangements.

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

Nonpoint Source Section
Forbes Field, Bldg. 740
Topeka, KS 66620
Phone: 913-296-5573

Health and Environment provides public information and technical assistance in using vegetative management and land management practices to protect water resources from nonpoint source pollution. Information on evaluating and designing wetland corridors is available.

U.S. FISH AND WILDLIFE SERVICES

Kansas State Office
315 Houston St., Suite E.
Manhattan, KS 66502
Phone: 913-539-3474

OR

Flint Hills NWR,
P.O. Box 128
Hartford, KS 66854
Phone: 316-392-5553
The USFWS Partners for Wildlife program is designed to provide landowners with opportunities to restore, enhance, or create wetlands and riparian areas at minimal costs. Technical advice and partial payment for construction is provided. Recommendations are made for enhancing habitats. Information is supplied to the public on natural resources.

U.S. SOIL CONSERVATION SERVICE

760 S. Broadway
Saline, KS 67401
Phone: 913-823-4569
The Soil Conservation Service provides technical assistance to land users who develop and apply soil and water conservation plans. These plans offer land users alternatives that enhance riparian and wetland areas. Financial assistance may be available from USDA ASCS.

ACKNOWLEDGMENT

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