3.3 Wildlife Resources Conservation

U.S. agriculture is well positioned to play a major role in protecting and enhancing the nation's wildlife. Wildlife in the U.S is dependent on the considerable land and water resources under the control of agriculture. At the same time, agriculture is one of the most competitive sectors in the U.S., and economic tradeoffs can make it difficult for farmers, on their own, to support wildlife conservation efforts requiring them to adopt more wildlife-friendly production techniques or directly allocate additional land and water resources to wildlife. Besides the opportunity costs associated with shifting resource use or changing production techniques, the public goods and common property nature of wildlife can also affect a farmers decision to protect wildlife found on their land. However, the experiences of USDA conservation programs demonstrate that farmers are willing to voluntarily shift additional land and water resources into habitat, provided they are compensated.

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Introduction

Due to the vast quantities of land and water resources controlled by the farm sector, and the geographic distribution of those resources, U.S. agriculture is positioned to play a major role in protecting and enhancing the nation's wildlife. In 1997 farms accounted for 41 percent of all land in the contiguous 48 states—including 430.8 million acres of cropland, 395.3 million acres of pasture and range, 71.2 million acres of forest and woodland, and 38.7 million acres idled by various land retirement programs. The geographic distribution of agricultural land is important to wildlife conservation because farming is a major land use in many areas where Federal land ownership is limited.

Among USDA farm resource regions, the Federal government owns less than 9.0 percent of all land in the Heartland, Northern Crescent, Prairie Gateway, Southern Seaboard, and the Mississippi Portal (figure 3.3.1). Even in areas with significant Federal land holdings, the biological requirements of particular species may require that specific land and water resources be protected and these resources may be privately owned. Recent

studies by Oregon and Florida conclude that these states would need to maintain, respectively, 25 percent and 33 percent of their land area in natural or semi-natural conditions to fully support all state wildlife populations (Noss and Peters, 1998; Cox, et.al., 1994). While these figures may or may not be representative of other states, they do highlight the central role that privately owned lands in general, and agricultural lands in particular, will have to play if state and national efforts to protect the full diversity of wildlife resources are to be successful.

Similarly, within the contiguous 48 states the farm sector owns most of the 92 million acres of rural nonfederal wetlands. Cropland, pasture, and range use also account for 82 percent of the 83 million acres of converted wetlands (Heimlich et. al., 1998). Therefore, the farm sector is key to any national effort to protect and restore wetlands and their dependent species.

Tradeoffs Between Agricultural Production and Wildlife Habitat

For farmers and ranchers, engaging in activities that protect or enhance wildlife resources can entail a variety of economic tradeoffs. On the cost side, shifting land from commodity production to habitat means giving up the income that could have been earned from the commodities the land would have produced. Similarly, restricting livestock from riparian areas can mean incurring the time and money costs of fencing off land and constructing alternative watering facilities. Even acquiring information about conservation techniques or the rules governing conservation programs can represent a cost to farmers. On the benefits side, conservation efforts may enhance the hunting, fishing, viewing, and other wildlife-related opportunities associated with agricultural lands (see chapter 3.1). Farmers and ranchers can enjoy these opportunities directly and, in many areas, can capture the value others place on them by selling access and use privileges to their land.

The economic tradeoffs that frequently characterize the interface between agricultural production and wildlife protection help explain why farmers and ranchers, on their own, often choose not to manage land and water resources for wildlife. As one of the most competitive sectors of the U.S. economy, agricultural enterprises typically operate at or near the economic margin. This severely limits the ability of most farmers and ranchers to adopt production practices that may favor wildlife, but which also increase costs or reduce output. Even wildlife-friendly practices that are neutral with respect to their cost and output impacts may not be widely adopted if there is no perceived economic benefit for the landowner. Programs designed to enhance and protect wildlife resources on agricultural lands need to address the key economic issues underlying the tradeoffs between production and conservation if they are to secure the participation of the farm sector.

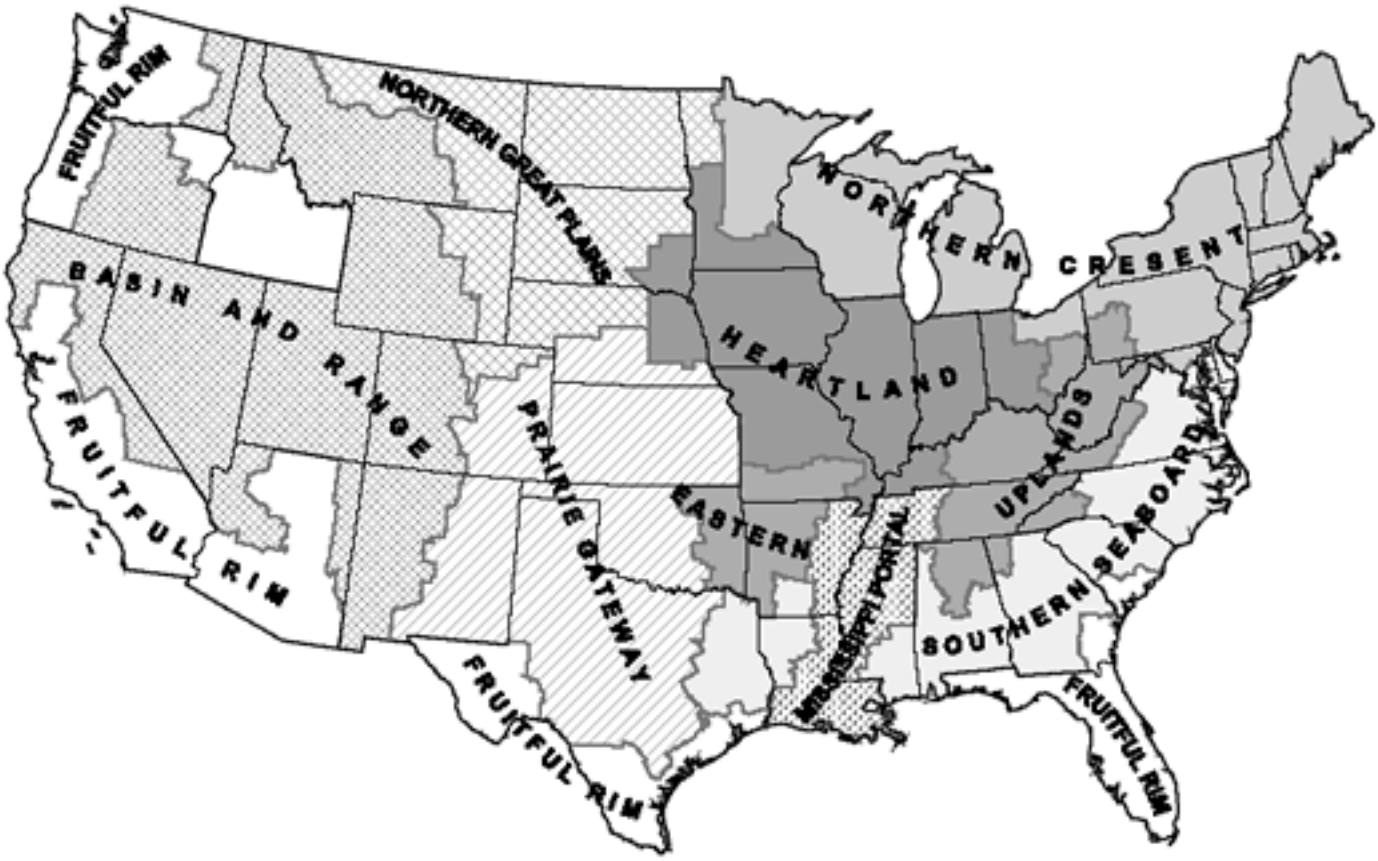
From the producer's perspective, the most important economic issue has to do with asymmetries in the distribution of the costs and benefits associated with wildlife conservation activities. That is, producers generally find it difficult to garner profits from activities that benefit the general public. Other economic issues affecting the tradeoff between agricultural production and wildlife protection include the ownership of land and water resources, maintaining landowner confidence regarding future land management options, and making sure programs provide for the basic biological needs of the desired species or habitats.

Asymmetric distribution of costs and benefits

The goods and services associated with wildlife often possess characteristics that limit their trade in markets. For example, many of the benefits people derive from wild species and habitats are of a type called *public goods*— meaning that once provided at some level, they are freely available at that level to all consumers. Such goods include knowing a species exists (existence value), knowing a species will exist for future generations to

use (bequest value), and maintaining the ability to use a species at a later time (option value). Free market production of public goods is generally less than the level that would be best for society in general. This is because consumers have an incentive to let others provide public goods while they spend their income on other goods and services, and because private suppliers have little incentive to incur the costs of producing goods they cannot sell.

Figure 3.3.1-ERS Farm Resource Regions



Other important wildlife goods and services are *common property resources*—meaning that they are available to anyone willing to incur the direct costs of exploiting the resource. Fee hunting is often suggested as an activity farmers and ranchers could exploit to increase farm income and improve wildlife habitat on agricultural lands. But game species typically do not respect private property boundaries. This can limit the incentives for landowners to invest in habitat enhancements because some of the return on that investment will accrue to owners of adjacent parcels or to hunters who have access to those parcels. If access to the adjacent parcels is free, then hunters need only incur the costs directly associated with travel and harvest. The landowner whose investment produced the improved hunting benefits would not be compensated. As with public goods, free market production of common property resources will tend to be less than would be best for society as a whole.

This is because private suppliers have no incentive to develop a resource that they cannot charge people to use and consumers have an incentive to use the resource thus created to exhaustion.

The public good and common property nature of wildlife means that farmers will generally have few opportunities to capture the value of the associated goods and services in markets. The benefits of wildlife resources, while often significant in the aggregate, are largely not traded in markets and accrue in small increments across a large number of individuals. On the other hand, the costs of protecting wildlife resources, while often small in the aggregate, frequently fall heavily on specific groups whose production activities coincide with key habitat areas. The asymmetry for farmers is that the benefits of supplying wildlife habitat typically do not increase farm profits but the costs often decrease farm profits. The U.S. Fish and Wildlife Service (1994) estimated the annual benefits of a successful reintroduction of gray wolves in Yellowstone National Park at $8.3 million in existence value and $23 million in increased visitor expenditures. The existence value benefits will be shared by all people who value knowing that wolves exist in the Park, while providers of tourist, recreation, and retail goods and services in the area will share the higher visitor expenditures. On the other hand, reintroduction costs include livestock depredation losses estimated at between $1,888 and $30,470 annually. Absent a compensation program, local ranchers will bear all of this cost, while receiving little of the benefit.

Ownership of land and water resources

Ownership arrangements and the property rights they define, determine the economic interests farmers and ranchers have in land and water resources. Thus, they determine when producers see policies to promote wildlife as a benefit, a cost, or as economically neutral. Property rights also determine the strength of alternative claims to allocate land and water resources to economic uses and so they determine the set of feasible policy instruments that can be used to protect or enhance species and habitats. The Endangered Species Act (ESA) requires Federal agencies to ensure that actions they fund, authorize or carry out are not likely to jeopardize listed species. Farmers and ranchers who lease Federal lands or depend on government-supplied goods and services are much more susceptible to regulatory actions when their production activities pose threats to listed plant and animal species. At the other extreme, the ESA extends no protections to listed plant species on private lands. Protecting such species therefor requires the cooperation of private landowners.

Different property rights arrangements create dissimilar incentives regarding the management and use of similar resources. For example, it is often argued that resource owners will generally be better stewards than renters because ownership creates an economic interest in the long-run productivity of a resource. Renters have more incentive to maximize short-run gains. LaFrance and Watts (1995) note that owners of private rangeland in the West are much more likely to make investments that improve long-run range productivity than ranchers who lease Federal rangelands.

For purposes of promoting wildlife conservation on U.S. agricultural lands, it is useful to view resource ownership in terms of a bundle of separate interests. Each interest conveys the right to use the resource in a specific way (for example, to grow crops, graze livestock, log, mine, develop, hunt, or rent to others) (Wiebe et al., 1996). The market value of any subset of interests reflects expectations about the present value of all current and potential future uses that subset of interests allows the holder to legally undertake. In this framework, when efforts to protect wild species and their habitats impose new restrictions on how private landowners may use land or water resources, the result can be a decrease in the market value of those property interests.

Potential losses of land management options

The Endangered Species Act (ESA) and the Clean Water Act (CWA) potentially expose private landowners to reduced future resource management options if they restore or enhance certain types of wildlife habitat. Specifically, the ESA allows private lands to be included in designated critical habitat areas (CHAs). Under sections 9 and 11 of the ESA, degrading CHAs can expose a landowner to both civil and criminal penalties. Such a designation then, can significantly restrict land management options and when such restrictions reduce the income earning potential of land, the result can be a decrease in property value. By raising the possibility or increasing the probability that a restored or enhanced habitat might be designated a CHA, the ESA discourages farmers and ranchers from acting to establish or improve habitats that might attract endangered species.

Similarly, Section 404 of the CWA gives the Army Corps of Engineers and the EPA broad authority to regulate the modification of aquatic and wetland systems when, among other things, it is determined that such actions will have an unacceptable adverse impact fish or wildlife (33 CFR 328.3). Again, the risk of making lands subject to Federal regulations, is that it creates a disincentive for producers to voluntarily restore riparian areas or other wetlands.

To redirect land management incentives under the ESA, Congress amended the Act in 1982 to allow for Habitat Conservation Plans (HCP) on private lands. HCPs allow landowners to engage in activities that might result in the taking of a listed species provided that agreed-upon measures to minimize such takings have been implemented. Supporting regulation, referred to as the "No Surprises" clause, gives additional assurance to HCP permit holders. "No Surprises" means that landowners will not be subject to further restrictions nor required to commit additional resources beyond those agreed to in the HCP if "unforeseen circumstances" arise, such as if additional species are found in the area, or new threats to listed species are discovered. HCPs have grown in popularity as a means of making economic activities more compatible with wildlife. As of August 9, 2000, 313 HCPs have been approved, covering 20 million acres and protecting 200 species listed as threatened and endangered.

Cost implications of biology

Wild species require four basic services from their habitats—food, water, cover, and interspersion. Where agriculture diminishes the ability of habitats to provide these services, species will be negatively impacted. Understanding how species exploit habitats and how habitats support species is key to the design of economically efficient policies to enhance and protect wildlife on agricultural lands. Policies that do not provide for the biological needs of target species are unlikely to accomplish their wildlife conservation objectives. Any associated restrictions imposed on farm activities, then, run the risk of needlessly increasing production costs.

Farm policy must also recognize that nature imposes its own set of tradeoffs among species, and these tradeoffs have cost implications for wildlife conservation efforts. Supporting a single species or group of species by enhancing or protecting specific kinds of habitats is not likely to benefit—and may harm—species not adapted to those habitats. Agricultural land-use conversions during the past two hundred years, for example, have been implicated in the decline of many wildlife populations. These same land use changes, however, have benefited other species. White tail deer, raccoons, red foxes, coyotes, and starlings have all extended their range and increased their numbers as a result of their association with agriculture. Hence, the cost effectiveness of farm programs to enhance and protect wildlife resources will, at least to a degree, depend on the relative values society attaches to the species that are positively and negatively impacted.

Objectives of Wildlife Resource Conservation Policy

Efforts to protect and enhance wildlife resources associated with U.S. agricultural lands need to strike a balance between the economics of production activities, the distribution of legal property rights, the biological needs of desired species and habitats, and social preferences regarding wildlife conservation. The relationship between these objectives is often complex and dynamic. To illustrate these points, consider the reintroduction of gray wolves into Yellowstone National Park and Central Idaho. The locations were chosen based largely on the area's vast Federal land holdings, which helped accommodate the species' extensive spatial requirements. The commitment of millions of dollars to the program reflected a social preference for expanding the range of a popular species whose existence is secure in Canada and Alaska over increasing the survival chances of many domestic species truly in danger of extinction. Finally, the program explicitly recognizes increased threats of livestock predation, which stands in sharp contrast to decades of federal policies aimed at extirpating wolves because of the threat they posed as a livestock predator.

Because of the complexities and dynamics of agriculture's interface with wildlife, at least five different policy objectives are reflected in USDA programs that either directly or indirectly protect or enhance wildlife resources associated with U.S. agricultural lands. These objectives are:

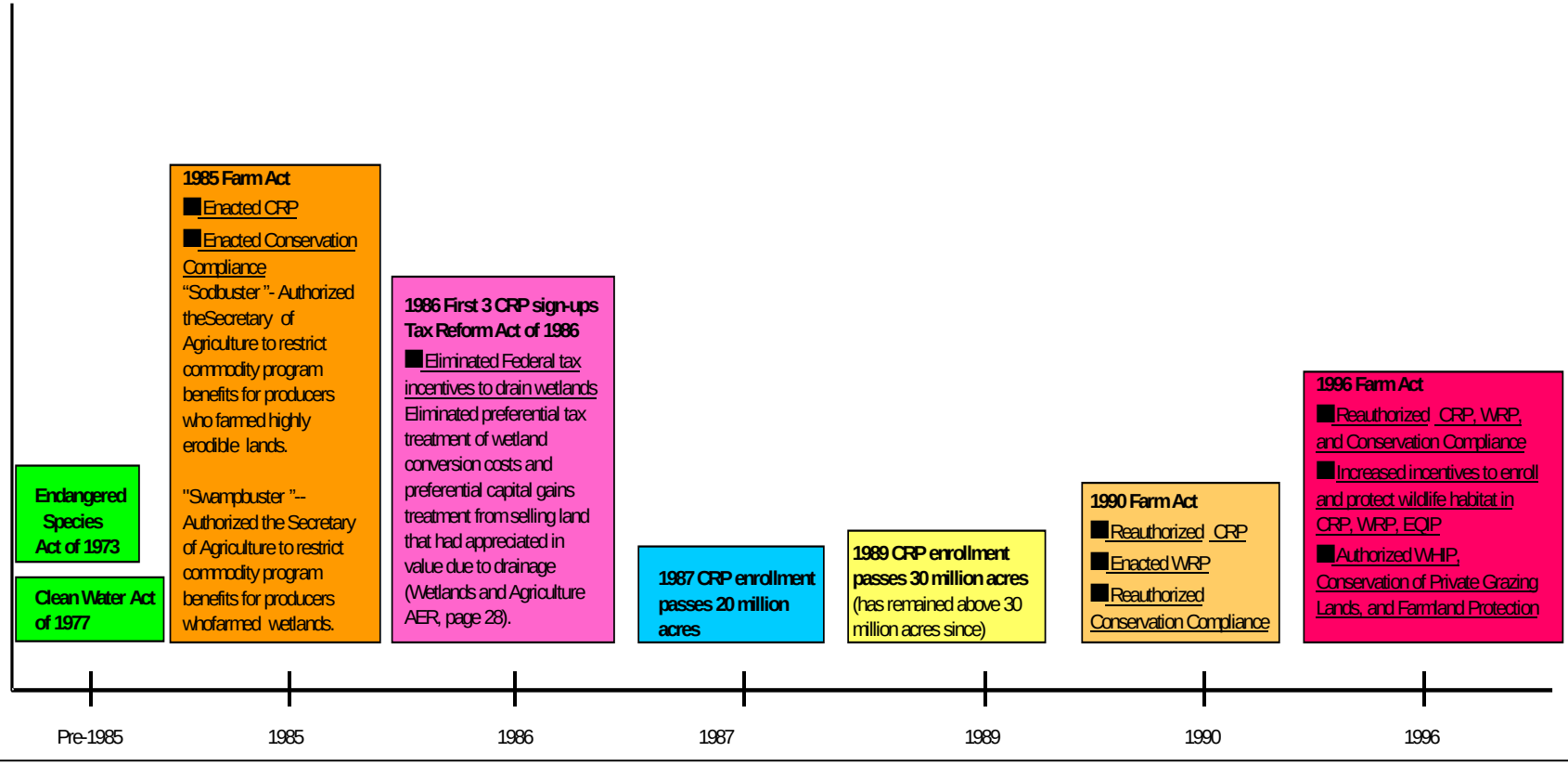
- Minimize impacts of agricultural production on wild species and habitats.
- Minimize impacts on agricultural producers of wildlife conservation programs.
- Protect threatened and endangered species.
- Improve water quality and reduce soil erosion (see Chapters 2.3, 4.2 and 6.4).
- Protect open space (see Chapter 1.1).

Lessons From Past USDA Conservation Programs

Prior to 1985, USDA's conservation programs operated relatively independent of farm commodity programs—which traditionally emphasized controlling market supplies, stabilizing commodity prices, and maintaining farm incomes. In the last three Farm Acts, however, USDA's conservation objectives have been greatly expanded and the associated programs have been increasingly linked to programs aimed at supporting commodity prices and farm incomes. As a result of these linkages, many wildlife populations and habitats have benefited significantly (Heard et al, 2000). The evolution of USDA and other federal policies that have enhanced wildlife associated with agricultural lands since 1985 can be plotted on a timeline (figure 3.3.2).

The 1985 Farm Act made reducing environmental damages associated with soil erosion an explicit USDA policy objective. It did this by establishing the Conservation Reserve Program (CRP—see box "Wildlife in the 1996 Farm Act" and Chapter 6.2) and authorizing the Secretary of Agriculture to restrict commodity program benefits for producers who farmed highly erodible lands. The 1990 Farm Act added improving water quality to USDA's conservation objectives by establishing the Wetlands Reserve Program (WRP—see box and Chapter 6.5). The 1990 Act also expanded the Secretary's authority (first granted in the 1985 Farm Act) to restrict commodity program benefits for producers who drain or farm wetlands (the "swampbuster" provision). By creating or expanding several USDA conservation programs to encourage producers to protect and enhance

Figure 3.3.2--Timeline of U.S. policies positively affecting wildlife resources on agricultural lands, 1985-present



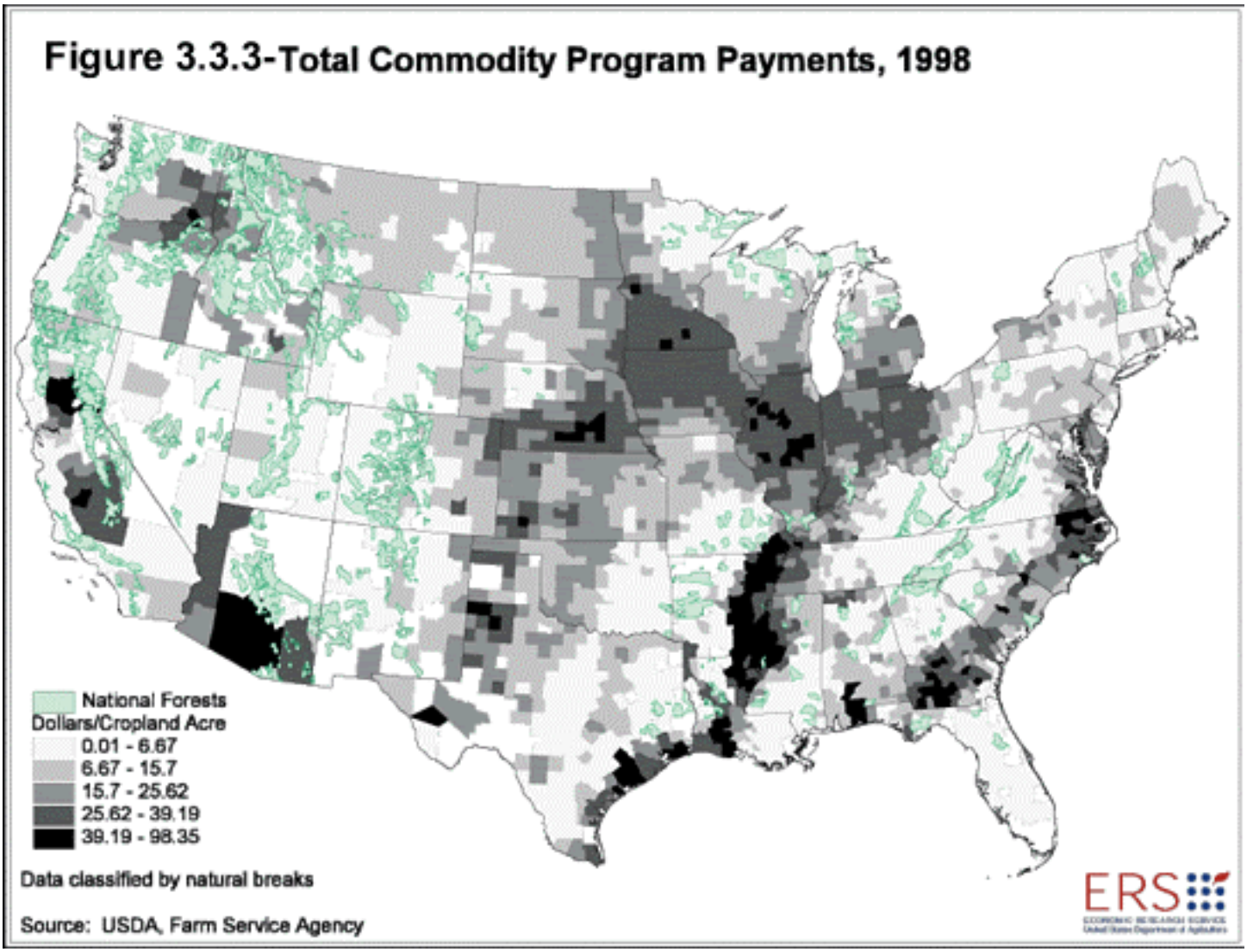
important wildlife habitat areas, the 1996 Farm Act made wildlife habitat protection the third major conservation goal of U.S. farm policy (see box and Chapter 6.1).

The potential for USDA programs and policy tools to affect land use decisions that protect and enhance the nation's wildlife resources can be examined by highlighting counties according to their level of commodity program payments, in dollars per acre (figure 3.3.3). The distribution of counties highlighted with high farm program payment levels also matches closely with the distribution of counties with lands enrolled in the CRP (see figure 6.2.2, Chapter 6.2)—areas where farmers have decided it is in their economic interest to participate in USDA's largest conservation program. Areas where participation in USDA commodity or conservation programs is high could be leveraged to encourage farmers and ranchers to manage additional land and water resources to benefit wildlife species and their habitats. Through its control of the National Forests and Grasslands System, USDA can also affect wildlife conservation activities on 191.8 million acres of publicly owned land (shown in green in figure 3.3.3). USDA's past experience with conservation programs offers several important lessons for future programs aimed at enhancing and protecting wildlife resources on agricultural lands.

First, farmers and ranchers will shift land and water resources into habitat provided they are compensated for resulting income losses. USDA's conservation programs have traditionally employed economic incentives to encourage farmers and ranchers to shift lands into conservation uses. In response to such incentives, producers have voluntarily enrolled almost 30.3 million acres in the CRP, 935,000 acres in the WRP and 92,000 in the Emergency Wetlands Reserve Program, and allowed about 91.6 million acres to be covered by the Swampbuster provision of the 1996 Farm Act.

A second lesson offered by USDA's past experience with conservation programs is that rigid program designs are likely to be needlessly costly. Analyzing the CRP, Heimlich and Osborn (1994) found that if the annual payments for lands enrolled prior to 1990 had been based on their market values rather than on the uniform payment level the program offered, annual program costs would have been reduced $450 million.

Finally, the environmental benefits of programs to protect wildlife on U.S. farmlands will be higher if programs target those lands with the most potential for producing desired wildlife goods and services. Without such targeting, profit maximizing producers will respond to inducements to increase habitat by offering those land and water resources whose return in alternative uses is, at most, equal to the value of the inducement. Hence, a land retirement program offering a single low rate will tend to attract the least profitable agricultural lands. Because there is no necessary correlation between the quality of land for commodity production and the quality of land for wildlife habitat, there will be a hit-or-miss result with respect to the quality of the habitat included. Additionally, targeting those lands with the highest potential for producing wildlife benefits can significantly reduce the costs of protecting wildlife on agricultural lands. An analysis of the March 1997 CRP signup, for example, reveals that the new enrollment criteria, which requires competitive bids and considers enrollment costs and potential environmental benefits, has decreased program costs from $50 to $39 per acre (FSA, 1997). Feather et al. (1999) analyzed the same signup period and the role of the Environmental Benefits Index (used to prioritize lands offered for enrollment) in targeting enrollments to increase the value of environmental benefits. Compared to lands enrolled prior to 1992, they found increases in the value of water-based recreation benefits of 255 percent (i.e., from $36.4 million to $129 million) and 83 percent for wildlife viewing benefits (from $347.7 million to $635 million).



USDA's Policy Tools for Protecting Wildlife Habitat Associated with Agriculture

USDA has a long history of wildlife conservation activities, starting with programs that date to the original soil, water, and forestry conservation programs of the 1930s and before (see box "Past USDA Wildlife Conservation Programs"). To achieve USDA's present wildlife conservation objectives, conservation programs employ a variety of policy tools—notably long-run land retirement, conservation compliance, cost sharing conservation activities, education, and technical assistance (see box "Wildlife in the 1996 Farm Act"). One distinguishing characteristic of USDA's conservation tools is that they focus on providing economic incentives to encourage landowners to voluntarily take specific actions that will favor wildlife. Below, we briefly describe the policy tools that are, or could be, used to protect wildlife resources associated with agricultural lands (figure 3.3.4).

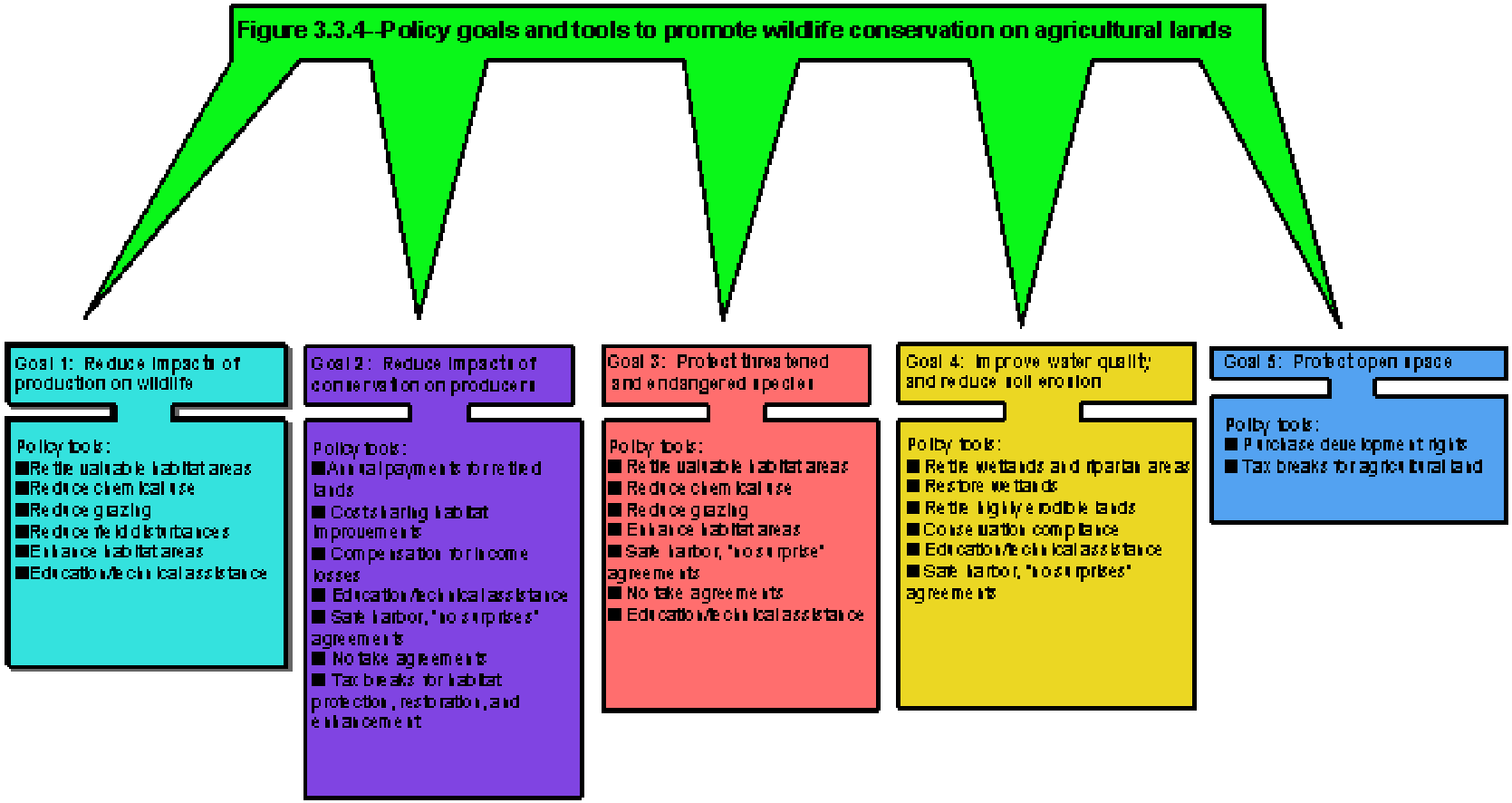


Figure 3.3.4--Policy goals and tools to promote wildlife conservation on agricultural lands
Goal 1: Reduce impacts of production on wildlife
Policy tools:
■Retire unfarmable habitat areas
■Reduce chemical use
■Reduce grazing
■Reduce field disturbances
■Enhance habitat areas
■Education/technical assistance
Goal 2: Reduce impacts of conservation on producers
Policy tools:
■Annual payments for retired lands
■ Cost sharing habitat improvements
■ Compensation for income losses
■ Education/technical assistance
■ Safe harbor, "no surprises" agreements
■ No take agreements
■ Tax breaks for habitat protection, restoration, and enhancement
Goal 3: Protect threatened and endangered species
Policy tools:
■ Retire unfarmable habitat areas
■ Reduce chemical use
■ Reduce grazing
■ Enhance habitat areas
■ Safe harbor, "no surprise" agreements
■ No take agreements
■ Education/technical assistance
Goal 4: Improve water quality and reduce soil erosion
Policy tools:
■ Retire wetlands and riparian areas
■ Restore wetlands
■ Retire highly erodible lands
■ Conservation compliance
■ Education/technical assistance
■ Safe harbor, "no surprises" agreements
Goal 5: Protect open space
Policy tools:
■ Purchase development rights
■ Tax breaks for agricultural land

Long-run land retirement
Among USDA's most important conservation tools is entering into long term contracts with farmers to voluntarily retire mutually agreed areas of land from commodity production in exchange for lump sum or annual rental payments. As of June 2000, such contracts numbered almost 5,230 in the Wetland Reserve Program and just under 410,000 in the much larger CRP. Contracts generally require that lands be retired for at least 10 years and typically specify some restrictions on how lands are used or managed. From an economic perspective, the rental payments reimburse producers for the opportunity cost (that is, the foregone income) of shifting land and water resources out of commodity production and into conservation uses. Other economic benefits that may positively affect at least some farmers' decisions to participate are a reduction in farm income risk (since program payments are fixed over the contract period) and an increase in soil productivity associated with the buildup of soil organic matter while the land is not in production.

Conservation compliance
Conservation compliance is the provision of the Farm Act that requires the Secretary of Agriculture to limit various farm program benefits—such as price supports, commodity storage loans, and market transition payments—to farmers who abide by certain restrictions regarding crop production on highly erodible lands and wetlands. By failing to adhere to conservation compliance restrictions, farmers risk losing the benefits of income support, reduced production risk, and reduced marketing risk provided by the commodity programs. While not directly targeted at wildlife, the reduced soil erosion, reduced sediment runoff, and improved water quality that has occurred as a result of conservation compliance has significantly improved conditions for wildlife in many areas of the country. ERS estimates that if conservation compliance were terminated, between 1.5 and 3.3 million acres of wetland and between 5.6 and 10.9 million acres of highly erodible land could potentially be converted to commodity production (see Chapter 6.3).

Cost sharing conservation practices
Several USDA conservation programs encourage farmers to implement agreed upon habitat improvements by providing financial assistance to help cover the cost of the improvements. Improvements can include such things as establishing certain types of vegetative cover, restoring wetland and riparian systems, and installing various types of structures that benefit wildlife. The level of cost share assistance varies among the programs but is generally between 50 and 75 percent. In 1999, cost share payments to farmers for all conservation practices in the CRP, WRP, WHIP, and EQIP totaled $338.8 million.

Technical assistance and extension
Technical assistance and extension programs show farmers and ranchers how to adjust production practices and land management decisions to minimize the impacts of commodity production on wildlife. By bringing such information and assistance to farmers, these programs lower the cost of learning about and implementing conservation practices. They can be effective where there are changes farmers can make in their production practices or land management decisions that favor wildlife and that are neutral with respect to their impact on net farm income.

USDA's Animal and Plant Health and Inspection Service (APHIS) Wildlife Services Program provides technical assistance to farmers suffering from wildlife predation on crops and livestock, in cooperation with related state and other Federal programs. The APHIS program works with producers to prevent problems with wildlife, provides technical assistance and cost-sharing and equipment to discourage, disperse, or relocate problem wildlife, helps plan for threatened and endangered species conservation, and regulates permits to take wildlife that cause continued predation. About $20 million in staff salary and other costs were expended in this

program in FY 1999.

Encouraging conservation partnerships

USDA increasingly seeks to combine its wildlife conservation resources with those of state and local governments, as well as private interest groups, to fund specific conservation activities at a larger scale than any one group is able to do alone. These partnership arrangements are important components of both the Conservation Reserve Enhancement Program (CREP, see Chapter 6.2) and the Wildlife Habitat Incentive Program (WHIP). Examples include the recently announced (April 13, 2000) CREP partnership in Pennsylvania to improve water quality and wildlife habitat in the Chesapeake Bay watershed and a 1998 WHIP partnership in Maine to improve fish migration on the Soudabscook River. Under the first agreement, USDA and the State of Pennsylvania will spend $210 million (USDA's share is expected to be $129 million) to encourage farmers and other landowners to plant grass filter strips, establish forest buffers, or adopt other conservation practices along 100,000 acres of environmentally sensitive streams and rivers. In the second agreement, NRCS teamed with various interests in Maine to remove a dam providing Atlantic salmon, river herring, sea run trout, and alewives with access to a 160 square mile watershed.

Compensation

Compensation refers to paying farmers and ranchers for economic losses they incur as a direct result of wildlife enhancement or protection programs. Such payments have not generally been a part of past USDA conservation programs but could be included in the future. Currently, a number of states and several private conservation groups administer programs that pay farmers and ranchers for crop and livestock losses related to specific wildlife conservation programs. Minnesota and Maryland, for example, have programs that pay farmers for livestock losses resulting from, respectively, timber wolf and black bear predation. Similarly, Wyoming provides funds to farmers for agricultural losses caused by big game, trophy game, and game birds. While not an explicit component of the federal government's efforts to reintroduce wolves in various parts of the contiguous 48 states, the private group Defenders of Wildlife administers programs that pay farmers in these areas for cattle and sheep lost to wolf predation.

Safe-harbor, no surprises, and no take provisions

"Safe harbor" agreements partially or fully exempt landowners who voluntarily restore or create desired habitats (for example, wetlands or riparian habitats) from land-use restrictions that would normally be associated with such areas. "No surprises" agreements protect landowners against future costs not foreseen in a conservation agreement. Such provisions, for example, could exempt a landowner from additional land use restrictions that might otherwise result from a future species listing. "No take" agreements partially or fully exempt land owners who voluntarily establish or enhance desired wildlife resources from various takings prohibitions in the Endangered Species Act (ESA). While "safe harbor", "no surprises", and "no take" agreements are not explicit components of current USDA wildlife conservation programs, they can be important to farmers affected by U.S. Fish and Wildlife Service programs to protect and recover threatened and endangered species

Authors: Jan Lewandrowski (202)-694-5522 janl@ers.usda.gov, Kevin Ingram.

Wildlife in the 1996 Farm Act

The 1996 Farm Act created or refocused several USDA conservation programs to encourage farmers to protect important wildlife habitats. These programs provide financial incentives to induce landowners to put environmentally sensitive lands into conservation uses or under conservation management practices. Participants must generally comply with conservation compliance restrictions on farming highly erodible lands and wetlands.

The Wildlife Habitat Incentives Program (WHIP)—Created by the 1996 Farm Act, WHIP is the first USDA conservation program solely designed to protect and restore wildlife habitat. Priority is given to habitats for upland and wetland wildlife, threatened and endangered species, and aquatic species. Participants must develop a Wildlife Habitat Development Plan, for which WHIP provides cost sharing of up to 75 percent to implement included habitat improvements. WHIP contracts must be for at least 5-10 years. The Farm Act stipulates that WHIP receive a total of $50 million by FY 2002. Appropriations were $30 million in 1998 and $20 million in 1999 with 80 percent of the funds being used to cost share habitat improvements.

The Conservation Reserve Program (CRP)—The CRP provides farmers with annual rental payments and cost share assistance in exchange for retiring highly erodible or environmentally sensitive cropland for 10 years. The 1996 Farm Act extends the CRP through FY 2002 and caps enrollments at 36.4 million acres. To be eligible, lands must now meet criteria indicating potential wildlife, water quality, or soil erosion benefits. For wildlife, the main criteria are that lands be in designated state or national conservation priority areas, cropped wetlands or adjacent upland buffers, filterstrips, riparian buffers, and permanent wildlife habitat. Eligible bids are ranked competitively based on an environmental benefits index (EBI) and taking account of the government's contract cost. Wildlife, water quality, and soil erosion are the dominant (and equal) factors determining a tract's EBI score. CRP enrollment topped 8 million acres in 1986, 20 million acres in 1987, and 30 million acres in 1989. In 1999, CRP enrollment was 30.3 million acres. CRP also includes a continuous signup and the Conservation Reserve Enhancement Program (CREP), which focus on practices such as riparian buffers and grass strips that filter sediments and nutrients from water and provide habitat.

Wetlands Reserve Program (WRP)—First authorized in the 1990 Farm Act, the WRP offers landowners the opportunity to restore and protect wetlands and certain associated acres through 30-year easements or permanent easements or restoration cost-share agreements. Cost-share agreements are generally 10-years. The 1996 Farm Act extends the WRP through FY 2002 and directs new enrollments to maximize wildlife benefits and wetland values and functions. Priority is given to areas that maximize values for migratory birds and other wildlife. Offers from landowners are received under a continuous signup process. Offers are ranked based on ecological and cost considerations. Enrollment is capped at 975,000 acres.

The Environmental Quality Incentive Program (EQIP)—EQIP provides technical, educational, and financial assistance to encourage farmers to adopt practices that reduce environmental problems. EQIP's objectives include protecting wetlands and riparian areas, improving fish habitats in grazing areas, and protecting the quality and quantity of wildlife and wildlife habitat. Contracts run from 5 to 10 years and participants must develop a farm conservation plan. Participants are given cost-share or incentive payments to apply conservation practices or make land use adjustments. Cost share payments are limited to 75 percent of the projected cost for structural or vegetative practices. Incentive payments can be as needed to get land management practices adopted that would not otherwise be done. The 1996 Farm Act stipulates that EQIP receive $200 million in each of FY 1997-2002. Appropriations for 1996, 1997, 1998, and 1999 were, respectively, $130 million, $200 million, $200 million, and $174 million. Payments to cost-share the installation of conservation practices accounted for 86 percent of these funds.

Past USDA Wildlife Conservation Programs

USDA has had programs to conserve and protect wildife habitat associated with agricultural and forestry production since the 1930's. The Federal Agriculture Improvement and Reform Act of 1996 consolidated or ended some long-standing USDA wildlife conservation programs.

Water Bank Program (WBP)—Authorized in 1970,WBP was designed to preserve, restore, and improve high-priority wetlands. USDA entered into agreements with landowners and operators in important migratory waterfowl nesting, breeding, and feeding areas for the conservation of specified wetlands. Agreements were for 10 years with provision for renewals. WBP was administered by FSA until 1994, when NRCS administered it. In 1995, 700,000 acres were in the program with annual payments of nearly $10 million. North Dakota, Mississippi, Arkansas, and South Dakota had the most acres enrolled of 12 States. Congressional appropriators eliminated funding for WBP in FY 95, reflecting deficit reduction pressures. As a result, payments to farmers end as their 10-year contracts expire and no additional acres can be enrolled in the program. However, certain lands subject to expiring WBP contracts are eligible for possible enrollment in either CRP or WRP.

Agricultural Conservation Program (ACP)—Initiated in 1936 and administered by FSA, ACP provided cost-sharing (up to $3,500 annually or $35,000 under 10-year agreements) and technical assistance to farmers who carried out approved conservation and environmental protection practices on agricultural land and farmsteads. Wildlife-related practices included water impoundments for wildlife, establishing permanent wildlife habitat for cover or food, development or restoration of shallow water areas for wildlife, control of noxious weeds, and other practices for soil erosion control that also contributed to wildlife habitat. Authority for ACP terminated on October 1, 1996, when its functions were subsumed by EQIP.

Great Plains Conservation Program (GPCP)—GPCP, initiated in 1957 and administered by NRCS, provided technical and financial assistance in 556 counties in the 10 Great Plains States for conservation treatment on entire operating units. Financial cost-share assistance of up to 75 percent under 3-10 year contracts was limited to $3,500 per person per year. In 1995, over 7,400 farms were active in the program, covering nearly 16 million acres. GPCP was terminated on October 1, 1996, when its functions were subsumed by EQIP.

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