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Report to the Chairman, Committee on Agriculture, Nutrition, and Forestry, U.S. Senate

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# FARM PROGRAMS

# Conservation Reserve Program Could Be Less Costly and More Effective

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GAO

**United States**
**General Accounting Office**
**Washington, D.C. 20548**

**Resources, Community, and**
**Economic Development Division**

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November 15, 1989

The Honorable Patrick J. Leahy
Chairman, Committee on Agriculture,
Nutrition, and Forestry
United States Senate

Dear Mr. Chairman:

In response to your request and subsequent discussions with your office, this report discusses the Department of Agriculture's administration of the Conservation Reserve Program, including, among other things, its benefits and costs.

We are sending copies of this report to the appropriate House and Senate Committees; interested Members of Congress; the Director, Office of Management and Budget; and other interested parties.

This report was prepared under the direction of John W. Harman, Director, Food and Agriculture Issues, who may be reached on (202) 275-5138, if you or your staff have any questions. Other major contributors to the report are listed in appendix III.

Sincerely yours,

J. Dexter Peach
Assistant Comptroller General

# Executive Summary

## Purpose

The Food Security Act of 1985 authorized the U.S. Department of Agriculture (USDA) to implement the Conservation Reserve Program (CRP)—a multi-billion-dollar program to remove 40 to 45 million acres of highly erodible cropland from production by 1990.

The Chairman of the Senate Committee on Agriculture, Nutrition, and Forestry requested GAO to undertake a comprehensive review of the CRP, including, among other things, its benefits and costs.

## Background

About 3.1 billion tons of soil erode from the nation's cropland each year causing reduced long-term productivity of the land, sedimentation of water bodies, and damage to surface water and groundwater quality. The CRP—administered by the Agricultural Stabilization and Conservation Service (ASCS)—was designed to address such problems that are estimated to cause $1.84 billion in on-farm damages and from $5 billion to $18 billion in off-farm damages, annually. The CRP also had the objectives of curbing production of surplus commodities and providing income support for farmers.

The legislation prescribed specific acreage amounts up to a total of 45 million acres that are to be enrolled in the program each year from 1986 through 1990. Further, the act established a goal that trees should be planted on at least 12.5 percent of the acreage enrolled in the CRP.

Beginning in 1986, USDA held periodic sign-ups during which farmers with highly erodible cropland offered their acres for enrollment in the CRP in return for an annual per acre rental rate they were willing to accept. USDA accepted all bids that were equal to or less than preset rental rate caps that varied across the country. Farmers had to plant conservation cover crops like grass or trees on land enrolled in the CRP. USDA reimbursed farmers for up to half the cost of planting the cover crop.

## Results in Brief

Over 28 million acres were enrolled in the CRP through December 1988, resulting in substantial reductions in soil erosion. USDA managers, however, focused primarily on meeting the mandated acreage enrollment requirement and tree planting goal established by the act. USDA focused less on other CRP objectives, such as improving water quality. Further, some USDA management actions have increased the program's cost.

# Principal Findings

## CRP Benefits

Of the 28 million acres enrolled in the CRP through December 1988, about 1.7 million acres were planted with trees. While not meeting the 12.5 percent goal for tree planting, the CRP is still one of the largest federally sponsored tree planting programs. The 28 million acres already in the CRP will reduce soil erosion by 574 million tons a year, decrease sedimentation of reservoirs and streams, protect recreational resources, and help preserve the land's long-term productivity. The amount of damaging chemicals washed into streams and lakes will decrease and fish and wildlife habitat will be improved due to increased planting of trees and grasses and the reduced use of chemicals. The production of surplus commodities receiving federal price and income support payments will be reduced, and additional income support will be provided to farmers.

While CRP benefits are substantial, the overall impact and effectiveness of the program could have been enhanced if USDA had managed the program to address the full range of CRP objectives instead of focusing on the need to enroll prescribed acreage amounts. For example, to increase the number of trees planted, USDA relaxed the soil erosion eligibility criteria for enrolling land. While USDA's decision to seek more tree acreage has merit in terms of the program's tree planting goal, the overall effectiveness of the program suffered because the relaxed criteria allowed more acreage that was not highly erodible into the CRP. As a result, the soil savings on tree acres decreased and other benefits, like reduced sedimentation and improved water quality, were not attained.

USDA could have improved the effectiveness of the program by targeting cropland eroding at the highest rates. Although USDA officials have stated that reducing soil erosion was the primary objective of the CRP, program managers chose not to focus on the land experiencing the worst soil losses. As a result, only about 30 percent of the most highly erodible land is now enrolled in the CRP. USDA could also have improved the effectiveness of CRP by targeting cropland that contributed most to surface water and groundwater contamination. While USDA has taken some steps to address these problems, more could have been done. For the most part, USDA accepted improved water quality as a residual benefit of getting acreage enrolled in the CRP. Another aspect of the program that may restrict USDA's ability to achieve program benefits is a legislative provision restricting the amount of land that can be enrolled in the CRP to 25 percent of all cropland in a county.

## CRP Costs

The 40 million-acre CRP could cost over $22 billion by the time the last contract expires in 1999. Total annual costs will peak at about $2.1 billion annually in 1990-95. CRP costs will be offset to some extent as farmers enroll acres in the program that would otherwise be used for growing crops covered by USDA's price and income support programs.

GAO found several areas where CRP costs could have been reduced by about $300 million a year with minimal impact on the benefits achieved. One area involved USDA's bid acceptance process. The Food Security Act encouraged USDA to use a competitive bid process for enrolling land in the CRP. However, USDA's bid acceptance process was not competitive but was essentially an offer system wherein CRP payment rates frequently were set much higher than local cash rental rates to induce enrollment in areas with large amounts of eroding land. Under USDA's system, all bids equal to or below a predetermined rental rate ceiling were accepted, regardless of local market rental rates for the same land or what other farmers bid. In many parts of the country, this process resulted in CRP rental rates that were 200 to 300 percent higher than local cash rental rates. GAO estimates that, as a result, USDA could be paying as much as $296 million a year more than necessary for CRP rental payments.

USDA also incurred additional costs in its tree planting initiative. GAO found that USDA increased rental rates in the five southeastern states most suitable for tree planting to increase the number of acres planted with trees. The higher rental rates were paid to all farmers in the five designated states whether or not they actually planted trees. The higher rates are being paid on 600,000 acres where trees have not been planted, resulting in unnecessary costs of about $30 million.

Higher costs were also incurred because USDA did not effectively implement language in its fiscal year 1988 appropriation that required USDA to limit rental rates to the prevailing local rental rates for an acre of comparable land beginning with the sixth CRP sign-up. In fact, USDA's instructions to local county offices allowed CRP rental rates in many areas of the county to continue at 200 to 300 percent of local rental rates. This occurred because USDA county offices could include a number of add-on factors when calculating prevailing local rental rates. For example, county offices could add on, among other factors, an allowance for "other" impacts on the value of the land over the 10-year period of the CRP contract. Further, USDA officials did not establish proper internal controls over this rate-setting process. As a result, there was little assurance that the rental rate calculations were done as intended by USDA headquarters or were done consistently and equitably.

## Matters for Congressional Consideration

This report presents options that the Congress could use to increase the effectiveness and sharpen the focus of the CRP. Among them are options to (1) require USDA to implement a competitive bid system including factors such as the land's contribution to reducing soil erosion and meeting other program objectives, (2) allow flexible annual and overall acreage goals that would better enable USDA to focus on the full range of program objectives rather than primarily on meeting the acreage goals, and (3) modify the 25 percent limit on acreage that can be enrolled in a county to allow USDA more flexibility to target the most highly erodible acres or those that contribute to water quality problems. (See ch. 4.)

## Recommendations

GAO makes several recommendations to the Secretary of Agriculture to improve the effectiveness of the CRP by better targeting the CRP, improving the administration of the bidding process, and improving the effectiveness of USDA's tree planting initiative. (See ch. 4.)

## Agency Comments

USDA commented that the program was cost-effective and provided detailed comments by ASCS and its Economic Research Service (ERS). While ASCS disagreed with GAO's conclusions and recommendations on the bidding process, ERS agreed with GAO. ASCS also disagreed with GAO's position on the tree planting initiative. GAO continues to believe its positions have merit. USDA's comments and GAO's evaluation are discussed in the appropriate chapters of this report and included in appendix III.

# Contents

## Tables



## Figure



**Abbreviations**

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| ASCS | Agricultural Stabilization and Conservation Service |
| CRP | Conservation Reserve Program |
| ERS | Economic Research Service |
| GAO | U.S. General Accounting Office |
| LCC | land capability class |
| OIG | Office of Inspector General |
| USDA | U.S. Department of Agriculture |

# Introduction

An estimated 5.4 billion tons of soil are eroded each year on nonfederal land. More than half of this erosion occurs on the nation's 421 million acres of cropland. Soil erosion contributes to the long-term decline in agricultural productivity, air quality problems, and sedimentation and pollution of streams and other water bodies.

Concerned about long-term agricultural productivity and the environmental problems caused by soil erosion, the Congress included major new conservation provisions in title XII of the Food Security Act of 1985. Among other things, the legislation authorizes the U.S. Department of Agriculture (USDA) to carry out a 40- to 45-million-acre Conservation Reserve Program (CRP) during 1986-90. Under the act, the Secretary of Agriculture can enter into contracts with producers to remove highly erodible cropland from production for 10 to 15 years in return for annual rental payments. As part of the contract, producers implement a USDA-approved conservation plan that usually includes planting a conservation cover such as grass or trees on the acreage to hold soil in place and reduce erosion. Producers are also reimbursed by USDA for a portion of the cost—usually 50 percent—to establish the conservation cover.

Title XII of the act also contained conservation compliance provisions that require producers to develop and implement a conservation plan for the highly erodible acres they farm. Producers who do not develop or follow such plans lose their eligibility for USDA's price and income support programs. The CRP and conservation compliance provisions can be viewed as a carrot and stick approach to conservation. The CRP encourages producers to remove highly erodible acres from production, while the conservation compliance provisions require producers to practice conservation on highly erodible acres not removed from production.

USDA had enrolled about 28 million acres in the CRP through December 1988, at an average annual rental rate of $48.50 per acre and a one-time payment of about $37.50 per acre for establishing approved conservation cover crops. Annual rental payments for these 28 million acres totaled about $1.4 billion. If USDA succeeds in enrolling an additional 12 million acres to reach the minimum 40-million-acre CRP, as required by the act, we estimate that program costs could total $22 billion by the time the last contract expires.[1] Of course, if USDA exceeds the minimum 40-million-acre CRP, costs will be higher.

[1]This assumes that annual rental rates for these additional acres average about $55.58 per acre and that the government's share of establishment costs is about $39.46 per acre.

While federal outlays are high, the government receives some direct offsetting dollar benefits from the CRP. When producers enroll land in the CRP that qualifies for payments under USDA's annual price and income support programs, payments for crops normally grown on this land are not made. As of December 1988, about 64 percent (18 million) of the 28 million enrolled acres qualified for annual payments.

The CRP also produces societal benefits through the reduction of wind and water erosion on cropland. USDA estimated that the 28 million acres enrolled through 1988 save about 574 million tons of soil annually, resulting in the long-term preservation of cropland; reduced sedimentation; a reduction in the amount of fertilizers, herbicides, and other agricultural chemicals washed into surface waters or leached into groundwaters; and improved wildlife habitat. The extent and value of these benefits, which depend on many variables, are discussed in chapter 2.

## Why Soil Erosion Is a Concern

Soil erosion is a natural process that occurs when wind and water move topsoil, nutrients, and organic ingredients. Either the wind picks up and carries away loose particles of soil, or rainwater running over exposed soil washes some of it away. Wind erosion is generally considered an on-site problem that, if left unchecked, can reduce the productivity of the land. Water erosion is both an on-site problem that affects productivity and an off-site problem that contributes to sedimentation and pollution of streams and other water bodies. Western states, particularly the Southern Plains and Mountain States, are primarily subject to wind erosion. The East, Southeast, and portions of the Midwest, particularly in the Corn Belt, suffer mostly from water erosion.

Whether caused by wind or water, soil erosion that exceeds the rate at which new topsoil is formed can reduce productivity. Such productivity losses generally occur over many years and may go virtually unnoticed where the topsoil is very deep or where the loss of soil only slightly exceeds the creation of new topsoil. Over hundreds or thousands of years, however, even the best and deepest topsoils can erode to the point where they become unproductive.

A recent study of USDA's Economic Research Service (ERS) shows the long-term impact on productivity of wind and water erosion.[2] ERS calculated that crop yields could decrease by 3.6 percent nationally over the next 100 years at the current rate of erosion and that these losses, combined with the costs of increased fertilizer used to partially offset the productivity loss, could total about $184 billion. This figure is based on constant 1989 dollars. The present values of these costs would be less than $46 billion at a 4 percent real discount rate. The greatest decrease in yields would occur in the Northeast (8.2 percent), Appalachia (4.8 percent), and the Corn Belt and Lake States (3.7 percent each)—areas affected primarily by water-caused erosion. The Corn Belt accounts for over one-third of the total potential dollar loss because of the large number of acres affected and a relatively large decrease in yields. Nationally, over 61 percent of the cropland could suffer productivity losses of less than 2 percent and about 90 percent could suffer losses of less than 8 percent. However, productivity could decline by 8 percent or more on almost 40 million acres or about 9 percent of all cropland.

In a separate study, ERS examined the off-site effects of soil erosion, primarily the sedimentation and pollution of streams and other water bodies.[3] ERS estimated that the value of off-site damages ranges from about $5 billion to $18 billion annually and will total $500 billion to $1.8 trillion over the next 100 years, while cautioning that the effects and values are difficult to calculate accurately. These figures reflect constant 1989 dollars. At a 4 percent real discount rate, these costs would have a present value of about $125 billion to $450 billion. ERS also noted that erosion from cropland may be responsible for up to 50 percent of these costs. Off-site damages are therefore potentially far greater than on-site damages.

## CRP Objectives

The purpose of the CRP is ". . . to assist owners and operators of highly erodible cropland in conserving and improving the soil and water resources of their farms or ranches." The Food Security Act of 1985 also gave the Secretary the discretion to include in the program ". . . lands

[2]Soil Erosion: What Effect on Agricultural Productivity?, ERS Agriculture Information Bulletin Number 556, January 1989.

[3]Water Quality Benefits From the Conservation Reserve Program, ERS Agricultural Economic Report Number 606, February 1989.

that are not highly erodible lands but that pose an off-farm environmental threat or, if permitted to remain in production, pose a threat of continued degradation of productivity due to soil salinity." Accordingly, the CRP was envisioned as achieving multiple objectives, including

- reducing soil erosion,
- protecting long-term agricultural productivity,
- reducing sedimentation in streams and along roads,
- improving water quality,
- improving fish and wildlife habitat,
- curbing production of surplus commodities, and
- providing some needed income support for farmers.

Thus, the CRP places environmental goals alongside traditional farm policy goals of supporting income and reducing surplus commodity production.

The legislation also mandates that highly erodible land be enrolled in the program at a rate of not less than 5 million acres in 1986, not less than 10 million acres in each of the years 1987 through 1989, and not less than 5 million acres in 1990, up to the maximum of 45 million acres. Further, the law set a goal of having, to the extent practicable, not less than one-eighth (12.5 percent) of the total acres planted in trees.

## How the CRP Works

Within USDA, the Agriculture Stabilization and Conservation Service (ASCS) administers the CRP, with assistance from the Soil Conservation Service and the Forest Service. ASCS established and implements enrollment procedures and determines eligibility in conjunction with the Soil Conservation Service. The Soil Conservation Service, in addition to assisting with eligibility determinations, provides technical assistance to producers in selecting and establishing grass conservation cover. The Forest Service provides technical assistance to producers in selecting and establishing tree conservation cover.

## Enrollment Procedures

The CRP is a voluntary program. USDA holds periodic sign-ups during which producers can bid the number of highly erodible acres they wish to enroll in the CRP and their desired annual rental rate. Nine sign-ups had been held through August 1989. After each sign-up, USDA compares the bids it received to the maximum acceptable rental rate it established for each of 139 geographic areas throughout the country. Bids less than or equal to the maximum acceptable rental rate are accepted provided

they meet all eligibility criteria.[4] In the fourth sign-up, USDA also paid a bonus of $2 per bushel per acre to producers enrolling corn acres.

Of the nine sign-ups to date, three were in 1986, two were in 1987, two were in 1988, and two were in 1989. The 139 geographic areas are referred to as bid pools, because in theory the producers in each area compete or bid against each other to enroll their acres. In practice, ASCS has accepted all bids at or below the maximum rental rate established for each area.

## Eligibility Requirements

In order to be eligible for the CRP, land must (1) have been owned or operated by the person enrolling the land since 1985 or 3 years prior to enrollment, (2) have been planted to an agriculture commodity for 2 of the 5 years from 1981 to 1985, and (3) be highly erodible.[5]

USDA defines highly erodible land as land in certain capability classes or land with actual or potential erosion above certain levels. USDA's Land Capability Class (LCC) system groups land into eight classes based on its ability to produce crops without reducing its productivity, with LCC I being best and LCC VIII being worst. USDA measures actual and potential erosion in relationship to T, which is the maximum average annual soil loss that will indefinitely permit a high level of production on a specific soil. The T value for most soils is about 5 tons per acre per year, but can be as low as 1 ton per acre per year. If land is eroding at a rate of 20 tons of soil per acre per year and has a T value of 5 tons of soil per acre per year, it is eroding at 4 times its T value or 4T.

USDA defines highly erodible land as any field two-thirds of which consists of land

- in LCC VI-VIII, or
- in LCC II-V and with actual erosion equal to or greater than 3T, or

[4]This procedure was modified somewhat after the fifth sign-up to comply with a provision of P.L. 100-202, an Act Making Appropriations for Rural Development, Agriculture, and Related Agencies Programs for the Fiscal Year Ending September 30, 1988, and for Other Programs. This provision requires that annual CRP rental payments not exceed "the prevailing local rental rate for an acre of comparable land."

[5]The Food Security Act provides for exceptions to the highly erodible requirement for land entering the CRP. The exceptions include land that poses an off-site environmental threat or that contributes to soil salinity. However, USDA did not use its authority in this area until the eighth sign-up in February 1989.

- in LCC II-V and with actual erosion equal to or greater than 2T and serious gully problems, or
- with potential erosion equal to or greater than 8T and actual erosion greater than 1T (potential erosion is the amount of erosion that would occur if the land were bare).

USDA estimates that about 101.5 million acres of cropland meet the above criteria and that these acres account for over 63 percent of all cropland erosion.

Beginning with the sixth sign-up, USDA expanded its eligibility criteria to make land that was not highly erodible eligible for the CRP. Effective with the sixth sign-up, filter strips consisting of land 66 to 99 feet wide bordering waterways could be enrolled without regard to LCC or actual and potential erosion. In addition, if the producers enrolling land agreed to plant trees, their land could be enrolled if one-third of their fields had an actual erosion rate of 2T. In the eighth sign-up, USDA allowed producers to enroll wetlands previously converted to agriculture production and land subject to erosion from periodic flooding of nearby streams if the producers agreed to plant trees or, when approved by USDA, grasses. About 220,000 acres were enrolled during the eighth sign-up as a result of this change.

## Program Funding

The Food Security Act did not establish any funding levels for the CRP. Rather, funding is authorized as part of USDA's annual appropriation. Since no limit was placed on either annual or total program costs, the only constraint on the cost of the CRP is the Congress' willingness to appropriate funds annually.

To a large extent, however, the level of funding has been predetermined by the number of acres enrolled by USDA and the per acre payment rate. While all CRP contracts contain a clause that allows USDA to effectively cancel the contract if funds are not available to pay the annual rental, it is unlikely that this would occur because of the implied commitment of the federal government to the contract. As a result, the Congress' prerogative to decide whether to fund the program on an annual basis has largely been relegated to approving funds to pay for commitments that USDA has already made.

During fiscal years 1986 and 1987, the program did not require that annual appropriations be made directly by the Congress. Instead the

program was funded out of the Commodity Credit Corporation's revolving fund. Programs funded through the revolving fund do not require individual appropriations; rather, the fund itself receives an appropriation to make up for any shortfall in revenues over expenditures regardless of the program involved. Beginning in fiscal year 1988, the CRP was funded from the revolving fund to the extent that an annual appropriation to the fund was made specifically for the CRP.

## Objectives, Scope, and Methodology

We made this review at the request of the Chairman, Senate Committee on Agriculture, Nutrition, and Forestry, who asked that we comprehensively review the CRP. As agreed with the requester, our objectives were to evaluate the benefits of the CRP, including its adequacy in addressing off-farm environmental threats and loss of productivity from soil salinity (ch. 2) and the costs of the CRP (ch. 3).

Additionally, we reviewed the relationship between the CRP rental payments and current land values and rental rates and the need and advisability of incentives, such as the $2 per bushel corn bonus (ch. 3).

The scope of our work and methodologies used to meet these objectives are summarized below, and additional information about our methodologies is included in appendixes I and II.

### Benefits of the CRP

To evaluate the benefits of the CRP, including its adequacy in addressing off-site environmental threats and loss of productivity from soil salinity, we

- reviewed relevant literature and interviewed USDA program officials about the benefits derived from the acres being enrolled;
- analyzed USDA computerized CRP contract file information to determine the number and location of acres being enrolled, as well as the increase in tree planting and the reduction in erosion and surplus commodity production on these acres; and
- compared the location and amount of erosion on CRP acres with the location and amount of cropland erosion reported by USDA to determine the extent to which the most highly erodible acres and acres contributing to off-site effects of erosion and soil salinity are being enrolled.

## Costs of the CRP

To determine the costs of the CRP, we reviewed major studies that have been done on the CRP, including those by USDA and the American Farmland Trust, a private group interested in agricultural issues. After reviewing these studies to gain a thorough understanding of their assumptions and methodologies, we developed our own estimates by changing the assumptions to reflect more current information on acres enrolled in the CRP, enrollment costs, and other related factors. We then analyzed those assumptions and data to estimate the annual and total program costs.

## Relationship Between CRP Rental Payments and Current Land Values and Rental Rates

The objective of this portion of our analysis was to determine whether CRP rental rates were higher or lower than prevailing land values and rental rates for land not enrolled in the CRP. To determine the relationship between CRP rental rates paid to producers and current land values and rental rates, we compared the average CRP rental rate and the maximum acceptable rental rate by county, with local USDA officials' estimates of the average dry land value and rental rate. We used both the average CRP rental rates and the established maximum acceptable rental rate because the latter formed a bid cap on the rates that were accepted by USDA. As such, many of the bids collapsed around the maximum acceptable rental rate. In this portion of the analysis, we used data from 1985, 1986, and 1987 since those were the latest available at the time we did our detailed fieldwork.

Because the maximum acceptable rental rates reflect CRP rental rates and cash rental rates reflect local land values, we attempted to demonstrate the effect of any variations between these rates by analyzing CRP enrollment patterns. Specifically, we determined the extent to which CRP enrollment increased as maximum rental rates increased relative to local rental rates. The local rental rate data we used were provided by USDA. We do not know the extent to which these currently prevailing rates are representative of rates on 10-year leases, as opposed to shorter term leases.

Additionally, we assessed the process used by USDA to ensure that CRP rental rates were not excessive compared to prevailing local rental rates for comparable land. This limitation on CRP rental rates was placed on the program as part of USDA's fiscal year 1988 appropriation act. To determine the basis for setting the rates, we obtained information from local USDA officials on the procedures used to set the rates for a random sample of 800 bids.

## Need and Advisability of Incentives

To determine the need and advisability of incentives used in the CRP, we focused our review on the two major targeting incentives used by USDA—the corn bonus and the setting of higher rental rates in areas likely to plant trees. Under the corn acreage incentive, USDA offered a $2 per bushel per acre bonus to producers for enrolling corn acreage into the CRP during the fourth sign-up. As a tree planting incentive, USDA initially set higher maximum acceptable rental rates in prime tree growing areas of the country to provide producers an incentive to plant trees as the cover crop on the acreage they enrolled in the CRP. In both instances we analyzed both the costs and the results of these efforts.A large part of our analysis was based on the results of two questionnaires that we sent to a random sample of producers who received corn bonuses, or who were in the prime tree planting areas targeted by USDA but did not plant trees.

We conducted our review from July 1987 through February 1989 at USDA headquarters in Washington, D.C., the USDA Kansas City Management Office where USDA maintains its computerized CRP contract files, and at various USDA state and county offices. Our review included the 28 million acres enrolled through the seventh sign-up that ended August 31, 1988. Our review did not include the 2.5 million acres enrolled in the eighth sign-up during February 1989 or the ninth sign-up in July 1989 because enrollment information for these sign-ups was not available until after our review was completed.

We did not independently verify the accuracy of local USDA officials' estimates of dry land values and rental rates or USDA estimates of the location and extent of eroding cropland available for enrollment in the CRP. The local rental rate data we used were provided by USDA. We do not know the extent to which these currently prevailing rates are representative of rates on 10-year leases, as opposed to shorter term leases. We did, however, consider known limitations in these data when making our analyses. We made our review in accordance with generally accepted government auditing standards.

# Program Benefits Are Significant, but More Could Have Been Done

The CRP enrolled 28 million acres during the first 3 program years—a rate of enrollment slightly ahead of the mandated 25 million acres to be enrolled through 1988. In addition, 1.7 million acres or 6 percent of the 28 million acres will be planted to trees—a rate of enrollment that is about one-half of the program's tree planting goal. Judged solely on the basis of meeting the mandated annual acreage requirements, the CRP appears to be highly successful. While the program has been less successful in meeting the tree planting goal, the tree acreage enrolled to date is still an impressive total that makes the CRP one of the largest publicly sponsored tree planting programs ever.

However, the CRP is a multiple objective program that is intended to address a variety of problems in American agriculture and the environment. These objectives go beyond the specific acreage requirement and tree planting goal to address soil erosion, sedimentation, production of surplus commodities, long-term agricultural productivity, adverse environmental effects from agricultural chemicals, wildlife habitat, and farm income support.

An evaluation of the CRP against these other, more qualitative objectives shows that USDA has not been as successful in achieving the full range of program objectives. Rather, USDA concentrated on meeting mandated acreage enrollment requirements and the tree planting goal. However, because USDA treated these other objectives as secondary, the CRP's potential impact has been diminished. While these objectives were achieved to a certain extent by the fact that 28 million acres were taken out of production, USDA could have done more to address the program's full range of objectives. Specifically, USDA did not (1) target the most highly erodible acreage for enrollment, (2) target acreage that caused the most environmental damage, and (3) limit the amount of non-eroding land that entered the program as part of the tree planting initiative. While not pursuing these possibilities enabled USDA to meet its mandated acreage requirements, the Department's choices reduced the program's potential to reduce soil erosion and sedimentation and control on-site and off-site environmental damage.

## Program Results Are Significant

Results of the first seven CRP sign-ups through 1988 show that there have been accomplishments in meeting program objectives. Over 28 million acres were enrolled in the CRP through the first seven sign-ups—slightly ahead of the 25 million acres mandated at that point in the program. About 1.7 million acres (6 percent) are planted in trees. While less

than the 12.5 percent goal, the 1.7 million acres makes the CRP one of the largest publicly sponsored tree planting programs ever.

According to USDA, soil erosion will be reduced by about 574 million tons per year or about one-tenth of the yearly total from nonfederal land and nearly 20 percent of the yearly total from cropland. The reduction in soil erosion will help reduce sedimentation of reservoirs and streams and protect recreational resources.

The 28 million acres enrolled to date will also help preserve long-term agricultural productivity because the land must be protected during the 10-year CRP contract period by planting a conserving cover crop such as grass or trees. Moreover, some land may be protected longer since it may not be returned to production at the end of the CRP contract period. This is especially true for the acres planted to trees since it is generally more difficult to return tree acres to production than grassland.

The reduced use of fertilizer and other agricultural chemicals will reduce the amount of damaging chemicals washed into streams and lakes by about 5 percent. While these reductions will not necessarily result in any given stream or lake suddenly becoming clean, they will slow or reduce the amount of damage being done. A February 1989 ERS study estimated the surface water quality benefits associated with the first 23 million acres enrolled in the CRP.[1] According to ERS, the present value of the surface water quality benefits gained over the 10-year life of the contracts is about $2 billion. In addition, ERS estimated that these benefits will increase to $3.7 billion if 45 million acres are eventually enrolled. To provide some perspective, ERS estimates that there are about $5 billion to $18 billion in yearly damages to surface water quality.

Fish and wildlife habitat are expected to improve because of the grass and trees planted on CRP acres, and the reduced use of agricultural chemicals. While the program's precise contribution to this objective is, at best, difficult to measure, wildlife experts anticipate improvements because of the CRP.

Of the 28 million acres enrolled in the CRP through 1988, about 18 million (64 percent) qualified for payments under USDA's annual price and

[1] Water Quality Benefits From the Conservation Reserve Program, ERS Agricultural Economic Report Number 606, February 1989.

income support programs. As a result, the program has reduced the production of crops that are in surplus. Almost 47 percent of the enrolled acres that qualified for payments were wheat acres and 17 percent were corn acres. Sorghum and barley acre reductions were about 12 percent each. Some of the remaining 10 million acres were also used to raise these crops but, for one reason or another, did not qualify for program benefits. Reduced crop production as a result of CRP, particularly for crops that are in over-supply, like corn, tends to increase market prices for these crops and, in turn, helps stabilize farm income. This condition allows for lower government price and income support payments.

Another objective of the program—to provide income support to farmers—is being met through the CRP rental payments. Currently, USDA is making $1.4 billion in annual rental payments to participants.

These results are substantial, but they were achieved with a management approach that emphasized meeting the mandated acreage requirement and the tree planting at the expense of other program objectives. Thus, the CRP's full potential was not achieved.

## Greater Soil Erosion Benefits Could Have Been Achieved If USDA Had Targeted the Highest Eroding Land

Although USDA officials have stated that reducing soil erosion was the primary objective of the CRP, USDA chose not to target cropland eroding at the highest rates. In addition, USDA relaxed the implementing regulations for the conservation compliance provisions of the Food Security Act of 1985 that were designed, in part, to encourage enrollment of the most highly erodible cropland in the CRP. As a result, 70 percent of the most highly erodible land eligible for the program, as measured by actual erosion, had not been enrolled through 1988. To some degree, however, USDA's ability to target and enroll the most highly erodible land is limited by the provision of the act that restricts enrollment to 25 percent of cropland in any one county. Even so, targeting its efforts toward enrolling the most highly erodible land would have allowed USDA to further enhance the objective of reducing soil erosion.

### The Most Highly Erodible Land Was Not Targeted

Through the first five sign-ups, any land that met minimum erosion eligibility criteria could be enrolled if a producer's bid amount was at or below the maximum bid level established by USDA. The same procedures were followed in the sixth and seventh sign-ups, except that the minimum erosion criteria were relaxed if producers agreed to plant trees and eliminated entirely if the enrolled acres served as a filter strip.

Less than 10 percent (2.7 million acres) of the 28 million enrolled acres was eroding at 10 times the soil loss tolerance level (10T) or more, the most highly erodible acres. Those acres account for 29 percent of total CRP soil savings. Of the 9.1 million cropland acres eroding at 10T or more, 6.4 million acres are not enrolled. Increased enrollment of these acres could have significantly increased the CRP soil savings.

USDA could have targeted the enrollment of the most highly erodible land by evaluating bids on the basis of their contribution to reducing soil erosion or on the basis of the cost per ton of soil saved. USDA officials had information available to identify soil erosion levels of land offered for enrollment. Including soil erosion criteria in USDA's bid acceptance system would have increased enrollment of cropland eroding at the highest rates and increased program effectiveness.

Further, USDA chose to relax its initial proposed rules for implementing the conservation compliance provisions of the Food Security Act of 1985 that would have served to target and encourage enrollment of the most highly erodible acres in the CRP. These provisions require producers not participating in the CRP to develop and implement a USDA-approved conservation plan for the highly erodible acres they farm. Failure to do so would result in the loss of USDA price and income support program benefits.

USDA's initial proposed rules required producers to implement conservation plans by 1995 that would reduce erosion from their farming operation to 1T in most instances or lose all government farm program benefits. USDA found that such plans were not economically feasible for the most highly erodible acres because of the need to install terraces or take other costly measures to achieve acceptable levels of erosion. This left producers who were dependent on farm program benefits and whose land consists primarily of the most highly erodible acres with two options—remove their land from production or enroll it in the CRP, both of which would force them out of farming.

Because of its concern about the possible adverse impact of the proposed rules, USDA relaxed the final conservation compliance rules to allow alternative conservation plans instead of requiring that erosion be reduced to a specified level as initially proposed. Alternative conservation plans enable producers to continue farming their most highly erodible acres but still require significant reductions in erosion from these acres. USDA's decision is understandable in view of its policy not to force

anyone out of farming. However, USDA's decision to relax the conservation compliance rules removed the only existing nonmonetary incentive to encourage and target enrollment of the most highly erodible acres in the CRP.

## County Limit Restricts Enrollment of Some Highly Erodible Land

The Food Security Act of 1985 limits the amount of land enrolled in the CRP to 25 percent of the cropland in a county. USDA estimates that 31 percent of the 101.5 million acres of highly erodible land that would otherwise be eligible for the CRP is not available because of this limit. As a result, many producers in counties with eligible land in excess of the limit will not be able to enroll highly eroding land in the CRP.

The Congress imposed this limitation to avoid problems experienced with earlier conservation programs in which, without a limit, producers enrolled the majority of cropland in many counties with adverse effects on the agriculture-dependent economies of those counties. The act allows the Secretary to waive this limit if a determination is made that the waiver will not adversely affect the economy of the county for which the waiver is granted. In using this authority, the Secretary, with three exceptions, has granted waivers only to complete the enrollment of acres offered during the sign-up period in which the limit was reached. He then closed enrollment in subsequent sign-up periods.

The exceptions were made for three counties in the Southeast because USDA wanted to encourage tree planting in these counties. Two of these counties are allowed to enroll up to 40 percent of their cropland and the third county up to 50 percent. No exceptions have been made for producers to continue enrolling the most highly erodible acres. So far, enrollment has been closed in 55 of the 2,326 counties enrolling land in the CRP because of the 25 percent limit.

As a result of this limit, some producers in counties with highly erodible land in excess of the limit will not be able to enroll their land, even though in some instances their land is eroding severely and should be taken out of production. For example, Yoakum County, Texas, has 294,000 acres of eligible land, but only 74,500 acres were available for enrollment because of the 25 percent limit. With a waiver, local USDA officials enrolled 76,000 acres but are no longer accepting offers to enroll acres. These officials estimate that about one-half of the remaining 218,000 eligible acres is eroding in excess of 10T and should be taken out of production.

Consequently, to the extent that highly erodible land is locked out of the program because of the 25 percent limit, USDA's ability to target the most highly erodible land for enrollment in the CRP is affected. Nonetheless, with only 55 counties prevented from enrolling additional acreage in the CRP, there is still ample opportunity for USDA to target the most highly erodible land for inclusion in the program.

## USDA Did Not Specifically Address Water Quality Problems Through the CRP

The CRP has been cited by the Congress and others as an opportunity to address the off-site damages of crop production—surface water and groundwater degradation. However, USDA has taken little action to specifically address either surface water or groundwater quality problems and, when establishing maximum acceptable rental rates, tended to favor areas suffering predominately from wind-caused erosion over areas suffering predominately from water-caused erosion problems.

Various estimates place cropland erosion damage to surface water quality alone at billions of dollars annually. This argues for targeting erosion control efforts to lands that are the primary contributors to off-site damage as a means of attacking both on-site and off-site problems at once. Acres subject to water erosion would fall into this category since water erosion contributes to both on-site and off-site problems.

Until the sixth sign-up, however, after 22 million acres had already been enrolled, USDA implemented the CRP as an erosion control program with no specific initiatives to address surface water issues. Consequently, CRP's potential effects on surface water quality have not been realized. In addition, USDA's implementation of the CRP favored enrollment of land most subject to wind erosion, even though it is generally recognized that water-caused erosion results in more damage.

Agricultural activity that impairs groundwater is not as well documented as is the damage to surface water, but it is an issue of national concern because over 97 percent of rural Americans and nearly half of the total population rely on groundwater for drinking and household uses. ERS has estimated that 75 million acres of cropland lie above groundwater resources considered vulnerable to contamination from pesticides and fertilizers. USDA did not exercise its authority to address this problem through the CRP. In addition to pesticides and fertilizers, salinity is a threat to groundwater quality in areas such as the northern Great Plains, which has an estimated 3 million vulnerable acres. USDA could have enrolled such land under its authority to use the CRP to protect groundwater or under its authority to enroll land threatened with

productivity losses from soil salinity. However, USDA did not specifically address this problem. Affected areas were eligible for enrollment only if they met the basic CRP eligibility criteria for soil erosion.

Currently, there is no comprehensive national data base that contains all of the information USDA would need to fully identify areas where there are surface water and/or groundwater problems or specific cropland that contributes to these problems. However, much of the needed information is available from the Environmental Protection Agency and state and local organizations. To get this needed data and to help the CRP better achieve its water quality objectives, USDA will have to better coordinate with these other organizations.

## USDA Has Not Fully Utilized the CRP's Potential to Address Surface Water Quality Problems

The Food Security Act gives the Secretary authority to include lands in the CRP that are not highly erodible but that pose an "off-farm environmental threat . . . ." The implementing regulations specifically identify water quality improvement as a program objective. However, USDA considers water quality improvement as a secondary benefit that may result from reducing soil erosion. Thus, through the fifth sign-up, USDA based CRP eligibility strictly on soil erodibility, whether caused by wind or water, and did not attempt to target land that might improve water quality. As a result, minimal surface water quality improvement can be attributed to the CRP.

The Conservation Foundation—a nonprofit organization dedicated to the conservation of America's natural resources—estimates that cropland erosion's direct and indirect damages to surface water quality may be $3.1 billion annually and could easily exceed the on-site productivity impacts of erosion. In January and February 1988, Resources for the Future (a conservation research organization) and the Environmental Protection Agency released draft reports concluding that, as of the fourth sign-up, the CRP had had minimal impact on water quality. During this time and through the fifth sign-up, any positive impacts of CRP on water quality resulted solely from the existence of the program, that is, simply taking highly erodible land out of production. It was not until the sixth sign-up, after 22 million acres had been enrolled, that USDA took specific action to address surface water quality issues. At that time, USDA expanded the CRP eligibility criteria to include filter strips for cropland that poses "a substantial threat to the degradation of water quality . . . ." Filter strips are 66- to 99-foot wide strips of grass, shrubs, or trees planted on cropland along streams and waterbodies to reduce the amount of sediment and chemicals entering surface water resources.

During the sixth and seventh sign-ups, a total of 29,652 filter strip acres (covering approximately 2,500 stream miles) was enrolled.

Land enrolled as a filter strip does not need to be highly erodible, but it must pose a "substantial threat to the degradation of water quality" and be "capable of reducing damage by sedimentation and associated pollutants." However, county officials in the 10 counties with the highest number of filter strip contracts told us that any bid for a filter strip was accepted provided that the land was next to a permanent waterbody, the ownership and cropping history requirements were met, and the bid did not exceed the maximum acceptable rental rate. None of the officials determined that the land involved posed a threat to water quality and most did not know how such a determination would be made. Most of the officials said that the filter strip criteria were viewed as merely another way of enrolling additional acreage in the CRP, not as a serious attempt to address water quality.

## USDA Favored Wind- Over Water-Caused Erosion

USDA implemented the CRP in a way that favored wind-caused erosion over water-caused erosion. While both wind- and water-caused erosion result in productivity losses to farmers, water-caused erosion is generally considered the greater and more costly societal problem because of off-site damages that result. However, USDA's bid system favors wind- over water-caused erosion because USDA offers higher annual payments in relationship to local officials' estimates of cash rent values in geographic areas suffering predominantly from wind erosion. As a result, enrollment is higher in areas with wind erosion problems. While this approach has resulted in more acreage entering the program, it has consequences in terms of other program objectives, such as improved water quality, reduced sedimentation, or improved fish habitat, because these objectives are met primarily through the enrollment of land with water-caused erosion.

The bias in favor of wind-caused erosion occurs because USDA pays higher annual CRP rental payments in relationship to local cash rental rates in the mountain and plains states where wind is the primary cause of erosion. For example, USDA paid 183 percent of local officials' estimates of prevailing cash rental rates in the mountain and plains states, compared to 108 percent in the remainder of the country. Accordingly, more acres are enrolled in the mountain and plains states. USDA officials told us that higher rates were paid in the mountain and plains states, in part, because of the large number of eligible acres in these states. Because of the way USDA implemented this part of the CRP, farmers in

other parts of the country with acreage suffering from the relatively more damaging water-caused erosion had less incentive to enter the program.

Over 60 percent of the CRP acres and soil savings are in the mountain and plains states that suffer predominately from wind erosion, as shown in table 2.1, while less than 40 percent of the acres and soil savings are in the remainder of the country that suffers predominantly from water erosion.

**Table 2.1: Extent to Which Program Design Favors Wind- Over Water-Caused Erosion**

| Region | Percent of soil loss on eligible acres from Wind | Water | Total | Percent of enrolled acres | Percent of soil saved on enrolled acres |
|---|---|---|---|---|---|
| Mountain states | 13 | 3 | **16** | 20 | 19 |
| N. Plains states | 5 | 7 | **12** | 25 | 20 |
| S. Plains states | 22 | 3 | **25** | 16 | 26 |
| **Subtotal[a]** | **40** | **13** | **53** | **61** | **66** |
| Northeast states | [b] | 3 | **3** | 1 | [b] |
| Lake states | 1 | 3 | **4** | 8 | 7 |
| Corn belt states | 1 | 23 | **24** | 14 | 13 |
| Appalachian states | [b] | 7 | **7** | 3 | 4 |
| Southeast states | [b] | 2 | **2** | 5 | 4 |
| Delta states | [b] | 2 | **2** | 3 | 3 |
| Pacific state | 1 | 2 | **3** | 5 | 3 |
| **Subtotal[a]** | **4** | **43** | **47** | **39** | **34** |
| **Total** | **44** | **56** | **100** | **100** | **100** |

[a]May not add due to rounding

[b]Less than 0.5 percent.

Setting higher rental rates in areas suffering primarily from wind-caused erosion has very little, if any, adverse impact on the program objectives to reduce soil erosion, preserve the land's productivity, reduce production of surplus commodities, and provide income to farmers, as these objectives can be met through the enrollment of land with either wind- or water-caused erosion. However, USDA's approach has had an impact on the program's ability to meet the objectives of improved water quality, reduced sedimentation, and improved fish habitats, because these objectives are met primarily through the enrollment of land with water-caused erosion. Given the Secretary's discretionary authority to permit acreage to enter the program that was not highly

erodible if it contributed to off-site environmental damage, a more balanced approach would have improved USDA's ability to meet the program's full range of objectives. Water quality contributions as well as reduced soil erosion could have been included in USDA's bid acceptance process to better target the acres enrolled in the CRP.

## USDA Has Not Used the CRP to Address Groundwater Contamination

Agricultural activity that impairs groundwater quality is not as well documented as is the damage to surface water quality, but it is an issue of national concern. Over 97 percent of rural Americans and nearly half of the total population of the United States rely on groundwater for drinking and household uses. USDA's Economic Research Service has estimated that groundwater resources lying under nearly 103 million acres of agricultural land may be vulnerable to contamination. Eighty-six million of these acres cannot be enrolled in the CRP because they do not meet the soil erosion eligibility criteria established by USDA. For the 17 million acres that are currently eligible, the potential for contamination from pesticides and fertilizers could be reduced if they were enrolled in the CRP. However, like soil erosion reductions and surface water quality problems, USDA has not specifically identified and targeted these acres for enrollment and has no estimate of the number of these acres that have been enrolled to date.

In the northern Great Plains, a problem commonly referred to as "saline seep" is threatening the groundwater resources beneath an estimated 3 million acres of cropland. Saline seep results when excess water with dissolved salts runs off cropland and causes high concentrations of salt in lower lying areas. In addition to threatening groundwater resources, high soil salinity greatly reduces or entirely eliminates the productivity of cropland. USDA has taken no specific steps to address this problem through the CRP and has no estimate of the number of affected acres that have been enrolled to date under the basic eligibility criteria or the acres that need to be enrolled. One expert in Montana contends that the impact of the CRP on the saline seep and related groundwater contamination problem is likely minimal.

## Better Coordination Needed to Enroll Land Contributing to Water Quality Problems

There is no comprehensive national database that identifies areas suffering from surface water or groundwater quality problems or specific cropland that contributes to these problems. Therefore, high levels of coordination are required to effectively utilize information sources that do exist.

Existing sources of information that USDA could use to identify and target cropland contributing to water quality problems include reports required under the Clean Water Act of 1977 (P.L. 95-217) and the Water Control Act of 1987 (P.L. 100-4) and the Association of State and Interstate Water Control Administrators' 1985 report entitled America's Clean Water. These reports describe the location, nature, and extent of water quality problems identified to date and could serve to target specific geographic areas for enrollment in the CRP.

Effective use of these and other sources would require increased coordination between USDA and other governmental and private agencies, because no one agency may have all the information needed or can provide the comprehensive effort needed to address water quality problems. Consequently, USDA program managers would need to establish close working relationships with the Environmental Protection Agency, state and local water quality agencies, and private conservation groups to avail themselves of the data and resources that already exist. Using these data, program managers could better achieve the CRP's water quality objectives.

## Tree Planting Initiative Increased Enrollment of Acres That Were Not Highly Erodible

As part of the CRP, USDA was given a legislative goal of having 12.5 percent of all CRP acres planted with trees as the conservation cover. In an effort to meet this goal, USDA relaxed the CRP eligibility criteria for participants willing to plant trees. Prior to this change in eligibility criteria, which occurred during the sixth sign-up, USDA was not attaining the tree planting goal. While USDA's decision to seek more tree acreage has merit, we do not believe it was the best decision given the full range of CRP objectives—particularly those relating to reduced soil erosion and sedimentation.

Under USDA's changed eligibility criteria, a field to be planted to trees would be eligible if one-third of the field was eroding at twice its soil-loss tolerance level (2T). Prior to the sixth sign-up, at least two-thirds of the field had to be eroding at three times its tolerance level (3T) to be eligible.[2] In other words, to bring about the increase in the percentage of acres planted to trees, ASCS was willing to sacrifice soil erosion savings.

For example, USDA enrolled more tree acres eroding at less than 3T in the sixth and seventh sign-ups than it did in the previous five sign-ups, and the number of these acres eroding at less than 2T was twice the number

[2]Some 2T land had been previously eligible, but only if the land also had gully erosion.

previously enrolled. In the first five sign-ups, about 18 percent or 216,000 of the 1.2 million tree acres enrolled was eroding at less than 3T, and about 44,000 of those acres were eroding at less than 2T. Under the new criteria, 51 percent or about 291,000 of the 570,000 tree acres enrolled in the sixth and seventh sign-ups were eroding at less than 3T, and about 90,000 of those acres were eroding at less than 2T.

As the number of enrolled acres that are not highly erodible increased, there was a significant decrease in soil savings. During the first five sign-up periods, soil savings on contracts in which at least 75 percent of the enrolled acres were planted to trees averaged 19.2 tons per acre per year. Following the criteria change, soil savings dropped to 12.6 tons per acre per year. Decreased soil savings also occurred for non-tree acres as well; however, the percentage decrease for trees was nearly double the decrease for non-tree acres.

While USDA's efforts in the sixth and seventh sign-ups helped USDA move toward its goal of having 12.5 percent of all CRP acres planted with trees, it also reduced the amount of soil erosion savings the program could have achieved. On balance, we believe USDA's decision to relax the eligibility criteria to encourage tree planting has detracted from the overall effectiveness of the program in meeting its full range of objectives—particularly in the areas of soil erosion and sedimentation.

## Agency Comments and Our Evaluation

In its comments ASCS stated that it did attempt to enroll the most erosive soils first, citing its decision to limit participation originally to areas where erosion exceeded 3T.

We did not criticize USDA for including a wide range of highly erodible land in its eligibility criteria. However, we believe that USDA could have further enhanced program benefits by targeting the most highly erodible land—10T or more—for enrollment because of its significance, not just by including it in a wide range of land that was eligible.

ASCS agreed that the 25 percent limit on land that could be enrolled in a county did reduce the number of highly erodible acres that were available to the program. ASCS also stated that it allowed counties to exceed the limit by an acceptable margin in some cases in which county officials provided proper documentation. Further, ASCS cited the reluctance of local officials to provide the required documentation as evidence that additional sign-ups in these counties might not be appropriate.

We are not faulting ASCS for its administration of the 25 percent county limit, but we do suggest in chapter 4 that the Congress may wish to consider relaxing the limit in some situations to achieve other objectives—such as enrolling the most highly erodible land.

ASCS stated that GAO did not sufficiently recognize the water quality efforts that were made in the sixth sign-up. Specifically, ASCS cited the inclusion of filter strips and 2T land with gully erosion, as well as bid pool increases of $5 to $25 for about 600 counties after the sixth sign-up.

Although we discussed the introduction of filter strips in the sixth sign-up, we did not discuss land eroding at 2T with gullies—except to note that it is eligible—because our review of a sample of CRP contracts disclosed that the number of these acres enrolled was insignificant (at the .01 level of significance). We discussed the $5 to $25 per acre increases in the maximum acceptable rental rates in chapter 3 because it seemed more appropriate to that discussion. However, as noted in that discussion, these increases have not been effective in increasing enrollment.

ERS commented that it was difficult, if not impossible, to simultaneously maximize multiple objectives and stated that the Congress could have provided additional guidance by ranking the objectives or providing a mechanism to judge trade-offs. ERS also stated that our recommendation to allow flexible annual and overall acreage goals is a positive step to emphasize that acreage targets are not the CRP's most important objective.

ERS also stated that we did not address how much greater water quality benefits could have been or the additional costs of achieving those benefits. ERS stated that water quality benefits of $1.9 billion to $5.6 billion over the life of the program are not minimal. Further, ERS stated that the greatest water quality benefits come from retiring land in high-cost areas such as the Corn Belt and would therefore cost more. Finally, ERS stated that there is no adequate or defensible mechanism for identifying particular fields to target for water quality.

We criticized USDA for taking no specific action to address water quality issues until after it had enrolled 22 million acres in the CRP, but we recognized the water quality benefits provided by those acres. ERS' estimates of $1.9 billion to $5.6 billion in water quality benefits appear significant until compared to its estimates of $50 billion to $180 billion in water quality damages from soil erosion during the same period. We

characterized these benefits as minimal—as does the Environmental Protection Agency and the Conservation Foundation—because USDA did not target land that might improve water quality and simply accepted any water quality benefits that resulted from the acres enrolled.

We do not suggest that USDA could have targeted water quality benefits for the same costs as the current program. We do believe, however, that the excessive rental payments of about $296 million per year that USDA is paying in the mountain and plains states (discussed in ch. 3), which provide the least water quality benefits, could have been spent more effectively in areas with greater potential for water quality improvements. In commenting on our report, ASCS stated it increased CRP rental rates by $5 to $25 per acre in 600 counties in the sixth sign-up to achieve greater water quality benefits. We believe USDA should have taken such actions earlier before over half of the CRP acres were enrolled.

Finally, we recognize the difficulty in identifying a particular field's potential for water quality impairment, but as we point out in this chapter, there are sources USDA can use in coordination with other governmental and private agencies to target cropland contributing to water quality problems. At a minimum, USDA could have targeted states and counties for increased enrollment as it did beginning with the sixth sign-up.

# Program Costs Were Higher Than Necessary

Budget outlays for a 40-million-acre CRP could total over $22 billion. In reviewing the management of the CRP, we found several areas in which program costs could have been reduced with minimal adverse impact on benefits achieved. We could not determine precisely how much costs could have been reduced. However, we estimate that USDA may be incurring as much as $296 million annually in additional costs because of the noncompetitive bid acceptance process it uses and as much as $3 million annually because it did not target its CRP tree planting initiatives.

In general, the decisions faced by program managers involve trade-offs between measures that are most likely to achieve program objectives and those that are more cost effective. For the CRP, USDA's choices were between measures most likely to permit the Department to meet the mandated acreage enrollment requirements and the tree planting goal and measures that controlled costs. Many of these decisions were difficult when USDA was faced with choices that could have emphasized cost control at the expense of program enrollment or could have emphasized enrollment at higher costs. However, some decisions did not necessarily involve difficult trade-offs and, in our opinion, unnecessarily increased the cost of the program. These decisions included (1) using a noncompetitive bid acceptance system, (2) giving bonuses to producers to encourage tree planting even though trees were not planted, and (3) inadequately implementing the limit on CRP rental rates by providing little guidance, review, or supervision. In each of these areas, USDA program managers could have better controlled the costs of the program with minimal, if any, impact on the benefits achieved.

Beyond program management decisions made by USDA, another aspect of the program—the legislative restrictions on the amount of cropland enrolled in each county—also may increase program costs. While this is an important feature of the program that limits the adverse impact of the CRP on local economies, it also limits the number of eligible acres available for enrollment in the CRP and, as a result, could increase program costs if USDA must raise rental rates to attract a greater proportion of the remaining eligible acres.

## CRP Outlays Will Total About $22 Billion

Budget outlays for a 40-million-acre CRP could total over $22 billion by the time the last contract expires in 1999. Most of the cost is for annual rental payments to producers, but about $2 billion is for the government's share of planting cover crops, the corn bonus, and administrative expenses. Annual rental costs, which are currently about $1.4 billion for the 28 million acres enrolled to date, will peak at about $2.1 billion in

1990-95, assuming that 40 million acres are enrolled. CRP costs are offset to some extent when producers enroll acres in the program that would otherwise be used for growing crops covered by USDA's annual price and income support programs. Acreage enrolled in the CRP instead of in the annual programs reduces crop production, crop surpluses, and the cost of USDA's annual commodity programs.[1]

## USDA's Bid System Increased Program Costs

The Food Security Act of 1985 encouraged USDA to use a competitive bid process for enrolling land in the CRP. We found, however, that USDA did not use such a process. Instead, USDA designed a bid acceptance process that was essentially an offer system wherein CRP payment rates were frequently much higher than local cash rental rates that farmers were paying for the same or similar land. Under the system used by USDA, as long as a producer bid at a rate that fell within a predetermined maximum acceptable rental rate, regardless of local land values or what others producers bid, the offer was accepted by USDA. There was no competition among producers involved in the process. USDA program managers set maximum acceptable rental rates that, in many parts of the country, were 200 to 300 percent higher than prevailing local rental rates. USDA chose this approach, in part, because of the large number of highly erodible acres and low cash rental rates in these areas and because of its concern with meeting the mandated acreage requirements.

We believe that USDA could have designed a competitive bid system that would have provided the same results at less cost. For example, USDA could have initially established maximum acceptable rental rates at or below the local rental rates and increased them incrementally to achieve the desired acreage enrollment level. This would have induced competition among bidders and, in fact, is similar to what USDA has done in other areas where cash rental rates are high.

[1]Several estimates have been made of offsetting costs from reduced annual price and income support programs. The American Farmland Trust estimated in April 1987 that, according to its consultants, savings from annual price and income support programs caused by a 45-million-acre CRP would be $0.6 billion greater than direct CRP costs for crop years 1986-90. In March 1988, the American Farmland Trust presented a new analysis by its consultants which suggested that savings from annual price and income support programs would be $3.3 billion greater than direct CRP costs. USDA's Economic Research Service suggested that in the early years of a 45-million-acre CRP, direct program costs would exceed annual program savings. After 1991, ERS found that savings from the annual programs would exceed direct CRP costs. Over the life of the program, however, direct CRP costs would be $2 billion to $6.6 billion greater than annual program savings and probably closer to $2 billion. Finally, a study by Professor C. Robert Taylor at Auburn University suggested that annual program savings for crop years 1993-96 would be only slightly greater ($79 million annually) than payments for a 45-million-acre CRP during this period. All of these figures represent undiscounted totals.

## USDA Frequently Paid Inflated Rental Rates

USDA reviewed a number of options before selecting a bid system. USDA's Economic Research Service developed models that allowed USDA program managers to assess the impact of various types of bid systems. Among other things, these models included means for determining bid pool size, eligibility criteria, and bid selection criteria. ERS' model for assessing various bid selection criteria allowed USDA to choose between selection criteria that accepted all bids below a specified maximum rental rate—the option ultimately selected—or to choose criteria that would select the most cost-effective bids in terms of reduced erosion or reduced production of surplus commodities.

USDA officials told us that they chose the bid selection that accepted all bids below a specified maximum because this option was easier to administer than the other options. ERS' model also indicated that, for the same cost, more acres would be enrolled under this option than under the other options.

As part of the bid system, USDA chose to establish at least one and sometimes more than one bid pool (i.e., area of competition) in each state rather than a national bid pool, although ERS' analysis showed that a national bid pool was the most cost-effective means to reduce soil erosion. This decision was made to ensure that producers had the opportunity to enroll their highly erodible land wherever it was located. In a national pool, producers from areas with high land values compete directly with producers from areas with low land values.

To implement its bid system, USDA established maximum acceptable rental rates for each bid pool. USDA officials responsible for setting these rates relied on their judgment as to what rental rate to use for each bid pool. These judgments were driven by USDA's concern about getting the desired level of participation and the desire to be reasonable in view of the Secretary of Agriculture's decision that once established, maximum rental rates would not be lowered. In making these judgments, USDA officials chose to use the opinions of selected colleagues around the country rather than estimates of prevailing cash rental rates made by local USDA officials.

As a result of this process, USDA officials set the maximum acceptable rental rates (1) high in relationship to local officials' estimates of cash rent in areas with low cash rents and large amounts of eligible land and (2) low where cash rents were high. For example, in Floyd County, Texas, the maximum acceptable rental rate is $40 per acre and the local

estimate of cash rent is about $15; in Johnson County, Iowa, the maximum acceptable rental rate was $85 per acre through the fifth sign-up, and the local estimate of cash rent was over $110 per acre. The underlying theory was that it is cheaper to enroll, and USDA is more likely to meet the mandated acreage enrollment requirements by enrolling, two acres of land in Texas for $80 than one acre in Iowa for $85. However, it may have required only $40 to enroll the two acres in Texas if USDA had not set the maximum acceptable rate so high initially.

As a result of this process, maximum acceptable rental rates in relationship to local officials' estimates of cash rent vary significantly. For example, maximum acceptable rental rates were more than 200 percent of local officials' estimates of cash rents in counties with 29 percent of the acres available for enrollment, between 101 and 200 percent of local estimates of cash rent in counties with 52 percent of the available acres, and equal to or less than the local estimates of cash rent in counties with 19 percent of the available acres.

Setting maximum acceptable rental rates at levels equal to 200 to 300 percent of local cash rental rates resulted in higher levels of participation than in other areas where maximum rates were set closer to local cash rental rates. For example, when the maximum acceptable rental rate exceeded 200 percent of the local rental rate estimate, 49 percent of the available acres were enrolled, as show in table 3.1. In contrast, when the maximum acceptable rental rate was set at levels equal to or less than the estimated local cash rental rates, only 13 percent of the available acres were enrolled, as also shown in table 3.1. This occurred primarily in the Corn Belt states.

**Table 3.1: Relationship of Maximum Acceptable Rental Rate as a Percent of Cash Rent to the Percent of Available Acres Enrolled**

| Rate as a percent of cash rent | Percent of available acres enrolled |
|---|---|
| 1 - 100 | 13 |
| 101 - 200 | 31 |
| Over 200 | 49 |

However, while relatively high maximum acceptable rental rates achieved increased levels of enrollment, they also likely resulted in higher government costs because USDA might have been able to enroll these acres at rates below the maximum acceptable rate. In other words, instead of encouraging enrollment at lower rental rates, USDA opened the bidding at the maximum level and accepted all bids up to the maximum rate. In comparison, in those areas where the maximum acceptable

rental rates were set at levels equal to or less than the estimated local rental rates, USDA had the option of gradually increasing the maximum rate it would pay to enroll additional acres. In fact, where land values and rental rates are high, USDA did just that.

## USDA Used a Noncompetitive Bid System

In addition to how the maximum rates were set, we found problems with how they were used within the bid system. The problems we identified undermined the competitive advantages inherent in the bidding process. As such, the bid system was not competitive as encouraged by the Food Security Act of 1985.

USDA's decision to use maximum rental rates as the basis for accepting bids and the Secretary's decision not to lower the maximum rates, once established, were counterproductive. The decisions turned USDA's bid system, which otherwise would have relied on competitive bids among producers, into an offer system that paid producers the maximum acceptable rental rate. Producers quickly learned what the maximum acceptable rental rates were for their geographic areas and adjusted their bids accordingly. Consequently, there was little or no competition among bidders. For example, by the fifth sign-up, 89 percent of the bids were within $5 of the maximum acceptable rental rate and 63 percent were equal to the maximum rate. Table 3.2 illustrates how bids collapsed around the maximum acceptable rental rates through the fifth sign-up by showing the percentage of bids within + or - $5 of the maximum rates for each sign-up.

**Table 3.2: Percentage of Bids and Total Acres Bid Within $5 of the Maximum Rental Rate Through the Fifth Sign-Up**

| | | Percent of bids | | | |
|---|---|---|---|---|---|
| Sign-up | Bids | $0.01 to $5 below | Equal to maximum rental rate | $0.01 to $5 over | Total[a] |
| 1 | 44,418 | 6 | 3 | 7 | **16** |
| 2 | 34,435 | 29 | 15 | 8 | **53** |
| 3 | 45,430 | 32 | 41 | 9 | **82** |
| 4 | 101,003 | 41 | 42 | 3 | **86** |
| 5 | 53,107 | 26 | 63 | 3 | **92** |

[a]May not add due to rounding

In general, economic principles suggest that a producer's competitive bid depends on the productivity of the specific land as well as the producer's ownership costs, returns available from other uses of the land,

expectations for the future, and other economic and noneconomic factors, such as producers' desire to reduce their workload. These factors vary widely among land and producers within each bid pool. Therefore, it is unlikely bids would collapse around the maximum acceptable rental rate, as shown in table 3.2, if producers bid what they were willing to accept rather than what they knew USDA would pay.

Because producers bid at or near the maximum acceptable rental rates rather that what they were willing to accept, USDA paid some producers more than necessary to enroll land where the maximum rates were high in relationship to local estimates of cash rents. This occurred primarily in the mountain and plains states where maximum acceptable rental rates in excess of 200 percent of local estimates of cash rent are concentrated and where over 60 percent of enrolled acres are located. We could not determine the amount USDA overpaid producers in these states since information on what they would have bid absent knowledge of maximum acceptable rental rates is not available. We can, however, estimate this amount by contrasting USDA's costs with what these costs might have been if USDA had set the maximum rates closer to local cash rental rates initially, then increased the maximum rates as necessary to get the desired enrollment.

We estimate that USDA could be paying $296 million a year too much for the 17 million acres enrolled in the mountain and plains states through the seventh sign-up. USDA is paying an average of $42.47 per acre in annual rental costs for these acres. We estimate that USDA would have been able to achieve the same results by paying an average of only $25.09 per acre

- if, instead of setting the maximum acceptable rental rates high in relationship to local estimates of cash rents, USDA had set the maximum rates equal to 75 percent of cash rent and then increased the maximum rates in 25 percent increments until the 17 million acres were enrolled and
- if the percent of available acres enrolled at each increment was the same as was actually enrolled in other parts of the country when the maximum acceptable rental rates in relationship to cash rents were set at these increments.

The difference of $17.38 per acre ($42.47 - $25.09) times 17 million acres totals $296 million.

To make its bid acceptance process competitive, USDA must prevent producers from knowing in advance what the maximum acceptable rate is likely to be so that they will bid what they are willing to accept rather than what they know they can get. USDA can accomplish this by (1) limiting the total acres it will accept or total funds it will obligate in each sign-up or (2) accepting bids based on their contribution to program objectives. Under the first method, USDA would use bid acceptance criteria that permitted all acres to be accepted into the program up to a predetermined acreage limit or total cost amount. Under the second method, USDA could use criteria based on specific program objectives to determine which bids it will accept. Possible criteria include the tons of soil saved, enrolling the most highly erodible land first, or achieving the greatest reduction in annual price and income support program payments on a per dollar of rental cost basis. Using such criteria alone or in combination with limits on total acres or funding would also preclude producers from knowing in advance what the maximum acceptable rental rate is likely to be since the maximum rental rate would not be predetermined but would be established after the bids are received.

## Some USDA Initiatives Increased Program Costs

In administering the CRP, USDA has used cash incentives twice to target the enrollment of specific acres in the CRP. USDA used cash incentives in the form of higher rental rates to try to increase the number of CRP acres planted to trees. USDA also used cash incentives in the form of a one-time bonus to increase the enrollment of corn acres in the CRP. The corn bonus was intended to reduce costs under USDA's annual price and income support programs by reducing the number of acres eligible for these payments.

There was a difference in the effectiveness of the two efforts because of differences in the precision with which specific acres were targeted for enrollment. The higher rates established to increase CRP tree acres were available to any participant in Alabama, Florida, Georgia, Mississippi, or South Carolina—regardless of the type of cover planted. In contrast, the corn bonus—a $2 per bushel, one-time payment available during the fourth sign-up—was made only to participants who enrolled corn acres in the CRP.

While both initiatives targeted particular objectives, the corn bonus was much more effective than the tree initiative. The tree initiative brought some additional tree acreage into the program in the five targeted states, but it did not increase the overall percentage of tree planting. A high percentage of the participants in the five affected states were already

planting trees on their CRP acres, and this initiative did not change that percentage because it was paid to all producers whether or not they planted trees. As a result, program costs were unnecessarily increased by as much as $30 million because many producers receiving the cash incentive did not plant trees. In contrast, the corn bonus increased both the percentage and total number of corn acres enrolled in the CRP—from 7 percent (584,190 acres) of all CRP acres in the first three sign-ups to 18 percent (1,737,058 acres) in the fourth. Overall, 56 percent of all corn acres enrolled in the CRP through the first seven sign-ups were enrolled with the corn bonus.

## Higher CRP Rental Rates Paid to Increase CRP Tree Planting Unnecessarily Increased Program Costs

The first sign-up was the only period in which the legislative tree goal of 12.5 percent was met. Of the 753,000 acres enrolled during that period, 95,300 acres will be planted to trees. It was not by chance that the legislative goal for trees was met in the first sign-up. USDA's bid acceptance procedure ensured that it would be. After all bids were received, USDA set maximum acceptable rental rates in the five primary tree states—Alabama, Florida, Georgia, Mississippi, and South Carolina—at levels high enough to ensure that 12.5 percent of the enrolled acres were tree acres. In other words, the rates were driven by the goal to get trees on one-eighth of the enrolled acres. However, this meant that ASCS accepted any bid at or below those maximum rates, including those for bidders who were not going to plant trees. Consequently, those five states were favored in the bid acceptance process, and participation, as measured by the percentage of eligible acres contracted, was skewed. For those states, acreage contracted as a percentage of acres eligible was nearly three times as great as for any region outside the Southeast. Table 3.3 shows CRP acres contracted during the first sign-up as a percentage of each region's eligible acres.

**Table 3.3: CRP Acres Contracted During the First Sign-Up as a Percent of Eligible Acres**

| Region | Eligible | Contracted | Percent |
|---|---|---|---|
| Primary tree states | 3,304,400 | 110,768 | 3.35 |
| Other southeastern states | 5,413,200 | 67,512 | 1.25 |
| Southwest | 20,880,900 | 241,161 | 1.15 |
| Midwest | 20,584,300 | 184,305 | .90 |
| Northwest | 16,487,300 | 142,814 | .87 |
| Other | 304,574 | 1,345 | .44 |
| Northeast | 2,536,800 | 5,729 | .23 |

Despite the relatively high rate of participation for the five primary tree states in the first sign-up, USDA decided to raise the maximum acceptable rental rates for these five states by $5 per acre beginning with the second sign-up and continuing through the current sign-up. This was done as an attempt to further increase the number of tree acres enrolled. However, as in the first sign-up, USDA did not target only those participants willing to plant trees. As a result, there was no incentive to plant trees because anyone who enrolled his or her land from these five states could receive the $5 per acre increase. In fact, in the five states, tree acres as a percentage of all enrolled acres decreased by 4 percent in the second sign-up. Also, since this incentive did not apply to areas outside the primary tree planting states, it did not raise the overall percentage of tree acres. As a result, tree acres dropped from 12.65 percent of all CRP acres in the first sign-up to 5.87 percent in the second. This overall percentage dropped to less than 5 percent in the next three sign-ups.

The $5 per acre incentive paid to increase enrollment of tree acres increased program costs because it was paid to all producers in the five southeastern states regardless of whether they planted trees. We estimate that USDA will incur as much as $3 million a year in additional cost for approximately 600,000 non-tree acres enrolled in these states during the second through seventh sign-ups ($5 per acre per year X 600,000 acres) and that these unnecessary costs will continue to increase as more non-tree acres are enrolled in future sign-ups. Even if the number of tree acres stays the same, these unnecessary costs will total $30 million over the 10-year life of the contract.

We believe USDA could have avoided these additional costs incurred in its tree planting initiative if it had used other means to meet its tree planting goal. For example, USDA could have paid the additional $5 per acre only to producers who agreed to plant trees or could have used other incentives. Also, in a survey of CRP participants in the remaining tree planting areas of the country, we found that participants would have been more likely to plant trees if they could have retained their eligibility for USDA's annual price and income support program on these acres for as long as the trees remained, rather than just for the 10-year life of the contract, or if they had gotten additional technical assistance from USDA.

## The Corn Bonus Was an Effective and Efficient Initiative

Compared to the tree initiative, the corn bonus was simple, effective, and efficient primarily because it was targeted to a specific group. Any producer who was participating in USDA's annual price and income support programs and enrolled land in the CRP during the fourth sign-up would be paid a one-time, $2 per bushel per acre bonus for a reduction in his or her corn acres. The rationale for the bonus was that it would make the CRP more competitive with USDA's paid land-diversion program, which also paid participating corn producers $2 per bushel per acre for taking corn acres out of production for 1 year.

With the bonus, nearly 1.74 million corn acres were enrolled, quadrupling total corn acre enrollment in the CRP. Based on our survey of producers who received the corn bonus, we estimate that the corn bonus was responsible for attracting about 907,413 of the 1.74 million corn acres enrolled in the fourth CRP sign-up.[2] On the same basis, we estimate that without the bonus, only about 304,450 corn acres would have been enrolled during the fourth sign-up.

We also estimate that 201,117 (plus or minus 69,114 acres) corn acres enrolled in the fourth sign-up resulted from producers opting to enroll corn acres in lieu of acres used to produce other crops in order to get the corn bonus. Despite this fact, the corn bonus was successful because offsetting costs to the government for removing an acre of corn from production are greater than for any other crop. For example, in 1987 price support payments under USDA's annual price and income support programs for corn were $113.40 per acre compared to $61.54 per acre for wheat, the crop with the next highest payments.

Another indicator of the effectiveness of the corn bonus is the percentage of corn acres enrolled as a percentage of all CRP acres enrolled. As shown in figure 3.1, corn acres enrolled jumped from around 7 percent of all CRP acres in the third sign-up to over 18 percent in the fourth. In the next three sign-ups, corn acreage enrolled averaged about 8 percent of all CRP acres.

[2]We estimate that 134,467 of these acres (plus or minus 58,880) would have probably come in at a later date without the bonus.

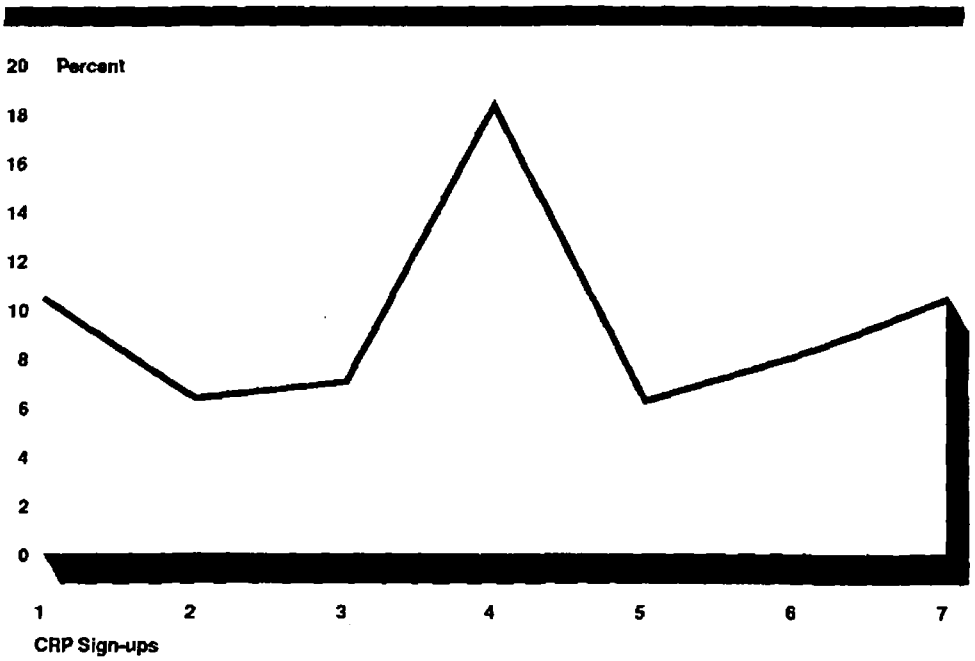


**Figure 3.1: CRP Corn Acres as a Percentage of All CRP Acres, Sign-Ups 1-7**

Total cost of the bonus was about $322 million, about $188 per corn acre enrolled. We estimate, on the basis of our survey of producers who received the corn bonus, that about $180 million or 56 percent of the $322 million was offset by a reduction in annual price and income support payments that would have otherwise been made under USDA's 1987 annual corn program. Additional savings, although likely smaller because of built-in changes in the annual programs, will occur in subsequent years.

## USDA Efforts to Implement Congressionally Imposed Limit on Rental Rates Were Inadequate

Through the first five CRP sign-ups, all CRP bids for land meeting the eligibility criteria were accepted provided they did not exceed the maximum acceptable rental rate established for their geographic area. As discussed previously, bidders submitted bids that were very close to that maximum, regardless of what their land would rent for on the open market. As a result, USDA entered into contracts that paid some participants 200 to 300 percent or more of USDA estimates of average local rental rates, even though highly erodible land is generally less productive land.

Beginning with the sixth sign-up in 1988, provisions of annual and continuing appropriations acts attempted to limit CRP rental payments.[3] The Congress limited CRP rental payments because of concern about the high rates being paid in many parts of the country relative to local cash rental rates. Specifically, the law states that "none of the funds in this Act may be used to enter into new contracts that are in excess of the prevailing local rental rates for an acre of comparable land." The new restriction appeared to have significant implications for USDA's ability to enroll land in the sixth and later sign-ups, in view of the fact that bidders had come to expect that USDA would pay rates in excess of local cash rental rates for land in many parts of the country.

However, we found that USDA's instructions to its local offices for implementing the restriction on CRP rental payments permitted rather broad discretion about what could be included in rental rate calculations. As a result, USDA's application of the legislative restriction continued to result in CRP rental rates that were as much as 200 to 300 percent of local cash rental rates. Accordingly, the restriction has had little impact on either enrollment or accepted bid levels.

In addition, USDA headquarters officials did not establish adequate internal controls when implementing the law, as required by the Federal Manager's Financial Integrity Act of 1982 (31 U.S.C. 3512 (b)). Effective internal controls were hampered because producers were prevented from appealing decisions made by local officials to the USDA headquarters level, which is the normal process used by USDA in administering its other programs. Further, USDA program managers did not exercise proper oversight or supervision over the process used by local offices to implement the law. For example, USDA program managers did not evaluate how prevailing local rental rates for comparable land were determined, whether CRP rental rates were too high or low in relationship to

[3]An Act Making Appropriations for Rural Development, Agriculture, and Related Agencies Programs for the Fiscal Year Ending September 30, 1988, and for Other Programs (P.L. 100-202).

the prevailing local rental rates, or if local county officials followed established procedures in making these determinations.

## USDA's Implementing Instructions Permitted Inflated Rental Rates

The bidding process, including determinations of prevailing local rental rates, is administered at the county office level. Our analysis shows that USDA's instructions to its county offices for implementing the legislation aimed at limiting CRP rental payments resulted in CRP rental rates that continued to exceed local cash rents in areas where this was occurring. This was a consequence of USDA's interpretation of the term "prevailing local rental rates for an acre of comparable land" contained in the legislation. USDA officials view the law as allowing for consideration of "the nature of the contract" used in CRP. In this regard, USDA officials maintain that the CRP rental rate must take into account the participant's risk in entering into a long-term (10-year) contract. This includes potential income losses if there were increases in land values and cash rental rates over the life of the CRP contract. USDA also believes that consideration of "the nature of the contract" must address the obligation placed upon the participant to establish and maintain an approved cover practice on the land enrolled in CRP. USDA officials assert that unless these factors are provided for there is no incentive for producers to enroll their land in CRP. Consequently, USDA instructed its county offices to compute a "calculated prevailing local rental rate" that added to the prevailing rate amounts for future increases in land value, cost to establish and maintain a conserving cover practice, and other factors.

Specifically, USDA procedures required local county officials to adjust the prevailing local rental rate for the following factors:

1. The cash rental value of comparable land expected over the 10-year period of the contract (i.e., inflation).

2. The producer's up-front cash outlay for half the cost to establish the required conserving cover practice, as well as compensation (interest) the producer could have received if this amount had been invested.

3. The producer's cost to maintain the conserving cover over the 10-year period of the contract.

4. Information provided by local government and farm-related agencies, as well as personal knowledge, about land values and economic trends.

5. Other (unspecified) impacts on land values over the 10-year period of the contract.

In reviewing each of the adjustment factors that USDA authorized local officials to make in calculating local prevailing rental rates, we found that the adjustment for increases in cash rental values could have been designed to better balance the producers' and the government's interests. In addition, we found that two of the factors—those involving adjustments for (1) land values and economic trends and (2) other impacts—are difficult to justify.

As USDA officials acknowledge, one risk taken by producers entering into long-term CRP contracts is the possibility that land they enroll could become more valuable at some point during the contract period. As a result, rental rates could increase, and farmers locked into CRP contracts would miss out on the revenue that would have resulted from increased rents. Accordingly, USDA included an adjustment factor in its guidance to local officials to provide for this possibility.

However, we believe USDA's approach in dealing with this risk is biased in favor of CRP participants. While producers need to be protected against lost revenue from increasing land values and rental rates, CRP contracts insulate them from the risk that land values and rental rates will remain stable or even decline as they did during much of the 1980's. Further, if USDA's concern is that CRP participants could miss future rent increases, an adjustment or escalator clause could be included in CRP contracts. An escalator clause would protect the interests of the CRP participant as well as the taxpayer. Such a clause could be tied to a local land value index, the consumer price index, or some other appropriate factor. This would be more equitable and precise than relying on local officials' judgments about what should be allowed for this purpose.

The other adjustment factors we question are those involving allowances for land values and economic trends and other impacts. Regarding the adjustment for land values and economic trends, headquarter and local USDA officials could not tell us how the adjustment for information about land values and economic trends differed from the adjustment factor for future increases in cash rental rates (i.e., the inflation factor). In our opinion, changes in cash rental rates reflect future land values and economic trends, and adjustment for these factors are included in the adjustment for future changes in cash rental rates. Similarly, neither headquarters nor local USDA officials could tell us what was to be included in the adjustment factor for "other impacts" on land

values. Moreover, USDA did not clarify its procedures to indicate what should be included in this factor. In our opinion, both of these factors—the provision for including future land values and other impacts "on land values" seem to be questionable add-on factors that allow local officials to inflate prevailing local rental rates for an acre of comparable land and continue paying CRP rental payments in excess of these rates.

To determine how the adjustment factors were actually used by local USDA officials, we examined a random sample of 800 rejected bids to determine if they were rejected for exceeding the prevailing local rental rate for an acre of comparable land. For the 85 bids rejected for exceeding local prevailing rental rates, we requested supporting documentation to determine how the prevailing local rental rates were calculated. (See app. I for additional details.) A review of these determinations disclosed that the instructions provided to local officials did, in fact, result in inflated prevailing local rental rates for an acre of comparable land and payment of CRP rental rates in excess of prevailing local rental rates for comparable land.

Table 3.4 illustrates how USDA's guidance resulted in inflated bid acceptance levels and CRP rental rates. In Case A, the producer received a contract for $55 per acre per year or 183 percent of the cash rental value of the land. In Case B, the producer's bid of $45 per acre per year was rejected, not because it exceeded the land's current cash rental value, but because it exceeded 286 percent of that value. Had it been equal to 286 percent of cash rental value, it would have been accepted.

**Table 3.4: USDA Guidance Inflated Bid Levels and Rental Rates: Two Examples**

| Case A | Per acre |
|---|---|
| Current cash rental rate | $30.00 |
| Inflation of land value | 1.00 |
| Upfront cash outlay for cover | 5.00 |
| Return if upfront cash outlay for cover had been invested | 3.00 |
| Compliance costs | 10.00 |
| Other impacts (unspecified) | 6.00 |
| Calculated prevailing local rental rate | 55.00 |
| Calculated rate as a percentage of current cash rent | 183 |
| **Case B** | |
| Current cash rental rate | $14.00 |
| Inflation of land value | 9.00 |
| Upfront cash outlay for cover | 8.00 |
| Return if upfront cash outlay for cover had been invested | 0 |
| Compliance costs | 3.00 |
| Other impacts (unspecified) | 6.00 |
| Calculated prevailing local rental rate | 40.00 |
| Calculated rate as a percentage of current cash rent | 286 |

In both examples the figures represent calculations made by the cognizant county officials. The producer's bid is then accepted or rejected based on these calculations. In Case A the producer's bid was accepted because it was $55 per acre—the same rate as the "calculated prevailing rental rate." In Case B, the producer's bid was rejected because at $45 per acre it was above the $40 per acre "calculated prevailing rental rate." Another point worth mentioning, based on these two examples, is that in calculating the prevailing local rental rate, an amount for "other impacts" was included. While including these factors was within the guidance provided by USDA, we were unable to determine the basis for including these amounts. No specifics were available at USDA headquarters or in the cognizant county offices. To us, permitting local offices to include factors with little apparent justification suggests that they were used to induce more acreage into the program by inflating the amount that was acceptable as a prevailing local rental rate for comparable land.

## Few Bids Were Rejected as a Result of Legislative Attempt to Lower Rates

Beginning with the sixth sign-up, it appeared that the legislative restriction limiting CRP rental payments to prevailing local rental rates for comparable land would have a significant impact on the number of bids rejected since USDA was paying in excess of local rental rates in many

parts of the country. However, because of the way USDA implemented the legislative restriction, few bids were rejected. USDA continued to pay CRP rental rates that were 200 to 300 percent of local cash rent values in many parts of the country, just as it had done prior to the legislation.

To determine whether bids were rejected as a result of the legislative restriction or for some other reason, we took a random sample of 800 bids from all bids rejected in the sixth sign-up. Based on supporting documentation provided to us by local USDA officials for our random sample, we estimate that 1,175 or about 2 percent of the 52,000 bids rejected in the sixth sign-up were rejected because of the legislative restriction. About one-half of these bids were rejected in Minnesota. If these bids from Minnesota were excluded, only 536 bids or about 1 percent of all such bids were rejected because of the legislative restriction. In our opinion, the number of bids rejected because of the legislative restriction was less than could reasonably be expected in view of the fact that USDA's maximum acceptable rental rates exceeded local officials' estimates of cash rents in counties with about 80 percent of all acres available for enrollment.

## USDA's Internal Controls to Implement the Legislation Did Not Establish Adequate Restriction

USDA officials acknowledge that the Congress attempted to restrict CRP rental payments to prevailing local rental rates for comparable land because of its concern that some payments in the first five sign-ups were excessive. In addition to providing implementing instructions that led to inflated prevailing local rental rates, USDA's efforts to implement the legislative restriction were inadequate because management did not establish internal controls to ensure proper implementation as required by the Federal Manager's Financial Integrity Act of 1982 (31 USC 3512(b)). As a result, the legislative restriction is not effective, and the costly practices it was intended to restrict continue.

Effective implementation of the legislative restriction would require that USDA establish a system of internal controls to help ensure that (1) the objectives of the restriction were being accomplished, (2) local USDA officials were properly supervised to ensure that implementing instructions were consistently followed, and (3) key duties and responsibilities of those administering the restriction were separated to ensure independence and objectivity among those responsible for authorizing, administering, and reviewing implementation of the restriction at the local level.

Current federal standards for implementing the requirements of the Federal Manager's Financial Integrity Act require such controls.[4]

USDA did not establish any of these fundamental control techniques. For example, USDA made no effort to determine what effect, if any, its implementing instructions had in limiting CRP rental rates to prevailing local rental rates for comparable land. USDA headquarter officials did not know how local USDA officials implemented their instructions or even if their instructions were followed at the local level. Further, USDA limited producer appeals of local decisions to the local level. This in effect placed local officials in the position of reviewing their own actions. In other USDA programs, producers can appeal local officials' actions to the state office, USDA headquarter, and Secretary of Agriculture levels, thereby ensuring separation of duties between those making and reviewing decisions.

For example, during the course of our review we found that:

1. Some local USDA offices followed USDA's implementing instructions for calculating local prevailing rental rates; others did not. Those that did used a variety of techniques. Some followed the instructions and computed a local prevailing rental rate for comparable land for each bid. Others computed aggregate rates for their counties and compared them against all bids received.

2. Fifteen of 32 county offices we called did not calculate a prevailing rate at all. They simply continued to accept all bids equal to or less than the maximum acceptable rental rates, even when those these rates exceeded 200 percent of their estimates of the average cash rental rates in their counties.

3. Finally, as illustrated in Case B (table 3.4), CRP rental rates in excess of 200 percent of the cash rent value of the enrolled land are still being paid.

The Federal Managers' Financial Integrity Act of 1982 also requires government agencies to annually evaluate their internal controls and report whether they comply with prescribed internal control standards and provide reasonable assurance that, among other things, obligations and costs are in accordance with applicable laws. To the extent systems do

[4]Standards of Internal Controls in the Federal Government, U.S. General Accounting Office, 1983.

not comply, any material control weaknesses, along with plans for their correction, must be reported in an agency's annual statements.

The Office of Management and Budget Circular A-123 defines material control weaknesses, in part, as those which significantly weaken safeguards against waste, loss, unauthorized use or misappropriation of funds, property, or other assets. Additional guidance provided to agencies indicates that a material weakness is one that merits the attention of, among others, the relevant congressional oversight committee, or would reflect adversely on the credibility of the agency report when subsequently made public.

USDA did not report the absence of internal controls as a material weakness in its 1988 report and does not at this time plan to include it in the 1989 report.

## Legislative Restriction on Individual County Enrollment May Increase Program Costs

As discussed in chapter 2, the Food Security Act of 1985 limits the amount of land enrolled in the CRP to 25 percent of the cropland in a county. While this is an important feature of the program in limiting the adverse impacts of the CRP on local economies, it also limits the amount of eligible acres available for enrollment in the CRP and, as a result, may increase program costs.

USDA estimates that 31.5 million acres of the 101.5 million eligible acres are not available for enrollment because of the limit on individual county enrollment. As a result, USDA will need to enroll 57 percent of the 70 million available acres versus 39 percent of the eligible acres to establish the 40-million-acre CRP required by law.

Based on its experience through the fifth sign-up period, USDA recognized that it would have to increase the maximum acceptable rates for many counties to enroll 57 percent of all available acres. For example, USDA was able to enroll only 49 percent of available acres even in counties where its maximum rental rates exceeded 200 percent of local officials' estimates of cash rental rates.

USDA began this process in the sixth sign-up by increasing the maximum acceptable rental rates from $5 to $25 for about 600 counties in the Corn Belt and mid-Atlantic states where maximum acceptable rental rates were at or below local estimates of cash rental values. However, further increases will probably be necessary for USDA to enroll the required 40 million acres, because enrollment has continued to decrease

from 12 percent of the available acres in these counties in the first five sign-ups to 4 percent in the sixth and seventh sign-ups.

## Agency Comments and Our Evaluation

ASCS stated, essentially, that producers could not have known the maximum acceptable rental rate levels because the Secretary did not announce the acceptable levels until after bids were submitted and retained the option of raising or lowering rates as he deemed necessary. ERS said that, with the exception of the first sign-up, the bid system amounted to an offer system in which most farmers tended to bid near the maximum acceptable rental rate revealed in the previous sign-up. ASCS also stated that bid policy was driven, to some extent, by the minimum required acreage levels set by the Congress. For the same reason, ASCS said that ERS' comment was not warrented. Further, ASCS stated that eligibility criteria were gradually expanded to increase the pool of eligible bidders.

In fact, the Secretary never decreased the maximum acceptable rental rate in any bid pool and made only small incremental increases in rates through the fifth sign-up period. As a result, producers quickly learned what the maximum acceptable rental rates were and adjusted their bids accordingly. By the fifth sign-up, 63 percent of the bids received were equal to these rates, and an additional 26 percent were within $5 of these rates. Expanding the eligibility criteria did not increase competition as ASCS contends because all bidders, even those newly eligible, could still bid up to the maximum acceptable rental rate for their area and be guaranteed a contract regardless of the value of their land. Further, since the newly eligible land tended to be less erosive, those producers actually experienced a greater return for land providing even fewer benefits in terms of reducing erosion and other program benefits.

ASCS also commented that it exercised restraint by accepting only 16 percent of the offers during the first sign-up. According to ASCS, this demonstrated its belief that it would be able to obtain offers at lower cost to the taxpayer in later sign-ups. ASCS states that projected costs for the CRP would otherwise have been higher.

While USDA's acceptance of only 16 percent of the offers in the first sign-up did demonstrate some degree of restraint, we do not believe it was enough. In deciding what rental rates would be acceptable, USDA established rates that exceeded local officials' estimates of the cash rental rates for 81 percent of the acres available for enrollment, with rates for

29 percent of the available acres exceeding 200 percent of the local officials' estimates. By the fifth sign-up, 93 percent of the offers were within $5 of these rates. As a result, many producers received payments greatly in excess of the value of their land, and others continue to do so today.

ASCS stated that the $5 per acre adjustment in maximum acceptable rental rates that was offered as tree planting incentives in certain states also served to fine-tune the rates and pool boundaries. ASCS cites such changes as a continuing option for program managers to obtain desired results.

ASCS also commented on GAO's suggestion that CRP participants be allowed to retain eligibility for price and income support programs for longer than the 10-year contract life provided they planted trees on the acres. ASCS stated that existing contracts could not be modified without the consent of the participants.

While the $5 per acre tree planting incentive may also have served to fine-tune pool boundaries, we continue to believe that this incentive was poorly designed because the incentive payments were made to producers who did not plant trees on about 600,000 enrolled acres. We cannot see how an incentive designed to get participants to plant trees can be effective when it is also paid to those participants who do not plant trees.

Section 1236 of the act gives the Secretary the authority to protect the base history of land enrolled in the CRP, but it does not limit this protection to the life of the contract. We did not suggest altering existing contracts. We suggested that this was a low-cost alternative for future tree planting initiatives that was cited by participants in prime tree growing areas in response to our questionnaire.

In commenting on our report, ASCS stated that it properly implemented provisions of the 1988 and 1989 appropriations acts regarding paying prevailing local rental rates. According to ASCS, paying rental rates based on 1-year leases would have, in all likelihood, ended the program.

While USDA may have properly implemented provisions of the appropriation acts relating to prevailing local rental rates, we do not believe USDA effectively implemented these provisions. USDA (a) allowed inappropriate adjustments for inflation and other adjustments that duplicated in

part the inflation adjustments and (b) failed to establish internal controls to ensure that its implementing procedures were followed consistently. More recently, in August 1989, the USDA Office of Inspector General (OIG) reported that USDA's implementation of these provisions was inadequate. In one case, the OIG found that USDA is paying a producer $25,452 more per year than the producer is paying to rent the 753 acres he enrolled ($45 per acre versus $11.19 per acre), even though the acts limit CRP rental payments to the prevailing local rental rate for comparable land.

In response to our suggestion to use an escalator clause as part of the prevailing local rental rate to protect the producer from inflation, ASCS stated that the current bid policy was designed to achieve program goals as cost effectively as possible, given the goals for participation. ASCS also stated that existing contracts could not be modified without the consent of CRP participants.

Beginning in the sixth sign-up, USDA routinely adjusted CRP rental rates to protect producers for anticipated increases in land values and rental values of comparable land during the 10-year life of the CRP contracts. As a result, farmers are paid the higher rates whether or not an increase occurs. We suggested an escalator clause to protect producers from such increases only if they occur and to protect the government if they do not. We did not, however, suggest going back and modifying existing contracts; rather, we suggested modifying the procedures for future sign-ups.

Finally, USDA stated that while some fine-tuning might have reduced program outlays, the program is very successful. Further, there is a concern that if later participants were to receive a greater return than earlier participants, it would discourage early participation in USDA programs.

Under a competitive bid system, which we recommend, there would be no windfall because producers would bid what they are willing to accept instead of the higher amounts paid by USDA. Under the present system, many producers received 200 to 300 percent of the cash rental value of their land because USDA offered that amount. ERS, in commenting on our report, stated that a competitive bid system would "almost surely have resulted in lower government costs." Further, many participants are already receiving higher payments than other participants because of the fact that USDA has raised rental rates in many pools. For example, after the sixth sign-up USDA increased rental rates by as much as $25 per acre for some pools.

# Conclusions, Recommendations, and Matters for Consideration by the Congress

The CRP is a multi-billion-dollar federal effort to help address the land and water conservation problems of American agriculture. To do this, USDA, via the CRP, is authorized to address a wide range of objectives involving the nation's farm economy and the environment. CRP objectives range from the more traditional goals of curbing the production of surplus commodities and providing income support to farmers to the less traditional, more far-reaching goals of reducing soil erosion and improving water quality and wildlife habitat. In addition to the general objectives the Congress laid out for the program, the authorizing legislation also contained two specific objectives for the program —a mandated 40- to 45-million-acre enrollment target by 1990 and a tree planting goal of 12.5 percent of enrolled acres.

So far, USDA program managers have done well in meeting the mandated acreage goals, having enrolled over 28 million acres through the end of 1988. The enrollment of these acres in the CRP has resulted in substantial benefits in all phases of the programs. Soil savings are estimated to be 574 million tons per year. Reduced soil erosion will help preserve farmland productivity, reduce sedimentation, reduce pollution of surface and groundwater as fertilizer and pesticide use decreases, and improve fish and wildlife habitat. Further, the production of surplus commodities has been reduced, and $1.4 billion annually in CRP rental payments is helping provide income support to farmers participating in the program. Finally, although the CRP is not yet meeting its 12.5 percent tree planting goal, about 1.7 million acres (or about 6 percent of all CRP acres) are being planted to trees. Even at this rate, however, the tree initiative is one of the largest federally sponsored tree planting programs ever.

While the CRP has reduced soil erosion because of the large number of acres enrolled in the program, we believe the benefits achieved to date could have been enhanced if USDA program mangers had not placed primary emphasis on meeting the acreage enrollment requirements and tree planting goals. Our analysis shows that as much as several hundred million dollars per year in additional costs have been incurred as part of the CRP. These costs resulted from the noncompetitive nature of USDA's CRP bid system, the approach USDA used to encourage additional tree planting, and the inadequate procedures USDA developed and used to limit CRP rental rates so that they did not exceed prevailing local rental rates for an acre of comparable land. In addition, while it is an effective tool in cushioning the impact of the CRP on local economies, the legislative restriction limiting the amount of CRP cropland permitted to be enrolled in each county could drive up CRP rental rates.

Overall, our review of the program shows that USDA focused its efforts on meeting the mandated acreage enrollment targets and the tree planting goal rather than managing the program in a way that would maximize the benefits that could be achieved. In doing so, the program's ability to effectively address other objectives of the program was reduced. As a result, while the CRP made contributions toward achieving each of the program's objectives, program benefits were not optimized and the program has cost more than necessary.

The CRP, as now implemented, gives all acreage meeting USDA's minimum soil erosion eligibility requirements equal opportunity and equal weight when acres are enrolled in the program. USDA did not target those acreages for enrollment that are the most significant contributors to soil erosion or water damage. As a result, about 70 percent of the nation's most highly erodible acres (10T and above) is still not in the CRP. By not targeting the most erosive and environmentally damaging acres, the program's ability to reduce soil erosion, improve agricultural productivity, reduce sedimentation, relieve surface water and groundwater damage caused by fertilizers and agricultural chemicals, and improve fish and wildlife habitat has been reduced. Of course, some of the most highly erodible land is precluded from entering the program because of the legislative restrictions placed on the amount of enrollment in each county. However, most of this acreage is still available. Further, USDA's approach to establishing maximum acceptable rental rates for land enrolled in the CRP discouraged producers in the Midwest, especially the Corn Belt states, from entering large amounts of acreage in the program. Consequently, large portions of the cropland that suffers the most damage from water-caused erosion and that contributes to water quality problems are not enrolled in the CRP.

USDA could have targeted the most highly erodible acres by devising a bid system that, for example, was based on the cost per ton of soil saved. Targeting improvements in water quality would have been more difficult because all streams, water bodies, or groundwater reservoirs with current or potential water quality problems have not been identified, nor have the sources of the problem. However, targeting could have been done to a greater degree than it was under CRP. States and federal agencies have identified portions of the nation's contaminated rivers, lakes, estuaries, and groundwater locations and have assessed the impact of pollution on these water resources and the potential for additional damage. USDA could have used the information to help focus its efforts on this important aspect of the program.

Recent USDA initiatives to increase tree planting have also reduced program benefits in the areas of reducing soil erosion and improving water quality. Because USDA relaxed its original soil erosion criteria for tree growing acres, there is now more land enrolled in the CRP that is not eroding or eroding at very low levels. Accordingly, the potential soil erosion and tree planting benefits that otherwise would have been realized by enrolling highly erodible land, including decreases in soil erosion and sedimentation and improvements in water quality that might have resulted, have been lost.

In both areas where USDA could have improved the effectiveness of CRP—better targeting and better handling of the tree planting initiative—we believe the kind of program changes needed to accomplish the additional benefits would have minimal adverse impact on the overall acreage enrollment requirements and tree planting goals. Moreover, to the extent that program changes would adversely affect the number of tree planting acres enrolled, increased benefits would be realized under the other objectives of the program.

In the final analysis, we believe that the overall impact of the program would be increased if management focus shifted to a more balanced approach that tried to optimize the program's contributions toward each of its objectives.

On the cost side of the CRP equation, we estimate that the total cost of the CRP will be about $22 billion through 1999. We believe these costs are higher than necessary because of the way USDA implemented the program. The Food Security Act, for example, suggested that USDA reduce program costs by using a competitive bid system to enroll land in the CRP. However, the bid acceptance process implemented by USDA was not competitive; it was, in effect, an offer system that paid the maximum rate for a majority of enrolled acres and, as a result, increased program costs. This occurred because USDA consistently accepted all bids up to the maximum acceptable rental rate, and producers quickly learned these rates and adjusted their bids accordingly.

To make its bid acceptance process competitive, USDA must prevent producers from knowing in advance what the maximum acceptable rate is likely to be so that they will bid on the basis of what they are willing to accept rather than what they know they can get. USDA can accomplish this by (1) limiting the total acres it will accept or total funds it will obligate in each sign-up or (2) accepting bids based on their contribution to program objectives.

Under the second method, USDA could use criteria based on specific program objectives to determine which bids it will accept. Possible criteria include the tons of soil saved, enrolling the most erodible land first, or achieving the greatest reduction in annual price and income support program payments on the basis of either a per acre or per dollar of rental cost. Using such criteria alone or in combination with limits on total acres or funding would also preclude producers from knowing in advance what the maximum acceptable rental rate is likely to be.

As a tree planting initiative, USDA increased rental rates by $5 per acre in a five-state area of the Southeast. However, because the tree planting initiative was available to all producers in this area, regardless of whether they planted trees, USDA will pay more than $30 million over the life of the program for the 60,000 acres where trees were not planted.

We believe USDA could have avoided these additional costs if it had used other ways to meet its tree planting goal. For example, USDA could have paid the additional $5 per acre only to producers who actually planted trees. Further, CRP participants in areas of the country outside the primary tree planting states in the Southeast would have planted trees if they had been permitted to retain eligibility for USDA price and income support programs on their acres for as long as the trees remained rather than for just the 10-year life of the CRP contract, or if they had received additional technical assistance on tree planting from USDA.

The other major aspect of the program that contributed to higher costs was USDA's handling of congressional attempts to limit rental payments to prevailing local rental rates for comparable land. The Congress' attempt to limit CRP rental payments became effective prior to the sixth sign-up period. Although the new restriction would appear to have had a significant impact on USDA's ability to continue paying CRP rental rates that were frequently 200 to 300 percent of local rental rates, it did not have the desired effect. This occurred because USDA instructed local county offices to include a number of add-on factors in the prevailing local rental rate calculations that permitted high payment rates to continue.

Specifically, USDA instructed county offices to include factors in the prevailing local rental rate calculation that were not justified. Accordingly, in many parts of the country, CRP rental payments have continued at levels equal to or higher than they were before enactment of the 1987

legisiation. Further, other than issuing instructions, USDA program managers exercised little oversight or supervision of the rate-establishment process used to implement the law throughout the country. As a result, the controls necessary to help management determine whether the legislation was being effectively implemented were not in place. In addition, USDA did not report the lack of controls as a material weakness in its 1988 Financial Integrity Act Report. We believe USDA should do so in its 1989 report.

Under the current law, the CRP is generally prohibited from enrolling more than 25 percent of the cropland in any county. The legislation is intended to help cushion local economies against the potentially negative effects of idling all or much of the land in any given county.

While the limit on individual county enrollment will not prevent USDA from meeting the mandated acreage targets, the limit does make the targets more difficult and costly to achieve. USDA needs to enroll about 57 percent of the necessary eligible acres because of the limit; it would need to enroll about 39 percent of the acres if there were no limit. This could drive up the cost of enrolling additional acres as the pool of available land becomes smaller with each additional CRP sign-up. A greater concern, however, may be that some of the acreage that is now frozen out of the program is among the most highly erodible in the country—land eroding at 10T or more.

As the CRP gets closer to the 40- to 45-million-acre target, or if the CRP is expanded, it may be necessary to eliminate or modify the limit on individual county enrollment or to further expand eligibility criteria to create a larger pool of available acres. If the CRP is expanded, for example, and the limit remains in effect, USDA would need to enroll a very large portion of all remaining eligible acres. The cost of doing so could become prohibitive as rental rates would likely have to be raised to very high levels to attract landowners who, for whatever reason, are reluctant to participate.

While eliminating the limit may not be advisable because of the potential adverse impact on local economies that are dependent on agriculture, modifying the limit to allow additional acreage that contributes the most to soil erosion or water quality problems could be a workable solution.

## Matters for Consideration by the Congress

Several bills have been introduced in the Congress to expand the CRP in its present or a modified form. One proposal calls for expanding the CRP to 65 million acres, for example. Another bill would target water quality problems. None of the bills has been acted upon as yet, but with debate on renewal of the Food Security Act scheduled for 1989 and 1990, it is likely that some legislation relating to the CRP will be considered. During this debate, the Congress may want to consider more clearly defining its program objectives and priorities so that program managers have better guidance about whether they should continue to emphasize achieving the acreage targets or should shift their focus to achieving program benefits in a more cost-effective manner. We believe there are a number of options available that the Congress could use to sharpen the focus of the CRP. In the process, overall program benefits could be improved and the program made more cost effective.

Among the actions the Congress may want to take are to

- allow flexible annual and overall acreage goals,
- modify the restriction on the amount of acreage that can be enrolled in a county,
- limit or target eligibility to commodity program crops, and/or
- limit annual funding to encourage more cost-effective administration.

These options, discussed in more detailed below, apply to both the current program or any expanded program.

### Allowing Flexible Annual and Overall Acreage Goals

The Food Security Act contains both a mandated overall enrollment target of 40 to 45 million acres and interim targets of at least

- 5 million acres in 1986;
- 10 million acres in 1987, 1988, and 1989; and
- 5 million acres in 1990.

There is also a goal of having trees planted on at least one-eighth of the CRP acres.

While USDA's efforts to meet the overall acreage enrollment targets have been successful to date, the focus of the CRP has become enrolling acreage instead of meeting the conservation and environmental objectives of the legislation. As a result, program benefits are lower and costs are higher than necessary. USDA's attempts have included adopting a bid system that was not competitive, setting maximum rental rates that

favored areas suffering from wind-caused erosion over water-caused erosion, and lowering eligibility standards. Tree planting initiatives have also increased costs and reduced soil savings without meeting the tree planting goals.

The Congress may want to remove these mandated goals and permit USDA more flexibility to address the full range of objectives established for the CRP. Allowing more flexible acreage goals would better enable USDA to focus on meeting the broader range of objectives in a more cost-effective manner.

## Modifying the Restriction on the Acreage That Can Be Enrolled in a County

The 25 percent cap on CRP enrollment in a county precludes about 30 percent of all highly erodible cropland from participation in the CRP. Some of this land is among the most highly erodible in the country. As the CRP gets closer to its 40- to 45-million-acre target, particularly if the CRP is expanded, the available acres decrease. As a result, the land entering the CRP will become increasingly costly. Although relaxing the limit on individual county enrollment could have negative effects on local communities, expanding the eligibility criteria could further reduce the CRP's effectiveness by bringing into the program more land that is eroding at lower rates. Modifying the limit on individual county enrollment could be a more cost-effective option, particularly if the modification were used to target the most highly erodible land or land that contributes to water quality problems.

While eliminating the limit may not be advisable because of the potential adverse impact on local economies that depend on agriculture, modifying the limit could be a workable solution. For example, the limit could be modified to allow the enrollment of an additional 10 to 20 percent of the cropland in a county if

- the land is eroding at 10T or more,
- the land contributes to water quality problems, or
- the land makes a significant contribution to meeting other CRP conservation or environmental objectives.

## Limiting Eligibility to or Targeting Annual Program Crops

In terms of meeting the objectives of the CRP program, it makes no difference whether the acres enrolled in the CRP are used to grow crops covered by USDA price and income support programs. However, in terms of overall costs to the taxpayer, there can be a significant difference. Limiting CRP eligibility to or targeting commodity program crops could

significantly reduce the government cost per acre to enroll land in the CRP. In addition, federal cost savings could result from a general rise in crop prices that might occur when additional acres are taken out of production for the CRP. As surplus stock levels decline and prices rise for a given crop, USDA price and income support payments on all such crops decline.

Consequently, in order to both realize the benefit achieved by land enrolled in the CRP and help minimize overall government expenditures, the Congress may wish to either (1) further limit CRP eligibility to farmland enrolled in USDA price and income support programs or (2) target acreage enrolled in USDA commodity programs by requiring USDA to offer incentives as it did for corn acreage during the fourth sign-up.

## Limiting Funding to Encourage More Cost-Effective Administration

Congressional attempts to restrain costs by suggesting that a competitive bid system be used for the CRP and by restricting CRP rental rates to prevailing local rental rates for an acre of comparable land (in fiscal years 1988 and 1989) have not been successful because of the way in which USDA implemented the program. Those factors, combined with USDA's emphasis on meeting the mandated annual acreage requirements, have led to annual CRP rental payments that can be as high as 200 to 300 percent of local cropland rental rates and have resulted in overall program costs that are higher than necessary.

Since the CRP is funded through the revolving fund of the Commodity Credit Corporation, the program is funded after the fact. As a result, there is effectively no annual or overall limit on the amount of CRP expenditures in any given year. The expenditures are driven by the amount of acreage enrolled in the program and the rental rates accepted for those acres. As a result, the Congress may wish to place a limit on either annual or overall program costs for the remainder of the 45-million-acre CRP program or for an expanded program.

## Recommendations to the Secretary of Agriculture

To improve the benefits realized by the CRP, we recommend that the Secretary of Agriculture direct the Administrator of ASCS to develop a bid acceptance approach that targets the most highly erodible acres available for enrollment as well as those that contribute most to water quality problems.

To improve the administration of the CRP as well as minimize rental costs over the remainder of the program, we recommend that the Secretary of Agriculture direct the Administrator of ASCS to develop and use a competitive bid system. In using such a system, USDA should accept those acres into the CRP that make the maximum contribution to CRP objectives per dollar spent. Such a system would also be consistent with the Congress' suggestion to use a competitive bid system in administering the CRP. We also recommend that in adopting a competitive bid approach, the Secretary should request the Congress to eliminate the limitation restricting CRP contract rental rates to the prevailing local rental rate for an acre of comparable land since this provision would be unnecessary under a competitive bid system, which enrolls the most cost-effective acres first.

If USDA does not implement a competitive bid system and stays with the offer system it now uses, we recommend that the Secretary require the ASCS Administrator to reduce the maximum acceptable rental rates to bring the rates more in line with prevailing local rental rates.

Regarding the CRP tree planting initiative, we recommend that the Secretary require the ASCS Administrator to

- return to the previous eligibility criteria that two-thirds of the land must be eroding at three times the soil loss tolerance level, instead of the relaxed standard now being used (one-third of the land at two times the soil tolerance level);
- restrict incentives for tree planting to only those producers who actually plant trees rather than any producer in a geographic area, as is now occurring;
- evaluate the use of other incentives to plant trees, such as providing additional technical assistance to producers and/or extending the period of time that the land planted with trees could remain out of production yet still qualify for federal farm program benefits.

Also, if USDA does not implement a competitive bid system and must limit rental rates to prevailing local rental rates for an acre of comparable land, we recommend that the Secretary direct the Administrator, ASCS, as follows:

- Issue revised, more specific guidance to county offices detailing how they should calculate "prevailing local rental rates for an acre of comparable land." The revised guidance should (1) remove the redundancy in the adjustment factor for the cash rental value over the 10-year life

of the contract and the adjustment factor for future land values and economic trends and (2) clarify what is to be included in adjusting rental rates for "other impacts on land values."

- Use more objective data in protecting farmers against future increases in land values for acreage enrolled in CRP by developing and requiring county offices to use escalation factors tied to local farmland values or rental rates in CRP in calculating "prevailing local rental rates for an acre of comparable land."
- Reject CRP bids that exceed the prevailing local rental rates established under the revised guidance.
- Establish the internal controls necessary to ensure that county offices are properly calculating prevailing local rental rates. The controls developed should, at a minimum, provide ASCS managers with assurance that the rates are calculated consistent with both legislative intent and the revised guidance.

Further, the Secretary should direct ASCS to develop a plan that targets the most highly erodible acres and those that contribute the most to water quality problems. As part of this plan, the Secretary should request that the Congress modify the limit on individual county enrollment to allow additional acres to be enrolled by those counties that are at the limit, provided that those acres meet specific program goals, such as removing from production the most highly erodible acres, or those contributing to water quality problems. Finally, the Secretary should report the lack of internal controls as a material weakness in the Department's 1989 Financial Integrity Act report.

## Agency Comments

USDA commented that the program was cost-effective and provided detailed comments by the Agricultural Stabilization and Conservation Service and its Economic Research Service. While ASCS disagreed with GAO's conclusions and recommendations on the bidding process, ERS agreed with GAO. ASCS also disagreed with GAO's position on the tree planting initiative. GAO continues to believe its positions have merit. USDA's, ASCS', and ERS' comments and GAO's evaluation are discussed in more detail in the appropriate chapters of this report and included in appendix III.

# Sampling Methodologies

To meet the objectives discussed in chapter 1, we selected four samples from USDA's computerized contract files and obtained information about the sampled contract files through questionnaires mailed to either local USDA officials or the contract holders. We designed these samples and questionnaires to determine (1) the accuracy of the data in USDA's computerized contract files, (2) how USDA implemented the provisions of the 1988 appropriations act limiting rental payments to the prevailing local rental rate, (3) the effectiveness of the corn bonus, and (4) why USDA's tree planting initiative was not more successful. In each instance, we selected samples from the most current information available at the time of our sample selection and used sampling techniques that would allow us to project sample results at the 95 percent confidence level.

## Accuracy of USDA's Computerized Contract Files

USDA's computerized contract files were the primary source of much of the information in this report. These files include CRP rental payment amounts, base acre reduction, cover practice selection, and erosion and soil classification information.

To determine the accuracy of the computerized contract file information, we compared the information in a random sample of contract files with the underlying supporting documentation provided by local USDA officials. We selected a random sample of 400 contracts from the universe of 196,706 contracts in USDA's computerized contract files for the first five sign-up periods. We obtained actual contract file information and other supporting documentation for each sample contract through a questionnaire to local USDA officials. This information provided sufficient detail to verify that (1) the land capability classification (LCC) and erosion characteristics of the enrolled acres—such as T values, tons of erosion per acre per year (T/A/Y), and the actual erosion index (AE) that can be computed from T/A/Y and T—were correctly described, (2) the land was eligible for the CRP, and (3) the number of acres enrolled, base acre reduction, and acres of each cover practice selected were correct.

We found no statistically significant difference at the .01 level of significance between

- the T, T/A/Y, AE, and LCC values reported in USDA's computerized contract files and the actual values found in the supporting documentation for the sample contracts or
- our eligibility determinations and those of the local USDA officials.

We also found that, with the exceptions of corrections not yet incorporated into the computerized contract files, the number of acres enrolled, base acre reduction, and acres of each cover practice selected were correctly reported.

## Implementation of the 1988 Appropriations Act

The 1988 appropriations act limited CRP rental payments to the prevailing local rental rate for comparable land beginning with the sixth sign-up period. To determine how many bids, if any, were rejected because the bid amount exceeded the prevailing local rental rate for an acre of comparable land, we examined a random sample of 800 bids from the universe of 11,085 bids rejected in the sixth sign-up that were less than or equal to the maximum acceptable rental rate for their area. Since these bids were not rejected for exceeding the maximum acceptable rental rate, they had to be rejected for some other reason. For example, the bids could have been rejected for exceeding the prevailing local rental rate for an acre of comparable land or because the land was not highly erodible. For each sampled bid, we sent a questionnaire to local USDA officials to determine why the bid was rejected.

## Questionnaire Results

We sent 800 questionnaires and received 764 responses, a 95.5 percent response rate. Responses to our questionnaires are summarized in table I.1.

**Table I.1: Rejected Bids—Responses by Category**

| | |
|---|---|
| Land was not eligible | 188 |
| Bid exceeded the prevailing local rental rate for comparable land | 85 |
| Bidder withdrew bid | 158 |
| Other | 63 |
| Bid did result in a contract[a] | 279 |
| **Total** | **773[b]** |

[a]Most of these 279 cases involved the reconstitutions of existing farms between bid submission and contract award. A farm is reconstituted and assigned a new farm number for USDA record-keeping purposes when farm acreages change. We inadvertently identified such bids as rejected because bid farm numbers differed from the related contract farm numbers.

[b]Respondents could list more than one reason that a bid did not result in a contract; therefore, the number of answers exceeds the number of questionnaires received.

## Projection of Sample Results

Of the 764 questionnaires received, we found that 279 did result in contracts, reducing the actual number of rejected bids to 485. The percentage of bids rejected because they exceeded the prevailing local

prevailing rental rate for comparable land is 17.5 (85 divided by 485). Applying our sample results to the universe, we estimated that 1,175 bids were rejected because they exceeded the prevailing local rental rate. The 1,175 rejected bids represent only 2.25 percent of the 52,146 bids received nationwide during the sixth sign-up.

We also projected our sample results to determine what the nationwide rejection rate would be without Minnesota (55.3 percent of the 85 sampled bids rejected for exceeding the prevailing local rental rate were from Minnesota). Excluding Minnesota, we estimate that 536, or 1.1 percent, of all bids were rejected because they exceeded the prevailing local rental rate for comparable land.

Table I.2 shows our estimates of bids rejected because they exceeded the prevailing local rental rate for an acre of comparable land and the confidence intervals for those estimates.

**Table I.2: Confidence Intervals for Estimates of Rejected Bids That Exceeded Prevailing Local Rental Rates**

| | | 95 percent confidence interval | | | | |
|---|---|---|---|---|---|---|
| | Rejected bids | (Percent) | Low est. | (Percent) | High est. | (Percent) |
| All states sampled | 1,175 | (2.3) | 938 | (1.8) | 1,412 | (2.7) |
| All states sampled except Minnesota | 536 | (1.1) | 371 | (0.8) | 701 | (1.4) |

## Effectiveness of the Corn Bonus

USDA offered a $2 per bushel corn bonus in the fourth sign-up to encourage the enrollment of corn base acres. Producers responded by enrolling 1.73 million corn base acres, more than three times the number of such acres previously enrolled.

To determine the effectiveness of the corn bonus, we estimated how many of the fourth sign-up corn base acres were enrolled as a result of the bonus and how many would have been enrolled without the bonus. We based our estimates on responses to a questionnaire that we mailed to a sample of producers who received the corn bonus. Our universe was the 46,141 contracts on which the 1.74 million corn base acres were enrolled in the fourth sign-up. We randomly selected 500 contracts and mailed questionnaires to the 661 persons receiving payments from these contracts. Of the 661 questionnaires mailed, we received 542 responses, an overall response rate of 82 percent. Of these 542 responses, 465 stated that they were responsible for enrolling the land in the CRP.

One hundred-twenty respondents (or 27 percent of the 444 respondents who answered the question) said that they would have enrolled in the CRP and designated a reduction of their corn base acres in the fourth sign-up even if no corn bonus had been offered. Another 81 respondents (18.2 percent) said that, without the bonus, they would have still enrolled during that period, but would have designated the reduction of a different base. Finally, 243 respondents (54.7 percent) said that they would not have enrolled any acres during the fourth sign-up if not for the bonus. Of this last group, 45 said that they would have probably enrolled the acres at a later date.

On the basis of these responses and the acreage enrolled in each sampled contract, we estimate that 907,413 acres (plus or minus 114,698) of the 1.74 million fourth sign-up corn base acres were enrolled as a result of the corn bonus, of which 134,467 acres (plus or minus 58,880) would have probably been enrolled in a subsequent sign-up without the corn bonus. We also estimate that 304,450 corn base acres (plus or minus 89,239 acres) would have been enrolled in the fourth sign-up without the corn bonus and another 201,117 acres (plus or minus 69,114 acres) would have been enrolled with a base acre designation other than corn without the corn bonus.

## Why Tree Planting Initiative Was Not More Successful

USDA increased maximum acceptable rental rates in principal tree growing states to meet the legislative goal that 12.5 percent of the CRP acres would be planted in trees. However, only about 6 percent of CRP acres are planted in trees.

To determine why USDA's tree planting initiative was not more successful, we sent questionnaires to a sample of producers in the geographic areas most suited for trees who chose not to plant trees. USDA officials and state foresters helped us to identify the geographical areas most suited to trees. Included are the states of Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, Wisconsin, and parts of Minnesota and Texas.

We identified 36,247 CRP contracts enrolling 2,033,822.2 acres through the fifth sign-up with a cover practice designation other than trees in these geographic areas. We randomly selected 500 contracts from this universe and mailed questionnaires to the 556 producers receiving payments from the 500 contracts. We received responses from 447 producers, for an overall response rate of 80 percent. Of these 447 producers, 289 indicated that they were the persons responsible for enrolling the

land and that the land was suitable or might be suitable for growing trees. These 289 producers gave some reason other than the physical characteristics of the land for their decision not to plant trees. Table I.3 shows the reasons they cited as very important in their decision not to plant trees:

**Table I.3: Reasons for Not Planting Trees**

| Reason cited as very important | Percent citing |
|---|---|
| Difficulty of returning land to cropping | 75.0 |
| Would tie up land too long | 66.9 |
| Loss of crop base after 10-year contract | 64.0 |
| Lack of economic return from trees | 56.7 |

ASCS officials had told us previously that important reasons for not planting trees were unavailability of tree seedlings and the risks of insect damage, disease, or other perils. However, most producers did not cite these as very important reasons.

Most producers said that if they had more acres to enroll in the CRP, they would be willing to plant trees on those acres if certain incentives were offered. Table I.4 shows the response percentages for each incentive listed on the questionnaire:

**Table I.4: Incentives to Plant Trees**

| Incentive | Response percentage |
|---|---|
| Increase the CRP rental payments for trees | 76.1 |
| Increase government share of establishment costs | 67.4 |
| Preserve the crop base history for longer period | 65.3 |
| Include maintenance costs in contract | 64.7 |
| Offer a longer contract period for trees | 61.2 |
| Provide additional technical assistance | 51.4 |

Four of the six incentives listed would provide greater financial reward to participants who opt to plant trees rather than some other type of cover, indicating that participants would plant trees if paid more to do so. On the other hand, over 65 percent said they would consider planting trees if the crop base history were preserved for a longer time, and over half would consider trees if additional technical assistance were provided. These are essentially no-cost or low-cost incentives.

# Government Costs of the CRP

We estimate that the direct government cost of a 40-million-acre Conservation Reserve Program will be approximately $22.1 billion over 14 crop years, as shown in table II.1. The cost consists of annual rental payments ($20.2 billion), the government's share of costs for establishing cover crops ($1.5 billion), corn bonus payments ($0.3 billion), and administrative costs of less than $50 million.[1]

**Table II.1: Direct Cost of a 40-Million-Acre CRP, Crop Years 1986-99**

Billion dollars

| | Crop years | | | |
|---|---|---|---|---|
| | 1986-90 | 1991-95 | 1996-99 | Total |
| Annual rental payments | $5.8 | $10.1 | $4.3 | **$20.2** |
| Gov't. share, estab. costs | 1.3 | 0.2 | 0.0 | **1.5** |
| Corn bonus | 0.3 | 0.0 | 0.0 | **0.3** |
| Administrative costs | [a] | [a] | [a] | [a] |
| **Total[b]** | **$7.5** | **$10.3** | **$4.3** | **$22.1** |

[a]Less than 0.5.

[b]Columns may not add due to rounding.

Source: Costs contracted by USDA for enrolling 28.1 million acres through the seventh sign-up and GAO estimate of costs of enrolling 11.9 million additional acres.

Annual costs are not distributed evenly over the life of the program, as shown in table II.1. Both the government's share of establishment costs and corn bonus payments are one-time costs incurred as acres enter the CRP. Establishment costs are a large share of annual direct costs during the early years of the program, but their relative importance declines as more acres are enrolled. With more acres enrolled, annual rental payments become more important to annual direct costs.

Annual direct costs peak at about $2.2 billion for the 1990 crop year because USDA must pay establishment costs for the final acres enrolled in the CRP as well as annual rental payments for the entire 40-million-acre CRP. After 1990, annual rental payments are the only major cost for the CRP, but because they are substantial and continue for another 9 years, almost two-thirds of lifetime CRP costs occur after 1990.

## How We Estimated Direct CRP Costs

Our $22.1 billion estimate of direct CRP costs includes both contracted and estimated costs. USDA contracted $15 billion in lifetime CRP costs to enroll and provide cover crops for 28.1 million acres during the first

[1]During the fourth contracting period, USDA paid a bonus to landowners who were willing to enroll corn base acres in the CRP. The government pays approximately one-half of the cost of establishing cover crops on land enrolled in the CRP.

seven sign-up periods. We estimate that to enroll and establish cover crops for the remaining 11.9 million acres will cost $7.1 billion.

To develop our cost estimates, we used the following procedure. First, we obtained USDA's state-level estimates of acres available for enrollment in the CRP.[2] We then assumed that an additional 6.9 million acres would be enrolled for crop year 1989 and an additional 5 million acres would be enrolled for crop year 1990. We assumed that enrollment for additional acres would follow the same enrollment pattern as in the seventh CRP sign-up except that enrollment in a state would stop when 90 percent of available acres were enrolled. Using these assumptions, we simulated CRP enrollment until total enrollment reached 35 million acres for crop year 1989 and 40 million acres for crop year 1990. This procedure tended to limit acres enrolled from the plains states and increase acres enrolled from the Corn Belt above what they would be without any restrictions.

To estimate per acre CRP rental rates for each state, we increased the seventh sign-up rate by 2 percent annually for crop years 1989 and 1990. The national average rate calculated from the sum of state estimates was $53.90 per acre for crop year 1989 and $57.90 per acre for crop year 1990. We used seventh sign-up rates by state to calculate the government's cost share for establishing cover crops for crop years 1989 and 1990. The national average cost share rates were $39.76 and $42.39 for crop years 1989 and 1990, respectively.

The national average rental rate that USDA will actually have to pay for the remaining acres depends on a number of factors, including the location of enrolled acres, whether USDA continues to expand eligibility criteria, landowners' expectations of future returns from crop production, limits imposed by appropriations, and other economic and institutional factors.

However, an error in our assumed per acre annual rental rate would not affect our direct cost estimate very much. If, for example, actual CRP rental rates for enrolling the 11.9 million additional acres prove to be 10 percent higher than we have assumed, the direct cost of the CRP over 14 years would be $22.8 billion, only 3 percent higher than our estimate of $22.1 billion.

[2]Unless USDA obtains a waiver, only 25 percent of total cropland in a county can be enrolled in the CRP. Because land eligible for the CRP is often concentrated, the land available for enrollment under this limitation is often less than the land that is eligible for the CRP based on erosion or other criteria. USDA's estimates reflected eligibility criteria as of September 1987.

# Comments From the U.S. Department of Agriculture

DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20250

Mr. John Harman
Director
Food and Agriculture Issues
General Accounting Office
441 G Street, N.W., Room 4075
Washington, D. C. 20548

Dear Mr. Harman:

The draft report, "FARM PROGRAMS: Conservation Reserve Program Could Be Less Costly and More Effective RCED-89-180," has been thoroughly reviewed by this office. Enclosed are responses prepared by the Agricultural Stabilization and Conservation Service (ASCS) and the Economic Research Service. It is our assessment that ASCS has been administering the Conservation Reserve Program in a cost-effective and efficient manner in an attempt to reach the legislative requirement of enrolling 40-45 million acres into this program through the 1990 crop year.

Sincerely,

Richard T. Crowder, [illegible]
International Affairs [illegible]
Enclosures

United States Department of Agriculture | Agricultural Stabilization and Conservation Service | P.O. Box 2415 Washington, D.C. 20013

TO : Mr. George E. Rippel
Director
Audits and Dockets Staff

FROM : Deputy Administrator
State and County Operations

SUBJECT: GAO Draft Report RCED-89-130 "Farm Programs: Conservation Reserve Program Could Be Less Costly and More Effective."

We offer the following general comments to the overall GAO draft report GAO/RCED-89-180: Generally, the comprehensive review accurately states the program objectives, goals, accomplishments to date, and in general the procedure for program implementation. We, however, offer the following comments regarding GAO's conclusions:

GAO indicates that the bid system used by the Department of Agriculture (USDA) program managers was not competitive because producers knew the maximum acceptable rental rate (MARR) levels prior to submitting their bids. The Secretary of Agriculture never announced the MARR levels until after all bids were submitted. He retained the prerogative of increasing or decreasing the MARR for any particular signup based on the offers submitted. Bid policy, to some extent, was driven by the minimum participation targets set in the legislation that authorized the CRP.

GAO criticizes the pool adjustments of $5.00 per acre or less after the second signup as being less effective than the one time corn bonus offered during the fourth CRP signup period. Those additional pool adjustments, which were offered as tree planting incentives for certain CRP lands fine tuned the MARR's and pool boundaries. This continues to be an option for program managers to ensure desired program results. The result differed from those involved in the corn bonus due to the more limited amount of acreage potentially involved with respect to tree planting.

The GAO suggests: (1) using an escalator clause to protect the interest of the participant against inflation and (2) granting base history protection for longer than the contract life. The current bid policy has been designed to achieve the program goals as cost-efficiently as possible, keeping in mind the minimum goals for participation which are provided for in the authorizing legislation. Further, existing contracts could not be modified without the consent of the participant.

ASCS

Mr. George E. Rippel 2

GAO suggests that USDA did not attempt to enroll the most erosive soils first. We believe that we did. The Secretary of Agriculture limited participation originally to those areas eroding in excess of 3T or those classes of land unsuitable for annual crop production.

Obviously, as GAO points out, the 25 percent county cropland limitation in the authorizing legislation significantly reduced the percent of highly erodible acres that can be expected to be offered for the CRP. USDA, as permitted by the legislation, has allowed counties to exceed the 25 percent by an acceptable margin, if proper documentation is furnished by counties at or near the 25 percent level to show that exceeding 25 percent would not adversely impact the local economy.

The reluctance of local officials to provide the required documentation indicates that holding additional signups in these counties may not be appropriate.

The GAO fails to sufficiently recognize the water quality efforts USDA has made in implementing the multiple objectives of the Act. We believe that water quality concerns were particularly addressed during the sixth CRP signup. Filter strips were authorized and SCS issued field instructions that those acres had to be such that an approved cover on the property would reduce erosion sufficiently to insure that water quality benefits were being obtained. Also, a significant and positive step was taken during the first year of the program when eligibility was broadened to include land eroding at 2T if it also had gully erosion. Gully erosion is concentrated flow that includes the rapid movement of both soil particles and attached pollutants which contribute to the problems associated with water quality. Further, the bid pool increases of $5 to $25 per acre for approximately 600 counties after the sixth signup were implemented to achieve water quality benefits.

Some fine tuning might have reduced program outlays; however, the program has been very successful in accomplishing objectives. Also, there is a concern with long-term operations in programs such as this if later participants in a program were to achieve greater benefits than those who sign up early. The concern is that it could discourage early participation in future USDA programs.

We believe, however, that USDA did exercise the kind of restraint needed to ease into the program so as to avoid undue public outlays. As indicated on Table 3.2, only 16 percent of the offers during the first signup were accepted by USDA. This not only shows that we exercised restraint under tremendous pressure, but it also shows our belief that we would be able to obtain offers at less cost to the taxpayer at a later date. Had we not done this, projected CRP costs would undoubtedly exceed current projections.

Although the comments received from the Economic Research Service generally tended to support GAO's position on the CRP bid acceptance process, we do not feel the findings are warranted due to the mandated minimum enrollment requirements set out in the authorizing legislation. We agree that the more competitive the bidding process the lower the outlays for the CRP land. For this reason, the eligible land criteria was gradually expanded by USDA officials to increase the pool of eligible bidders and the MARR's were never announced until after the close of signup. This always left the option of either increasing or decreasing the MARR on a pool-by-pool basis for each signup period.

USDA, in addition, properly implemented the provisions of the appropriation acts for fiscal years 1988 and 1989 regarding prevailing local rental rates. As the GAO report reflects, the use of unadjusted cash rental rates that a landowner might receive for a one-year lease which imposes no out-of-pocket obligations on the landowner would have, in all likelihood, ended the program. Yet, if Congress had meant to terminate the CRP, it would not have appropriated money for any new contracts.

United States Department of Agriculture
Economic Research Service
1301 New York Avenue NW
Washington, D.C.
20005-4788

SEP 13 1989

SUBJECT: Review and Comments on GAO's Draft Report "FARM PROGRAMS..."

TO: George Rippel
Director
Audits and Docket Staff
Agricultural Stabilization and Conservation Service

Attached is a review of and comments on GAO's draft report "FARM PROGRAMS: Conservation Reserve Program Could Be Less Costly and More Effective." The review was conducted by staff in the Resources and Technology Division under the guidance of John Miranowski, Director.

B.H. ROBINSON
Associate Administrator

Attachment

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SEP 19 1989
AUDITS AND DOCKETS STAFF

REVIEW OF GAO DRAFT REPORT

**FARM PROGRAMS: Conservation Reserve Program Could Be Less Costly and More Effective**

In its report entitled "FARM PROGRAMS: Conservation Reserve Program Could Be Less Costly and More Effective," GAO draws the general conclusion that although the Conservation Reserve Program (CRP) will provide substantial environmental benefits, USDA's implementation prevented the attainment of even greater benefits and resulted in higher-than-necessary government costs for the program. Specifically GAO finds that:

1. USDA pursued the acreage enrollment mandate and tree planting goal as set forth by Congress in the Food Security Act of 1985 (FSA) to the exclusion of other CRP goals including the improvement of water quality.

2. USDA implemented a bid acceptance process that did not promote competitive bidding among farmers but essentially became an "offer system." Moreover, the "offers," in the form of USDA maximum acceptable rental rates, were often set much higher (200 to 300 percent) than local cash rental rates.

3. Early in the CRP, USDA attempted to promote tree planting in a number of southeastern states by raising the maximum acceptable rental rate by $5 per acre. However this higher rental rate was paid even if a farmer planted grass on his CRP acreage.

4. USDA did not effectively implement language contained in its fiscal year 1988 appropriation which limited rental rates to prevailing local cash rents for comparable cropland and did not provide proper internal controls over the rate setting process or provide sufficient guidance to county offices. Further, USDA did not report the absence of internal controls as a material weakness in its 1988 Financial Integrity Act report and does not plan to include it in the 1989 report.

5. The FSA restriction that limits CRP enrollment to no more than 25 percent of the cropland in a county reduces potential negative impacts on local economies. However, it also reduces the amount of eligible acres available for enrollment and consequently increases the government cost of the CRP.

General Response

Clearly, the CRP could have been implemented to achieve different and potentially greater benefits. In addition to the Congressional mandate to enroll 40-45 million acres by the end of 1990 and to the extent practicable place one-eighth of this into tree cover, the CRP was also assigned the following goals:

- reduce soil erosion on highly erodible cropland,
- protect the Nation's long-run capability to produce food and fiber,
- reduce sedimentation,

- improve water quality,
- foster wildlife habitat,
- curb the production of surplus commodities, and
- provide income support for farmers.

However, it is difficult if not impossible to simultaneously maximize multiple objectives. Consequently, there will always be trade-offs between objectives in any multi-objective program. Congress could have provided additional guidance if it had ranked the importance of the many objectives expected of the CRP or if it had provided some mechanism for judging trade-offs between objectives. GAO's recommendation to allow flexible annual and overall acreage goals is a positive step in emphasizing that meeting mandated enrollment targets is not the CRP's most important objective.

The GAO faults USDA for not doing more to improve the program's water quality benefits. What GAO fails to address is how much greater water quality benefits could have been and what would have been the additional costs of this change in emphasis. Results of an earlier Economic Research Service study indicate water quality benefits of a 45 million acres CRP would be $1.9 to $5.6 billion over the life of the program. These are not minimal water quality benefits as implied by GAO on page 34. The greatest water quality benefits come from retirement of acreage in the Corn Belt and other highly productive agricultural areas. Obviously the cost of retiring these acres is higher than much of the relatively low productive land that has been enrolled in the plains and mountain states. It is not clear that enrollment could have been targeted to achieve greater water quality benefits for the same costs as the current enrollment, as GAO suggests. In addition the lack of an adequate and defensible mechanism for identifying the potential for water quality impairment from a particular field would seem to provide a significant limitation on USDA's ability to improve targeting for water quality.

As GAO indicated, a competitive bidding process would likely have resulted in lower government rental costs for CRP land. USDA's bid acceptance system, with the exception of the first signup period, amounted to an offer system in which most farmers tended to bid near the maximum acceptable rental rate revealed in the previous signup.

Specific Comments

- Throughout the GAO report, the terms "soil loss" and "soil savings" are used. To be technically correct the terms "erosion" and "erosion reduction" should instead be used since the former imply that all soil that is eroded is "lost" from a field. In fact, soil erosion is a process in which soil is moved from one location to another often within the same field. To imply that all soil that is eroded is "lost" or that erosion reduced is equivalent to "soil saved" is inappropriate.

- On page 26, GAO reports that the reduction in soil erosion resulting from the CRP will be about 574 million tons per year or about one-tenth of the yearly total from non-federal land. The more relevant statistic is that

the CRP will reduce erosion from cropland by 19 percent. After all, the CRP only applies to cropland.

- On page 38, GAO cites an earlier ERS study that estimated the number of acres of agricultural land overlying ground water vulnerable to contamination. This is reported to be 75 million acres with 12 million of these acres currently eligible for CRP enrollment. Updated ERS estimates now indicate that 103 million acres of agricultural land overly groundwater resources vulnerable to contamination and that 17 million acres are eligible for CRP enrollment.

# Major Contributors to This Report

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|---|---|
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