

Hidden Treasures

The Conservation Security Program and Wildlife

FUNDED BY

Sustainable Agriculture Coalition

National Wildlife Federation

Izaak Walton League of America





Copyright © National Wildlife Federation, January 2007

This report was funded by the Sustainable Agriculture Coalition, National Wildlife Federation, and Izaak Walton League of America, to gain information about the relative benefits of the Conservation Security Program for fish and wildlife.

Our thanks to the United States Department of Agriculture for providing the state-specific information used in our case studies, and to the many USDA field offices, state and federal wildlife and natural resource agencies, and non-profit organizations who provided information, assistance and advice in producing this report.

Special thanks to Tim McCoy, Nebraska Game & Parks Commission, and George Cunningham, a fisheries biologist in Omaha, for their help in sorting out USDA enhancement practices and their wildlife value.

The principle author, Duane Hovorka, is a public policy consultant who has experience in the analysis of state and federal policies impacting agriculture and wildlife. Errors and omissions are, of course, to be blamed on the author alone.

This report is printed on 100% post-consumer, processed chlorine free paper.

Contents

PART 1, OVERALL ASSESSMENT

Executive Summary3

Introduction: The Conservation Security Program5

Wildlife Benefits of Conservation Security

 Program Contracts8

Findings12

Recommendations15

End Notes18

PART 2, CASE STUDIES

California’s Feather River Watershed19

Chesapeake Bay22

Georgia’s Little Ocmulgee Watershed26

Minnesota’s Red Lakes Watershed29

Missouri’s Spring River Watershed31

Nebraska’s Little Blue Watershed34

North Texas Watersheds37



Executive Summary

Congress enacted the Conservation Security Program (CSP) in the 2002 Farm Bill to reward farmers and ranchers for natural resource and environmental benefits provided to society, including the restoration and maintenance of wildlife habitat. This report focuses on the relative benefits of the CSP for fish and wildlife in light of its subsequent funding by Congress and implementation by USDA's Natural Resources Conservation Service. The report provides a brief overview of the Conservation Security Program's structure and payments, and then examines the role of conservation measures funded by the program in meeting the needs of wildlife.

The report includes case studies of potential wildlife benefits provided by the Conservation Security Program in six states and the Chesapeake Bay region and a cursory review of wildlife benefits which may result from the 2006 CSP sign-up in other states.

According to the USDA data, 81 percent of CSP payments in 2005 were in the form of "enhancement" payments, and on a national basis 7 percent of enhancement payments in 2004 and 8 percent of enhancement payments in 2005 were for USDA-designated Habitat Management practices. However, many conservation practices address more than one resource concern. *Based on our analysis of the data provided by USDA, it appears that roughly one-half of Conservation Security Program payments resulting from 2006 contracts will provide either wildlife habitat benefits, or pesticide reduction practices that benefit some wildlife.*

In some of the case studies, the percentage was much higher. In Missouri and Minnesota, for instance, 88 and 85 percent of CSP payments from 2006 contracts are for practices that either provide wildlife habitat benefits, or reduce pesticide use in ways that benefit wildlife. On the other hand, some states scored far lower on wildlife benefits. For example, in Nebraska, 26 percent of payments resulting from 2006 CSP contracts are for practices that provide wildlife habitat, or reduce pesticide use in ways that should benefit some wildlife. In other states not among our case studies, the percentage appeared to be lower still.



The findings of the report include:

- 1) The Conservation Security Program pays for practices that provide substantial wildlife benefits;
- 2) Conservation Security Program wildlife benefits vary considerably from state to state; and
- 3) The Conservation Security Program could provide even greater wildlife benefits.

The report recommends the following improvements to the Conservation Security Program:

- Congress should substantially increase CSP funding so that farmers and ranchers on a nationwide basis have timely enrollment opportunities;
- Congress should direct USDA to provide cost-share for new practices under the CSP and to do so at the same rate as provided by other USDA programs;
- All CSP Tier II and Tier III contracts should address wildlife habitat as a resource of concern, and the emphasis on wildlife should be increased in Tier I contracts;
- USDA should expand the number and variety of wildlife conservation practices available in each watershed, and should continue to define new wildlife-related practices including practices that address high priority fish and wildlife species;
- USDA should provide for the involvement of wildlife agencies and organizations with landowners contemplating CSP enrollment early in the CSP application process;
- USDA should undertake ongoing review of CSP enhancement payment rates to ensure both that farmers and ranchers are adequately rewarded for

their wildlife conservation efforts, and that taxpayers are being asked to provide only fair compensation, not excessive payments;

- USDA should ensure that all NRCS State Conservationists establish CSP standards and resource criteria for wildlife that provide a consistently high level of wildlife benefits; and

- USDA, working with organization and state agency partners, should establish a scientifically valid and robust monitoring and evaluation initiative to measure actual outcomes of the conservation practices it funds.



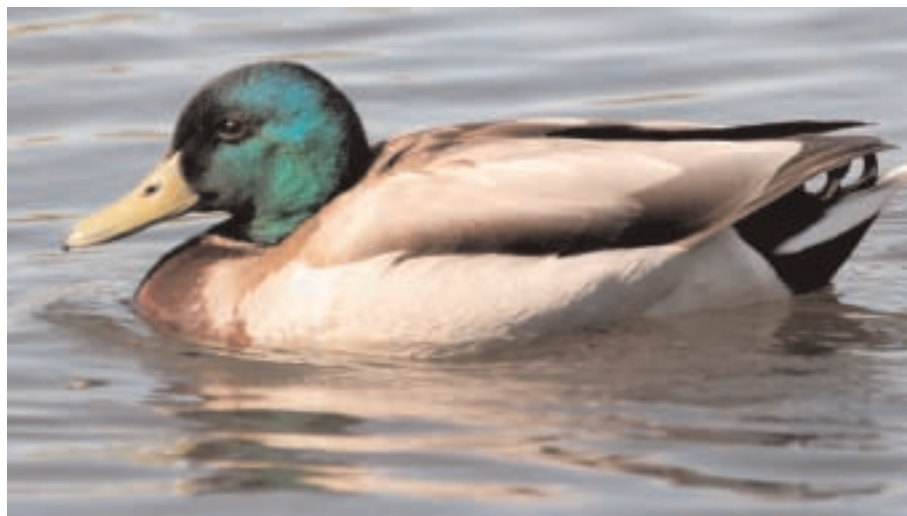
Introduction

The Conservation Security Program

When Congress enacted the Conservation Security Program as part of the 2002 Farm Bill, it culminated over two decades of discussions on the need to create a program that rewards farmers for the natural resource and environmental benefits they can provide to society, including wildlife habitat. It was also designed to address a desire expressed by farmers to have a single, comprehensive conservation plan for their farm.

As enacted, the Conservation Security Program was to be available nationwide, open to every farmer and rancher in America willing to meet exceptional natural resource and environmental quality standards. The program was to be made available without a bidding or ranking process like that used in many other USDA conservation programs. Instead, the program would enroll any farm operator willing to implement and maintain conservation systems that achieve or surpass the highest standards developed by the Natural Resources Conservation Service (NRCS) for each resource concern. The program was designed to be open to farmers and ranchers, without regard to the particular crops or livestock they produce.

Three tiers of payments provide rewards that increase as participants agree to provide higher levels of conservation benefits. The first tier allows for partial farm enrollments, while tier



two and three require the whole farm to be enrolled. The number of resource concerns that must be addressed to reach the sustainable or “non-degradation” level increases at each tier.

Participants at the Tier III level (the highest level of contract payments) must put in place plans to address every natural resource concern on their entire farm or ranch. Wildlife habitat, nutrient management, pest management, soil conservation, water quality, air quality, grazing management, energy conservation and other natural resource concerns all need to be addressed to the highest NRCS standard, on an entire farm or ranch, to earn a Tier III contract.

As passed, the Conservation Security Program (CSP) was projected to become the second largest conservation program at the United States Department of Agriculture (USDA),

behind the Conservation Reserve Program (\$2 billion per year), with more than \$1 billion per year in funding. (The Environmental Quality Incentives Program (EQIP) also has an annual funding level of more than \$1 billion per year, but EQIP funding covers the full length of EQIP contracts signed in a given year, whereas CRP and CSP annual funding amounts cover the contract payments for a given year, not for the entire length of the contract.)

Unfortunately, since passage of the 2002 Farm Bill, Congress has enacted annual CSP funding caps through riders on the annual agriculture appropriations bill. In Fiscal Year 2006, for instance, Congress limited Conservation Security Program funding to \$259 million, much less than the Conservation Reserve Program (\$2 billion) or the Environmental Quality Incentives Program (\$1 billion), and

slightly more than the Wetlands Reserve Program (\$246 million). In addition, Congress placed long term caps on CSP funding, first as a budgetary offset to emergency farm disaster aid, and then as part of budget reconciliation legislation. Combined with the annual caps, Congress has reduced funding for the CSP by \$4.3 billion compared to the funding originally made available by the 2002 Farm Bill.

USDA has also been slow to implement the program. The 2002 Farm Bill funded Conservation Security Program (CSP) signups in 2003, but the USDA's first CSP signup was not held until July, 2004. As USDA's rule-making process dragged on and the Administration failed to spend CSP funding, Congress proceeded to restrict funding for the program. With restricted funding, USDA opted to limit CSP enrollment to specified watersheds. USDA offered Conservation Security Program signups in 18 pilot watersheds in 2004, 220 watersheds in 2005, and 60 watersheds in 2006. Increasingly, USDA has turned down eligible applicants to keep program costs down.

Nonetheless, through the first three years of the program, USDA has awarded almost 19,400 CSP contracts on nearly 16 million acres of land in 280 selected watersheds, or about 12 percent of total US watersheds.

CSP Signup	Watersheds Eligible	Farmers in Watershed	Eligible Applications	Contracts Approved	Percentage Approved
2004	18	27,300	2,188	2,188	100%
2005	220	235,000	14,516	12,700	87%
2006	60	75,000	8,570	4,404	51%

CONTRACT FLEXIBILITY

The Conservation Security Program is designed to allow contract holders to increase their payments during the term of their contract by putting in place additional measures that benefit natural resources. For instance, participants in Tier I can enroll additional land in the program, add new conservation activities, increase the number of resource concerns being addressed, or move from Tier I to II to III during the term of their contract. In June, 2006, the USDA announced that participants who signed CSP contracts in 2004 had offered to amend their contracts, by adding more enhancement practices and bringing additional acres of land under the program. In return, USDA will add \$12.7 million in payments to their contracts, an increase of nearly 50 percent. Habitat Management enhancement payments increased, from just under \$1 million in 2004 to \$2.6 million in 2006, as a result of the contract modifications.

The ability to modify contracts is particularly important in light of the fact that USDA has not allowed cost-share payments to install new conservation when they first sign up for a contract, as provided for in the Farm Bill. USDA has instead deferred support for new practices to the contract modification process. Some of the

most popular contract modifications have been in habitat management practices. However, in July, 2006, USDA announced that upgrades for contracts signed in 2005 would be restricted. These restrictions on upgrades could reduce the future potential to obtain similar increases wildlife benefits on farms and ranches already in the program. Those contract modifications will not be announced until later in 2007.

VIEW FROM THE FARM

Where the USDA has offered CSP signups, the response has generally been strong. For example, in 2005, of the 2,724 farms located in the two watersheds in Maryland (the Chester-Sassafras and Monocacy) eligible for Conservation Program enrollment, 1,002 farmers sought information on the program, 700 attended workshops, 398 actually applied, and 377 were enrolled in the program. That represents a very high response for a new conservation program, especially since a substantial number of those not applying or enrolling likely realized their existing conservation efforts were not strong enough to meet the CSP standards and therefore did not try to

enroll. An important long-term question for the program is whether a significant number of those farmers might increase their conservation effort in order to qualify the next time the program is available to them.

In 2005, the USDA surveyed farmers who had obtained Conservation Security Program contracts in the first (2004) signup.¹ *The Conservation Security Program scored an 83 (out of 100) on how willing participants were to say positive things about the program, which the survey report said “is a relatively high score for a new program.”*

On a question of how likely it is that the Conservation Security Program will influence farmers and ranchers to modify their agricultural operations in the future, the CSP scored a 77, and the report noted “this score should increase with the maturity of the program.”

The survey did note “the only area of concern among the attributes measured relates to the staff’s knowledge about the CSP. NRCS may wish to provide additional training for the program to state and local staff since participants rely on local resources for the majority of their information.”

CONSERVATION SECURITY PROGRAM PAYMENT STRUCTURE

The Conservation Security Program as enacted provides for four types of payments to participants. Base payments were intended to give farmers incentives to sign up for the program. Maintenance payments were designed to cost-share the annual management and maintenance cost of maintaining beneficial practices (e.g., implementing integrated pest management or maintaining fences once installed). New practice cost-share payments were intended to provide incentives for farmers to adopt new practices, by paying for a portion of the installation/adoption cost. Enhancement payments were intended to reward innovative practices, like resource-conserving crop rotations, managed grazing, and conservation buffers.

In implementing the program, the USDA took a very different approach than was envisioned in the legislation. Base payments were set at a small fraction of the per-acre rates provided for in the legislation. Instead of setting maintenance payments based on a farmer’s cost of maintaining a specific practice, USDA used 25 percent of the base payment as a proxy for maintenance rates rather than tying them to specific practices. Cost-share payments for new practices were eventually set at 50 percent, a lower rate than for many of the same practices in other USDA programs. Moreover, USDA officials said they expected other USDA programs to provide cost-share for farmers and ranchers to establish new practices and therefore have not actively implemented even the reduced 50 percent cost-share.

The USDA focused the bulk of Conservation Security Program payments on enhancement payments. Using practices from the USDA field office technical guide, and some new conservation practices and activities identified by NRCS State Conservationists and State Technical Committees, USDA established enhancement payment rates. In 2005, 81 percent of all Conservation Security Program payments were for enhancement payments.

Wildlife Benefits of Conservation Security Program Contracts

Although a landowner must meet resource concern quality standards and conservation practice standards to get a Conservation Security Program contract, which for some Tier I, most Tier II, and all Tier III participants includes wildlife habitat, neither base payments nor maintenance payments are based on specific practices that could be identified as either benefiting wildlife or not. This report therefore focuses on an analysis of the wildlife-related benefits provided by Conservation Security Program enhancement payments, in an attempt to assess the impact of the program as implemented by USDA on fish and wildlife. Enhancement payments represented 81% of Conservation Security Program payments in 2005, and virtually all the payments tied to particular conservation practices.

The USDA identified nearly 1,900 enhancement practices for Conservation Security Program purposes that were used in the 2006 signup, including state-specific practices. Those were divided into 11 categories: Habitat Management, Grazing Management, Pest Management, Nutrient Management, Air Management, Drainage Management, Energy Management, Plant Management, Salinity Management, Soil Management, and Water Management.

Habitat Management practices were designed specifically to benefit wildlife. They include practices that provide habitat components, such as converting introduced plant species to native species to benefit wildlife, or providing nest boxes or bat houses. They also include practices that directly benefit wildlife, like using fish screens when withdrawing irrigation water from streams, or using flusher bars when mowing to protect grassland birds.

Habitat Management enhancement payments represented about 7% percent of all enhancement payments in the USDA's first (2004) signup, and 8% in 2005.² However, using that percentage alone would substantially understate the level and kind of wildlife-related benefits provided by the Conservation Security Program.

Grazing Management practices can provide wildlife benefits. Research has shown higher numbers and diversity of grassland birds on lands managed using a rotational grazing strategy, where livestock are moved from paddock to paddock, versus whole-field grazing. Stream and pond habitat can be protected by restricting livestock access; brush management can improve habitat for grassland birds like prairie chickens; and restoring native plant species on native prairies can benefit bird and butterfly species.



Nutrient Management practices can provide benefits to wildlife. Where vegetative buffer strips are installed between crop fields and streams to protect streams from nutrient runoff, those buffers can also provide cover for birds, and habitat for butterflies and deer. Reducing the use of phosphorus can benefit stream habitat, because phosphorus tends to bind with soil particles and get washed into streams when it rains. Although nitrogen runoff can be a problem in some places, in many cases nitrogen not used by crops either goes up into the air, or down into the groundwater. To be conservative, we did not count most nitrogen reduction strategies as providing wildlife habitat benefits in our analyses.

Some pest management practices, like using vegetative buffer strips between crop fields and streams, can also provide refuge areas for wildlife. We counted those practices as providing wildlife habitat benefits.

Pest Management practices that reduce (or eliminate) the use of pesticides can also provide benefits for fish and wildlife, by reducing harm to non-target species. Commonly used pesticides like atrazine have been shown to harm aquatic species. Research has shown that organic corn production results in higher numbers and higher diversity of bird species than conventional corn production.

KEY CSP PRACTICES THAT BENEFIT WILDLIFE

Rotational Grazing
Remove Invasive Plants
Prescribed Burning
Wildlife Habitat Index
Quail Habitat Index
Buffer Strips Along Streams Border Strips and Filter Strips
Leave Crops Un-harvested
Leave Forage Un-harvested Plant Food Plots
Barrier-Free Antelope Habitat
No Haying in Nesting Season
Use Flush Bars When Haying
Avoid Bush-Hogging Residue
Plant Winter Cover Crops
Non-Chemical Pest Methods
Integrated Pest Management
Conservation Crop Rotations
Spot Spraying (v. Whole-field)
Manage Open Water for Birds
Limit Livestock Access to Streams and Wetlands

Extensive use of pesticides can substantially reduce insect populations that serve as a food base for pheasants and other birds. Research has documented the importance of insect availability for pheasant survival.³

In this report, we counted practices like buffer strips that provide habitat areas as providing wildlife habitat benefits. We provided separate information on practices that should

benefit some wildlife species by reducing pesticide use (e.g., using organic methods, or spot-spraying instead of whole-field spraying). We did not count practices that do not appear to have a substantial positive impact on wildlife, like precision agriculture methods or planting insect-resistant varieties.

Other categories of Conservation Security Program enhancements appear to provide few or no substantial wildlife benefits. For example, Air Management practices that reduce dust or odors from concentrated livestock facilities would appear to have little direct benefit for wildlife. Practices that reduce energy use may contribute in some small way to reduced global warming, but would appear to have little direct impact on local wildlife. We generally did not count no-till or reduced-till methods as having direct wildlife benefits, although with some crops they can leave some additional winter cover for wildlife. A few grazing management practices, like over-seeding (non-native) cool-season grasses into a (native) warm-season pasture could actually work against some native grassland species.

Overall, nearly all of the Habitat Management enhancement practices appear to have direct benefits for wildlife. About two-thirds of the Nutrient Management practices, and half of the Grazing Management practices, appear to provide wildlife habitat benefits. Some Pest Management practices provide wildlife habitat benefits (e.g., buffer strips), and about two-thirds of the Pest Management practices appear to provide reductions in pesticide use

that should benefit at least some wildlife species.

In general, it appears that few of the Air Management, Plant Management, or Soil Management enhancement practices provide direct wildlife benefits. None of the Drainage Management, Energy Management, Salinity Management, or Water Management practices appear to provide direct wildlife benefits.

TIER III CONTRACT REQUIREMENTS

To be eligible for a Tier III Conservation Security Program contract, an applicant must show they have addressed all the relevant natural resource concerns on their farm or ranch, including wildlife. In a 2006 report, the United States Government Accountability Office said the wildlife habitat criteria, used by Natural Resource Conservation Service state offices to decide which farmers are eligible for Tier III contracts, were not consistent.⁴ The report said:

“For the fiscal year 2004 CSP sign-up, according to NRCS, state offices developed wildlife habitat assessment criteria that were extremely variable, contributing significantly to differences in Tier III participation and payments among the various watersheds. For example, among the nine watersheds where cropland was the predominant type of land enrolled, the percentage of payments going to Tier III contracts ranged from 0 to 75 percent. In response, NRCS developed national guidance that its state offices were to follow in creating wildlife habitat assessment criteria. However, we found—and NRCS officials agreed—that some state

offices developed and applied criteria for the fiscal year 2005 sign-up that were inconsistent with the national guidance. For example, the criteria used in watersheds under these states’ jurisdiction did not require that a minimum percentage (as determined by the relevant state office) of a producer’s operation be non-crop vegetative cover, such as grassy or riparian areas managed for wildlife, as specified in the national guidance. Thus, producers in these watersheds were eligible for Tier III payments even though they may not have satisfied criteria for one of the resource components that the national guidance specifies is necessary for eligibility.... Finally, the use of criteria that are inconsistent with the national guidance not only weakens CSP cost control measures by making more Tier III payments possible, it also reduces NRCS’s ability to ensure that CSP is achieving its intended wildlife habitat benefits.”

In our discussions with state wildlife officials, they echoed this concern that applicants in some states in 2004 were awarded Tier III contracts with only minimal effort to address wildlife concerns. An internal USDA team reviewed the GAO report and the eligibility criteria being used by NRCS state offices, and in October, 2006, issued guidance designed to ensure that the wildlife eligibility criteria used at the state level meets minimum national standards. It appears improvements have been made in this area, but given the initial inconsistencies, it deserves annual evaluation and continuing improvement.

QUANTIFYING WILDLIFE BENEFITS

Using information provided by the USDA on the 2006 Conservation Security Program signup, we have attempted to quantify the wildlife benefits provided by the program. The Case Study states were selected to obtain a diverse mix of watersheds. They represent different regions of the United States, areas with very different agricultural systems, and signups that were both relatively large and small in terms of dollars and contracts.

The Conservation Security Program is a new program, so we are not able to assess the actual impact of implemented contracts on habitat or wildlife. Of course, without careful monitoring and evaluation, we cannot measure the impact of the Conservation Security Program or any other program on wildlife, water quality, or other resources. What we assess in this report is how Conservation Security Program funds will be spent based on approved contracts, and what reasonable expectations there can be for wildlife-related benefits resulting from those contracts.

In this report, we provide information on the total contract payments that were made based on enhancements that appear to provide wildlife or wildlife habitat benefits. We also provide information on the payments made for strategies that provide for a reduction in pesticide use. The Case Studies should provide readers with an idea of the kinds of wildlife-related enhancement practices funded through the program. Where we had access to local payment rates, we

also provided estimates of the acres impacted by each practice, to provide a sense of the reach of the program within the watershed.

We caution the reader that Conservation Security Program contracts are fluid over time. As noted above, in June, 2006, the USDA announced that participants who signed CSP contracts in 2004 had offered to amend their contracts, adding more enhancement practices and bringing additional acres of land under the program. In return, USDA would add \$12.7 million in payments to their contracts. Habitat Management enhancement payments increased, from just under \$1 million in 2004 to \$2.6 million in 2006, as a result of the contract modifications. Therefore, it is reasonable to expect wildlife benefits from each annual signup to improve over time.

Some organizations have questioned whether the Conservation Security Program produces substantial net benefits for wildlife, because the program rewards some farmers who have already adopted high levels of resource conservation. Farmers and ranchers who previously adopted wildlife-friendly practices at their own expense might argue that it is unfair to deny them incentive payments that others will receive — accompanied by cost-share payments in many cases — for adopting those same practices today.

In implementing the Conservation Security Program, USDA largely ignored its authority to provide cost-share to encourage the installation of new practices, like planting buffer strips or restoring wetlands. Were USDA to use cost-share for new practices more extensively, it would be far easier to determine what new practices are resulting from the program.

Some of the enhancement practices funded through the Conservation Security Program do require the installation of new practices (for example, expanding the width of a riparian forest buffer, creating shallow wet areas for wildlife, fencing out livestock to protect streams, or converting areas with introduced plants to native species to benefit wildlife). CSP enhancement payments can also be made for taking actions that forego profits and benefit wildlife, such as leaving un-harvested crops in the field to provide food and winter cover for wildlife (crops that would otherwise be harvested).

In general, in our discussions with farmers and USDA employees, they told us that almost every person who gets a Conservation Security Program contract will install some new suite of practices, or change some existing practice, as a result of the contract. Clearly, the program is paying for more than just maintaining existing wildlife benefits.

Findings

FINDING 1: THE CONSERVATION SECURITY PROGRAM PROVIDES SUBSTANTIAL WILDLIFE BENEFITS

Based on our evaluation of the information provided by the USDA for the 2006 signup, more than half of the payments made under the Conservation Security Program are for practices that either provide habitat benefits for wildlife, or reduce pesticide use in ways that benefit wildlife.

It is also clear that Habitat Management enhancements represent only a small share of the wildlife-related benefits that result from the program. Wildlife habitat benefits were provided through Habitat

Management, Grazing Management, and to a lesser extent Nutrient Management and Pest Management enhancements.

The largest enhancement category in terms of dollars is Pest Management. Most of those funds were for practices that reduce or eliminate pesticide use in ways that benefit some fish or wildlife.

Our seven case studies represent a projected \$102 million in Conservation Security Program payments over the next 10 years, representing about 24 percent of the total projected payout in all states for CSP contracts signed in 2006.

For every dollar USDA will spend on Conservation Security Program contracts in our case study watersheds, about 16 cents will pay for Wildlife Management enhancements, and another 19 cents will pay for enhancements that provide other wildlife habitat benefits (through Grazing Management, Nutrient Management, or Pest Management enhancements). Another 17 cents will pay for practices that will reduce pesticide use and benefit some fish and wildlife. 27 cents will pay for practices that address other resources (e.g., soil conservation), and 21 cents will go for base payments and maintenance payments. In other words, 35 percent of total payments provided wildlife habitat benefits, and including pesticide



reduction activities that should benefit some wildlife, 52 percent of CSP payments should benefit wildlife.

Based on our analysis and the USDA’s publicly released nationwide data, we believe that roughly one-half of Conservation Security Program payments provide either wildlife habitat benefits, or pesticide reduction practices that benefit some wildlife. However, given the higher ratio of pest management payments in all states, compared to our case study watersheds, we believe that nationwide numbers would show relatively more pesticide reduction, and relatively less wildlife habitat benefits, than are indicated by totaling the data from our case study watersheds, shown above.

**FINDING 2:
WILDLIFE BENEFITS VARY
CONSIDERABLY FROM STATE
TO STATE**

Based on our case studies, and on a cursory review of the results of the 2006 signup in other states, the percentage of Conservation Security Program spending that appears to provide wildlife habitat and pesticide reduction benefits varies considerably from state to state. At the top of our case study list is the 2006 Missouri Conservation Security Program signup in the Spring River watershed, where 73 percent of the total Conservation Security Program spending (through 2015) is for practices that we believe have direct wildlife habitat benefits, and another 15 percent is for practices that benefit wildlife by reducing pesticide use.

At the bottom of our case study list is Nebraska, where payments for

practices that provide wildlife habitat benefits represent just 17 percent of total Conservation Security Program payments, and payments for enhancement practices that reduce or eliminate pesticide use and thus benefit some wildlife species totals 9 percent of payments. Several other states that were not chosen for case studies appeared to have even lower percentages. However, without a closer examination, we cannot determine whether some of the Conservation Security Program contracts in those states might have provided local fish or wildlife benefits that were not captured in our categorization, or what other types of natural resources were being addressed by the program.

The differences probably reflect, in part, the relative priority given in each state NRCS office to wildlife habitat and wildlife-related practices versus other resource concerns. It

Case Study	Wildlife Habitat	Pesticide Reduction	Total
Missouri	73 %	15 %	88 %
California	38 %	49 %	87 %
Minnesota	57 %	28 %	85 %
Texas	67 %	13 %	80 %
Georgia	16 %	42 %	58 %
Chesapeake Bay	32 %	15 %	47 %
Nebraska	17 %	9 %	26 %

appears other factors were also at work. In Missouri, for example, there has been a strong working relationship between local USDA offices and Missouri Department of Conservation offices, and the program was promoted locally as one that could help landowners boost wildlife numbers. In watersheds with substantial grazing land, wildlife habitat can be improved on those lands without a large change in land use. In watersheds dominated by cropland, it is more difficult to improve wildlife habitat without changing land use.

Clearly, watersheds like those we studied in Missouri, Minnesota and Texas provide models for ways the Conservation Security Program can be implemented to provide substantial benefits for wildlife habitat.

FINDING 3: THE CONSERVATION SECURITY PROGRAM COULD BE EVEN BETTER FOR WILDLIFE

Our review of the information provided, and our discussions with wildlife managers, farmers, and others convince us that while the Conservation Security Program currently benefits wildlife, the program could be improved to provide much greater benefits. Full funding and nation-wide implementation of the program would, of course, provide wildlife benefits in areas not previously eligible for the program. At the 2006 funding level of 60 watersheds per year, it will take USDA at least 25 years to reach every watershed in America with just one chance to enroll in the program.

Even within the current program structure, changes in the way the

USDA carries out the program could increase the value of wildlife benefits provided. One major barrier is a general lack of knowledge about wildlife habitat practices among farmers, ranchers, and USDA field office personnel. Although of necessity very knowledgeable about cropping practices and livestock management, most have never had a need for extensive training or education in wildlife management. USDA could address this barrier and boost wildlife benefits substantially by involving wildlife professionals early in the process.

A second barrier is the shortage of locally appropriate wildlife management practices offered by USDA to farmers and ranchers under the Conservation Security Program. USDA Field Office Technical Guides were developed to provide best management practices with respect to farming and ranching. USDA officials, along with federal and state wildlife agencies and other partners, have been working to develop wildlife-related practices and techniques (like wildlife habitat indices) that could be used for the Conservation Security Program and other USDA programs. However, much work remains to be done to provide wildlife management practices appropriate for specific localities, wildlife species, and habitat types -- especially where those practices could provide benefits for rare and protected species.

Those practices need to fit the context of the quality criteria developed for wildlife for each state. USDA's standards for Conservation

Security Program contracts are based on reaching resource conservation standards for each resource, including wildlife. USDA needs to improve those quality criteria for wildlife in some states.

USDA has made the situation worse by limiting farmers to a very short list of enhancement practices in each watershed, and by refusing to provide cost-share for new practices. USDA could boost wildlife benefits by providing farmers and ranchers with a wider variety of options for addressing the needs of wildlife in their area.

Convincing farmers and ranchers to adopt new practices will be much easier if USDA offers cost-share for the adoption of new practices, as was provided for in the legislation.

USDA requires applicants to address soil conservation and water quality concerns to be eligible for a Tier I contract. USDA requires applicants to address one additional resource of concern to obtain a Tier II contract, but does not require that an applicant address wildlife as a concern unless he or she is seeking a Tier III contract. Although most applicants already select wildlife as a resource to address at Tier II, requiring that wildlife be addressed in all Tier II contracts would boost overall wildlife benefits.

Finally, as the Government Accountability Office report noted, state-to-state differences in the minimum efforts needed to meet habitat management standards for getting Tier III contracts may be undermining the goal of obtaining wildlife benefits through the program.

Recommendations

1. CONGRESS SHOULD BOOST FUNDING FOR THE CONSERVATION SECURITY PROGRAM

Based on our research, the Conservation Security Program provides substantial benefits for wildlife, and it addresses other important conservation priorities. By limiting funding for new signups under the program, Congress has restricted the ability of USDA to deliver wildlife and other benefits.

USDA's plan to rotate the eligibility for Conservation Security Program contracts to about one-eighth of the Nation's farmers would leave many gaps. With Tier I contracts limited to just five years, many farmers would have had to wait for three years after their contract expired to be eligible for a new contract. Farmers who did not get a contract the year they were eligible would have to wait eight years to be eligible again.

However, Congress and USDA have fallen short of meeting even that modest goal. Annual funding must first pay for existing program contracts and technical assistance, before providing for new contracts. Funding levels for new contracts provided by Congress for 2006, which allowed for Conservation Security Program signups in just 60 watersheds, would allow USDA to get around to each watershed at best every 25 years or so. At that rate, the program is clearly not



viable. Addressing the funding issues, including removal of the multiyear funding caps imposed on the program since the last Farm Bill became law, is therefore paramount.

Congress should substantially increase funding for the Conservation Security Program so that farmers and ranchers on a nationwide basis have timely enrollment opportunities, as was intended by the 2002 Farm Bill.

2. CONGRESS AND USDA SHOULD PROVIDE COST-SHARE UNDER THE PROGRAM

USDA has generally not funded cost-share for new practices through the Conservation Security Program. It is clear that many new practices are

being installed and maintained under Conservation Security Program contracts through payments for enhancements. However, USDA's refusal to provide cost-share under the CSP has reduced the ability of the program to deliver additional wildlife and other conservation benefits through the installation of new practices. The current practice of funding new conservation practices and activities through the contract modification process delays benefits, adds yet another layer of uncertainty to the program, and results in an initial undercounting of wildlife and conservation benefits.

Officially, USDA now offers 50 percent cost-share under the Conservation Security Program for new practices, although in practice it does not fund them. That cost-share rate remains well below the cost-share rates provided for similar practices under other USDA programs. Further, Congressional restrictions on program funding would make it difficult for USDA to provide cost-share in future signups.

Congress should send a clear message to USDA that it should provide cost-share for new practices under the Conservation Security Program and do so at the same rate as in other USDA programs. Congress should give USDA adequate program funding to allow for cost-share payments along with other program payments.

3. CONGRESS OR USDA SHOULD REQUIRE ALL TIER II CONTRACTS TO ADDRESS WILDLIFE

USDA made an administrative decision to adopt soil and water quality as two national resource concerns that

must be addressed in all Conservation Security Program contracts. Like soil conservation and water quality, wildlife habitat is an important resource of concern throughout the nation.

USDA should require that all Tier II and Tier III contracts address wildlife habitat as a resource of concern, and should increase the emphasis on wildlife in Tier I contracts. If USDA fails to act, Congress should make this a requirement in the next Farm Bill.

4. USDA SHOULD PROVIDE MORE AND BETTER OPTIONS THAT BENEFIT WILDLIFE

Although USDA has identified nearly 1,900 enhancement practices, it sent explicit directions to USDA state offices that only a short list of practices would be available in any one watershed. USDA State Conservationists, with input from state and local working groups, decided which would be made available in each watershed. The practices selected reflect local priorities, and in some cases wildlife was a low priority. To boost wildlife benefits and provide additional choices for farmers and ranchers, USDA should expand the number and variety of enhancement practices available in each watershed.

USDA should also continue to develop new wildlife-related practices, including practices that address high priority fish and wildlife species, as part of its effort to update the Field Office Technical Guide that serves as a comprehensive recipe book of conservation practices for farmers and agency employees and is the basis for payments under the Conservation

Security Program and other programs. USDA should accelerate its efforts to work with federal and state wildlife agencies and organizations to develop and describe wildlife-friendly practices that could then be offered under the Conservation Security Program or other programs. That work is especially important with respect to state and federally protected species, and wildlife needs identified in state Wildlife Action Plans and Fish Habitat Action Plans. USDA could also increase the benefits of the program by focusing program funding more strongly on practices that deliver benefits for multiple resources, including wildlife. Wildlife-related practices relevant to the watershed should be among the enhancement choices offered in every watershed.

5. USDA SHOULD INVOLVE WILDLIFE PROFESSIONALS EARLY IN THE PROCESS

Wildlife management is unfamiliar territory for many farmers and ranchers, and for most USDA field office staff as well. State wildlife agencies and organizations have stepped forward in many states to help farmers and ranchers weigh their alternatives and understand the benefits of different wildlife practices. However, in an effort to streamline the signup process USDA told field offices that no on-farm visits would occur before or during the 2006 Conservation Security Program signup. That denied local wildlife agency staff the opportunity to discuss wildlife practice options with farmers before they submitted their program application.

USDA should encourage wildlife agencies and organizations to be involved with landowners contemplating a Conservation Security Program application early in the process, when key decisions are made. That would give farmers and ranchers access to the knowledge of professional wildlife managers as they develop their plans, and should result in more wildlife benefits under the program. This could be done using staff from state or federal wildlife agencies, non-profit organizations, or technical service providers to avoid any impact on NRCS staff workload.

6. USDA SHOULD REVIEW AND REVISE PAYMENT RATES

In our discussions with both sustainable farming organizations and wildlife organizations and agencies, we heard concerns about some of the payment rates established for enhancement practices. For example, delaying hay harvest until the end of the nesting season provides clear wildlife benefits, since nesting birds have a chance to hatch and fledge undisturbed. The farmer foregoes some profit as a result, by having fewer cuttings of hay or harvesting lower-quality hay. The payment rate for a practice like this should therefore fairly reflect the lost revenue. In other cases, practices were designed to benefit particular wildlife species: leaving standing dead trees to benefit woodpeckers, or branch piles to benefit rabbits and other small mammals. The concern we heard was that, in some states, the per-acre payment for implementing these enhancements far exceeded the cost to

the farmer or the benefits to wildlife. In most cases, as a result of this feedback, NRCS adjusted the payment rates to more appropriate levels in the succeeding sign-up.

With several years of signup experience under its belt, USDA should continue to review Conservation Security Program enhancement payment rates, to ensure both farmers and taxpayers are getting a fair deal under the program.

7. USDA SHOULD ENSURE HIGH STANDARDS FOR WILDLIFE BENEFITS

Comments from wildlife professionals familiar with the Conservation Security Program show a concern that some 2004 participants were getting Tier III contracts—under which they are supposed to meet minimum non-degradation standards for every applicable resource of concern—with fairly weak efforts with respect to wildlife. Those comments echoed the concern raised in the General Accountability Office report cited above. For example, the GAO report noted that the national criteria require a minimum percentage of a producer's operation to be non-crop vegetative cover to benefit wildlife, but that criterion was not applied consistently in every state.

USDA should continue to review Tier III wildlife standards and wildlife resource criteria established by its state offices to ensure that a consistently high standard of wildlife benefits is obtained under the Conservation Security Program.

8. USDA SHOULD PROVIDE MONITORING AND EVALUATION OF PROGRAM OUTCOMES

The only way USDA will be able to properly assess actual outcomes of the program, for wildlife and other resources, is to undertake a robust monitoring and evaluation program. The legislation gives USDA authority to fund on-farm monitoring and evaluation as an enhancement practice, although USDA has funded very few such contracts. The Land Stewardship Project has developed and tested an on-farm monitoring tool-kit that could serve as a model for on-farm monitoring and evaluation.⁵ USDA should encourage and fund on-farm monitoring and evaluation enhancements as a high priority practice.

USDA also needs better program-level data on the actual impact of various practices with respect to wildlife and other resources to enable it to judge the relative benefits provided by various practices. That information would help USDA better manage the Conservation Security Program, as well as other USDA conservation programs that encourage conservation. USDA, working with organizational and agency partners, should establish a robust monitoring and evaluation program that measures actual outcomes of the conservation practices it funds, using scientifically valid methods. Congress should recognize the long-term importance of this endeavor and fund it adequately as part of the total farm bill conservation program implementation cost, much in the same way it currently does for technical assistance.

End Notes / *Part 1*

¹ USDA Natural Resources Conservation Service, *American Customer Satisfaction Index: Natural Resources Conservation Service Conservation Security Program Participants Customer Satisfaction Study, Final Report*, October, 2005.

² US Department of Agriculture, *Fiscal Year 2004 Conservation Security Program Contracts Modified*, news release, June 27, 2006.

³ D.A. Hill, *The Feeding Ecology and Survival of Pheasant Chicks on Arable Farmland*, *The Journal of Applied Ecology*, Vol. 22, No. 3 (Dec., 1985), pp. 645-654.

⁴ United States Government Accountability Office, *Conservation Security Program: Despite Cost Controls, Improved USDA Management is Needed to Ensure Proper Payments and Reduce Duplications With Other Programs*, April, 2006, Washington, DC.

⁵ *A Guide to the Art & Science of On-Farm Monitoring: The Monitoring Tool Box*, Land Stewardship Project. See www.landstewardshipproject.org/resources-pubs.html.

Conservation Security Program and Wildlife Case Study 1: California's Feather River Watershed

The 2006 Conservation Security Program signup in California included the Lower Feather River watershed in Butte, Sutter, and Yuba counties in north-central California. The 369,150-acre watershed is agriculturally diverse, including about 108,330 acres of orchard and vineyards (29% of the watershed), 103,850 acres of cropland, (28%), 90,450 acres of rangeland (25%), and 26,400 acres of pasture (7%), with the remainder developed land, wetlands and open water.

The area features moderately deep to very deep soils, and generally level ground except in the Sutter Buttes area. Rice production is the primary use for cropland. The rangeland is typically oak woodland and/or annual grassland. Virtually all the orchard, vineyard, cropland and pasture in the watershed is irrigated¹.

USDA identified water quality, water quantity, nutrients and sediments as key resource concerns in the watershed.

CONSERVATION SECURITY PROGRAM CONTRACTS

In June, 2006, the USDA announced that 60 California farmers in the Lower Feather River watershed were approved for Conservation Security Program contracts that would provide just under \$1 million in FY 2006, and \$6.4 million through 2015, in payments. (In the much larger 2005 signup, 393 farmers in five California watersheds received CSP contracts that will provide \$6.2 million in 2005 alone, covering 198,701 acres, mostly irrigated cropland).

WILDLIFE HABITAT BENEFITS

Habitat Management enhancements are the second largest category of Conservation Security Program payments in the watershed, representing a total commitment of \$2.4 million (and 37% of total CSP payments). A total of

\$769,373, representing about 12% of CSP payments, will be used to manage rice straw residues to provide winter water for waterfowl on about 3,350 acres (\$25/acre/year). Another \$150,600 will be used to manage rice fields by leaving 2-5% of the field un-cropped for wildlife food and cover on 75 acres (\$75/acre/year).

Maintenance of 130 acres of native trees and shrubs in riparian buffer zones will be supported through \$475,120 (\$400/acre/year), or about 7% of Conservation Security Program payments. Other Conservation Security Program contracts will pay for maintaining upland water for wildlife on over 3,500 acres, managing non-cropped areas with at least 80% native vegetation, and maintaining field borders for wildlife cover.

Six contracts (totaling about 5% of payments) will provide for managing

surface water irrigation withdrawals to benefit critical fisheries (for example, fish screens on water intakes). Those will be in place on irrigation systems providing water to about 1,877 acres of cropland.

About 1% of CSP payments will be used to provide winter cover crops to capture nitrates, or to provide for grazing management strategies that should benefit grassland habitat.

In all, just over \$2.4 million in Conservation Security Program payments will be used for practices that appear to provide direct wildlife habitat benefits. That represents 38% of total Conservation Security Program payments resulting from the 2006 signup.

OTHER WILDLIFE BENEFITS

Pest management is the largest category of funded enhancements. The bulk of the contract funding is for the use of Integrated Pest Management (IPM) strategies which either meet University of California IPM standards for a comprehensive program (1,023 acres in 2007), or use IPM techniques but not the full comprehensive program (more than 4,600 acres in 2007). Three program contracts utilize a certified organic pest management system on a total of 295 acres of organic cropland.

Those contracts could include the use of buffer strips or other habitat-related practices, but that information is not available to us. By reducing pesticide use and encouraging non-chemical pest control methods, those program payments should provide some benefits to some wildlife species.

In this watershed, farmers applying for a Tier II contract must first

meet minimum water-use efficiency criteria on the entire operation, in addition to having water quality and soil quality protected on the whole operation. Minimum water quality protection includes both nutrient management and pest management practices².

In all, \$3.1 million in Conservation Security Program enhancement payments, representing 49% of all CSP payments resulting from the 2006 signup in California, will be used for pest management practices designed to reduce pesticide use that should also benefit some wildlife.

In all, 87% of the total Conservation Security Program payments resulting from the 2006 signup in California's Feather River watershed are for practices that appear to provide either direct wildlife habitat benefits, or a reduction in the use of pesticides that should benefit some wildlife species.

¹ Lower Feather Watershed, USDA Natural Resources Conservation Service California web site, www.ca.nrcs.usda.gov/programs/CSP/2006/lowerfeather.html.

² Landowners with irrigated cropland must have an Irrigation Enhancement Index score of at least 50 to obtain a Tier II contract, and must use fallow in crop rotations to conserve soil moisture on non-irrigated land. For details, see www.ca.nrcs.usda.gov/programs/CSP/2006/lowerfeather.html.

	Conservation Security Program Enhancement Practices With Wildlife Habitat & Pesticide Reduction Benefits in California	Payments Through 2015	Share of all CSP payments
EHM 24	Manage rice straw residues for waterfowl, and rice fields for food/cover	\$916,973	14%
EHM 15			
EHM 08	Maintain native trees and shrubs in riparian areas	\$475,120	7%
EHM 04	Manage surface water irrigation withdrawals to benefit critical fisheries	\$339,216	5%
EHM 06	Provide water for upland wildlife	\$339,115	5%
EHM 10	Manage non-crop areas with minimum 80% native plants	\$140,000	2%
EHM	Other habitat management, including field borders, managing cropland for wildlife, eradicate invasive plants	\$184,344	3%
ENM 24	Use winter cover crops to capture nitrogen (providing winter cover)	\$37,012	1%
EGM	Forage production monitoring plans and alternate water sources	\$12,060	0%
	Wildlife Habitat Payments	\$2,446,840	38%
EPM01-1	Use comprehensive U-Cal Integrated Pest Management system	\$1,166,139	18%
EPM01-2	Use Integrated Pest Management system components (less than comprehensive plan)	\$1,683,475	26%
EPM 02	Use Certified Organic pest management	\$265,050	4%
	Pesticide Reduction Payments That Should Benefit Wildlife	\$3,128,048	49%
	Total Wildlife Habitat & Pesticide Reduction Payments	\$5,574,888	87%
	Total CSP Payments	\$6,426,506	100%

Conservation Security Program and Wildlife Case Study 2:

Chesapeake Bay

The Chesapeake Bay is America's largest estuary, measuring nearly 200 miles long, and draining 64,000 square miles. The watershed covers part of six states, including nearly all of Maryland and much of Virginia and Pennsylvania.

According to the US Government Accountability Office, “over time, the bay’s ecosystem has deteriorated. The bay’s ‘dead zones’—where too little oxygen is available to support fish and shellfish—have increased, and many species of fish and shellfish have experienced major declines in population.”¹

“Water quality and ecosystem integrity in the Chesapeake Bay have been affected by excessive nutrient loading, which has resulted in the depression of dissolved oxygen levels and the loss of submerged aquatic vegetation. These effects have impacted economically important aquatic species and have diminished the value of the bay as a recreational resource.”²

In 1998, the US Geological Survey assessed the areas of the watershed that appeared to have the highest impact (in terms of nitrogen load) on the bay.³ Some of the high-impact watersheds identified in that analysis were eligible for Conservation Security Program signups in 2005 or 2006, including the Monocacy in central Maryland (2005) and southern Pennsylvania (2006), the Lower Susquehanna-Swatara in southeast Pennsylvania (2005), and the Nanticoke in Maryland and Delaware (2006).

CONSERVATION SECURITY PROGRAM CONTRACTS IN THE CHESAPEAKE REGION

The 2006 Conservation Security Program signup included four watersheds that drain into the Chesapeake: the Monocacy in southern Pennsylvania, the Choptank and Nanticoke that straddle the Delaware-Maryland border, and the North Fork Shenandoah in Virginia. In addition to the watersheds eligible for the Conservation Security Program signup in 2006, farmers in seven other watersheds that drain into the

Chesapeake Bay were eligible for CSP contracts in 2005 (see table).

The Choptank and Nanticoke are adjacent watersheds that flow through the lower Eastern Shore into Chesapeake Bay. Combined, they drain about 879,000 acres, about three-quarters of which are in Maryland and the remainder are in the headwater areas in Delaware. About half of the land is used for agricultural purposes, and primary crops include corn, beans, barley, wheat, and vegetables. Poultry production is an important industry in the watershed, and poultry manure management a particular concern.

CSP Signups in the Chesapeake Region		
WATERSHED	STATE	YEAR
S. Fork Shenandoah	Virginia	2005
N. Fork Shenandoah	Virginia	2006
Lower Rappahannock	Virginia	2005
Mattaponi	Virginia	2005
Raystown	Pennsylvania	2004, 2005
Lower Susquehanna - Swatara	Pennsylvania	2005
Monocacy	Pennsylvania	2006
	Maryland	2005
Chester-Sassafras	Maryland, Delaware, Pennsylvania	2005
Choptank	Maryland, Delaware	2006
Nanticoke	Maryland, Delaware	2006

USDA says the Nanticoke “is one of the healthiest rivers in the Chesapeake and provides excellent habitat for many threatened and endangered species.” The Choptank watershed in Maryland is one of the subjects of an intensive, 5-year effort by USDA to measure the benefits of farm conservation practices on the environment.⁶

The Monocacy watershed is in southeast Pennsylvania and northern Maryland. The Maryland portion of the Monocacy watershed was eligible for the Conservation Security Program in 2005.

The North Fork Shenandoah watershed is in northwestern Virginia. A neighboring watershed, the South Fork Shenandoah, was eligible for the Conservation Security Program in 2005.

2006 CONSERVATION SECURITY PROGRAM CONTRACTS

In June, 2006, USDA announced that farmers in the Nanticoke, Choptank, Monocacy and North Fork Shenandoah watersheds would be eligible for about \$24.2 million in Conservation Security Program con-

tract payments through 2015. Contracts in the Chesapeake Bay region were concentrated in the Choptank and Nanticoke watersheds, along the eastern shore of the Bay. The Maryland portions of those watersheds — the downstream portion with the most direct influence on the Bay— will receive nearly three-quarters of the CSP contract payments awarded in the region in 2006. Delaware farmers (the upper parts of the Choptank and Nanticoke watersheds) will receive about 21% of total CSP payments. As a result, our analysis is heavily skewed by policies in these two states, where about 45% of total CSP payments provided either wildlife habitat benefits, or pesticide reduction that should benefit some wildlife.

In contrast, in the North Fork Shenandoah watershed in Virginia, 65% of Conservation Security Program payments either provide for wildlife habitat benefits, or for pesticide reduction that should benefit some wildlife, while in Pennsylvania the percentage was about 87%. However, those two watersheds represented only about 5% of the projected CSP payments we reviewed.

WILDLIFE HABITAT BENEFITS

One in five Conservation Security Program contract dollars — a total of over \$4.7 million — is slated for habitat management. The largest category of funded enhancement is for

increasing and maintaining wildlife habitat in order to achieve a Habitat Management Index score of at least 0.5. The enhancement was used in all except the Monocacy watershed, and most of the payments went for farms that ended up in the 0.6 to 0.7 range on the index (higher payments were awarded for higher scores).

Overall, payments based on some form of habitat management index represent 18% of the Conservation Security Program payments in the region. It was the most significant wildlife-related habitat enhancement in the North Fork Shenandoah, Choptank and Nanticoke watersheds. The Habitat Management Index appears to be the primary tool used in the region for measuring and rewarding wildlife habitat through the Conservation Security Program.

Throughout the region, field borders, buffer strips, contour strips and new hedgerows were used to reduce nutrient and pesticide runoff and provide additional wildlife habitat. In

various forms, this enhancement represented about \$1.9 million, or 8% of total Conservation Security Program payments.

Our estimate of wildlife habitat benefits likely understates the actual wildlife benefits provided. As noted above, nutrient loads in the Chesapeake Bay are a primary concern in the region, because of their impact on the Bay's aquatic species. Our screen for assessing wildlife-related benefits largely excluded nitrogen management strategies, except where they used practices like buffer strips that also provide terrestrial habitat benefits. Additional nutrient management practices not included in our totals should help reduce the impact of nutrients on the aquatic habitat in Chesapeake Bay and its tributaries.

In total, at least \$7.6 million in Conservation Security Program enhancement payments in the Chesapeake Bay region will be used for practices that should provide wildlife habitat benefits.

That represents 31% of total CSP payments resulting from the 2006 signup in these watersheds.

OTHER WILDLIFE BENEFITS

Low input non-chemical methods of pest control were used extensively in Conservation Security Program contracts in the Choptank and Nanticoke watersheds. Those should reduce runoff into the Bay and reduce pesticide impacts on local beneficial insects. Crop rotation (using at least two crops in three years) was also used to break up pest cycles and reduce the use of pesticides.

Payments will also provide for high-intensity integrated pest management systems in some locations. The information available does not allow us to determine if, for example, buffer strips and other habitat-producing practices were included.

In all, \$3.7 million in Conservation Security Program enhancement payments, representing 15% of all CSP payments resulting from the 2006 signup in the Chesapeake Bay region, will be used for pest management practices designed to reduce pesticide use that should also benefit some wildlife.

Overall, \$11.2 million, representing 47% of Conservation Security Program payments resulting from the 2006 signup in the Chesapeake Bay region, is for enhancements that appear to provide wildlife habitat benefits or reduce pesticide use in ways that should benefit some wildlife.



	Conservation Security Program Enhancement Practices With Wildlife Habitat or Pesticide Reduction Benefits in the Chesapeake Bay Region	Payments Through 2015	Share of all CSP payments
EHM 02 ENM 20	Increase and maintain wildlife habitat management index on lands (0.5 to 1.0)	\$4,434,208	18%
EPM03 EHM 11 ENM	Use field borders, buffer strips, contour strips and hedgerows to reduce nutrient and pesticide runoff, and provide for wildlife habitat	\$1,931,420	8%
ENM 03	Use 5-10 foot setback in applying nutrients to protect waterways	\$359,239	1%
ENM	Other nutrient management (e.g., nutrient application using phosphorus-based application rates, incorporating manure to prevent runoff)	\$473,313	2%
EHM	Other habitat management (crops left unharvested, blue bird or bat boxes, etc.)	\$203,186	1%
EGM	Rotational grazing systems and livestock exclusion	\$199,743	1%
EPL EAM	Plant management (nectar-producing plants) and windbreaks near feedlots	\$11,397	0%
	Total Wildlife Habitat Payments	\$7,612,506	31%
EPM 02	Use low input non-chemical pest control methods	\$1,952,764	8%
EPM 09	Use crop rotations to break up pest cycles	\$1,446,461	6%
EPM	Use high intensity integrated pest management and other strategies	\$314,877	1%
	Total Pesticide Reduction Payments That Should Benefit Wildlife	\$3,714,102	15%
	Total Wildlife Habitat & Pesticide Reduction Payments	\$11,326,608	47%
	Total CSP Contracts (estimated)	\$24,196,700	100%

3 US Government Accountability Office: *Chesapeake Bay Program: Improved Strategies Needed to Better Guide Restoration Efforts*, Statement of Anu K. Mittal, Testimony before the Subcommittee of Interior, Environment, and Related Agencies Committee on Appropriations, House of Representatives, July 13, 2006, page 4-5.

4 US Geological Survey, *Spatially Referenced Regression Modeling of Nutrient Loading in the Chesapeake Bay Watershed*, proceedings of the First Federal Interagency Hydrologic Modeling Conference, Las Vegas, Nevada, April, 1998, page 1-2. URL: water.usgs.gov/nawqa/sparrow/chesbay/ches.html.

5 USGS, *ibid*, page 3-4. URL: water.usgs.gov/nawqa/sparrow/chesbay/ches.html. United States Department of Agriculture, USDA To Assess Environmental Benefits of Conservation Programs, news release, July 22, 2004, www.usda.gov/newsroom/0299.04.html.

6 United States Department of Agriculture, *USDA To Assess Environmental Benefits of Conservation Programs*, news release, July 22, 2004, www.usda.gov/newsroom/0299.04.html.

Conservation Security Program and Wildlife Case Study 3:

Georgia's Little Ocmulgee Watershed

The 2006 Conservation Security Program signup in Georgia included the Little Ocmulgee Watershed in southeast Georgia. According to the University of Georgia, just over one-quarter of the Little Ocmulgee watershed is in agricultural production, with the remainder primarily forest, forested wetlands, and clearcut areas.⁷

In 2002, the state of Georgia completed a watershed cleanup plan (a Total Maximum Daily Load assessment) designed to address excess levels of fecal coliform bacteria in the river. The plan recommended, among other management practices, a reduction in livestock access to streams in the watershed, and limiting the land application of manure to agronomic rates.

The Georgia Department of Natural Resources Wildlife Resources Division notes the presence of 6 wildlife species of concern in the watershed. The red-cockaded woodpecker and gopher tortoise are federally protected. The Ocmulgee shiner, yellow-crowned night-heron, Florida pine snake, and sailfin shiner are listed as species of concern.⁸

Upland pine forest, a natural community of special concern, occurs in the watershed, as do 17 plant species that are federally protected, state protected, or a species of special concern at the state level.



Fencing can protect streams from livestock impacts and provide wildlife habitat.

CONSERVATION SECURITY PROGRAM CONTRACTS

In June, 2006, the USDA announced that 58 farmers were approved for Conservation Security Program contracts that would provide nearly \$1.2 million in FY 2006, and \$6.3 million through 2015, in payments. The 58 contracts include, on average, about 4 practices each that should provide wildlife habitat benefits or reduce pesticide use. (In the larger 2005 sign-up, 119 farmers in five Georgia watersheds received CSP contracts that will provide payments covering 92,508 acres, most of it irrigated cropland).

WILDLIFE HABITAT BENEFITS

Through 2015, Conservation Security Program contract enhancement payments for planned Habitat Management activities total \$706,057, about 11% of total CSP payments.

The largest funded practice is for managing crop residue after planting to retain at least 50% cover of the soil surface (in some contracts 70%).

Conservation Security Program payments will provide over \$500,000 for this practice, which represent 8% of total CSP payments. The practice is intended to reduce surface runoff and

soil erosion, but it would also maintain some spring cover in crop fields.

Conservation Security Program contract enhancement payments for grazing management strategies that should benefit wildlife habitat total \$304,264 through 2015, about 5% of total CSP payments. One practice funded in Georgia is rotational grazing strategies that will provide for at least 4 pastures, with 4-8 day average rotational cycle (EGM 02), which should help maintain a mosaic of different grassland heights. Those payments represent about 3% of Conservation Security Program payments, and will cover about 1,424 acres in 2007. Other grazing management practices funded in Georgia include rotating feed or shade at least four times per year to keep livestock at least 100 feet from surface water or other sensitive areas (1,978 acres, EGM 05), and excluding livestock from water bodies (1,270 acres, EGM 04).

Conservation Security Program payments for restricting manure application based on phosphorus needs should benefit aquatic habitat by keeping excess nutrients out of the surface water. Those payments will total \$117,036, representing about 2% of total program payments.

A small portion of program payments in the watershed will provide for the use of phosphorus (rather than nitrogen) as the basis for manure



application rates, which should reduce runoff into neighboring streams. 14 contracts, representing roughly 1% of Conservation Security Program payments, will provide for livestock exclusion from nearby water bodies (EGM 04). Both practices could help address the excess fecal coliform bacteria in the river.

In all, about \$1.1 million in Conservation Security Program payments in Georgia's Little Ocmulgee watershed will be used for practices that provide wildlife habitat benefits, representing 18% of total CSP payments through 2015.

Prescribed burning of under-story species can improve habitat in wooded areas. US FWS photo

OTHER WILDLIFE BENEFITS

The key pest management practice receiving funding is the use of crop scouting and pesticide applications based on Extension Service treatment thresholds to reduce or optimize pesticide use (EPM 10).

Two other pest management practices also feature prominently in Georgia. Management of undesirable pasture pests through the use of crop scouting and pesticide applications based on Extension Service treatment thresholds (EPM 16) represents about

6% of payments. Managing nematode zones to minimize the use of pesticides (EPM 09) represents about 4% of payments. In all three cases, the payments are for strategies that rely on pest scouting and specific pesticide application, rather than annual whole-field spraying. That should reduce the impact of pesticides on non-target wildlife species.

A total of \$2.5 million in Conservation Security Program payments are for Pest Management enhancements that should benefit some wildlife, and

they account for 40% of all projected program payments through 2015.

In all, about \$3.6 million in Conservation Security Program enhancement payments planned through 2015 should provide wildlife habitat benefit, or result in reduced pesticide use that supports wildlife, in Georgia. That represents about 58% of the \$6.3 million in total CSP contract payments resulting from the 2006 signup in Georgia.

	Conservation Security Program Enhancement Practices With Wildlife Habitat Benefits	Payments Through 2015	Share of all CSP payments
EHM 17	Manage for crop residue after planting that exceeds 50% ground cover	\$503,667	8%
EGM 02	Use 4-8 pastures or more for rotational grazing with short rotation cycles	\$170,965	3%
EHM	Other habitat management, including leaving unharvested grain and hay, early sucessional habitat on idle crop land, managing field borders, prescribed burning of woodlots, and other.	\$202,390	3%
EGM	Other grazing management, including rotating feed to distribute livestock impacts, excluding livestock from water bodies, and other	\$133,299	2%
ENM 31	Base manure application on phosphorus rates to reduce runoff	\$117,036	2%
	Total Wildlife Habitat Practice Payments	\$1,127,357	18%
EPM 10	Use crop scouting and Extension Service recommendations to reduce pesticide use	\$1,853,970	30%
EPM 16	Use scouting and weed control to reduce undesirable pasture pests	\$379,280	6%
EPM 09	Manage nematode zones to minimize the use of pesticides	\$273,196	4%
	Total Pesticide Reduction Practices	\$2,506,446	40%
	Total Wildlife Habitat & Pesticide Reduction	\$3,633,803	58%
	Total CSP Payments	\$6,264,068	100%

7 University of Georgia Institute of Ecology, Little Ocmulgee Watershed 1998 Land Cover.

8 Georgia Department of Natural Resources, Wildlife Resources Division, *Known Occurrences of Special Concern Plants, Animals and Natural Communities in Little Ocmulgee River Watershed* (HUC8:03070105). February 25, 2004.

Conservation Security Program and Wildlife Case Study 4: Minnesota's Red Lakes Watershed

The 2006 Conservation Security Program signup in Minnesota included the Red Lakes watershed in northern Minnesota (Beltrami, Clearwater, Koochiching and Itasca Counties). The watershed includes about 1.3 million acres of land, including large forested areas and a number of lakes. Only about 6% of the watershed is cropland (77,600 acres), and another 3% is pasture (36,400 acres). The cropland is used primarily for small grains, soybeans, and forage crops. The pasture is typically used for beef and dairy production.⁹

The USDA identified water quantity management, pasture management, water and wind erosion, and water quality as major resource concerns in the watershed.

CONSERVATION SECURITY PROGRAM CONTRACTS

In June, 2006, USDA announced that 14 farmers were approved for Conservation Security Program contracts that would pay participants \$120,558 in FY 2006, and \$1.4 million through 2015. The relatively small number of contracts likely reflects the lack of agricultural land in the watershed. (In the larger 2005 sign-up, six Minnesota watersheds were eligible for Conservation Security Program contracts. 590 farmers received contracts that will provide payments covering 147,768 acres, predominantly dryland cropland.)

WILDLIFE HABITAT BENEFITS

Through 2015, Conservation Security Program contract enhancement payments from the 2006 signup for planned Habitat Management activities total \$538,731, about 38% of total



CSP payments. Key practices receiving funding include avoiding the nesting season (May 1 to July 1) in haying alfalfa or grass (which will benefit 200 acres in 2007), using a flushing bar when harvesting forage to reduce wildlife damage (which will benefit about 4,150 acres in 2007), and leaving wide swaths of uncut forage as habitat (86 acres in 2007). A small amount (\$9,900 in 7 contracts over 9 years) will encourage the use of nest structures and brush piles for habitat, including about 110 acres in 2007.

Prescribed burning of grasslands can help maintain grasslands.

US Fish & Wildlife Service photo.

Grazing Management enhancements provide the bulk of remaining Conservation Security Program enhancements with substantial wildlife habitat benefits (\$251,682 through 2015, 18% of CSP payments). Key practices include using a Pasture Condition index to better manage the pasture (which should result in more

diverse growth patterns on over 2,800 acres in 2007), and other practices that reduce grazing pressure and the impact of livestock on waterways.

Small amounts (\$40,449 in total) will also be used to reward two farmers who use phosphorus-based manure application rates on fields bordering streams, lakes and wetlands, to pay for leaving un-harvested corn for living snow fences (providing winter cover), and to manage shelterbelts near feedlots.

In all, 57% of the Conservation Security Program payments in

Minnesota's Red Lakes watershed will pay for practices that should provide wildlife habitat benefits.

OTHER WILDLIFE BENEFITS

Conservation Security Program payments for pest management enhancements including funding for the use of two or more pest management enhancement components identified by USDA. Those enhancement components apply to about 6,600 acres in 2007 and are designed primarily to reduce the use of pesticides or target their use to selected areas.

A total of \$395,305 in funded enhancements is for pest management practices that should benefit some wildlife (about 28% of all Conservation Security Program contract payments).

All together, 85% of the \$1.4 million in Conservation Security Program payments in Minnesota's Red Lakes watershed will pay for practices that either provide wildlife or wildlife habitat benefits, or reduce pesticide use and benefit some wildlife.

	Conservation Security Program Enhancement Practices With Wildlife Habitat or Pesticide Reduction Benefits	Payments Through 2015	Share of all CSP payments
EHM 03	Avoid nesting period (May/June) when haying legumes and grasses	\$212,310	15%
EHM 19	Use flushing bar when harvesting forage	\$186,804	13%
EGM 14	Use Pasture Condition Score Sheet to monitor and manage pasture	\$133,683	9%
EHM 01	Leave at least 100' of uncut hayfield as habitat (up to 10%/field)	\$124,137	9%
EGM	Other grazing management strategies, including better cattle distribution, limiting access to livestock ponds, using crop residue instead of fall forage.	\$117,999	8%
EHM	Other habitat management, including brush piles and snags, no fall tillage, and converting grass areas to native species	\$15,480	1%
EAM 10 EAM 06	Use unharvested corn as living snow fence, and manage shelterbelts near feedlots	\$13,419	1%
ENM 14	Base manure application rates on Phosphorus on fields bordering streams, lakes and wetlands.	\$11,550	1%
	Wildlife Habitat Enhancements	\$815,382	57%
EPM 01	Implement 2-4 pest management enhancement components	\$395,305	28%
	Pesticide Reduction Enhancements	\$395,305	28%
	Total Wildlife Habitat & Pesticide Reduction Payments	\$1,210,687	85%
	Total Program Payments	\$1,432,751	100%

⁹ Red Lakes Watershed, USDA NRCS web site, www.mn.nrcs.usda.gov/programs/csp/2006/red_lakes/red_lakes.html

Conservation Security Program and Wildlife Case Study 5: Missouri's Spring River Watershed

In discussions with wildlife professionals about the Conservation Security Program, many cite Missouri as an example of where the program provides ample benefits for wildlife. The 2006 signup in Missouri included the Spring River watershed in the southwest region of the state. The watershed includes about 1.3 million acres of land, including about 549,000 acres of pasture and range, 331,000 acres of active cropland, 56,400 acres of Conservation Reserve Program land, and 210,000 acres of forest land. Only about 17,000 acres of the watershed's cropland is irrigated, mostly from wells.

The cropland is primarily located in the northern part of the watershed, while pasture, rangeland, and some forest dominate the southern part of the watershed.

The watershed faces many natural resource challenges. The resource concerns identified by the Natural Resources Conservation Service in Missouri include inadequate habitat for wildlife, a variety of threatened and endangered wildlife and plants, noxious and invasive plants, sheet and rill erosion, and levels of pathogens (from livestock), nutrients and organics in the area's surface water. Surface water supplies public drinking water in three places in the watershed.¹⁰

The area is on the edge of the historic tallgrass prairie range. Some 99% of the Nation's historic tallgrass prairie has been lost to the plow or urban development.

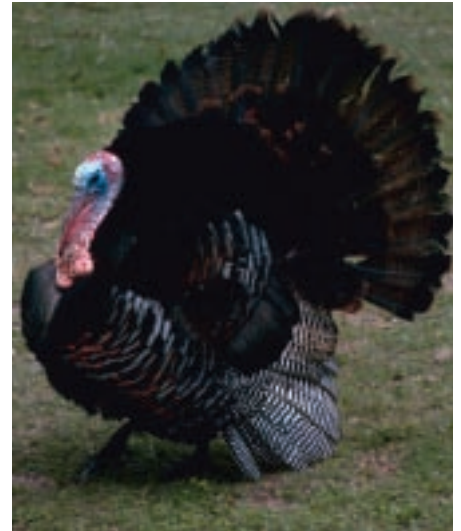
CONSERVATION SECURITY PROGRAM CONTRACTS

In June, 2006, the USDA announced that 360 Missouri farmers and ranchers were approved for Conservation Security Program contracts that would provide \$2.9 million in FY 2006, and \$20.6 million through 2015, in payments. (In 2005, 1,133 farmers in 7 Missouri watersheds were approved for CSP contracts).

WILDLIFE HABITAT BENEFITS

Through 2015, Conservation Security Program contract payments for planned Habitat Management activities total \$5.4 million, or about 26% of total CSP payments. In addition, about \$9 million in payments (44% of total CSP payments) is planned for grazing management activities that should also benefit wildlife, primarily through managed rotational grazing strategies.

The Missouri NRCS used a Wildlife Enhancement Index Score as the primary means of providing habitat management enhancement payments. CSP contract payments will



Wild turkeys are found throughout Missouri.

US Fish & Wildlife Service photo.

cover nearly 60,000 acres of land that meet a minimum 0.6 Wildlife Enhancement Index score. Enhancement payments for farmers providing a bundle of quail habitat practices should cover over 5,800 additional acres of quail habitat.

Habitat Management enhancement payments also include contracts in 45 places, with payments totaling \$201,802 through 2015, for managing native grasslands to maintain native plants. While relatively small, those contracts could be significant with respect to maintaining about 1,425 acres of remnant native tallgrass prairies in 2007.

The bulk of the Grazing Management contract funding is related to the use of managed rotational grazing strategies. The large number of grazing management enhancements in the area should provide substantial benefits for grassland wildlife. For example, EGM 05 (\$4.8 million through 2015) involves maintaining a grazing system with at least 4, 8, or 16 pastures, and moving livestock every 4 to 15 days. The Missouri contracts will provide for that practice on about 71,700 acres of land in 2007. EGM 10 (\$2.7 million through 2015) requires farmers to adopt at least two enhanced grazing management activities from a designated list, which will provide contract payments covering over 32,500 acres of grazing land. Both practices should result in improved, more diverse grassland vegetation.

In addition, \$0.5 million (2% of payments) is planned for nutrient management enhancements that should benefit wildlife, including the use of buffer strips and reduced phosphorus application. The enhancement payments for buffer areas should provide better managed wildlife habitat on nearly 7,000 acres.

Pest Management enhancement payments that will provide for the use of managed hedgerows, field borders, buffer strips and buffer areas represent 1% of CSP payments, covering 9,155 acres in 2007.

In all, about \$15.1 million in Conservation Security Program enhancement payments planned through 2015 should provide wildlife habitat benefits. That represents about 73% of the \$20.6 million in total program contract payments resulting from the 2006 signup in Missouri.

OTHER WILDLIFE BENEFITS

There is \$3.2 million planned for pest management strategies, including spot spraying, field scouting and other activities that replace broadcast pesticides and reduce pesticide runoff and leaching potential. The commitment of resources to reduce pesticide runoff should help address the water quality problems identified in area streams. The largest pest management payment category, using spot spraying in

place of broadcast pesticides to reduce runoff and non-target impacts, will provide for that practice on nearly 81,000 acres of land. Those practices should reduce the impact of pesticides on birds, their food base, and other wildlife.

In all, \$3.2 million, 15% of Conservation Security Program payments in Missouri, will pay for practices that should benefit wildlife by reducing the use or impact of pesticides.

All together, \$18.2 million, or 88% of the \$20.6 million in Conservation Security Program payments in Missouri's Spring Creek watershed, will be used for practices that provide wildlife habitat or pesticide reduction benefits.

10 USDA Natural Resources Conservation Service of Missouri, FY '06 Proposed Conservation Security Program Sub-basin Spring River - 11070207, www.mo.nrcs.usda.gov/programs/CSP/spring.html. Author's note: The NRCS-Missouri web site includes substantial information on the Spring River watershed, and would be a good model for other states to follow.

	Conservation Security Program Enhancement Practices With Wildlife Habitat and Pesticide Reduction Benefits in Missouri	Payments Through 2015	Share of all CSP payments
EGM	Managed rotational grazing strategies	\$9,035,898	44%
EHM 20	Improve habitat to achieve wildlife enhancement index score of at least 0.6	\$4,021,585	20%
EHM 12	Use quail habitat bundle of practices on cropland or grazing land.	\$664,904	3%
EHM 01	Leave crops un-harvested, or plant food plots on grasslands	\$392,103	2%
EHM 21	Manage native grasslands to maintain native plants.	\$201,802	1%
EHM 11	Hay and graze outside the nesting seasons.	\$123,537	1%
ENM	Nutrient management through buffer strips and application set-backs, and reducing phosphorus application	\$453,789	2%
EAM 06	Windbreaks to buffer feedlot areas	\$7,200	0%
EPM 17	Use of hedgerows, borders, filters and buffers to reduce pesticide impact	\$153,926	1%
	Total Wildlife Habitat Payments	\$15,055,209	73%
EPM 05	Use spot spraying, mowing, or natural controls instead of broadcast pesticides	\$1,957,880	10%
EPM 10	Use field scouting to help keep pests below economically damaging thresholds.	\$738,910	4%
EPM	Other pest management enhancements, including pesticide selection to reduce runoff, and spray area set-backs from waterways.	\$460,676	2%
	Total Pesticide Reduction Payments That Should Benefit Wildlife	\$3,157,466	15%
	Total Wildlife Habitat and Pesticide Reduction Payments	\$18,212,210	88%
	Total CSP Payments	\$20,584,026	100%

Conservation Security Program and Wildlife Case Study 6:

Nebraska's Little Blue Watershed

The 2006 signup in Nebraska included the Upper Little Blue watershed in south-central Nebraska. The watershed includes 1.4 million acres of land in south-central Nebraska, plus several thousand acres in Kansas. The watershed is about 70% cropland and 30% range land and pasture.

The watershed has many natural resource challenges and lies at the western edge of the historic tallgrass prairie region in the central United States. Only 2% of Nebraska's historic tallgrass prairies remain intact and this area includes some of the state's last large parcels of native tallgrass prairie . It also includes portions of the Rainwater Basin, a complex of wetlands that provides internationally important migratory habitat for millions of ducks, geese, and other waterfowl. Only about 10% of historic Rainwater Basin wetlands remain intact, and the area serves as the "waterfowl hotel" for the Central Flyway of North America .

The Little Blue River provides about 36% of the annual flow of the Big Blue River, which supplies drinking water for Topeka, Lawrence, and Kansas City, Kansas. Because of the extensive use of herbicides used to grow corn and sorghum, atrazine levels in the river have been a continuing problem. Irrigated agriculture (almost all from groundwater sources) is prevalent in the central and

western part of the basin, especially north of the Little Blue River. Dryland crops, pasture and range are most common south of the river. The lower part of the watershed has fairly steep slopes that generally exceed 10%, making fields in that portion more susceptible to runoff .

In the last several years, the ongoing drought has led to concerns about the level of river flows in the Big Blue River. A compact between Nebraska and Kansas requires Nebraska to restrict water use in the basin when needed to maintain target river flows at the state line .



CONSERVATION SECURITY PROGRAM CONTRACTS

In June, 2006, USDA announced that 348 Nebraska farmers and ranchers were approved for Conservation Security Program contracts that would provide \$5 million in payments in 2006 and over \$40 million through 2015. (In 2005, 1,016 farmers in 4 watersheds were approved for CSP contracts covering about 429,000 acres of land in Nebraska, most of it irrigated cropland).

WILDLIFE HABITAT BENEFITS

Through 2015, Conservation Security Program contract enhancement payments for planned Habitat Management activities total \$1.8 million, about 5% of total CSP payments. In addition, about \$4.2 million in payments (10% of total program payments) is planned for grazing management activities that should also benefit wildlife, primarily managed rotational grazing strategies that should provide benefits for grassland wildlife.

The per-acre payment for the largest category of grazing enhancements (EGM05-16, which provides for water, cross-fencing, and adequate rest of grasslands during the grazing season), would appear to cover over 23,000 acres of grassland in 2007. The number of 2006 contracts that involve conservation of remnant native tallgrass prairies has not been confirmed,

but state wildlife officials report that a number of the recent CSP contracts in this part of Nebraska have included tallgrass prairie (including some Tier III contracts).

The enhancement payments for providing quail habitat should cover nearly 30,000 acres of habitat, the bulk in the habitat quality index range of 0.51 to 0.60 (representing usable but not ideal quail habitat, including a combination of food sources and cover). The quail habitat enhancement was one of the most popular practices in Nebraska.

Enhancement payments designed to reward good prairie chicken habitat (typically large blocks of open grassland) should cover over 10,500 acres of habitat, all in the habitat quality index range of 0.51 to 0.60 (representing usable but not ideal habitat). Nebraska Game & Parks Commission staff will be conducting surveys in the future to gauge changes in prairie chicken habitat that result.

The enhancement payments for leaving tall, undisturbed small grain stubble over winter would translate into winter cover on nearly 59,000 acres. Nutrient Management payments to provide 5-15% (or more) buffer to cropland ratio should help reduce atrazine, other pesticides, nutrients and sediment in the river. The planted buffer areas should also provide wildlife cover, nesting and food.

The small amount of enhancement payments for wetland management would appear to be enough to provide benefits to about 59 acres of wetlands. Some of the other practices funded could also have benefits for wetlands, including reduced runoff of nutrients, sediments, and pesticides into wetland areas.

In all, \$6.7 million, representing 17% of Conservation Security Program payments, is planned for practices that should provide wildlife habitat benefits in Nebraska.

OTHER WILDLIFE BENEFITS

Pest management strategies that select and apply products in ways that reduce pesticide runoff and leaching potential, using crop rotations and spot spraying or banding of pesticides, should help address atrazine and nutrient problems in area streams.

\$3.8 million, representing 9% of Conservation Security Program payments, is planned for pesticide reduction strategies that should benefit some wildlife species.

In all, \$10.5 million in Conservation Security Program enhancement payments planned through 2015 should provide wildlife habitat or pesticide reduction benefits in Nebraska's Little Blue watershed. That represents just over one-quarter of the \$40 million in total program contract payments resulting from the 2006 sign-up in Nebraska.

	Conservation Security Program Enhancement Practices With Wildlife Habitat or Pesticide Reduction Benefits in Nebraska	Payments Through 2015	Share of all CSP payments
EGM 05	Managed rotational grazing strategies	\$3,850,976	10%
ENM 03	Manage buffers with greater than 5% buffer/crop ratio	\$672,582	2%
EHM 20	Habitat index rating for quail at least 0.51	\$647,210	2%
EHM 01	Leave undisturbed small grain stubble over winter	\$565,823	1%
EHM 02	Early successional habitat on field borders and buffers, and un-harvested alfalfa buffers	\$287,100	1%
EHM 20	Habitat index for prairie chickens at least 0.51	\$185,226	0%
EGM	Other grazing management enhancements	\$324,015	1%
EHM	Other habitat management enhancements	\$132,670	0%
ENM	Other nutrient management enhancements	\$105,990	0%
EAM 06	Windbreaks to buffer feedlot areas	\$3,375	0%
	Total Wildlife Habitat Payments	\$6,739,220	17%
EPM 03	Products selected to reduce runoff, use crop rotations, spot spraying or banding to reduce pesticide use or impact	\$3,757,288	9%
	Total Pesticide Reduction Payments That Should Benefit Wildlife	\$3,757,288	9%
	Total Wildlife Habitat & Pesticide Reduction Payments	\$10,532,255	26%
	Total CSP Payments	\$40,543,562	100%

11 Nebraska's signup area included a small portion of the Middle-South Platte-Sterling watershed (located primarily in Colorado), but that watershed represents only about 1% of the wildlife-related CSP payments in Nebraska.

12 Bachand, Richard, *The American Prairie: Going, Going, Gone? A Status Report on the American Prairie*, National Wildlife Federation, Boulder, Colorado, 2001.

13 Rainwater Basin Joint Venture, *The Rainwater Basin*, www.rwbjv.org/_TRWB/index.htm.

14 University of Nebraska, Conservation Buffers: Big Blue River Basin Nebraska and Kansas, Background, <http://conservationbuffers.unl.edu/blueriverbackground.htm>.

15 Nebraska Department of Natural Resources, *2006 Annual Evaluation of Availability of Hydrologically Connected Water Supplies: Little Blue River Basin*, December 30, 2005

Conservation Security Program and Wildlife Case Study 7:

North Texas Watersheds

The 2006 Conservation Security Program signup in Texas included four watersheds in northern Texas, plus the corner of Oklahoma's Upper Beaver watershed. The Upper Prairie Dog Town Fork Red watershed is in the Texas panhandle; the South Wichita and Wichita watersheds are in north Texas; and the East Fork Trinity watershed lies northeast of Dallas.

The **South Wichita and Wichita** watersheds lie in the rolling hills of north Texas. The area is mostly range; the Wichita watershed includes just over one-fourth cropland and 56% range, and the South Wichita is about 88% range. Major crops include wheat, cotton, and forage and grain sorghum. Invasive woody species are a concern, as are wind and water erosion on cropland.

The **Upper Prairie Dog Town Fork Red** watershed in the Texas Panhandle includes 1.3 million acres, about two-thirds of it range land. Dryland crops represent 292,900 acres, about 22% of the watershed, while irrigated crops cover about 77,800 acres, or 6% of the watershed. The area includes many cattle on range land, and primary crops are small grains, grain and forage sorghum, and cotton.

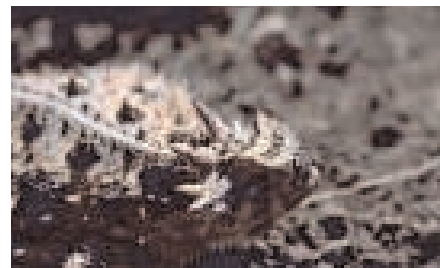
The **East Fork Trinity** watershed lies just northeast of Dallas. About one-fourth of the 787,500 acres of land in the watershed is developed and about 45% is pasture or rangeland. Nearly one-fourth of the watershed is dryland cropland that grows wheat, corn, grain and forage sorghum, cotton, soybeans, and vegetables.

CONSERVATION SECURITY PROGRAM CONTRACTS

In June, 2006, the USDA announced that 15 applications from Texas were approved for Conservation Security Program contracts that would provide \$395,373 in FY 2006, and \$2.9 million through 2015, in payments. Those contracts were primarily in the Upper Prairie Dog Town Fork Red watershed and to a lesser extent the Wichita watershed. A few Conservation Security Program contracts in the

Upper Beaver watershed are also included. The East Fork Trinity watershed received only one very small contract, representing just \$1,350 through 2015, and the South Wichita watershed received no approved CSP contracts.

In 2005, 67 Texas farmers and ranchers in 18 watersheds received Conservation Security Program contracts, covering about 379,000 acres.



The Texas horned lizard, the state lizard, is a state-protected species that lives throughout Texas.

US Fish & Wildlife Service photo.

WILDLIFE HABITAT BENEFITS

Based on USDA information, through 2015, Conservation Security Program contract enhancement payments for planned Habitat Management activities in Texas total \$1.2 million, about 41% of total CSP payments. In addition, \$726,756 (25% of total CSP payments) is planned for grazing management activities that should also benefit wildlife.

The \$1.2 million in Habitat Management enhancements through 2015 will provide for a variety of practices that will benefit wildlife in the dry rangeland of north Texas. In the Upper Prairie Dog Town Fork Red watershed, that includes providing year-round water sources for wildlife on over 30,000 acres of range (EHM 06). Wildlife escape ramps would be provided for water tanks serving over 28,000 acres of range (EHM 29). Landowners would manage the timing of harvest to avoid the nesting season on over 3,300 acres (EHM 03). Other wildlife habitat management practices include leaving unharvested grain as a wildlife food source, prescribed burning of grasslands, and brush management.

Grazing management enhancements should provide the second highest category of wildlife habitat benefits, in a region that contains substantial range land. In the Upper Prairie Dog Town Fork Red watershed, enhancements include providing alternative sources of water to reduce the impact of livestock on streams and natural springs on over 28,000 acres of range (EGM 10). In that watershed, invasive brush would be controlled on over 100,000 acres of land (EGM 08). Other grazing management enhancements include grazing strategies designed to benefit a designated wildlife species, rotational grazing practices, and fencing to restrict livestock access to ponds and streams.

In all, about \$1.9 million in Conservation Security Program enhancement payments planned through 2015 should fund practices that provide benefits to wildlife or wildlife habitat. That represents about 67% of the \$2.9 million in total contract payments resulting from the 2006 signup in Texas.

OTHER WILDLIFE BENEFITS

Pest management enhancements include the use and application of products in ways that would reduce pesticide runoff and leaching on nearly 18,000 acres in the Wichita watershed, and spot spraying or banding would be used to reduce pesticide use on over 6,600 acres. Other funded pest management strategies include using crop rotations to break up pest cycles, and field scouting to reduce pesticide use.

Conservation Security Program contract enhancement payments for pest management that should benefit wildlife total \$367,162 through 2015, about 13% of total program payments.

In all, \$2.3 million in Conservation Security Program enhancement payments planned through 2015 should fund practices that provide benefits to wildlife or wildlife habitat, or reduce pesticides in ways that should benefit wildlife. That represents 80% of the \$2.9 million in total contract payments resulting from the 2006 signup in Texas.

	Conservation Security Program Enhancement Practices With Wildlife Habitat and Pesticide Reduction Benefits	Payments Through 2015	Share of all CSP payments
EHM 29	Provide wildlife escape ramps for water tanks	\$374,456	13%
EHM 03	Avoid nesting period when harvesting hay, crops	\$263,715	9%
EGM 10	Use alternate watering facilities to reduce the impact of livestock on streams and springs	\$221,145	8%
EGM 08	Manage invasive brush species	\$208,080	7%
EGM 03	Grazing management strategies that benefit a target wildlife species	\$192,908	7%
EHM 06	Provide year-around water source for wildlife	\$151,882	5%
EHM	Other habitat management, including leaving un-harvested grain for food, prescribed burns, clearing brush, and obtaining a minimum habitat index score	\$392,874	14%
EGM	Other grazing management, including rotational grazing and limiting livestock access to streams and ponds	\$104,623	4%
	Total Wildlife Habitat Payments	\$1,910,068	67%
EPM 03	Pesticide selection to reduce runoff	\$224,063	8%
EPM	Other pest management, including spot spraying instead of broadcast, use of crop rotation to break up pest cycles	\$143,099	5%
	Total Pesticide Reduction Payments That Benefit Wildlife	\$367,162	13%
	Total Wildlife Habitat and Pesticide Reduction	\$2,277,230	80%
	Total CSP Payments	\$2,862,031	100%

Notes

FOR MORE INFORMATION, CONTACT:

FERD HOEFNER
Sustainable Agriculture Coalition
110 Maryland Avenue NE
Washington, DC 20002
(202) 547-5754

JULIE SIBBING
National Wildlife Federation
1400 Sixteenth Street, NW
Washington, DC 20036
(202) 797-6800

BRAD REDLIN
Izaak Walton League of America
1619 Dayton Avenue, Suite 202
St. Paul, MN 55104
(651) 649-1446

DUANE HOVORKA
National Wildlife Federation
409 310th Street
Elmwood, NE 68349
(402) 994-5995

