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Incentivizing Conservation in the Mid-Atlantic States and Beyond: An assessment of Conservation Strategies for Private Landowners

Abstract

Fragmentation of open land has been a consistently increasing problem in the Mid-Atlantic States and many other parts of the country. The rapid spread of urban areas and the high price of maintaining large areas of open land are putting ever increasing pressure on private landowners to subdivide their properties for sale and subsequent development. Furthermore, the high costs of maintaining land compared with the relatively low economic yields of many farms and working forests compel the owners of those lands to utilize unsustainable management practices that may degrade the integrity of the property and the surrounding landscape as a whole.

While these factors, combined with a depressed economy, make it increasingly difficult for owners and managers of large tracts of land to maintain their properties intact and in an ecologically sustainable manner, there are several opportunities that exist to encourage the maintenance of open space and the use of sound management practices by lessening the costs of land ownership or sharing in the costs of conservation. Funding for these programs comes from federal, state, and private sources. This paper will discuss federal conservation incentive programs, state preferential tax assessment programs in the Mid-Atlantic, conservation easements and land trust organizations, and the future potential of the carbon credit trade. Together, these can provide a strong economic incentive for land conservation and stewardship, and may help to slow the rapid spread of urbanization.

Keywords

land management

Comments

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An assessment of Conservation Strategies for Private Landowners

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Date: May 2011

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Fragmentation of open land has been a consistently increasing problem in the Mid-Atlantic States and many other parts of the country. The rapid spread of urban areas and the high price of maintaining large areas of open land are putting ever increasing pressure on private landowners to subdivide their properties for sale and subsequent development. Furthermore, the high costs of maintaining land compared with the relatively low economic yields of many farms and working forests compel the owners of those lands to utilize unsustainable management practices that may degrade the integrity of the property and the surrounding landscape as a whole.

While these factors, combined with a depressed economy, make it increasingly difficult for owners and managers of large tracts of land to maintain their properties intact and in an ecologically sustainable manner, there are several opportunities that exist to encourage the maintenance of open space and the use of sound management practices by lessening the costs of land ownership or sharing in the costs of conservation. Funding for these programs comes from federal, state, and private sources. This paper will discuss federal conservation incentive programs, state preferential tax assessment programs in the Mid-Atlantic, conservation easements and land trust organizations, and the future potential of the carbon credit trade. Together, these can provide a strong economic incentive for land conservation and stewardship, and may help to slow the rapid spread of urbanization.

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INTRODUCTION

In this and many other areas of the country, economic pressures are driving landowners to sell their properties for development or pursue unsustainable land management practices, resulting in large-scale parcelization and degradation of the land. For many, the cost of owning large tracts of land can be excessive, and the potential financial gains from selling may be great. In the case of working landscapes such as farms or actively managed forestland, the high costs of land ownership compared to the relatively low yields of the given land use may encourage ecologically unsound but economically practical management practices. According to the Pennsylvania Department of Conservation and Natural Resources, over 100,000 acres of open space and wildlife habitat are lost annually in PA alone [1.] According to a study by Rowan University, the rate of urbanization of open land in New Jersey was 16,061 acres per year between 2002 and 2007, with 324,256 total acres urbanized between 1986 and 2007. The current urban footprint in New Jersey covers over 30% of the area of the state [2.] Furthermore, the 2010 census found that New Jersey is the Nation's most densely populated state, and Delaware the eighth, with the 11th highest population growth rate [3.]

With growth and development rates such as these, it is clear that open areas in many parts of the Mid-Atlantic are under a continually growing demand and increasing threat. Fortunately, several options exist for landowners that lessen the financial burden of maintaining large undeveloped areas and encourage quality land stewardship over exploitative management practices. While these options generally cannot produce the same economic gains that may be available through sale to developers, they have made it feasible for many property owners who truly value their land to maintain it and treat it in a way that is both ecologically sustainable and beneficial to society.

Among the options available to landowners are federally funded programs, state-run programs, and conservation easements, which can draw benefits both from the government (through tax breaks) and private money from the individual land trust. Another intriguing option is the sale of forest carbon credits—a concept with major potential to incentivize conservation but currently in a developmental stage. The opportunities available to a given landowner vary depending on the size of the parcel, the land use type and cover (agriculture, forest, meadow, etc.,) and the ecological value assigned to the land by the funding agency. Benefits range from tax breaks for simply holding a given acreage of undeveloped land, to payments or cost-share for improved management, to payments and tax breaks for ceding the development rights for a given

property. While these programs combined have delivered billions of dollars to landowners either through direct payments or averted costs, many remain underutilized, with the potential for much greater and more efficient use [4.] Reasons for underutilization range from lack of publicity to the complexity of application processes. While many of these programs, especially on the federal level, are in line to lose funding pending the updated 2012 Farm Bill, they remain a very important resource for land owners, land managers, and conservationists, and steps should be made to make them more accessible when necessary.

STATE PROGRAMS

Many states in the U.S. have some form of program to ease the financial burden of owning large tracts of open land. This is especially true when it comes to land used for commercial agriculture or forestry practices, but in some cases, benefits also exist for non-commercial land use. Usually, benefits for landowners on the state level take the form of property tax breaks. When preferential taxation is not applied for, a landowner's property taxes are based on the land's "best and highest use," usually the development value of the land, whether or not the owner has any intentions of actually developing it. Most of the Northeastern states, including Pennsylvania, New Jersey, Delaware, New York, and all of New England, tax breaks for landowners exist in some form [5.] The general idea behind these programs is to reassess the value of a given property for its current use (i.e. undeveloped forest, managed forest, commercial agriculture, etc.) rather than its development value, and adjust property taxes accordingly. The terms for application and financial extent of breaks varies widely from state to state, with differing requirements for minimum parcel size, land use type, and land cover type. The overall goal of encouraging landowners to maintain their undeveloped land is consistent, however, and plays an important role in slowing the loss or parcelization of open spaces.

PENNSYLVANIA "CLEAN AND GREEN PROGRAM"

In Pennsylvania, the landowner tax relief program is known as "Clean and Green," or Act 319—the Pennsylvania Farmland and Forestland Assessment Act. This act first came into law in 1974, and allows taxes for qualifying land to be assessed based on current use value rather than fair market value. The fair market value reflects a price that would be reasonable to both buyer and seller and reflects not only the current use of the land (undeveloped, for instance,) but also the potential value of the land under its "best and highest use," which often means development. The maximum use value for each county is determined by the PA Department of Agriculture on a yearly basis, although counties may apply to administer lower use values than those assigned. There are three basic land classifications eligible for Clean and Green; *agricultural use*, *agricultural reserve*, and *forest reserve*, each with different use values and requirements. For all three designations, the parcel must be a minimum of ten contiguous acres.

AGRICULTURAL USE

Land enrolled in Clean and Green under the heading of *agricultural reserve* must have been devoted to agricultural practices for at least three years prior to enrollment, and failing to meet the ten acre minimum for the program, must produce a gross income of at least \$2,000 per year from agricultural practices. Land is still eligible even if the owner is not the one farming (i.e. the property is being rented.)

AGRICULTURAL RESERVE

Any parcel of open land ten acres or greater is eligible for Clean and Green under the designation of *agricultural reserve*, as long as it remains open to the public, free of charge, for “outdoor recreation or enjoyment of the land’s scenic or natural beauty.”

FOREST RESERVE

Forested parcels ten acres or greater can be enrolled in Clean and Green as *Forest Reserve*, as long as they are capable of producing 25 cubic feet (300 board feet) per acre, per year.

DETERMINATION OF USE VALUE

For *forest reserve* properties, use value is calculated for each county dependent on forest type and based on average timber yield and pricing in the given area. There are six forest types used in the calculation, including softwoods, select oak, oak, northern hardwoods, black cherry, and miscellaneous hardwoods, each with different yields and pricing depending on the region of the state, which is broken into quadrants (northwest, northeast, southwest, and southeast.) The equation used for calculating use value is as follows:

$$\text{Assessed value} = \frac{\left[\frac{(P * Y)}{R} - C \right] * (1 - t_i)}{i + t_m(1 - t_i)}$$

where:

- P= stumpage price/ unit of wood based on a ten year average
- Y= yield of wood at rotation age
- R=rotation age (80 years)
- C=average annual management costs (\$4.64/acre in 2008)
- Ti=combined state and federal income tax (18.07%)
- i=averaged 8-year real interest rate
- tm=effective property tax rate

This value is then multiplied by the acreage of the property and the milage rates for the given county, municipality, and/or school district to determine a landowners property tax. A weighted average of timber values for the six forest types may or may not be used, depending on the county [6.]

A similar process exists for the assessment of property taxes for *agricultural use* and *agricultural reserve* properties, with soil quality and crop yield factors varying by county. The equation used is as follows:

$$V = \frac{N/GR (VCR) (PRI)}{r}$$

where:

V=use value

N/GR=10 year rolling average of state crop profit margin percentage

VCR=10 year rolling average of value of crop receipts per acre by county for field crops

PRI=soil index factor adjusted for cost of production by county by 'Land Capability Class and Yield'

r=10 year rolling average capitalization rate for 15 year fixed loan interest rate for landowners from federal land bank sources

or, put more simply, use value/acre= $\frac{\text{farm income}}{\text{interest rate}}$

[7](source: Lancaster County Bureau of Farmland Preservation)

While districts have the right to calculate their own use value rates rather than use the averages supplied by the Department of Agriculture, the labor and technical knowledge required to undertake this task is a deterrent to the majority of counties [6.]

As of 2008, thirteen of the counties in Pennsylvania, including Philadelphia County, had no properties enrolled in Clean and Green [9.] Generally, this is the result of out-of-date property assessment baselines. In each county, the tax on a piece of land not enrolled under Act 319 is calculated in relation to the property values determined by the latest county-wide property value assessment. After the market value of a property is determined in terms of the base year, a predetermined ratio, or assessment ratio, is applied to determine the real taxable value. For instance, if the base year value of a property is \$100,000, and the county's assessment ratio is 40%, then the taxable value of the property is \$40,000. The assessment ratio in a county can range between 20 and 100 percent, and the counties where Clean and Green is not used are those where out of date baseline assessments make taxable value of land lower than the values for land enrolled in the program [10.]

TERMS OF USE

A property remains enrolled in the Clean and Green program for as long as the land use is compliant with the program requirements. Because the main purpose of Act 319 is to avert the subdivision of open land, landowners with property enrolled in the program may be subject to 'rollback' taxes as a consequence for breaking the terms of the agreement. Up to 10% of the enrolled property or a maximum of 10 acres may be removed from the area at a maximum rate of two acres per year without consequence. Divisions exceeding this rate make the owner of the property subject to repay tax savings on the given area for the last seven years, with an interest rate of 6%. If land is subdivided for sale but remains in a compliant land use with both landowners agreeing to the terms of Act 319, enrollment continues for both properties without any penalty [11.]

Applications for the Clean and Green program are due between January 1 and June 1 to the assessor's office of the given county. Several fees exist for applying and enrolling in the program, totaling around \$150.

NEW JERSEY

New Jersey uses a preferential tax assessment program known as the New Jersey Farmland Assessment Act. The minimum eligible parcel size for enrolled land is 5 acres. The land must have been devoted to agricultural or horticultural uses for at least two years prior to enrollment, and gross sales of products from the land must average at least \$500 per year for the first five acres, plus an additional \$5 per acre for each acre over five acres. In the case of forest land, only \$0.50 per acre over five acres is required [28.]

NEW YORK

New York has a significantly more stringent tax policy for taxation on forested or agricultural lands. Under section 480-a of the NY Real Property Tax Law, owners of forest land may have their property taxes assessed based on use-value only if the property contains a minimum of 50 contiguous acres of forest land that is being actively managed according to the terms of an approved management plan, written by a certified forester. The landowner is liable for continuing management for a given commitment period (specified by the management plan) and is required to pay rollback taxes if the land is sold or converted to an ineligible use during that period. The NY Agricultural Districts law applies to land used for commercial agriculture, and allows owners to receive preferential tax assessment on farm properties where gross agricultural revenue averages \$10,000 per year. Similar penalties exist for converting enrolled farmland to ineligible uses [25.]

CONSERVATION EASEMENTS

Land trusts play an incredibly important role in the conservation of open land in this region, and across the country. According to the 2010 Land Trust Alliance national land trust census, over 47,000,000 acres of land have been conserved by land trusts nationwide—an increase of almost 50% since the 2000 census [12.] Pennsylvania is home to 103 land trust organizations, and as of 2010 has conserved 492,476 acres [13.] New Jersey has 37 land trust organizations, with 233,578 acres conserved. Delaware, with six trusts, has conserved 103,297 acres, and Maryland, with 56 trusts, has conserved 190,640 acres [12.] Areas conserved include important natural areas and wildlife habitat, wetlands, open space, working farms and forests, recreation lands, and areas of historical or cultural significance. In the 2010 census, these were found to be the top priorities for conservation among land trusts in descending order, with natural areas/wildlife habitat considered a top priority by 93% of trusts, and historic/culturally significant areas a priority for 36% [12.]

Most land trusts are considered private charitable organizations, although some are governmental or “quasi-governmental agencies” [14.] Land trusts vary widely in size, and operate on scales from the township level to the entire country. These organizations work to

permanently protect land through the use of conservation easements, by buying and maintaining properties, or in some cases by temporarily acquiring them in order to transfer ownership to another entity (usually a state government.) Conservation easements are a voluntary but legally binding agreement between a landowner and the land trust agency, in which the landowner maintains ownership of the property, but gives up the right to certain actions on that land. What rights the landowner cedes or maintains is agreed upon by both the owner and the land trust and will be different for every easement. The main stipulation of most easements is that the owner gives up to rights to development the property. However, the easement may be negotiated to allow limited construction (a house for personal use, for instance,) timber or agricultural management, hunting, etc. Depending on the terms of the easement, the property may remain private, or may be made open to the public.

In addition to benefiting the public and the environment by preserving open space and natural areas, conservation easements can have a significant economic impact for the landowner. In many cases, easements help to lessen the financial burden of owning large tracts of land that forces many people to subdivide their property for development. Depending on the arrangement, financial benefits can include direct payment from the land trust, federal tax benefits, or both.

ECONOMIC BENEFITS FROM CONSERVATION EASEMENTS

Placing your land under a conservation easement is considered a charitable donation by the Federal government, and is therefore tax deductible. Until recently, the tax incentive for donating was quite large. Unfortunately, a temporarily expanded increase in allowable federal tax deductions, which began in 2006, expired in December, 2011, and a bill to reinstate them is pending. In either case, the value of the donation is the difference between the donated property's appraised value with the easement in place and its value without the easement. Between 2006 and 2011, landowners agreeing to an easement were able to deduct up to 50% of their gross income per year for up to 16 years, with qualifying farmers able to deduct up to 100% of their gross income, making it possible to gain tax savings of close to the original value of the property. With these incentives expired, landowners are able to deduct only 30% of their gross income per year over a period of just 6 years.

As an example, under the enhanced tax status, an agricultural landowner with a gross income of \$50,000 per year with a property valued at \$1,000,000 could recoup up to \$800,000 in tax deductions, while under the current conditions they will receive no more than \$90,000. While the increased tax incentives for conservation easements are currently expired, there is a great deal of support to have them reinstated, from both land trust organizations and politicians. According to Pennsylvania Congressman Jim Gerlach, there are 300 co-sponsors in the House of Representatives (a majority) supporting a bill that will make the 2006-2011 tax incentives permanent [16.] While the ultimate fate of the bill remains to be seen, its importance is obvious, and its status seems hopeful.

ESTATE TAX BENEFITS

Estate tax policies on conserved land can also be a significant economic incentive for placing land under a conservation easement. Easements can save money for the inheritors of an

estate in a few ways. Firstly, because a conservation easement lowers the resale value of a property, the assessed value of the entire estate of the deceased will reflect this loss in value, and therefore lower the overall estate taxes to be paid. Under section 2031(c) of U.S. tax code, an additional 40% of the value of the conserved land (up to \$500,000) may be deducted from estate taxes in addition to the value of the easement. These benefits may also be received by the inheritors of an estate who choose to enroll the property in an easement agreement after the death of the estate owner [26.]

CARBON CREDITS

The sale of carbon credits is an intriguing but so far undeveloped prospect for private owners of large tracts of forested land. The congressional rejection of a proposal for a national cap and trade system for CO₂ in 2009 was a major setback in the development of carbon markets in the U.S. Hope was restored in October of 2011, however, when the California Air Resources Board adopted a state-wide cap and trade system for greenhouse gasses, which as a part of California's climate change law AB 32, is meant to lower the state's atmospheric carbon to 1990 levels [17.] Under this system, greenhouse gas-emitting entities like oil refineries and generators of electricity that produce levels of CO₂ over the given cap will be required to make up the difference between the cap and their CO₂ emissions by buying carbon credits. These may be supplied from a number of sources, including other emitters that have accumulated credits by outperforming the standards, or from individuals or corporations that have accumulated credits by registering sources of carbon sequestration or reduction such as forests, equipment upgrades, or technology like solar or landfill gas-to-energy production.

Compliance with California carbon standards is currently on a voluntary basis, but will become mandatory in 2013. The California Climate Action Registry (CAR) is currently one of the main mediators for carbon exchange in California, and acts as a market place for the sale and purchase of carbon credits from around the country. The CAR is not third party certified, and at this early stage in the development of the carbon trading system, there are no officially sanctioned carbon registries. However, the CAR is considered to be a preliminary model, and will be absorbed by the California Air Resources Board in 2013 after receiving third party verification. Enrollment with the CAR at this point is a way for producers and consumers of carbon credits to ease into the system—current credits are considered “early action” and are pre-approved for the transition to the official Air Resources Board registry.

There are four protocols for registration of carbon credits within the CAR at this point, including forestry, ozone reduction, livestock management, and urban forestry. Under the heading of forestry are three sub-categories—avoided conversion, improved forest management, and reforestation projects, each with different standards for acceptance. *Improved forest management* projects can include any form of management that maximizes the carbon storage rates or capacity of forests. Practices can include extending rotation ages for harvesting, reducing stocking to increase growth or increasing stocking in under-stocked areas, or avoiding/reducing harvest rates. As the name suggests, *reforestation* projects involve allowing land that was recently, but is not currently forested, to re-establish forest cover. *Avoided conversion* projects

require the land to be placed under a conservation easement, permanently protecting the land from development and deforestation. To be eligible, the landowner must prove that the land can legally be converted (according to zoning laws, likelihood of development plan approval, etc.) and show that the land has a higher monetary value from its potential converted use than it does in its current state. The sale of the property for agriculture or development must be shown to have a potential yield of at least 40% greater value than the current use. The ownership of the carbon credits granted must be written into the terms of the easement, but it is possible for the landowner to gain both the financial benefits associated with conservation easements and the profits from sale of carbon credits.

The CAR has several forest carbon projects, covering almost three million acres of land. While there are no current reforestation projects, the CAR has 96,000 registered carbon credits from avoided conversion projects, and 2.8 million credits from improved forest management projects, with more in line for verification. One carbon credit is equivalent to one metric ton of CO₂. According to one study, roughly 150 tons of CO₂ equivalent are released per acre of developed forest land in the northeastern U.S. (including Pennsylvania) [27.] While it is not yet clear how the carbon markets will develop in this part of the country, at the current average of around \$10.00 per credit (one ton of CO₂ equivalent,) owners of large forest parcels could stand to make a significant amount of money even if only paid for part of their forest carbon assessment (for instance, only for above ground biomass.) If the market continues to develop, the potential sale of carbon credits could become a significant incentive for landowners to maintain contiguous and functional forest land.

FEDERAL PROGRAMS

The federal government is a major source of funding for conservation projects all around the United States, with several organized programs for administering such funds. These programs are run mostly through the U.S. Department of Agriculture, and organized by individual bureaus within the USDA such as the Natural Resources Conservation Service (NRCS,) the Farm Services Agency (FSA,) and the U.S. Forest Service (USFS.) While the activities encouraged by these programs are diverse, the general structure usually falls into three categories: cost share, land rental, or direct payment for conservation activities. Funding also varies widely depending on the program, but is administered to and distributed by state and/or county offices for the given agency. This paper will cover some, but not all, examples of each federal project type. In most cases, enrollment in these programs can be carried out through local (state or county) NRCS or FSA offices.

DIRECT PAYMENT FOR CONSERVATION ACTIVITIES **CONSERVATION STEWARDSHIP PROGRAM**

The Conservation Stewardship Program is administered by the Natural Resources Conservation Service. Under this program, participating landowners—farmers or working forest owners—are paid based on a point system. Under this system, various conservation or environmentally friendly management activities are assigned point values based on their cost to administer and their relative ecological significance. The more points the landowner

accumulates, the more they are paid. The payment rate per point depends what the land use is (cropland, pasture/cropland, pasture, range, or forest) and whether or not the activity being rewarded was in place prior to enrollment (existing) or requires action by the landowner after enrollment (additional.) The price range per point for existing activities is between 1 cent (range) and 5 cents (pasture/cropland) per point, per acre, while the prices for additional activities range from about 16 cents (range) to 50 cents (cropland) per point, per acre [19.]

Activities supported by the CSP are numerous, ranging from adjusting chemical spray booms on tractors to reduce wind drift, to leaving grain crops un-harvested to promote wildlife. Other actions include: deriving nitrogen primarily from legumes, livestock and compost to reduce inorganic fertilizer use, no-till crop production, small-scale silvicultural practices to improve forest stand quality and wildlife habitat, integrated pest management plans, organic farming, and many others [21.]

The national budget for the Conservation Stewardship Program for fiscal year 2012 is \$1.15 billion, with a maximum of \$40,000 to be allotted per contract. The average national payment for CSP contracts is \$18.00 per acre. CSP is an important program in Pennsylvania; as of the end of 2010, there were 565 contracts, covering 166,101 acres, paying out \$3,974,217. The average contract value was \$7,034, at an average of \$24.00/acre. Several other Mid-Atlantic States receive significantly smaller CSP funding—FY 2010 funding is as follows: MD: \$741,914, DE: \$349,904 NJ: \$71,225. NY receives funding close to that of PA, totaling \$3,287,632 for FY 2010 [20.]

FEDERAL COST SHARE PROGRAMS

ENVIRONMENTAL QUALITY INCENTIVE PROGRAM (EQIP)

The Environmental Quality Incentive Program is a federal cost share program for agricultural producers (a designation which includes owners of working forests.) Generally, EQIP will pay for up to 75% of the costs for management plans and subsequent activities that lead to improved soil, air, or water quality, wildlife habitat, and surface and groundwater conservation. The FY 2012 budget has yet to be announced, but payments for individual projects are capped at \$300,000. While most projects involving private landowners do not exceed a few thousand dollars, some major NRCS initiatives, like the Chesapeake Bay Watershed Initiative receive funding exceeding the \$300,000 cap; In FY 2010, this project received a total of over \$7 million in EQIP funding, with the PA NRCS contributing the most money, at \$8.37 million, and WV contributing the least, at \$1.86 million (participating states include DE, MD, NY, PA, VA, and WV [21.]

In the Mid-Atlantic region, project funding on private property range from \$1,000 to \$6,000 per year. There are a wide range of management programs eligible for EQIP funding, including the creation and implementation of forest management plans, grazing management plans, integrated pest management and chemical reduction plans, drainage water management plans, fish and wildlife habitat management plans, and several others.

The EQIP program also includes a feature through which it distributes “conservation innovation grants,” which are given to owners of working farms or forests implementing creative

solutions to environmental degradation on their land. \$37.5 million is allocated for conservation innovation grants annually.

WILDLIFE HABITAT INCENTIVE PROGRAM

WHIP is another NRCS cost share program, providing both financial and technical assistance for projects aiding in the creation, protection, or enhancement of fish and wildlife habitat. Generally, WHIP participants sign a 15 year contract agreeing to enhance and protect habitat on their property, with the federal government paying up to 75% of the costs of the project. For contracts exceeding 15 years, the government will pay up to 90% of project costs. In either case, the government contribution to projects is not to exceed \$50,000 per contract.

The Wildlife Habitat Incentive Program is to play a key role in a recently announced, nationwide initiative, known as Working Lands for Wildlife, which will use funding from WHIP and other federal programs to protect wildlife on working farms or woodlands. This initiative will target the protection of several species, including the greater sage-grouse, New England cottontail, bog turtle, golden-winged warbler, gopher tortoise, lesser prairie-chicken and the Southwestern willow flycatcher. WHIP funding in PA and surrounding states will be focused on protecting the bog turtle and the golden winged warbler. While the funding for WHIP under the next farm bill has yet to be announced, funding through FY 2012 has been \$85 million per year nationally [22.]

FEDERAL LAND RENTAL PROGRAMS CONSERVATION RESERVE PROGRAM (CSP)

The Conservation Reserve Program is a Farm Services Agency program seeking to conserve and improve the soil, water, and wildlife resources by temporarily removing land from agricultural production. Under this program, owners of working farms sign contracts lasting for 10 to 15 years, agreeing to establish cover crops such as native grasses, which will improve wildlife habitat, provide forage, or encourage pollinators. Rented properties can also be planted with native hardwood trees, with contracts exceeding 15 years.

The rental rates for a given property are based on the relative soil quality and projected agricultural yields for the county, as well as current local land rental rates. Payments generally range from \$50 to \$200 per acre, with an average of about \$100 in PA. Enrollment for this program is competitive, and priority is given to properties where removal from intensive agriculture is expected to have the most profound impacts. This is based on the potential for creating or improving habitat, reducing erosion, runoff, and subsequent water pollution, improving air quality through reduced wind erosion, and the expected longevity of the impacts of the projects [23.]

THE FUTURE OF FEDERAL PROGRAMS

All of these federal conservation programs, and many more like them, are dictated by the terms of the U.S. Farm Bill, which is updated once every five years or so. Among other things, the Farm Bill determines the overall budgets for the US Department of Agriculture, for the

individual agencies within the USDA, such as NRCS, FSA and the U.S. Forest Service, and for the programs administered by those agencies. The 2012 Farm Bill is currently being drafted, and given the major deficit in the U.S., the updated version is likely to include severe budget cuts. While the actual extent of these cuts has not yet been determined, a resolution in the House of Representatives last July proposed cuts of up to \$48 billion.

While most, if not all of the federal conservation programs are likely to be impacted by the new Farm Bill, there are some programs that have already been cut, and several with no baseline funding past FY 2012. Programs that have been cut include the Forest Service's Forest Stewardship Program and Forestry Incentives Program, which were cost share programs for the drafting of forest management plans and the implementation of those plans, respectively. Programs that lack baseline funding past 2012, and are thus unlikely to be renewed, include the Healthy Forest Reserve Program, the Wetlands Reserve Program, the Grassland Reserve Program, and the Small Watershed Rehabilitation Program [24.]

According to a PA NRCS employee interviewed for this paper, these budget cuts will likely mean a restructuring of the way conservation funds are distributed. While several programs are going to either end or lose significant funding, some of the programs that have been found to have the greatest impacts will have funds from discontinued programs diverted to them. According to this representative, the emphasis will be on projects like the Chesapeake Bay Watershed Initiative and the Working Lands for Wildlife Initiative, which focus funds and efforts on very specific targets, where results are likely to be visible or have an impact on a landscape scale. At this point it is uncertain what will really happen, but it may be that there is less funding for general projects on private land that do not necessarily contribute to a greater and coordinated goal. The programs detailed in this paper are unlikely to lose major funding under the next farm bill, and in the case of programs like WHIP and EQIP may actually stand to gain funding.

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