

# Payments for Environmental Services: An Alternative Approach to Promoting Stewardship of Private Forest Lands

*Stewardship of private forest lands has received increased attention in light of the 2007 Farm Bill and the USDA Forest Service's comprehensive review of state and private forestry programs. V. Alaric Sample proposes a program that would concretely recognize and reward the public conservation benefits provided by private lands.*

Existing programs aimed at improving stewardship on private forests in the US focus on the adoption of particular forest practices, with little subsequent evaluation of whether these forest practices actually produce the desired improvements in water quality, wildlife habitat or other public conservation values. Without a direct link between the investment of public funds on private lands, and the public values derived from those investments, it is unclear what the public is actually getting for its money. There is little factual basis on which to determine program effectiveness, or how program effectiveness might be improved through different prioritization or targeting of expenditures.

The Forest Land Stewardship program proposed here provides for voluntary participation by forest landowners in a system that explicitly recognizes public conservation benefits provided by private lands, and rewards additional efforts aimed at measurably enhancing certain conservation benefits. More effective targeting of scarce public funds to investments will help maximize the public conservation benefits from a given level of expenditures on private forest lands. This direct linkage shifts forest landowner assistance programs to a more performance-based, payments-for-services approach, and away from the general subsidization approach that is less favored in terms of both national and international agricultural and trade policy. It also will enable policymakers and natural resource agencies to better document tangible conservation improvements over time.



Private forest lands have long provided an array of public conservation values, protecting water quality, conserving wildlife habitat, providing outdoor recreation opportunities, and more. Economic pressures are now causing private forest lands in many regions of the US to be converted to development and other non-forest uses at an alarming rate (Stein et al. 2005).

Numerous federal and state programs have been developed to promote improved forest management and land stewardship on private forests (Greene et al. 2006). Most of these programs, however, were designed to address a very different set of needs than those being experienced by private forest landowners today.

This paper presents a different approach to countering the pressures that lead to forest fragmentation and conversion. It provides a framework for more explicitly recognizing important public conservation benefits provided by private forests, and concentrating more targeted public support for measurable, verifiable enhancements in the protection and sustainable management of key natural resources and environmental values on private forest lands.

## Matching landowner assistance programs to today's public goals and private needs

The increasing rate of forest loss is becoming an issue in many regions of the US (Alig and Planting 2004). Current and anticipated economic trends in these regions will continue to increase the direct and opportunity costs of owning forest land—rising land development values, increasing property taxation, increasing costs of regulatory compliance associated with land and resource management activities, and lower returns from wood production.

Many of the existing federal and state landowner assistance programs are designed to encourage and facilitate active forest management to contribute to future wood supply. Financial incentives and cost-share programs seem to be aimed at assisting “land-rich and cash-poor” farmers and other landowners with cash-flow challenges, such as reforestation following timber removal. Much of the private forest land in the US today is owned by individuals and families for whom wood production is a secondary objective, if it is an objective at all (Butler and Leatherberry 2004). Timber harvesting often takes place in a relatively unplanned man-

ner to meet a short-term financial need, often for an extraordinary family expense (e.g., college tuition, medical bills). In the absence of an effective estate plan, state inheritance taxes and federal estate taxes can result in liquidation harvests or subdivision of ownership into several tracts, often leading to forest fragmentation and development.

Federal and state land conservation programs have been developed to purchase conservation easements on critically important forest lands facing imminent threat of development (e.g., the Forest Legacy Program administered by the USDA Forest Service). Despite relatively strong funding support, these programs are seriously limited in the proportion of private forest owners they can reach. Also, on many family-owned lands there may be a strong commitment to sound forest stewardship, but no consensus on a deed restriction that is, in effect, permanent.

Federal and state programs aimed at promoting improved forest management and land stewardship (e.g., the Forest Land Enhancement Program administered by the USDA Forest Service) generally lack the means for ascertaining that the conservation goals of the required forest management plan have actually been met. With little or no means of verifying what if anything the public is getting for its money, funding support has severely limited participation in these programs, and thus rendered them irrelevant to a large proportion of private forest landowners (Greene, et al. 2006).

Recent debates over how best to value “ecosystem services” provided by forests and other natural ecosystems have also surfaced the idea of public support that is directly linked to particular conservation values, and actions taken by private landowners to protect or enhance those values. The Environmental Quality Incentives Program (EQIP) and the Conservation Security Program (CSP), both of which are administered by the USDA Natural Resource Conservation Service, utilize a form of this “payment for services” approach (Natural Resource Conservation Service 2006). Both programs were designed expressly for agricultural lands, rather than private forest lands. EQIP has been amended to allow limited application to private forests. Also, both programs are far more focused on promoting the adoption of certain conservation practices than on verifying any actual improvements in environmental quality stemming from their use.

### **Linking conservation payments to conservation performance**

The need that is being expressed by policymakers, forest management agencies, conservationists, and forest landowners alike is for a practical, results-oriented program that: (a) recognizes and acknowledges the array of

public conservation values that private forest lands provide; and, (b) provides reasonable financial incentives for the protection and enhancement of these values in ways that can be efficiently measured and verified. In the context of current international trade negotiations related to ending agricultural subsidies and tariffs, shifting to a direct payment-for-services approach has the added benefit of eliminating many of the potential issues associated with traditional cost-share and financial incentives programs.

The proposed framework for such a program for private forests borrows elements of programs developed expressly for agricultural lands in the US, such as EQIP and CSP, and from similar programs developed in other countries, such as the Environmental Stewardship program developed in the UK (DEFRA 2006).

The Environmental Stewardship program is voluntary and is aimed at increasing the protection of a variety of natural resource and environmental values on agricultural lands. The UK’s Department of Environment, Food, and Rural Affairs launched the program in 2005. The Environmental Stewardship program has limited application to the management of private woodlands, as it relates to a primarily agricultural enterprise. Landowners applying for participation in the program choose among a list of approximately 50 options for ways they can improve their protection and management of important conservation values and services. These options fall into one of several broad categories:

- Protecting natural resources
- Conserving wildlife habitat and biodiversity
- Maintaining and enhancing landscape quality and character
- Protecting the historic environment
- Promoting public access
- Conserving genetic resources
- Enhancing flood protection

Each option is associated with a number of “points,” and the landowner must commit to actions totaling to a minimum of 30 points in order to enroll in the program. Typically, a landowner following basic, sound land management practices will already qualify for a significant portion of the required 30 points. Further modest efforts will gain an additional number of points. Taking advantage of opportunities to significantly enhance one or more values, such as water quality, will reach the full 30 points. This

qualifies the landowner to receive annual payments of \$30 per hectare per year (roughly \$22 per acre) over the entire ownership. The contract term is typically five years.

Landowners willing to make a higher-level commitment in critical areas can apply to participate in a second-tier program that provides payments of up to \$60 per hectare per year (i.e., \$44/acre). This higher-level program is aimed at achieving “significant environmental benefits in high priority situations and areas,” and requires a management plan that contains agreed upon “indicators of success.” Contracts are typically 10 years in length, and periodic checks determine whether the targets are being achieved. Actual performance that falls significantly short of the targets can result in the annual payments being reduced or suspended entirely.

Developing a program along similar lines to augment or even replace existing federal and state forest landowners assistance programs in the US would address current and anticipated needs of both forest landowners and forest management agencies. From the landowner’s perspective, this would provide for clearer mutual understanding of what is expected, how performance will be assessed, and what payments will result. Also, a point system that explicitly recognizes the substantial public benefits that are already being provided by basic, responsible management practices followed by most forest landowners would be a welcome change in public attitudes toward private forests.

From the standpoint of forest management agencies—and indeed the public at large—such a system would target public expenditures to the areas of greatest need, and the greatest opportunities for contributing to the public interest. Payments would be directly linked to measurable, verifiable gains, and progress toward mutually agreed upon objectives, in an entirely voluntary program.

What forest landowners gain in certainty and predictability, the public gains in bona fide performance and demonstrable results.

### **Elements of a proposed land stewardship program for private forests in the US**

*Framework.* The Forest Land Stewardship program would be entirely voluntary, application-based, and oriented to the needs and capacity of family forest owners. The program would be administered through the state natural resource management agencies (and associated university extension offices) in cooperation with federal natural resource and environmental agencies. Responsibility and authority for both funding and priority-setting would be shared.

*Approach.* The Forest Land Stewardship program would be designed to be accessible to all family forest owners. Acceptance for participation in the program at the first-tier would be largely assured. Acceptance for participation at the second-tier would be based on priorities established cooperatively by federal and state agencies. The program would center on a menu-based approach, providing multiple opportunities for private forest owners to reach the minimum number of “points” to qualify for consideration. Flat-rate payments for qualified participants would be made for the entire ownership on an annual or semi-annual basis. Higher-level payments would be made available in ecologically critical areas and areas under imminent threat of development. Although these funds would not be used to purchase conservation easements, they could be used in conjunction with conservation easements or transfers of development rights either donated or funded from some other public or private sources.

*Public accountability.* Actual accomplishment of agreed upon goals and objectives would be verified by the state natural resources agency, or through an approved independent auditor. Penalties for sub-par performance would be based on the degree to which actual performance falls short of the agreed upon goals and objectives and may include a reduction or cessation of payments. The contract term for first-tier agreements would be five years, with options to renew the contract for additional periods. The contract term for second-tier agreements would be 10 years, also with the option renew, at the discretion of both parties.

### **Conclusion**

Existing programs aimed at improving land conservation and stewardship on private forests in the US have traditionally focused on the adoption of particular forest practices, typically in the context of a multi-year management plan. Generally, there is little if any subsequent evaluation of whether these forest practices actually produce the desired improvements in water quality, wildlife habitat or other public conservation values.

Lacking any direct linkage between the investment of public funds on private lands and the public values subsequently derived from those investments, it is unclear what the public is actually getting for its money. The existing approach lacks accountability, either on the part of private landowners or on the part of public agencies entrusted with the application of substantial but scarce public funds. It also provides little if any factual basis on which to determine program effectiveness, or how program effectiveness might be improved through different prioritization or targeting of expenditures.

The proposed Forest Land Stewardship program provides for voluntary participation by forest landowners in a system that rewards efforts that produce public benefits from private lands. Further, it recognizes and rewards additional efforts aimed at measurably enhancing certain conservation benefits, by private landowners committed to exemplary forest land stewardship.

Over a relatively short period of time, the proposed Forest Land Stewardship program would result in a far more effective targeting of scarce public funds to investments that maximize the public benefits from improved conservation on private forest lands. Proposed accountability measures will gradually shift public funding in favor of the highest performers in terms of actual gains in conservation values and environmental quality. This direct linkage between public payments to private landowners, and the measurable public benefits produced, shifts forest landowner assistance programs to a more performance-based, payments-for-services approach, and away from the general subsidization approach that is less favored in terms of both national and international agricultural and trade policy.

Most importantly, this new program will enable policymakers and natural resource agencies to better document gains in natural resource conservation. When asked the questions, "Are we better off for having invested these public funds, and how has the public interest in conservation been advanced?" policymakers in the future will have the tools and information at hand to provide far more detailed and satisfactory answers.

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