

Landowners' Willingness to Adopt Practices and Participate in Programs to Sequester Carbon

Background

Wisconsin's Strategy for Reducing Global Warming (Governor's Task Force on Global Warming, 2008) suggests a number of actions that rural landowners can take to help sequester carbon through various soil management practices, maintenance of vegetative cover carbon sinks, and the planting of prairies. The Governor's Task Force recommendations also seek to prevent the return of marginal lands to row crop production (for biofuels generation) through the use of incentive payments and tax advantages. Landowner responses to such programs largely will determine whether or not they are successful. The Wisconsin Department of Natural Resources (Wisconsin DNR) received funding from Focus on Energy's Environmental and Economic Research and Development program to gauge agricultural landowners' responses to these Task Force proposals. A better understanding of landowners' experiences, opinions, beliefs, and desires can help inform state policy discussions as the Task Force recommendations are further debated and possibly refined as a means of reducing the impacts of electricity and natural gas use in Wisconsin.

Project Methods

We gathered data from in-depth interviews with individuals who had experience both in prairie restoration and CRP or similar programs and who had owned their land for at least five years. We also explored the perceptions of natural resources managers and related professionals by interviewing staff from UW-Extension, state and federal agricultural agencies, and several non-profit organizations. These professionals had direct experience in applying various programs to assist landowners in establishing prairies and offered keen insights into how conservation programs meshed with landowners' desires to establish prairies. Our findings provide a better understanding of agricultural landowners' opinions, beliefs, and desires relative to several policy proposals included in the Task Force report. They also provide insights into landowners' knowledge of and experience with various conservation incentive programs.



Preliminary Findings

A primary goal of Focus on Energy is to provide data that can be used by policy analysts and policy makers. The findings from our interviews with landowners provide a better understanding of their opinions, beliefs, and desires relative to policy proposals included in the final Governor's Task Force report. They also provide insights into landowners' knowledge of and experience with various conservation incentive programs. This is relevant because landowner responses to incentives will largely determine whether or not programs developed to sequester carbon are successful.

Programs intended to encourage prairie restoration and soil management that target non-farm/recreational landowners as prime candidates for grassland restoration may have the greatest chances of succeeding. Those landowners actively farming their land are unlikely to pull profitable lands out of production. Although not specifically addressed by interviewees, prairie restoration programs that target larger land holdings may have greater chances of success as these landowners have greater opportunities to meet multiple objectives, can spread the costs of conservation over a larger land base, and may be more willing to experiment with grassland management as a part of their personal goals. Focusing implementation of such programs in southwestern Wisconsin would capitalize on the ecological potential of the area.

Landowners expressed a wide range of reasons for restoring prairies, but were largely uninterested in restoring prairies to sequester carbon. As such, programs that support restoration as a pastime or that target habitat conservation as a primary focus may prove more attractive to landowners than programs specifically focused on carbon sequestration.

In the absence of significant incentives/benefits to offset the costs associated with restoration, many landowners will opt to not participate and may seek to reap the benefits of increased crop prices. As prairie restoration activities must be pursued over multiple years, incentive programs that spread significant benefits over a longer time period may prove more appealing to landowners than those programs that offer only one-time payments/credits. As such, the Governor's Task Force recommendation that a tax credit program for establishment and maintenance of prairie plantings be administered as an annual credit through the state income tax system, similar to the homestead tax credit or farmland preservation tax credit, may have merit in the eyes of landowners.



The level of effort associated with restoration and maintenance of prairies has implications for program design. Programs might include reimbursement provisions specifically related to investments in equipment and labor/services associated with restoration work. Cooperative approaches that allow for shared use of equipment might also prove appealing to landowners. Successful programs might also include a means of organizing volunteer labor to assist landowners with restoration and maintenance tasks, an idea not contemplated by the Governor's Task Force.

Given landowners questions regarding the effectiveness of burned prairies to sequester carbon, the Governor's Task Force proposal to fund "a competitive research grant program for investigation of carbon sequestration rates and longevity in prairie systems" may make sense to help further build the justification for such approaches.

The opinions and beliefs expressed by interviewees underscore the importance of a holistic approach to natural resources management. Programs that promote open grassland habitat may inadvertently foster growth of the deer herd that generates further conflict between various interests. On the other hand, efforts to reduce herd size, while beneficial to prairie restorations, can further consternation by some landowners. Programs intended to encourage

prairie restoration will need to consider the conflicting goals of other conservation incentive programs that may appeal to landowners. The creation and implementation of any new programs should benefit from close coordination between responsible agencies. Modifications to existing landowner incentive programs may merit further consideration/discussion.

In order to be successful, programs will need to keep paperwork and approvals to a minimum, provide consistent administration and enforcement, and remain flexible to landowners' interests and goals. A successful program will provide recognition for participation and landowner efforts, and will consider the educational and technical assistance needs of participating and potentially interested landowners. Potential program participants could benefit from a clearinghouse/one-stop-shopping approach for providing information on available programs and sources of information/assistance.

The findings and conclusions drawn from the structured interviews suggest four action areas that may merit further consideration by state policy makers: 1) Consider amending tax policy, 2) Provide education on prairie restoration. 3) Reduce paperwork and permissions, and 4) Conduct landowner research and evaluate programs.

Related Publications and Presentations

Peterson, K. 2011. *Landowner Willingness to Adopt Practices and Participate in Programs to Sequester Carbon: An Annotated Bibliography*. Miscellaneous Publication PUB-SS-1067. Madison, WI: Bureau of Science Services, Wisconsin Department of Natural Resources.

Nelson, E. and K. Peterson. 2011. Farmers' Willingness to Adopt Practices and Participate in Programs to Sequester Carbon. "Informed Action: Where Research and Policy Meet." Focus on Energy Research Exposition, Madison. (January 18, 2011). Presentation slides available at www.focusonenergy.com/files/Document_Management_System/Environmental_Research/nelsonpetersonlandscape_ppt.pdf.

Nelson, E. 2010. Landowners and Grassland Restoration. "Science Seminar Series." Wisconsin Department of Natural Resources. (March 25, 2010). Presentation available at <http://dnrmedia.wi.gov/main/Viewer/?peid=09971c65891245eb9081e85608a44e451d>.



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