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From: Stephen Swallow, University of Rhode Island, 1 Greenhouse Road, Kingston, RI 02881 (401-874-4589); email: swallow@uri.edu

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Re: -- Final Report and final Progress Report April 1, 2009 to September 30, 2009 for Conservation Innovation Grant NRCS 68-3A75-5-161 (whole project period October 1, 2005 to September 30, 2009)

Title: “Developing a market for Nesting Bird Habitat on Active Farm Hayfields”

The objectives of this project were to (1) demonstrate/create a market for agro-ecosystem services by creating incentive mechanisms for residential homeowners to compensate farmers for changing management practices in favor of nesting birds; (2) demonstrate some best management practices for hayfields used by nesting birds, particularly the bobolink; (3) create a market template for transferability to other communities.

The subcontractor EcoAsset Markets created a web site template reported in the last progress report (October 1, 2008 to April 1, 2009) which serves as a foundation from which communities may understand the market demonstration in Jamestown, RI, and connect to a variety of other resources for consideration of ecosystem service markets or investments. That web site is “Nature Services Exchange” <http://www.natureservicesexchange.com/>. This NRCS project is featured under the “Bobolink Project” link and sub-links at the right of the web site. Material presented here is offered as a prime source for objective 3 above.

In Spring through Summer 2009, the URI project team developed and tested a couple of web-based approaches to marketing in an effort to replace or reduce reliance on direct mail marketing in Jamestown. The Jamestown test resulted in evidence that direct mail marketing as done in the first two years of the market yields a higher participation rate. About 10% of the community participated through direct mailings that enabled individuals to fill out a form received in the mail, while about only 1% of the community bought contracts in the Spring 2009 mailing that required participants to make all purchases after logging onto the Farmland EcoEnterprises web site.

In July 2009, the team presented an open seminar to NRCS staff in the Warwick, RI office. This seminar also included members of the general community, including state environmental management officials and non-profit organizations.

In addition, the project team presented an overview of study results to the 2009 NRCS CIG Showcase in Dearborn, Michigan as part of the Soil and Water Conservation Society annual conference. The content of these presentations (cited below) is attached with this report as appendix.

In summary, this project established an experimental market in Jamestown, RI, where investigators tested rules of trade by which non-farm residents pay farmers to avoid early-summer hay-harvests, enabling successful nesting by bobolinks. Three revenue-raising mechanisms used rules of trade to reduce incentives to “free-ride” on the charitable decisions of neighbors who do pay. A fourth mechanism serves as a benchmark to measure “potential value,” setting a performance standard for revenue-generating mechanisms. Spring 2007 and 2008 data show the potential to generate from \$2000 to \$4500 in revenues, per 10-acre-field, per 100 participating households. Trading rules and presentation effects substantially account for revenue differences. When participants were asked to accept or reject a pre-specified payment, the offers to buy into a contract increased by about \$30 per individual. Offering rebates of funds in excess of the amount needed to cover a contract seems to produce offers that are comparable to a benchmark for measuring the maximum value that participants might offer.

Regarding best practices for management of grasslands (objective 2), Jamestown farmers indicated that planning for grassland birds can occur beginning in April for the coming summer, but that notification of enrollment in a contract should occur in March or even late fall to enable farmers in Rhode Island to reduce management costs. Some farm participants demonstrated interest in modifying the species of grass to enable a hay harvest before nesting season (before late May), showing an interest in working the birds into their farm management plan and business. Future work could identify the potential to use avian behavioral stimuli at end of one summer to guide adults to a field planned for bird management in the next summer; this relates to preliminary ecological literature that, for example, suggests call boxes played in August in one year that may signal fields for use in the next year. If cultural or aesthetic ecosystem services are to become an addition to the line of farm products, more work may be needed to identify practices that enable more flexible management from year to year to reduce farmer costs.

Presentations and reports not previously listed:

“Challenges to Markets for Aesthetic Ecosystem Services: Examples, including Selling Hayfield Services for Grassland Birds in Jamestown, Rhode Island”; **Stephen K. Swallow**; Department of Environmental and Natural Resource Economics, University of Rhode Island, Kingston, RI, USA. Email: swallow@uri.edu, subject Bobolinks. Presented to USDA/NRCS, Warwick, RI, July 17, 2009.

Christopher M. Anderson, Stephen K. Swallow, and Emi Uchida. 2009. **Establishing a Market for Ecosystem Services: A Field Experiment Comparing Mechanisms for**

Eliciting Demand for Public Goods. Presented to the Middlebury Philanthropy Workshop (draft 1/30/2009).

Stephen K. Swallow, Christopher M. Anderson, and Emi Uchida. 2009. “An Experimental Market for Aesthetic Ecosystem Services: Selling Safe Hayfield Services for Grassland Nesting Birds in Jamestown, RI.” Presented to the Third Annual NRCS Conservation Innovation Grants Showcase, Soil and Water Conservation Society Annual Conference, July 11-15, Dearborn, MI.

Christopher M. Anderson, Stephen K. Swallow, and Emi Uchida. 2009. **Establishing a Market for Ecosystem Services: A Field Experiment Comparing Mechanisms for Eliciting Demand for Public Goods.** Presented to the Middlebury Philanthropy Workshop (draft 1/30/2009).