

2018

**Promoting Improved Water Quality from Iowa Farms:
Opportunities for leveraging public resources to engage more
Iowa farmers and landowners in water quality protection.**

Neil Hamilton
Drake University Agricultural Law Center

Follow this and additional works at: https://lib.dr.iastate.edu/leopold_grantreports

Recommended Citation

Hamilton, Neil, "Promoting Improved Water Quality from Iowa Farms: Opportunities for leveraging public resources to engage more Iowa farmers and landowners in water quality protection." (2018). *Leopold Center Completed Grant Reports*. 533.

https://lib.dr.iastate.edu/leopold_grantreports/533

This Article is brought to you for free and open access by the Leopold Center for Sustainable Agriculture at Iowa State University Digital Repository. It has been accepted for inclusion in Leopold Center Completed Grant Reports by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.

Promoting Improved Water Quality from Iowa Farms: Opportunities for leveraging public resources to engage more Iowa farmers and landowners in water quality protection.

Abstract

The goal of this project was to create a user-friendly guide to increase participation in programs by farmers and landowners. We created “How to Improve Water Quality on Iowa Farms: A Step-by-Step Guide for Navigating Conservation Programs for Farmers and Landowners” for users to understand existing public programs that improve water quality and promote soil health. We also included a section on examples of private industry support identified as Private Conservation Incentives, which we researched in a previous Leopold Center-funded project. The Guide focuses on the needs and experiences of farmers and landowners. We identified current on-farm water quality conservation practices offered by key agencies, including NRCS, DNR, IDALS, and SWCD. We also included examples of private entities partnering with farmers and landowners to encourage conservation practices on Iowa farms. This project built on our previous Leopold Center-funded projects and reflects our belief that helping Iowa farmers and landowners understand how to use public resources to improve water quality is a critical need. Previous Sustainable Agricultural Land Tenure (SALT) Initiative research at Drake has revealed key factors to promote sustainability and resilience. We have produced a series of resources and reports, hosted conferences and workshops, and promoted practices to make Iowa farms more resilient. Examples include the Landowner’s Guide to Sustainable Farm Leasing, legal resources for lease agreements in the face of extreme weather, and two statewide SOIL conferences focusing on the future of soil and water conservation policy and enabling landowners to partner with their farmers for better water quality and soil health.

I. A Final Report Prepared for the Leopold Center for Sustainable Agriculture

Date: May 18, 2018

Promoting Improved Water Quality from Iowa Farms: Opportunities for leveraging public resources to engage more Iowa farmers and landowners in water quality protection

Project Code #P2017-03

Professor Neil Hamilton
Director, Drake University Agricultural Law Center
2507 University Avenue
Des Moines, Iowa 50311
515-271-2205
neil.hamilton@drake.edu

Co-Investigators:
Jennifer Zwagerman
Associate Director, Drake University Agricultural Law Center
2507 University Avenue
Des Moines, Iowa 50311
515-271-4119
jennifer.zwagerman@drake.edu

Matt Russell
State Food Policy Project Coordinator, Drake University Law School
2507 University Avenue
Des Moines, Iowa 50311
515-271-4956
matt.russell@drake.edu

January 2017 through January 2018

Expended in 2017 - \$44,701

Expended in 2018 - \$0.00

Total \$44,701

Keywords: Sustainable Agriculture, Soil Health, Water Quality, Conservation, Agriculture Policy

II. Table of Contents

- I. Cover page - 1
- II. Table of Contents - 2
- III. Nontechnical Summary – 2
- IV. Detailed Report – 3
 - a. Introduction – 3
 - b. Project Design, Methods, and Materials – 4
 - c. Data and Discussion – 4
 - d. Conclusions – 5
 - e. Impact of the Results – 6
 - f. Outreach and Information Transfer – 6
 - g. Bibliography – 7
 - h. Leveraged Funds – 7
 - i. Evaluation – 7
- V. Budget Report – 8

III. Nontechnical Summary

The goal of this project was to create a user-friendly guide to increase participation in programs by farmers and landowners. We created “How to Improve Water Quality on Iowa Farms: A Step-by-Step Guide for Navigating Conservation Programs for Farmers and Landowners” for users to understand existing public programs that improve water quality and promote soil health. We also included a section on examples of private industry support identified as Private Conservation Incentives, which we researched in a previous Leopold Center-funded project. The Guide focuses on the needs and experiences of farmers and landowners. We identified current on-farm water quality conservation practices offered by key agencies, including NRCS, DNR, IDALS, and SWCD. We also included examples of private entities partnering with farmers and landowners to encourage conservation practices on Iowa farms. This project built on our previous Leopold Center-funded projects and reflects our belief that helping Iowa farmers and landowners understand how to use public resources to improve water quality is a critical need. Previous Sustainable Agricultural Land Tenure (SALT) Initiative research at Drake has revealed key factors to promote sustainability and resilience. We have produced a series of resources and reports, hosted conferences and workshops, and promoted practices to make Iowa farms more resilient. Examples include the Landowner’s Guide to Sustainable Farm Leasing,¹ legal resources for lease agreements in the face of extreme weather,² and two statewide SOIL conferences focusing on the future of soil and water conservation policy and enabling landowners to partner with their farmers for better water quality and soil health.³

¹ <http://sustainablefarmlease.org/>

² <http://sustainablefarmlease.org/climate-extremes-farm-leases/>

³ <http://drakeaglaw.org/conference-follow-up/>

IV. Detailed Report

A. INTRODUCTION

We identified the key practices being funded, such as cover crops, buffer strips, bioreactors, wetlands, nutrient management plans, continuous CRP sign-up, and saturated buffers. We documented how farmers and landowners are encouraged to use these practices through financial incentives in programs such as EQIP, CSP, and Financial Incentives Program for Soil Erosion Control. For each program we created a seven-step guide to help potential participants understand: 1) who is eligible, 2) how to apply, 3) what documents and forms are required, 4) how the selection process works, 5) how practices are implemented, 6) how to get paid, and 7) how programs are enforced. In providing this resource, we hope to help farmers and landowners utilize available programs, while also helping policy makers and advocates identify opportunities to further develop local, state, federal and private programs.

B. PROJECT DESIGN, METHODS, AND MATERIALS

Objective 1. Promote existing local, state, and federal programs to farmers and landowners to encouragement the implementation of conservation practices on their farms.

Strategy: We created the “Guide on How to Improve Water Quality on the Farm” so farmers and landowners can understand the public resources available to improve water quality and soil health. The Guide includes detailed information about eligibility, applications, procedures, deadlines, funding levels, and allowable practices and structures.

Objective 2. Increase understanding on how water quality programs can work together.

Strategy: Center staff identified farmers using water quality programs and interviewed them to understand their success in putting programs to work on their farms. We conducted legal research to identify when programs can or cannot be used together. We identified the 17 most commonly used practices in Iowa and matched them with the eight most commonly used state and federal programs on Iowa farms. We provided a case study showing how an Iowa farm family uses multiple programs to improve water quality, soil health, and profitability.

Objective 3. Identify policy barriers and promote policy opportunities to make it easier for farmers and landowners to access public resources.

Strategy: Center staff conducted legal research and interviews with state and federal officials to better understand opportunities to improve program development and delivery.

Objective 4. Simplify the research and application process for farmers and landowners wanting to use public support for conservation on their farms.

Strategy: The Guide provides multiple ways farmers and landowners can match up practices/structures with federal and state programs. This includes internal and external hyperlinks for users to move throughout the Guide or to leave the Guide to move directly to the agency responsible for the specific program.

Objective 5. Promote the Guide by creating marketing material and presentations

Strategy: The Guide will be distributed at field days, conferences, board meetings, and workshops by partner organizations. The Guide and research will be featured at the third annual SOIL conference in September.

C. DATA AND DISCUSSION

OUTPUTS

The outputs from the project include: (1) “Guide on How to Improve Water Quality on the Farm.” (2) Clarity within the Guide about what water quality programs can be used for specific structures and practices, including a case study of a farm family using multiple programs to improve water quality, to protect soil, and to increase profitability. (3) Current challenges and opportunities to develop policies to better assist farmers and landowners in accessing public resources for implementing conservation. (4) Online resources for conference displays and presentations for workshops and conferences.

OUTCOMES

The anticipated outcomes from the project include: (1) Farmers and landowners will gain a better understanding of which public programs to use to put conservation practices to work on their farms. (2) Farmers and landowners will see how to combine public programs to maximize the public benefits of better water quality and improved soil health. (3) Policy makers and advocates will see increased farmer and landowner interest in water quality practices, helping justify increased state funding for the efforts, and will thus develop policy options to remove barriers to existing programs. (4) Farmers and landowners will increase their competency in accessing programs to implement conservation, such as cover crops, buffers, terraces, wetlands, STRIPS, and bioreactors. Additionally, Iowa farmers and landowners will increase the federal funds used in Iowa. One expected result is an increase in the number of acres on which practices are used. (5) Local, state, and federal agencies will better partner to help farmers and landowners utilize multiple programs.

D. CONCLUSIONS

The following are conclusions drawn from this research:

OPPORTUNITIES

Farmers and landowners have many options for supporting their conservation efforts toward improving water quality. The three primary federal programs are CRP, EQIP, and CSP. The five primary state programs are the Financial Incentive Program for Soil Erosion Control, REAP Water Protection Practices, Water Quality Initiative, Conservation Practices Revolving Loan Fund, and the State Revolving Fund. In addition to public programs, there is current and future private support from food and agricultural supply chains, such as the Sustainable Soy Project by ADM and Unilever. The delivery of these programs is a widely distributed responsibility. NRCS, FSA, and SWCD staff work together at the county level, while the IDNR and IDALS coordinate at the state level.

CHALLENGES

The multiple programs offer farmers and landowners support for various practices and structures. However, the distributed delivery system creates challenges of targeting and coordinating the practices and programs. Programs can work together, like EQIP and State Revolving Loan Fund, but little effort is made to do an intentional development across the entire system of programs. The three practices that would likely have the most significant water quality effect (livestock waste management, crop rotations, and nutrient management) are each supported by only three programs. Streambank stabilization is the only other practice with just three programs supporting it. All other practices have four or more programs providing support. One could argue the conservation practices and structures with some of the best water quality benefits are the least supported. Further, programs depend on farmers and landowners interacting with people in the county office. As such, a farmer or landowner's participation in programs may be hindered by the relationship with county office staff. Some offices are able to function at higher levels, while others struggle as a result of funding cuts. Farmers and landowners in counties with limited staffing may have reduced access to public programs.

SUGGESTIONS

In light of the observations made during this project, we suggest the development of an integrated approach to these programs for outcome-based performance goals. Currently, the metrics used for the program design and delivery are an accounting of dollars, acres, and numbers of farmers. Outcome metrics, such as improved water quality at the farm and watershed level, would alter delivery so that programs are focused on improving qualitative metrics. Finally, private conservation incentives should amplify public programs. There is a risk these may replace public dollars or even entire public programs, possibly resulting in no net gain or even a loss in support for farmers and landowners wanting to do more conservation.

E. IMPACT OF RESULTS

CONTRIBUTION TO SUSTAINABLE AGRICULTURE IN IOWA

The main objective of the project was to provide a better understanding of conservation initiatives and programs to help farmers and landowners put more conservation on their land. This understanding helps promote sustainable agriculture by promoting conservation practices and structures. Our research supports the ongoing need for public programs to provide farmers and landowners with resources (cost share, loans, technical assistance, incentive payments) to better implement conservation practices on a larger scale and in shorter time frames. Emerging programs of private conservation incentives can work alongside public programs to increase conservation.

F. OUTREACH AND INFORMATION TRANSFER

EDUCATION AND OUTREACH

The “Guide on How to Improve Water Quality on Iowa Farms” is hosted on our website www.aglawcenter.wp.drake.edu. This printable Guide includes internal and external links allowing farmers and landowners to use the Guide to navigate a comprehensive resource of federal and state programs promoting soil health and water quality.

The Center is promoting the Guide through our Facebook page, which regularly reaches more than 500 people. The Guide is the topic of an episode of Our Water Our Land, the Center’s new educational series. Furthermore, we will email information about the Guide to our database of multiple thousands of contacts. We will include the outcomes of this research prominently in our 2018 SOIL conference in September. In 2018, we will be cooperating with NRCS on an IPC funded project educating landowners about legal issues of owning Iowa farmland. The Guide will be a featured resource in the educational outreach.

COOPERATIVE EFFORTS AND STUDENT SUPPORT

The guide will be shared through diverse channels and organizations that assist farmers, landowners, and their advisors, including groups serving landowners and farmers, such as ISU Extension, Iowa Soybean Association, The Nature Conservancy, Women, Food and Agriculture Network, and Practical Farmers of Iowa. The Center utilizes media contacts and Drake University’s Office of Marketing and Communication to disseminate project findings and resources to the media and the general public.

The project involved several students working for the Center. A law student, Anna Jordan, worked on the research and production of the Guide, and now as a law graduate is employed as the Center’s Policy and Outreach Coordinator. An undergraduate student, Morgan Garner,

worked on the design of the Guide. They gained experience and skills on the issues as well as in developing the outreach plans and materials for public consumption and use.

G. BIBLIOGRAPHY

Resources from this research are available on our website at www.aglawcenter.wp.drake.edu/. This includes the following sections of the “Guide on How to Improve Water Quality on Iowa Farms”:

- How to Use the Guide
- Conservation Structures
- Conservation Practices
- Federal Programs
- State Programs
- Private Conservation Incentives

H. LEVERAGED FUNDS

In addition to Leopold Center funds, the Center used internal funds received from the Lillian Goldman Charitable Trust and other sources to support the project.

I. EVALUATION

The project will involve several evaluation techniques. We will periodically ask farmers and others who have access to the Guide to report if they find the information helpful and valuable. We will track visits to our website where the materials from this project are located. To date, the Guide has been viewed on the Center’s website fifty times. In addition, a least one organization, The Nature Conservancy, has asked for permission to link the Guide on the 4R project. As more publicity about the Guide occurs we expect additional organizations to create similar links.

V. Budget Report

FT Exempt Staff Salaries, \$34,513.05

Student Wages, \$1,614.00

Benefit Allocation, \$8,443.91

Supplies, \$59.95

Travel, \$70.09