

**Environment and Natural Resources Trust Fund
2017 Request for Proposals (RFP)**

Project Title:

ENRTF ID: 162-F

Precision Conservation and Agriculture: Growing Green2 Together

Category: F. Methods to Protect, Restore, and Enhance Land, Water, and Habitat

Total Project Budget: \$ 508,370

Proposed Project Time Period for the Funding Requested: 3 years, July 2017 - June 2020

Summary:

Demonstrating a new economic approach to precision conservation by incorporating return on investment (ROI). Identify revenue negative acres with ~200 farmers to source ~10,000 acres for conservation implementation.

Name: Tanner Bruse

Sponsoring Organization: Pheasants Forever

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Marshall MN 56258

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Web Address _____

Location

Region: Central, Northwest, Southwest, Southeast

County Name: Becker, Benton, Big Stone, Blue Earth, Brown, Cottonwood, Crow Wing, Dakota, Dodge, Douglas, Faribault, Fillmore, Freeborn, Goodhue, Jackson, Kandiyohi, Lac qui Parle, Le Sueur, Lincoln, Lyon, Marshall, McLeod, Meeker, Murray, Nicollet, Nobles, Otter Tail

City / Township:

Alternate Text for Visual:

Profitability map incorporating conservation and increased return on investment (ROI)

_____ Funding Priorities	_____ Multiple Benefits	_____ Outcomes	_____ Knowledge Base
_____ Extent of Impact	_____ Innovation	_____ Scientific/Tech Basis	_____ Urgency
_____ Capacity Readiness	_____ Leverage	_____ TOTAL	_____ %



PROJECT TITLE: Precision Conservation and Agriculture: Growing Green² Together

I. PROJECT STATEMENT

We will demonstrate a new return-on-investment (ROI) approach to precision conservation by sourcing ~10,000 acres for conservation implementation to guide new and additive opportunities to maximize water and land stewardship decisions. This proposal will foster an unprecedented level of cooperation between agriculture and conservation, to accelerate conservation delivery, by applying cutting-edge precision technology and ag-business planning principles. Using this innovative approach we will work in the agricultural matrix of Minnesota to provide conservation acres on the landscape that are beneficial to water quality and wildlife while maintaining individual farm profitability. With recent advancements of real-time yield monitoring combined with substantial declines in commodity prices, it has been demonstrated that, on many farms, 3-15% of cropped acres are revenue negative. This project will work with ~200 Minnesota farmers, analyze 100,000 acres, identify revenue negative acres and show how implementing conservation on these acres may actually increase profitability.

It has become increasingly apparent that meeting our State's water quality and habitat goals will require adoption of thousands of acres of perennial vegetation combined with innovative conservation practices. With that in mind we will test a pilot that provides cost share on seed, seeding recommendations and maintenance information to provide an alternative option to traditional programs such as CRP. While CRP acres are important we believe it's equally important to provide working lands options to the producer. This pilot is based on sustainability and generating additional acres to benefit water quality, soil health and wildlife habitat. We will contract, with AgSolver, to create an online profitability map based on soil types and agriculture budgets for the state of Minnesota (within the agriculture matrix) to provide an online tool for public use. This project will give guidance to the incentives necessary to get land into conservation with or without using existing government/state supported programs such as RIM or CRP.

II. PROJECT ACTIVITIES AND OUTCOMES

Activity 1: Precision Conservation and ROI: Sourcing New Acres for Conservation Budget: \$508,370

Two precision planning specialists, with an education in agriculture (ag business, precision ag, agronomy), will be hired and trained to work directly with ~200 Minnesota farmers and retail ag businesses. The goal is to source ~10,000 acres for conservation implementation while maintaining farm profitability. This new economic approach will test the viability of identifying new acres for conservation to achieve water, soil and wildlife outcomes. We will conduct outreach, demonstrations and workshops to showcase successes, provide educational experiences and display this innovative approach showcasing opportunities for producers to be sustainable both environmentally and economically. We will test a seed cost-share program with interested producers. This will help determine incentives necessary to implement conservation on revenue negative acres.



Outcome	Completion Date
1. Conduct planning with ~200 farmers on 100,000 acres to source 10,000 acres to implement conservation	June 30, 2020
2. Engage the retail sector of agri-business including agronomists, independent crop advisers, seed dealers, absentee land managers, ag lending and other key partners.	June 30, 2020
3. Conduct demonstration events/workshops at Farm Fest to amplify results	June 30, 2020
4. Seed cost share pilot to provide additional opportunities for conservation	June 30, 2020
5. Statewide profitability map based on soil types and economics	June 30, 2019

III. PROJECT STRATEGY

A. Project Team/Partners

This project will be led by Pheasants Forever. By year two of the grant, we will add a wide range of representatives from ag retailers, ag organizations (Activity #1, Outcome #2) and other potential partners who endorse this collaborative and sound economic approach to provide economically viable conservation practices.

B. Project Impact and Long-Term Strategy

By showcasing the substantial benefits of working together with Minnesota farmers to implement voluntary conservation practices, we will achieve greater water quality, soil health, and wildlife (including pollinators) outcomes. The key question is whether we can shape this future by harnessing the technology to also include the economics of conservation practices at a sub-field planning scale. Once we demonstrate the value of using economics and environmental performance at a sub-field scale, we believe this technology and approach will be sustaining into the future.

C. Timeline Requirements

The tasks and activities outlined in this proposal will be completed over 3 years.

2017 Detailed Project Budget

Project Title: Precision Conservation and Agriculture: Growing Green Together

IV. TOTAL ENRTF REQUEST BUDGET 3 years

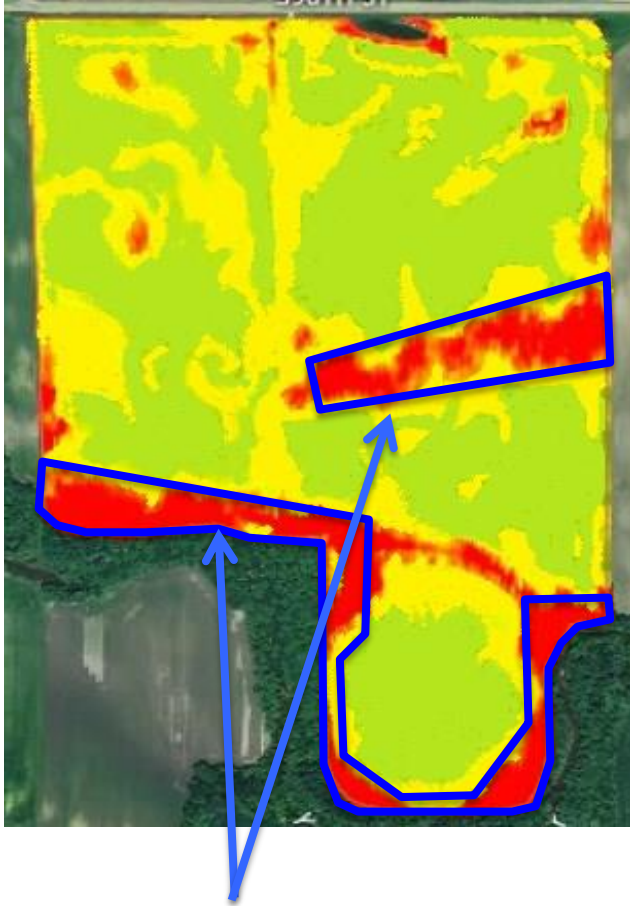
<u>BUDGET ITEM</u> (See "Guidance on Allowable Expenses", p. 13)	<u>AMOUNT</u>
Personnel:	\$ -
Project Manager 25% FTE/year for project duration (Salary 70%, Benefits 30%)	44,000
PF Precision Planning Specialist 100% FTE - 3 years (Salary 70%, Benefits 30%)	180,000
Nathan Getting, PF Precision Planning Specialist 100% FTE - 3 years (Salary 70%, Benefits 30%)	180,000
Professional/Technical/Service Contracts: Contract with AgSolver for Statewide Profitability Model	\$5,000
Equipment/Tools/Supplies: Wi-Fi Hot Spot @ \$50 per month per Specialist = \$600/year = 1,200 x 3 years = \$3,600, two computers at \$2,500 each	\$ 8,600
Travel: 15,000 miles per Precision Specialist per year x 3 years = 45,000 miles @ \$0.50 per mile x 2 Specialists = \$45,000 plus meals and lodging for in-state travel \$5,000 per year per specialist = \$30,000, 5,000 miles for project manager x \$0.50 = \$2,500/yr x 3 years = \$7,500	\$82,500
Additional Budget Items:	
Booth at MN Farm Fest \$1,090 per year x 3 years = \$3,270 plus 10 workshops/field days at \$500 each	\$ 8,270
TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST	\$ 508,370

V. OTHER FUNDS

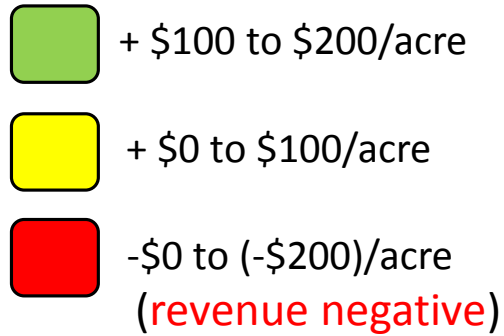
<u>SOURCE OF FUNDS</u>	<u>AMOUNT</u>	<u>Status</u>
Other Non-State \$ To Be Applied To Project During Project Period: Landowners contribution for precision business planning analyses 200 @ \$1,000 each	\$200,000	<i>pending</i>
Pheasants Forever chapters: cover the cost for seed cost-share working land pilot 500 acres x \$30/acre = \$15,000	\$15,000	<i>pending</i>
Other State \$ To Be Applied To Project During Project Period:	N/A	
Pheasants Forever Indirect on personnel salary (\$45,000 x .2007 x 3 years x 2 Specialists) plus indirects from project manager	\$54,189	<i>Secured</i>
Funding History: ML 2014, Minnesota Pollinator Partnership	\$ 100,000	<i>in progress</i>
Remaining \$ From Current ENRTF Appropriation: \$74,169	\$ 74,169	<i>in progress</i>

A win for water, wildlife and farmers

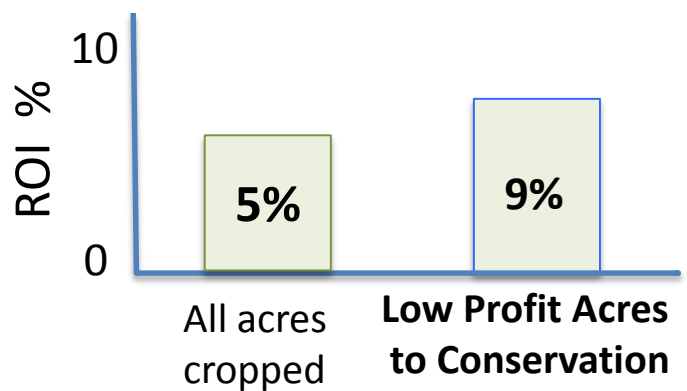
Revenue Negative Cropland to Conservation



Profit: \$/acre



Whole Farm Return on Investment



Revenue Negative Acres to Conservation



- Sediment Filter
- Nutrient Trap
- Nesting Cover
- Pollinator Habitat
- And... maintain farm profitability

GOAL: 200 Farmers, ~10,000 Acres of Conservation

Project Manager Qualifications:

Tanner Bruse, MN Farm Bill Biologist Manager

Pheasants Forever, Inc.

A.A. General Education – South Central College, Mankato, MN. 2007

B.S. Wildlife & Fisheries Science - South Dakota State University, Brookings, SD. 2012

Tanner has experience working directly with landowners, as a Farm Bill Biologist, helping them with habitat management and enrolling them in voluntary conservation programs. As the project manager (activity 1) Tanner will be tasked with working directly with the two precision specialists in tracking daily activities, BMP's for working with landowners, identifying potential partners, coordinating precision specialists with farm bill biologists to provide landowners all options and helping track outcomes. He will be tasked with organizing and implementing workshops and training events as well as have a booth at MN Farm Fest. He will be the lead in organizing a seed mix for the cost share seed pilot and making it readily available to interested landowners. Tanner will be responsible for all required reports for LCCMR.

Organization Description:

Pheasants Forever (PF) is a non-profit 501(c)3 conservation Pheasants Forever is dedicated to the conservation of pheasants, quail and other wildlife through habitat improvements, public awareness, education and land management policies and programs. Pheasants Forever has over 145,000 members and 700 chapters nationwide doing grassroots conservation. Historically PF has impacted 14 million acres, completed 502,000 habitat projects and acquired 183,675 acres with 1,474 land acquisitions since 1982. PF has invested \$634 million dollars on habitat projects and education programs.