



Environment and Natural Resources Trust Fund (ENRTF) M.L. 2014 Work Plan

Date of Report: January 9, 2014
Date of Next Status Update Report: January 1, 2015
Date of Work Plan Approval:
Project Completion Date: June 30, 2016
Does this submission include an amendment request? No

PROJECT TITLE: Minnesota Pollinator Partnership

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Location: Statewide - Projects will most likely occur in counties where Pheasants Forever chapters, Quail Forever chapters and our partners are located throughout MN (see visual element). However, projects will not be limited to these areas if there is interest outside Pheasants Forever and Quail Forever's footprint in MN.

Total ENRTF Project Budget:	ENRTF Appropriation:	\$100,000
	Amount Spent:	\$0
	Balance:	\$100,000

Legal Citation: M.L. 2014, Chp. 226, Sec. 2, Subd. 09g

Appropriation Language:

\$100,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Pheasants Forever to complete 40 community pollinator education and habitat projects. This appropriation must be coordinated with appropriations provided by the outdoor heritage fund. This appropriation is available until June 30, 2017, by which time the project must be completed and final products delivered.

I. PROJECT TITLE: Minnesota Pollinator Partnership

II. PROJECT STATEMENT: National attention has been brought to the plight of pollinators and their key role in the production of our human food supply in recent years. Pollinator issues are related to habitat loss, habitat fragmentation, disease, and pesticides as well as unknown factors. The current knowledge base for improving conditions for pollinators is lacking (Marla Spivak, Personal Communication), yet it is known that by adding a diversity of flowering plants to the landscape, we not only provide nectar and habitat for pollinators, it also improves habitat for birds and other wildlife while furthering the aesthetics of the landscape of our state.

One urgent issue is that domesticated honey bees and native pollinating insects are experiencing alarming declines in their populations. Pollinating insects are an essential component in global food production. Approximately one-third of all food and beverages consumed by humans is delivered by pollinators. Popular foods like apples, bananas, berries, melons, coffee, chocolate, and almonds would not be available without pollinating insects. In the United States alone, the economic value of insect-pollinated crops is estimated to be \$18 to \$27 billion dollars annually. Many scientists believe that a major cause in the decline of domesticated honey bees and native pollinators is habitat loss and degradation.

Another urgent issue is that today's youth spend the majority of their time fixated on electronic devices and less than half of the time outdoors than their parents did. One in four children are obese, and as a result, diseases like type 2 diabetes are showing up at an alarming rate. Research has shown that children who spend time outdoors are healthier, receive better grades, have longer attention spans, and are less prone to depression than children who spend most of their time indoors. If this trend continues, children today will not develop a conservation ethic or attachment to the land with-out experiences that are fun and involve them personally.

Pheasants/Quail Forever (PF/QF) and its many partners intend to provide these hands-on experiences by completing 40 community pollinator projects on at least 40 acres, educating 800 youth & engaging an additional 200 adults through the creation of the Minnesota Pollinator Partnership. The objectives of the Minnesota Pollinator Partnership are as follows:

- Educate youth groups and the general public in MN about the value of pollinating insect species and the habitat on which they rely on to survive
- Provide hands-on opportunities for youth groups and the general public in MN to establish, maintain, and monitor pollinator habitat projects
- Establish quality pollinator habitat projects that produce and provide foraging habitat for native pollinators
- Create a model that will aide other PF/QF chapters, land managers, biologist and the general public in MN in the establishment and maintenance of future pollinator habitat projects

In order to accomplish these objectives, the Minnesota Pollinator Partnership will provide grants to PF/QF chapters and other partners to educate and engage youth, families and communities in establishing and monitoring pollinator habitat projects. Grants up to \$2,500 per project will be made available to chapters and/or partners who meet the following criteria:

- Chapters/partners must engage a youth and/or community group in the establishment, maintenance, and monitoring of a pollinator habitat project (i.e. classrooms, 4H, Boy Scouts, Girl Scouts, FFA, etc...).
- Pollinator projects must meet minimum pollinator habitat specifications set by the USDA.
 - Pollinator projects must be a minimum of 1/2 acre in size
 - If planted in a strip, strip must be a minimum of 20 ft. wide
 - Pollinator seed mix must include a minimum of 9 native wildflower species (we expect to greatly exceed the minimum)

- At least 3 species shall have their primary onset of blooming during each period of April-June 15, June 15-July, and August-October
- Chapters/partners must provide a dollar to dollar match in order to receive grant funding for their projects. Match would include cash match from chapters and partners as well as in-kind match from donations and volunteer time spent establishing, maintaining and monitoring projects.
- Chapters/partners must include educational/monitoring activities in conjunction with the establishment of the pollinator project.
 - Educational/monitoring activities will be provided to chapters/partners by PF/QF staff and partners. Examples of educational/monitoring activities could include, but would not be limited to the following:
 - THE MONARCH LARVA MONITORING PROJECT (MLMP) - MLMP engages citizens and students in collecting data that will help to explain the distribution and abundance patterns of monarch butterflies in North America. Participants commit to monitor patches of milkweed weekly to count monarch eggs and larvae, and assess milkweed density.
 - BEE HUNT - By taking photos of bees and submitting them online, classrooms can join in this scientific study to understand the impact of climate change and other factors on plant-pollinator interactions, geographic distributions, and seasonal abundances. Bee Hunt will build a network of research sites across North America that will collect data on plants, pollinators, and their interactions. Study sites can include schools, parks, nature centers, farms, gardens, and other areas of biological interest. Participants will follow rigorous protocols that will ensure that they collect, manage, and share very high-quality data. Educationally, Bee Hunt will enable teachers to meet state science standards by doing hands-on science. Bee Hunt will provide data management, analysis, and mapping tools that will enable participants to compare data within and across sites.
 - RUDY'S RESTAURANT – This fun educational activity demonstrates the importance of pollinating insects on the global food supply. Students will select meals from a menu at Rudy's Restaurant. After meals are selected, all food items that are made possible by pollinators are removed to demonstrate how important pollinating insects are to their daily food supply.

Chapters and partners that agree to meet the minimum standards above will have the opportunity to apply for funding through the Minnesota Pollinator Partnership. All chapter/partner grant applications will be reviewed and scored by a panel of Pheasants Forever staff (Drew Larsen, Habitat Education Specialist; Matt Holland, Director of Grant Development; and Rich Wissink, National Youth Program Coordinator). All grant applications will be reviewed, scored and ranked based on the following criteria:

- Educational value (i.e. number of students and adults the project will educate)
- Matching funds (i.e. amount of money the chapter/partners are going to contribute to the project)
- Pollinator value (i.e. number of acres impacted)

If there are more applications than available grant funding, funding will be distributed to the highest scoring applications. If funding is still available after the first grant announcement, additional grant opportunities will be made available to chapters and partners until all ENRTF funding has been exhausted.

Chapters/partners that receive grants will be required to complete training provided by Pheasants Forever staff at regional workshops and/or via online webinars. Trainings will provide chapters and partners step-by-step

information on how to establish, maintain, and monitor pollinator habitat projects. In addition, chapters/partners will receive information on a number education and monitoring activities they can use in conjunction with the establishment of their pollinator project. These educational/monitoring activities are designed to insure continuing education on project sites after they are established.

After chapters/partners have received their training, they will work with local community partners to create pollinator habitat projects on public and private property in their local communities. Project sites could include state owned wildlife management areas, nature centers, state parks, county parks, city parks, school yard habitat projects, and privately owned land. Sites will then be prepped (mowed, sprayed, burned, tilled, disked, etc...) prior to planting by volunteers or by selecting contractors in the area through a competitive bid process.

After project site has been prepped, chapters/partners will then enlist the help of classrooms and youth groups (i.e. Conservation Clubs, 4H, FFA, Boy Scouts, and Girl Scouts) to hand plant project sites. Adult volunteers and students will hand broadcast native wildflower mixes and hand plant native plugs/plants at project sites. In addition to planting the project site, youth groups and adult volunteers will be exposed to various educational/monitoring activities designed to further educate participants on pollinators and pollinator habitat.

At the completion of the project, chapters will be required to file a final report summarizing the details (i.e. number of youth, number of volunteers, total dollars spent, and number of acres impacted) of the project. In addition to the project summary, chapters would be required to post a project sign that would display all major program partners.

Drew Larsen, Pheasants Forever's Habitat Education Specialist will serve as the project coordinator. Drew will be assisted by Pheasants Forever colleagues Matt Holland (Director of Grant Development), Rich Wissink (National Youth Program Coordinator), Eran Sandquist (Regional Biologist), and Chad Bloom (Regional Director). No ENRTF funding is being used to pay for employees or employee time to implement the MN Pollinator Partnership program. All time spent by the individuals listed above to implement the program will be counted towards in-kind match.

In brief, by providing the best science & information to educate youth and communities about the real and present issues related to pollinator habitat, both best management practices and an awareness of the plight of pollinators will be achieved. Additionally, pollinator projects will serve in future years to provide educational and community events to highlight pollinators (e.g. national pollinator week), their habitat and their importance.

EXAMPLE PROJECT EXPENDITURES:

Common total expenditures for pollinator projects could include, but would not be limited to the following (ENRTF, PF/QF chapter and partner expenditures have been separated below):

- **Site preparation (ENRTF Funds)**
 - Tillage/disking
 - Herbicide application (Note: Herbicide application is only used to prepare site prior to planting. Depending on plant composition present on site, herbicide application may have to be used to reduce competition and kill existing vegetation prior to broadcasting seed mix and planting plugs. Impact on native pollinators, human health and water quality will be taken into account prior to herbicide application.)
- **Planting/Establishment (ENRTF Funds)**
 - Pollinator seed mix
 - Native plugs/plants/shrubs/trees
 - Seed mix filler – filler is used to aid in the even distribution of seed mix when hand broadcast seeding (i.e. kitty litter, saw dust, zero germ seed, etc...)

- Planting equipment (i.e. buckets, seed spreaders, dibble bars, etc...)
- Signage
- **Maintenance (PF/QF Chapter & Partner Funds)**
 - Chemical weed control (Note: This technique will only be used as a last resort to control any noxious weeds on project sites that cannot be controlled manually.)
 - Manual weed control (i.e. pulling weeds and mowing weeds)
 - Supplemental plantings (plugs, plants & shrubs)
 - Mulch
 - Prescribed burning
 - Fencing supplies (Note: Fencing will only be used if livestock need to be excluded from project site)
 - Watering supplies (Note: Watering may need to be used to water shrubs and trees the first few growing seasons to aide in establishment)
- **Education/Monitoring (PF/QF Chapter & Partner Funds)**
 - Educational activity supplies & handouts
 - Citizen science monitoring supplies
 - Curriculum
- **Other (PF/QF Chapter & Partner Funds)**
 - Promotional materials (banners, signs, t-shirts, hats, handouts, etc...)
 - Food & beverages
 - Program administration
 - Bus transportation for youth/community groups
 - Safety equipment (i.e. gloves, sun screen, bug spray, etc...)
 - Photography & Videography

III. PROJECT STATUS UPDATES:

Project Status as of January 1, 2015:

Project Status as of July 1, 2015:

Project Status as of January 1, 2016:

Project Status as of July 1, 2016:

Overall Project Outcomes and Results:

IV. PROJECT ACTIVITIES AND OUTCOMES:

ACTIVITY 1: Providing Grants to Chapters and Partners

Description: The Minnesota Pollinator Partnership will provide grants to PF/QF chapters and other partners to educate and engage youth, families and communities in establishing, maintaining and monitoring pollinator habitat projects. Grants up to \$2,500 per project will be made available to chapters and/or partners who meet the minimum criteria listed in the narrative above. Grants will be made available to chapters and partners beginning July 1, 2014. If there are more applications than available grant funding, funding will be distributed to the highest scoring applications (see scoring criteria in narrative above). If funding is still available after the first grant announcement, additional grant opportunities will be made available to chapters and partners until all ENRTF funding has been exhausted.

Chapters/partners that receive grants will work with youth groups (i.e. classrooms, 4H, Boy Scouts, Girl Scouts, FFA, etc...) to hand plant and hand seed pollinator habitat projects. In addition to helping establish pollinator projects, youth groups and community groups will be exposed to educational/monitoring activities that demonstrate the importance of pollinators and pollinator habitat.

ENRTF grant funds will be used to pay for site preparation and establishment of pollinator projects. ENRTF grant funds will be matched with chapter/partner dollars to provide maintenance, education/monitoring and other items deemed appropriate to complete projects. The Minnesota Pollinator Partnership will result in the establishment of 40 pollinator habitat projects on 40 acres and provide hands-on participation of at least 1,000 Minnesotans. In addition, the program will serve as a model for landowners and other community groups interested in providing habitat for native pollinators.

Summary Budget Information for Activity 1:

ENRTF Budget: \$100,000
Amount Spent: \$0
Balance: \$100,000

Activity Completion Date: 6/30/2016

Outcome	Completion Date	Budget
1. Establishment of 40 Pollinator Habitat Projects (Involve 1,000 People, 40 acres)	6/30/2016	\$100,000
TOTAL		\$100,000

Activity Status as of January 1, 2015:

Activity Status as of July 1, 2015:

Activity Status as of January 1, 2016:

Activity Status as of July 1, 2016:

Final Report Summary:

V. DISSEMINATION:

Description: Pheasants Forever Chapters/Partners will work with their local community partners to develop a comprehensive plan to distribute and promote information related to the MN Pollinator Partnership. A few of the ways PF and its partners intend to disseminate information include the following:

- Pheasants Forever & Quail Forever publications including our signature magazines (*Quail Forever Journal, Pheasants Forever Journal, Forever Outdoors*) which reach over 135,000 people 5 times each year
- Pheasants/Quail Forever website and Facebook page
 - www.pheasantsforever.org
 - www.quailforever.org
 - <https://www.facebook.com/pheasantsforever>
 - <https://www.facebook.com/quailforever>
- Pollinator Habitat Project signs that will be placed at each project site
- National conference, Pheasant Fest & Quail Classic

- MN Pheasants Forever State Meeting
- Pollinator Habitat Project Events and Trainings

Pheasants Forever expects there will be other ways in which MN Pollinator Partnership information will be disseminated and we intend to provide that information in future status reports.

Status as of January 1, 2015:

Status as of July 1, 2015:

Status as of January 1, 2016:

Status as of June 30, 2016:

Final Report Summary:

VI. PROJECT BUDGET SUMMARY:

A. ENRTF Budget Overview:

Budget Category	\$ Amount	Explanation
Grants to Chapters/Partners:	\$100,000	Grants up to \$2,500 will be offered to PF/QF chapters and partners. ENRTF grant dollars will be used to pay for site preparation (i.e. herbicide, herbicide application, disking and tilling) to establish 40 community pollinator habitat projects. Agricultural contractors who can complete all site preparation services above will be sought in communities conducting projects. A competitive bid process will be used to select contractors. In addition to site preparation, ENRTD dollars will also be used to pay for materials and tools used to establish pollinator habitat projects (i.e. pollinator seed mixes, plugs, plants, shrubs, trees, seed mix filler, buckets, seed spreaders, dibble bars, signage, etc...)
TOTAL ENRTF BUDGET:	\$100,000	

Explanation of Use of Classified Staff: N/A

Explanation of Capital Expenditures Greater Than \$5,000: N/A

Number of Full-time Equivalent (FTE) Directly Funded with this ENRTF Appropriation: N/A

Number of Full-time Equivalent (FTE) Estimated to Be Funded through Contracts with this ENRTF Appropriation: N/A

B. Other Funds:

Source of Funds	\$ Amount Proposed	\$ Amount Spent	Use of Other Funds
Non-state			

Pheasants & Quail Forever Chapters/Community Partners	\$65,000 (Cash)	\$0	<p>PF/QF chapter and partner funds will be used to conduct project maintenance, pay for education and monitoring materials, and any other items deemed necessary to complete project (i.e. chemical weed control, manual weed control, prescribed burning, mulch, fencing supplies, watering supplies, curriculum, memberships, student transportation, promotional materials, food and beverages, safety equipment, photography/videography, and program administration).</p> <p>In addition, PF/QF chapter and partner dollars may be used to pay for site preparation work and to purchase additional establishment materials (i.e. herbicide, herbicide application, tilling, disking, seed mixes, plugs, plants, shrubs, trees, buckets, spreaders, dibble bars) for larger projects.</p>
Pheasants Forever/Community Partners	\$41,034 (In-kind)	\$0	<p>Pheasants Forever and its partners will provide in-kind match in the way of volunteer labor and donated materials to provide site preparation, establishment, maintenance, and education/monitoring activities (\$21.91/hour). Additional in-kind match will come in the form of donated time from PF's Habitat Education Specialist to provide training and program administration (\$30/hour).</p>
TOTAL OTHER FUNDS:	\$106,034	\$0	

VII. PROJECT STRATEGY:

A. Project Partners: The MN Pollinator Partnership will be led by Pheasants Forever's Habitat Education Specialist, Drew Larsen, and the Pheasants Forever staff of Minnesota. However, a program of this size and scope will need many valuable partners in order to meet the program's objectives. Pheasants Forever has a proven track record of building successful partnerships, and the MN Pollinator Partnership will offer MN Pheasants Forever chapters and community partners opportunities to build new partnerships which will be critical to the program's success. The following is a list of potential partners that will be solicited to support the MN Pollinator Partnership:

- MN Department of Natural Resources
- MN Soil & Water Conservation Districts
- MN Honey Bee Producers Association
- University of Minnesota Bee Lab
- U.S Fish & Wildlife Service
- School Districts
- Natural Resources Conservation Service

- MN 4H
- MN FFA
- MN Boy Scouts
- MN Girl Scouts

Many other community groups and like minded organizations will be sought to partner and support pollinator habitat projects in their local areas. We expect this list to grow and will provide any updates in future status reports.

B. Project Impact and Long-term Strategy: Pollinator awareness and habitat awareness must continue as long as pollinator populations continue to decline and habitat continues to disappear. Pheasants Forever looks to insure long-term impact of the MN Pollinator Partnership through habitat establishment, continued education and project promotion. Pollinator habitat projects that are created through this partnership are intended to serve as outdoor classrooms for schools and youth groups to continue to learn about pollinators and other important species long after the projects are established. In addition, youth groups and classrooms will be given educational materials to be used in conjunction with pollinator habitat projects. These educational materials can be used by future generations of young Minnesotans to learn about important pollinator species and pollinator habitat. Lastly, we intend to share and promote the results of this program in hopes that other communities throughout the country will establish pollinator projects. Guidelines will be developed from the program that can be used by other groups across the country wanting to establish similar projects.

C. Spending History:

Funding Source	M.L. 2008 or FY09	M.L. 2009 or FY10	M.L. 2010 or FY11	M.L. 2011 or FY12-13	M.L. 2013 or FY14
ENRTF – Habitat Conservation Partnership – 4a	\$350,000.00	\$350,000.00		\$434,000.00	
ENRTF – Habitat Conservation Partnership – 1a – Project Coordination	\$70,000.00	\$100,000.00		\$51,000.00	

VIII. ACQUISITION/RESTORATION LIST: N/A

IX. VISUAL ELEMENT or MAP(S):

Pheasants Forever / Quail Forever MN Pollinator Partnership

The photos below were taken at PF/QF community pollinator habitat project events that took place in 2013. The MN Pollinator Partnership intends to offer grants to PF/QF chapters across MN to conduct a minimum of 40 community pollinator habitat projects.



X. ACQUISITION/RESTORATION REQUIREMENTS WORKSHEET: N/A

XI. RESEARCH ADDENDUM: N/A

XII. REPORTING REQUIREMENTS:

Periodic work plan status update reports will be submitted no later than January 1, 2015, July 1, 2015, and January 1, 2016. A final report and associated products will be submitted between June 30 and August 15, 2016.

Environment and Natural Resources Trust Fund					
M.L. 2014 Project Budget					
Project Title: MN Pollinator Partnership					
Legal Citation: M.L. 2014, Chp. 226, Sec. 2, Subd. 09g					
Project Manager: Drew Larsen					
Organization: Pheasants Forever, Inc.					
M.L. 2014 ENRTF Appropriation: \$100,000					
Project Length and Completion Date: 2 Years, June 30, 2016					
Date of Report: July 15, 2016					



ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET	Activity 1 Budget	Amount Spent	Activity 1 Balance	TOTAL BUDGET	TOTAL BALANCE
BUDGET ITEM	<i>Establishing Pollinator Habitat Projects</i>				
Personnel (Wages and Benefits)					
Grants to PF/QF Chapters & Partners: Chapters and partners will use ENRTF grant dollars to pay for site preparation (i.e. herbicide, herbicide application, disking, and tilling) to establish 40 community pollinator habitat projects. Agricultural contractors who can complete all site preparation services above will be sought in communities conducting projects. A competitive bid process will be used to select contractors in each location where a contractor is needed. Site preparation was estimated at \$500 per project (n=40 projects). In addition, ENRTF grant dollars will be used to pay for project supplies (i.e. pollinator seed mixes, plugs, plants, shrubs, trees, seed mix filler, buckets, seed spreaders, dibble bars, and signage to establish 40 community pollinator habitat projects. Project supplies were estimated at \$2,000 per project (n=40 projects)	\$100,000	\$0	\$100,000	\$100,000	\$100,000
COLUMN TOTAL	\$100,000	\$0	\$100,000	\$100,000	\$100,000

