



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

**Date of Report:** February 12, 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: Wild Bee Pollinator Surveys in Prairie-Grassland Habitats**

**Project Manager:** Gerda Nordquist  
**Organization:** MN DNR  
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**Location:** Statewide for scientific collections and literature review; for field surveys, the Minnesota Prairie Region\*, including and/or impacting Becker, Big Stone, Blue Earth, Brown, Chippewa, Clay, Cottonwood, Dodge, Douglas, Faribault, Freeborn, Grant, Kandiyohi, Kittson, Jackson, Lac Qui Parle, LeSueur, Lincoln, Lyon, Mahnomon, Marshall, Martin, McLeod, Meeker, Morrison, Mower, Murray, Nicollet, Nobles, Norman, Otter Tail, Pennington, Pipestone, Polk, Pope, Red Lake, Redwood, Renville, Rice, Rock, Roseau, Sibley, Stearns, Steele, Stevens, Swift, Todd, Traverse, Waseca, Watonwan, Wilkin, Yellow Medicine counties.

\*As delineated in the Minnesota Prairie Conservation Plan. 2011. Minnesota Prairie Plan Working Group, 55 pp.

<b>Total ENRTF Project Budget:</b>	<b>ENRTF Appropriation:</b>	<b>\$370,000</b>
	<b>Amount Spent:</b>	<b>\$0</b>
	<b>Balance:</b>	<b>\$370,000</b>

**Legal Citation:** M.L. 2014, Chp. 226, Sec. 2, Subd. 05i

**Appropriation Language:**

\$370,000 the second year is from the trust fund to the commissioner of natural resources to assess the current status and distribution of wild bee pollinators in prairie-grassland habitats of Minnesota.

**I. PROJECT TITLE: Wild Bee Pollinator Surveys in Prairie-Grassland Habitats**

**II. PROJECT STATEMENT:** Wild bees are important for their pollination services and also for their contributions to species diversity in prairie-grasslands. Many prairie plant species require pollinators for seed production and bees are often cited as the most important pollinator group. Native prairies once covered a third of Minnesota, but less than two percent of this habitat remains today. The Minnesota Prairie Conservation Plan seeks to protect or reestablish functional prairie systems, which are measured by "stable or increasing native plant diversity and condition." The importance of plant-pollinator interactions is recognized by prairie restoration efforts, but there are large gaps in our knowledge of Minnesota's wild bees. For example, Minnesota's first and only statewide list of bee species was published in 1919. It reported only 88 species, compared to neighboring Wisconsin that reported 388 bee species in 2008. The state list of Species of Greatest Conservation Need (2006) does not include any native bees due to a scarcity of information about their distribution and status. However, the Xerces Society lists at least two bumblebee species that are perceived to be declining in Minnesota and smaller, less noticeable species may face similar declines. A compilation of bee survey and research efforts that have occurred since the 1919 list was published is clearly needed. A more complete list of bee species occurring in Minnesota and a registry of survey efforts and researchers will form a foundation from which future pollinator research can benefit.

Assessment of the current status and distribution of bee species requires field surveys. Proposed surveys throughout the prairie region of western Minnesota will document the diversity and distribution of wild bees on prairie-grasslands and form the basis for measuring differences in the bee fauna documented from prairies in the past to those found on native and restored prairies today. These surveys will complement efforts to resurvey historical locations in southeastern Minnesota by the University of Minnesota (*Enhancing Pollinator Landscapes, ENRTF 146-F*). The findings from both projects will be used to augment the state list of bees, provide natural history information for bee species status assessments, and inform revisions to the state list of Species of Greatest Conservation Need, scheduled for completion in 2015.

The effects on bee species diversity of various prairie restoration efforts needs to be assessed so that appropriate choices of native plant species are made that benefit wild bees. This project will conduct paired surveys of bees on native prairie and restored prairie-grasslands. Associated data on the vegetation composition and quality, and the abundance and richness of plants in flower during the surveys, will be documented. The information obtained by these paired surveys, in coordination with the findings of floral resource surveys planned by the University of Minnesota (*Enhancing Pollinator Landscapes, ENRTF 146-F*), will refine restoration decisions to enhance both the bee pollinator populations and the prairie-grassland habitat. It may also inform native plant choices for the proposed Pollinator Garden at the Minnesota Landscape Arboretum (*Bee Discovery Center at the Minnesota Landscape Arboretum, ENRTF 073-C*) and community pollinator projects proposed by Pheasants Forever (*Minnesota Pollinator Partnership, ENRTF 072-C*).

**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**

**Overall Project Outcomes and Results:**

**IV. PROJECT ACTIVITIES AND OUTCOMES:**

**ACTIVITY 1: Species List of Wild Bees in Minnesota**

**Description:** Existing information on the statewide distribution, habitat association, and natural history traits of wild bees (including native and non-native species) found in Minnesota will be compiled from regional and national repositories, published literature, and unpublished reports. The data from specimen examination and literature review will be compiled in species summaries, distribution maps and a statewide bee species list.

**Approach:** Bee specimens in museum collections will be examined and associated information recorded. The objective is to obtain geospatial and habitat information from every county represented by a bee specimen in each collection. In situations where counties span more than one ecological province, specimen data from each province within a county will be collected. Data from the oldest and newest specimens of a species will be recorded for historical perspective. Compilation of this information, through databases, GIS layers and webpage development, will identify data gaps that direct future survey efforts, provide baseline data that inform conservation and management priorities, and facilitate contributions from citizen scientists. This project will work closely with the new pollinator faculty position at the University of Minnesota (refer to *Enhancing Pollinator Landscapes, ENRTF 146-F*) to ensure consistency in database development and interdisciplinary access to the growing data set on Minnesota’s pollinators.

**Summary Budget Information for Activity 1:**

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

**Activity Completion Date:** June 30, 2016

<b>Outcome</b>	<b>Completion Date</b>	<b>Budget</b>
1. Specimen data on bees collected from national and regional museums	April 2016	\$ 37,000
2. Literature and reports reviewed for information on Minnesota bees	April 2016	\$ 19,000
3. Distribution and natural history data entered into database	April 2016	\$ 28,000
4. Prepare and distribute species list of bees in Minnesota	Continuing	\$ 9,126
5. DNR Direct and Necessary Cost	June 2016	\$ 6,874

**Project Status as of January 1, 2015**

**Project Status as of July 1, 2015**

**Project Status as of January 1, 2016**

**Final Report Summary:**

**ACTIVITY 2: Wild Bees Associated with Native Prairie**

**Description:** Preliminary surveys of wild bees and associated flowering plants will be conducted on native prairie sites throughout the Minnesota Prairie Region. Survey findings will identify wild bee species associated with native prairies, as identified by the Minnesota Biological Survey, and will contribute to the comprehensive list of wild bees in Minnesota. Findings will be evaluated in terms of region, prairie classification, and spatial context. Survey techniques will be evaluated for effectiveness as a long-term monitoring protocol (see Activity 3).

**Approach:** Native prairie sites will be selected from Aspen Parklands, Red River Prairie and Minnesota River Prairie ecological sections. Bee trap transects will be run repeatedly at each site from April through October to maximize the diversity of bee species recorded. Survey protocol is similar to that proposed for the University of

Minnesota’s resurvey effort (refer to *Enhancing Pollinator Landscapes, ENRTF 146-F*), thus enabling comparison of bee fauna from other regions of the state. All \*bees collected will be identified and entered into the bee database with associated habitat information. Voucher specimens will be prepared for each species at each site and submitted to the Insect Collection at the University of Minnesota. Associated floral diversity at the bee transects will be documented.

\*Bees targeted include members of six bee families in the subgroup Anthophila, order Hymenoptera. Hymenoptera not targeted by this project include wasps, hornets, ants and sawflies. Individuals from these groups, as well as other insects and arachnids, that are captured during the survey will be collected and retained for a period of time for future investigations.

**Summary Budget Information for Activity 2:**

**ENRTF Budget: \$ 120,000**  
**Amount Spent: \$ 0**  
**Balance: \$ 120,000**

**Activity Completion Date:** June 30, 2016

<b>Outcome</b>	<b>Completion Date</b>	<b>Budget</b>
1. Selection of up to 45 native prairie sites	July 2014	\$ 5,500
2. Field surveys of bees and associated plant species	November 2014	\$ 55,000
3. Protocol testing for long-term monitoring	November 2014	\$ 5,500
4. Data entry, specimen preparation, and delivery of specimens to museum collections	April 2015	\$ 33,000
5. Evaluation and refinement of survey methodology	April 2015	\$ 5,500
6. Summarize findings, add to species list, and distribute to partners	June 2016	\$ 5,500
7. DNR Direct and Necessary Cost	June 2016	\$10,000

**Project Status as of January 1, 2015**

**Project Status as of July 1, 2015**

**Project Status as of January 1, 2016**

**Final Report Summary:**

**ACTIVITY 3: Comparison of Wild Bee Fauna in Prairie-Grasslands**

**Description:** The wild bee fauna and associated plant species will be compared among native prairie sites (surveyed in Activity 2) and restored prairie-grassland sites. The focus of these surveys is to identify mutually beneficial relationships between native or restored prairie-grasslands and bee pollinators. Other habitats present in the Prairie Region, such as agricultural fields, flower gardens and nurseries, will not be included in this project. Survey protocols will be refined to use for long-term monitoring of grassland management. Findings will form the basis for development of management recommendations to enhance diversity of prairie flora and associated pollinators.

**Approach:** Field surveys, specimen vouchering and data management will follow procedures described in Activity 2. Statistical comparisons of bee species richness and abundance and floral resource diversity will be performed and evaluated between native prairie and restored prairie-grassland sites. These findings, augmented by those from the University of Minnesota’s floral resource assessment (refer to *Enhancing Pollinator Landscapes, ENRTF 146-F*), will inform best management practices in grassland habitats that promote wild bees.

**Summary Budget Information for Activity 3:****ENRTF Budget: \$ 150,000****Amount Spent: \$ 0****Balance: \$ 150,000****Activity Completion Date:** June 30, 2016

<b>Outcome</b>	<b>Completion Date</b>	<b>Budget</b>
<b>1.</b> Refinement of survey and monitoring protocol and selection of up to 90 sites; 45 native prairie and 45 restored prairie-grassland	April 2015	\$ 7,000
<b>2.</b> Field surveys of bees, associated plant species, and vegetation description	November 2015	\$ 56,000
<b>3.</b> Data entry, specimen preparation, and delivery of specimens to museum collections	April 2016	\$ 42,000
<b>4.</b> Results summarized and evaluated, species list updated	June 2016	\$ 7,000
<b>5.</b> Second field season of surveys conducted	Continuing	\$ 28,000
<b>6.</b> DNR Direct and Necessary Cost	June 2016	\$10,000

**Project Status as of January 1, 2015****Project Status as of July 1, 2015****Project Status as of January 1, 2016****Final Report Summary:****V. DISSEMINATION:**

**Description:** Data collected from this project will be stored in the Minnesota Department of Natural Resources (MNDNR), Division of Ecological and Water Resources information system. This information will take the form of databases, GIS layers, maps, and web-based summaries. They will be linked to other databases within the MNDNR and will be shared with our partners working on separate bee and pollinator projects.

Publications, presentations and web-based products will be developed to provide information to a variety of audiences. A webpage on wild bees will be developed within the MNDNR's Minnesota Biological Survey website (<http://www.dnr.state.mn.us/mbs/index.html>). This webpage will include updates on project activities and findings, provide a state species list of bees in Minnesota, statewide distribution maps for each bee species, and species accounts that summarize natural history traits and habitat associations. The page will link to the MNDNR Nongame Wildlife Program and other external websites that feature bees.

Coordination and information exchange with other pollinator groups and projects will strengthen our knowledge of Minnesota's pollinators and identify additional needs for conservation and management. These collaborators include, but are not limited to, MNDNR Pollinator Habitat Project, University of Minnesota (UM) Bee Squad, Enhancing Pollinator Landscapes (UM, ENRTF 146-F), Minnesota Pollinator Partnership (Pheasants Forever, ENRTF 072-C), Protecting Bees by Understanding Systemic Insecticides (UM, ENRTF 151-F), Bee Discovery Center at the Minnesota Landscape Arboretum (ENRTF 073-C), Prairie Butterfly Conservation, Research and Breeding Program (MN Zoological Garden and MNDNR, ENRTF 017A).

Physical collections of bees will be prepared and deposited into the Insect Collection at the University of Minnesota; plant collections will be deposited into the J.F. Bell Museum of Natural History's Herbarium. Data associated with bee specimens will be stored in the MNDNR Observation Database and the UM Insect Collection's database, and will be available for inclusion in international databases.

Project Status as of January 1, 2015

Project Status as of July 1, 2015

Project Status as of January 1, 2016

Final Report Summary:

VI. PROJECT BUDGET SUMMARY:

A. ENRTF Budget Overview:

Budget Category	\$ Amount	Explanation
Personnel:	\$ 229,126	1 project coordinator/entomologist at 100% FTE for 2 years; 1 zoology data manager at 30% FTE for 1 year; 1 graphics/web design specialist at 10% FTE for 2 years; 1 seasonal entomologist at 50% FTE for 1.5 years; 2 seasonal botanists at 30% for 1.5 years
Professional/Technical/Service Contracts:	\$ 10,000	Contractual agreements with technical experts for statistical guidance, database development and vegetational analysis.
Equipment/Tools/Supplies:	\$ 15,000	Field equipment and supplies to be used for data recording, bee collection, specimen preparation; cell phone rental for field coordination and safety.
Travel Expenses in MN:	\$80,000	Mileage and seasonal lease of MNDNR fleet vehicles, lodging and meals to visit state repositories with Minnesota bee specimens and to conduct field surveys.
Other: Travel Expenses outside MN:	\$ 9,000	Mileage, lodging, meals to Midwest collections with Minnesota bee specimens. Important records of bees collected from Minnesota reside in collections held by Midwest institutions in Wisconsin, Iowa, North Dakota, South Dakota, and Illinois. It is critical to the objective of this project -- <i>to compile specimen data on Minnesota bees</i> -- that the project coordinator be allowed to visit these institutions to record these data.
*DNR Direct & Necessary Cost	\$ 26,874	
<b>TOTAL ENRTF BUDGET:</b>	<b>\$ 370,000</b>	

\*Direct and Necessary expenses include both Department Support Services (Human Resources, IT Support, Safety, Financial Support, Communications Support, Planning Support, and Procurement Support) and Division Support Services. Department Support Services are described in the agency Service Level Agreement, and is billed internally to divisions based on rates that have been developed for each area of service. These services are directly related to and necessary for the appropriation. Department leadership services (Commissioner's Office and Regional Directors) are not assessed. Division Support Services include costs associated with Division business offices and clerical support. Those elements of individual projects that put little or no demand on

support services such as large single-source contracts, large land acquisitions, and funds that are passed-through to other entities are not assessed Direct and Necessary costs for those activities.

**Explanation of Use of Classified Staff:** Any classified staff paid through this project (1) will be a technical expert needed to incorporate incoming data into existing information systems, or (2) will delay, eliminate or complete work normally performed by this position.

**Number of Full-time Equivalents (FTE) Directly Funded with this ENRTF Appropriation:** Approximately 3.7 FTEs over the 2-year period of this project.

**Number of Full-time Equivalents (FTE) Estimated to Be Funded through Contracts with this ENRTF Appropriation:** Approximately 0.3 FTEs over the 2 year period of this project.

**B. Other Funds:**

Source of Funds	\$ Amount Proposed	\$ Amount Spent	Use of Other Funds
<b>Non-state</b>			
	\$	\$	
<b>State</b>			
RIM Critical	\$ 24,000	\$	Project manager salary
<b>TOTAL OTHER FUNDS:</b>	\$	\$	

**VII. PROJECT STRATEGY:**

**A. Project Partners:** This request does not include funding for the following partners: land managers and owners of survey sites, including the MNDNR divisions of Ecological and Water Resources, Fish and Wildlife, Parks and Trails, U.S Fish and Wildlife Service, The Nature Conservancy, counties and private landowners; institutions supporting the project, containing Minnesota bee specimens and/or serving as repositories for specimens collected by this project, including American Museum of Natural History, University of Minnesota’s Insect Collection and J. F. Bell Museum of Natural History, Science Museum of Minnesota. This request complements the project addressing pollinators submitted by Dr. Marla Spivak and Dr. Clarence Lehman (*Enhancing Pollinator Landscapes, ENRTF 146-F*).

**B. Project Impact and Long-term Strategy:** The duration of this project is insufficient to account for the yearly fluctuations of insect populations. Similarly, this timeframe will produce results that can stand alone or act as the beginning phase of a long-term monitoring scheme. Continuation of the prairie-grassland monitoring component would enable differences between sites to be statistically significant. Additionally, extending the bee survey to the forested and forest-transition regions would add to our knowledge of the state’s bee fauna.

**C. Spending History:** N/A

**VIII. ACQUISITION/RESTORATION LIST:** N/A

**IX. VISUAL ELEMENT or MAP(S):** See attached.

**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 2015, July 2015, and January 2016. A final report and associated products will be submitted between June 30 and August 15, 2016.



<b>Environment and Natural Resources Trust Fund</b>											
<b>M.L. 2014 Project Budget</b>											
<b>Project Title: Wild Bee Pollinator Surveys in Prairie-Grassland Habitats</b>											
<b>Legal Citation: M.L. 2014, Chp. 226, Sec. 2, Subd. 05i</b>											
<b>Project Manager: Gerda Nordquist</b>											
<b>Organization: MNDNR</b>											
<b>M.L. 2014 ENRTF Appropriation: \$ 370,000</b>											
<b>Project Length and Completion Date: 2 years, June 30, 2016</b>											
<b>Date of Report: February 10, 2014</b>											

<b>ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET</b>	<b>Activity 1 Budget</b>	<b>Amount Spent</b>	<b>Activity 1 Balance</b>	<b>Activity 2 Budget</b>	<b>Amount Spent</b>	<b>Activity 2 Balance</b>	<b>Activity 3 Budget</b>	<b>Amount Spent</b>	<b>Activity 3 Balance</b>	<b>TOTAL BUDGET</b>	<b>TOTAL BALANCE</b>
<b>BUDGET ITEM</b>	<b>Species List of Wild Bees in Minnesota</b>			<b>Wild Bees Associated with Native Prairie</b>			<b>Comparison of Wild Bee Fauna in Prairie-Grasslands</b>				
<b>Personnel (Wages and Benefits)</b>	\$70,126	\$0	\$70,126	\$69,000	\$0	\$69,000	\$90,000	\$0	\$90,000	\$229,126	\$229,126
1 Project Coordinator: \$108,126 (70% salary, 30% benefits); 100% FTE for 2 years											
1 Zoology Data Manager: \$17,000 (70% salary, 30% benefits); 30% FTE for 1 year											
1 Graphics/Web Design Specialist: \$17,000 (50% salary, 50% benefits); 10% for 2 years											
1 Entomologist: \$34,000 (85% salary, 15% benefits); 50% for 1.5 years											
2 Botanist: \$53,000 (75% salary, 25% benefits); 30% for 1.5 yrs											
<b>Professional/Technical/Service Contracts</b>											
TBD (competitive bid): statistical guidance, project design				\$5,000	\$0	\$5,000				\$5,000	\$5,000
TBD (competitive bid): vegetational analysis							\$5,000	\$0	\$5,000	\$5,000	\$5,000
<b>Equipment/Tools/Supplies</b>											
Field survey equipment and supplies, including but not limited to: bee traps, trap solution, GPS units, cameras, batteries, kill jars, chemicals, collection bags, clipboards, field forms, pencils, cell phone rental, field vests, gloves, insect repellent, sunscreen	\$500	\$0	\$500	\$3,000	\$0	\$3,000	\$5,000	\$0	\$5,000	\$8,500	\$8,500
Specimen preparation equipment and supplies, including but not limited to: pins, pinning boards, storage boxes, archival paper, vials, preservative, freezer	\$500	\$0	\$500	\$1,500	\$0	\$1,500	\$4,000	\$0	\$4,000	\$6,000	\$6,000
Data management: external drives	\$500	\$0	\$500	\$0	\$0	\$0	\$0	\$0	\$0	\$500	\$500
<b>Travel expenses in Minnesota</b>											
Mileage, seasonal lease of MNDNR fleet vehicles, lodging and meals while conducting field surveys or visiting state specimen repositories	\$10,000	\$0	\$10,000	\$32,000	\$0	\$32,000	\$38,000	\$0	\$38,000	\$80,000	\$80,000
<b>Other</b>											
Travel expenses outside Minnesota. Mileage, lodging, meals and incidental expenses to visit Midwest specimen repositories.	\$9,000	\$0	\$9,000							\$9,000	\$9,000
DNR Direct & Necessary Cost	\$6,874	\$0	\$6,874	\$10,000	\$0	\$10,000	\$10,000	\$0	\$10,000	\$26,874	\$26,874
<b>COLUMN TOTAL</b>	<b>\$97,500</b>	<b>\$0</b>	<b>\$97,500</b>	<b>\$120,500</b>	<b>\$0</b>	<b>\$120,500</b>	<b>\$152,000</b>	<b>\$0</b>	<b>\$152,000</b>	<b>\$370,000</b>	<b>\$370,000</b>

# Wild Bee Surveys in Prairie-Grassland Habitats



Leafcutter bee (*Megachile* sp.) on blazing star.  
Photo by Randy Schindle, MNDNR



Brown-belted bumble bee (*Bombus griseocollis*) on butterflyweed. Photo by Mike Halverson



Green metallic bee (*Agapostemon virescens*)  
Photo by Sam Droege, US Geological Survey

## ***Why are wild bees important?***

Wild bees provide vital pollination services and are an integral component of species diversity in prairie-grasslands. The Minnesota Prairie Conservation Plan seeks to restore functioning prairie systems with stable or increasing native plant diversity. Wild bee pollinators play a major role in prairie restoration efforts. Enhanced prairie condition provides food and cover for wildlife, prevents soil erosion, and promotes animal and plant diversity.

## ***Are our wild bees in peril?***

The health of our wild bee population is uncertain. We know very little about the diversity and distribution of wild bees in Minnesota. Research elsewhere suggests that wild bees have suffered serious declines as habitat loss and pesticide use have accelerated. Successful enhancement of pollinator habitat depends on baseline data about our wild bees.

## ***This project will***

- **Compile existing information about wild bees in Minnesota**
- **Conduct surveys of wild bees on native prairies in Minnesota**
- **Compare wild bee fauna on native versus restored prairie-grasslands**



# Proposal: Wild Bee Surveys in Prairie-Grassland Habitats

## Activity 1. Checklist of wild bees in Minnesota

- Collect specimen data on Minnesota wild bees from museums
- Compile literature and reports on wild bees in Minnesota
- Develop a wild bee database
- Prepare a checklist of wild bees in Minnesota

## Activity 2. Wild bees associated with native prairie

- Conduct surveys of wild bees in high-quality native prairie sites identified by the Minnesota Biological Survey
- Compare wild bee diversity with native plant species diversity
- Incorporate new findings into the Minnesota wild bee database

## Activity 3. Comparison of wild bee fauna in prairie-grasslands

- Compare wild bee fauna between native prairie and restored prairie-grasslands
- Associate wild bee diversity with flowering resources
- Recommend best management practices to enhance pollinator habitat



### Contacts

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There is a clear need for *“the publication of good faunal lists...[of] the native bee fauna of Minnesota.”*  
- Sam Droege, USGS Bee Inventory and Monitoring Lab



Under the Minnesota Prairie Conservation Plan *“large areas of prairie, grassland, and associated habitats will be protected and restored to create functioning prairie systems...”*



HF No. 976, adopted May 2013, directs the DNR commissioner to: *“...develop best management practices and habitat restoration guidelines for pollinator habitat enhancement.”*

**DNR Direct & Necessary Cost Calculator DRAFT 1-10-14**

*Fill in yellow cells to calculate services your program needs. All other cells are formulaic and locked.*

Division: EWR  
Project Title: Wild Bees Surveys In Prairie-Grassland Habitats

LCCMR Request (before D&N)	Fee Title or Easement Acquisition	Pass-through Grants	Single-source Contract	Metric	Metric Value	Number of Units	Total D&N
\$ 370,000	\$ -	\$ -	\$ -	People Support	FTE	4.25	\$ 5,636
				Safety Support	FTE	4.25	\$ 1,394
				Financial Support	All Other Costs	\$343,126	\$ 4,461
				Communication Support	Altmnts	1	\$ 1,141
				IT Support	IT User ID	3	\$ 6,819
				Planning Support	Altmnts	1	\$ 704
				Procurement Support	Altmnts	1	\$ 235
				Division Direct (project)	Cost/dollar (.0189)	0.0189	\$6,485
				Division Direct (program)	Cost/dollar (.0463)	0.0000	\$0
				<b>Total Direct &amp; Necessary:</b>			\$ 26,874
				<b>Costs before Direct and Necessary:</b>			\$ 343,126
				<b>Total Project Costs:</b>			\$ 370,000

Position Title	Staff Funded by Program/Project				FTE-Year Units	User ID-Year Units
	FTE's Funded	Years	User ID's Needed	Years		
Project Coordinator	1	2	1	2	2	2
Zoologist	0.5	1	0.5	1	0.5	0.5
Zoologist	0.25	1	0	0	0.25	0
Field Staff	0.4	1	0	0	0.4	0
Zoology Data Mgr	0.3	1	0.3	1	0.3	0.3
Graphics & Web Designer	0.1	2	0.1	2	0.2	0.2
Field Staff	0.6	1	0	0	0.6	0
<b>SUM:</b>					<b>4.25</b>	<b>3</b>

**Notes on calculations**

People Support: FY14 HR Budget/2012-13 March/March FTE  
 Safety Support: FY14 Safety Budget/2012-13 March/March FTE  
 Financial Support: Source: FY14 OMBS Budget/FY13 Approp & Dedicated Revenue Budget  
 Communication Support: FY14 OCCO Budget/2013 Allotments  
 Computer Support: FY14-15 MN.IT Services @ DNR SLA Budget (Governance Subtotal + IT Server Initiative/2012-13 March/March FTE)  
 Planning Services: FY14 Planning Budget/2013 Allotments  
 Procurement Support: FY14 Procurement Budget/2013 Allotments  
 Division Support: Cost/dollar (from D&N Cost Analysis)