

## **Preproposal Report**

**Project Title:** Region 1 Bee Monitoring Program

### **Project Description:**

Four NWR's are continuing from 2014, bee monitoring in conjunction with management techniques; 1 NWR is starting baseline surveys for bees. Funding is needed for sample processing and bee identification by the Logan Bee Lab in Utah for 2015 samples. Funding within their Intra-agency Agreement has been depleted; additional funds are needed to continue the project.

**Project Type(s):** Inventory, Monitoring, Assessment, Data Management

**Project Category(ies) (select one or more):** Pollinators

### **Relevance to Management or Understanding of Refuge Resources:**

Does the project address a refuge management issue? Yes

Does the project provide information about a refuge resource(s) that is lacking or poorly understood? Yes

*If you answered yes to either question, then briefly describe how the project informs a refuge management decision/process and/or enhances knowledge of a refuge resource(s). Also, briefly describe what makes this project notable in comparison to what the refuge staff typically undertakes as part of its regular or reoccurring biological activities.*

Pollinator fauna are poorly known on most NWRs. Four Refuges in the 2015 program are in their second year of evaluating management treatments on bee fauna and/or collecting baseline data for habitat restoration. This data collected will also contribute to the overall knowledge of bee fauna on PNW refuges.

### **Justifications (benefits) for project:**

Coordinate monitoring among multiple refuges to gain efficiencies, Evaluate benefits of refuge management (achieving one or more CCP objectives), Evaluate if refuge management is negatively affecting species or habitats, Create a species list for a refuge, especially for rare/unique communities

**Participating refuges:** Protection Island NWR; Willapa NWR; Hanford NM; Turnbull NWR; Little Pend Oreille NWR

### **Provide a project timeline:**

Field work to begin April 2015 through October 2015 (Refuge-led). Processing and identification by the Logan Bee Lab to be accomplished by December 2016.

**Budget estimate** (If the project requires multiple years, then itemize cost annually.)

\$3000 for pins, units, drawers, 1 cabinet; technician full-time 16 weeks @\$15/hr =\$9600 for total of \$12,600.

**Possible funding sources (select one or more):** I&M

**How will the project funding be fully spent or obligated? (select one or more):**  
Agreement

**How could the project be conducted? (select one or more):**  
Contractor

**Are there partners that would be directly involved with the project?** Yes

*List them and briefly describe their roles/contributions. Partners can be FWS program staff (e.g., Water Resources, Fire, Migratory Birds, I&M) or non-FWS entities providing in-kind support (e.g., equipment, staff time, funding).*

Refuge staff from 5 Refuges to conduct field collections of bees

**What are the expected product(s)?** Database

**Contact person:** Joe Engler