



## **Work Plan Guidance**

### **Introduction**

The work plan should describe specific actions to be performed to complete all project milestones and deliverables. In addition, the plan should highlight specific roles of individuals, and detail project coordination, methods and resources necessary for successful project completion. The work plan is intended to be a guide for operation and should reflect current status of work.

NOTE: Activities, staffing and supplies discussed in the work plan should reflect the scope of work as awarded in your contract or interlocal agreement. Any proposed changes to the scope of work must be presented through an amendment request form. A work plan that alters the scope of work will not be accepted.

### **1. Project Staffing, Roles and Responsibilities**

Who will be working on the project and what are their positions? Who will be project lead, analyst, GIS, etc.

What regular duties, roles and responsibilities are assigned to each staff person associated with this project?

#### ***Example***

##### ***Project Management and Support Services***

*John Doe will serve as the Project Manager and primary point of contact between the Agency and Clark County. He will be responsible for coordinating the scientific input, advice, analysis and review of materials requested by the County's Project Manager.*

*Dolly Madison will coordinate all project meetings including the bi-weekly meeting and in conjunction with John Doe ensure that the necessary participants are present at each meeting. She will be responsible for note taking during the meetings and the subsequent dissemination of notes to all parties.*

### Work Plan and Data Management Plan

*Scott Baio will write the data management plan for the project in the Clark County specified format. He will also construct the first annual work plan which comprises this document. He will not be working on the project after July 31, 2007.*

*Marie Calendar will undertake annual work plan updates for the term of the project.*

## **2. Coordination**

How will you coordinate with Clark County and other entities such as subcontractors?

Are there any deliverables/milestones for your project that are dependent on receiving information or data from another entity? How will you manage this situation?

How will you obtain permits or ensure permits are in place for the activities being conducted, if applicable?

## **3. Essential Equipment, Supplies, Software and Facilities**

What equipment, supplies, software and facilities are essential for the completion of the project?

When do they need to be acquired and in place?

## **4. Project Activities and Methods**

What are your project methods?

What specific activities must take place to ensure the project is completed?

*Example:*

### ***Approach:***

*Inventories will correspond with bee activities starting in the spring. In the spring, two field crews, each consisting of 2 persons, will conduct surveys in the spring beginning with the earliest flying species, *Andrena balsamorhizae*, in mid March and running until the end of June. A single field crew of 2 persons will conduct surveys from July through September to capture 3 species which fly only in the summer-fall and the 5 species that fly during this season as well as the spring. Surveys will be conducted five days per week. Site data will be collected including coordinates, date, time of day, temperature, wind speed, and bee visited plants.*

*The 26 bees on the evaluation and watch lists can be roughly broken down into three groups based on current knowledge:*

**Group A:**

*Group A species have no current information. These species are known only from historic records with often imprecise locality data and no knowledge of pollen preferences. The species were not detected during the previous study (Griswold et al. 1999). Pre-fieldwork effort: GIS-referenced historic collections, with appropriate buffers scaled to precision of locality data. For example, if locality is a distance in miles in a given direction use half mile radius; for localities that have been described as located at a specified town use five mile buffer radius as estimate. Primary fieldwork goal: Detect species; provide specific locality data; and obtain floral data if possible.*

*Methods for Group A:*

- 1) Collect in the vicinity of type locality. A systematic search within the buffer radius in all directions from the reference point will be conducted.*
- 2) Sampling during period three weeks on each side of known collection date(s).*
- 3) Sampling at all plants in bloom to increase likelihood of detection and to develop understanding of floral preferences.*

**Group B:**

*Group B's current data is limited, these species have some current records but no defining life history characteristics have been identified. Pre-fieldwork effort will be composed of, GIS-referenced of historic records and add to digitized records, and analyze in GIS for physical characteristics that might be predictive. Field personnel will enter these historical information/records as coordinates into GPS units. Primary fieldwork goal: Determine floral preferences.*

*Methods for Group B:*

- 1) Collect in the vicinity of known localities during potential activity period.*
- 2) Sample at all plants in bloom to increase likelihood of detection and to develop understanding of floral preferences. (Timed collections on individual plants will not be used because the lengthy period would come at the expense of multiple sampling sites in a collecting day. Total collecting time will be recorded.)*

**Group C:**

*Group C's current data is substantial, such as species with current records and hypothesized pollen preferences. Pre-fieldwork effort: Analyze distributional records in GIS for physical characteristics that might be predictive, determine distributions of pollen hosts from published descriptions, online databases, and herbarium records.*

*Field personnel will enter these historical information/records as coordinates into GPS units. Primary fieldwork goal: Determine overall range and local distributions; verify pollen preferences.*

*Methods for Group C:*

- 1) Locate pollen hosts in bloom using localities derived from preseason data collection and from field observations. Initial efforts will concentrate on disparate localities throughout the county to determine overall range in the first year, followed by more localized inventories to determine the extent to which the bees utilize pollen plant populations.*
  
- 2) Make timed collections (30 min) on presumed pollen host as well as 30 min collections on co-occurring plants in bloom to verify floral preference. Timed collections will provide quantitative measures of relative bee abundance.*