

# Memorandum

To: Contracts Office

Date: 8/6/2010

Telephone: 916-651-9010

From: **California Energy Commission ERDD/PIER**  
1516 Ninth Street  
Sacramento CA 95814-5512

Subject: Mapping Habitat Distributions of Desert Rare Plants from Optimized Data

A. Contractor: The Regents of the University of California, Davis

B. Contract Manager and date Contract Managers Training was obtained:  
Misa Milliron CCM Training date: 11/2/2009

C. Term of Contract:  
10/11/2010 to 6/11/2013

D. Amount funded by this contract or amendment and funding source:  
\$580,907.00 PIER-E

E. Purpose of Contract and if requesting amendment, reason for amendment:

This project will generate new, accurate coordinate data that can be mapped, exported, and viewed online for 12,000 Mojave and Colorado Desert rare plant specimens housed in the Jepson Herbarium. It will integrate this georeferenced plant specimen data and additional sources of location data with a rigorous habitat suitability modeling approach based on two analytic methods, including field testing of models, in order to obtain novel distribution maps for six to eight rare plant species and improve predictions of potential habitat. Data acquisition and database development will uncover new occurrence records for these plants, which will be input into the California Department of Fish and Game's California Natural Diversity Database (CNDDDB). The CNDDDB is the central biological data repository that provides fundamental biological information used to prepare environmental documents and identify rare animal and plant species that could be located on a proposed energy facility or other development site. Therefore, the data used to develop the models and resulting maps of rare plant distribution will be made publicly available for use by state and federal land management agencies, non-governmental organizations, private industry, and academia.

Habitat suitability modeling will involve the use and comparison of at least two types of species distribution models. Following ground-truthing surveys of potential habitat predicted in the first round of modeling, additional new location data and absence data gathered in the field will be incorporated into the models in subsequent rounds to potentially improve model predictions. Surveys used to validate preliminary models will be conducted over the course of two years. In addition, expert opinion on habitat likely occupied by rare plants will also be incorporated into the model, and its effect on the resulting accuracy will be evaluated.

The methods used in this study will yield a foundation for developing models for other rare plant species in the region and elsewhere. If models for some plants prove to be unreliable (do not result in additional localities or new occurrences are primarily outside of predicted areas), then this information will be also useful in assessing what can and what cannot be inferred about desert rare plant occurrences using rigorous predictive habitat models. Some suitable habitat

identified could be of interest as areas that may be currently unoccupied but are potentially suitable for species introductions associated with the mitigation of project impacts.

In summary, the project aims to provide comprehensive information on the distribution and suitable habitat of a suite of rare plant species of conservation concern that will be impacted by utility scale solar energy development. It will also result in the addition of novel location records into the CNDDDB, maps of expert opinion on potential distribution and habitat, and methods of habitat distribution modeling for rare plant species. The data generated from georeferencing 12,000 rare plant specimens will be provided to the CNDDDB, and this will help fill biodiversity data gaps in the deserts of California that hinder the environmental review of proposed energy facilities. Furthermore, this project will provide both a methodology and an assessment of the accuracy and potential usefulness of habitat suitability models for rare plant conservation and mitigation planning to help minimize the impact of projects in the California desert.

F. Scope of Work - attach as Exhibit A - Scope of Work (includes deliverables and due dates):

G. Budget Detail - attach as Exhibit B - Budget Detail

1. What payment method are we paying Contractor? Choose all that apply

- a.  Reimbursement in arrears based on:
- Itemized Monthly       Itemized Quarterly       Flat Rate  
 One-time Payment
- b.  Advance Payment       Receiving Funds from other entity  
 Other, explain:

2. Do you anticipate retention to be released prior to the end of the Contract? If so, identify in Budget Detail what tasks are separate and distinct.

- Yes       No

H. Selection Process Used:

- Solicitation using RFP, RFQ, IFB or PON  
 Sole Source (attach CEC-96 Non-Competitive Bid Request)  
 Other government entity (i.e., state agency, federal or local government, air/water/school district)  
 Other (explain)

I. Survey of Prior Work:      See CEC 30

J. Civil Service Considerations:

Public Resources Code 25620, et seq. authorizes the Commission to contract for the subject work.

K. Information Technology Expenditures:

None

L. California Environmental Quality Act (CEQA) Compliance:

1) Is contract considered a "Project" under CEQA?

- Yes       No

If yes, skip to question 2.

If no, please complete the following (Public Resources Code (PRC) 21065 and 14 California Code of Regulations (CCR) 15378):

Explain why is contract not considered a "Project"?

Contract will not cause a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because contract involves modeling and mapping that will be conducted in an office setting, and all field surveys will be for data collection purposes only.

2) If contract is considered a "Project" under CEQA:

a)  Contract **IS** exempt  
Check the appropriate exemption box and fill in the section number of the exemption.

Statutory Exemption. List PRC and/or CCR section number: \_\_\_\_\_

Categorical Exemption. List CCR section number: \_\_\_\_\_

Common Sense Exemption. 14 CCR 15061(b)(3)

Explain reason why contract is exempt under the above section:

b)  Contract **IS NOT** exempt. The Contract Manager needs to consult with the Energy Commission attorney assigned to your division and the Siting Office regarding a possible Initial Study.

M. Disabled Veteran Business Participation: Not Applicable.

Meets DVBE Requirements

Requesting DVBE Exemption (attach CEC-95 DVBE memo)

N. Is Contractor a certified Small Business?

Yes  No

O. Is Contractor subcontracting **any** services? If so, list them and identify if they are a certified Small Business?

Yes  No

UC Berkeley

No

P. Miscellaneous Contract Information:

1) Will there be Work Authorizations?  Yes  No

2) Is the contractor providing confidential information?  Yes  No

3) Is the contractor going to purchase equipment?  Yes  No

4) Will progress reports be required? If so, check one of the following:

Monthly  Quarterly  Other (please describe)

Progress reports are required, see Scope of Work, Exhibit A, attached.

- 5) Will a final report be required?  Yes  No
- 6) Are resumes attached for all consultants  Yes  No
- 7) Is the contract, with amendments, longer than a year? If so, why?

The Department of General Services has agreed to give the Commission blanket authority to execute multi-year contracts to support the Commission's RD&D Programs.

- 8) What basis did you use to determine that the price, or rate, is reasonable?

The overhead rates charged by the Regents of the University, California, are standard negotiated rates with the Energy Commission. The Labor Rates are standard University rates for each classification.

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