

Statement of Work

Title: Development of a Prototype Long-term Ecological Monitoring Program for National Parks in the Subarctic: Assessment of Existing Data Management

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Background:

The National Park Service (NPS) has begun an Inventory & Monitoring Program, to better understand the natural resources under their protection and to detect changes in those resources. In this context, the U.S. Geological Survey, Biological Resources Division (BRD), Alaska Biological Science Center is working with Denali National Park and Preserve to develop a prototype Long-term Ecological Monitoring Program (LTEM) suitable for national parks in the subarctic. One of BRD's roles in development of the Denali LTEM program is to provide guidance about data management techniques appropriate for long-term monitoring programs.

General background information on the Denali LTEM program can be found at the following web site:

<http://www.absc.usgs.gov/testbed/Brooke/denali.htm>

Goal: Development of a prototype long-term ecological monitoring program suitable for national parks in the subarctic that is ecologically-relevant, statistically-sound, cost-effective and relevant to park management concerns. This contract will help meet this goal by providing an initial assessment of the current methods being used to store, document, validate and report data from the monitoring program and providing recommendations for improvement.

Objectives:

1. Assess the adequacy of existing data management methods in use for the Denali LTEM program.
2. Suggest steps to improve the data management methods used for individual data sets.

3. Suggest steps that would help move towards either a common database for all program elements or steps to make the various databases more compatible than at present.

Tasks:

1. Review Denali Data Management Protocol (available on the Denali LTEM website at: <http://www.absc.usgs.gov/testbed/Brooke/denali.htm> on the Protocol page.)
2. Review preliminary database design specifications drafted by USGS-Alaska Biological Science Center.
3. Review a selection of pre-existing Access databases holding Denali Long-term Ecological Monitoring Program data.
4. Review a selection of datasets for the Denali LTEM program which have not yet been transferred to Access.
5. Prepare a brief, written assessment of the current methods used to store, document, validate and report data from the Denali LTEM program and make specific recommendations for improvement. The report should:
 - a. provide general comments on the Denali Data Management Protocol;
 - b. provide comments on the preliminary database design specifications and recommended changes;
 - c. provide a general assessment of the work needed to bring existing databases into compliance with the recommended design specifications.
 - d. make recommendations for ways to take better advantage of Access as the chosen database management system
 - e. provide an assessment of what it would take, and whether it would be a good idea, to move towards a single database for all Denali LTEM program elements, or if there are methods that can improve the compatibility of the various data sets.
6. Provide an oral briefing on the results of the assessment.

Deliverables:

1. Assessment report. Due: NLT March 30, 1999.
2. Assessment briefing. Due: NLT March 30, 1999.

Period of Performance: March 15-30, 1999.

Cost: Contractor charges \$125/hr for consulting services. Estimated number of hours to complete this project is 19.8 hours. Total contract cost is estimated to be \$2,475.00

Billing: Contractor will bill for the number of hours actually worked after completion of deliverables.