Memorandum

To: NPS Network Coordinator, Pacific Islands Network

CC: NPS Representatives for Parks in the Pacific Island Network

From: Dan Cogan, Cogan Technology Inc.

Date: 10/6/2009

Re: Outline for vegetation inventory interviews and existing data evaluations

---

Background

During the weeks of 8/20 – 9/21 Dan Cogan with Cogan Technology Inc. (CTI) will be visiting all of the NPS units on the Hawaiian Islands in the NPS Pacific Island Network regarding vegetation classification and mapping projects. The Pacific Island network is anticipating getting funding from the I&M Vegetation Inventory Program over the next five years to complete detailed vegetation classification and mapping studies at each of the parks. As needed, this may include collecting representative plot data in all of the plant associations (communities), developing descriptions of the associations through the National Vegetation Classification System, using these associations as the base for the vegetation mapping, conducting vegetation mapping using a combination of aerial photo interpretation and image classification/segmentation, and developing standard reports, maps, and GIS layers for each park.

To secure funding, the national program would like a detailed study plan that outlines the tasks and associated costs needed to complete each park. Critical to the study plan is determining the level of effort needed. This can range from simply modifying existing vegetation maps to conducting a full blown project. Also important is identifying potential partners, staff and contractors that would be interested in helping to complete the projects.

Purpose

The purpose of these meetings is two-fold. First, they will allow time for the NPS Resource Staff to interact with the CTI and I&M representatives regarding the vegetation inventory projects. Second, they will include a review of the existing data (see Attachment), identification of potential partners and cooperators, and provide the necessary information to prepare a final summary report. This report will evaluate the existing data for usefulness and develop the best strategy for how to best complete the vegetation classification and mapping for each park. This report will form the basis for the overall network study plan.

Meeting Topics and Specifics

The meetings will be informal and are open to anyone interested in the vegetation inventory program. This may include NPS Resource Staff, existing cooperators that have worked or are actively working on vegetation studies in the park, and employees or contractors that would like to work on these projects.

During the meetings it would be helpful to review the following topics and glean the following information (including securing copies of any of the following items):

1. Copies of previous vegetation studies. These include past reports and maps on any vegetation or fire mapping work, vegetation classification efforts, dissertations/theses on vegetation in the park, plant community lists, and reports on threatened/endangered and introduced/exotic plant species. In lieu of hard copies, a list of scientific citations may be submitted for readily available peer reviewed documents.

2. Copies of past or on-going vegetation sampling data. This could include electronic databases, GIS layers, or paper copies of the field forms. Of particular interest would be any data that includes plant community data, estimates of species cover, and GPS referenced locations.

3. Lists of contacts that either have worked in the park on the vegetation or would be good candidates to do the vegetation work. Typically these include local botanists, ecologists, and GIS professionals. Also contacts for any potential partners that might be able to help with logistics (provide housing, supplies etc…) and neighboring lands that might be interested in having similar work done on their lands (i.e. State Parks, other federal agencies, TNC, large private land-owners, other non-for-profit lands etc...).

4. A summary of all important items for the resource staff that could be addressed by the vegetation classification and mapping work. This could include things like lists of critical native plant and exotic plant communities to be mapped, location of sensitive areas, and lists of other needed projects that could be potentially incorporated with this one (e.g. fire fuel sampling, rare plant surveys, etc…).

5. Document and address any concerns, questions or comments that the NPS staff might have regarding future vegetation classification and mapping work.

Potential Meeting Dates, Times and Locations

Aug. 23-24	Honolulu, work with network data manager.
Aug. 27-30	Travel to HAVO and work with Network Coordinator and NPS Staff at 8 am on 8/27.
Sept. 5-7	Travel to KALA, meet with NPS staff on Sept. 5 at 2 pm and continue Sept. 6.
Sept. 10-14	Travel to Hawaii (big island) and visit with staff from Ala Kahakai National Historic Trail (ALKA), Kaloko-Honokohau National Historical Park (KAHO), Puuhonua o Honaunau National Historical Park (PUHO), and Puukohola Heiau National Historic Site (PUHE). Meet with PUHO on Sept. 10 at 10 am Meet with KAHO and ALKA on Sept. 12 at 10 am Meeting with PUHE on Sept 11 at 10 am
Sept. 17-21	Travel to HALE and meet with NPS and USGS staff either on 9/17 afternoon or 9/18 morning.

Contact Information

Dan Cogan
Cogan Technology Inc.
21 Valley Road
Galena, IL 61036

E:mail – dancogan@cogantech.com
Office – 815-777-1773
Cell – 815-858-1773

Attachment

Figure 1 presents a step-by-step process to evaluate existing data sets according to these seven components for their utility in vegetation mapping. Starting from the top of the figure, data sets are assessed and placed into appropriate categories of utility, which are characterized in Table 1. Each step of the process, as it is linked to the seven factors, is further described below.

Figure 1. Flow chart for evaluating existing datasets.

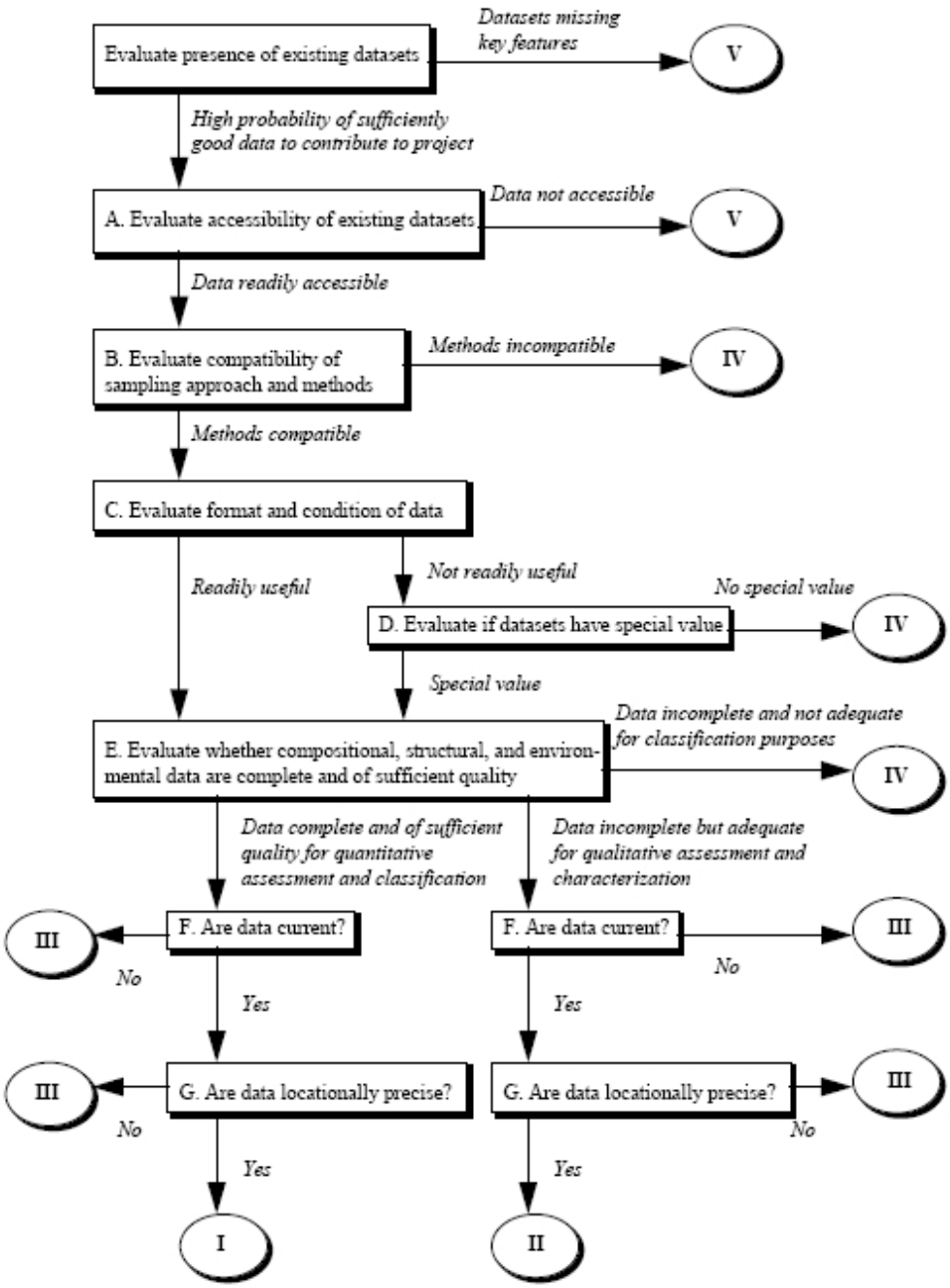

Table 1. Categories of Utility for Existing Data Sets.

Category Description

I. Samples are adequate for classification and mapping (i.e., the data are geo-referenced, represent existing vegetation, and contain sufficient structural, compositional and site information to place the sample within the standard classification framework).

II. Data are adequate to assist in photo interpretation, photographic signature key development, or map accuracy assessment (i.e., the vegetation and site information are of lower quality, but the samples represent existing vegetation and are geo-referenced with reasonable confidence).

III. Data can be used for vegetation classification and characterization of a vegetation type within the park, but not for mapping or analysis because the sample is not adequately geo-referenced, contains inadequate detail in the vegetation information, and/or may not represent existing vegetation at the sample location.

IV. Data set was assessed and not found to be useful at any level.

V. Data set was not available for assessment.