NSDI Cooperative Agreements Program
Metadata Training & Outreach Project

Interim Report

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Executive Summary
Our first workshop was intended to be held during the annual Indigenous Mapping Network (IMN) meeting August 6 & 7, 2008 in Green Bay, Wisconsin. We had to cancel this workshop due to the cancelation of the IMN meeting. We have one workshop scheduled for November 6 & 7 in Flagstaff, AZ at Northern Arizona University (NAU) and are working to schedule another for January at the Gila Indian Reservation in Secatone, AZ. We will also schedule two to three more metadata workshops in Flagstaff, AZ at NAU for early 2009. Finally, we will conduct one or two web mapping workshops here at NAU between January and March 2009.

Project Narrative
MPCER is currently planning two workshops for this winter and updating our web pages to reflect these new workshops, along with advertising these events. Currently we have scheduled one workshop at NAU in Flagstaff, AZ, for November 6 & 7, 2008. We are working to schedule another workshop at Secatone, AZ (Gila Indian Reservation) in January (date not yet set). We are working on adding additional workshops in Flagstaff for Spring 2009 and will schedule at least one web mapping workshop for the Spring in Flagstaff. In August 2008 we had planned to attend the annual meeting of the Indigenous Mapping Network in Green Bay, WI. We were scheduled to conduct a two-day workshop during the meeting. Unfortunately, the IMN meeting was canceled at the last moment, due to low registrations. We were very disappointed as the previous year's meeting provided an excellent opportunity to promote the goals of the CAP I program to a large and diverse group of Indigenous groups. Our registration webpage,

http://perceval.bio.nau.edu/metadata/ is currently up and ready for participants to register. Our workshops are open to anyone although we target tribal organizations in our advertising. We have begun to contact various people and organizations about our workshops. See the online announcement at: http://www.mpcer.nau.edu/grail/training.html. We are advertising through several organizations including NBII, ITEP (Institute for Tribal Environmental Professionals), FGDC, Tribal GIS Coordinators in the Southwest, AGIC, and USGS personnel. Our November workshop is already listed on the FGDC calendar. We will list later workshops as the dates firm up.

Training and outreach assistance

- **Indicate the number, duration, and venue of workshops conducted, as appropriate**

  Due to the cancelation of the Indigenous Mapping Network conference, no workshops have been conducted yet, but dates and locations have been set. We have already received several registrations for the November workshop.

- **List organizations and organizational type for workshop participants**

  People registered for our November workshop currently include tribal GIS professionals from the Navajo EPA and E911 programs, the Cocopah Indian Tribe, Bureau of Indian Affairs (federal government) and Tempe City, AZ.

- **At what level of proficiency are the trainees or training**

  For the workshops listed above we will provide 1.5 day curriculums covering the Federal Geographic Data Committee's (FGDC) Content Standard for Digital Geospatial Metadata (CSDGM) version 2 (FGDC STD-001-1998) and the Biological Data Profile (FGDC STD-001.1-1999). We also briefly touch upon all of the approved standards and standards in development listed on the FGDC website at http://www.fgdc.gov/standards/projects/FGDC-standards-projects/fgdc-endorsed-standards. The ISO Metadata Standard 19115 is also briefly touched upon. Participants are taught how to use the graphical representation along with essential metadata elements and how to make robust metadata by providing information for mandatory if applicable and optional elements. All the workshops provide hands on exercises using ArcCatalog, TKME and the NPS Metadata Editor. Other metadata tools are provided on the workshop CDs. Kirsten Ironside and/or Paul Heinrich, FGDC registered metadata trainers, perform the workshops. M.C. Baldwin teaches some materials relating to a Tribal Place Names project developed by Frank Roberts as well as helping with the hands-on sections and data security modules.

- **Describe the means of instruction: lecture only, lecture and exercises, or lecture and computer assisted.**

Generally we use the 1.5-day curriculum with hands-on computer exercises. In some situations we have had to fall back to lecture and exercises due to computer difficulties. For a few workshops we have used a 1-day lecture format.

- **List new organizations engaged in this project.**

At this point our only entirely new partners are the Gila River Indian Community with which we are planning a workshop for early 2009. We are also expanding our contact with Navajo agencies, such as their E911, Rural Addressing and Tribal Police agencies.

Status of Metadata Service

- **Site names where metadata is served; clearinghouse node or Geospatial One-Stop harvestable web folder.**

Our clearing house is up as of March 2005 and is being harvested by NSDI.

http://mprlsrvr1.bio.nau.edu/metadataexplorer/

- **Approximately how many metadata entries have resulted from this project?**

Metadata for 30 MPCER datasets are currently stored on our Clearinghouse. We had hoped participants in our workshop would publish records to the clearinghouse since we offer metadata hosting to all workshop participants. However, most tribes and agencies prefer to store their metadata in-house and go directly to the NSDI portal. We expect to add more of our own metadata as we develop our new geodatabases.

Next Steps

- **Will this project's activities continue after this?**

Yes, we will continue to hold several training workshops per year, assuming we can find funding for materials.

- **What formal or informal organizational relationships were established to sustain activities beyond the performance period?**

Through our CAP participation we have forged relationships with several southwest tribes including the Navajo Nation, Hopi Tribe, San Carlos Apache Tribe and Mountain Ute Tribe. We have also worked closely with The Indigenous Mapping Network, an association of native GIS/geography professionals. Our associations with the Arizona Geographic Information Council and the Institute for Tribal Environmental Professionals have proven very useful in recruiting participants for workshops.

- **Describe the next phase in your project**

  We plan to expand the CP Metadata Clearinghouse into a full data node where we provide access to data through the Clearinghouse. Since occupying our new facilities at the Geospatial Research and Information Laboratory (http://www.mpcer.nau.edu/grail/) we are building several geodatabases to cover the four-corners region (AZ, CO, UT, NM) which will be discoverable through the clearing house.

- **Are there issues in metadata management and service**

  Only that it is difficult to develop a workflow to bring non-ArcCatalog created metadata into an ESRI-based Clearinghouse.

- **Requirements (more technical assistance, software, other?)**

  Our major requirements are covering the costs of training materials, travel and trainer's time. We are attempting to reduce travel costs by having more workshops at NAU, but the workshops at client sites are very popular as is the annual IMN meeting. Rapidly increasing travel costs have made "remote workshops" very expensive.

- **What areas need work?**

  The area where our project needs the most work is in development of better materials and hands-on examples. At some remote venues we have had great difficulty with software, hardware or networking problems. By teaching the workshops in a facility that we control, we expect to eliminate these problems.

Feedback on Cooperative Agreements Program

- **What are the program strengths and weaknesses?**
- **Where does the program make a difference?**

  We would not be able to provide training workshops without the support of the CAP program and contacts made through FGDC. We have a training laboratory as part of the Geospatial Research and Information Laboratory (GRAIL). This helps with the cost of running classes but we still require extramural funding in order to provide the class at no-cost to participants. Most tribal agencies are very short of funding. By providing workshops at no cost the participants, we can greatly enhance participation.   With the long distances involved anything that can help reduce the cost to the tribal participants will help increase participation.

- **Was the assistance you received sufficient or effective?**

  The assistance we receive through the CAP program is extremely helpful.

- **What would you recommend doing differently?**

    Having the grant cycle begin and end later in the year would work better for our program due to seasonal availability of participants. This may not be true for other projects.

- **Are there factors that are missing or need to consider that were missed?**

    No

- **Are there program management concerns that need to be addressed? Time frame?**

    A June to June schedule would work well for us (see above).

If you were to do this again, what would you do differently?

    One change I would make would be to attempt to schedule more workshops during the Summer and Fall. In the past we have concentrated on the Fall and Winter and Spring, since environmental scientists and agency technical staff tend to have more time for training during the winter months. However, the cancelation of the IMN meeting greatly set-back our schedule. I would like to avoid this sort of problem in the future.