

**NSDI Cooperative Agreements Program
Metadata Training & Outreach Project (Grant 04HQAG0155)
Final Project Summary**

Agreement Number: 04HQAG0155
Final Report

Organization:

Name: California Geographic Information Association (CGIA)
Address 144 Broadway, Suite 800, California 95812
Web address: www.cgia.org

Project Leader:

Name: Mary Tsui
Telephone: 831-633-6445
Email: mtsui@landssystemsgroup.com

This project focused on metadata outreach training in the more remote regions of California where metadata gaps are known to exist, using the State's clearinghouse currently operating under the CERES Program of the California Resources Agency.

Since 1993, due to the efforts of CGIA and the California Resources Agency which were assisted by the FGDC CAP program, California has moved from a much unorganized, decentralized metadata position to an online State-sponsored node that is very usable, accessible and evolving. CGIA and CERES have jointly provided training throughout the State, but six regions have not added their metadata. In five of the regions, this is due to their remoteness and budgeting limitations on travel. CGIA and the GIS Council have reached out through telephone conferencing and other methods so that the areas are now aware of the catalog and its potential; however, training remains to be done. The five identified areas include the following:

- a. North and East: Siskiyou, Shasta, Modoc Counties
- b. North Coast: Del Norte and Humboldt Counties
- c. Gold Country: Calaveras, Tuolumne and Amador Counties
- d. Eastern Sierra: Mono and Inyo Counties
- e. South Eastern California: Imperial and eastern Riverside County

The sixth area, metropolitan San Diego and Los Angeles, is not remote but had no metadata training until this program.

Project Narrative

Summarize the project activities. Include its accomplishments, successes strengths and weaknesses, further challenges, and collaboration activities as appropriate.

Project activities included the delivery of metadata training workshops to areas targeted by CGIA and CERES as having been left out of prior training opportunities. In addition, lessons learned at each session were reviewed by CERES with recommendations for improvement or correction being incorporated into their work program.

NSDI Cooperative Agreements Program
Metadata Training & Outreach Project (Grant 04HQAG0155)
Final Project Summary

Project accomplishments include

- the successful completion of seven workshops,
- the training of 75 individuals from 34 agencies plus several non-profits
- new catalogs and metadata records added to the statewide inventory

Strengths of the project would include the following:

- CGIA and CERES have a long record of collaborating on metadata and training projects, so the foundation for this partnership was strong.
- CGIA has representation throughout the state, so its contacts even in the remote areas were generally quite capable of generating the organization required of the training.
- California Resources Agency and the CERES program are very open to suggestions for improvement of the metadata tool; this sense of responsiveness to trainee needs was viewed very positively by those in the workshops.
- Trainees, much as in the item above, were very appreciative to have training come to them rather than their having to travel to more central areas. This bodes well for future contact and participation in projects.

Weaknesses of the project, if any, would include the following:

- CGIA probably should have laid better groundwork with the targeted areas to make certain there was both a need and desire to receive training. While most of the targeted areas were quite eager to have training and participated in setting up the venues, at least two – perhaps because of their remoteness – had difficulty organizing either a venue or attendee lists.
- The training is live, hands-on and online. While this is generally strength, it can be a weakness if the Internet is down or other power interruption occurs. Fortunately, no such interruption occurred during the training sessions, although there was one close call. There should probably be, in future, some backup planned for.

Further challenges include addressing the following:

- Completion of the guidebook / tutorial for using the metadata tool
- Education of the GIS community (journey level and management) as to good IT/data documentation practices
- Actively marketing the metadata tool broadly throughout the state. The tool exists passively at present, and aggressive exposure of the program is badly needed.

Collaboration opportunities such as the ongoing partnership between CGIA and CERES could expand the use of the metadata tool and continue to improve its functionality.

What are the organizational practices that have developed to support metadata creation and maintenance for the future?

CGIA has been working with CERES since 1995 to develop a metadata tool that would be accessible throughout California. That partnership has been successful and the work continues through projects such as this grant and other activities. The metadata tool has grown to become the official node for California.

**NSDI Cooperative Agreements Program
Metadata Training & Outreach Project (Grant 04HQAG0155)
Final Project Summary**

Metadata training and outreach assistance

List organizations, type and number of individuals receiving metadata training.

Organization Receiving Training	# of Individuals Trained
Bella Vista Water District, Redding	1
City of Bishop	2
Butte County	2
California Forestry & Fire (CDF)	2
California State University, Chico	5
California Water Resources Department	4
CalTrans – north state	4
CalTrans District 9, Bishop, California	3
City of Chico	3
City of Chula Vista	5
City of Encinitas	1
City of Escondido	1
Glenn County	1
Inyo County Water District	1
Lake County	5
Lassen National Park	1
Mendocino County	9
Mono County	1
Mono County Water District	1
National park Service	2
Padre Dam Municipal Water District	2
San Diego Association of Governments	2
City of San Diego	1
San Diego County	2
San Diego County Water Authority	1
San Diego State University	3
South Feather Water & Power	1
City of Ukiah	1
University of California, Davis	1
University of California, San Diego	2
US Forest Service	1
USGS	1
Valley Center Municipal Water District	2
Yurok Nation	1

Competency of individuals and organizations in creating metadata. All of the individuals taking the training were from journey level or management positions. No special software or software skills were required; the metadata tool can be accessed and used with normal internet browser capabilities – no plug-ins are required.

**NSDI Cooperative Agreements Program
Metadata Training & Outreach Project (Grant 04HQAG0155)
Final Project Summary**

Level of training and trainee proficiency or competency. Standard training was offered: two – four hours of training that involves hands-on instruction in developing a metadata catalog and several metadata records.

Number, duration and venue of workshops conducted. Seven workshops were held in four of the targeted areas; the locations are listed below:

Location	Venue
Chico. Covering the northeast of California.	California State University. Computer lab. Two workshops.
San Diego. Covering the metropolitan areas of San Diego and Los Angeles and Southern California.	San Diego Association of Governments – Training lab. Two workshops.
Ukiah. Covering the northwest of California.	Mendocino County – Training lab. Two workshops.
Bishop. Covering the eastern slope of the Sierra.	CalTrans District 9 – computer lab. One workshop.

Character of workshop and participants e.g. managers, data producers etc. As noted, all the trainees were either journey level or management positions, meaning that data creation and use were standard parts of their daily responsibilities.

Status of Metadata Service

Site names where metadata is served; clearinghouse node or Geospatial One-Stop harvestable web folder. The metadata tool used is that developed and maintained by the California Resources Agency under the CERES program. It is the official clearinghouse node for the State. It can be accessed at www.ceres.ca.gov .

Approximately how many metadata entries have resulted from this project? At least one catalogue and two metadata entries were created by each participant in the course of the training. Therefore, at least 75 catalogs and 150 metadata records were created. Individuals had the opportunity to keep or to refine their creations in subsequent sessions.

Do you need assistance in providing for metadata service to organizations you have assisted? The metadata service, at this point, is an ongoing program of the California Resources Agency, so no assistance is needed. Should the State of California decide in future not to support this node, then assistance would very much be needed.

Next Steps.

Will this project's activities continue in the future? **Both CGIA and the CERES Program of the California Resources Agency remain committed to maintaining the node and expanding its use throughout the state.**

**NSDI Cooperative Agreements Program
Metadata Training & Outreach Project (Grant 04HQAG0155)
Final Project Summary**

What formal or informal organizational relationships were established to sustain activities beyond performance period? CGIA as a non-profit professional organization representing all sectors of the GIS field, and has developed strong support mechanisms for statewide GIS coordination efforts. Quarterly conference calls for the 18 regional GIS collaboratives around the state are sponsored by CGIA and serve as a sounding board for issues of statewide interest; metadata development and capture is one of those interests.

Describe the next phase in your project. CGIA would like to take the lessons learned and work on them with the Resources Agency as noted below. A publication is underway that will deliver a guidebook to using the CERES metadata toolset and a program to better market the tool statewide. The publication also includes recommendations from the trainees in this program as to how the metadata tools can be improved to better serve its intended audience.

Are there issues in metadata management and service? The CERES metadata tools are working very well. Parts of the program should be re-worked; CERES programmers were standing by during each workshop to answer questions, view the problems as they arose with trainees and to develop solutions. We anticipate this will continue.

Requirements (more technical assistance, software, other?). The responsiveness to the technical issues noted above should be all that is required to improve the program.

What areas need work? Primarily, the CERES metadata tool needs marketing, as does CGIA itself. We found that many of the targeted areas were unaware of the available tools and of the professional association. In addition, we found that there is not yet a clear understanding of the need for metadata. This seems related to the state of the GIS industry itself, which often does not operate using fundamental Information Technology principles such as suitable documentation at the file or field level. In general, managers have a clearer sense of the need for metadata than their GIS operational staff. This makes it imperative for CGIA and the CERES program itself to direct its efforts in stepping up its educational efforts.

What do you anticipate will be the activities of metadata training, outreach, creation and posting (to clearinghouse or other locations) after the project performance period ends?

We envision the design of marketing and further outreach that will more easily educate GIS practitioners, particularly in the public sector. CGIA needs funding to develop a professional statewide marketing campaign. It is anticipated that metadata training will be a part of that campaign, in cooperation with the CERES program.

Feedback on Cooperative Agreements Program

The major strength of the program was that it provided funding to hire a professional consultant to provide effective metadata outreach training in remote area of

NSDI Cooperative Agreements Program
Metadata Training & Outreach Project (Grant 04HQAG0155)
Final Project Summary

California. These organizations would not have received the training without this grant funding. The grant does not provide adequate follow-up funding to be a catalyst for ongoing sustainable implementation of action recommendations. If we were to implement the metadata outreach training program again, CGIA would work provide the training in collaboration with the 17 regional groups within California, because they would have a capacity to better announce the event and get higher participation levels.