

National Spatial Data Infrastructure Cooperative Agreement Program

EPA and Partners Geospatial Metadata Implementation Project

Interim Status Report



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Executive Summary

As of the writing of this document, the EPA and Partners metadata training project has completed six web-based training courses and one hands-on session at EPA's Headquarters offices in Washington DC. In total, close to 200 participants were recorded from over 20 states and 30 different organizations (including individuals from Canada and American Samoa). Follow-up from and participation during the courses indicates that a number of attendees found the training to be extremely useful and are planning to incorporate the tools and information into their workflow activities (see user feedback section provided below).

Another significant outcome of the EPA and Partners Metadata Training Project is the development of a draft metadata implementation for the North Carolina Department of Natural Resources (NCDENR). Prior to this project, NCDENR did not have an implementation for their agency. As a result of this training, they developed a needs assessment and draft implementation specifying which elements are important to their agency and specific wording for certain elements. This implementation will be FGDC compliant and Geospatial One-Stop (GOS) compliant. It is evolving into an agency-wide geospatial metadata implementation and template that will be used to standardize metadata file generation across their agency.

Allocating funding for post training consultation has been successful in helping individuals with their specific metadata records and problems. This has resulted in additional education for interested users in creating a web accessible folder and understanding some of the complexities of developing compliant metadata and contributing to GOS.

Project Narrative

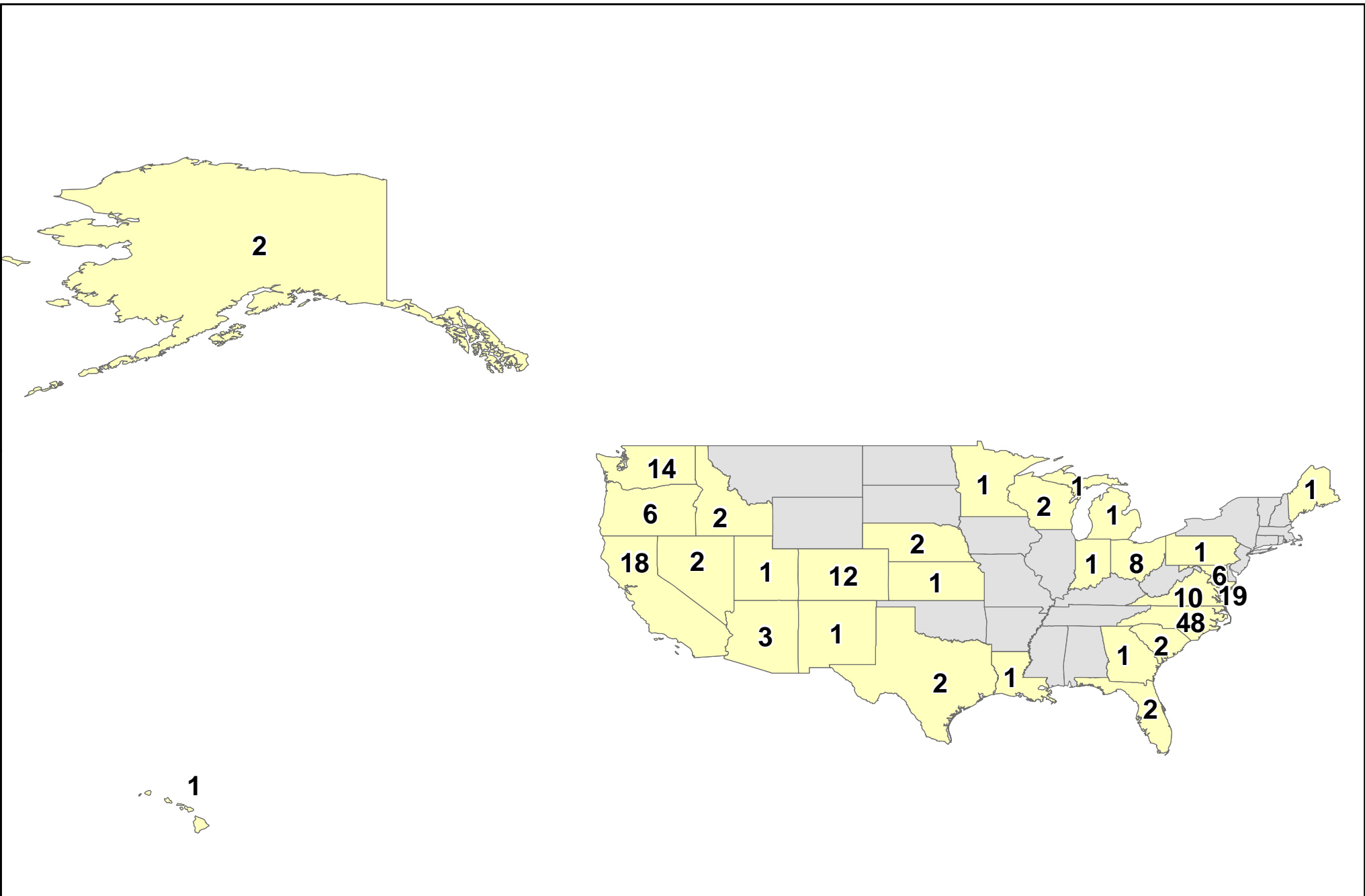
The EPA and Partners Metadata Project consisted of three distinct classes; Introductory (focusing on standards, creating metadata, tools, and catalogs), Intermediate (review of standards, the EPA Metadata Editor [EME] tool, implementations, catalogs and sharing, contributing data to clearinghouses), and Using the EME 3.0 (how to use the EME, how the EME has been updated and enhanced, how the database is accessed and customized). Each of these classes was offered twice so that attendees would have multiple opportunities to fit a class into their schedule. The venue for these training sessions was a combination of web-ex and teleconferencing which was a huge success and allowed an unlimited number of attendees to participate.

Collaboration activities included working with the North Carolina Department of Natural Resources to develop an implementation for their agency and working with the EPA to educate their staff on the EME (v2.1 and v3.0). In addition to being successful in working with these agencies, multiple other agencies (educational, private, federal, and state) were shown how to customize and use the EME as a tool to suit their specific agency needs.

Some of the challenges faced in conducting the sessions included providing appropriate content for a varied group of individuals (different backgrounds, skill-sets, and interests) as well as ensuring that all attendees on the web-based sessions were able to work with the technology without problems.

Training and outreach assistance:

- Three distinct classes were offered and each class was offered twice for a total of 6 training sessions. The classes were held as individual web-ex and teleconferences lasting 2 hours in duration per class. There was also one hands-on session offered at EPA Headquarters on October 21, 2008 which was approximately 6 hours in duration.
- Organizations receiving training were Federal, State, academic, and private agencies.
- There were 186 individuals who registered for one or more of the web-based training sessions. The actual number of individuals receiving training is greater due to attendees meeting in an agency's conference room and logging into a single computer while multiple attendees received the training. There were 6 individuals who attended the hands-on session in Washington, DC. Figure 1 shows the attendance for all sessions across the United States.



Legend

States with Attendees;
Labeled with Number
of Attendees



Innovate!, Inc.

States with Participants of
the EPA and Partners
Metadata Training Project

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- The level of competency of the trainees ranged from this being their first introduction to metadata to experienced metadata creators and programmers.
- The means of instruction were lecture, exercises, and computer assisted. All attendees were given access to training materials including PowerPoint slides and sample files.

Status of Metadata Service

- Metadata is currently served from EPA's ArcIMS Metadata Service, its Z39.50 node, and its web accessible folder. These are all available at <http://geodata.epa.gov>.
- It is difficult to estimate specifically how many metadata files have resulted from the training due to the breadth of individuals included in the sessions.

Next Steps:

- Metadata work with EPA and NCDENR personnel specifically will continue after the CAP grant has ended. We have received multiple requests to continue this training for other organizations. We would like to explore alternative funding sources to continue this training and recycle the current training materials and samples.
- The final phase of the EPA and Partners Metadata Training Project is to follow-up with all attendees on the release of the EME version 3.0 and to provide support for users in integrating it into their metadata workflow.

Initial Results:

- Our pre-training survey results showed that most people were interested in catalogs and metadata editing tools (see chart 1 below).

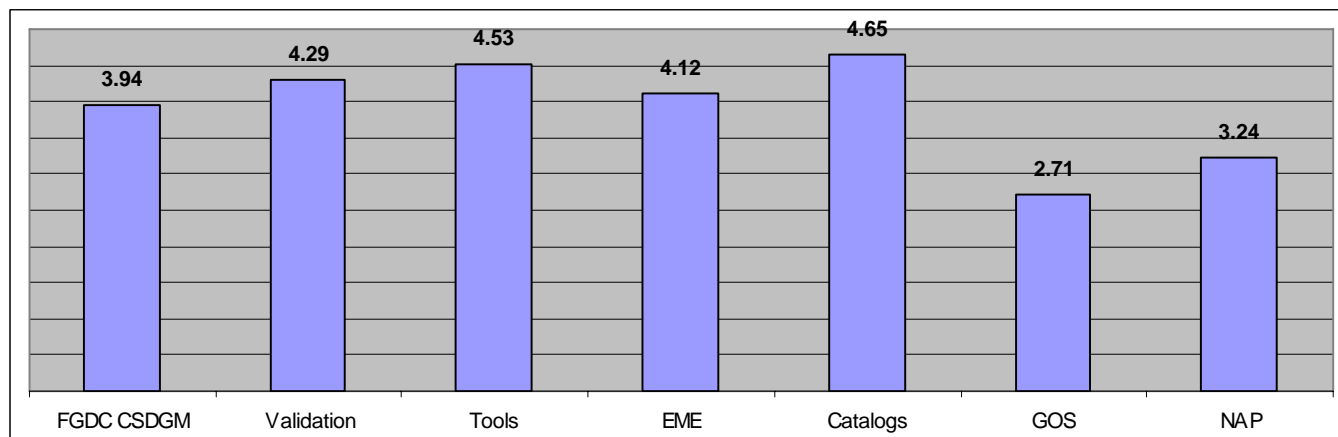


Chart 1. Pre-training Survey Results: Average attendee interest (from 1 being lowest and 5 being highest) for the categories offered in the training sessions.

Sample User Feedback from the Sessions:

The project team solicited feedback surveys which reflect the enthusiasm being seen for this topic. To quote just a few individuals:

"It is great that this training is available to everyone free of cost and online. Thanks! I found these tools and materials much more informative than anything else I've tried in the past 2 months."

"Thank you for this training. It was very informative. I appreciate you making yourself available for questions after the presentation (via email). Metadata can be intimidating and this presentation helped to de-mystify it. I concur with the request to record the webcast/audio for others to be able to see it or just to be able to watch it again myself since there was so much valuable information presented in this situation."

"I just wanted to say thank you for hosting the metadata training, it has been extremely valuable for the users who have taken it. Also, the US Department of Justice expressed his interest in the EPA's metadata efforts, particularly

for datasets that are/will be used in enforcement. I wanted to let you know that your efforts are certainly realized throughout the geospatial community and are capturing the interest of the legal/justice community, too."