

Attachment C

NSDI Cooperative Agreements Program Metadata Training & Outreach Project Interim and Final Project Summary Format

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**Category 1: Metadata Trainer and Outreach Assistance
Final Report**

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Project Narrative

The target audience for this CAP grant was data managers and scientists in federal, state, university, tribal, and non-profit organizations who are developing geospatially oriented databases, primarily with a focus on wildlife biology. As a result of the grant, the NBII sought to educate these data managers and scientists in the practice and use of metadata, and, further, train individuals to become trainers of metadata themselves.

During the 2006-2007 CAP Grant year, the NBII successfully conducted **4 workshops** in locations throughout the United States (Seattle, WA; Asheville, NC; College Station, TX; Portland, OR) to promote the creation of metadata records. Three (3) of the workshops were titled "**Introduction to Metadata**", and one (1) workshop was titled "**Train the Trainer**". Each "Introduction to Metadata Workshop" was 1 ½ days. "Train the Trainer" was a 2-day course. In total, NBII trained **53** people in metadata creation and training skills.

The NBII program is very successful at bringing together a variety of organizations to each workshop, which creates an atmosphere of collaboration and idea sharing. Participants leave the introductory workshops not only educated about metadata and the FGDC-BDP Standard, but also with new contacts for collaborative projects and activities related to metadata and other larger themes. Each workshop averaged 18 participants that represented federal, state, tribal, non-profit, and university organizations.

One challenge to the NBII metadata program is an ability to retain trainers that are available to travel to present workshops and/or the ability to arrange pay to cover the trainer's time. In the past, this was considered an in-kind contribution from the organizations offering trainers, but this is an increasingly difficult arrangement due to shrinking budgets. One solution to this problem may be to require each participant in the Train the Trainer Workshop to conduct at least 1 NBII Introduction to Metadata Workshop. This model may also have its own challenges for practical reasons.

Another challenge to teaching metadata workshops is the lack of an online metadata creation tool suitable for all audiences. Several organizations have created tools for their organization that they have made public; however, these tools are often oriented toward the organization that created them, and require registrations, logins, and often added information that is collected specifically by that organization. It seems a logical step that the FGDC might support a generic tool for the

metadata community that includes all of the profiles and extensions, with validation and ability to export in several formats. The lack of a tool to create the metadata records is an inhibitor to the creation of metadata records for many organizations.

Collaboration in producing metadata workshops is a critical factor in the training program. Typically, new collaborations transpire for each workshop, as partner organizations host the workshop at their location. Additionally, collaboration occurs at the Clearinghouse level as a result of workshops. Several new Clearinghouse nodes have been created this year due to follow-up and individual contact with workshop participants.

Metadata training and outreach assistance

Workshop Location: Seattle, WA – 1 ½ days -- Intro

<u>Participants</u>	<u>Organization</u>	<u>Organization Type</u>
1	Houston Advanced Research Center	Non-profit
1	USGS	Federal
1	Auke Bay Lab, AFSC, NOAA Fisheries	Federal
4	Aquatic and Riparian Effectiveness Monitoring Program	Inter-agency
1	USGS-WFRC- Marrowstone Marine Station	Federal
2	Bureau of Land Management	Federal
1	National Oceanic and Atmospheric Administration (NOAA)	Federal
1	Ducks Unlimited, Inc	Private
1	Yakama Nation Fisheries	Tribal
1	Point No Point Treaty Council	Tribal
1	Environment Canada	International Gov't
1	NASA	Federal

Workshop Location: Asheville, NC – 1 ½ days -- Intro

<u>Participants</u>	<u>Organization</u>	<u>Organization Type</u>
2	Southern Appalachian Highlands Conservancy (2)	Non-profit
3	NatureServe	Non-profit
1	NBII-SAIN	Federal
4	National Park Service (4)	Federal
1	Cornell Laboratory of Ornithology	University
1	The North Carolina Nature Conservancy	Non-profit
1	Appalachian Highlands Science Learning Center (NPS)	Federal

Workshop Location: College Station, TX – 2 days --Train the Trainer

<u>Participants</u>	<u>Organization</u>	<u>Organization Type</u>
1	Brazos Valley COG	State Gov't
1	Ark-Tex COG	State Gov't
1	TAMU Institute of Renewable Natural Resources	University
1	Texoma COG	State Gov't
1	Houston-Galveston Area Council	State Gov't
1	Central Texas COG	State Gov't
1	Coastal Bend COG	State Gov't
1	Sonoma Ecology Center	Non-profit
1	North Central Texas COG	State Gov't
1	Rio Grande COG	State Gov't
1	TPWD -Wildlife Region 1	State Gov't

Workshop Location: Portland, OR – 1 ½ days -- Intro

<u>Participants</u>	<u>Organization</u>	<u>Organization Type</u>
1	Bonneville Power Administration – KEWR	Federal
4	Pacific States Marine Fisheries Commission	Inter-agency
1	Columbia River Inter Tribal Fish Commission	Tribal

1	USGS	Federal
1	Northwest Habitat Institute	Non-profit
1	USBR Pacific NW Region	Federal
1	USDA Forest Service	Federal
3	Colville Tribes	Tribal

Total: 4 workshops – 53 participants

For each of the *introductory* workshops presented, participants completed the course able to comprehend the standard, choose appropriate tools, and navigate clearinghouses. Additionally, each participant left the workshop with at least a partially completed record -- having learned and used metadata creation software in class. The typical audience for these metadata workshops is data managers and scientists.

Participants completing the *Train the Trainer Workshop* are proficient in metadata production when they enter the course. They leave the workshop with the ability to translate those skills into a training capacity for their organization. Each participant is given time to create a presentation during the workshop, and is asked to present on a metadata related topic to their peers and instructors on the final day. Constructive feedback is given to the participant from those attending the workshop and the instructors. All training materials are supplied to the participants as a resource for developing their own metadata programs or to be used unchanged, should they wish.

Status of Metadata Service

Metadata is served through the NBII Clearinghouse, located at <http://mercury.ornl.gov/nbii/>. Only 2 web folders are harvested by GeoSpatial One Stop from the NBII: “Metadata Clearinghouse Principal Node”, and the “BRD Bibliographic Metadata Node”. Other partners on the NBII Clearinghouse are asked to register in GOS independently so as to prevent duplication of records from the same source. The number of records completed as a direct result of the metadata training workshops is not determinable, however, the NBII Metadata Clearinghouse increased its records holdings by 6,014 in 2006 – many of those records have been completed or made available by participants in the workshops. Assistance in providing metadata service to the organizations that NBII has supported this year would best be served by an online metadata tool developed and supported by FGDC.

Next Steps

This project will continue in the future, as the NBII infrastructure is well established and metadata is considered a critical element to the mission of the program. The NBII metadata infrastructure includes a training program, robust Clearinghouse, quality control/quality assurance assistance, and a metadata creation assistance program. All are funded by the NBII with the exception of the training program. The NBII has been able to serve the metadata community by offering training due to the generosity of the FGDC CAP Grant program.

Feedback on Cooperative Agreements Program

The FGDC CAP Grant has been a very beneficial program to assist metadata development and progress. Having received these grants for several years has allowed the NBII to assist hundreds of people and organizations create metadata and post it to Clearinghouses, which is beneficial to the science community and other research and learning communities. It would be very beneficial to CAP Grant participants to participate in *post* CAP Grant meeting, hosted by the FGDC, in which those organizations that were awarded funding can present the results of their projects. By sharing successes and challenges, new partnerships could be formed, progress could be seen, and the energy already developed from the success of the projects could be extended to the future.