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Mission:
To foster an efficient GIS environment through cooperation and coordination with public and private entities that access, collect, provide, and share data, metadata, applications, and educational opportunities.

Date: 12/26/2012
Agreement Number: G11AC20062
Title: Iowa Metadata Outreach Project (IMOP) – Final Report

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Collaborating Organizations: Iowa State University GIS Support and Research Facility, Iowa Counties Information Technology Association, Iowa-Cedar Watershed Technical Team, State of Iowa Government CIO Council, and the USGS Geospatial Liaison Office for Iowa

Clearinghouse Node: Iowa Geospatial Data Clearinghouse, http://www.iowagis.org/

Executive Summary

This final report summarizes the activities of the Iowa Metadata Outreach Project (IMOP) from the start of the project, October 2011 to the completion of the project, October 2012. The overarching goal of this project was to provide GIS users in the state of Iowa with metadata training, assistance, and management support. One key success of the IMOP project was the education and outreach component of the project. Over the course of the project, 110 people participated in outreach events - four day-long metadata trainings and three shorter metadata outreach presentations. A second key success was the re-launch and refinement of the Iowa Geospatial Data Clearinghouse as a data discovery tool for creating, hosting, and serving metadata records from various state agencies. Over 150 new metadata records have been created or uploaded to the IGDC over the course of this project.

Project Narrative
Pre-project Data Collection
In January 2012, we sent out a survey via SurveyMonkey to gain a better understanding of the current metadata climate in Iowa as well as gather input from GIS users about what they would like to see in metadata training. Based on the survey results, we found that barriers to metadata creation included a lack of time; a lack of knowledge about metadata and metadata creation; and a lack of staff. We decided that our trainings would focus on addressing the lack of knowledge as well as try to provide explanation of some time savings metadata tools (EPA metadata editor) and templates.

Advertisement on the Iowa GIS Service Bureau Blog and Other Advertisement
In late January 2012, we decided to create a blog as a way to provide a media outlet for the Iowa Metadata Outreach Project (IMOP) as well as to highlight general Iowa GIS Service Bureau activities. A number of posts (1/12, 1/24, 2/9, 3/20, 3/26, 5/22, 6/18, 6/21, 7/20, 9/24) have been written specifically to advertise upcoming metadata trainings and give readers updates about the progress of IMOP project.
The blog address is: http://iagiservicebureau.blogspot.com/

Other avenues for advertising the metadata trainings included soliciting invitations at several state and county events as well as through personal emails and through email listserv groups including the Iowa Geographic Information Council, Iowa County Information Technology, and Eastern Iowa GIS users group.

Iowa Geospatial Data Clearinghouse
In late 2011 and early 2012 the Iowa Geospatial Data Clearinghouse was re-launched using ESRI's Geoportal Server. Our metadata team spent several months testing it and customizing the interface. The Iowa Geospatial Data Clearinghouse was featured as a data discovery tool in our metadata workshops as well as an optional tool for creating metadata records online. http://www.iowagis.org/

Preparation and Hosting of Metadata Training Workshops
February and March 2012 were spent preparing for the metadata trainings. Time was spent reviewing materials from previous workshops and adding relevant new information. In preparation for the metadata training days we hosted several practice sessions to gather input from users about what needed to be included in the training materials. We met with previous metadata trainers, Patrick Wilke-Brown and Casey Kohrt to discuss an outline for the upcoming trainings and identify which training materials had been most effective from previous workshops. The metadata trainer presented a truncated version of the metadata lecture presentation to a graduate GIS seminar and was provided feedback by several attendees. Other duties associated with workshop preparation included scheduling catering and communicating with attendees.

Training and Outreach Assistance:
Four day-long metadata training workshops held on March 13, March 14, July 19 (all in Ames, Iowa), and October 18 in Cedar Rapids, Iowa. March 13 was targeted towards county agencies and March 14 was targeted towards state agencies. July 19 and October 18 were open to general GIS users. The workshops were a combination of lecture, exercises, and hands-on computer assistance.

Three shorter metadata outreach presentations were also given on February 28 (25 attended), June 14 (15 attended), and August 8 (11 attended). The presentation on February 28 was for the Iowa State University Graduate GIS Seminar. Additional shorter metadata presentations were given on June 14 at the Iowa County Information Technology Mid-year Conference in West Des Moines, Iowa and August 8 to a watershed group in Iowa City, Iowa.

Day-long Trainings

1) March 13 - County Agency Metadata Training Day, Iowa State University GIS Support and Research Facility - Ames, Iowa

    Number of participants: 14

The first workshop was held at the Iowa State University GIS Support and Research Facility in Ames, Iowa. There were 17 people registered for the training and 14 people attended. Seven participants filled out online surveys about the class. Most participants indicated that the training was a positive experience and relevant to their work. Some course strengths included learning about the FGDC workbook/standard and tools used to create metadata: EPA metadata editor, Iowa Geospatial Data Clearinghouse, and AreGIS Metadata Editor. A suggested improvement was to spend more time on the details of the metadata (what to fill in).

Names of Organizations Represented:

Linn County, Iowa – GIS	Franklin/Hardin County, Iowa – GIS
Johnson County, Iowa – GIS	Kum & Go - GIS (private)
Pottawattamie County, Iowa – GIS	Emmet County, Iowa – Engineer
Warren County, Iowa – GIS	Wright County, Iowa – GIS
Harrison County, Iowa – GIS	Poweshiek County, Iowa – GIS
Carroll County, Iowa – GIS	Jones County, Iowa – GIS
Hamilton County, Iowa – GIS	

2) March 14 - State Agency Metadata Training Day, Iowa State University GIS Support and Research Facility - Ames, Iowa

    Number of participants: 21

The second workshop was held at the Iowa State University GIS Support and Research Facility in Ames, Iowa. There were 24 people registered for the training and 21 people attended. Seven participants filled out online surveys about the class. Most participants indicated that the training was a positive experience and relevant to their work. Some course strengths included learning about the FGDC workbook/standard and tools used to create metadata: EPA metadata editor, Iowa Geospatial Data Clearinghouse, and AreGIS Metadata Editor. Suggested improvements included slower paced delivery of the information, split the class into two days (beginners and intermediates), and provide specific examples for how to create metadata for multiple types of files.

Names of Organizations Represented:

Iowa Department of Revenue	Iowa Department of Cultural Affairs
Iowa Department of Transportation	Dubuque County, Iowa – GIS
Iowa Department of Public Health	Iowa Department of Management
Facilities Management - University of Iowa	Iowa Department of Human Services
Office of the State Archaeologist	Iowa Department of Public Safety

Pioneer Hi-breed	Iowa Workforce Development

3) <u>July 19 – General Metadata Training Day, Iowa State University GIS Support and Research Facility - Ames, Iowa</u>

Number of participants: 11

The third workshop was held at the Iowa State University GIS Support and Research Facility in Ames, Iowa. There were 12 people registered for the training and 11 people attended. Ten participants filled out online surveys about the class. Most participants indicated that the training was a positive experience and relevant to their work. Some course strengths included informing participants of resources available to create metadata and validation that what they were doing was correct. Suggested improvements included more time to create metadata and review it with instructors and provide ideas to reverse engineer metadata for files that are being retroactively created.

Names of Organizations Represented:

State of Iowa Legislative Services Agency	Iowa Department of Education
Iowa State University GIS Support and Teaching Facility	University of Iowa
Cherokee County, Iowa GIS	City of Johnston, Iowa
Clay County, Iowa GIS	Iowa Department of Transportation

4) <u>October 18 – General Metadata Training Day, Kirkwood Community College GIS Lab – Cedar Rapids, Iowa</u>

Number of participants: 14

The fourth workshop was held at the Kirkwood Community College GIS Lab in Cedar Rapids, Iowa. There were 16 people registered for the training and 14 people attended. Eight participants filled out online surveys about the class. Most participants indicated that the training was a positive experience and relevant to their work. Some course strengths included informing participants of resources available to create metadata and an explanation of the metadata hierarchy. Suggested improvements included reducing the time spent explaining the importance of metadata and increase the time for creating metadata and reviewing it with instructors and have more information about importing and synchronizing metadata with ArcGIS.
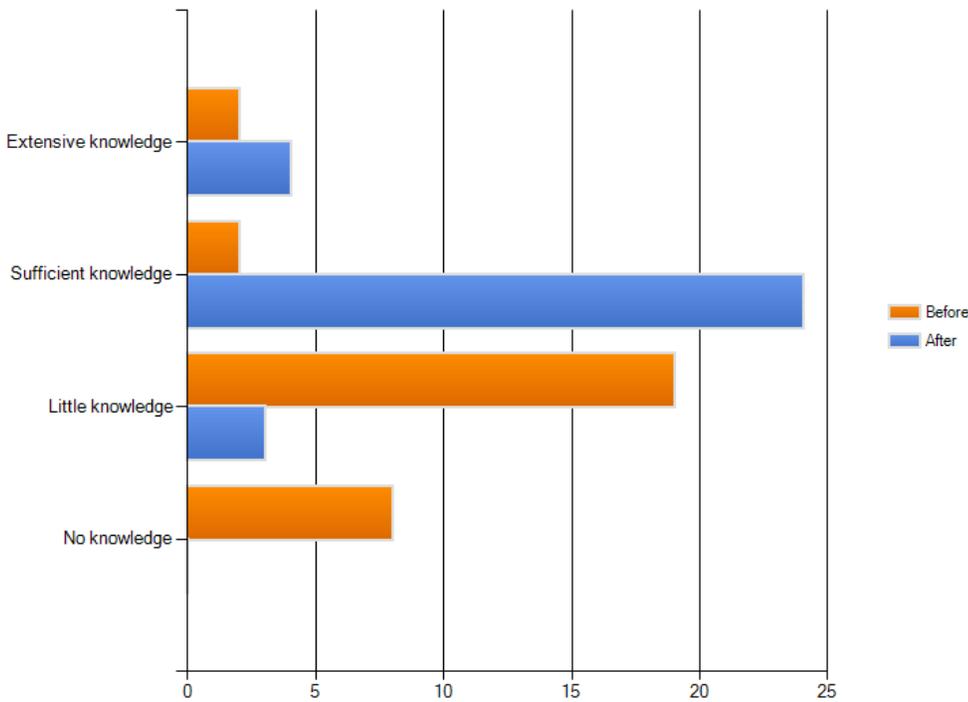
Names of Organizations Represented:

Kirkwood Community College	Butler County, Iowa – GIS
Northeast Iowa Resource Conservation and Development, Inc.	University of Iowa – Planning, Design and Construction
City of Waterloo, Iowa – GIS	EarthView Environmental
Ellsworth Community College	Hamilton County, Iowa – GIS

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City of Cedar Rapids, Iowa Assessor's Office – GIS	

Post-Project Data Collection – Satisfaction Survey

Attendees were encouraged to fill out an online evaluation (survey monkey) after the day-long metadata training events. Most of the respondent feedback was positive. Below is a summary of key findings from the survey, for the complete survey and responses see the appendix.)

Your ability to write metadata on your own.

Did you find the metadata training informative?	**Yes 33/33** No 0/33
The workshop content was:	Too easy 2/33 **At the right level 30/33** Too hard 0/33 Too much to absorb 1/33
You learned information you can use on the job.	Strongly agree 12/33 **Agree 20/33** Neutral 1/33 Disagree 0/33 Strongly disagree 0/33

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In relationship to the material presented, the length of the workshop was:	(one person skipped this) Too short 3/32 **Just about right 26/32** Too long 3/32
How would you rate the instructor?	Excellent 11/33 **Helpful 20/33** Somewhat helpful 2/33 Not Helpful 0/33

Status of Metadata Service
Metadata records are being served through the Iowa Geospatial Data Clearinghouse (IGDC). We are also in the process of getting records from gisinventory.net uploaded to the IGDC and making the records on IGDC harvestable to gisinventory.net. All the metadata is in XML.

Approximately 150 records have been uploaded to the IGDC as a result of efforts related to this project.

Challenges
The biggest challenge for this project is getting people to create and/or upload their agency's metadata records to the Iowa Geospatial Data Clearinghouse. Most attendees took time to create mock metadata records on the clearinghouse site, however most did not come back to create legitimate records for their agency.

Next Steps
After the award is closed project activities (metadata trainings, technical assistance, and clearinghouse) will continue. Metadata trainings and individual metadata help will be provided on an as needed basis as outreach of the Iowa GIS Service Bureau. There has been a request for metadata training at the biennial IGIC conference in April 2013 as well as some interest by other regional GIS groups for additional metadata training.

The Iowa GIS Service Bureau along with the Iowa State University GIS Support and Teaching Facility will maintain the Iowa Geospatial Data Clearinghouse. Service Bureau staff will continue to send out periodic reminders about adding and maintaining records as well as encouraging new participants in the IGDC.

In the next phase of the project we will be continuing promote the addition of records from additional local and state government agencies as well as repositories within the State of Iowa. This phase will also focus on further expanding and strengthening the relationship between the IGDC and gisinventory.net.

Feedback on Cooperative Agreements Program
Strengths: The FGDC CAP Program provides much needed funding for projects such as metadata training that might otherwise get overlooked and unfunded. This grant provided funding for 110 GIS professionals in the state of Iowa to receive training about creating metadata. There is also a lot of flexibility in the CAP program

as far as extending deadlines, which was needed in for our project because the start date was delayed by several months.

Weaknesses: It would be nice to have a multi-year ability for some of the projects, like metadata training, business planning, and other coordination activities. In some cases it's hard to get a program going in just a year and keep it going, especially in our state fiscal environment, which dictates no new money for new programs. Obviously the federal situation isn't much better, so we are thankful for FGDC assistance in any form. As long as we can continue with some ongoing FGDC sponsored project funding, we can try to maintain the capability to do metadata outreach, and incorporate metadata principals in other coordination projects undertaken by the Iowa GIS Service Bureau.