

Agreement Number: 07HQAG0101

**Interim Report**

**Virginia Metadata Clearinghouse Implementation  
Support**

**CAP 2007 Metadata Training Grant**

Submitted to the Federal Geographic Data Committee

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# Project Narrative

## Background

The Virginia Geospatial Extension Program, in collaboration with the Virginia Geographic Information Network [VGIN] (a division of the Virginia Information Technologies Agency [VITA]), and with the support of James Wilson of James Madison University, was provided funding through an FGDC 2007 CAP Grant to support the implementation of a Virginia Metadata Portal.

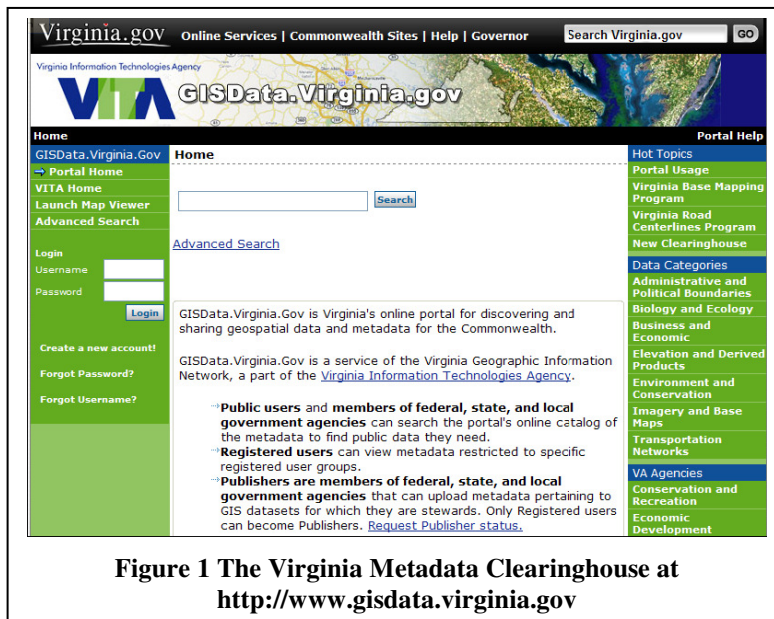


Figure 1 The Virginia Metadata Clearinghouse at <http://www.gisdata.virginia.gov>

The Virginia Metadata Portal, implemented by VGIN as part of the matching contribution to the grant, is titled GISData.Virginia.gov. It is based on the ESRI Metadata Toolkit, which also provides the functionality of the Federal Geospatial One-Stop at [www.geodata.gov](http://www.geodata.gov). The Virginia portal came online in July 2007. The grant funds were used to provide training on the proper use of the portal and other items in support

of the implementation of the Virginia portal. This document provides a summary of the progress and outcomes associated with the training project.

## Training Specifics

Based on the experience gained during the 2006 Workshops, funded under FGDC NSDI Cooperative Agreement Number 06HQAG0112, training was organized around two types of workshops. The first, titled "Metadata Creator Workshop," mirrors the 2006 efforts and used much of the same training material. The Metadata Creator Workshop is comprehensive in nature, using lecture and exercises covering the nature of metadata, the purpose of metadata and understanding the various metadata standards. The workshop also teaches metadata best practices and introduces metadata clearinghouses.

The second type of workshop, titled "Metadata Retreat," is a hands-on session that encourages attendees to bring their own data. Instructors assist attendees in developing the metadata records and uploading those records to the Virginia Portal. A copy of the agenda for both training types is attached.

In August 2007, eight metadata workshops were provided to local, regional, and state government personnel. Complete workshop information is attached hereto but a summary is listed below:

<b>Workshop Type</b>	<b>Date</b>	<b>Location</b>	<b>Instructors</b>
Metadata Creator	1Aug07	Virginia Beach, VA	John McGee, James Wilson, Lyle Hornbaker
Metadata Retreat	2Aug07	Richmond, VA	John McGee, Lyle Hornbaker
Metadata Retreat	3Aug07	Richmond, VA	John McGee, Lyle Hornbaker
Metadata Retreat	7Aug07	Harrisonburg, VA	James Wilson, Lyle Hornbaker
Metadata Retreat	8Aug07	Blacksburg, VA	John McGee, Lyle Hornbaker
Metadata Retreat	9Aug07	Danville, VA	John McGee, Lyle Hornbaker
Metadata Creator	14Aug07	Richmond, VA	John McGee, Lyle Hornbaker
Metadata Retreat	15Aug07	Richmond, VA	Lyle Hornbaker

**Table 1: Workshop Locations.**

## ***Outcomes and Impacts***

The first measurable outcome is the numbers of individuals given the metadata training. The training was attended by 66 individuals representing local, state and federal entities. Of those, 18 attended the Metadata Creator Workshops with the remaining 48 attending the Metadata Retreats. Combined with the 2006 training effort, approximately 160 people have directly benefited from the Virginia Metadata training. The results in a solid base of individuals in Virginia with sound metadata knowledge and experience.

Second, considering that the training was undertaken in support of the newly implemented Virginia Metadata Portal, metrics on the use of the portal are also germane. The portal contains 50 metadata records covering a wide variety of spatial data themes. Currently, the portal has 50 individuals with publishing rights. Most represent local and state entities but there are several publishers from Federal agencies. The portal also records some 20 individuals who have registered but not yet requested publisher status.

Third, many useful materials were developed to support this training. Developed for the 2006 Training sessions, these materials were reused for the 2007 program. In 2007 an additional guide, the Virginia Metadata Portal User Guide, was developed to facilitate the specific portal training. An electronic copy of the workbook is available by sending an email request to [VBMP@vgin.virginia.gov](mailto:VBMP@vgin.virginia.gov).

Fourth, evaluating the results of the 2006 effort indicated a need to promote the notion of metadata along with the education provided by the workshops. Attached please find a copy of "*Mind over Metadata*," the brochure created to fill this need.

The fifth impact is somewhat more subjective. During the training, attendees began to understand the importance of metadata in data discovery phase of a mapping project. They wanted to make sure that their metadata would be available to assist others in those efforts. To meet that goal, they requested assistance in publishing their metadata as widely as possible, often asking if the portal will appear on standard Internet search engines. When reviewing the Federal Geospatial One-Stop (GOS) in class, attendees

would ask if they needed to also publish on that portal also. They were pleased to learn that the Virginia Portal would become a harvestable repository on the GOS. Since then, the Virginia Metadata Portal has been successfully registered with the GOS.

The final impact however, is the most important and is not as easily quantified. A significant metadata “buzz” was created during the previous Virginia Metadata training and strengthened with the implementation of the portal and associated training efforts. Local governments and state agencies have continued to request additional metadata training opportunities. Publishing one’s metadata on the Virginia Portal has become an important goal of many local governments and state agencies.

## Next Steps

VGIN is directly mandated in section [2.2-2027.B.7](#) of the Code of Virginia to:

*“7. Compile a data catalog consisting of descriptions of GIS coverages maintained by individual state and local government agencies;”*

The Virginia Metadata Portal fills that mandate. In order to ensure the quality of the metadata provided by the portal, VGIN decided to require anyone wanting to publish metadata to complete the metadata training. The training will combine the most successful aspects of the Creator and Retreat workshops into a single 7 hour training session. Basic metadata education will occur in the morning while the afternoon of each session will focus on metadata best practices, hands-on exercises, and experience in uploading records to the portal. VGIN is in the process of scheduling the first of the sessions for this winter. A good inventory of training materials, excess to the August training, will be used over the course of the next year.

While we consider the training developed under the grant as successful, translating that success into actual use of the portal has seen only moderate success. Informal discussions with training attendees over the last couple of months has helped us identify the most important barriers to creating metadata and placing it on the portal.

1. There is still a perceived “lack of time/resources” to develop metadata. Small GIS operations are particularly susceptible to this barrier. This generally applies to current data holdings and we have seen a marked increase in organizations including metadata as a deliverable in data contracts.
  - a. Planned Action – Future training will continue to focus on the importance of metadata to the GIS operation but must probably accept that creating metadata for legacy data is difficult at best. The continued success and use of the portal will encourage development and maintenance of metadata by all entities.
  - b. Possible Action – If a “Retreat style” workshop is requested to help with developing Metadata for existing holdings, we can consider that option.
2. Inconsistencies in the Metadata Portal upload process cause uploading to be difficult. This difficulty frustrates users. The most troubling problem is that there are two separate metadata validation processes that differ depending on whether

the file is uploaded via ArcCatalog or as a file upload. These differences are separate and distinct from the FGDC Standard.

- a. Planned Action – We are working with ESRI to remedy these issues.
- b. Planned Action – We are in the process of developing a document which clarifies these differences and recommends that ALL metadata meet, not only the FGDC standard but also both types of portal upload requirements.

We believe that as the portal use increases, more and more entities will find value in participating in the portal.

## **Feedback on Cooperative Agreements Program**

The Metadata Training workshops have been extremely well received in Virginia. The FGDC CAP grant has, to date, basically served as a seed grant to help Virginia get some momentum in respect to metadata training and encourage implementation measures.

The strengths of the CAP program are that the program remains flexible enough to accommodate the variety of needs of different states. Another strength of the program is that there are already some tremendous resources available that can be easily customized and applied to support the variety of contexts and needs of the participating organizations. Another strength of the metadata workshop, is that the FGDC has contact people in place that are familiar with the participant's work. These contact people are able to provide additional support and exposure to the latest metadata news and innovations through conference calls. In addition, the point of contact is also very responsive to email and phone inquiries. Our program felt as though there was a support structure available to us when we required it.

One of the strengths that was identified by participants, was the fact that the instructors bring a variety of different experiences and areas of expertise with them to each workshop.

The main limitation, identified in 2006 and continuing in 2007, is not a limitation of the CAP program, but with the metadata development tool options. Both participants and workshop leaders agree that metadata development tools are not "as far along" as they could be.