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Project Title: Appalachian Ohio Geospatial Data Partnership - Incorporation and Promotion of NSDI Cadastral Standards

Interim report

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**APPALACHIAN OHIO
GEOSPATIAL DATA**
PARTNERSHIP

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Executive Summary

The purpose of this project is for members of the Appalachian Ohio Geospatial Data Partnership to incorporate and promote FGDC standards from the very beginning of formal cadastral GIS development. The partnership utilized Esri's Local Government Information Model with common domains and definitions that streamline the cadastral maintenance process through automation, and assist end users in their understanding and utilization of county land records. The end product will encourage data sharing vertically between federal, state, regional and local levels of government, and horizontally with the private sector, non-profits and academia. Over the past six months the AOGDP has worked closely with Nancy von Meyer of the FGDC Cadastral Subcommittee to educate Partners on the standard, develop the approach for cadastral development in the standard, and implement the standard in three townships in three adjacent counties in southeastern Ohio. This project has also been a vehicle to improving the standard as it relates to the Public Land Survey System in Ohio. A website has been developed to promote the cadastral standard in Southeastern Ohio as well as the entire state of Ohio.

Project Narrative

The Appalachian Ohio Geospatial Data Partnership's Cadastral Standards Project involves the development of cadastral data layers in three adjacent townships in three Ohio Appalachian counties, crossing jurisdiction and spatial data software lines. The Partnership will create presentation materials and tailored outreach programs promoting the incorporation, use, and benefit of standardized cadastral data, and strategies for financing, implementation and maintenance.

On June 23, 2011, The Appalachian Ohio Geospatial Data Partnership met to discuss project approach, methodology, and timeline. Nancy von Meyer of the FGDC Cadastral Subcommittee joined the conversation and presented an improved project approach to aid in the sustainability of the cadastral program in the represented counties. Our proposal was to utilize Spencer Township, Guernsey County; Brookfield Township, Noble County; and Manchester Township, Morgan County as the area for the pilot project. (See Figure 1) The rationale behind the development of three adjacent townships in three adjacent counties is to illustrate how standardization is seamless in its application and demonstrates the benefits to a higher degree. The Partnership then successfully entered into contracts for cadastral standards training services and website development for promotion of the project and FGDC standards. We then purchased Esri's ArcEditor software to create GIS cadastral layers in the pilot project area. Before holding a two-day training session on the Cadastral Standard and beginning the development of the cadastral layer in the pilot project, Partners had to collect cadastral source data for each of the three townships and create an Esri Local Government Information Model Geodatabase for the pilot counties.

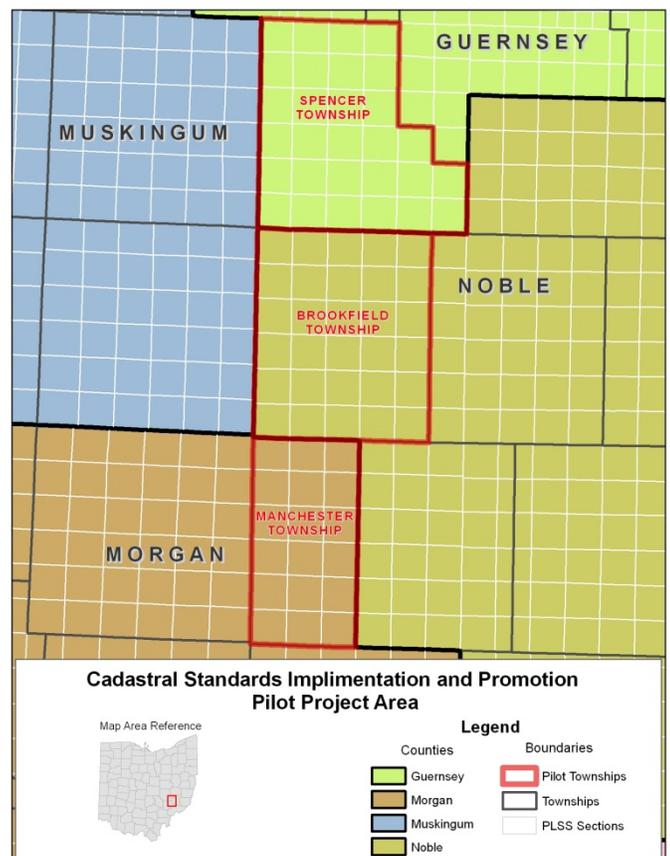


Figure 1 – Pilot Project Area of three adjacent townships

Obtaining Noble County representation for the pilot project was difficult at first because they have limited human resources and exceptional demand on their county land records group. Oil and Gas companies had setup operations within their county to research all deep mineral rights for the Marcellus and Utica shale play. Several representatives from the Partnership approached the Noble County Engineer and outline the benefits of this pilot project and the positive impact it could have on the county resources in the future. By adopting a standard cadaster, developed in GIS, the county could provide electronic data to the Oil and Gas industry and other users of county data. The net effect will limit the future strain on county employees. Our conversation convinced the County Engineer to provide a staff member to join our partnership's efforts.

On September 20 – 21, 2011 the Partnership held our first two day training session at the Voinovich School for Leadership and Public Affairs at Ohio University, with Nancy von Meyer educating those in attendance on the Cadastral Standard and the Public Land Survey System in Ohio. (See Figure 2) The training session produced some positive results in addition to the development of the PLSS Section Corners and Simultaneous Conveyance Feature Classes. The training gave the group a sense of community by showing them that they are part of a greater movement. Also, our fruitful discussions shed light on needed corrections to the Ohio Meridian Codes in the cadastral standard. Partners that attended the two-day session included:



Figure 2 – Cadastral Standards Training

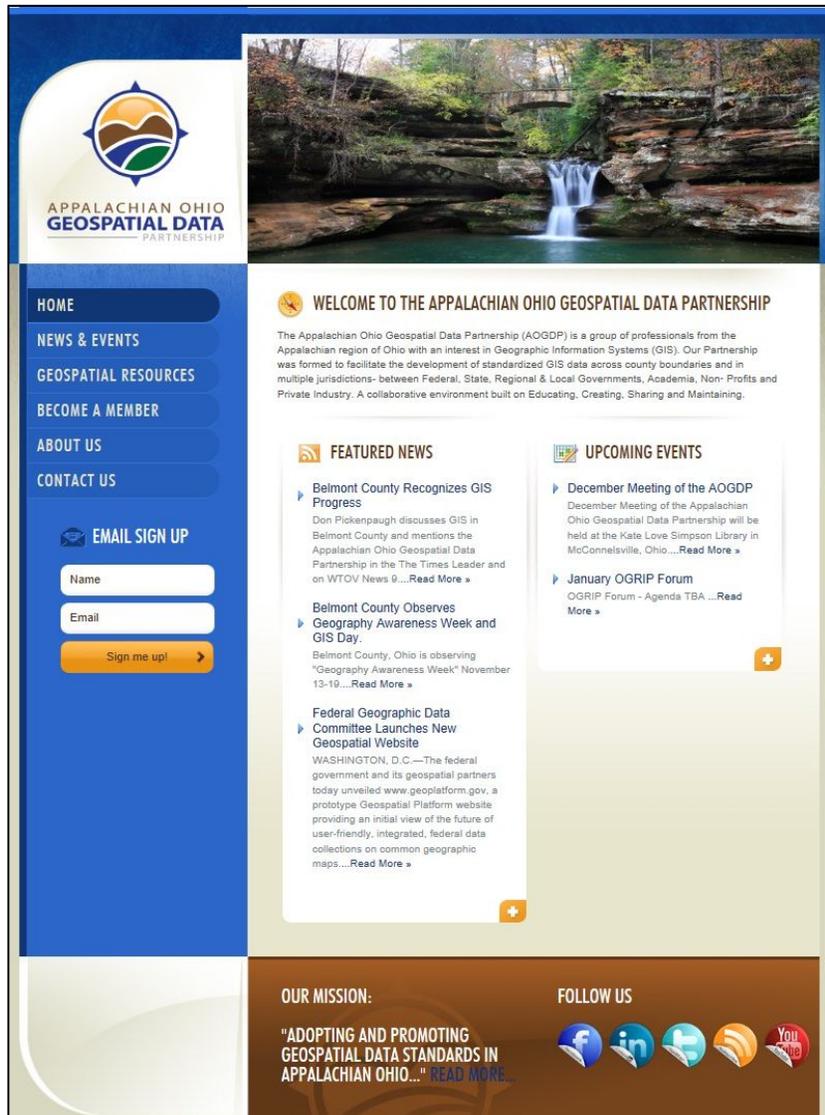
1. Consultant, Nancy von Meyer
2. Belmont County - Don Pickenpaugh
3. Buckeye Hills Hocking Valley RDD - Bret Allphin
4. Guernsey County - Jim Mercer
5. Morgan County - Bo Powell and Jeff McInturf
6. Muskingum Watershed Conservancy District - Tom Fisher, Brittany Converse and Skyler Dewey
7. Noble County, Mike Stritz and Mark Eicher
8. Ohio Geographically Referenced Information Program (OGRIP), Jeff Smith
9. Voinovich School for Leadership and Public Affairs Ohio University, Dave Simon

Our Partnership has begun promotion of the Cadastral Standard. The following lists our first meeting to discuss the standard:

- Meeting at the Ohio Statewide User Group Pre-Conference to discuss the AOGDP's mission and the Cadastral Standard. (September 28, 2011)
- Presented the AOGDP Cadastral Standard Project to students at FEMA's HAZUS-MH for Floodplain Managers training in Anniston, AL. (November 7, 2011)
- Presentation of the Cadastral Standard Project to the Ohio Valley Regional Development Commission. (November 8, 2011)

The Appalachian Ohio Geospatial Data Partnership website www.geospatialpartnership.org has been developed and is awaiting full deployment in the coming days. This site will showcase our pilot project and provide resources for those interested in the Cadastral Standard. This site will also be utilized as a GIS standards resource for Appalachian Ohio and the state of Ohio. (See Figure 3)

Figure 3 – Appalachian Ohio Geospatial Data Partnership Website



Deviations from Original Proposal

In the original proposal, the Appalachian Ohio Geospatial Data Partnership stated that the cadastral layer development would be performed by a qualified GIS consultant with proven experience in cadastral standard compliance, as well as a working knowledge of the representative Public Land Survey Systems used in this region of Ohio. The Partners and Nancy von Meyer met to discuss this approach. We questioned what would be learned by local government staff if a contractor delivered a completed, standard compliant, pilot project to counties without out their understanding of how the GIS data layer was developed. There was the additional question regarding how, without the knowledge of the development process, could the counties complete and maintain their cadastral layers. Following the Chinese Proverb, "Give a man a fish and you feed him for a day. Teach a man to fish and you feed him for a lifetime." we decided to teach the county land records people "to fish". The new approach shifted

from contracting for cadastral development to training select county staff members how to develop cadastral data layers. Upon completion of training, county staff developed their township's cadastral layer, documenting the processes involved with the nuances inherent in their counties source data. With providing the tools to be successful, the Partnership has aided in the sustainability of data creation and maintenance in Appalachian Ohio.

Next Steps

The next phase of our grant project is to promote the cadastral standard by developing presentation materials, scheduling presentations at meetings, conferences and public forums and utilizing our website, as well as social media, in a coordinated outreach program. The Partners have begun to develop and promote financing and maintenance strategies to ensure sustainability and growth of the Appalachian Ohio Geospatial Data Partnership past the grant period. Our Partnership's mission is to adopt and promote geospatial data standards in Appalachian Ohio between Federal, State, Regional & Local Governments, Academia, Non-Profits and Private Industry.