

Towson University Center for GIS
NSDI CAP 2008 Category 5:
Building Data Stewardship for *The National Map* and the NSDI
Interim Report

Date	October 31, 2008
Agreement Number	08HQAG0060
Project Title	<i>Structures Data Themes for Maryland and the National Capital Region</i>
Organization	Towson University Center for GIS 8000 York Road 7800 Building Suite 307 Towson, MD 21252-0001 http://cgis.towson.edu
Project Leader	<u>Primary Investigator</u> Ardys Russakis, Operations Officer, Center for GIS 410-704-3887 arussakis@towson.edu <u>Project Lead</u> Kenneth Juengling, Project Manager, Center for GIS 410-704-3887 kjuengling@towson.edu <u>Project Coordinator</u> Missy Valentino, GIS Specialist III, Center for GIS 410-704-3887 mvalentino@towson.edu
Collaborating Organizations	Metropolitan Washington Council of Governments GIS Committee http://www.mwcog.org/ Barney Krucoff, GIS Manager, District of Columbia, OCTO 202-727-2277 Barney.Krucoff@dc.gov Maryland State Geographic Information Committee http://www.msgic.state.md.us/ Mr. Kenneth M. Miller, Chair Maryland's Acting Geographic Information Officer 410-260-8987 kenmiller@dnr.state.md.us

Participating Counties and Jurisdictions

Baltimore County, Maryland

Frederick County, Maryland

Montgomery County, Maryland

District of Columbia

Fairfax County, Virginia

USGS Geospatial Liaison

Roger A. Barlow

703-648-5189

rbarlow@usgs.gov

Data Themes

Landmark Structures

Project Narrative

Introduction

The purpose of the Landmark Structures data sharing project is to establish an automated, sustainable means to collect, document, assemble, and distribute landmark structures data to *The National Map* for the Baltimore-Washington area and the National Capital Region (NCR). Stakeholder jurisdictions include Baltimore, Frederick, and Montgomery Counties in Maryland; the District of Columbia; and Fairfax County, Virginia. The intent is to establish a scale-dependent hierarchy of buildings that aligns with relevant data models such as the FGDC Homeland Security Geospatial Data Model and GIS for the Nation.

- A. Describe the project; its tasks, highlights, challenges, and accomplishments. What are your approaches to overcoming impediments to participation in *The National Map*? Based on your experience what would you recommend for implementation and development for project success (technical, institutional and organizational)?**

Project Description

Local jurisdictions collect, manage, maintain, and distribute a significant amount of spatial data for their localities. The level of detail each jurisdiction manages varies, depending upon funding. Currently, the region does not have adequate ability to share the data using a common standard. The primary goal and intended outcome of the project is to assemble and contribute FGDC landmark structures data for the area to *The National Map* through an automated, sustainable process that will enable additional jurisdictions to contribute structures data. A consistent data model will be established that correlates with existing data models and homeland security activities at the local, state, and federal levels.

The secondary goal is to encourage additional jurisdictions to contribute data in the future, using the project's repeatable process. The project intends to create a standard broad enough for multiple jurisdictions while including detailed attributes.

Tasks

The project lead team scheduled a series of meetings with stakeholders. The primary goal of the initial meetings was to discuss and achieve consensus on the following components that are vital to project success:

- Identify issues that impede data sharing;
- Agreement on a Memorandum of Understanding (MOU) and/or Letter of Intent to share data (attached to this Interim Report as *Appendix 1 and Appendix 2*)
- Agreement on a data model to adopt for this project;
- Agreement on what constitutes a Landmark Structure for this project;

- Agreement on the technical process to follow for ongoing sharing of data to *The National Map*;
- Agreement on task and timeline spreadsheet (attached to this Interim Report as *Appendix 3*).

Initial meetings were held at MWCOG offices in Washington, D.C., with Web and teleconferencing opportunities for participants who could not attend in person. The next meeting is scheduled for November 25, 2008, at 9:00a.m., and will be held in Frederick County, Maryland, government offices at 117 East Church Street. The agenda follows:

- Discuss and develop a plan to import participating jurisdictions' data into the data model.
 - o Provide an update on the current status of the project.
 - o Have a representative from the USGS join us to discuss the Best Practices Data Model and answer questions.
 - o Discuss the process followed, lessons learned, and outcome of importing Baltimore County data into the data model.
 - o Address concerns and develop a plan to move forward with participating jurisdictions.

Highlights

TU-CGIS worked closely with the Baltimore County stakeholder to provide specific examples of relevant materials and to demonstrate project progress.

Challenges

TU-CGIS provides examples of relevant materials and presents opportunities for stakeholders to submit their input. Obtaining responses and participation when group feedback is solicited outside of meetings and teleconferences presents a challenge, likely due to the many other demands on stakeholders' time. Stakeholders have the option of offering feedback to draft documents via e-mail and a SharePoint site dedicated to this project, and can offer input on other components of the project via e-mail to the entire group. When response deadlines pass and some stakeholders do not comment by the date given, their agreement is presumed.

The issue of requiring stakeholders to sign a formal agreement to share data presents a different type of challenge. It is understood that some stakeholders must vet the MOU through the legal division of their jurisdictions before signing. Some stakeholders do not wish to or cannot sign a formal agreement containing technical details but will sign a Letter

of Intent to share data. Therefore, both types of documents are being made available to stakeholders.

Accomplishments

- To facilitate communication and collaboration, the project lead team established a SharePoint site hosted by Towson University.
- An in-kind time tracking spreadsheet was generated and provided for stakeholders and placed on the SharePoint site as a means to quantify stakeholder effort toward project goals.
- A survey was sent to participating jurisdictions to inventory existing landmark structures data and each pilot jurisdiction's data-sharing policies (attached to this report as *Appendix 4*).
- The draft MOU and Letter of Intent are in the final approval stage, currently being reviewed by the Baltimore County legal department.
- The team researched existing data models, looking at the categories of structures data and the attributes captured to determine which data model would be best on national, local, and regional levels.
- Stakeholders agreed to adopt the *USGS Best Practices Structure Data Model* to accommodate data in its existing form, yet be inclusive for future growth.
- Baltimore County has agreed to work with TU-CGIS and serve as the pilot jurisdiction to import data into the adopted data model.

Approaches to Overcoming Impediments to Participation in The National Map

Impediments to participating in *The National Map* can include concerns about data security and retaining data ownership; whether or not policies and procedures are in place that allow the jurisdiction to share data; and whether or not a jurisdiction collects the data under consideration. The project attempts to help jurisdictions overcome impediments by:

- Determining which data can be shared without compromising the jurisdiction's data security policies.
- Overcoming issues of data ownership and ensuring that data can be shared securely.
- Creating and documenting a process for sharing data that all project stakeholders can and will follow.
- Obtaining consensus on a method for jurisdictions to state their intention and commitment to share data.
- Overcoming the presumption that data sharing will unnecessarily increase a jurisdiction's workload.

- Defining the data themes and attributes to be shared in a way that considers the differences among jurisdictions relative to their datasets.
- Obtaining agreement on data model, data standards, symbology, and other technical considerations.
- Determining layers of jurisdictional bureaucracy (if any) that must be satisfied before data sharing can happen.

Recommendation for Implementation and Development for Project Success

TU-CGIS acknowledges the challenges for ongoing participation in any effort that requires adoption of procedures and policies that are not currently built into the existing business processes of an organization. For a successful outcome, the project lead team recommends that the MOU and/or Letter of Intent developed for this project be considered as an initial step to adopt (with modifications to the documents, as necessary) by any organization undertaking a data sharing effort. The team also recommends that the resulting Data Model from this project be the “starting point” for consideration of future participants and be adopted and modified (if necessary). Lastly, it is recommended that the ongoing update of the digital data be taken into consideration for future efforts. This will be documented with a recommended process upon completion of this project.

- B. Describe the data themes provided to *The National Map*. Are there any use restrictions? Are your map services and data documentation (metadata) registered in Geospatial One-Stop? What is the status of maintaining, updating and serving themes of data that are included in *The National Map*? Based on your perspective and project experience describe user requirements for a national level spatial data infrastructure.**

Data Themes

The goal of the project is to assemble structures data themes, including the geospatial location, label, classification, and other characteristics of manmade facilities, specifically, landmark buildings that would appear on USGS quads, such as schools, post offices, courthouses, fire stations, and railroad stations. TU-CGIS researched The National Model, The Fire Data Model, and the USGS Best Practices Data Model, as well as existing applicable datasets, such as Maryland’s State Highway Administration (SHA) Points of interest, Maryland’s Department of Natural Resources (DNR) Lands, and Homeland Security Infrastructure Program (HSIP) documentation. The results and comparison of the data models were discussed during a stakeholder meeting. Stakeholders agreed that the USGS Best Practices Data Model will meet the needs of governments at local, regional, and national levels. Stakeholders also adopted the description of the data theme, as follows

“The structures data theme is comprised of manmade features important to planners, land managers, utility companies, and the general public for a broad range of analyses and applications. This theme is key for the locations of critical structures, which are of vital interest to emergency responders. The data include those from Federal partners including agencies of the Departments of Homeland Security and Defense, and State and local government agencies.”

Use Restrictions

Jurisdictions collect and maintain structures data for multiple purposes and needs. When considering which model to adopt, stakeholders had to ensure that no jurisdiction would be prevented from participating by being required to maintain information that they currently do not collect, or to share data that they are not able to make publically available due to homeland security issues.

However, the model had to allow for growth as jurisdictions begin to maintain more information, and to fill the need of the Federal government for homeland security purposes. The USGS Best Practices Data Model allows for inclusion of all categories of structures listed in **Table 1**. Jurisdictions will determine the categories of data and attributes to make publically available. In the future, the same model may be used to create a regional dataset for homeland security purposes that is not publically available.

Table 1 USGS Best Practices Data Model Structures Categories

USGS Structures Categories
Agriculture, Food, and Livestock
Banking and Finance
General Building
Commercial and retail
Education
Emergency Response and Law Enforcement
Energy
Government and Military
Health and Medical
Industrial
Information & Communication
Mail and Shipping
Public Attractions and Landmark Buildings
Transportation facilities
Water Supply and Treatment
Weather

User Requirements for National Level Spatial Data

The final dataset from this project must meet three levels of requirements.

- 1) Local Data Requirement – The most spatially accurate, up-to-date data is maintained by local jurisdiction for decision making and public safety.
- 2) Regional Data Requirement – Combining the local jurisdiction data into a regional data set will support public safety and decision making across local and state borders.
- 3) National Data Requirement – The national dataset will help fill the need for spatially accurate data to support public safety and security, emergency and other planning, natural resource management, environmental stewardship, human services, and other uses.

Geospatial One-Stop

At this stage of the project, data collection is incomplete. Prior to completion of this project, TU-CGIS will create and register map services and metadata with Geospatial One-Stop. The deliverable will be due in March 2009.

Status of Maintaining, Updating and Serving Themes of Data that are Included in The National Map

This project leverages any and all existing data collection and maintenance activities at the local level for participating stakeholders. As each stakeholder continues to maintain their local data according to their local business needs, participation in sharing and serving the data will continue on a voluntary basis unless a mandate is implemented to enforce participation. As a result of this project's anticipated successful completion, the mechanism will be in place for stakeholders to use existing policies and procedures to participate in ongoing data sharing and submission to *The National Map*.

C. Describe the operational capability to maintain and update data through periodic updates of data made available to *The National Map*.

The project team will recommend a method for maintaining the NCR structures themes. Upon project completion, the documented process will be submitted as a project deliverable and will be available for future participants in similar efforts. The process will be built on initiatives already underway in both Maryland and Virginia.

D. Discuss the issues, difficulties, and challenges (technical, institutional, and organizational) that were encountered.

Technical

- A Points of Interest dataset is currently made publically available by the Maryland State Highway Administration (SHA). SHA's data includes landmark features; however, the data are not detailed. The data that will be collected through the landmark structures project will include all available detailed attributes and accurate spatial data that are maintained by local jurisdictions.
- The project team determined the following technical process for receiving jurisdictions' data and sharing the data to *The National Map*, as articulated in the MOU:

"JURISDICTION will provide TU-CGIS with data. TU-CGIS will utilize Environmental Systems Research Institute's (ESRI) Data Interoperability extension to perform an Extract Transform and Load (ETL) process. This process will extract the data from the original format, transform that information to fit the regional data model, and load the data into the regional dataset. TU-CGIS will host a map service with the regional dataset that will be pushed to *The National Map*."

Institutional

Each stakeholder jurisdiction must agree to share data. To that end, stakeholders collaborated on a MOU. In some cases, the MOU had to be vetted through the jurisdiction's legal department. Stakeholders also collaborated on a Letter of Intent for jurisdictions that require a less formal document.

Organizational

Since its inception, TU-CGIS has performed an extensive array of GIS services for Maryland government agencies and therefore understands many of the diverse issues and concerns of Maryland jurisdictions relative to data sharing. The regional scale of the landmark structures project is raising new challenges. For example, during MOU development, thoughtful discussion occurred relative to details that should or should not be included. Maryland participants wished to include references to current statewide activities; however, DC and Virginia participants expressed concern that the MOU would then be too Maryland-specific. To create a less restrictive document, participants agreed to focus on details that directly relate to the landmark structures project. The agreed upon MOU is to function as the "base" language that any organization can start with and submit amendments with local specifications (data layer specifics, or geographic context specifics). The project team will continue working with each jurisdiction to ensure that the final product fills local needs as well as state and national needs.

- E. Describe your relationship and issues with the USGS. Has a formal ongoing agreement been established to provide data to *The National Map*? Describe your plans for follow-on activities. What are the terms and mutual commitment of resources? Please attach copy of written agreement if available.**

Relationship with USGS

The project lead team has been working with USGS since 2000 via the NSDI Cooperative Agreement Program and enjoys an excellent relationship with Roger Barlow, USGS Eastern Region NSDI liaison (DC, MD, NJ, DE, and Chesapeake Bay Liaison). Mr. Barlow proactively works for project success by attending project meetings and by being readily available at other times. He also keeps the project lead team informed of all relative developments. The project team has also been in contact with Paul Weise in reference to his vision of the needed outcome of this project as well as data model questions.

As more fully described in the section *Plans for Follow-on Activities*, a TU-CGIS and MWCOG partnership was recently granted USGS funds to complete a transportation data themes project that was originally proposed as a FY 2007 CAP project. Mr. Barlow fully supports the overlapping data projects.

Towson University has not established a formal, written, ongoing agreement with USGS to provide data to *The National Map*.

Plans for Follow-on Activities

TU-CGIS, on behalf of and in support of the mission of the Metropolitan Washington Council of Governments (MWCOG) GIS Committee, recently received funding from USGS to collect, document, assemble, and distribute the transportation data theme for the National Capital Region (NCR) plus Frederick County Maryland. The kickoff meeting will take place at MWCOG offices in Washington, D.C., on Thursday, November 6, 2008. The partnerships are similar, and as a concurrent, overlapping project with the landmark structures data project, the transportation data project will leverage resources and expertise already in place.

Following completion of both projects, TU-CGIS and Maryland stakeholders will also explore opportunities to leverage existing efforts specific to Maryland to further the Landmark Structures and transportation layers for submission to *The National Map* for all Maryland counties.

Terms and Mutual Commitment of Resources

As a result of early NSDI CAP clearinghouse node and metadata projects, Towson University began and continues to host several components of Maryland's Spatial Data Infrastructure and Maryland's base map (MD iMap). Maryland's vision for MD iMap aligns with NSDI's vision and will not only provide government agencies with a consistent cartographic experience for Maryland, but is also intended to serve as the secure means through which Maryland government agencies will share geospatial data. Towson University will continue to devote technical resources to these data projects that are crucial to the region's homeland security, emergency management, and land use planning activities.

Appendix 1

Memorandum of Understanding Sharing Data to *The National Map*

Between [Jurisdiction], United States Geological Survey, and Towson University

THIS MEMORANDUM OF UNDERSTANDING (MOU), executed and made effective on the _____ day of _____ 2008, by ___[name of Jurisdiction]___, hereinafter called “JURISDICTION,” the United States Geological Survey, hereinafter called “USGS,” and Towson University.

WHEREAS, a stakeholder partnership, hereinafter called “stakeholders,” listed in *Appendix A*, will coordinate stakeholders’ participation in *The National Map*; and

WHEREAS, accurate geospatial data about Maryland and the National Capital Region are currently produced and maintained by local government organizations; and

WHEREAS, representatives of local, regional, statewide, and federal public programs now expect up-to-date and accurate geospatial data to be readily available; and

WHEREAS, numerous operations require the integration of geospatial data from disparate sources to support display and analysis using the Internet and geographic information systems, hereinafter called “GIS”; and

WHEREAS, GIS software tools and maps on the Internet are increasingly vital to emergency management and public safety agencies; and

WHEREAS, data sharing among primary data sources is recognized as the key to the success and efficiency of the business applications that require geospatial data; and

WHEREAS, user demand for access and regional integration of base map and thematic data is expected to increase and thus will further challenge government organizations to develop effective policies and technical methods to efficiently share geospatial data and associated documentation; and

WHEREAS, the stakeholders have adopted technologies intended to organize geographic data for a statewide community that call for the development of a regional resource of strategic data that are produced, distributed, and maintained by local, regional, state, and federal agencies and other organizations; and

WHEREAS, these technologies, which are intended to serve governmental functions and the growing emergency management and public safety geospatial data user community with better maps and data, will be employed to make the region’s data publicly available via *The National Map*; and

WHEREAS, the primary instrument for accessing this data is the Internet; and

WHEREAS, the stakeholders' efforts to contribute to *The National Map* will succeed only as a result of effective partnerships and collaboration among data producers to reduce waste and duplication of effort;

NOW, THEREFORE, THIS MEMORANDUM OF UNDERSTANDING WITNESSETH, that JURISDICTION, USGS, and Towson University hereby agree as follows:

A. Purpose

The purpose of this agreement is to incorporate local data into the United States Geological Survey's online interactive map service, *The National Map*. This process is being facilitated by the Towson University Center for GIS (TU-CGIS). By this agreement, JURISDICTION agrees to share data as defined in *Appendix B* of this MOU to *The National Map*. This agreement also demonstrates a commitment between JURISDICTION and TU-CGIS to agree on the policy and on the technology components for inclusion of this data to *The National Map*.

B. Background

1. For the last several years, geospatial partnerships between USGS and state and local governments have focused on developing and obtaining primary data layers for inclusion in *The National Map*.
2. This agreement supports stakeholders' efforts to achieve a more valuable, meaningful contribution to *The National Map* and to National Homeland Security. Participation in *The National Map* supports numerous new and existing programs, applications, and initiatives.

C. Method of Sharing

JURISDICTION will provide TU-CGIS with data. TU-CGIS will utilize ESRI's Data Interoperability extension to perform an Extract Transform and Load (ETL) process. This process will extract the data from the original format, transform that information to fit the regional data model, and load the data into the regional dataset. TU-CGIS will host a map service with the regional dataset that will be pushed to *The National Map*.

D. Liability

1. No warranty, expressed or implied, is made with regard to the accuracy of the spatial data shared to *The National Map*, and no liability is assumed by JURISDICTION or USGS or TU-CGIS, specifically relative to the spatial or attribute accuracy of the data.
2. In no event shall JURISDICTION or USGS or TU-CGIS and/or their licensor(s) be liable for cost of procurement of substitute goods or services; lost profits, lost sales, or business expenditures, investments, or commitments in connection with any business; loss of any goodwill; or for any indirect, special, incidental, exemplary, or consequential damages arising out of this agreement or use of the data and related materials, however caused, on any theory of

liability, and whether or not JURISDICTION or USGS or TU-CGIS have been advised of the possibility of such damage. These limitations shall apply notwithstanding any failure of essential purpose of any exclusive remedy.

E. Rights to the Data

1. This agreement permits data as identified in *Appendix B* to be shared to *The National Map*. This sharing includes viewing and, optionally, downloading the data.
2. JURISDICTION reserves the right to limit the data to include only those minimum attributes required for *The National Map* or, in the case of imagery, to resample the data to a lower resolution.
3. Data shared to *The National Map* will be accessible in the public domain.

F. Intent to Share Digital Data

Consistent with the above and the terms and conditions of this agreement, JURISDICTION agrees to share essential data to *The National Map*. The data included under this Agreement are listed in *Appendix B*.

This agreement is effective upon signature by the authorities, and is valid until rescinded. It may be amended by mutual agreement or rescinded by either agency at any time during the effective period with 60 days written notice.

SIGNED HERETOFORE,

For [JURISDICTION] by:

Signature

Date

Printed Name and Title of Official

For USGS by:

Signature

Date

Printed Name and Title of Official

For Towson University by:

Signature

Date

Printed Name and Title of Official

APPENDIX A

STAKEHOLDER PARTNERS

United States Geological Survey (USGS)

www.usgs.gov

Towson University Center for GIS, (TU-CGIS)

<http://cgis.towson.edu>

Metropolitan Washington Council of Governments GIS Committee (MW-COG)

<http://www.mwcog.org/>

Baltimore County, Maryland

<http://www.baltimorecountymd.gov/>

Frederick County, Maryland

<http://www.co.frederick.md.us/>

Fairfax County, Virginia

<http://www.fairfaxcounty.gov/>

Washington, D.C.

<http://www.dc.gov/>

APPENDIX B

ESSENTIAL DATA:

Landmark Structures

The United States Geological Survey describes landmark structures as follows.

“The structures data theme is comprised of manmade features important to planners, land managers, utility companies, and the general public for a broad range of analyses and applications. This theme is key for the locations of critical structures, which are of vital interest to emergency responders. The data include those from Federal partners including agencies of the Departments of Homeland Security and Defense, and State and local government agencies.”

Source: <http://bpgeo.cr.usgs.gov/model/index.html>

☐ Agree to share

☐ Do not agree to share

Initial

Initial

APPENDIX C

GLOSSARY

The National Map

The National Map is the product of a consortium of Federal, State, and local partners who provide geospatial data to enhance America's ability to access, integrate, and apply geospatial data at global, national, and local scales.

Base Map

A map depicting background reference information such as landforms, roads, landmarks, and political boundaries, onto which other thematic information is placed. A basemap is used for locational reference and often includes a geodetic control network as part of its structure.

Data Model

A set of database design specifications for objects in a GIS application. A data model describes the thematic layers used in the application (for example, hamburger stands, roads, and counties); their spatial representation (for example, point, line, or polygon); their attributes; their integrity rules and relationships (for example, counties must nest within states); their cartographic portrayal; and their metadata requirements.

Data Sharing

Making data available and accessible to organizations or individuals other than the creator (primary data source) of the data.

GIS

A geographic information system (GIS) integrates hardware, software, and data for capturing, managing, analyzing, and displaying all forms of geographically referenced information.

Geospatial Data

Any collection of related facts arranged in a particular format; often, the basic elements of information that are produced, stored, or processed by a computer. Information that identifies the geographic location and characteristics of natural or constructed features and boundaries on the earth.

National Spatial Data Infrastructure Partner Agreement

http://www.ncgicc.com/Portals/3/documents/nsdi_partner_agreement_2005.pdf

Data Source

Origin where data is collected.

Thematic Data

Features of one type that are generally placed together in a single layer.

Appendix 2

Letter of Intent

[Date]

[jurisdiction name

Address

Address]

Re: FY 2008 USGS CAP for *The National Map*

[Jurisdiction] is pleased to sign a letter of intent to be a partner of the FY 2008 United States Geological Survey (USGS) Cooperative Agreement Program project led by the Towson University Center for GIS (TU-CGIS). The goal of the project is to contribute landmark structures data and metadata for Maryland and the National Capital Region to the USGS online interactive map service known as *The National Map*. This letter of intent demonstrates [jurisdiction's] commitment to support TU-CGIS in completing the project and is not contractually or legally binding in any way.

As the technical lead for the project, TU-CGIS is charged with developing a data-sharing policy and determining the most appropriate technology for publishing partner jurisdiction's landmark structures data to *The National Map*. In addition to agreeing to share landmark structures data to TU-CGIS, [Jurisdiction] also agrees to work with TU-CGIS on policy development and technical methodology.

[Jurisdiction] understands that the project will contribute significantly to the region's and the nation's geospatial data initiatives by collecting and sharing landmark structures data locally and nationally and by creating standards and a repeatable process that other jurisdictions can use to share their data and metadata for the common good.

Sincerely,

[signatory for jurisdiction]

[title]

Appendix 3

Kickoff PowerPoint Presentation that Includes Task and Timeline Spreadsheet

CAP Grant – Category 5
Landmarks
Kickoff Meeting
June 24th, 2008

AGENDA

- Project Overview - Mathew Felton, Towson Center for GIS
- Project Details - Kenneth Juengling/Missy Valentino, Towson Center for GIS
 - Admin - Tracking "in-kind" time toward the project
 - Schedule - Planned meetings/milestones
 - Documentation - What we will gather overall
- SHA Landmarks Effort – Clay W. Supensky/Laurie Goudy, SHA/EIS, Inc.
- Feedback and Wrap up – Mathew Felton, Towson Center for GIS

Project Overview

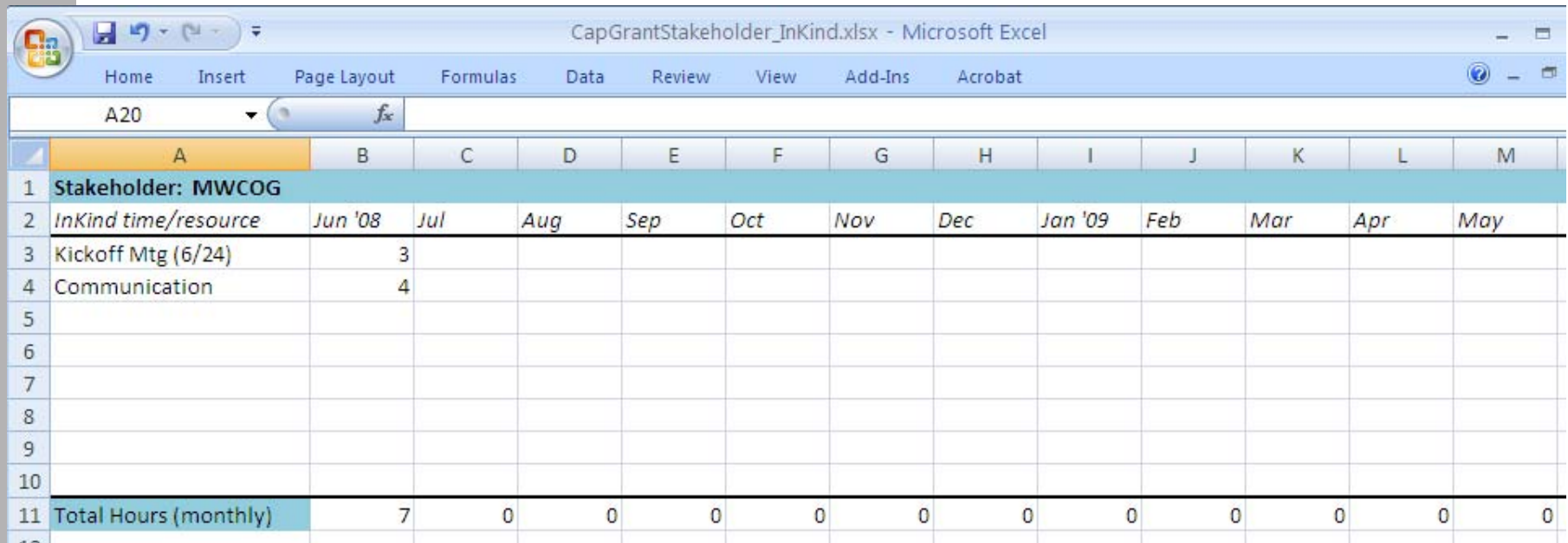
- Purpose: to establish an automated, sustainable means to collect, document, assemble, and distribute landmark structures data to The National Map for Maryland and the National Capital Region
- Pilot Jurisdictions: Baltimore, Frederick, and Montgomery Counties in Maryland, the district of Columbia, and Fairfax County, VA
- Data themes: landmark buildings that would appear on USGS quads, such as schools, post offices, courthouses, fire stations, railroad stations, etc.
- Goals:
 - Primary: to assemble and contribute FGDC landmark structures data to The National Map
 - Secondary: to establish an automated, sustainable process that enables additional jurisdictions to contribute structures data to The National Map using the process and standards developed through the project

Project Details

- Admin
 - Tracking "in-kind" time toward the project
 - Sample spreadsheet
- Schedule
 - Planned meetings
 - Gotomeeting provided for every meeting
 - Milestones
- Documentation
 - Reporting Requirements
 - Metadata for Data
 - Process to Follow

Project Details

- Admin
 - Tracking "in-kind" time toward the project
 - Sample spreadsheet

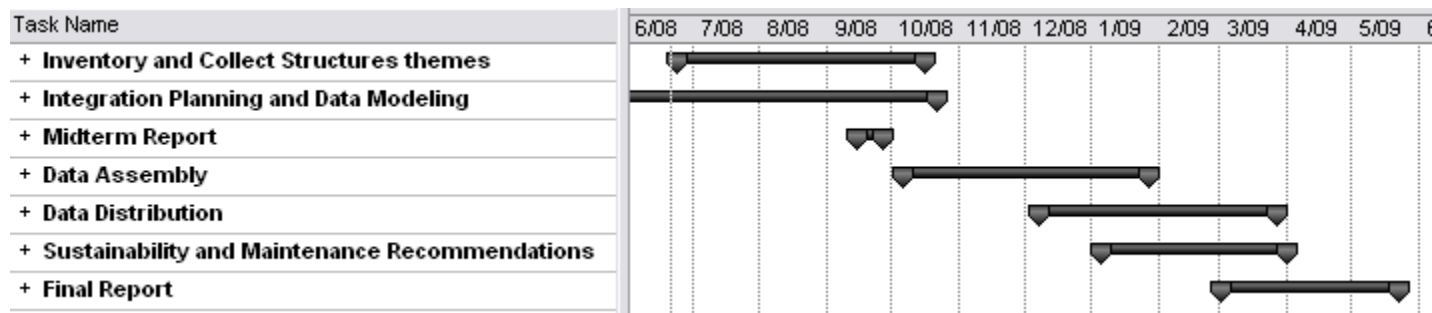


CapGrantStakeholder_InKind.xlsx - Microsoft Excel

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Stakeholder: MWCOG												
2	<i>InKind time/resource</i>	<i>Jun '08</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>	<i>Jan '09</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>
3	Kickoff Mtg (6/24)	3											
4	Communication	4											
5													
6													
7													
8													
9													
10													
11	Total Hours (monthly)	7	0	0	0	0	0	0	0	0	0	0	0

Project Details

- Schedule
 - Planned meetings
 - Gotomeeting provided for every meeting
 - Milestones
- Task Summary
 - Task 1 Inventory and Collection of Structures Themes
 - Task 2 Integration Planning and Data Modeling
 - Task 3 Data Assembly
 - Task 4 Data Distribution
 - Task 5 Sustainability and Maintenance Recommendations



Project Details

➤ Task 1 Inventory and Collection of Structures Themes

- Project team will survey the pilot jurisdictions within the Baltimore-Washington area to inventory existing landmark structures data and each pilot jurisdiction's data-sharing policies.
- Team will use the information to subsequently develop a process that enables and encourages each jurisdiction to share structures data.

➤ Deliverable 1.1

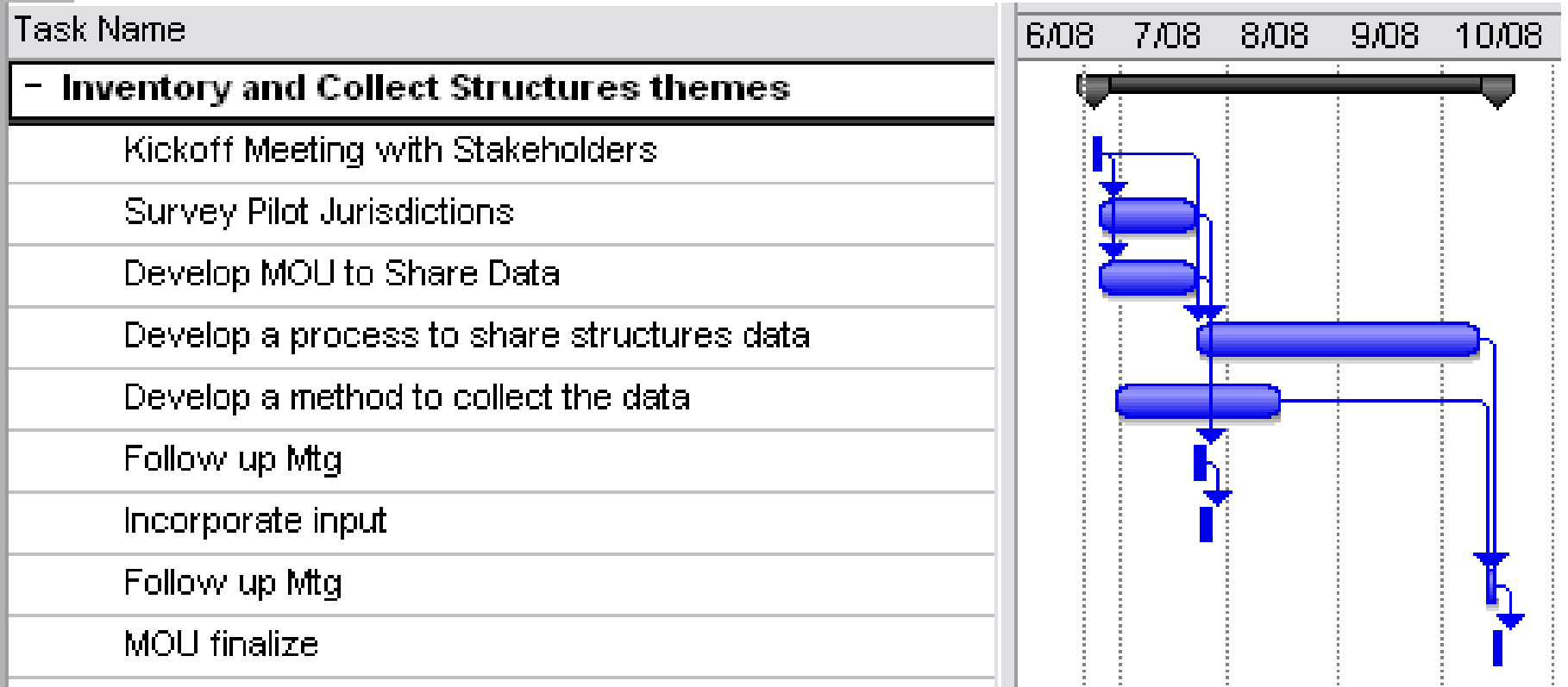
- Inventory of existing structures data for the Baltimore-Washington area that includes a catalog of the data collected, and metadata provided by the suppliers.

➤ Deliverable 1.2

- Revised MOU to reflect landmark structures data themes.

Project Details

➤ Schedule

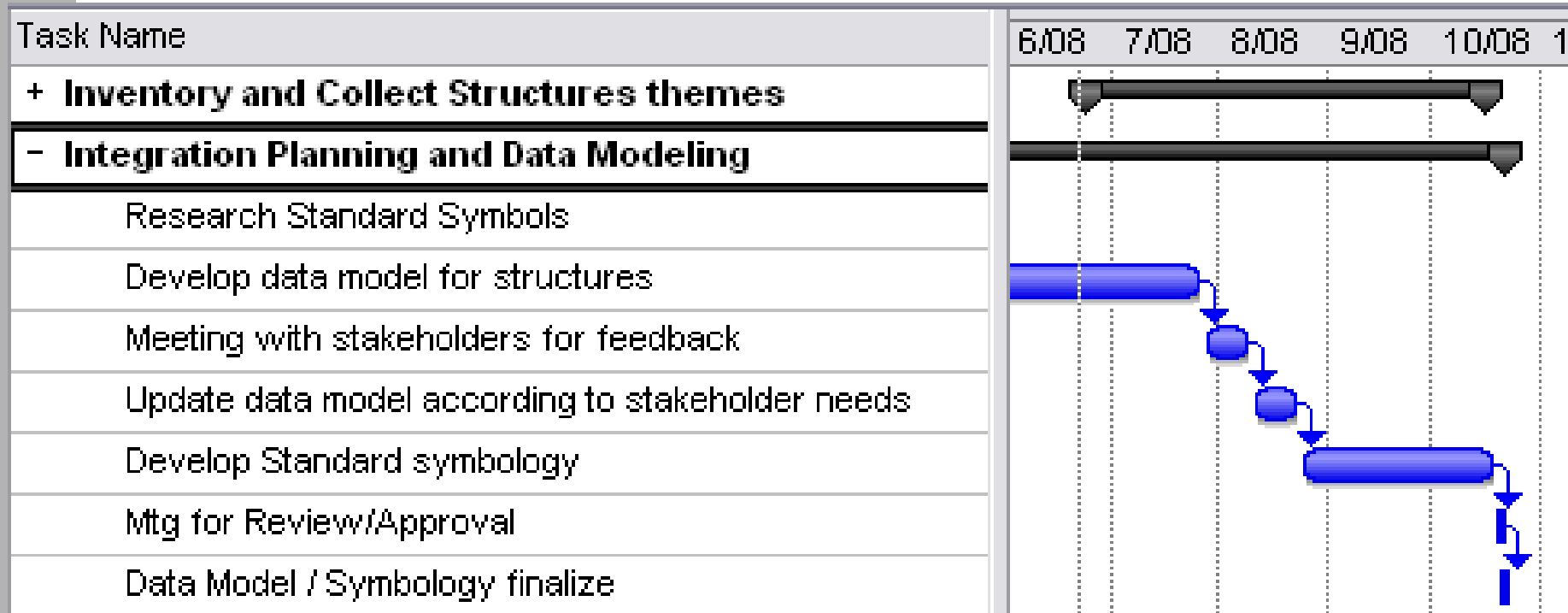


Project Details

- Task 2 Integration Planning and Data Modeling
 - Landmark structures themes with a uniform set of minimum attributes for the Baltimore-Washington area conformant to the FGDC Homeland Security Geospatial Data Model.
 - Data will include landmark buildings such as schools, post offices, courthouses, fire stations, and railroad stations. Other data elements will be considered if appropriate.
 - Standard symbology will enable correct and consistent interpretation of the data across the region. The project team will research and recommend standard symbols for the framework themes based on The National Map.
- Deliverable 2.1
 - Data Model
- Deliverable 2.2
 - Symbology Dictionary

Project Details

➤ Schedule



Project Details

➤ Schedule

Task Name	9/08	10/08
+ Inventory and Collect Structures themes		
+ Integration Planning and Data Modeling		
- Midterm Report		
Draft		
Edit		
Final		

Project Details

➤ Task 3 Data Assembly

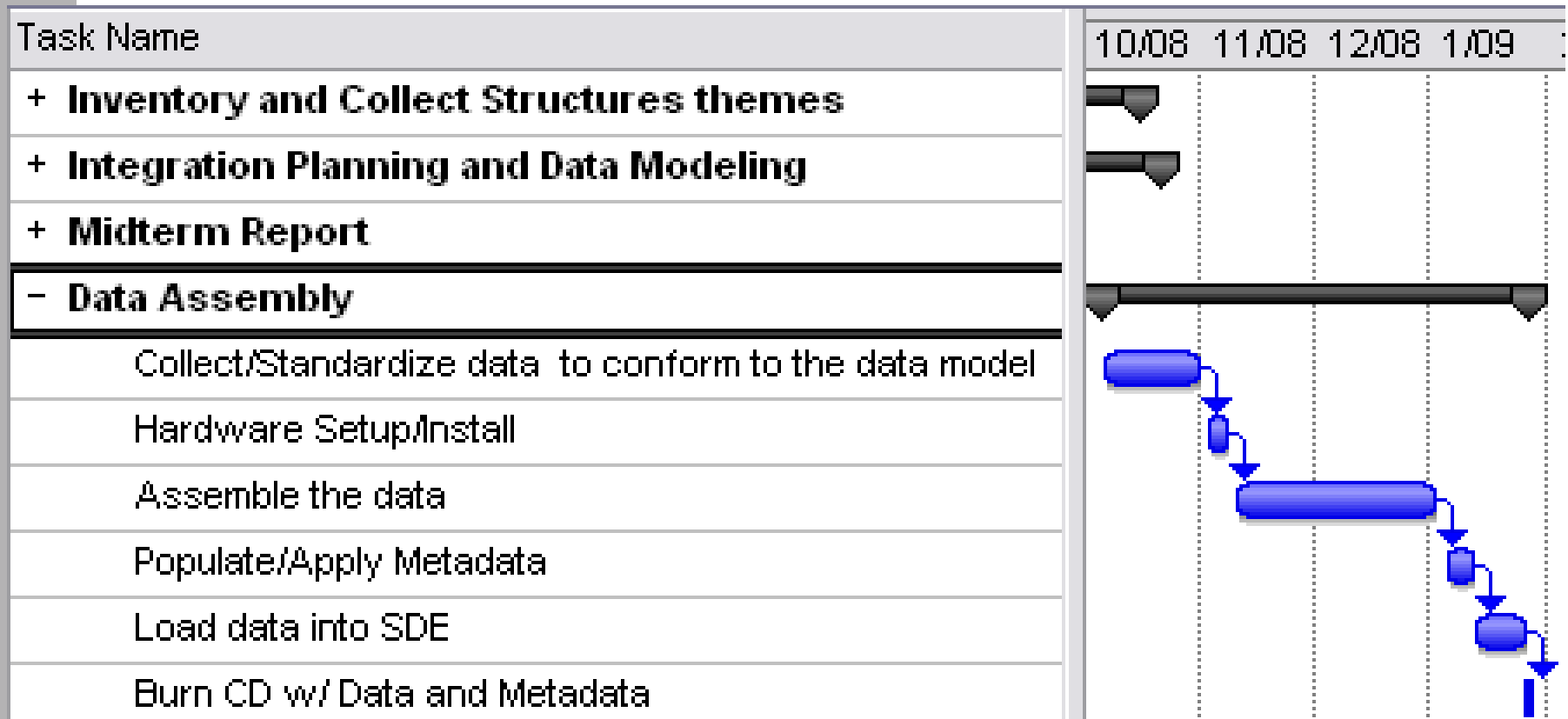
- Project team will standardize data collected from pilot jurisdictions to conform to the data model;
- Assemble the data from the highest resolution and most current data collected into a regional landmark structures dataset.

➤ Deliverable 3.1

- Landmark structures data on a CD in an ESRI-compatible format

Project Details

➤ Schedule



Project Details

➤ Task 4 Data Distribution

- TU-CGIS will house the new landmark structures dataset on its current NSDI servers and distribute the dataset to The National Map via a Web Map Service (WMS).

- Metadata will be posted to www.MarylandGIS.net, which is harvested by Geospatial One Stop. Related data, WMS, and plans for data maintenance and backup procedures will be documented in a partnership agreement with the NGPO and made available through Geospatial One-Stop

➤ Deliverable 4.1

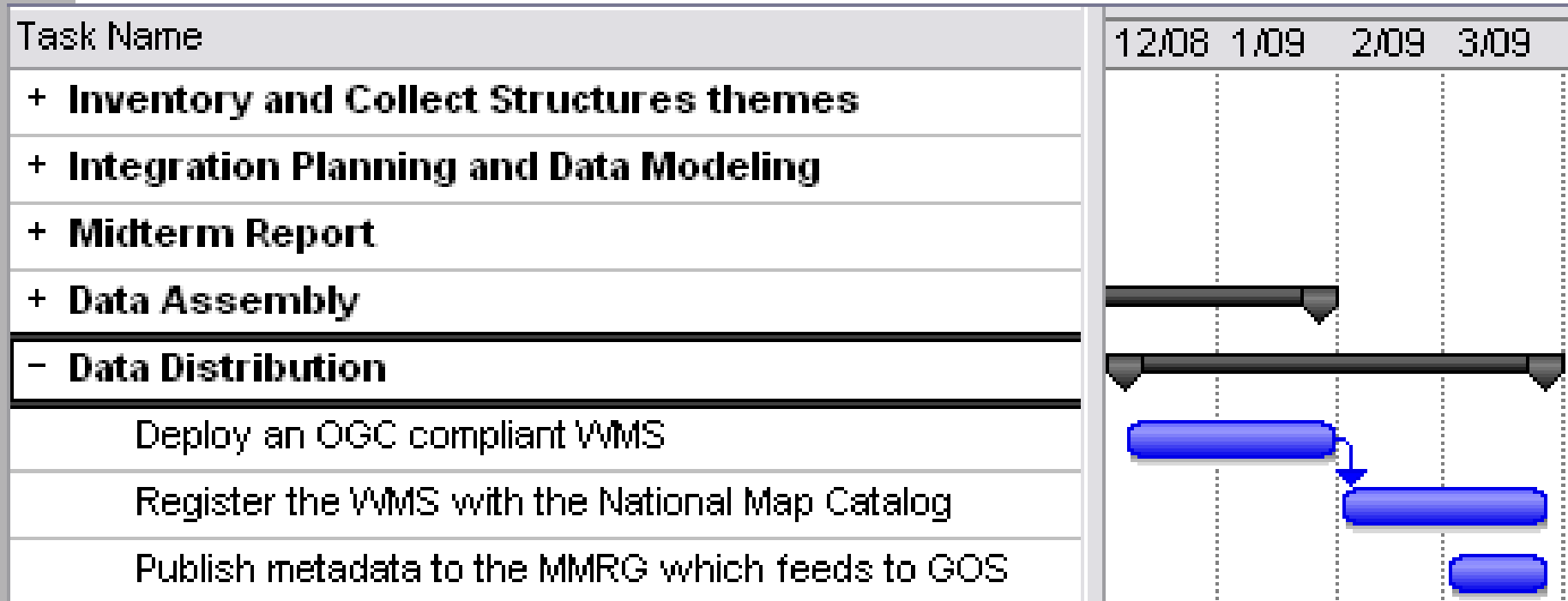
- OGC-compliant WMS for the landmark structures dataset

➤ Deliverable 4.2

- FGDC-compliant metadata published to www.MarylandGIS.net

Project Details

➤ Schedule



Project Details

➤ Task 5 Sustainability and Maintenance Recommendations

- The project team will leverage technology currently in place to automatically synchronize disparate data across multiple jurisdictions. This technology has already been proven for synchronizing addressable centerline information.
- While the proposed project will focus on the initial compilation of data, the secondary goal of achieving a process that enables other Maryland counties to share data to The National Map will be the sustainable process for updating the data themes

➤ Deliverable 5.1

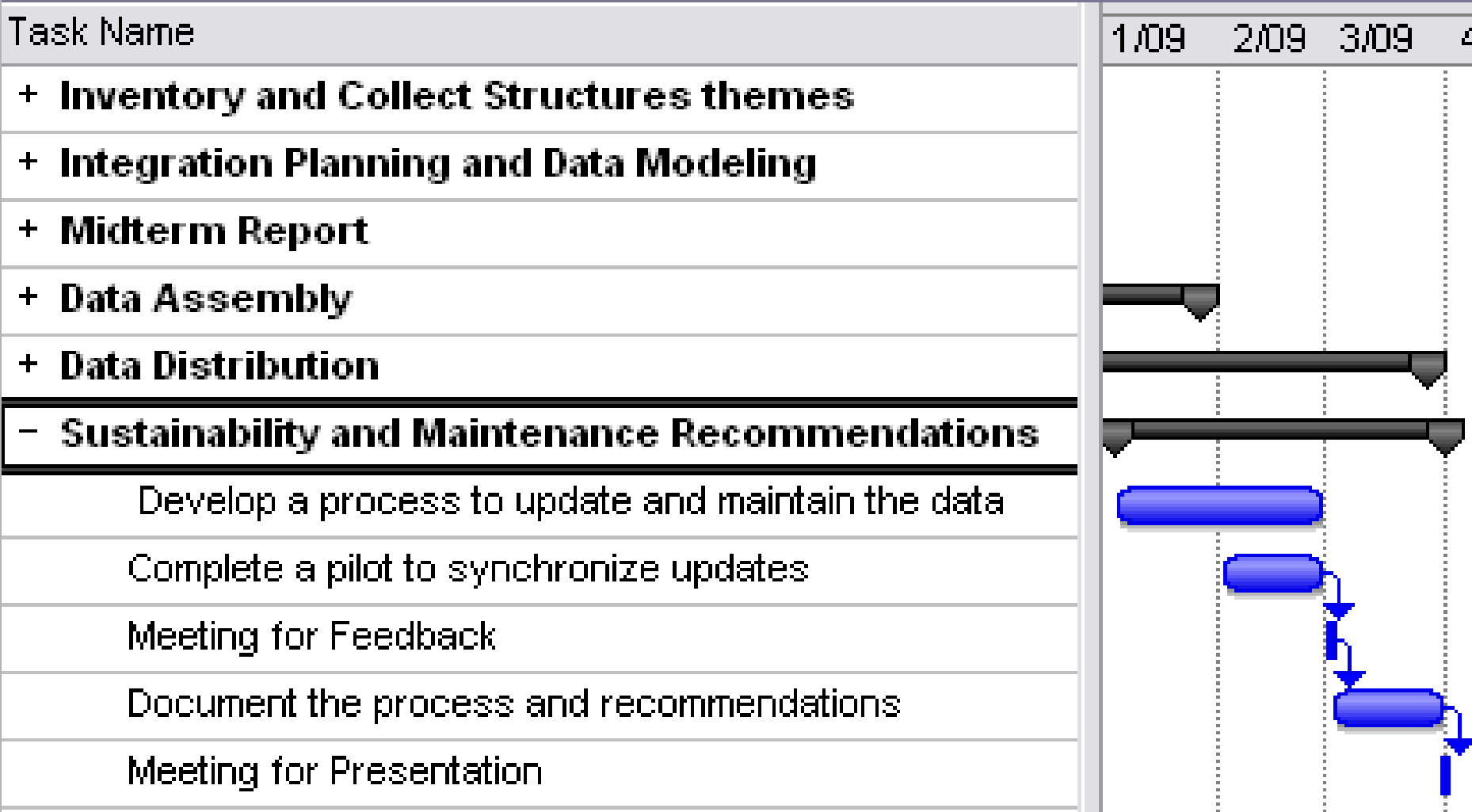
- Functional pilot that demonstrates landmark structure data synchronization

➤ Deliverable 5.2

- Recommendations for the strategy and process of data maintenance for landmark structures in the Baltimore Metropolitan area and NCR

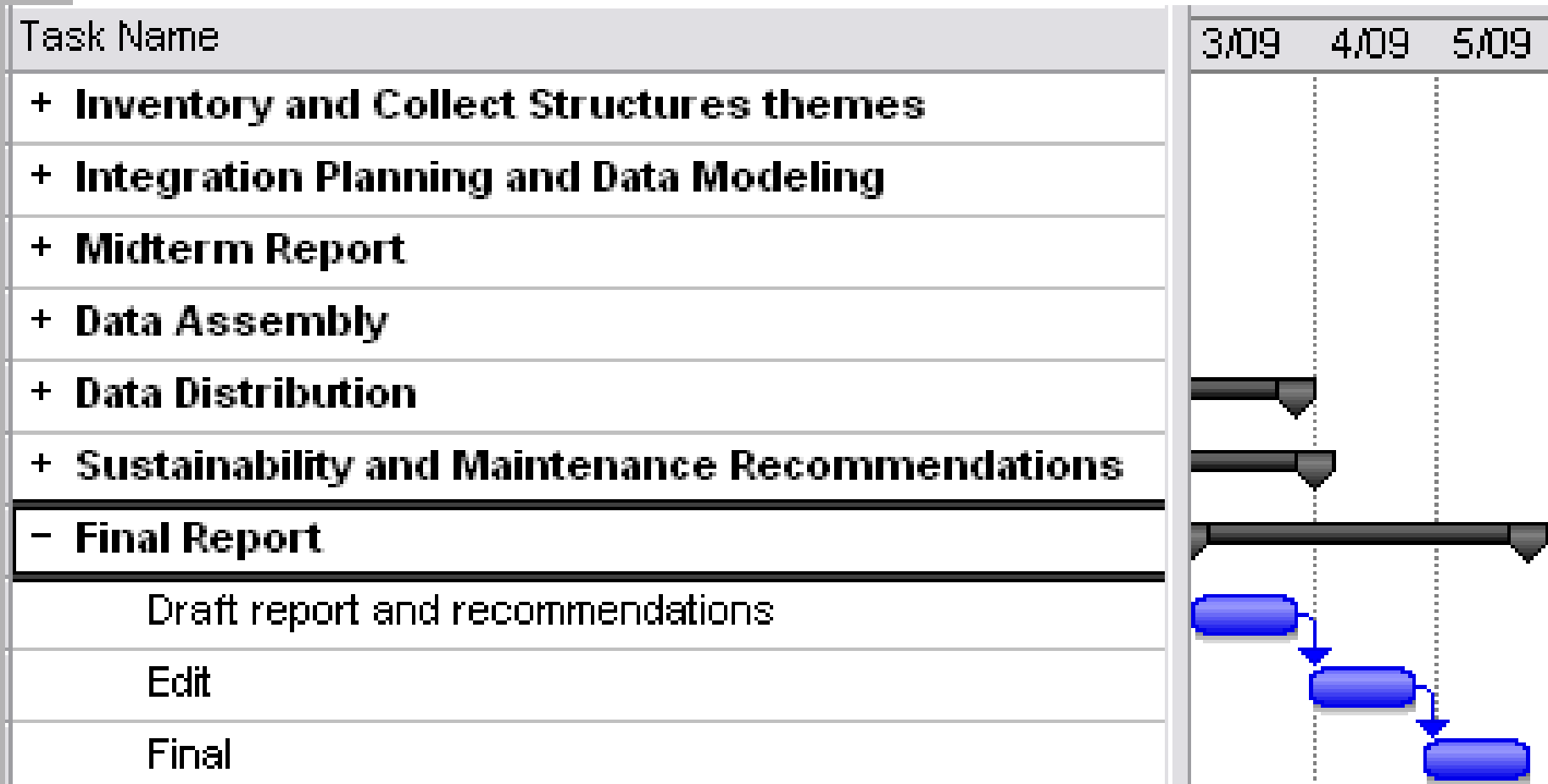
Project Details

➤ Schedule



Project Details

➤ Schedule



Upcoming Meetings (Specific Dates to Follow)

- July '08
 - Task 1 – Initial data survey; MOU draft
 - Task 2 – Data Model draft; Symbology draft
- October '08
 - Task 1 – Incorporate feedback Initial data survey; MOU
 - Task 2 – Incorporate feed back Data Model; Symbology
- March '09
 - Task 5 – Functional Pilot and Process feedback
- April '09
 - Task 5 – Presentation

Upcoming Meetings (Specific Dates to Follow)

➤ Request to Stakeholders:

- Known calendar windows to avoid
- Please send by July 1st if possible
 - mvalentino@towson.edu
 - kjuengling@towson.edu

Project Details

➤ Documentation

➤ Reporting Requirements

- Per Federal Requirements – Susan Wooden

➤ Metadata for Data

- As gathered/derived from Tasks 1 & 2

➤ Process to Follow

- As derived from Task 5

SHA Landmarks Effort

➤ Clay W. Supensky/Laurie Goudy

Feedback and Wrap up

➤ Matt Felton

Appendix 4

Towson University Center for GIS
NSDI Landmark Structures for *The National Map*
Project # 08HQAG0060
DATA SURVEY

Data Specifications Questions

Please complete the table below with the appropriate information about your structures data. If you have existing metadata with this information, please indicate that where applicable and attach your metadata in the reply e-mail along with the completed survey.

1) Coverage area (extent)	
2) Update frequency	
3) Data collection method	
4) Scale	
5) Attributes captured	
6) Type of structures captured	

- 7) From the list below, please indicate the statement(s) that best describe your organizations structures data. If your organization maintains multiple datasets please indicate all that apply.
- a) A point is placed at the structure location.
 - b) A point is placed at the facility site location. (There may be multiple structures per point for large institution such as Universities)
 - c) A footprint polygon is created at the structure location.

Data Policy Questions

1. Are there currently data access rules that prevent your jurisdiction from contributing to the public domain via *The National Map*?
2. Is your organization currently charging to recover the cost of collecting and maintaining structures data?

3. Is your organization currently collecting spatial data or attributes for your structures database that you are not willing to make publically available?
4. Is your organization currently creating metadata? If yes, is your organization posting it to the Geospatial One Stop (GOS) or the Maryland Mapping Resource Guide (MMRG)?
5. Please indicate any concerns you have about sharing your structures data below.