



**GEOSPATIAL LINE OF BUSINESS
PROGRAM MANAGEMENT PLAN**

MARCH 24, 2008



Table of Contents

GEOSPATIAL LINE OF BUSINESS	I
1 INTRODUCTION	3
1.1 Background	3
1.2 Document Structure	4
2 WORK GROUP TASKS AND DELIVERABLES	5
3 ROLES AND RESPONSIBILITIES	7
4 PROGRAM MANAGEMENT APPROACH	9
4.1 Cost, Schedule, and Outcomes Management	9
4.2 Action Items and Issues Management.....	9
4.3 Internal Communications and Status Reporting	9
4.4 Knowledge Management	9
4.5 Deliverable Quality Review and Submission	9
4.6 Scope Management.....	9
5 MANAGING TEAM PROGRAM MANAGEMENT SUPPORT	9
5.1 Schedule Management	9
5.2 Briefing Development Support	9
5.3 OMB Reporting / Budgeting Support	9
5.4 Financial and Investment Analysis.....	9
5.5 Technical Analysis	9
5.6 Advisory Guidance / Document Development Support	9
5.7 Meeting Support.....	9
5.8 Membership Tracking Assistance	9
6 WORK GROUP PROGRAM MANAGEMENT SUPPORT.....	9
6.1 Analysis Support	9
6.2 Advisory Support (e.g. OMB Exhibit 300 expertise)	9
6.3 External Communication and Outreach Support	9
6.4 Meeting Coordination.....	9
6.5 Schedule Management	9
6.6 Document Coordination	9
6.7 Work Plan Development and Maintenance	9
APPENDIX A: PROGRAM MANAGEMENT TOOL SUMMARY MATRIX	A-9
APPENDIX B: TASKS AND DELIVERABLES.....	B-9
B.1 PERFORMANCE MANAGEMENT WORK GROUP.....	B.1-9
B.2 LIFECYCLE MANAGEMENT WORK GROUP	B.2-9
B.3 COMMON SERVICE WORK GROUP	B.3-9
B.4 GEO-ENABLED BUSINESS WORK GROUP	B.4-9
B.5 GRANTS AND CONTRACTS WORK GROUP	B.5-9
B.6 TECHNICAL ARCHITECTURE WORK GROUP.....	B.6-9
B.7 JOINT BUSINESS CASE (JBC) WORK GROUP	B.7-9

APPENDIX C: MASTER PROJECT SCHEDULE FY 2008-2009 C-9
APPENDIX D: WORK PLAN TEMPLATE D-9
APPENDIX E: STATUS REPORT TEMPLATE..... E-9
APPENDIX F: MEETING MINUTES TEMPLATE.....F-9
APPENDIX G: ACTION ITEM TRACKING TEMPLATE G-9
APPENDIX H: ISSUE TRACKING TEMPLATE H-9
APPENDIX I: BRIEFING TEMPLATEI-9
APPENDIX J: QUICKPLACE SCREEN SHOTS J-9
APPENDIX K: COMMENT LOG TOOL K-9
APPENDIX L: COMMENT ADJUDICATION TOOL.....L-9
APPENDIX M: EARNED VALUE MANAGEMENT REPORTING TOOL.....M-9
APPENDIX N: MEMBER TRACKING TOOL..... N-9

1 INTRODUCTION

The Program Management Plan herein referred to as “the Plan,” lays out the Program Management Office’s (PMO) approach for achieving the Fiscal Year (FY) 2008-2009 milestones of the Geospatial Line of Business (Geospatial LoB) with contracting support from Grant Thornton. Herein, the term “PMO” represents the combined parties of Grant Thornton and the Managing Partner Team. The Plan builds upon the Performance Management Strategy (PM Strategy), which was completed in June 2007, and the Performance Management Plan (PM Plan), which was completed in February 2008.

The Plan provides processes and tools to measure performance dimensions as introduced in the PM Plan as well as practical approaches and tools for initiating, executing, and monitoring tasks, and producing the deliverables presented in the PM Plan. *Appendix A: Program Management Tool Summary Matrix* provides a comprehensive summary of key program management tools discussed throughout this Plan.

1.1 Background

In September 2007, the U.S. Geological Survey (USGS) of the Department of the Interior selected Grant Thornton to provide program management office support to the Geospatial LoB. As part of this two-year contract, Grant Thornton provides program support to the Geospatial LoB PMO in the setup and implementation of various work groups producing multiple deliverables to enhance the efficiency and effectiveness of the acquisition and distribution of geospatial data among Federal agencies.

The Federal Geographic Data Committee (FGDC) Coordination Group oversees the Geospatial LoB and serves as the coordination board for operational-level interagency management for the effective and efficient prioritization, execution, and administration of the Geospatial LoB and its tasks, milestones, and deliverables.

Figure 1.1: Geospatial LoB Governance Structure provides a graphical depiction of the specific relationships and reporting structures associated with implementing this initiative. The green dotted box outlines the Geospatial LoB, whose participants come from participating agencies, with additional oversight from the FGDC Chair, and Office of Management and Budget (OMB). While this graphic is notionally accurate, the governance model may change over time as a result of the work products and deliverables produced by the Performance Management Work Group in association with Task 1: Review/Update FGDC Guidance Documents.

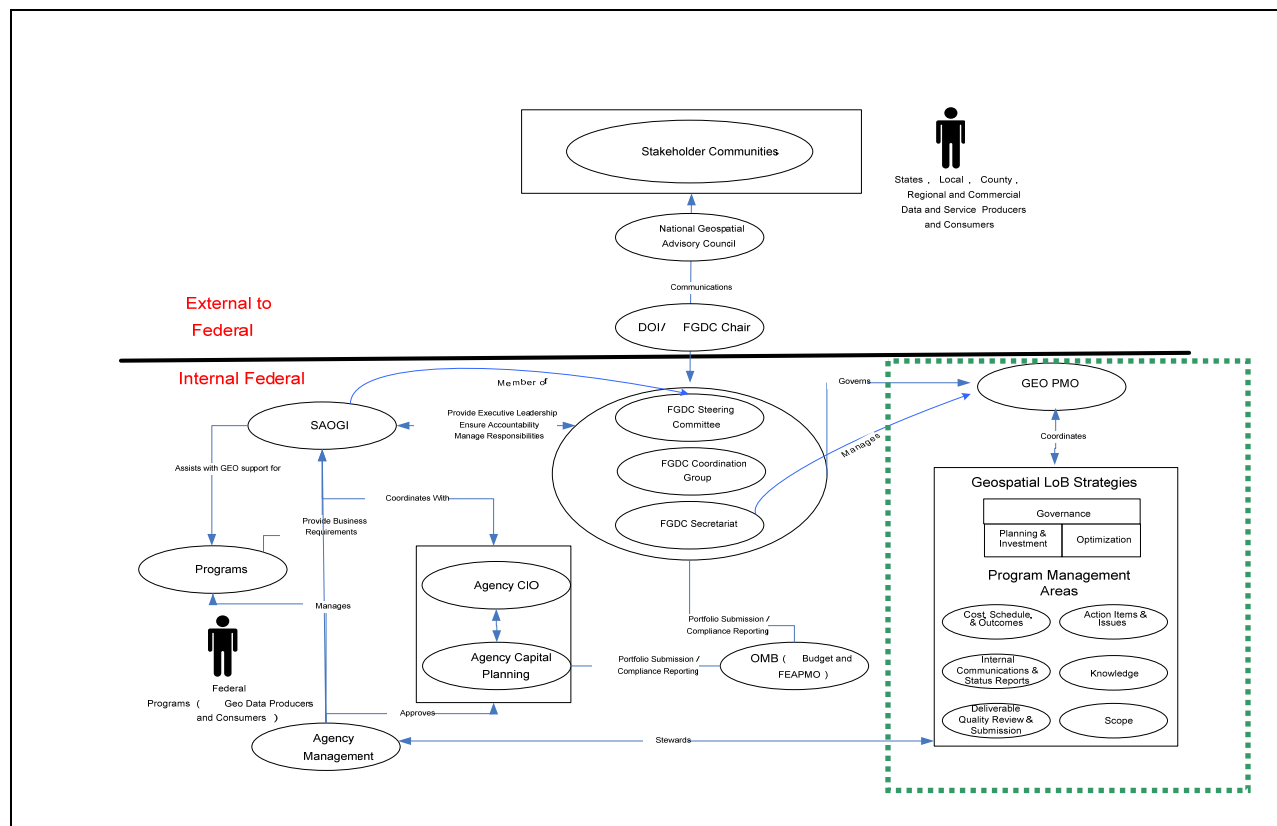


Figure 1.1: Geospatial LoB Governance Structure



1.2 Document Structure

The remainder of the Program Management Plan adheres to the following structure:

- **Section Two: Work Group Tasks and Deliverables** – summarizes the anticipated deliverables and their respective target completion dates for each work group.
- **Section Three: Roles and Responsibilities** - provides an overview of the key roles and responsibilities for stakeholders in the Geospatial LoB in association with completing FY08 and FY09 tasks and deliverables.
- **Section Four: Overall Program Management Approach** – introduces the Geospatial LoB Program Management Approach including the associated program management activities, roles, and tools.
- **Section Five: Managing Partner Team Support** – explains the activities and processes implemented by Grant Thornton to support the Managing Partner Team.
- **Section Six: Work Group Support** – explains the activities and processes implemented by Grant Thornton to support the work groups.
- **Appendices** - provides documentation and templates referenced and discussed throughout this Plan.

2 WORK GROUP TASKS AND DELIVERABLES

Work groups represent ad hoc groups of interagency participants within the Geospatial LoB assembled to execute one or more related tasks and subtasks including the development of deliverables. Each work group has at least one identified team lead and works with the PMO to produce at least one deliverable per task. Table 2.1 depicts currently identified work groups, their assigned tasks, and proposed deliverables. A more detailed schedule of tasks, subtasks, and deliverables is in *Appendix B: Tasks and Deliverables*.

 Geospatial Line of Business Work Group Tasks & Deliverables 			
Work Group	Tasks	Major Deliverables	Target Deliverable Completion Date
Joint Business Case	Revisions/Updates to Exhibit 300	<ul style="list-style-type: none"> Resubmission of OMB 300 Exhibit for FY09 Following Passback (Q4) Earned Value Management Reports Submission of OMB 300 Exhibit for FY10 Following (Q2-Q4) 	<ul style="list-style-type: none"> 03-15-2008 Quarterly 01-15-2009
Performance Management	Enhance FGDC Governance (Task 1)	<ul style="list-style-type: none"> Memorandum from Deputy Secretary Scarlett designating Coordination Group as assuming the responsibilities of the Geospatial LoB Task Force Geospatial LoB Performance Management Plan OMB Strategic Plan OMB concurrence with proposed changes to A-16 Appendix on data themes 	<ul style="list-style-type: none"> 02-01-2008 02-15-2008 03-03-2008 09-29-2008
Lifecycle Management	Evaluate and define the nine stages of the geospatial data lifecycle and identify common capabilities to allow cost-benefit ROI for shared services (Task 2)	<ul style="list-style-type: none"> FDGC approved lexicon of data lifecycle stages FDGC approved criteria for establishing priority data sets Proposal for governmentwide management of data lifecycle for significant data sets 	<ul style="list-style-type: none"> 03-31-2008 03-31-2008 09-30-2009
	Define and establish A-16 data steward lifecycle responsibilities and performance measures (Task 3)	<ul style="list-style-type: none"> Development of a repeatable process for modifying A-16 appendices and recommendations for specific A-16 changes Plan for use by the FGDC Coordinating Committee for recommending priorities and funding needs to FGDC Steering Committee 	<ul style="list-style-type: none"> 09-30-2009 06-30-2010

Work Group	Tasks	Major Deliverables	Target Deliverable Completion Date
Geo-Enabled Business	Develop outreach programs to demonstrate the value of “place based” approaches and geospatial technology (Task 5)	<ul style="list-style-type: none"> Final Communications Strategy and Implementation Plan CAP Grants evaluation and compilation of best practices Geospatial Best Practices Articles 	<ul style="list-style-type: none"> 03-31-2009 06-30-2008 Varies
	Provide a broker service for data searching among agencies which will build on and improve existing systems (Task 10)	<ul style="list-style-type: none"> Broker Service Outreach Proposal Selection of Geospatial Broker Service 	<ul style="list-style-type: none"> 06-30-2008
Common Services	Expand SmartBUY (and alternatives) efforts for geospatial data and technologies (Task 4)	<ul style="list-style-type: none"> ELA scope requirements and Acquisition Plan Selection of ELAs to pursue ELA Negotiation Strategy Deployed / Hosted Registry of Reusable Tools and Components 	<ul style="list-style-type: none"> 01-31-2008 04-30-2008 06-30-2008 02-27-2009
	Implement MOUs/SLAs/ELAs for common geospatial services (Task 8)	<ul style="list-style-type: none"> Template for data sharing and policy sharing Recommended ‘best practice’ for establishing MOU/SLA/ELA for data sharing across stakeholder communities 	<ul style="list-style-type: none"> 02-29-2008 03-31-2011
Grants and Contracts	Develop and implement common grants language for geospatial information and services (Task 6)	<ul style="list-style-type: none"> Adoption of proposed grants guidance language in 2 CFR Information packages for grantors and grantees 	<ul style="list-style-type: none"> 09-31-2008 09-31-2008
	Develop and implement geospatial requirements language for Federal contracts (FAR, DFAR) (Task 7)	<ul style="list-style-type: none"> Development of voluntary agency-specific contract language models Approved timeline for changes to FAR/DFAR or addition to contracts 	<ul style="list-style-type: none"> 09-31-2008 12-31-2009
Technical Architecture	Develop requirements and recommendations for technology and telecommunications infrastructure required to deliver geospatial services (Task 9)	<ul style="list-style-type: none"> Presentations to CIO Council on benefits of geospatial applications Geospatial Profile v2.x 	<ul style="list-style-type: none"> 12-30-2008 08-1-2008

Figure 2: Geospatial LoB Work Group Tasks & Deliverables

3 ROLES AND RESPONSIBILITIES

A number of parties are involved in the successful execution of the Geospatial LoB. The Managing Partner Team, FGDC Coordination Group, Work Group Leads, work group team members, and Contractor Support each support program management, managing partner, and work group activities. Figure 3.1 depicts the major roles & responsibilities by party for each type of participant in the Geospatial LoB. A legend following the table explains these role types identified: participant (P), accountable (A), review (R), input (I), and keep informed (K).

Activity	Sample Output	PMO	Contract Support	Work Group Lead	Geospatial LoB Agency Participants	FGDC Coordination Group
Program Management Tasks						
Cost Management	Budget for FY 09	P, R, I, S	P, A, R, I	P	P	P, K
Schedule, Outcomes	Deliverable Prioritization List	P, A, R, I	P, A, R, I	P, A, R, I	P, R, I	K
Action Item Tracking	Action Item List as of 11.30.2007	P, A, R, I, S	P, A, R, I	P, A, I	P, A, I	K
Issue Tracking	Corrective Action Plan for issue resolution	P, A, R, I, S	P, A, I	P, I, R	A, R, I	P, K
Meeting/Call Coordination	Schedule of activities for FY08	P, A, R, I, S	P, A, R, I	P, I	P, I	P, K
Status Reporting	Status Report to Managing Partner Team	R, I, S	A, I	P, A, I	K	K
Knowledge Management	Posting of Fall meeting minutes on QuickPlace	P, R, I	P, A, I	P	P	P
Deliverable Quality Review & Submission	Draft of Program Management Plan	P, A, R, I, S	A, R, I, I	P, A, R, I	P, I	P, S, K
Scope Management	Evaluation of proposed subtasks	P, A, R, I, S	P, A, R, I	P	K	K
Managing Partner Team Tasks						
Project Schedule Management	Draft of proposed project schedule for January & February 2008	P, A, R, I, S	P, A, R, I	P	K	K
Briefings	Briefing to FGDC Coordination Group	P, A, R, I, S	P, A, R, I	P	P	P
OMB Reporting / Budgeting	Draft of OMB Exhibit 300 revisions	P, A, R, I, S	A, R, I	K	K	K
Financial & Investment	Response to budget call	P, A, R, I, S	A, R, I	P	K	K
Technical Analysis	Data Call Results Assessment	R, I, S, K	P, A, R, I	P	P	K

Activity	Sample Output	PMO	Contract Support	Work Group Lead	Geospatial LoB Agency Participants	FGDC Coordination Group
Managing Partner Team Tasks (continued)						
Advisory/Guidance	Recommendations on OMB Exhibit 300 revisions	P, R, S, K	P, A, R, I	P	P	K
Meeting Coordination	Agenda and schedule for next FGDC Coordination Group meeting	P, I, R, S	P, A, I	P	P	P
Outreach to External Geospatial LoB stakeholders	Article for publication in <i>GeoWorld</i>	P, A, R, I, S	P, A, R, I	P, I	P, I	P, K
Membership Tracking	Updated member contact information	R, S	A, R, I	P, A, I	P, I	K
Work Group Tasks						
Analysis	Geospatial technology trade-off assessment	R, I, S	P, A	P, A, R, I	P, R, I	K
Work Group Advising	Grants language standardization recommendations	R, I, S	P, A	P, R, I	R, I	K
Work Group Meeting Coordination	Schedule of upcoming PM Plan Work Group meetings	P, I	P, A	P, A	P, A	K
Task/Subtask Schedule Management	Set deadline for subtasks	R, A, S	R, I	P, A, R, I	P, I	K
Subtask Identification	Listing of A-16 revision subtasks	R, S	R, I	P, A, R, I	P, I	K
Document Review	First draft of Communications Plan	R, S	P, A, R, I	P, A, R, I	P, R, I	K
Deliverable Production	First of two licensing agreements	P, R, I, S	P, A, R, I	P, A, R, I	P, R, I	K
Work Plan Development & Maintenance	Common Services Group Work Plan	R, I, S	P, A, R, I	P, A, R, I	P, R, I	K

Legend					
P = Participant actively provides or receives information.	A = Accountable accountable based on contract, general understanding, or leadership position.	R = Review reviews draft documents (e.g. briefings, deliverables, etc.) upon completion.	I = Input provides input at meetings or produces items for inclusion in documents.	S = Sign-off provides final approval of LoB documents, subtasks, deliverables, etc.; without approval the item cannot move forward.	K = Keep Informed inform this stakeholder of LoB progress, issues, opportunities, or changes.

Table 3.1: Geospatial LoB Roles and Responsibilities Matrix

4 PROGRAM MANAGEMENT APPROACH

Because the Geospatial LoB is work group-based and involves a number of different parties, the Plan entails a flexible and collaborative program management approach that engages the Managing Partner Team, the FGDC Coordination Group, and work groups in the activities and processes relating to the attainment of milestones and the creation of deliverables. The program management approach is divided into six major areas, which guide work groups in the completion of tasks as depicted in Figure 4.1.

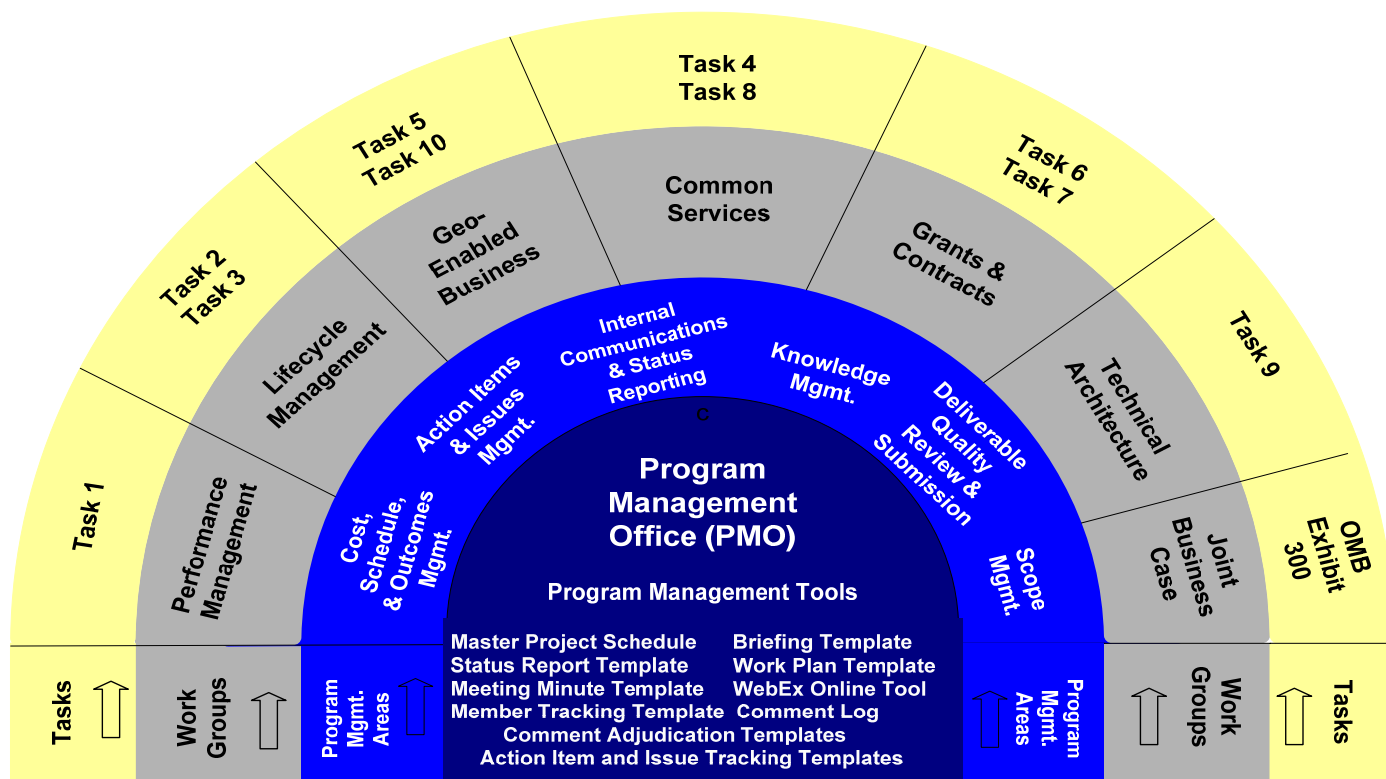


Figure 4.1: Geospatial LoB Program Management Approach

The PMO uses customized program management tools to manage the six areas of program management and guide the work groups in the completion of their assigned tasks and subtasks to produce quality deliverables. Each of the program management areas and tools shown in Figure 4.1 is explained in more detail throughout the remaining sections of this Plan.

4.1 Cost, Schedule, and Outcomes Management

Continuous tracking of Geospatial LoB costs, schedule, and outcomes is necessary to coordinate the activities of individual work groups as well as to monitor level of effort (LOE) and resources for both Government and contractor participants. When managing these project areas, the PMO acts in accordance with existing OMB requirements and the master Geospatial LoB project schedule that all

participants agreed upon prior to the start of the Geospatial LoB Project. *Appendix C: Master Project Schedule FY 2008-2009* shows the master schedule for Fiscal Year 2008-2009. Project schedules and outcomes remain outwardly visible to all stakeholders with an eye towards results achieved by the Geospatial LoB.

Collectively, Cost, Schedule, and Outcomes Management help ensure the Geospatial LoB accomplishes the tasks and produces the deliverables described in the PM Plan and documented in *Appendix B: Tasks and Deliverables*. Individually, each of these disciplines supports the overall Geospatial LoB as further described:

- **Cost Management** - Cost Management entails tracking LOE for both Government and contractor on a weekly basis as well as tracking OMB Joint Business Case - Exhibit 300 allocations and OMB budgetary requirements against the larger project to promote accountability and fiscal responsibility.
- **Schedule Management** – Schedule Management entails tracking individual task, subtask, and deliverable estimated start and end dates to the overarching project schedule and regularly updating actual start and end dates upon the completion of tasks, subtasks, and deliverables. The PMO incorporates performance and quality review measures when assessing the status of deliverables and the overall project.
- **Outcomes Management** – Outcomes Management entails determining if deliverables produced meet the needs of Geospatial LoB strategies of Governance, Planning and Investment, or Optimization as presented in the PM Plan. Additionally, Outcomes Management supports the alignment of individual deliverables to the overall project and helps ensure deliverables provide measurable results appreciated by stakeholders.

4.1.1 Cost, Schedule, and Outcomes Management Roles

The PMO collects and monitors information regarding cost, schedule, and outcomes submitted by work groups. The PMO then compares this information to anticipated project costs, schedules, and outcomes and reports Geospatial LoB progress to the FGDC Coordination Group. When cost and schedule variances occur, the PMO works with Work Group Leads to identify appropriate corrective actions. Once corrective action takes place, the PMO updates any project area impacted by the corrective action. If variances between estimated and actual costs, schedule, or outcomes do not appear, the project continues forward as planned with regular monitoring and status reporting.

4.1.2 Cost, Schedule, and Outcomes Management Tools

The PMO uses four key tools to track cost, schedule, and outcomes: Geospatial Work Group Work Plans, Microsoft Project Schedule, Microsoft Excel spreadsheets, and Status Reports, each of which is described below.

- **Work Plans** – Geospatial LoB work groups use work plans to guide the proposal, progress, and completion of subtasks and deliverables associated with their respective assigned tasks. Each work group will create work plans detailing their task and deliverable completion schedule, contractor and government LOE in FTEs and hours, critical success factors, and task or deliverable dependencies. Work Group Leads are responsible for updating their respective work plans and submitting them to the PMO. To support the PMO—and inform the FGDC Coordination Group—Grant Thornton will use work plan content in populating other management tools described in this plan. *Appendix D: Work Plan Template* depicts the work plan template.
- **Microsoft Project Schedule** - Microsoft Project provides primary means of tracking project schedules. Upon the completion of tasks, subtasks, and deliverables or the receipt of information from work groups and the Managing Partner Team, the PMO updates the impacted areas of the master schedule and incorporates updated Microsoft Project content into Status Reports. This tool also provides visual representation of the time interdependencies of tasks, subtasks, and deliverables and shows where scheduling issues, conflicts, or delays occur. As previously indicated, *Appendix C: Master Project Schedule* depicts the baseline Geospatial LoB 2008-2009 project plan and schedule.
- **Microsoft Excel spreadsheets** –The PMO uses Microsoft Excel to monitor and share information about project costs, schedule, LOE, and outcomes. Financial and mathematical functions found in Excel allow for quick and accurate cost tracking and can provide automated summation of key variables (e.g. percentage of government LOE needed, contractor cost as a percentage of budget, etc.) while the row and column spreadsheet set-up allow for data sorting. Excel content also helps populate tables for inclusion in various Geospatial LoB documents.
- **Status Reports** – On a bi-weekly basis, Grant Thornton compiles information from key project areas to update the Managing Partner Team on current costs, schedules, and outcomes relative to the larger Geospatial LoB project. Status Reports summarize work accomplished and deliverable progress for a period of project performance, work planned for the next period of performance, and LOE. In addition, Grant Thornton identifies any issues that might impact project completion and, when appropriate, suggests corrective actions. Status Reports connect Program Management to Performance Management and offer a method to track successes and shortcomings by period of

performance for the PMO and individual work groups. *Appendix E: Status Report Template* depicts the status reporting template.

4.2 Action Items and Issues Management

Effectively tracking the assignment and completion of action items as well as tracking the identification and resolution of issues are important steps towards achieving outcomes, tasks, and deliverables. An “action item” refers to an agreed upon, documented task or activity that must occur to fulfill a goal or requirement while an “issue” relates to a vocalized or documented concern or potential problem that may be linked to a task, activity, person, group, or document.

4.2.1 Action Item and Issue Management Roles

On an ongoing basis, Grant Thornton keeps formal meeting minutes at key meetings to capture action items and issues related to Geospatial LoB program management areas. *Appendix F: Meeting Minute Template* depicts the meeting minute template. Once meeting minutes are validated, Grant Thornton transfers action items and issues into comprehensive databases where they are monitored from their date of entry to their date of closure or resolution. Grant Thornton informs the Managing Partner Team of open and closed action items and issues each week and, when appropriate, recommends or takes corrective action.

4.2.2 Action Item and Issue Management Tools

Both the Action Item and Issue Database provide accountability and transparency as well as encourage open communication and attention to overall project cost and schedule. These tools are described below and depicted in *Appendix G: Action Item Tracking Template* and *Appendix H: Issue Tracking Template*.

- **Action Item Database** – This database tracks action item factors including: submission date and source (e.g. meeting minutes), a brief description, name of who proposed and who owns the action item, target completion date, status (i.e. open or closed), and actual completion date.
- **Issue Database** – This database tracks current and potential issues associated with documents, tasks, subtasks, and deliverables or associated with human or financial resources by logging: submission date, submitter’s name, brief description, issue source, level of criticality (i.e. high, medium, low), proposed resolution(s), target resolution date, resolution status (i.e. open or closed), and final resolution date.

4.3 Internal Communications and Status Reporting

Stakeholders involved with the Geospatial LoB come from varied backgrounds and exhibit a diverse range of interests and needs. Inclusive internal communication and regular status reporting creates cohesion and focuses stakeholder time, effort, and resources on tasks at hand to promote timely production of deliverables. Status Reporting links specific project periods to overall project progress by

filtering critical information from project documents (e.g. meeting minutes, work plans) and stakeholders into a comprehensive snapshot of document content, conversation, and correspondence.

4.3.1 Internal Communication and Status Reporting Roles

The PMO uses a variety of tools, activities, and coordinated processes as it facilitates communication among internal stakeholders. The Managing Partner Team, work groups, and the FGDC Coordination Group support the communication process by submitting meeting minutes, work plans, document review comments, action items, and issues in a timely manner so Grant Thornton can update project plans and produce accurate Status Reports.

4.3.2 Internal Communication and Status Reporting Tools

While a formal Communications Strategy and Implementation Plan addresses the needs of the larger stakeholder community, the tools mentioned below help Grant Thornton facilitate open, inclusive dialogue and information sharing among the Geospatial LoB Managing Partner Team, Geospatial LoB work groups, and the FGDC Coordination Group.

- **Meetings, Calls, and Online Collaboration** - Pre-arranged in-person meetings, conference calls, and online collaborations represent primary modes of internal communication. These meetings and calls involve active participation and feedback from stakeholders and provide a semi-structured forum for project-related discussions. In some cases “Ready Access” or another similar online collaboration tool are used to facilitate discussion among a geographically dispersed participant base. Any dialogue, discussion topics, decisions, action items, and issues get captured using a meeting minute template as referenced in Section 4.2.1 and as shown in *Appendix F: Meeting Minute Template*. Upon content validation, the PMO disseminates the meeting minutes, adjust action item or issue databases, then posts meeting documents on QuickPlace, an interactive online portal for sharing, storing and, managing project information and documents. Additionally, the PMO keeps a master schedule of all FGDC Coordination Group, Managing Partner Team, and work group meetings to assist in providing program management support to these key stakeholders.
- **Briefings** - Briefings provide overviews of critical information, current issues, next steps, or recommendations, and often call for audience response, comment, or future action. Briefings provide additional structure to meetings and conference calls by offering a point of focus for internal communication. The PMO archives briefings on QuickPlace for later use. *Appendix I: Briefing Template* provides an example of a briefing template.
- **Status Reports** - On a bi-weekly basis, the PMO compiles information from key project areas and produces Status Reports. Status Reports provide current information regarding where project components

stand relative to the bigger picture and connect Program Management to Performance Management. Status Reports also offer a method to track successes and shortcomings. The PMO archives Status Reports on QuickPlace. As indicated in Section 4.1.2., *Appendix E: Status Report Template* shows an example of a Status Report.

4.4 Knowledge Management

Knowledge Management facilitates the exchange of information, ideas, and documents by building an accessible archive of documents, resources, schedules, and Geospatial LoB member contact information. To support Knowledge Management, Grant Thornton selected Quick Place, an interactive online portal, as the primary system to facilitate effective and efficient transfer of Geospatial LoB programmatic and contractual documents and information.

As draft and final documents are produced and information shared, the PMO archives these items on QuickPlace for quick and convenient retrieval by Geospatial LoB participants. In addition, the PMO posts updated documents and templates as often as needed to support the activities of the Geospatial LoB Managing Partner Team and work groups. The Managing Partner Team and each work group has its own room in which it can directly manage the creation and posting of deliverables, group meeting schedules, assigned activities, and independent collaborative work spaces. *Appendix J: QuickPlace Screenshots* shows some main pages on the QuickPlace portal

4.5 Deliverable Quality Review and Submission

The PMO works with the Managing Partner Team, FGDC Coordination Group, and the work groups through a structured quality review process to produce high-quality documents and deliverables. The quality review process tracks deliverables from initial development to final submission and includes one-time deliverables such as public reports, proposals to OMB, or memoranda of agreements among agencies. The development, approval, and delivery of high quality geospatial products is the joint responsibility of the entire LOB governance structure. Although the specific steps of the quality assurance process may vary depending on the nature of the document under review, the high-level quality assurance process consists of five major stages, as identified below in Figure 4.5.

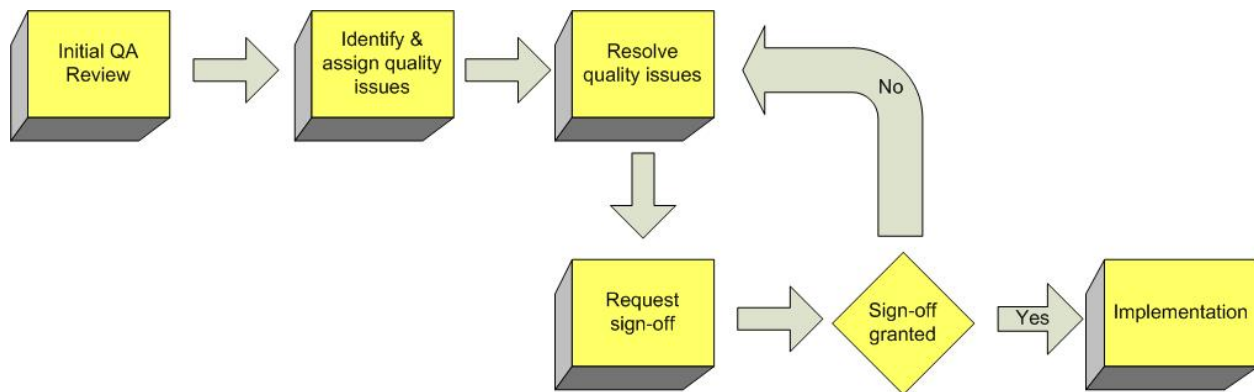


Figure 4.5: Geospatial LoB Quality Assurance Process

This process could occur at any level within the Geospatial LoB. Each of these stages are described below:

- **Initial QA Review** - This stage focuses on review the quality of Geospatial LoB deliverables in terms of accuracy, consistency, and conformance with the intent of the document.
- **Identify & assign quality issues** - This stage focuses on identifying key problems with quality in the documents reviewed and assigning issues to the appropriate party for resolution.
- **Resolve quality issues** – In this stage, issues are resolved by the appropriate party, consolidated and then submitted for sign-off. The PMO establishes standard quality control procedures to ensure that comments from reviewers are reconciled when there are differences of opinion, and accurately reflected in final products.
- **Request sign-off** - This step entails submission of geospatial deliverables for approval from the appropriate party.
- **Sign-off granted** – In this stage, documents submitted for approval could either be approved or directed back to the appropriate party with comments for resolution.
- **Implementation** – Upon receipt of approval, the deliverable is implemented (e.g. a newsletter article would be distributed).

Quality assurance responsibilities lie with committees, work groups, and individuals during different stages of product development. A key feature of the quality review process is tailoring the type of reviews conducted and the particular reviewers involved to the categories of LoB products generated. To illustrate, technical products are reviewed by Geospatial specialists represented on the work groups and by data theme stewards; products that outline governmentwide acquisition and grant policies get reviewed by the FGDC Coordination Group and Steering Committee, but receive final approval by OMB.

4.5.1 Deliverable Quality Review and Submission Tools

The PMO uses several different types of tools to support the quality assurance (QA) process from development through approval. Some tools at the disposal of the PMO and work groups alike are described below.

- **Comment Log Tool** – The PMO has developed the Geospatial LoB Comment log tool to allow for the collection of comments, and their proposed resolutions, on internal documents, deliverables, etc. The tool can be customized for many different types of work products. *Appendix K: Comment Log Tool* depicts the tool used to collect comments.
- **Comment Adjudication Tool** – For work products that impact multiple agencies, the PMO developed the Geospatial LoB Comment Adjudication tool. The tool allows for the collection of comments on any part, section, figure, table, etc. of any work product along with Geospatial LoB. *Appendix L: Comment Adjudication Tool* depicts the tool used to adjudicate comments.

4.6 Scope Management

The PMO regularly evaluates and validates LOE required for deliverables and tasks including the identification and management of variances from the LOE proposed that might occur in the course of the contract. An integral part of project management entails keeping attuned to the variances between planned and actual timelines, and whether timelines are met at, below, or above planned resource levels. If performance deliverables within given time frames become high priority, the PMO identifies those instances that necessitate contract amendments:

4.6.1 Scope Management Roles and Responsibilities

The appropriate level of authority to approve changes in project scope varies depending on the type of change required. The Geospatial LoB Managing Partner Team has responsibility for approval of changes to administrative processes and adjustments to the mix of project resources allocated for each task. Each individual work group has responsibility for approval of changes to deadlines in project deliverables and adjustments in the mix of project resources allocated to specific subtasks. Any change in scope that impacts the contractual LOE requires a contract modification facilitated by the Managing Partner Team to which Grant Thornton responds.

4.6.2 Scope Management Tools

To better control project scope, the PMO uses a variety of standard project management tools. These tools help to ensure that the project is properly defined and allow for timely monitoring and reporting of variations from the original project plan.

- **Project Management Plan** – As mentioned in section 4.1 (also, *Appendix B: Master Project Schedule*), the PMO developed a project management plan in order to better define project scope. The PMO began this process by defining the scope of the project through the use of a Work Breakdown Structure (WBS). The WBS served as the framework for grouping tasks, subtasks, activities, and work products to define the overall project scope. This tool also serves as the basis for the project schedule and reporting. The scope of this plan entails the proper delineation and approval by Geospatial stakeholders. The plan serves as the basis for performance measurement under an Earned Value Management (EVM) framework.
- **Earned Value Management Reports** – The PMO submits EVM Reports on a quarterly basis using format shown in *Appendix M: Earned Value Management Reporting Tool*. Regular EVM reporting aids in the identification of changed project scope. The PMO pays specific attention to establishing processes that will identify when imbalances in resource allocations occur, and propose approaches that redress these imbalances.

5 MANAGING TEAM PROGRAM MANAGEMENT SUPPORT

Over the course of the Geospatial LoB project, Grant Thornton provides various types of program support to the Managing Partner Team. Section 5 describes a number of agreed upon support areas that may fluctuate in importance or demand or that may expand as Geospatial LoB activities and deliverables progress.

5.1 Schedule Management

Grant Thornton provides Schedule Management support for all deliverables by developing and facilitating updates to estimated task, subtask, and deliverable schedules and, when appropriate, by makes recommendations or takes corrective actions to address variances in current schedule from the estimated schedule. Managing Partner Team approval occurs before any proposed schedule modifications take place.

5.2 Briefing Development Support

When requested, the Grant Thornton team creates presentations for the Managing Partner Team's use in presenting critical information and key issues for action or discussion at FGDC Coordination Group or Geospatial LoB meetings. Upon content validation, meeting invitees receive a copy of the briefing prior to the meeting to provide time for review and meeting preparation. In addition, Grant Thornton archives all briefings on QuickPlace for later recall, reference, or distribution. As referenced in Section 4.3.2., *Appendix I: Briefing Template* provides an example of the template used when creating briefings.

5.3 OMB Reporting / Budgeting Support

Grant Thornton supports Geospatial LoB reporting and budgeting requirements by assisting the PMO in performing budget analysis and preparing various reports as needed. Some of these reports include, but are not limited to, the following:

- **Quarterly EVM Reports for Department of the Interior** – Using previous EVM reporting formats, Grant Thornton reports on project EVM metrics on a quarterly basis.
- **OMB Exhibit 300 Planning Documents** – On an annual basis, the Grant Thornton team prepares an initial draft of the OMB Exhibit 300 and incorporates JBC Work Group and Managing Partner Team revisions. Additionally, Grant Thornton assists with Exhibit 300 revisions through the OMB Passback process.
- **OMB quarterly reports and other ad hoc reports** – On an as-needed basis, Grant Thornton supports ad-hoc reporting to OMB including 12-18 data calls annually.

5.4 Financial and Investment Analysis

Grant Thornton assists the PMO in performing financial and investment analysis including determination of appropriate methods for calculating present value as well as downstream costs of capital investments in geospatial infrastructure. Proposed approaches are consistent with guidelines specified in the governmentwide Capital Planning Investment Control (CPIC) framework, and the Federal Enterprise Architecture guidelines for IT investments.

5.5 Technical Analysis

Grant Thornton can provide a range of technical analyses tailored to meet specific needs of the project as the need arises. Specific areas of technical expertise include:

- **Organization and governance design and assessment** – The Grant Thornton team can provide consultation to the Managing Partner Team regarding appropriate assignment of roles and responsibilities in carrying out the responsibilities of the Geospatial LoB.
- **Performance management and measurement** – Grant Thornton can provide ongoing support in enhancing the performance management architecture for the Geospatial LoB. As performance measures are identified for each level of the performance management framework, Grant Thornton provides expertise in precisely defining each performance measure; establishing a calculation methodology for each measure; specify reporting protocols; and assuring vertical as well as horizontal alignment among all measures.
- **Cost and performance analysis** – Grant Thornton can assist the FGDC Coordination Group in linking budgeted resources to performance measures in order to estimate incremental performance returns for changes in geospatial funding.
- **Benchmarking** – Grant Thornton can conduct research and support benchmarking efforts, as appropriate to determine ‘best practices’ for functions that are analogous to geospatial mission and strategies. Many of these best practices are found in public and private sector organizations that perform parallel functions but fall outside of the geospatial community.

5.6 Advisory Guidance / Document Development Support

Grant Thornton supports the Managing Partner Team by providing expert guidance, support, and process management pertaining to the accomplishment of tasks and development of deliverables. The Grant Thornton team analyzes the geospatial business requirements and advise the Managing Partner Team on the best strategic, organizational, and technical solutions to execute specific Geospatial LoB program tasks.

5.7 Meeting Support

Grant Thornton supports the Managing Partner Team in coordinating schedules, locations, and presentations for meetings concerning both internal and external stakeholders. In addition, Grant Thornton, when requested, hosts in-person meetings, conference calls, and online collaborative sessions via Ready Access, or captures meeting minutes.

5.8 Membership Tracking Assistance

Grant Thornton assists the Managing Partner Team in membership tracking by including a “Member Section” in the work plans to monitor work group participants and capture the names and contact information for meeting attendees. Additionally, the use of a In the event of updates made to the contractor team, work group, or FDGC Coordination Group membership, Grant Thornton informs the Managing Partner Team in a timely manner as well as document, disseminate, and archive the changes in a master membership spreadsheet to keep all stakeholders informed. *Appendix N: Membership Tracking Template* shows the template for tracking membership

6 WORK GROUP PROGRAM MANAGEMENT SUPPORT

Over the course of the Geospatial LoB project, Grant Thornton provides a wide variety of support to Geospatial LoB work groups. Specific tasks vary by work group however there are several major categories of support further described below.

6.1 Analysis Support

The Grant Thornton Team provides the work groups analysis assistance in completing work group tasks including: data collection tool design, data capture, data compilation, data analysis, and results summation. Specific analysis techniques include: trade off analysis, market analysis, cost-benefit analysis, and stakeholder analysis.

6.2 Advisory Support (e.g. OMB Exhibit 300 expertise)

Grant Thornton supports the Geospatial LoB work groups by providing expert guidance, support, and process management pertaining to the accomplishment of tasks and development of deliverables.

6.3 External Communication and Outreach Support

In accordance with the Geospatial LoB Communications Implementation Plan, Grant Thornton works with the Managing Partner Team to support development and distribution of communications content and materials, such as briefings, fact sheets, articles, and website updates. Grant Thornton also supports communications and outreach needs through the execution of various communications events and the creation of the *Geospatial LoB Communications Strategy and Implementation Plan*.

6.4 Meeting Coordination

Grant Thornton supports work group leads in coordinating schedules, locations, and presentations for meetings concerning both internal and external stakeholders. In addition, Grant Thornton, when requested, host in-person meetings, conference calls, and online collaborative sessions via Ready Access, or capture meeting minutes. Work Group Meetings will be posted on a QuickPlace calendar so all work group members can view upcoming meetings

6.5 Schedule Management

The Grant Thornton team maintains the overall LoB schedule documents, and performs the same function for each of the work groups. The Grant Thornton Team monitors schedule variances, and informs the Managing Partner Team and Work Group Leads of any concerns about the ability of the work groups and Managing Partner Team to adhere to the approved schedules. The Grant Thornton team, when appropriate, suggests schedule modifications.

6.6 Document Coordination



The Grant Thornton team keeps all documents produced by work groups and takes responsibility for version control, archiving documents, and converting draft documents from work groups into approved LoB formats. At the request of the Work Group Leads or Managing Partner Team, the Grant Thornton team distributes draft documents for comment and produces analyses of comments received to help appropriate parties easily understand what decisions need to be made with respect to comments. The Grant Thornton team will post draft and final versions of documents onto QuickPlace for easy reference and retrieval by work group members.

6.7 Work Plan Development and Maintenance

The Grant Thornton Team assists the work groups in refining and pursuing their Work plans, tracks progress on all work group deliverables, and maintains current versions of those plans. Grant Thornton, in conjunction with the Work Group Leads use the QuickPlace portal to help facilitate the development and maintenance of the work plans.

Appendix A: Program Management Tool Summary Matrix

The Program Management Tool Summary Matrix summarizes the program management tools used by the Geospatial LoB Program Management Office, their description, and for which tasks the tools are used.

 Geospatial Line of Business Program Management Tool Summary 		Program Management Task							Program Management Support							
Tool	Description	Cost, Schedule, Outcomes Management	Action Item and Issues Management	Internal Communication Management	Knowledge Management	Deliverable Quality Review	Scope Management	Briefing Development	OMB Reporting / Budgeting	Financial, Investment, or Technical Analysis	Advisory Guidance	Meetings/Meeting Coordination	External Communications	Membership Tracking	Schedule Management	Document Coordination
Microsoft Project Plan	Microsoft Office Application that allows project tracking to appear in phases showing task, cost, and schedule interdependencies and relationships	x	x	x		x	x	x	x	x	x	x	x		x	
Tasks & Deliverables Matrix	Visual representation of work groups and the tasks or subtasks for which they are responsible	x		x		x	x		x	x	x	x	x			
Work Plan Template	Flexible template to capture the activities, LOE, schedule, and membership of each work group	x	x	x			x	x	x	x	x	x	x		x	x
Status Report Template	Template used to create status reports that provide a snapshot of current project progress to the overall project progress	x	x	x			x				x				x	
Meeting Minute Template	Template used to capture key discussion points, decisions, recommendations, issues and action items that arise during meetings	x	x	x		x		x		x		x	x	x		
Comment Tracking Template	Template used to log comments on documents during the document quality review process			x		x		x	x							x
Comment Adjudication Template	Template used to adjudicate comments captured from documents during the document quality review process			x		x		x	x							x
Action Item Tracking Template	Template used to capture action items collected from meeting minutes or during email correspondence or stakeholder conversations with the PMO	x	x	x				x	x	x		x	x	x	x	x
Issue Tracking Template	Template used to capture issues or concerns raised in meeting minutes or during email correspondence or stakeholder conversations with the PMO	x	x	x				x	x			x		x	x	
Briefing Template	Template used to brief stakeholder on the schedule and activities of the Geo LoB	x	x	x				x			x	x	x			
QuickPlace	Online collaborative tool used to share programmatic and contractual information and documents relating to the Geo LoB and its stakeholders	x	x	x	x	x						x				
Member Tracking Template	Template used to track contact information for participants in the Geo LoB		x	x			x					x		x		x

Appendix B: Tasks and Deliverables

The Tasks and Deliverables matrix shows each work group’s tasks, the associated deliverables, deliverable schedule, and LOE.

B.1 Performance Management Work Group

Subtask		Start Date	Completion Date	Resulting Deliverable
TASK 1				
1.1	Transition LoB Task Force roles & responsibilities to FGDC Coordination Group as defined in LoB Common Solutions/Target Architecture document	07Q4	08Q1	Memorandum from Deputy Secretary Scarlet designating Coordination Group as assuming the responsibilities of the Geospatial LoB Task Force, Align Coordination Group Charter to PMI standards and Geospatial LoB objectives.
1.2	Review and revise FGDC operational organizations (theme-based and LOB sub-groups) to align with JBC and Program Management Plan objectives (including procedures and criteria for changing data themes and theme leads)	08Q2	08Q4	FGDC organization is aligned with LoB organizational goals and strategies.
1.3	Complete initial Performance Management Plan. The Performance Management Plan (PMP) provides a detailed work breakdown structure for each of the tasks and subtasks. The PMP will define each task linkage and dependencies among and across tasks as well as provide milestones, deliverables and the Return On Investment for each task and subtask. The PMP will become the operational 'road-map' for the execution of the tasks under the direction of the FGDC Coordination Group	07Q4	08Q1	Final Performance Management Plan.
Subtask		Start Date	Completion Date	Resulting Deliverable

Geospatial LoB Program Management Plan

1.4	Review OMB Circular A-16 to identify desired changes, particularly with respect to data themes and theme leads, and secure FGDC Steering Committee and OMB approval	08Q2	09Q4	OMB reissuance of A-16 with changes.
1.5	Develop and submit Geospatial LoB Tactical Plan to OMB per Passback guidance)	08Q1	08Q2	OMB concurrence with Tactical Plan
1.6	Align FY 09 FGDC CAP grant solicitation with JBC and Program Management Plan objectives.	08Q4	09Q1	FY09 CAP grant guidance issued in alignment with Geospatial LoB goals and strategies
1.7	Review A-130 and FGDC Charter and revise to include Data Life Cycle Management (9 stages) requirements for Data Stewards. Develop/define common terminology, processes, and procedures	08Q4 (pending coordination with Lifecycle Work Group)	09Q2 (pending coordination with Lifecycle Work Group)	1) Proposal for revisions to A-16 guidance 2) OMB approval of proposed updates or revisions to A-16

B.2 Lifecycle Management Work Group

Subtask		Start Date	Completion Date	Resulting Deliverable
2.1	Define the nine (9) lifecycle stages and create a detailed lexicon including the following: inventory, collect/produce, process, analyze/use, store, publish, distribute, archive and dispose	08/Q1	08/Q2	Lexicon of data lifecycle stages
2.2	For each A-16 data theme a) identify known data sets;b) based on available information, for each data set, list current leads, production schedules, milestones, performance measures and budget; and c) based on agreed upon criteria, identify the most significant data sets for each theme	08/Q1	08/Q3	Approved set of criteria to identify most significant data sets and list of high scoring data sets
2.3	Define geospatial data lifecycle stages to include: common terminology, practices, and procedures and propose how to reconcile terms under key Federal documents such as the OB CSTA, A-130, and FEA	08/Q2	08/Q3	Matrix comparing lifecycle terms for A-16, A-130, CSTA, Service Oriented Architecture (SOA), etc.
2.4	Based on identification of the most significant data sets for each theme, quantitatively assess opportunities to capture efficiencies in development and maintenance (cost, schedule, and quality) of lifecycle stages on a government-wide basis and identify "best practices for each lifecycle phase	09/Q1	09/Q4	Proposal for government-wide management of data lifecycle for most significant data sets
2.5	Structure annual A-16 theme data steward report consistent with the lifecycle lexicon	08/Q4	09/Q2	Annual A-16 Theme/Data Steward Report based on the geospatial data lifecycle lexicon to allow analysis of performance and potential efficiencies across all themes

Subtask	Start Date	Completion Date	Resulting Deliverable
---------	------------	-----------------	-----------------------

Geospatial LoB Program Management Plan

Subtask		Start Date	Completion Date	Resulting Deliverable
3.1	Compare the results of the FY 2006/2007 OMB Geospatial Data Calls and FY 2007 A-16 data theme/layers report to identify commonalities, inconsistencies and discrepancies as a basis for defining data requirements or priorities (see 2.2.2)	08/Q2	08/Q2	User Requirements Baseline to be used as tool for setting development and funding priority process
3.2	Identify additional key /nationally significant data themes, data layers and any associated data content standards that are not on the current A-16 list, but should be considered for inclusion based on user requirements (This subtask includes reconciliation of existing agency A-16 responsibilities with Homeland Security Information Program (HSIP) recommendations	08/Q2	08/Q4	Tool for FGDC Coordinating Committee with which to make decisions on recommendations on development priorities, additions, deletions, and/or outsourcing of data to the A-16 list and selection of new data standards for future development
3.3	Analyze the difference between work currently being done or scheduled under A-16 compared to user requirements for both A-16 and other nationally significant data sets (consult with NGAC)	09/Q1	09/Q4	User requirements and gap analysis for A-16 framework data and nationally significant data layers
3.4	Complete plan to address identified gaps between current A-16 data work and user needs identified under task 3.4 (will be a phased e.g. look at two themes at a time) to include harmonization of data definitions and feature classes, and standards, developing COI and adding /deleting data sets from A-16	09/Q4	TBD	Plan for use by FGDC Coordinating Committee for recommending priorities and funding needs to FGDC Steering Committee
3.5	Make recommendation for establishing Minimum Data Standard, definitions and feature classes for non A-16/Nationally Significant Data Themes in support of NSDI. Based on assessments in tasks 3.1-3.3 (consult with NGAC)	09/Q2	10/Q2	1. Establishment of interagency communities of interest under data theme steward leads 2. Identification and comparison of data models and attributes 3. Identification of common definitions and feature classes (e.g. HSPD, DHS Data Model, SDSFIE, NIST),

B.3 Common Service Work Group

	Subtask	Start Date	Completion Date	Resulting Deliverable
4.1	Define scope of Common Services Work Group	08/Q1	08/Q2	Work Group Statement of Scope
4.2	Evaluate Technology Options and Define Functional Requirements for licenses	08/Q2	08/Q3	Technology Trade-off Report, License Profiles for Small/Medium/Large Agencies
4.3	Develop and implement cross-licensing agreements and contracts	08/Q2	09/Q2	Draft Set of Two Federal Cross Licensing Agreements
4.4	Develop and launch reusable tool component registry concept	08/Q1	08/Q2	Concept of Registry of Reusable Tools and Components
4.5	Seek two to three tools and services for CY08 deployment	08/Q2	10/Q1	Identified Tools and Services
4.6	Develop approach to continue to expand enterprise licenses and share data	TBD	TBD	Selection Process for License Expansion
4.7	Assess "50 States Initiative" state plans to determine cost share opportunities	08/Q3	09/Q1	Process to Integrate 50 State Geospatial Business and Strategic Plans at National Level
8.1	Identify existing MOU/SLA/ELA across Fed for secure data sharing (HSIP)	09/Q3	10/Q2	Template for Data and Policy Sharing
8.2	Recommend best practices for establishing MOU/SLA/ELA for additional data sharing across stakeholder communities	10/Q2	10/Q2	Recommended Best Practices

B.4 Geo-Enabled Business Work Group

Subtask		Start Date	Completion Date	Resulting Deliverable
5.1	Develop Geospatial LoB Communications Strategy and Communications Implementation Plan	08/Q1	08/Q4	Final Communications Strategy and Implementation Plan
5.2	Execute Communications Implementation Plan	08/Q2	Ongoing	1) Survey and summary of survey results from Federal stakeholders 2) Communications products ready for distribution to target communities or ready for publication to target media outlets
5.3	Execute communication-focused FY07 Category 4 CAP Grants and evaluate their effectiveness	07/Q3	08/Q4	1) Geospatial Market Soutlion Proposal 2) Completion of first round of CAP grants evaluation
10.1	Identify geospatial best practices	08/Q1	Ongoing	1) Broker Service Outreach Proposal 2) Selection of Broker Service

B.5 Grants and Contracts Work Group

Subtask		Start Date	Completion Date	Deliverable
6.1	Determine process for both grants and acquisition updates to 2CFR	08/Q2	08/Q2	Update work group plan
6.2	Work with OMB to finalize grants policy guidance and terms & conditions language.	08/Q2	08/Q4	1. Adopted grants guidance language in 2 CFR 2. Information package for grantors and grantees
6.3	Conduct meetings to resolve policy issues	08/Q2	08/Q3	Revise guidance, as appropriate, and set proposed contract language
7.1	Work with acquisition community to assess the feasibility of developing voluntary agency-specific contract language	08/Q2	08/Q4	1. Model contract language 2. Explanatory information package for acquisition officers
7.2	Engage OMB and GSA to develop a strategy for FAR and DFAR geospatial contract language provisions.	08/Q2	09/Q3	FAR/DFAR geospatial language
7.3	Conduct meetings to share guidance or contract language	08/Q2	08/Q3	Meetings conducted with NSGIC, NACo, MAPPS, OGC
7.4	Set timeline for changes to FAR/DFAR or addition to contracts	08/Q2	09/Q1	Schedule for amending FAR/DFAR

B.6 Technical Architecture Work Group

Subtask	Start Date	Completion Date	Resulting Deliverable

Geospatial LoB Program Management Plan

9.1	Solicit and process comments on the Geospatial Profile, V2, conclude agency review and approval, gain approval from the CIO Council and FGDC Coordination Group	08Q3	08Q4	Geospatial profile V2
9.2	Promote the Profile through all possible channels to expand awareness and adoption; assess and develop supplementary documents and documentation to support additional audiences and improve uptake	08Q4	10Q3	Presentations to CIO Council on benefits of geospatial applications
9.3	Process and advance periodic updates to the FEA Geospatial Profile as a result of LoB requirements and feedback and changes and evolution of FEA and external standards and practices	08Q3	10Q3	Updated FEA Geospatial Profile
9.4	Investigate and document operational demands and requirements of geospatial Web services as "Best Practices" for federal operators or contractors	08Q4	10Q1	Web services testing and requirements reporting
9.5	Engage other Geospatial LoB activities in the definition, operation, or acquisition of common geospatial services to assure adherence to the FEA Geospatial Profile and referenced reference model guidance	08Q4	10Q4	

B.7 Joint Business Case (JBC) Work Group

Subtask		Start Date	Completion Date	Resulting Deliverable
A.1	Revise FY09 OMB Exhibit 300 Passback	08Q1	08Q2	Revised FY09 OMB Exhibit 300
A.2	Develop FY10 OMB Exhibit 300	08Q3	08Q4	Initial FY10 OMB Exhibit 300 Submission
A.3	Revise FY10 OMB Exhibit 300 Passback	09Q1	09Q2	Final FY10 OMB Exhibit 300 Submission
B.1	FY08 Q1 Quarterly EVM Report	08Q2	08Q2	
B.2	FY08 Q2 Quarterly EVM Report	08Q3	08Q3	
B.3	FY08 Q3 Quarterly EVM Report	08Q4	08Q4	

Appendix C: Master Project Schedule FY 2008-2009

C.1 Task 1

Review / Update FGDC Guidance Documents

Task Name	Start	Finish	Half 1, 2007		Half 2, 2007		Half 1, 2008		Half 2, 2008		Half 1, 2009		Half 2, 2009		Half 1, 2010			
			J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A
1 Geol LoB PMO	Tue 1/2/07	Fri 9/30/11																
2 1 - Review/Update FGDC Guidance Documents	Mon 7/2/07	Wed 9/30/09																
3 1.1 - Transition LoB Task Force roles & responsibilities to FGDC Coordination Group as defined in LoB Common Solutions/Target Architecture document	Mon 7/2/07	Fri 2/1/08																
4 1.2 - Review and Revise FGDC organizations and operating procedures	Wed 1/2/08	Tue 9/30/08																
5 1.3 - Complete Performance Management Plan. The Performance Management Plan (PMP) provides a detailed work breakdown structure for each of the tasks and subtasks. The PMP will define each task linkage and dependencies among and across tasks as well as pro	Mon 7/2/07	Fri 2/15/08																
6 1.4 - Review OMB Circular A-16	Wed 1/2/08	Wed 9/30/09																
7 1.5 - Develop and submit Geo LOB Tactical Plan to OMB per Passback guidance	Mon 10/1/07	Mon 3/3/08																
8 1.6 - Align FY 09 FGDC CAP grant solicitation with JBC and Program Management Plan objectives	Tue 7/1/08	Tue 12/30/08																
9 1.7 - Review A-130 and FGDC Charter and revise to include Data Life Cycle Management (9 stages) requirements for Data Stewards. Develop/define common terminology, processes, and procedures	Tue 7/1/08	Tue 3/31/09																

C.2 Task 2

Evaluate existing geospatial lifecycle frameworks (e.g. A-130, CSTA), develop common/standard terminology and processes for the stages of the geospatial data lifecycle and establish data steward responsibilities and performance measures associated with the phases

Task Name	Start	Finish	Half 1, 2007		Half 2, 2007		Half 1, 2008		Half 2, 2008		Half 1, 2009		Half 2, 2009		Half 1, 2010					
			N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A
10 - Evaluate existing geo data lifecycle frameworks, (e.g. A 130, CSTA) develop common/standard terminology and processes for the stages of geo data lifecycle and establish data steward responsibilities and performance measures associated with the phases	Tue 1/2/07	Wed 9/30/09	[Gantt bar spanning from start to finish]																	
11 - 2.1 - Define the nine (9) lifecycle stages and create a detailed lexicon including the following: inventory, collect/produce, process, analyze/use, store, publish, distribute, archive and dispose	Mon 10/1/07	Mon 3/31/08	[Gantt bar from Mon 10/1/07 to Mon 3/31/08]																	
12 - 2.2 - For each A-16 data theme; b) based on available information, for each data set, list current leads, production schedules, milestones, perf. measures and budget; c) based on agreed upon criteria, identify the most significant data sets for each theme	Tue 1/2/07	Mon 3/31/08	[Gantt bar from Tue 1/2/07 to Mon 3/31/08]																	
13 - 2.3 - Define geospatial data lifecycle stages to include: common terminology, practices, and procedures and propose how to reconcile terms under key Federal documents such as the LOB, CSTA, A-130, and FEA	Mon 3/3/08	Mon 6/30/08	[Gantt bar from Mon 3/3/08 to Mon 6/30/08]																	
14 - 2.4 - Identify most significant data sets for each theme, quantitatively assess opportunities for efficiencies in dev. and maint. (cost, schedule, and quality) of lifecycle stages on a gov't-wide basis and identify "best practices" for each phase	Wed 10/1/08	Wed 9/30/09	[Gantt bar from Wed 10/1/08 to Wed 9/30/09]																	
15 - 2.5 - Structure annual A-16 theme data steward report consistent with the lifecycle lexicon	Tue 7/1/08	Tue 3/31/09	[Gantt bar from Tue 7/1/08 to Tue 3/31/09]																	

C.3 Task 3

Review component themes of A-16 and reconcile with user needs

Task ID	Task Name	Start	Finish	Timeline																																																	
				Half 1, 2007				Half 2, 2007				Half 1, 2008				Half 2, 2008				Half 1, 2009				Half 2, 2009				Half 1, 2010				Half 2, 2010																					
				N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
16	3 - Review component themes of A-16 and reconcile with user needs	Wed 1/2/08	Wed 6/30/10	[Gantt bar spanning from start of Half 1, 2008 to end of Half 2, 2010]																																																	
17	3.1 - Compare the results of the FY 2006/2007 OMB Geospatial Data Calls and FY 2007 A-16 data theme layers report to identify commonalities, inconsistencies and discrepancies as a basis for defining data requirements or priorities (see 2.2.2)	Wed 1/2/08	Mon 3/31/08	[Gantt bar from start of Half 1, 2008 to end of Half 1, 2008]																																																	
18	3.2 - Identify add. key nationally significant data themes, data layers & associated data content stds that are not on the current A-16 list, but should be included based on user requirements (includes reconciliation of agency A-16 resp. with HSP recomm)	Wed 1/2/08	Tue 9/30/08	[Gantt bar from start of Half 1, 2008 to end of Half 2, 2008]																																																	
19	3.3 - Analyze the difference between work currently being done or scheduled under A-16 compared to user requirements for both A-16 and other nationally significant data sets (consult with NGAC)	Wed 10/1/08	Wed 9/30/09	[Gantt bar from start of Half 2, 2008 to end of Half 1, 2009]																																																	
20	3.4 - Complete plan to address gaps between curr. A-16 data work & user needs identified under task 3.3 to include harmonization of data definitions & feature classes, and standards, developing COI & adding/deleting data sets from	Wed 7/1/09	Wed 6/30/10	[Gantt bar from start of Half 1, 2009 to end of Half 2, 2009]																																																	
21	3.5 - Make recommendation for establishing Minimum Data Standard, definitions and feature classes for non A-16/Nationally Significant Data Themes in support of NSDI.	Fri 1/2/09	Tue 3/30/10	[Gantt bar from start of Half 1, 2009 to end of Half 1, 2009]																																																	

C.4 Task 4

Expand smart-buy (and alternative) efforts for geospatial data and technologies

Task ID	Task Name	Start	Finish	Half 1, 2007		Half 2, 2007		Half 1, 2008		Half 2, 2008		Half 1, 2009		Half 2, 2009		Half 1, 2010				
				N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
22	4 - Expand smart-buy (and alternatives) efforts for geospatial data and technologies	Mon 12/3/07	Wed 7/15/09																	
23	4.1 - Define scope of Common Services Work Group	Mon 12/3/07	Mon 3/31/08																	
24	4.2 - Evaluate Technology Options and Define Functional Requirements for licenses	Fri 2/1/08	Fri 5/30/08																	
25	4.3 - Develop and implement cross-licensing agreements and contracts	Fri 2/1/08	Fri 2/27/09																	
26	4.4 - Develop and launch reusable tool component registry concept	Wed 1/2/08	Wed 7/15/09																	
27	4.5 - Seek two to three tools and services for CY08 deployment	Fri 2/1/08	Fri 2/27/09																	
28	4.6 - Develop approach to continue to expand enterprise licenses and share data	Mon 9/1/08	Tue 3/31/09																	

C.9 Task 9

Develop Requirements and Recommendations for Technology and Telecommunications Infrastructure Required to Deliver Geospatial Services

Task ID	Task Name	Start	Finish	2008				2009				2010				2011			
				Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
46	9 - Develop Requirements and Recommendations for Technology and Required to Deliver Geospatial Services	Mon 2/4/08	Thu 9/30/10																
47	9.1 - Solicit and process comments on the Geospatial Profile, V2, conclude agency review and approval, gain approval from the CIO Council and FGDC Coordination Group	Mon 2/4/08	Fri 5/30/08																
48	9.2 - Promote the Profile through all possible channels to expand awareness and adoption; assess and develop supplementary documents and documentation to support additional audiences and improve uptake	Mon 6/2/08	Wed 3/31/10																
49	9.3 - Process and advance periodic updates to the FEA Geospatial Profile as a result of LoB requirements and feedback and changes and evolution of FEA and external standards and practices	Mon 6/2/08	Wed 3/31/10																
50	9.4 - Investigate and document operational demands and requirements of geospatial Web services as "Best Practices" for federal operators or contractors	Tue 7/1/08	Wed 12/30/09																
51	9.5 - Engage other Geospatial LoB activities in the definition, operation, or acquisition of common geospatial services to assure adherence to the FEA Geospatial Profile and referenced reference model guidance	Fri 8/1/08	Thu 9/30/10																

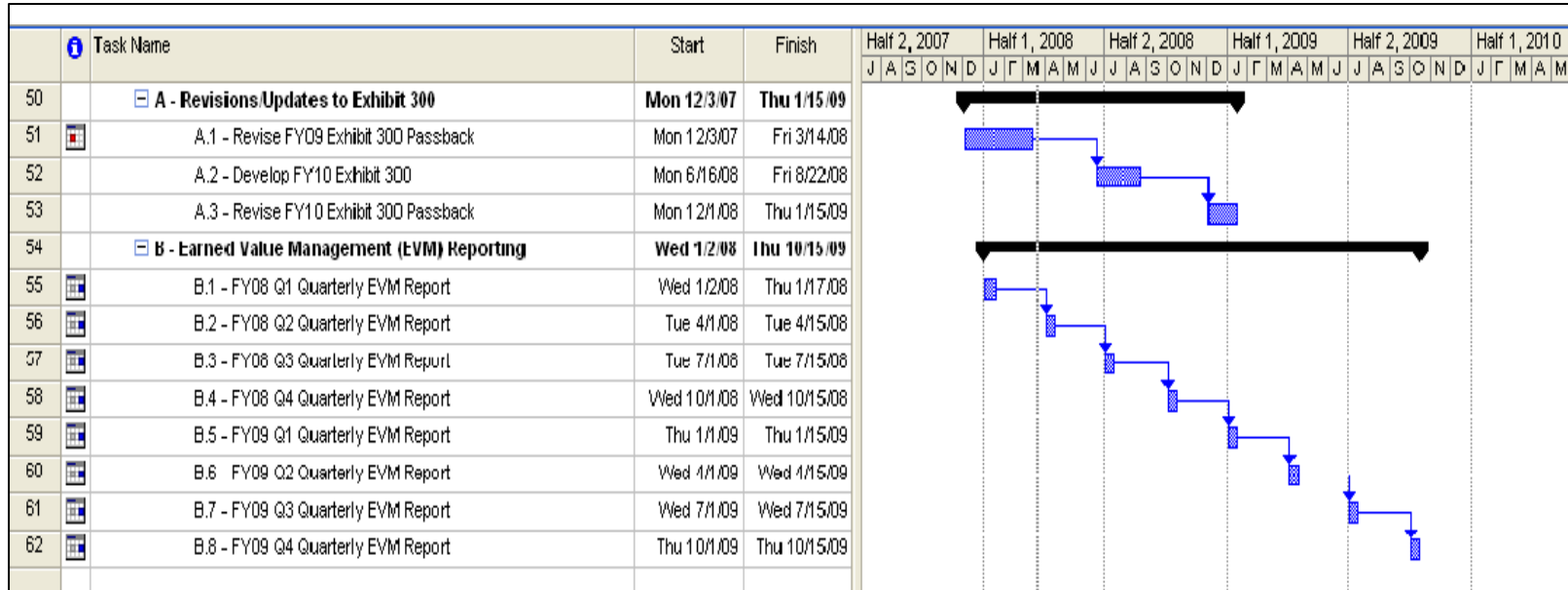
C.10 Task 10

Provide a broker service for data searching among agencies that will build on and improve existing systems

Task ID	Task Name	Start	Finish	Half 2, 2007		Half 1, 2008		Half 2, 2008		Half 1, 2009		Half 2, 2009		Half 1, 2010		Half 2, 2010		Half 1, 2011		Half 2, 2011																																	
				J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A
46	10 - Provide a broker service for data searching among agencies that will build on and improve existing systems	Fri 12/21/07	Fri 9/30/11																																																		
47	10.1 - Identify geospatial best practices	Fri 12/21/07	Fri 10/10/08																																																		
48	10.2 - Conduct pilots to assess the geo-enabling of information exchange networks among Federal and partner networks	Fri 10/1/10	Fri 9/30/11																																																		
49	10.3 - Develop a communications approach for cross-agency investment strategy for data management and use within a geo-enabling business framework	Thu 10/1/09	Thu 9/30/10																																																		



C.11 JBC Tasks

Revisions/Updates to Exhibit 300 and Earned Value Management (EVM) Reporting



Appendix D: Work Plan Template

The Work Plan Template is a planning tool to used to manage work groups and their associated activities.

	<p>GEOSPATIAL LOB WORK PLAN TEMPLATE</p>		
<p>Work Group Name:</p>			
<p>Work Group Lead/Co- Lead:</p>	<p>Contractor Support:</p>		
<p>Date Last Revised</p>	<p>Plan Type</p>	<p><input type="checkbox"/> Draft <input type="checkbox"/> Final</p>	

This work plan template is a planning tool to assist your Work Group and relate its work to the overall Geospatial Line of Business (LoB) program management strategy and schedule. The work plan consists of four sections that support the identification of the following planning components: purpose, current members, tasks, subtasks, deliverables, task schedule, and resource plans. Examples are provided in blue font throughout the document.

SECTION 1: WORK GROUP STATEMENT OF PURPOSE

Instructions: In this section, list the purpose of your Work Group and how the activities of your Work Group impact the overall project.

Purpose:

Vision:

Goals:

Measures:

SECTION 2: WORK GROUP MEMBERSHIP

Instructions: In this section, list the name of group member(s) and their current contact information. List the name and contact information for the Work Group Team Lead on the first line and bold his or her name.

Name	Agency / Organization	Email	Primary Phone #	Alternate Phone #

SECTION 3: TASKS, SUBTASKS, AND DELIVERABLES

Instructions: Individually list each task assigned to your work group. Under each task, provide a brief description of the task. Then use the table provided to note each subtask and its associated target completion date, duration, primary owner, and any resulting work products or deliverables. Deliverables will be further described in Section 4.

Task X:

Description:

Subtask		Start Date	Completion Date	Owner	Resulting Deliverable(s)
X.1					
X.2					
X.3					
X.4					
X.5					

Task Y:

Description:

Subtask		Start Date	Completion Date	Owner	Resulting Deliverable(s)
Y.1					
Y.2					
Y.3					
Y.4					
Y.5					

SECTION 4: DETERMINATION OF LEVEL OF EFFORT

Level of Effort Validation by Subtask for 2008

Instructions: In the chart below allocate the total FY08 resources shown immediately above for each task across the subtasks you have defined for that task. Bear in mind that some of the subtasks and the resulting deliverables may be more resource intensive than others. At this time, you only need estimate this level of detail for FY08

#	Subtask		FY08 Q1	FY08 Q2	FY08 Q3	FY08 Q4	Total Hrs.
X.1		Government					
		Contractor					
X.2		Government					
		Contractor					
X.3		Government					
		Contractor					
Y.1		Government					
		Contractor					
Y.2		Government					
		Contractor					
Y.3		Government					
		Contractor					
	GOVERNMENT HOURS						
	CONTRACTOR HOURS						
	TOTAL HOURS						

SECTION 5: CRITICAL SUCCESS FACTORS AND DEPENDENCIES



Instructions: List what your Work Group considers to be most important to meet the schedule proposed and produce the deliverables. Then list any dependencies of which you are currently aware involving your tasks and tasks of other Work Groups.

Success Factors:

Dependencies:

Appendix E: Status Report Template

The Status Report Template is used to provide a bi-weekly status update from the contractor to Managing Partner Team.

	<h2 style="margin: 0;">GEOSPATIAL LOB BI-WEEKLY STATUS REPORT</h2> <p style="margin: 0;">FOR WEEKS OF OCTOBER XX, 2007 AND OCTOBER XX, 2007</p>	
---	---	---

SECTION 1: ACTIVITIES PLANNED

- Includes a summary of work accomplished for the most recent period of performance in this section.

SECTION 2: ACTIVITIES ACCOMPLISHED

- Includes a summary of major work planned for the next period of performance in this section.

SECTION 3: TASK MILESTONE SUMMARY

This section highlights the project’s planned activities, progress, and accomplishment versus the established respective time estimate.

Deliverables	Target Date of Completion	Project Schedule	Resource Usage	Comments
Program Management Office				
<i>Communication Plan</i>	<i>October 11, 2007</i>	●	●	
Common Services Work Group				
Enterprise Architecture Work Group				
Geo-Enabled Business Work Group				
Grants and Contracts Work Group				

Joint Business Case Work Group				
Lifecycle Management Work Group				
Performance Management Work Group				

The “project schedule” column depicts whether the deliverable is ‘ahead or on target for scheduled completion’ (●), ‘close to scheduled completion date’ (●), or ‘behind scheduled completion date’ (●). The resource usage column depicts the level of effort expended by Grant Thornton to complete the scheduled deliverable is ‘less than or equal to estimate’ (●), ‘1-10% over estimate’ (●), or ‘> 10% over estimate’ (●).



SECTION 4: PROJECT ISSUES AND CORRECTIVE ACTIONS

This section lists any project problems and issues that might impact the project progress, such as the ability to obtain data in a timely fashion, workload demands related to task, complex communication interface issues, any external events or circumstances, or personnel issues and their recommended plan or action to resolve the respective problem. Level of criticality is a reflection of the degree to which the project issue impacts the ability of the Geospatial LoB program to accomplish its goals.

Project Issue	Level of Criticality (Low, Medium, High)	Recommended Corrective Action

Appendix F: Meeting Minutes Template

Template that provides a standard for recording key topics, discussion points, recommendations, and decisions as well as records action items, who owns each action items, and the target completion date for action items.

	GEOSPATIAL LOB MEETING MINUTES FEBRUARY XX, 20XX		
Meeting Type:	<input type="checkbox"/> LoB Task Force <input type="checkbox"/> FGDC <input type="checkbox"/> Managing Partner/ Team Meeting <input type="checkbox"/> Work Group: _____	Meeting Location and Time:	
Meeting Attendees: (optional)	.	Notes Type:	<input type="checkbox"/> Draft <input type="checkbox"/> Final

1. KEY TOPICS

2. KEY DISCUSSION POINTS

3. RECOMMENDATIONS



4. DECISIONS

5. ACTION ITEMS

#	Action Item	Owner	Target Due Date
1			
2			
3			
4			
5			



Appendix G: Action Item Tracking Template

The Action Items Tracking Template provides a means of cataloging and tracking action items derived from meeting minutes, work plans, emails, and phone calls.

  <p style="text-align: center;">Geospatial Line of Business Action Item Tracking Worksheet</p>										
ID #	Date Identified	Recommended/ Proposed By	Action Item	Source (document review, meeting minutes, call)	Owner	Associated Team (FGDC Coordination Group, PMO, Work Group - Indicate Name)	Target Completion Date	Status (open, closed)	Date Completed	Notes
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										

Appendix H: Issue Tracking Template


The Issue Tracking Template that provides a means of cataloging and tracking issues that arise from meeting minutes, work plans, document reviews, emails, and phone calls.

  <p style="text-align: center;">Geospatial Line of Business Issue Tracking Worksheet</p>												
ID #	Date Input	Recommended By	Issue	Source (document review, meeting minutes, call)	Level of Criticality (high, medium, low)	Associated Team (FGDC Coordination Group, PMO, Work Group - Indicate Name)	Proposed Resolution(s)	Associated Action Item(s)	Proposed Resolution Target Date	Status (open or closed)	Date Closed	Notes
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												

Appendix I: Briefing Template


The Briefing Template that shows the basic format and style used for Geospatial LoB Briefings.

Title Slide





**Geospatial Line of Business
Task Force Meeting**

November 19, 2007



Body Slide



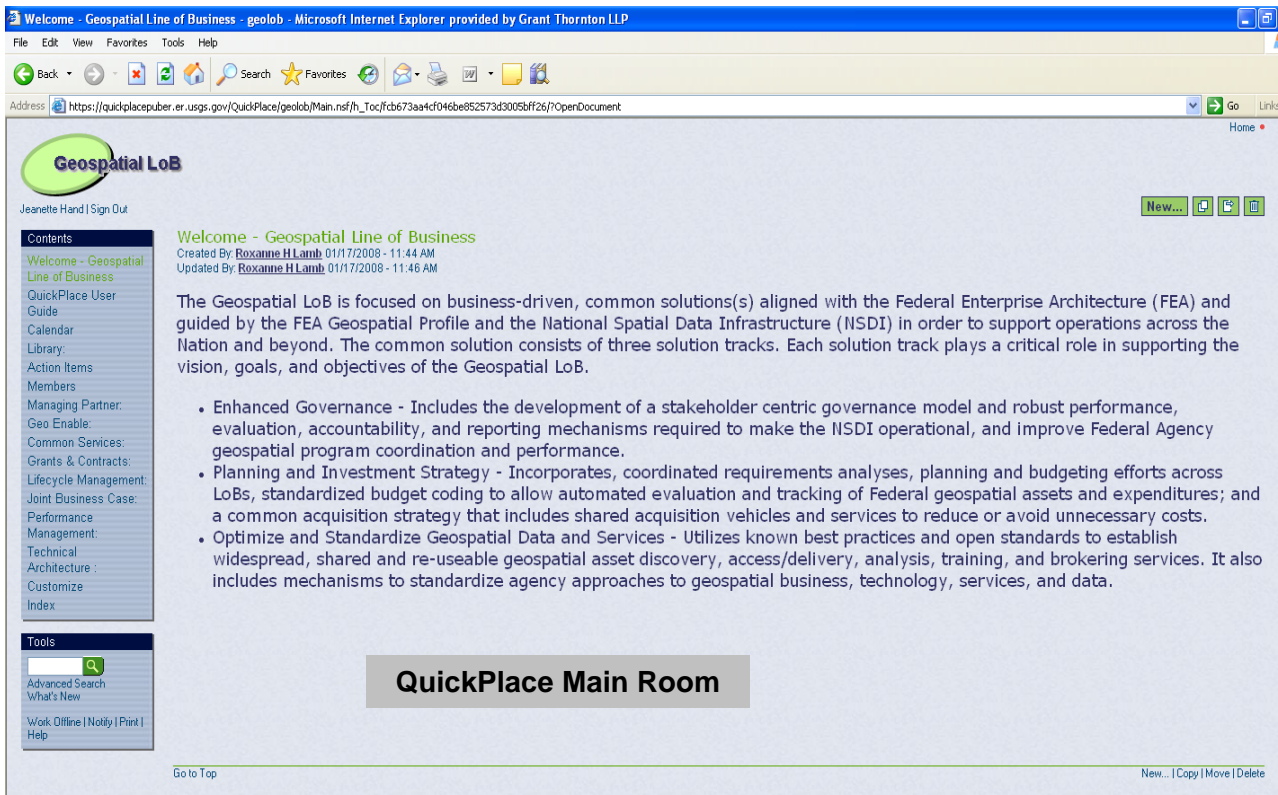
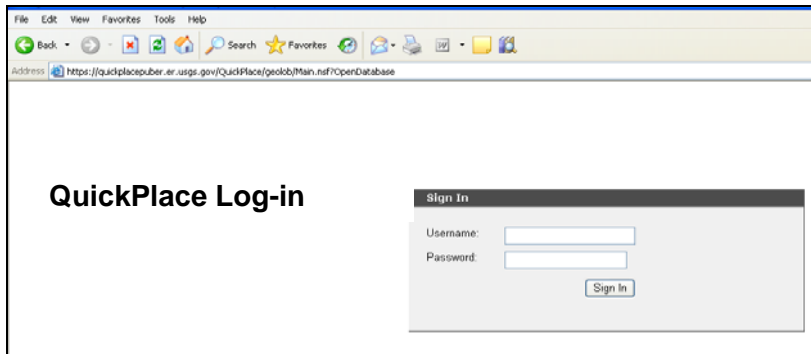
Agenda

- Welcome and Introductions
- Managing Partner Update
- FY09 JBC Workgroup Update
- Short Term Geo LoB Schedule
- Performance Management Plan Workgroup Update
- Status of Workgroups – Team Leads and Members
- Work Plans
- Wrap-Up

2

Appendix J: QuickPlace Screen Shots

Screen shots of QuickPlace log-in page, main room, calendar, and action item page.



LifeCycle - Calendar - geolob - Microsoft Internet Explorer provided by Grant Thornton LLP

Home | Lifecycle Management | Lifecycle - Calendar

Geospatial LoB QuickPlace Calendar

[New Calendar Page](#)
[New...](#)
[Folder Options](#)

[Go Up](#)
[Instructions](#)
[Lifecycle - Work Plan Info](#)
[Lifecycle - Members & Contact Info](#)
[Lifecycle - Action Items](#)
[Lifecycle - Calendar](#)
[Lifecycle - Briefings](#)
[Lifecycle - Mtg Agendas & Minutes](#)
[Lifecycle - Discussion Area](#)
[Subgroup Folders](#)
[Room Index](#)
[Room Options](#)
[Room Security](#)

Lifecycle - Calendar

March 2008

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
25	26	27	28	29	1	2
3	4	5	6	7	8	9
10	11	12 09:00 AM Lifecycle Subgroup Status Call	13 09:00 AM A-16 & Theme Content Subgroups Meeting	14	15	16
17	18 01:00 PM Lifecycle Full Group Meeting @ GT	19	20	21	22	23
24	25	26	27	28	29	30
31	1 01:00 PM Lifecycle Full Work Group Meeting	2	3	4	5	6

Times shown are: Eastern Daylight Savings Time (GMT -5:00)

LifeCycle - Action Items - geolob - Microsoft Internet Explorer provided by Grant Thornton LLP

Home | Lifecycle Management | Lifecycle - Action Items

Geospatial LoB QuickPlace Action Items

[New Task Page](#)
[New...](#)
[Cleanup](#)
[Folder Options](#)

[Go Up](#)
[Instructions](#)
[Lifecycle - Work Plan Info](#)
[Lifecycle - Members & Contact Info](#)
[Lifecycle - Action Items](#)
[Lifecycle Group Meeting Action Items](#)
[Lifecycle - Calendar](#)
[Lifecycle - Briefings](#)
[Lifecycle - Mtg Agendas & Minutes](#)
[Lifecycle - Discussion Area](#)
[Subgroup Folders](#)
[Room Index](#)
[Room Options](#)
[Room Security](#)



Lifecycle - Action Items

[All Tasks](#) | [Milestones](#) | [To Do](#)

Title	Priority	Start Date	Due Date	Assigned To
Subtask 2.1 - Lifecycle Subgroup		10/01/2007	03/31/2008	-- Unassigned --
Define the nine (9) lifecycle stages and create a detailed lexicon including the following: inventory, collect/produce, process, analyze/use, store, publish, distribute, archive and dispose				
Subtask 2.1.1 - A-16 Subgroup		01/02/2008	03/31/2008	-- Unassigned --
Draft lexicon				
Subtask 2.1.2 - Lifecycle Subgroup		10/01/2007	03/31/2008	-- Unassigned --
Internet search for existing examples of information related to lifecycle				
Subtask 2.1.3 - A-16 Subgroup		10/01/2007	03/31/2008	-- Unassigned --
Vet draft lexicon to lifecycle subgroup				
Subtask 2.1.4 - A-16 Subgroup		10/01/2007	03/31/2008	-- Unassigned --
Vet draft lexicon to entire lifecycle work group				
Subtask 2.1.5 - A-16 Subgroup		10/01/2007	03/31/2008	-- Unassigned --
Identify agency data production managers at key agencies, recruit them as members of the Lifecycle Management Work Group, and get them to field test the lexicon by characterizing their data sets in relation to the lexicon				


Appendix K: Comment Log Tool

The Comment Log Tool allows users to log comments regarding Geospatial LoB documents.

	<h2 style="margin: 0;">Geospatial Line of Business Performance Management Plan Comment Log Sheet</h2>			
<p>Commenter Name: _____</p>		<p>Commenter Agency: _____</p>		
<p>Date Submitted: _____</p>				
<p>Please use this form to track feedback and comments on the draft final deliverable submitted November 2, 2007. For each comment, please select relevant "Comment Section" and enter the page of the draft final deliverable that contains the section on which</p>				
Comment Number	Comment Section	Page	Comment	Proposed Resolution
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				


Appendix M: Earned Value Management Reporting Tool

The Earned Value Management Tool allows for providing Earned Value Management Reporting Information to the Managing Partner.



Geospatial Line of Business PMO

Earned Value Management Report



Date Submitted:

Project	CV%	SV%
Totals:	0.0%	0.0%

WBS#	Control Account Description (Work Package Deliverable Title)	OMB Stage (P/D/S)	Planned Start Date	Planned End Date	Planned Cost (in Whole Dollars)	Actual Start Date	Actual End Date	Actual Cost (in Whole Dollars)	CV%	SV%
									0.0%	0.0%
									0.0%	0.0%
									0.0%	0.0%
									0.0%	0.0%
									0.0%	0.0%
									0.0%	0.0%
									0.0%	0.0%

