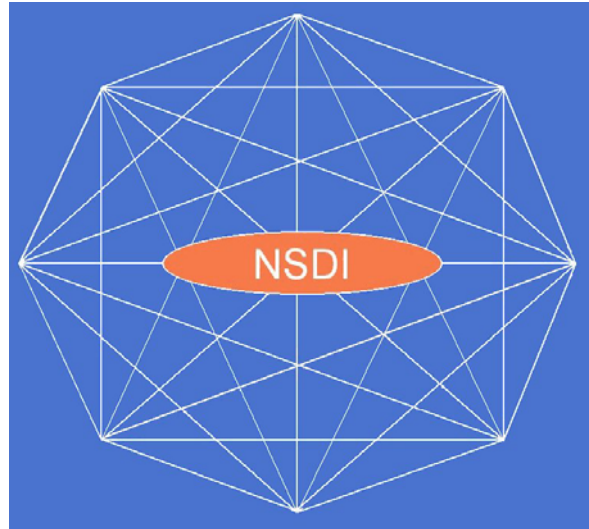


# 2008 National Spatial Data Infrastructure Cooperative Agreement Program



Program Announcement Number **08HQPA0002**

**For Fiscal Year 2008**

**Issue Date: October 15, 2007**

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**CLOSING DATE & TIME:**

**December 18, 2007, 2:00 pm EDT**

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For all technical questions about applying through Grants.gov, call the Grants.gov Help Desk at: 1-800-518-GRANTS

**For questions concerning this Program Announcement, call Ms. Desiree Santa, Grant Specialist, at (703) 648-7382 or via email at [dsanta@usgs.gov](mailto:dsanta@usgs.gov).**

## 2008 National Spatial Data Infrastructure Cooperative Agreements Program (NSDI CAP)

### Program Announcement Number 08HQPA0002

#### Introduction and General Information

##### **I. Description of Funding Opportunity**

The purpose of the National Spatial Data Infrastructure Cooperative Agreements Program (NSDI CAP) is to fund innovative projects in the geospatial data community to build the infrastructure necessary to effectively discover, access, share, manage, and use digital geographic data.

The NSDI consists of the technologies, policies, organizations, and people necessary to promote cost-effective production, and the ready availability and greater utilization of geospatial data among a variety of sectors, disciplines, and communities. Specific NSDI areas of emphasis include: metadata documentation, clearinghouse establishment, framework development, standards implementation, and geographic information system (GIS) organizational coordination.

Since 1994, the Federal Geographic Data Committee (FGDC), part of the National Geospatial Program Office (NGPO), has funded projects that advance the NSDI in partnership with the geospatial data community.

##### **A. Fiscal Year (FY) 2008 NSDI Cooperative Agreements Program**

A total of \$1,300,000 in funds is available for the FY 2008 assistance award program. The projects will be funded for one year. Award notification will be made in the first half of February, 2008. Project work must commence by September 30, 2008 (the end of the 2008 Federal fiscal year). Start dates on or after October 1, 2008 are not authorized under this announcement.

##### **B. Summary of 2008 CAP Funding Categories**

**Category 1: *Metadata Trainer and Outreach Assistance*** provides assistance to organizations with NSDI expertise knowledge and experience in assisting other organizations with the training and implementation of metadata, clearinghouse or Web mapping services. This project will award up to 4 cooperative agreements of up to \$25,000 each with the recipient matching 50% of the award with funding or in-kind services.

**Category 2: *Best practices in Geospatial Service Oriented Architecture (SOA)***: In support of the goals of the Geospatial Line of Business (LoB), the effective design and deployment of Service Oriented Architecture (SOA) using Web Services will determine the success of shared access to geospatial data and applications. This category seeks joint proposals from industry leaders partnering with the federal government to design, deploy, and document reusable geospatial services and applications using SOA. Solutions are sought that satisfy multi-agency requirements through the modeling and deployment of business processes through related data and service components. Documentation of implemented best practices is required to identify and educate federal agencies on the issues of design, implementation, and application for use in future government-wide services associated with the Geospatial LoB. This project will award up to 3 cooperative agreements of up to \$100,000 each with the recipient matching 100% of the award with funding or in-kind services. Federal participation (salary obligation) may count towards in-kind matching.

**Category 3: *Fifty States Initiative***: Strategic and Business Plan Development in Support of the NSDI Future Directions Fifty States Initiative. Projects will develop and implement statewide strategic and business plans that will facilitate the coordination of programs, policies, technologies, and resources that enable the coordination, collection, documentation, discovery,

distribution, exchange and maintenance of geospatial information in support of the NSDI and the objectives of the Fifty States Initiative Action Plan. This project will award up to 10 cooperative agreements of up to \$50,000 each with the recipient matching 50% of the award with funding or in-kind services.

**Category 4: Joint Canadian and United States Spatial Data Infrastructure Project** will stimulate cross-border cooperation over a geographic area through the use of connected, distributed data and services. The themes of interest are Public safety and security (situational awareness, management of consequence, and critical infrastructure identification) and Aboriginal and Native American peoples (land and resource management or community planning). This project will award one cooperative agreement of up to \$75,000 with the recipient matching 100% of the award with funding or in-kind services.

**Category 5: Building data stewardship for The National Map and the NSDI** will focus on fostering stewardships for either structures data or for transportation data through best business practices. Primary needs for structures data are the geospatial location, classification, and other characteristics of manmade facilities, based on homeland security requirements. Primary needs for transportation data are updates for features, attributes, and geometry to the baseline roads data developed through Census MAF/TIGER Accuracy Improvement Project (MTAIP) sources. The data will be part of a national data inventory of consistent, seamless, integrated data that is continuously improved through the incorporation of data updates from the data community. This project will award up to 4 cooperative agreements of up to \$50,000 each with the recipient matching 100% of the award with funding or in-kind services.

**Category 6: FGDC-Endorsed Standards Implementation Assistance and Outreach (excluding Metadata Standards)** will provide funding to organizations to assist in the implementation of FGDC- endorsed standards (excluding metadata standards, see category 1 above). For many FGDC-endorsed standards, there are few, if any, resources that guide organizations in implementing standards. Without resources that document best practices, provide experienced advice, and new techniques, the implementing organization has a steep learning curve. This project will award up to 4 cooperative agreements of up to \$25,000 each with the recipient matching 50% of the award with funding or in-kind services.

## **II. Award Information**

Under the 2008 CAP program, a total of not to exceed \$1,300,000 is available for funding. Approximately 26 awards are anticipated.

<b>CAP Funding Categories</b>	<b>Award Amount</b>	<b>In-kind Match</b>	<b>Approximate Number of Awards</b>
1. Metadata Trainer and Outreach Assistance	Up to \$25,000	50%	4
2. Best practices in Geospatial SOA	Up to \$100,000	50%	3
3. Fifty States Initiative	Up to \$50,000	50%	10
4. Joint Canadian and United States Spatial Data Infrastructure Project	Up to \$75,000	100%	1
5. Building data stewardship for <i>The National Map</i> and the NSDI	Up to \$50,000	100%	4
6. FGDC-Endorsed Standards Implementation Assistance and Outreach (excluding Metadata Standards)	Up to \$25,000	50%	4

This assistance is provided through a *cooperative agreement*, which is neither a contract nor a grant. As a cooperative agreement, there will be *substantial involvement* on the part of the FGDC and the NGPO with the project organization to promote the objectives of the program, monitor

progress, and agree on milestones and accomplishments for work performed as part of this agreement. The FGDC will manage all queries, technical resources, and assistance requests.

Note on Method of Payment: The U. S. Geological Survey (USGS) is using the Health and Human Services (HHS) Payment Management System (PMS) to provide electronic invoicing and payment for recipients of assistance awards. If it does not exist already the Recipient will establish an account with PMS. With the award of each cooperative agreement, a sub-account will be set up from which the Recipient can draw down funds.

The FGDC provides, through its Web site (<http://www.fgdc.gov>), a wide range of information on Geospatial One-Stop, metadata, clearinghouse, and standards, as well as contact information for the FGDC and its participating organizations at the national, State, and local level. Also included is information on metadata trainers, training opportunities, and NSDI news. The FGDC will attempt to address all queries and assistance requests, including referral to suitable software solutions.

### **III. Applicant Eligibility**

1. In general, State or local government, academia, private sector, non-profit and tribal organizations, as well as consortia of organizations may apply. See funding category for specific eligibility information.
2. Organizations may submit proposals for more than one category if the applicant meets eligibility requirements. However, a complete and separate application package is required for each category submission.

### **IV. Project Requirements**

#### **A. In-Kind Resource Match**

1. All categories require an in-kind resource match on the part of the applicant for the long-term sustainability of project outcomes. Examples of in-kind resource match are: salaries, contract support, student assistance fees, travel expenses, venue costs, software purchase equipment dedicated to the project, computer servers hosting data, production of outreach materials, and indirect costs or overhead charges. All contributions, including cash and third party in-kind, will be accepted as part of the recipients' in-kind match when such contributions meet all of the following criteria:
  - a. Are verifiable from the recipients' records.
  - b. Are not included as contributions for any other federally-assisted project or program.
  - c. Are necessary and reasonable for proper and efficient accomplishment of project or program objectives.
  - d. Are allowable under the applicable cost principles.
  - e. Are not paid by the Federal Government under another award, except where authorized by Federal statute to be used for cost matching.
  - f. Are provided for in the approved budget when required by the Federal awarding agency.
  - g. Conform to the provision of the appropriate OMB Circular, as applicable.
2. Unrecovered indirect costs may be included as part of the in-kind match.
3. Volunteer services furnished by professional and technical personnel, consultants, and other skilled and unskilled labor may be counted as in-kind match if the service is an integral and necessary part of an approved NSDI Program. Rates for volunteer services shall be consistent with those paid for similar work in the recipient's organization. In those instances in which the required skills are not found in the recipient organization, rates shall be consistent with those paid for similar work in the labor market in which the recipient competes for the kind of services involved. In either case, paid fringe benefits that are reasonable, allowable, and allocable may be included in the valuation.

4. The value of geospatial data holdings is not considered appropriate for in-kind matches for categories 1, 2, 3 and 4. See category 5 for spatial data in-kind match.
5. Match calculation: For example, with a request for an award of \$5,000 of Federal assistance, a 50% in-kind match contribution by the applicant would be \$2,500 in value for a total of \$7,500 value committed to the project (\$5,000 and \$2,500 Federal and applicant, respectively).
6. Applicant must document the amount and type of in-kind resource that will be contributed to the fulfillment of the project and include this information in the detail budget breakdown.
7. See funding category for specific in-kind match information.

## B. Reporting and Presentation

1. The following reports will be required from all award recipients:

Report	Due Dates
<b>Interim Project Report</b>	6 months after the start of the project
<b>Final Project Report</b>	On or before 90 working days after the expiration of the agreement
Quarterly <b>SF-272</b> Federal Cash Transactions Report	On or before 45 working days after the end of each three-month performance period
<b>SF-269</b> Financial Status Report	On or before 90 working days after the expiration of the agreement

2. The specific content for the technical reports can be found in the Report Format attachments:
  - Attachment C -- Category 1: Metadata Trainer and Outreach \_Project Report Format
  - Attachment D - Category 2: Best practices in Geospatial Service Oriented Architecture Project Report Format
  - Attachment E - Category 3: Fifty States Initiative Project Report Format
  - Attachment F - Category 4: Joint Canadian and United States Spatial Data Infrastructure Project
  - Attachment G - Category 5: Building data stewardship for The National Map and the NSDI Geographic Information Integration Project Report Format
  - Attachment H - Category 6: FGDC-Endorsed Standards Implementation Assistance and Outreach (excluding Metadata Standards) Project Report Format

Interim and final project reports will be posted on the FGDC Web site, <http://www.fgdc.gov/grants>.

3. Details about the required financial reports for awarded projects can be found in Attachment A.
4. Project Presentation  
To spread and promote knowledge of the NSDI, CAP participants are requested to make formal presentation of their activities. Presentation can be at a local, State, regional, national conference or meeting. The applicant is requested, if necessary, to budget sufficient funds to travel to the meeting or conference. An alternative is to publish a paper or article in a professional journal or newsletter.

## C. Participation in CAP orientation workshop

The orientation workshop is an opportunity for project leaders, CAP category leads and others to plan and share information. See specific category for information on the orientation meeting. Be sure to budget travel funds and plan for attendance.

Category	Location	Date
1. Metadata Trainer and Outreach Assistance	Denver Federal Center	Spring 2008
2. Best practices in Geospatial SOA	Individual	
3. Fifty States Initiative	Annapolis, MD	March 9, 2008
4. Joint Canadian and United States Spatial Data Infrastructure Project	TBD	TBD
5. Building data stewardship for <i>The National Map</i> and the NSDI	Web Conference	TBD
6. FGDC-Endorsed Standards Implementation Assistance and Outreach (excluding Metadata Standards)	Web Conference	TBD

## **V. Application and Submission Information**

### **A. Proposal submission requirements**

All applicants are **required** to submit the proposals using the Federal Government's <http://www.grants.gov> Web site for electronic submission.

Apply, no later than **December 18, 2007 at 2:00 p.m. EDT**. A proposal received after the closing date and time will not be considered for award. If it is determined that an application will not be considered because it was late, the applicant will be so notified immediately.

Please be aware that the electronic submission system is relatively complex for first-time users and involves several preliminary steps to be taken before the proposal information can actually be submitted (go to [www.grants.gov](http://www.grants.gov), and click on the "Get Registered" tab in the red Applicants section on the left side of the page for the steps). Be advised that it is virtually impossible to begin the process of electronic submission for the first time if you start just a few days before the due date. If you are from a university, contact your Office of Sponsored Programs. They may already have completed the registration process and should work with you to submit the application. Instructions for the registering on [grants.gov](http://www.usgs.gov/contracts/grants/grantsgov.html) are available at <http://www.usgs.gov/contracts/grants/grantsgov.html>.

Documents and Forms to submit:

- Standard Form 424 Application for Federal Assistance
- Standard Form 424A Budget Information Non-Construction Programs
- Standard Form 424B Assurances Non-Construction Programs
- Your project narrative
- Budget Breakdown – attached to project narrative
- Mandatory or other optional documents such as letters of support or maintenance authority – See the category description for more details. It is preferred that these are pasted together and submitted as a single file.

All documents should be converted to PDF format.

Please arrange your project narrative and attachments according to the format provided in the category descriptions below. It is preferred that narrative, budget breakdown, and other supporting documents be submitted in a single file. Following the requested format will ensure that every proposal contains all essential information and can be evaluated equitably.

Letters with signatures should be scanned. If this is not possible letters should be mailed or faxed to the NSDI CAP Coordinator, MS 590 National Center, Reston, VA 20192, Fax number: 703-648-5755.

## B. Completing Proposal Forms

The electronic submission process is accomplished using software that is downloaded to your computer free of charge. Information and download links are available at [http://www.grants.gov/resources/download\\_software.jsp](http://www.grants.gov/resources/download_software.jsp).

### 1. SF-424 Application for Federal Assistance

Follow instructions provided with SF-424. All blocks in yellow must be filled out or the application submission will be rejected by grants.gov. In addition please note the below:

Item 2. Type of Application - **New**

Item 11. Catalog of Federal Domestic Assistance Number - **15.809**. Title - **NSDI-CAP**

Item 15. Descriptive Title of Applicant's Proposal - Please preface your proposal's unique title (e.g. Missouri metadata outreach) with "**2008 CAP - Category N**" where N is the specific funding category 1, 2, 3, 4, 5, or 6.

Item 19. Is Application Subject to Review By State Under Executive Order 12372 Process?  
**Select C.** Program is not covered by E.O. 12372. (CDFA #15.809 is not covered by this order, see [http://12.46.245.173/pls/portal30/CATALOG.EXE\\_12372\\_RPT.show](http://12.46.245.173/pls/portal30/CATALOG.EXE_12372_RPT.show))

### 2. SF-424A Budget Information

Follow instructions provided with SF-424A. In addition please note the below:

Fill out Section B - Budget Categories

In Column 1 indicate cost category allocation of Federal funds.

In Column 2 indicate cost category allocation of applicant in-kind match.

### 3. SF-424B Assurances – Non-Construction Programs

The DI-2010 U.S. Department of the Interior Certifications Regarding Debarment, Suspension and Other Responsibility Matters, Drug-Free Workplace Requirements and Lobbying are required and are available at the following site: <http://www.usgs.gov/contracts/grants/certs.pdf>. Please complete this form and submit it with your proposal.

## C. Project Narrative

The applicant's project/proposal narrative is the primary evaluation document that is scored. For more information see specific category for narrative content requirements. Please follow the format detailed in the specific category below since this will allow for equitable scoring of proposals.

## D. Budget Breakdown Attachment

1. Please provide more budget details than are required under the SF 424A form. Add it as an attachment to the project narrative. Include the following information, separating the in-kind match and the CAP funds:

1. Salaries and Wages. List names, positions, and rate of compensation. If contract employees are hired, include their total time, rate of compensation, job titles, and roles.
2. Field Expenses. Briefly itemize the estimated travel costs (i.e., destination, number of people, number of travel days, transportation costs, and other travel costs).
3. Other Direct Cost Line Items. (This is not an inclusive list; add other categories as appropriate.)
  - Supplies. Itemize costs. Software maybe indicated here.
  - Equipment. Itemize name, units and cost.
  - Other contract services.
4. Total Direct Charges. Totals for items 1, 2, and 3.



5. Indirect Charges (Overhead). Show proposed rate and amount.
6. In-Kind Match

Completeness of this information will be considered in review but it is understood that this information is best guess estimation, therefore, prior approval of the Contracting Officer is not required for transfer of funds between direct cost categories when the cumulative amount of the transfers during the performance period does not exceed ten percent (10%) of the total USGS cash award. Prior written approval is required from the Contracting Officer for transfers of funds in excess of the ten percent limitation.

2. Funded line item categories may include training, labor costs, software licenses, supplies, equipment, required travel, project logistics, fees for consultants, publications, and project presentations. Please see the category description for additional details.

#### **E. Additional Mandatory Documents**

Please read the category description for information about required and optional documents. Letters with signatures should be scanned and attached to the project narrative. If this is not possible letters should be mailed or faxed to the NSDI CAP Coordinator, MS 590 National Center, Reston, VA 20192, Fax number: 703-648-5755.

#### **F. Terms and Conditions for USGS Awarded Cooperative Agreements**

Please refer to Attachment A for the detailed terms and conditions for awarded grants. Attachment B includes the OMB circulars/regulations that apply to this grant.

#### **G. Additional Help**

Additional information for completing the proposal submittal is available via the FGDC Training site, see <http://www.fgdc.gov/training/training-materials>.

### **VI. Application Review**

#### **A. Review and Selection Process**

Applications are considered based on the completeness of documentation, meeting of stated basic eligibility, and in-kind match and other category requirements. Specific evaluation factors are identified in the category descriptions below. Budget information is evaluated for reasonableness and appropriateness to the CAP program as well as to applicant project goals.

In addition to the above criteria, the factors of geographic and organizational diversity, as well as reaching new organizations and new geographic regions, may be taken into consideration in selecting awards.

Proposals are reviewed by a peer group of professionals that are knowledgeable in the GIS and information technology disciplines in the context of the NSDI. Individual proposals are evaluated and scored using the narrative evaluation factors. Through peer consensus process, proposals are ranked according to merit. The slate of selected proposals will be submitted to the senior leadership of NGPO and FGDC for final approval. The senior leadership will consult with the FGDC Coordination Group, as appropriate, in approving and advertising final selections.

### **VII. Award Administration Information**

Award recipients are responsible for managing the day-to-day operations of the cooperative agreements and sub-award supported activities to assure compliance with applicable Federal requirements and that performance goals are being achieved. Recipient monitoring must cover each program, function, or activity.

The cooperative agreement is awarded to the institution and not the principal investigator (project leader). If the primary investigator leaves the awarded institution the new investigator must come from the same institution.

## **VIII. Agency Contacts**

### **A. Grants.gov**

Technical questions concerning the application process at Grants.gov:

Grants.gov Help Desk at:  
Phone: 1-800-518-GRANTS  
Email: [support@grants.gov](mailto:support@grants.gov)

### **B. Program Announcement**

Applicants are strongly urged to submit questions via email to:

Ms. Desiree Santa, Grant Specialist  
U.S. Geological Survey  
Office Acquisitions and Grants  
12201 Sunrise Valley Drive, MS 205G  
Reston, VA 20192  
Phone: 703-648-7382  
Email: [dsanta@usgs.gov](mailto:dsanta@usgs.gov)

### **C. NSDI CAP Program**

For technical questions concerning the content, goals, and objectives of the CAP program categories, please contact:

Ms. Gita Urban-Mathieux  
NSDI CAP Coordinator  
Federal Geographic Data Committee (FGDC)  
U.S. Geological Survey  
Mail Stop 590  
12201 Sunrise Valley Drive  
Reston, Virginia 20192  
Email: [burbanma@fgdc.gov](mailto:burbanma@fgdc.gov)  
Phone: 703-648-5175  
Fax: 703-648-5755

## **2008 NSDI CAP Category 1: Metadata Trainer and Outreach Assistance**

### **A. Background**

Geospatial information applications have become commonplace in the management, planning, and use of land resources. Good data management practices allow datasets created for one project to be used by another through documentation of critical information of a dataset. Documentation of this information allows one to confidently reuse existing data. However, due to unawareness or other limitations, many organizations often do not record the dataset characteristics, developmental processes, or simply the data's repository. Dataset characteristics, documented in a structured form to allow effective information search and discovery is metadata. Implementing metadata as a program enables organizations to effectively manage data resources and to experience cost savings by eliminating repetitive data creation.

The FGDC calls upon the metadata community, through this CAP, to reach out to organizations without established metadata programs. Thus, assisting other organizations to implement metadata as an internal data resource management instrument and ultimately share data resources in support of the NSDI. This category encourages assistance proposals to support rural, local, regional, and state level metadata training, metadata publishing, and metadata program implementation.

### **B. Project Goals**

This category provides funding to organizations skilled in metadata implementation and willing to assist other organizations by providing metadata training, metadata creation assistance, and metadata program implementation and support. Outcomes from this category focus on establishing a sustained resource as metadata creators: to inventory and document data (metadata), support data sharing, and ultimately participate in the NSDI, and for those managing data resources, to implement metadata programs in their respective organizations or agencies.

Recipients in this category are asked to also extend their training services outside of proposal partners at the recipient's regularly scheduled and located workshops. Additionally, trainers in this category must register on the FGDC Metadata Trainer Registry and contribute to the FGDC's distributed training network. The trainer may limit their geographic and administrative scope to meet restrictions of their employer.

Training under this program will contain the FGDC Metadata Core Curriculum found at: <http://www.fgdc.gov/metadata/training.html>. The Core Curriculum provides general topic areas for training, however, the learning objectives for the core content are requirements for metadata creator and manager workshops supported under this program.

Training modules used in this agreement are to be made available via the internet. For those who choose to serve through the FGDC.gov, the modules are required to be supplied in Microsoft PowerPoint to allow serving through the FGDC Web pages and for possible conversions to a format for FGDC's E-learning server. Modules prepared for this agreement will include learning goals and objectives and will be 508 Compliant.

These sites are recommended for help in developing learning goal and objectives:

<http://www.personal.psu.edu/bxb11/Objectives/index.htm>

[http://www.aacsb.edu/resource\\_centers/assessment/ov-process-define.asp](http://www.aacsb.edu/resource_centers/assessment/ov-process-define.asp)

<http://ctl.colostate.edu/resources/FirstYear/GoalsandObjectives.htm>

For 508 Compliance see:

<http://www.section508.gov/index.cfm?FuseAction=Content&ID=12>

Click on: Subpart B. 1194.22 Web-based intranet and internet information and applications: 16 rules.

### C. Project Results

Projects results and outcomes sought under this category include:

1. Individuals and organizations trained and competent in creating compliant metadata.
2. Metadata files created for other organizations.
3. Resulting metadata can be discovered and harvestable through
  - (a) The Geospatial One-Stop Portal at <http://www.GeoData.gov>.
  - (b) Registered Z39.50 Clearinghouse server.
  - (c) Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH) provider software.
  - (d) FGDC Browse-enabled Web Directory, where metadata is in XML.
4. Establishment of formal or informal organizational relationships to sustain metadata activities beyond performance period.
5. Trainers are registered at the FGDC Metadata Trainer Registry to provide for greater metadata training opportunities.
6. All workshops are posted to the FGDC Calendar <<http://fgdc.gov/calendar>>, reported to FGDC monthly, and results reported quarterly.

See Attachment C - Category 1: Metadata Training and Outreach Project Report Format for additional project documentation.

### D. Applicant Eligibility

State or local government, academia, private sector, non-profit, and tribal organizations, as well as consortia of organizations, may apply.

Proposals sought under this category are by organizations skilled and resourceful in implementing applicable standards.

### E. Funding Amount and In-Kind Match

1. Federal Assistance

Up to \$25,000 will be obligated to individual projects under this category.

2. Applicant In-Kind Resource Match

A minimum 50% match is required. Contribution of matching personnel hours or funding, supplied development hardware and software, or other in-kind resources will be considered. The value of data will not be considered as match funding. Other Federal grant funds can not be used for matching. Applicant must document the amount and type of in-kind resource that will be contributed to the fulfillment of the project goals. See Section IV. A. more details and for in-kind match calculation.

### F. Funded Activities

1. Funded tasks and items providing training and outreach to other organizations include:

- (a) Training sessions (travel, facilities, reproduction costs, equipment, etc)
- (b) Clearinghouse service for resulting metadata
- (c) Labor costs to create and serve metadata for other organizations
- (d) Travel to provide metadata training and outreach

2. Participation in CAP Kickoff Workshop. New recipients are required to attend the Kick-off workshop. A portion of the award is applied to travel to Denver, Colorado. The workshop reviews the agreement process and new developments in metadata. This is also an opportunity for the recipients to network.

3. Project Presentations to spread and promote knowledge of the NSDI, participants are requested to make formal presentations of their activities. Presentations can be at a local, state, regional, national conference or meeting. The applicant is requested, if necessary, to budget sufficient funds to travel to the meeting or conference. An alternative is to publish a paper or article in a professional journal or newsletter.

### **G. Partnership and Collaboration Requirements**

Partnerships with other organizations to leverage resources are encouraged but not required under this category. Partnerships, both formal and informal among organizations to leverage limited geospatial data resources, are seen as primary building blocks for the NSDI.

Those proposals demonstrating support and/or collaboration with state or regional spatial data strategic plans or councils are sought under this announcement.

### **H. Applicable Standards**

Projects must be in compliance, as applicable, with geographic information standards developed and endorsed by standard-setting bodies including the FGDC, ISO, and the OpenGIS Consortium. These standards include:

- (1) FGDC Content Standard for Digital Geospatial Metadata, Version 2 (CSDGM), FGDC-STD-001-1998 or, when available the North American Profile of ISO 19115 Geospatial Information: Metadata using draft North American Profile of Technical Specification 19139.
- (2) Metadata Service Guidelines: Metadata must be posted to one of the following options and harvestable through
  - (a) Geospatial One-Stop Portal at <http://www.GeoData.gov>.
  - (b) registered Z39.50 Clearinghouse server.
  - (c) Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH) provider software.
  - (d) FGDC Browse-enabled Web Directory, where metadata is in XML.

### **I. Category Lead technical contact**

Sharon Shin, Metadata Coordinator, email: [sharon\\_shin@fgdc.gov](mailto:sharon_shin@fgdc.gov)

### **J. Project Resources**

The FGDC Metadata Web site (<http://www.fgdc.gov/metadata/metadata.html>) provides links to resources assisting workshop development at various content levels and durations. Using the FGDC Metadata Core Curriculum enables course development that meets FGDC training standards. The FGDC will provide initial tutorial and referral assistance as well as training at the FGDC CAP kick-off workshop.

Modules prepared for this agreement will include learning goals and objectives and will be 508 Compliant.

These sites are recommended for help in developing learning goal and objectives:  
<http://www.personal.psu.edu/bxb11/Objectives/index.htm>  
[http://www.aacsb.edu/resource\\_centers/assessment/ov-process-define.asp](http://www.aacsb.edu/resource_centers/assessment/ov-process-define.asp)  
<http://ctl.colostate.edu/resources/FirstYear/GoalsandObjectives.htm>

For 508 Compliance see:

<http://www.section508.gov/index.cfm?FuseAction=Content&ID=12>

Subpart B. 1194.22 Web-based intranet and internet information and applications: 16 rules.

The appropriate NSDI State Geospatial Liaison is to be informed when training occurs in their area. This requirement is two pronged, first is to keep the Liaison informed and second is use the Liaison as a marketing tool for the workshops.

### **K. Reporting**

1. An interim project report and a final project report are required and will be posted on the FGDC Grants Web site, <http://www.fgdc.gov/grants>.
  - a. Content and format see Attachment C - Category 1: Metadata Training and Outreach Project Report Format.
  - b. For the submission schedule see Section IV. B. Reporting and Presentation in the Introduction.
2. Financial reports are required, see Section IV. B. in the Introduction for more details.

### **L. Proposal Narrative**

The project narrative is the primary document that will be evaluated and scored by the review panel. Proposal Summary for each awarded proposal will be linked from the FGDC Web site. Total point value of 100 points possible. All proposals should be no more than 3000 words (about 5 pages using Times New Roman 12 points) not including letters of support, tables, maps, and diagrams.

(0) Proposal Summary: Please list the following items if appropriate

- (a) Applicant organization (name, office/branch, street address, city, state, zip)
- (b) Collaborating organizations (organization, address)
- (c) Name of trainer or trainer's organization.
- (d) Organization Internet address
- (e) Registered Clearinghouse node or Web folder IP address
- (f) Key project contact (name, telephone, fax, email)
- (g) Other contact personnel (name, telephone, fax, email)
- (h) Geographic scope or area
- (i) Previous CAP participation (awarded or submitted but not awarded).

(1) Project Scope – Project Description (25 points)

Describe project, its steps, and partners/participants. Describe how the project contributes to the NSDI, and conforms to appropriate standards. List organizations or target organizations/communities served in the project.

(2) Technical approach (25 points)

Outline the steps, methodologies and resources to be utilized in implementing the project. This includes facility type, equipment and supplies supporting the training. Applications will be evaluated on the degree to which comprehend the tasks and procedures necessary to accomplish project objectives. Indicate the training approach: lecture, lecture with exercises, or lecture with metadata creation tool. Indicate all pre and post-workshop activities performed to measure learning, if any. Indicate if course and instructor evaluations are conducted. Include statement regarding adoption of FGDC Metadata Core Curriculum. All FGDC.gov host materials will contain learning goals and objectives and be 508 Compliant.

(3) Project Experience (25 points)

Describe experience, special qualifications and skills possessed necessary for performance of the project. If applicant is a previous NSDI CAP participant please provide information describing previous effort and accomplishments. Identify metadata trainer resource.

(4) Commitment to Effort (25 points)

Describe the extent to which project results will continue or be sustained after the performance period. Applicants are sought that demonstrate the project is participating in or supporting state or regional geospatial infrastructure strategies and plans. Memoranda of Understanding and/or

letters of commitment should be attached. State, County, and State and local applicants must include a letter of support from the State GIS Coordinator or similar.

(5) Budget Breakdown

Please provide a budget breakdown for the project. Please refer to Section V.D. in the Introduction for further information.

(6) Letters of Support

Letters of supports should be attached to the narrative. Please refer to Section V.E. in the Introduction for further information.

## **2008 NSDI CAP Category 2: Best practices in Geospatial Service Oriented Architecture (SOA)**

### **A. Background**

The development and deployment of Service Oriented Architectures and related Web Services is a relatively new phenomenon in information technology that has great potential for improving access to distributed information systems within a community enterprise. Common SOA definitions, design approaches, and deployment strategies are not universally adopted or documented, inhibiting the uptake of this technology approach. Furthermore, the introduction of geospatial capabilities into the SOA discussion is an area of particular concern to the FGDC and the Geospatial Line of Business (LoB) that aims to identify and support common services and solutions for use across the government. Before such services can be broadly and reliably adopted, a common understanding of SOA for the geospatial enterprise needs to be developed and published through the development of an initial operating capability to address common requirements.

### **B. Project Goals**

This category is intended to provide resources to engage federal and industry partners to develop common SOA definitions, modeling approach, deployment strategy, and documentation of the implementation through best practices or "lessons learned." Web services deployed under this category will address a specific service requirement that is useful across or between government departments.

### **C. Project Results**

Each award in this category will collaborate with the other awardees within the category on a common set of SOA definitions and modeling approach to be applied in different geospatial application domains. Each award will then apply the proposed terminology and modeling approach to address existing requirements through establishment of one or more Web services that support interagency information exchange. Documentation of the design, implementation, testing, acceptance, and operationalization of these services is required to identify best practices and approaches that may be relevant to others establishing common services. Documentation should address issues of selected modeling environment, adopted standards, technology and infrastructure, service scalability, applications usability, service adaptability and extensibility, and service composition or chaining. Resulting services and client applications will be registered with the Geospatial One-Stop to encourage broader access.

Projects must apply standards and approaches described in the Geospatial Profile of the Federal Enterprise Architecture (FEA) and its discussion relative to the various FEA reference models. Proposals should address alignment with Geospatial LoB Common Solutions/Target Architecture documentation and projected activities.

Resulting project documentation will be published by the FGDC on its Web site.

### **D. Applicant Eligibility**

To be eligible, applicant teams must include a representative of:

1. An **industry consultant partner** with a documented experience in the definition and deployment of SOA, preferably in the context of geospatial applications, and
2. A **federal government organization** with an identified multi-agency service requirement for operational design in support of the Geospatial Line of Business. Although the monetary award will go to the industry consultant partner, commitments and requirements must come from a federal partner for whom the service architecture will be deployed.



3. Applicant teams should demonstrate experience with the terminology and activities of the NSDI, FGDC, and FEA Geospatial Profile, and the OMB Geospatial Line of Business and the deployment of standards-based Web services in a Service Oriented Architecture.

4. An applicant team member (organization or company) may not participate in more than one award in this year's category 2 projects.

#### **E. Funding Amount and In-Kind Match**

##### **1. Federal Assistance**

Up to \$100,000 will be obligated to individual projects under this category.

##### **2. Applicant In-Kind Resource Match**

A minimum 50% match is required. Contribution of matching personnel hours or funding, supplied development hardware and software, or other in-kind resources will be considered from a combination of vendor and federal contributions. The value of data will not be considered as match funding. Other Federal grant funds can not be used for matching. Applicant must document the amount and type of in-kind resource that will be contributed to the fulfillment of the project goals. See Section IV. A. in the Introduction for more details and for in-kind match calculation.

#### **F. Funded Activities**

1. These activities and cost items may be reimbursed by the Federal awarded funds. These include personnel salary, contractor support, software development licenses, required travel, communications, and other office-related costs required by the problem-scoping and software design process.

2. Equipment: No funds under this award may be allocated for equipment purchase or leasing, although such resources may be identified as in-kind by the proposer.

3. Software used for the purpose of application development and deployment may be acquired through this award.

4. Data: No data collection activities or data purchases maybe reimbursed by awarded funds.

#### **G. Partnership and Collaboration Requirements**

Proposals must be submitted jointly by a government organization and an industry provider of SOA consulting. Ideally, such a partner will be familiar with geospatial applications and their integration into business processes; the government partner is expected to provide the geospatial responsibilities and expertise to this project. Letters of commitment are required from governmental participants, submitted as described in Section V.E. of this solicitation.

Projects will collaborate with other awardees in this category in the proposal and documentation of common definitions and modeling approach and the submission of that common documentation to the government.

Collaboration with the Geospatial LoB Services and the Geo-Enabled Business Processes task forces is desirable, including reference to an emerging compilation of geospatial business cases sought through an FY2007 Category 4 award.

#### **H. Applicable Standards**

Standards available for reference in this project are described in the Technology Reference Model (TRM) discussion in the Geospatial Profile of the FEA. The requirement, selection, and description of adopted industry Web standards for SOA design and deployment are sought as documentation in this project.

**I. Category Lead technical contact**, Douglas Nebert, FGDC Technology Advisor, email: ddnebert@fgdc.gov

**J. FGDC Provided Project Resources**

Regular teleconferences will be scheduled to provide an exchange of information among category award recipients. Relevant documentation and revisions will be shared with successful applicants.

**K. Reporting**

1. An interim project report and a final project report are required and will be posted on the FGDC Grants Web site, <http://www.fgdc.gov/grants>.
  - a. See Attachment D – Category 2: Best Practices in Geospatial Service Oriented Architecture (SOA) Report Format for content and format.
  - b. For the submission schedule see Section IV. B. Reporting and Presentation in the Introduction.
2. Financial reports are required, see Section IV. B. in the Introduction for further details.

**L. Proposal Narrative**

The project narrative is the primary document that will be evaluated and scored by the review panel. Proposal Summary for each awarded proposal will be linked from the FGDC Web site. Total point value of 100 points possible. . All proposals should be no more than 3000 words (about 5 pages using Times New Roman 12 points) not including letters of support, tables, maps, and diagrams.

(0) Proposal summary: Please list the following items as appropriate:

- (a) Project Title
- (b) Applicant organization (name, office/branch, street address, city, State, zip)
- (c) Collaborating organizations (organization, address)
- (d) Organization Internet address
- (e) Project Leader (Principal Investigator)-name name, telephone, fax, email
- (f) Other contact personnel-name, telephone, fax, email
- (g) Geographic and/or disciplinary scope or area

(1) Project scope and applicability (20 points)

Identify the scope of the problem to be addressed, the constituency, requirements gathering process, and proposed business process or function to be addressed. Such business functions should be described in a scenario that is relevant to usage in a multi-agency context. Describe the anticipated function to be provided by this SOA solution. Describe anticipated data that would be required by this SOA solution. Provide evidence of significant participation in the proposed SOA design process by user constituents. Identify outcomes that will satisfy tasks identified in the Common Solutions/Target Architecture of the Geospatial LoB.

Proposals that meet an identified need and supply functionality that will be used by hundreds or thousands of individuals nationwide will receive a higher score. Solutions that can be generalized and can be adapted to additional uses will receive a better score. Solutions that address access to Nationally-significant geospatial data and/or A-16 data themes and highlight specific support for the LoB activities will receive a better score.

(2) Expertise in Service Oriented Architecture design and deployment (30 points)

Provide the professional qualifications of the SOA development partner in this proposal. Identify the scope of involvement of the development partner in achieving the outcomes of this award. Provide evidence of SOA design and deployment, documentation of modeling and process, business partnerships, and sustainability of prior projects.

Proposals that include industrial partners with significant SOA design and deployment experience will receive better scores. Proposals that include evidence of prior success and documentation of process and best practices will receive higher scores.

(3) Geospatial capabilities expertise (30 points)

Describe the mission requirements of the partnering federal agency partner in terms of proposed geospatial functions or data, identifying any responsibilities for A-16 or nationally-significant data themes or service functions. Provide evidence of experience in the management of the proposed data, functions, and applications on the part of the proposing team. Identify prior experience in the Web services deployment of geospatial data and functions. Identify the contributions and commitment to the successful execution of this effort in support of mission and multi-agency requirements.

Proposals with documentation of existing federal geospatial capabilities, stewardship responsibilities, project commitment, and the implementation of Web services will receive a higher score. Proposals with higher in-kind federal participation will receive a higher score.

(4) Project design and likelihood of success (20 points)

Provide an anticipated work plan with milestones for the project, recognizing that the development of common terminology and modeling approach will need to be developed in consensus with other awardees in this Category before further work is undertaken. Describe your recommended requirements-gathering, modeling, deployment, and documentation processes. Identify recommended modeling and deployment environment and anticipated Internet, Web services, and geospatial standards in play. Describe the form of documentation of best practices on the SOA services that will be deployed.

Projects with adequate documentation on the work process and its outcomes will receive a higher score. Descriptions that convey prior experience in SOA design project management will receive a higher score.

(5) Budget Breakdown

Please provide a budget breakdown for the project. Please refer to Section V.D. in the Introduction for further information.

(6) Letters of Commitment

Letters of commitment are required from governmental participants. Please refer to Section V.E. in the Introduction for further information.

### **2008 NSDI CAP Category 3: Fifty States Initiative - Strategic and Business Plan Development**

#### **A. Background**

The National Spatial Data Infrastructure (NSDI) Future Directions Initiative recognizes that the NSDI cannot be maintained and enhanced by a single organization. A well-coordinated and concerted effort inclusive of the private sector, utilities, academia and all levels of government is needed to leverage resources, minimize redundancies and collaboratively solve problems to achieve the NSDI vision. The NSDI vision assures that spatial data from multiple sources are available and easily integrated to enhance the understanding of our physical and cultural world. Partnerships are essential to realizing the NSDI Vision.

One objective of the Future Directions Action Plan is the *Fifty States and Equivalent Entities Involved and Contributing to the NSDI Plan* (Fifty States Initiative). It recognizes that it will not be possible to build the NSDI without taking advantage of the day-to-day efforts of state and local governments, and other stakeholder groups in the states. This requires effective statewide coordination mechanisms that routinely contribute to the development of the NSDI. The Fifty States Initiative, endorsed by the Steering Committee of the Federal Geographic Data Committee, will advance the implementation of effective statewide coordination councils and the development of effective geospatial strategic and business plans.

**This category specifically supports activities that promote the development of statewide strategic and business plans for the establishment of effective, all-inclusive statewide coordination councils/offices and the related activities necessary to ensure meaningful contributions to the NSDI.**

#### **B. Project Goal**

The goal for projects in this category is the development and/or implementation of statewide strategic and business plans that facilitate the coordination of programs, policies, technologies, and resources that enable the coordination, collection, documentation, discovery, distribution, exchange, and maintenance of geospatial information in support of the NSDI and the objectives of the Fifty States Initiative Action Plan. See <http://www.fgdc.gov/policyandplanning/50states/50states> for additional details on Strategic and Business Plans.

#### **C. Project Outcomes**

The following are examples of desired outcomes resulting from strategic and business planning activities conducted under this category. Applicants will be expected to utilize the existing FGDC/National States Geographic Information Council (NSGIC) Strategic and Business Plan templates and other supporting documentation.

##### 1. Strategic Plan Development

A good strategic plan provides a clear explanation of how one or more strategic goals are to be achieved by an organization or program. It typically outlines long-term goals and details the specific strategies and programmatic goals that are to be pursued. Areas of risk are analyzed and specific strategies for overcoming those risks are adopted. The strategic planning process is iterative and maps a clear path between a present condition and a vision for the future. Revisiting the Strategic Plan to review accomplishments against documented objectives helps to establish a feedback loop that can influence future planning and decision making.

Your strategic planning effort should lead to one or more of the following outcomes.

- Creating effective statewide councils, offices, or organizations that can collaborate and work with all stakeholder communities as appropriate
- Strengthening the effectiveness of existing councils and offices to work with all stakeholder communities as appropriate

- Improving coordination activities, increasing participation, and developing positive contributions to statewide geospatial information initiatives among state, regional, local, tribal, federal, academic, utility, and private sector stakeholders
- Gaining recognition for statewide coordination mechanisms from State executives and legislators
- Improving geospatial data discovery, access, and use through improved coordination mechanisms (i.e. implementing statewide use of the Ramona System)
- Increasing participation in national geospatial data programs (i.e. The National Map)
- Working to establish sustainable funding mechanisms for geospatial initiatives and improved coordination mechanisms
- Establishing priorities for proposed actions that are designed to improve statewide coordination mechanisms and geospatial information initiatives

## 2. Business Plan Development

While the Strategic Plan describes what you want to achieve and why, the Business Plan provides a detailed description of how objectives will be achieved, along with the necessary justifications for implementing initiatives. The purpose of your Business Plan is to support the successful implementation of the programs identified in your organization's Strategic Plan, thereby furthering the statewide spatial data infrastructure (SSDI) and/or the National Spatial Data Infrastructure (NSDI). These programs may each require a different approach and may place emphasis in different areas. Examples of programs that require Business Plans include:

- An Ortho-imagery Program (data-centric)
- Homeland Security Web Mapping Initiative (function or application-centric)
- Statewide GIS Coordination (business process-centric)

Regardless of the approach, there are requirements for assessing where you are, where you need to be, and for identifying the pathway that will get you there.

Your business planning efforts should lead to one or more of the following outcomes.

- Assessing the business needs of all stakeholder communities
- Adopting tools or mechanisms for identifying the status of data development (i.e. implementing statewide use of the Ramona System)
- Identifying and acting on specific opportunities for data partnerships
- Identifying and securing funding resources and mechanisms required for geospatial data coordination, collection, and maintenance activities
- Addressing a geospatial enterprise architecture, National standards and guidelines, and open interoperability standards
- Incorporating measures for evaluating return on investments and developing cost benefit analyses
- Implementing an improved statewide GIS coordination council or making improvements in a statewide GIS coordination office

## D. Project Activities

1. Development and/or implementation of a strategic plan that addresses how to bring all of the stakeholder groups together into a functional governing body that serves as a Statewide Coordination Council with the following characteristics:

- A mechanism for broad representation and inclusion in the decision-making process by user communities, including Federal, state, county, municipal and tribal governments; private sector GIS users and vendors; academic sector; non-profit organizations; utilities; and the general public.
- A relationship between the Coordination Council and national geospatial initiatives such as Geospatial One Stop, *The National Map* and the Ramona System.

- A formal authorization process to establish the Statewide Council with appropriate bylaws.
- A relationship and linkage with the nine coordination criteria (see Section III below) that feeds consensus based decision-making into official statewide initiatives.
- Adequate funding and a budget are identified (or cost sharing mechanisms are established) to support and enable the operation.
- A commitment is made to implementing appropriate OGC, FGDC, ANSI and ISO standards to ensure an “open” environment exists.

2. Development and/or implementation of a statewide Business Plan that addresses key coordination criteria, including:

- The need for a Geospatial Enterprise Architecture (GEA).
- Identifying the status of existing framework and critical infrastructure data, future data production plans, and opportunities for data production partnerships.
- Establishing data sharing agreements with local, state, tribal and federal agencies unless they routinely provide data in the public domain.
- Publishing lists of local, state, tribal and federal data stewards/integrators for each of the framework layers.
- Posting local, state and tribal framework data to the national clearinghouse or otherwise making them available through OGC interfaces.
- Assisting local, state and tribal data producers in creating metadata for data holdings and posting it to the GOS Portal.
- Maintaining a functioning clearinghouse or appropriate inventory tool that is available to all interested sectors in a state and is available for metadata harvesting by the GOS portal.
- Enabling local, state and tribal organizations to participate in Ramona, *The National Map* and the Geospatial One Stop Portal program.
- Promoting the adoption and incorporation of appropriate OGC, FGDC, ANSI and ISO standards and interoperable practices among local, state and tribal agencies.

Please Note: Statewide use of the Ramona System will assist you with implementing several of the criteria listed above. (see [http://gisinventory.net/getting\\_started.html](http://gisinventory.net/getting_started.html))

3. Implementing the Nine Statewide Coordination Criteria including the following:

- A full-time, paid coordinator position is designated and has the authority to implement the state’s business and strategic plans.

Explanation: Many states have created one or more full time positions to oversee coordination of geospatial technologies. These individuals are responsible for implementing the state’s business plan and are typically assigned to the Governor’s Office, Chief Information Officer, Budget Department, or the Technology Office. In some states, these duties fall on a volunteer and in

others, no one is willing to assume this role. It is presumed that having a full-time paid individual is advantageous and that a significant portion of their energy is channeled into on-going statewide coordination council activities.

- A clearly defined authority exists for statewide coordination of geospatial information technologies and data production.

Explanation: A responsible individual or group has been designated in many states through executive orders, budget authorizations, or legislation. These individuals, or groups, are usually better able to deal with difficult coordination issues since they are empowered to perform this function. In other cases, “all volunteer” efforts are very effective at coordinating statewide activities through consensus building. In some instances, these groups are recognized as a “clearly defined authority” although they have no specific powers.

- The statewide coordination office has a formal relationship with the state’s Chief Information Officer (or similar office).

Explanation: Geospatial technologies are clearly a component of any state’s information technology architecture, but they are not always viewed as such by “old school” IT leaders. A close relationship with the state CIO is essential to move major geospatial technology initiatives forward.

- A champion (politician or executive decision-maker) is aware and involved in the process of coordination.

Explanation: A visionary political champion who understands geospatial technologies is a valuable ally that can help obtain recognition and funding to support new initiatives. Without a strong political champion, new initiatives often fail.

- Responsibilities for developing the National Spatial Data Infrastructure and a State Clearinghouse are assigned.

Explanation: The responsibility for the component pieces of the NSDI should be assigned to appropriate staff and agencies to ensure that stewards are identified, and to prevent duplication of effort. Assignment of responsibilities should happen in advance of actual need to ensure that the appropriate activities are appropriately planned and incorporated into the state’s business plan.

- The ability exists to work and coordinate with local governments, academia, and the private sector.

Explanation: Each state must have the capability to routinely meet and coordinate with all other sectors. Safeguards should be developed to ensure that the needs of other sectors can be incorporated through consensus building activities.

- Sustainable funding sources exist to meet projected needs.

Explanation: Sustainable funding is the foundation of effective partnerships. Data production tends to be the highest component cost for implementation of geospatial technologies and most users have requirements for continuous updating of data layers that requires a steady fund source. Effective consortia can only be established when each of the players brings something to the partnership and non-lapsing funds help stabilize partnerships.

- Coordinators have the authority to enter into contracts and become capable of receiving and expending funds.

Explanation: To be effective, individual state GIS coordinators or the agencies identified as the stewards for the component pieces of the NSDI must be able to readily contract for software, systems integration, training, and data production costs. Often partnerships can be “brokered” to capture end-of-year funds when contracting mechanisms are already in place.

- The Federal government works through the statewide coordinating authority.

Explanation: It is essential that Federal agencies use statewide GIS Coordination offices and councils as a type of “clearinghouse” to make sure that cooperative agreement opportunities are being used wisely to implement the business plans of the states. Going through the coordination offices and councils will also help to minimize duplications of effort.

### **E. Applicant Eligibility**

State, regional, local and tribal governments, academia, non governmental organizations, utilities, and the private sector may apply for awards in this category. Existing statewide coordinating councils and/or other entities involved in the development of statewide geospatial strategic and business plans may apply for an award in this category. Coordinated multi-sector responses are strongly encouraged.

Applicants from states that did not receive Fifty States Funding in Fiscal Year 2006 or 2007 will be given priority.

### **F. Funding Amount and In-Kind Match**

#### 1. Federal Assistance

Up to \$50,000 will be obligated to individual projects under this category.

#### 2. Applicant In-Kind Resource Match

A minimum 50% match is required. Contribution of matching personnel hours or funding, supplied development hardware and software, or other in-kind resources will be considered. The value of data will not be considered as match funding. Other Federal grant funds can not be used for matching. Applicant must document the amount and type of in-kind resource that will be contributed to the fulfillment of the project goals. See Section IV. A. in the Introduction for more details and for in-kind match calculation.

### **G. Funded Activities**

#### 1. Funded activities include:

- a. Fees for consultants, facilitators or recorders
- b. Salary for a statewide coordinator
- c. Salary for statewide coordination staff
- d. Publications
- e. Workshops
- f. Training
- g. Travel expenses as required to complete this project

2. Applicants are requested to budget sufficient travel funds (approximately \$1,000) for participation by one individual at the orientation workshop to be held in conjunction with a Strategic and Business Plan workshop at the NSGIC Mid-year Meeting in Annapolis, Maryland on Sunday, March 9, 2008.

3. Applicants are encouraged to budget funds to attend the 2008 NSGIC Annual Meeting in Keystone, Colorado on September 7 - 11, 2008. It is anticipated that additional Fifty State learning opportunities will take place during the NSGIC Annual Conference.

**H. Category Lead technical contact**, Milo Robinson, FGDC Framework & Cooperating States Coordinator, email: mrobinson@fgdc.gov



**I. Reporting**

1. An interim and final project report is required and will be posted on the FGDC Grants Web site, <http://www.fgdc.gov/grants>.
  - a. For the Submission schedule see Section IV. B. Reporting and Presentation in the Introduction.
  - b. For format and content see Attachment E - . Category 3: Fifty States Initiative.
  - c. Include a softcopy version of the final or approved strategic and/or business plans as an attachment to the final report.
2. Financial reports are required, see Section IV. B in the Introduction for more details.

**J. Proposal Narrative**

The project narrative is the primary document that will be evaluated and scored by the review panel. Proposal Summary for each awarded proposal will be linked from the FGDC Web site. Total point value of 100 points possible. All proposals should be no more than 3000 words (about 5 pages using Times New Roman 12 point font and 1-inch margins) not including letters of support, tables, maps, and diagrams.

Applicants are encouraged to work with their State’s USGS Geospatial Liaison to develop proposals. For a listing of Liaisons please see <http://nmcatalog.usgs.gov/crreps/faces/crreps.jsp>

Please submit narratives that are responsive to the following instructions and are clearly and plainly stated. The narrative must also be focused on the planned activities and be concise, but described in sufficient detail to provide the reviewers with a full understanding of the project.

(0). Proposal Summary

Please provide information on the following items, as appropriate:

- (a) Applicant’s Organization
- (b) Collaborating organizations: include a clear and concise statement for each organization regarding the extent and nature of their support.
- (c) Organization Internet address
- (d) Relevant National Digital Geospatial Clearinghouse node address (if any)
- (e) Principal Investigator-name, telephone, email
- (f) Other key contact personnel-name, telephone, email
- (g) Geographic scope
- (h) Previous CAP cooperative agreement participation (awarded or submitted but not awarded)
- (i) A Short stand alone description of the project (limit to 200 words).

(1) Project Scope (40 points)

- a) Describe the existing status of geospatial coordination activities in your state. Include the existing coordination groups, the nature and the currency of their strategic and business plans, and an explanation as to why they do not meet the suggested criteria proposed in this document.
- b) Describe the proposed strategic and business plan development, how you expect to implement them in your state, and what key problem areas can be overcome by instituting a new planning process. What is it about your proposed approach that will help ensure its success? How does this project help link the geospatial community to the State CIO’s office? What is it about your project that will improve the NSDI?

(2) Skills and Capabilities (15 points)

Describe the experience, special qualifications and skills possessed that are necessary for performance of the project. If the applicant is a previous NSDI CAP participant please provide brief information describing previous effort(s) and accomplishments. Describe the Principal Investigator’s abilities and experience in managing key aspects of projects such as the one proposed, including the functions of geospatial data coordination, collection, maintenance, integration, access and distribution; executive guidance; and financial and other resource management.

(3) Commitment to Effort (15 points)

Describe the organization's outlook for a sustainable operation and the extent to which project results will continue or be sustained after the performance period. Applicants should demonstrate a clear commitment to supporting statewide geospatial infrastructure strategies in support of the NSDI Fifty States Initiative. Identify the partner organizations or participants involved, their roles and the support they will provide to the project. Memoranda of Understanding and/or letters of support should be included as an attachment to the narrative, or included as a separate file named "Letters of Support." (Please refer to Section V.E. in the Introduction for further information.)

(4) Organizational and Managerial Capacity (30 points)

Describe the management plan for the activity. Please include information on the nature of the applicant's organization and its formally documented relationships with other participants in the project. Describe project implementation plans including timelines and assigned responsibilities. This plan should include the key steps required to complete the project, milestones for measuring successes and a timeline for each step. Describe your ability to finish this project on-time. Address your capacity to effectively accomplish and manage the funded activities. Identify how the outcomes of the project fit the business plans and benefits anticipated by the partners or customers of the applicant.

(5) Budget Breakdown

Please provide a budget breakdown for the project. Please refer to Section V.D. in the Introduction for further information.

## **2008 NSDI CAP Category 4: Joint Canadian and United States Spatial Data Infrastructure Project**

### **A. Scope**

(1) General Description: GeoConnections Canada and the United States Federal Geographic Data Committee (FGDC) are pleased to release a sixth joint request for proposals for a Canada-U.S.A spatial data infrastructure project. Applications of digital geospatial data vary greatly, but users have a recurring need for access to common themes of data. Spatial data infrastructures are built upon basic information content, and the technical, operational, and business contexts by which they operate.

The FGDC Secretariat and GeoConnections are co-sponsoring a joint project for the development of regional applications that increase the access and use of distributed geospatial data content. This regional application will cover a piece of geography including both Canada and the U.S., and will enhance further understanding of the complexities, challenges, and effort required in utilizing spatial data infrastructures and distributed data to address a common issue between the two countries.

This category advances the capacity of communities to create and use geospatial data. **Projects funded under these categories will deal with a common priority issue that results in increased information sharing while making available new content and services online.**

The projects will also demonstrate collaborative approaches and decision-support in solving community issues utilizing distributed data (thematic and framework) and through the use or refinement of existing FGDC, GeoConnections, and International standards. Projects will establish a collaborative process that provides different kinds of organizations and disciplines with the ability to integrate and share geospatial data publicly.

(2) In the U.S. applications are open to State or local government, commercial, academic, non-profit, and Native American Tribal governments and organizations. In Canada applications are open to Canadian organizations (commercial, academic and nonprofit), federal (special funding case please refer to section D item 2) and provincial/territorial government agencies, local communities and Aboriginal Communities (First Nations, Métis and Inuit).

(3) One project will be funded under this year's CAP.

(4) Category 4 proposals must demonstrate collaboration between organizations in the U.S. and Canada. **Please note that under this FY 2008 CAP, applicant organizations may submit only one proposal package in this category. Previous Joint U.S. and Canadian Demonstration Project award recipients are not eligible.**

### **B. References**

Applicants can find information on spatial data infrastructures through the GeoConnections and FGDC Web sites (<http://www.geoconnections.org/> and <http://www.fgdc.gov/>). In particular, applicants should familiarize themselves with the following reference sources:

(1) **U.S. Sources:**

- Federal Geographic Data Committee Web site <http://www.fgdc.gov/>
- *Framework Introduction and Guide*, FGDC 1997  
<http://www.fgdc.gov/framework/frameworkintroguide/>

(2) **Canadian Sources:** All the following sources of information can be found through the GeoConnections Web site at <http://www.geoconnections.org> (in the Key Documents and Developers' Library sections).

- *CGDI Target Vision and Implementation Plan; Vision: Better knowledge for better decisions*, Sep. 2005

- *CGDI Target Vision and Implementation Plan; Architecture: Architecture Description Version 2.0*, Sep. 2005
- *GeoBase* (<http://www.geobase.ca/>)
- *GeoConnections Discovery Portal* (<http://geodiscover.cgdi.ca>)
- *A Developers' Guide to the CGDI: Developing and publishing geographic information, data and associated services*, Feb. 2004
- *CGDI online training*, Aug. 2004
- *Integrated Approaches to Community Awareness - Defining Regional Atlas*, Apr. 30 2007
- *User Needs Analysis*, Mar. 26 2007
- *User Centric Design*, Mar. 26 2007
- <http://www.geoconnections.org/en/communities/developers/standards>

### C. Project Goal

The goal of this project is to stimulate cross-border cooperation over a geographic area through the use of connected, distributed data and services. This project will use methods for building regional spatial data infrastructure applications and increasing the sharing of distributed geospatial data, suggest topics for future research and development, and provide guidance on policies and practices for the establishment of an operational spatial data infrastructure between the U.S. and Canada.

Projects that involve cross-border regional collaboration within the following themes will be preferred:

- Public Safety and Security: Situational Awareness and Management of Consequence; and Critical Infrastructure Identification;
- Aboriginal and Native American peoples: land and resource management or community planning.

Including one or both of the above themes, projects that involve cross border issues related to Public Safety and Security will be considered a priority. Issues related to Aboriginal and Native American peoples sharing a border in the South or in the North will also be preferred in priority.

### D. Funding for Program: U.S./Canadian Support

(1) **U.S. funding support** for the project will be provided by the U.S. Geological Survey on behalf of the Federal Geographic Data Committee (FGDC). **A total of \$75,000.00** (U.S. Dollars) is available. This funding will be given to the lead U.S. organization, and the award document authorizing the funds will be separate from the Canadian agreement authorizing Canadian funds. The U.S. lead organization is required to comply with requirements described in Section IV.B in the Introduction.

(2) **Canadian funding support** for the project will be provided by the Natural Resources Canada, GeoConnections. In Canada, a contribution agreement is used to financially support the cost share project. For federal departments, an interdepartmental fund transfer will be used instead of a contribution agreement. **A total of \$80,000.00** (Canadian Dollars) is available. This funding will be made to the lead Canadian organization and will be awarded by authorized representatives of Canada.

(3) Depending on the proposal merit, one joint project will be funded with each government issuing its own award document. This estimate does not bind the U.S. or Canada to a specified number of awards or to the amount of any award unless that amount is otherwise specified by statute or regulation. Payment will be made based on project Milestones. The final payment will represent at least 10% of the FGDC or GeoConnections share.

(4) Due to the joint bi-national scope of this project, the lead U.S. organization will bear responsibility to meet U.S.GS requirements and the lead Canadian organization will bear responsibility to meet GeoConnections requirements. Thus, two cost proposals are required for each Canadian/U.S. proposal, one for U.S. organization and one for the Canadian organization.

**E. Participants Cost-Share**

(1) The **U.S. applicants** must provide 100% matching funds in U.S. dollars from funds other than those received under this project from the U.S. Geological Survey.

(2) The **Canadian applicants** must provide 100% matching funds in Canadian dollars from funds other than those received under this project from the GeoConnections Program.

(3) These funds may be in the form of cash and/or in-kind contributions (materials, services, or personnel provided to the proposed project). Existing in-place equipment (unless primarily or exclusively used for the project) is not to be considered acceptable as an in-kind contribution. No geospatial data sets, whether existing or to be acquired, are considered acceptable as an in-kind contribution. Profit must not be included in the in-kind contribution. See Section IV. A. in the Introduction for more details and for in-kind match calculation.

**F. Disbursement of Funding Support**

Applicants must demonstrate that both a lead U.S. organization or agency and a lead Canadian organization or agency are involved in the project. Furthermore, each country's lead organization/agency is required to collaborate with another organization or agency in its respective country. Thus each application will have a minimum of four organizations or agencies—two from Canada and two from the U.S. Funding will be provided only to the lead organization in each country. They in turn, have the responsibility of dispensing the appropriate funds to their collaborating organization(s). Canadian funds are to be spent by Canadian participants and U.S. funds are to be spent by U.S. participants.

**G. Eligibility Requirements**

(1) Qualified applicants from among American and Canadian organizations include Federal (Canada only), State, Provincial/Territorial and local government agencies, educational or academic institutions, private sector/commercial firms, utilities, private foundations, not-for-profit organizations, and Native American tribes or Aboriginal (First Nations, Métis and Inuit) groups in the U.S. and Canada are invited under this Program Announcement.

(2) While proposals must demonstrate that at a minimum four (at least two Canadian and two U.S.) organizations are participating in the project, multi-sector partnerships are encouraged. As stated previously, a lead organization for the U.S. and a lead organization for Canada must be identified.

(3) The application must clearly define the tasks and responsibilities of each collaborative organization. An **Agreement of Participation** (Attachment I) is required of each organization participating. Each participating organization shall agree to contribute, in-kind or cash, to the project.

**H. Unsuitable Applications**

(1) Applications will not be considered for projects not being sought under this Program Announcement. Though integral to many operations, data collection is not considered an appropriate activity for funding under this Program Announcement.

(2) Applications are sought from U.S. and Canadian organizations. Applications from any other countries (other foreign governments, foreign citizens, educational institutions in foreign countries or firms located in foreign countries) will not be accepted. However, they may participate as a collaborator.

(3) Proposals in which there is a real or an appearance of a conflict of interest will not be accepted.

(4) Applications solely involving the direct procurement of a product or service will not be considered.

(5) Applications that do not meet the requirement for participation/collaboration of other organizations will not be considered.

### **I. Period of Performance**

The project will begin upon completion of the award documents on or about April 2008. All activities proposed must be completed on or before the end of the Canadian Government fiscal year March 31, 2009.

### **J. Reporting Requirements**

Note that travel costs for project participants to attend the three meetings identified in the reporting requirements must be included in the cost proposals. The meeting locations are proposed by the applicant.

Listed below are the required reports, presentations, and other participatory involvement.

(1) Initial Orientation meeting involving all key project participants, the GeoConnections representative and FGDC Secretariat (Travel by project participants may be required depending on meeting location as proposed by the applicant).

(2) Milestone reports indicating project progress.

(3) Interim progress review meeting, a face to face meeting is expected (Travel by project participants may be required depending on meeting location as proposed by the applicant); A beta online implementation of the project application should be completed at mid-term and demonstrated.

(4) Final technical report of project activities that includes:

- (a) Project summary;
- (b) Project outcome;
- (c) Recommendations for distributed thematic and framework data development;
- (d) Assessment of project success;
- (e) Plans for follow-on activities including outreach;
- (f) Discussion about user-demand requirements for geospatial data in a national level spatial data infrastructure; and,
- (g) Discussion about commonalities, issues, difficulties, and challenges (both technical and policy) that were encountered.
- (h) Other mandatory deliverables related to technical and financial reporting will be requested upon agreement development with the winning applicants.

(5) Formal oral presentation of the Project (Travel by project participants may be required depending on meeting location as proposed by the applicant).

(6) End of Project meeting involving all key project participants, the GeoConnections representative and FGDC Secretariat (Travel by project participants may be required depending on meeting location as proposed by the applicant).

Submitted project reports will be posted on the FGDC Grants Web site, <http://www.fgdc.gov/grants>.

#### **K. Publicity**

It's important that project results receive wide dissemination to increase the base of knowledge and experience that can be shared throughout the profession and geospatial community. Organizations receiving an award are encouraged to publish the results of any work supported under this Program Announcement, without review by the FGDC or GeoConnections. However, publications or other written products resulting from the project must acknowledge the financial assistance of the FGDC or GeoConnections.

- (1) Publication of project results is strongly encouraged;
- (2) Formal oral presentation of the project (travel by project participants will be required, depending on meeting location as proposed by the applicants); and,
- (3) Display the NSDI logo and GeoConnections logo on participating organizations home page and link to the Geospatial One Stop portal and GeoConnections Discovery Portal server if applicable to the project.

#### **L. Award Terms and Conditions**

- (1) Awards made under this Program Announcement to the lead U.S. organization shall be administered in accordance with **Terms and Conditions** (Attachment A)
- (2) Canadian funding support for the project will be provided by the Natural Resources Canada, GeoConnections Program. In Canada, the proponents will be paid by cheques to financially support the cost share project. For federal departments, an interdepartmental settlement transfer will be issued instead of cheque. A total of \$80,000.00 (Canadian Dollars) is available for the project. This funding will be made to the lead Canadian organization and will be awarded by authorized representatives of Canada.

#### **M. Instructions for Preparing the Application**

The application should be assembled in the following order listed below. (See V. Application and Submission Information)

- (1) **Standard Form SF – 424** *Application for Federal Assistance* (Applies to U.S. organizations only). The lead **U.S. organization** should prepare this attachment and should be signed by an individual authorized to commit the applicant. See Section V. Application and Submission Information, A. Proposal Forms.

In addition, the **U.S. organization** should provide a cost proposal that contains a breakdown of the total estimated project cost by individual milestones described in your Technical Proposal. This budget breakdown should show in-kind and cooperative agreement funds, and what each organization is contributing or spending on each milestone. Please refer to Section V. Application and Submission Information, D. Budget Breakdown Attachment for further details.

- (2) **Standard Form SF – 424A** *Budget Information – Non-Construction Program* (Applies to U.S. organizations only) The **U.S. organization** should prepare this document. See Section V. Application and Submission Information, B. Completing Proposal Forms.

(3) **Canadian Applicant Budget Information.** (Applies to Canadian organizations only) Preparation of the price proposal for **Canadian participants** - Please include sufficient funds to cover three travel requirements: (a) attendance at an initial program orientation meeting, (b) attendance at an interim progress review meeting, and (c) a formal oral presentation of project activities at the end of project at a location agreed upon between the FGDC/GeoConnections and the award recipient. This meeting location is to be proposed by the applicant.

**Allowable Expenditures**

The Recipient agrees that the contribution referred to in Section D (2), Canadian Funding Support, of this announcement will be applied to the allowable expenditures incurred in the course of conducting the project activities. The allowable expenditures are:

-direct costs of carrying out the project, including: labour (i.e.salaries, professional fees, temporary personnel costs) and overhead costs (i.e. rent, telecommunications, administrative fees) of carrying out the Project, information gathering,; travel to conduct the project (at rates negotiated with GeoConnections), project coordination and communications.

-administration of the project, including: administrative labor; liaison with project consultants, GeoConnections, FGDC; others partners; translation; printing and binding of project reports.

(a) **Method of Payment:** The pricing basis for the resultant contribution may be negotiated between GeoConnections and the selected Applicant. Negotiation of the pricing basis may be required normally in accordance with the requirements stated in the RFP.

(b) **Price Proposal:** The price proposal should contain a detailed breakdown of the total estimated project cost by individual milestones in a firm price bid and described in the Technical Proposal application. Please note that the project team cannot submit a price proposal based on average rates. Each project team member's workload has to be priced separately using appropriate costing procedures. The total of all project team member prices will be included in the proposed total estimated project cost.

(c) **Project Cost Breakdown:** This detailed total estimated project cost breakdown should address, as applicable, but not be limited to, each of the following:

(i) **Labor:** For the purposes of this announcement, labour costs represent the actual salaries paid to personnel. For in-kind contributions, labour also includes employee benefits up to a maximum of 20%. Each participating organization is required to explain how it calculates per diem rates. A typical way to calculate labour is to use the labour-rate formula: reasonable annual salary, plus reasonable overhead and benefits, divided by a reasonable number of billable days in a year. Labour rates must be exclusive of profit. In the case of government personnel, official labour rates approved by the government organization should be used.

(ii) **Other Direct Charges:**

- **Equipment/Software Rental.** Rental costs will be considered, if included in your price proposal. Purchase costs for equipment are not acceptable and will not be considered. Costs for software essential to the



project will be considered. The original purchase price of the equipment or software as well as the number of years of useful life of the equipment or software should be provided with the price proposal. Equipment and software used in the day-to-day business of the organization are covered in the overhead in the labour rates and cannot therefore be considered as in-kind contributions. The costs for equipment/software should not exceed 25% of the total estimated project cost.

**-Training:** Training, as part of technology transfer activities, may form part of the total estimated project cost. It should not, however, exceed 15% of the total project cost. Training costs should be fully explained and justified in the project proposal.

**- Materials, Supplies, and Components:** Indicate general categories and the pricing basis, inclusive of customs duty and taxes, but exclusive of GST/HST. Indicate whether the items are likely to be used or consumed during the course of the project work.

**- Travel and living expenses:** Limited travel and living expenses will be considered case-by-case depending on the travel's purpose. Proposals should detail the basis and cost of all required travel. The basis of travel costs should be in accordance with the current Treasury Board Travel Directive, or, if applicable, in accordance with the project proponent's own travel guidelines (but not exceeding the Treasury Board Directive). The Treasury Board Travel Directive is available at [http://publiservice.tbs-sct.gc.ca/pubs\\_pol/hrpubs/TBM\\_113/td-dv\\_e.asp](http://publiservice.tbs-sct.gc.ca/pubs_pol/hrpubs/TBM_113/td-dv_e.asp).

**- Subcontracts:** Identify potential subcontractors and provide for each the same cost breakdown information detailed herein.

**- Other Charges:** Identify any other direct charges, inclusive of customs duty and taxes, **but exclusive of GST/HST**, such as long distance communication and rental costs. Please provide the estimated cost of each one, and the relevance to the proposed work.

Profit: Not applicable since proposals are required to be submitted on a cost sharing basis. Foregoing of profit is not allowable as a contribution.

## **N. Proposal Narrative**

The narrative is the most important part of your application. (To be prepared jointly by collaborating **U.S. and Canadian applicants**). Applicants shall submit proposal via grants.gov. The Application Narrative shall not exceed 6000 words approximately 10 single-spaced pages (including figures and tables), and the type size shall not be smaller than 12-pitch/10 point type. References, appendices, curriculum vitae, letters of support/endorsement, and related documentation are not included within the word limit.

Applications for funding will be considered in accordance with the following factors set forth below. Proposals should address each of the following factors in the exact headings and sequence as they are listed. Please provide sufficient definition or description of methodology within the context of the project, to permit understanding. Please be very explicit. We encourage applicants to use examples to demonstrate their understanding. The maximum possible score for all selection factors together is 100 points.

(0) Project Summary— please list as appropriate:

(a) Canadian and U.S. Lead organizations

- (b) Lead Canadian and U.S. project contacts (name, telephone, email)
- (c) Collaborating organizations (include Agreement of Participation, Attachment I, as attachments)
- (d) Collaborating organizations key contacts (name, telephone, email)
- (e) Relevant Internet addresses
- (f) Geographic scope of project
- (g) Concise description of the project (limit to 200 words).

(1) Project Description (10 points)

Merit to the Canadian Geospatial Data Infrastructure (CGDI) and National Spatial Data Infrastructure (NSDI). Proposals will be evaluated on the quality and relevance of the project to spatial data infrastructures (NSDI, CGDI).

(a) The proposal should include a concise description of the project; a clear statement of project objectives; an explanation of how, and to what degree, the proposed effort contributes to the development of a joint U.S./Canadian regional information sharing initiative and identify an issue in need of improved cross-border cooperation. The project must address a practical problem as described under Scope (section A) and Project Goal (section C) of this category.

(b) The proposal should include citations of related and ongoing projects and describe their connection to such ongoing projects.

(c) The proposal should include specific well-defined project outcomes that will result from this project. Describe how such outcomes will increase the use of connected distributed data sets and services as well as foster the increased use of a common spatial data infrastructure for Canada and the United States.

(2) Project Approach (20 points)

Applications should outline the steps that will be taken to implement the application. The applicant must describe feasibility and levels of risk associated with this project. Provide a detailed project plan to accomplish the stated objective.

(a) Proposals will be evaluated on the degree to which they reflect an understanding and detail of the tasks and procedures necessary to accomplish the stated objective. The proposal will be evaluated to determine whether the resources identified by the applicant to accomplish the tasks are reasonable relative to the anticipated results, and whether they accurately reflect the level of effort described in the proposal, including the necessary facilities, equipment, and supplies.

(b) The proposal should include a work plan that indicates clearly identified outcomes as a means of assessing progress. In outlining project tasks, please include a Work Plan Milestone Chart (such as Gantt) illustrating major activities and their completion dates as an attachment to the Application Narrative (the milestone chart does not count against the 6000 word narrative limit). The Initial Orientation Meeting, Interim Progress Review Meeting, and Final Technical Report shall be in your milestones.

(3) Technical/Operational Context (30 points)

Proposals should demonstrate technical and operational goals. The technical approach will be evaluated on its ability to address:

(a) The goals of:

- (1) Data integration (horizontal and vertical alignment, scale, conflation, generalization, semantics, format conversion, and assessment of data quality);
- (2) Maintenance of data including updates and revisions;
- (3) Convergence of framework concepts and methodologies between U.S. and Canada including: Utilization of the U.S. NSDI framework data themes: geodetic control, cadastral data, hydrography, elevation, government units, transportation, and orthoimagery; and

Canadian CGDI framework and GeoBase themes: geodetic reference system, roads, hypsography (DEM), hydrographic layers, geographical names, orthoimagery, and administrative boundaries;

(4). Implementation and use of standards (i.e. FGDC Metadata standard or ISO metadata standard);

(b) The operational capability to use Web map and Web feature client and server software for linking and viewing distributed thematic geospatial and framework data between U.S. and Canadian organizations. This capability should use Open Geospatial Consortium (OGC) specifications.

**Note:** A portion of the funding could go to collaborators (data providers) so that they can develop the distributed data services at the beginning of the project. This would reflect in the applicant proposal with a balance of their in-kind and GeoConnections/FGDC funding. **Centralized data solutions based on a warehouse solely on one side of the border will not be considered.**

(1) Describe how clearinghouses will be used in the project. Include current functionality of the clearinghouse and its service of compliant metadata. Describe efforts to extend the clearinghouse to include such OGC compliant services as Web mapping services (WMS), Web feature services (WFS), Web coverage services (WCS), geographic markup language (GML), styled layer descriptors (SLD).

**Note:** WMS data services would need to be implemented or have an implementation schedule that is in synchronization with the implementation plan to be ready for an operational delivery.

(2) Describe the extent that OGC compliant Web mapping services are part of this project.

(3) Describe the extent that OGC compliant Web feature services are part of this project.

(4) Describe the extent that other standards and specifications are part of this project.

(c) Projects must be based on standards and specifications and, using these standards, must share data between collaborating organizations, end-users and with the cross border spatial data infrastructure. Describe **data to be made available** using the infrastructure compliant Web services, including who is providing it, where it will reside, and the currency, scale and any access or use constraints.

(1) Using the Table 1 below, list all **CGDI/NSDI compliant Web services to be deployed that will enable access to data in support of the application**. Provide links to metadata where available. (This table does not count against the 6000 word narrative limit, two examples are provided in italics)

**Table 1: CGDI/NSDI Data Services to be Deployed**

<b>Data custodian/service provider</b>	<b>Use in application</b>	<b>Dataset name</b>	<b>Type of infrastructure compliant Web service</b>
<i>State Department</i>	<i>Data visualization</i>	<i>Critical Infrastructures</i>	<i>WMS</i>
<i>Regional Public Safety Authority</i>	<i>Data visualization</i>	<i>Floodplains</i>	<i>WMS</i>

(2) Projects must be based on the use of the CGDI/NSDI. Using the table 2 below, list all existing NSDI/CGDI Web services, framework data, technologies and policies to be leveraged. Describe how they will enable the proposed application. (This table does not count against the 6000 word narrative limit. Two examples are provided in italics)

**Table 2 Use of the NSDI/CGDI Services Example**

Service Provider	Use in atlas	Dataset name	Access URL	Type of NSDI/CGDI-compliant Web service
GeoBase	Data visualization	National Road Network v1.0	<a href="http://wms.geobase.ca/wms-bin/cubeserv.cgi?request=getCapabilities">http://wms.geobase.ca/wms-bin/cubeserv.cgi?request=getCapabilities</a> ....	WMS
Canadian Geographical Names Service	Data access	Canadian Geographic Names	<a href="http://cgns.nrcan.gc.ca/wfs/cubeserv.cgi">http://cgns.nrcan.gc.ca/wfs/cubeserv.cgi</a>	WFS

**(4) Business Context/ Public Access to Information and Outreach(20 points)**

(a) Business Context/ Public Access to Information: The application should describe the approach proposed to ensure that the project will result in distributed data that are widely used and useful—increasing distributed data accessibility. Innovative approaches are encouraged. These include:

- (1) Be available in public and non-proprietary format(s), both the online application and data services. The application could be proprietary as long as the interfaces are interoperable and include common standards and specifications for access and exchange;
- (2) Use business practices that increase distributed data activities;
- (3) Avoidance of restrictive practices that would inhibit the use of the distributed data;

(b) Outreach: The application should describe the means of providing for communication and outreach to stakeholders, such as, Web pages, workshops, and informational meetings.

- (1) Outreach should include the development and hosting of a workshop for end-users to validate usage of the application, and reflect on the challenges in the context of the interdependent nature of many organizations with the challenges of inter-jurisdictional information sharing.
- (2) The proponent will conduct information outreach and work with various organizations to develop, and include, interdependencies in exercises among end-users.
- (3) The proposal should describe ways to improve project visibility.
- (4) The application should describe the degree that the project accommodates the participation of new or other organizations having similar data interests over the project area.

**(5) Project Collaboration/Experience (20 points)**

(a) Collaboration: Each project must involve four or more organizations. Proposals will be evaluated based on the level and diversity of participation. Applications should clearly define the tasks and responsibilities of each collaborative organization (Complete the **Agreement of Participation** Attachment I). Any additional evidence of the activity being endorsed and supported (formal Memoranda of Understanding and/or letters of commitment from participating organizations) should be provided as attachments.

(b) Experience: Proposals will be evaluated to assess the applicant's experience and competence to perform the proposed effort successfully, including the following: the significant qualifications of key personnel used in the project; the time that each person named will commit to the project; and whether the staffing is adequate to complete the effort in the designated time frame. Describe experience, qualifications, and skills held by the staff for performance of the project. (Resumes of key personnel may be provided as attachments).

(6) Documents to attach

If possible appended these to the project narrative. These do not count against the 6000 word narrative limit.

Budget Breakdown – see section V.D. in the Introduction for further details.

Agreement of Participation Form

Letters of Support/Commitment

Tables

Other supporting documents.

**O. Delivery of Application**

See Section V. Application and Submission Information

**P. Contact Information**

For questions concerning the preparation of the application please contact:

(1). U.S. applicants:

**The category lead is** Milo Robinson, FGDC Framework & Cooperating States Coordinator, email: [mrobinson@fgdc.gov](mailto:mrobinson@fgdc.gov).

Also see [Section VIII. Agency Contacts in the Introduction for additional contact information.](#)

(2). Canadian organization applicants:

Denis Poliquin  
Regional Atlas Advisor  
GeoConnections  
6th Floor, 615 Booth Street  
Ottawa, Ontario, K1A 0E9  
[dpoliqui@nrcan.gc.ca](mailto:dpoliqui@nrcan.gc.ca)

## **2008 NSDI CAP Category 5: Building data stewardship for *The National Map* and the NSDI**

### **A. Background**

Through activities of the NGPO, the U.S. Geological Survey (USGS) is working with federal, state, tribal, and local government agencies and the private sector to make available current and accurate structures and transportation geographic data in an integrated format to support the business needs of governments, private companies and the public. Category 5 of the CAP seeks to develop long term-partnerships with organizations to act as data stewards for structures data or for transportation data within their state, region, or locality.

Projects funded under this category are expected to implement or expand sustainable operational capabilities to maintain and update data over an organization's (or consortia) geographic area of interest and to provide access to structures data or to transportation data for integration into *The National Map* and data discovery through the Geospatial One-Stop portal. This cooperative agreement is a one-time cooperative agreement to assist organizations with existing structures or transportation data to integrate their data into the national datasets. Related data, Web services, and plans for data maintenance and backup procedures will be documented in a partnership agreement with the NGPO and made available through the Geospatial One-Stop portal, as appropriate.

### **B. Goal**

The goal of this category is to assist organizations and consortia to work together with the NGPO to develop stewardships that provide long term maintenance for structures and transportation geospatial information that serves federal, state, tribal, regional and local community needs. Participation is sought from those organizations and localities with an existing GIS, services and structures data or transportation data and would consider long term maintenance, updating, and serving geospatial data of interest to *The National Map* and its users. Funds may help participants overcome impediments to participation and improvements to their data and services as part of the NSDI.

Primary needs for structures data are the geospatial location, classification, and other characteristics of manmade facilities, based on homeland security requirements. Primary needs for transportation data are updates for features, attributes, and geometry to the baseline roads data developed through Census MAF/TIGER Accuracy Improvement Project (MTAIP) sources. The data will be part of a national data inventory of consistent, seamless, integrated data that is continuously improved through the incorporation of data updates from the data community.

### **C. Measurable Results**

- Projects funded under this category are expected to implement or expand sustainable operational capabilities to maintain and update data over an organization's (or consortia) geographic area of interest and to provide them to USGS national databases. Related data, Web services, and plans for data maintenance and backup procedures will be documented in a partnership agreement with the NGPO and made available through the Geospatial One-Stop portal, as appropriate.
- The base data provided should be available primarily in the public domain<sup>1</sup> for unlimited viewing, downloads, and unrestricted use and redistribution. If data is restricted, the data will be made available to the USGS where it will be secured. The data should contain a clear breakdown of data or data characteristics that need to be secured, the reasons for the restrictions, and the data or data characteristics that can be provided into the public

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<sup>1</sup> Public domain refers to works that are not protected under U.S. copyright law and are publicly available. Public domain materials may be used by anyone, anywhere in the U.S., anytime without permission, license, or royalty payment.

- domain. Participants are expected to allow their map services and metadata to be featured on the Geospatial One-Stop portal.
- Operational capability to maintain and update data evidenced through periodic updates of data made available through *The National Map*.
  - Written agreement with NGPO to serve as an NSDI steward.
  - The data themes of interest for the 2008 Category 5 CAP awards are structures and transportation data. Data offered must improve (be more current, accurate, etc.) on those already available in *The National Map*.

#### **D. Reporting**

1. Interim and final project reports documenting activities and outcomes are required and will be posted on the FGDC Grants Web site, <http://www.fgdc.gov/grants>. Documentation will describe approaches used for integrating, maintaining, and updating data, encouraging participation, managing operations and plans for keeping data current, and other best practices that can be followed by others for adoption.
  - a. See Section IV.B. in the Introduction for reporting schedule.
  - b. See Attachment G – Category 5: Building data stewardship for The National Map and the NSDI Report Format for content.
2. Financial reports are required, see Section IV. B in the Introduction for more details.

#### **E. Applicant Eligibility**

1. Organizations (state or local government, regional consortia, academia, private sector, non-profit and tribal organizations) or consortia of organizations may apply for this category.
2. A letter of support from a State or regional GIS council or equivalent coordination group is encouraged.
3. The applicant must demonstrate the capability or intent to develop, maintain, update, and make available data in support of the NSDI.

#### **F. Funded Tasks**

1. Activities such as organizing and integrating data and metadata, providing incentives for participation, implementing procedures for data integration and maintenance, and providing access to data for integration into *The National Map* and through a recognized portal such as the Geospatial One-Stop.
2. Reasonable expense for hardware and software may be funded dependent on available funds. Data collection will NOT be funded through this announcement.
3. Project Presentation: In order to spread and promote knowledge of the NSDI, CAP participants are encouraged to formally present on their activities and contribute to written materials prepared by the NGPO. Presentation can be at local, State, regional, national conference or meeting. The applicant is requested, if necessary, to budget sufficient funds to travel to the meeting or conference. An alternative is to publish a paper or article in a professional journal or newsletter. The NGPO requests that this information be shared for NGPO purposes.

#### **G. Funding Amount and In-Kind Match**

1. Federal Assistance  
Up to \$50,000 will be obligated to individual projects under this category.
2. Applicant In-Kind Resource Match  
A minimum 100% match is required. Contribution of matching personnel hours or funding, supplied development hardware and software, or other in-kind resources will be considered. Up to 15 percent of an in-kind match can be in the form of the value of geospatial data holdings to be offered. (USGS understands that the value of data provided is likely to be much higher.) Other Federal grant funds can not be used for matching. Applicant must document the amount and type of in-kind resource that will be contributed to the fulfillment of

the project goals. See Section IV. A. in the Introduction for more details and for in-kind match calculation.

For the maximum award of \$50,000, the required 100% in-kind match is \$50,000.

#### **H. Applicable Standards**

Projects must be in conformance with the standards, specifications, and guidelines below:

1. Open GIS Consortium-(OGC-)compliant Web Mapping Service (WMS) (version 1.1.1 or later), <http://www.opengeospatial.org/standards/wms>.
2. FGDC Content Standard for Digital Geospatial Metadata, Version 2 (CSDGM), FGDC-STD-001-1998 or, when available the North American Profile of ISO 19115 Geospatial Information: Metadata using draft North American Profile of Technical Specification 19139, <http://www.fgdc.gov/metadata/geospatial-metadata-standards>.
3. Geospatial Positioning Accuracy Standard, Part 3, National Standard for Spatial Data Accuracy (FGDC-STD-007.3-1998), [http://www.fgdc.gov/standards/projects/FGDC-standards-projects/accuracy/part3/index\\_html](http://www.fgdc.gov/standards/projects/FGDC-standards-projects/accuracy/part3/index_html)
4. For structures and transportation model and content specifications, see <http://bpgeo.cr.usgs.gov/model/>.

If the applicant anticipates offering additional Web services, consult with USGS Geospatial Liaisons (also know as State Liaisons) to discuss relevant standards to be used. A list of liaisons can be found at <http://nmcatalog.usgs.gov/crreps/faces/crreps.jspx>.

**I. Category Lead technical contact**, Paul Wiese, Geographic Information Integration and Analysis, email: [pmwiese@usgs.gov](mailto:pmwiese@usgs.gov)

#### **J. USGS Project Resources**

The USGS will provide through its Web site <http://www.usgs.gov/ngpo> information on *The National Map*, *Geospatial One-Stop* and *NSDI* as well as contact information for USGS Geospatial Liaison personnel at the State level.

Applicants are encouraged to contact Geospatial Liaisons for questions on activities in their States and about participation in the CAP program.

The USGS will provide technical advice on implementing data exchange for integration into the National Map and for registration to GOS.

Acceptable feature names are available Geographic Names Information System, <http://geonames.usgs.gov>.

#### **K. USGS Involvement Statement**

The USGS will collaborate closely with the awarded projects. The USGS Geospatial Liaisons and the NSDI CAP Category Lead will monitor the milestones and accomplishments on work performed as part of this agreement.

#### **L. Project Narrative**

The project narrative is the primary document that will be evaluated by the review panel. The maximum possible score is 100 points. Please limit narrative to approximately 3000 words (about 5 pages using Times New Roman 12 points) not including letters of support, tables, maps, and diagrams.

Please submit narratives that are clearly and plainly stated. The narrative must also be focused on the planned activities and concise, but described in sufficient detail to provide the reviewers with a full understanding of the project. It is appreciated if proposals followed the format listed below.



(0). Proposal Summary

Please provide information on the following items, as appropriate:

- (a) Applicant's Organization
- (b) Organization Internet address
- (c) Relevant National Digital Geospatial Clearinghouse node address (if any)
- (d) Principal Investigator-name, telephone, email
- (e) Other key contact personnel-name, telephone, email
- (f) Geographic scope
- (g) Previous CAP participation (awarded or submitted but not awarded)

(1) Project Scope: (30 points)

Provide a project plan, to include the scope of project, a description and measured area of the geographic area of interest, and the intended activities that would facilitate and foster stewardship of structures or transportation data within a national database. Describe the data and its characteristics. Discuss the anticipated update or refresh cycle for the data. Identify the extent to which data will be degraded or restricted for any reason. Identify the organizations involved and their roles and commitments to the project. Identify any other applications or services anticipated to be developed through the project. Clearly identify the intended outcomes of the project.

(2) Organizational and Managerial Capacity (25 points)

Describe the management plan for the activity, including the nature of the applicant's organization (e.g. single organization or consortium) and its formally documented relationships with other participants in the project. Describe the applicant's ability and experience in managing key aspects of projects such as the one proposed, including the functions of geospatial data maintenance and integration, access, and management; coordination, executive guidance; financial and other resource management; and monitoring and responding to users (for more information, see the first half of <http://www.fgdc.gov/framework/handbook/organization>). Identify the portion of the organization's budget that is represented by the amount requested. Briefly describe the organization's or consortium's outlook for sustained operation in the next three years, and identify how the outcomes of the project fit the business plans and benefits anticipated by the partners or customers of the applicant.

(3) Related Experience of Project Team (20 Points)

Describe the team's current level of activities and involvement in data maintenance and update activities, and services currently provided, for the data. Identify staff expertise in establishing and modifying GIS Web services. Describe experience with USGS topographic mapping and partnership activities, especially digital data activities that contribute to the NSDI. Indicate if the proposal supports state or regional GIS infrastructure objectives, coordination with state or regional GIS coordination groups or their equivalents, and their implementation plans.

(4) Data Service Function and Capacity (25 points)

Describe your GIS data and mapping capabilities for collaborative data maintenance and update, and Web-based display and other services for the data that will be used in the project. Describe plans for continuity of operations, backup, mirror sites, and/or offsite archive. Provide the name and version of the software being used or developed for this project. Describe capabilities to address feature identity management, feature level metadata, and links or extensions to related data sources. Identify users and collaborators that access your GIS data and mapping. Describe design goals, both short term and long term, of how this project will improve your current baseline. In addition, if hardware and software are to be acquired under this announcement please describe it and justify its function to the project.

(5) Budget Breakdown

Please provide a budget breakdown for the project. Please refer to Section V.D. in the Introduction for further information.

**(6) Letters of Support**

It is encouraged that letters of support are included with the proposal. Please refer to Section V.E. in the Introduction for further information.

**M. Data Theme(s) and Goals for Data Characteristics**

The data themes of interest for the 2008 Category 5 CAP awards are structures and transportation data. Characteristics of data currentness and positional accuracy are provided as goals. Data offered must improve (be more current, accurate, etc.) on those already available in *The National Map*.

The minimum information content is descriptive information such as feature type or classification information and a geographic name. For road data, street name and address range, connectivity and linear reference information is desired. Commonly-used unique feature identifiers also are of interest. Specific information content requirements for geographic names for application to structures data are available in documentation for Geographic Names Information System (<http://geonames.usgs.gov>). Addition information can be found in the Geographic Information Framework Data Content Standard Web page, <http://www.fgdc.gov/standards/projects/incits-I1-standards-projects/framework>.

Two types of geographic areas are of special interest. For urban areas (see section O), the data should have the currentness and positional accuracy qualities typically sought by local governments. For large areas (for example, States or groups of States), the data should meet the positional accuracy standards of USGS primary topographic map series (typically 1:24,000-scale; 1:63,360-scale in Alaska). The following table provides minimum (that is, data should be no worse than these measures) goals for these two classes of data:

<b>Minimum (“no worse than”) Goals for Resolution, Accuracy, and Currentness</b>				
	<b>Urban Areas (see Section O)</b>		<b>Large Areas</b>	
<b>Data Theme</b>	<b>Minimum Resolution or Accuracy<sup>2</sup></b>	<b>Minimum Currentness<sup>3</sup></b>	<b>Minimum Resolution or Accuracy<sup>4</sup></b>	<b>Minimum Currentness<sup>5</sup></b>
Transportation	4.68 meters horizontal accuracy	Two years	13.90 meters horizontal accuracy; 36.69 meters horizontal accuracy for Alaska	Five years
Structures	4.68 meters horizontal accuracy	Two years	13.90 meters horizontal accuracy; 36.69 meters horizontal accuracy for Alaska	Five years

Data should be in the North American Datum of 1983; elevation data in the North American Vertical Datum of 1988.

<sup>2,4</sup> Accuracy statement based on Geospatial Positioning Accuracy Standard, Part 3, National Standard for Spatial Data Accuracy (FGDC-STD-007.3-1998). [http://www.fgdc.gov/standards/status/sub1\\_3.html](http://www.fgdc.gov/standards/status/sub1_3.html). For horizontal accuracies (95% confidence level), 3 meters is commensurate with 1:3,075-scale maps under the National Map Accuracy Standard, 4.68 meters with 1:4,800-scale maps, 13.90 meters with 1:24,000-scale maps, and 36.69 meters with 1:63,360-scale maps. For vertical accuracy (95% confidence level), 0.73 meter is commensurate with a four-foot contour interval under the National Map Accuracy Standard.

<sup>3,5</sup> Estimated currentness of the data at the date of service initiation; that is, the data served reflects the ground condition sometime during the two (or five) years prior to the start of service through *The National Map*. (Note that, for themes in which the ground changes rarely, older data might meet this condition.)

## Other requirements:

- 1) The data provided should primarily be available in the public domain for unlimited viewing, limited downloads (limited by data volume restrictions), and unrestricted use and redistribution. If data is restricted, the data should be available for integration into a secured USGS database, with clear definition of the data distribution and use restrictions and reasons for the restrictions.
- 2) USGS may incorporate data provided into its national databases; in particular, activities that include geographic names for structures must result in data being incorporated into the Geographic Names Information System.

**N. Urban Areas**

“Urban areas” of interest are the geographic area for the urbanized area<sup>6</sup> or urban cluster<sup>7</sup> as delineated by the Bureau of the Census from the 2000 Census for the places listed below. Coverage for an area larger than that delineated by the Bureau of the Census may be proposed by the applicant.

Albany, NY	El Paso, TX	New Haven, CT
Albuquerque, NM	Flint, MI	New Orleans – Metairie, LA
Allentown – Bethlehem, PA	Frankfort, KY	New York – Newark, NY
Amarillo, TX	Fresno, CA	Norfolk – Chesapeake – Newport News – Virginia Beach, VA
Anchorage, AK	Ft. Wayne, IN	Oklahoma City, OK
Atlanta, GA	Grand Rapids, MI	Olympia, WA
Augusta, GA	Greensboro – Winston Salem, NC	Omaha, NE
Augusta, ME	Harrisburg, PA	Orlando, FL
Austin, TX	Hartford, CT	Oxnard, CA
Bakersfield, CA	Helena, MT	Palm Bay – Melbourne, FL
Baltimore – Annapolis, MD	Honolulu, HI	Pensacola, FL
Barre – Montpelier, VT	Houston, TX	Philadelphia, PA
Baton Rouge, LA	Huntsville, AL	Phoenix – Glendale – Mesa, AZ
Birmingham, AL	Indianapolis, IN	Pierre, SD
Bismarck, ND	Jackson, MS	Pittsburgh, PA
Boise, ID	Jacksonville, FL	Portland, OR
Boston, MA	Jefferson City, MO	Poughkeepsie – Newburgh, NY
Bridgeport – Stamford, CT	Juneau, AK	Providence, RI
Buffalo, NY	Kansas City, MO-KS	Raleigh – Durham, NC
Cape Coral, FL	Knoxville, TN	Reno, NV
Carson City, NV	Lancaster, PA	Richmond, VA
Charleston – North Charleston, SC	Lansing, MI	Riverside – San Bernardino, CA
Charleston, WV	Las Vegas, NV	Rochester, NY
Charlotte, NC	Lexington, KY	Sacramento, CA
Chattanooga, TN	Lincoln, NE	Salem, OR
Cheyenne, WY	Little Rock, AR	Salt Lake City – Ogden, UT
Chicago, IL	Los Angeles – Glendale – Long Beach – Huntington Beach – Santa Ana – Anaheim, CA	San Antonio, TX
Cincinnati, OH	Louisville, KY	San Diego, CA
Cleveland – Akron, OH	Lubbock, TX	San Francisco – Oakland – San Jose – Fremont, CA
Colorado Springs, CO	Madison, WI	San Juan, PR
Columbia, SC	McAllen, TX	Santa Fe, NM
Columbus, GA	Memphis, TN	Sarasota – Bradenton, FL
Columbus, OH	Miami – Ft. Lauderdale, FL	Savannah, GA
Concord, NH		

<sup>6</sup> The Bureau of the Census defines an urbanized area as consisting of a central place(s) and adjacent territory with a general population density of at least 1,000 people per square mile of land area that together have a minimum residential population of at least 50,000 people.

<sup>7</sup> The Bureau of the Census defines an urban cluster as a densely settled territory that has at least 2,500 people but fewer than 50,000.

Corpus Christi, TX  
Dallas – FT. Worth – Arlington –  
Garland – Irving, TX  
Dayton, OH  
Denver – Aurora, CO  
Des Moines, IA  
Detroit – Warren, MI  
Dover, DE

Milwaukee, WI  
Minneapolis – St. Paul, MN  
Mission Viejo, CA  
Mobile, AL  
Modesto, CA  
Montgomery, AL  
Nashville, TN

Scranton, PA  
Seattle – Tacoma, WA  
Shreveport, LA  
Spokane, WA  
Springfield, IL  
Springfield, MA  
St. Louis, MO

## **2008 NSDI CAP Category 6: FGDC-Endorsed Standards Implementation Assistance and Outreach (excluding Metadata Standards)**

### **A. Background**

Standards facilitate the development, sharing, and use of geospatial data. The FGDC develops geospatial data standards for implementing the NSDI, in consultation and cooperation with State, local, and tribal governments, the private sector and academic community, and, to the extent feasible, the international community.

Office of Management and Budget (OMB) Circular A-16 Revised, August 19, 2002, (hereafter called OMB Circular A-16) describes the responsibilities of Federal agencies with respect to coordination of Federal surveying, mapping, and related spatial data activities for the purpose of developing a national spatial data information resource, reducing duplication, reducing the expense of data collection, and increasing the sharing of available data. Spatial data are defined in Circular A-16 as geographically referenced features that are described by geographic positions and attributes in an analog and/or computer-readable (digital) form. OMB Circular A-16 creates the FGDC and assigns responsibilities for coordinating geospatial data themes to different Federal Departments, including the establishment and implementation of data standards for quality, content, and transfer.

Executive Order (EO) 12906, signed by President Bill Clinton on April 11, 1994, and amended by President George W. Bush by issuance of Executive Order 13286 on March 5, 2003, designates the FGDC as the lead entity to coordinate the National Spatial Data Infrastructure (NSDI), which is defined as the technology, policies, standards, and human resources necessary to acquire, process, store, distribute, and improve utilization of geospatial data. Section 4 (a) of the EO states:

General FGDC Responsibility. The FGDC shall develop standards for implementing the NSDI, in consultation and cooperation with State, local, and tribal governments, the private and academic sectors, and, to the extent feasible, the international community, consistent with OMB Circular No. A-119 ("Federal Participation in the Development and Use of Voluntary Standards"), and other applicable law and policies.

The EO further designates standards development responsibilities to agencies assigned particular categories in OMB Circular A-16 and allows other standards to be identified and developed within the FGDC through its members. Federal agencies collecting or producing geospatial data, either directly or indirectly (e.g. through grants, partnerships, or contracts with other entities), shall ensure, prior to obligating funds for such activities, that data will be collected in a manner that meets all relevant standards adopted through the FGDC process.

FGDC standards directive #9, Maintenance, <http://www.fgdc.gov/standards/process/standards-directives/directive-09>, describes responsibilities of agencies that maintain standards following FGDC endorsement.

OMB Circular A-119 directs agencies to use voluntary consensus standards in lieu of government-unique standards "except where inconsistent with law or otherwise impractical." It characterizes voluntary consensus standards bodies as having the following attributes:

- Openness
- Balance of interest
- Due process
- An appeals process
- Consensus, which is defined as general agreement, but not necessarily unanimity, and includes a process for attempting to resolve objections by interested parties, as long as all comments have been fairly considered, each objector is advised of the disposition of his or

her objection(s) and the reasons why, and the consensus body members are given an opportunity to change their votes after reviewing the comments.

### **B. Goals**

This category provides funding to organizations to assist in the implementation of FGDC-endorsed standards (excluding metadata standards, see category 1 above). For many FGDC-endorsed standards, there are few, if any, resources that guide organizations in implementing standards. Without resources that document best practices, provide experienced advice, and new techniques, the implementing organization has a steep learning curve.

Applicants shall have working knowledge of standards developed through FGDC and standards developed through voluntary consensus standards bodies such as ISO and the American National Standards Institute (ANSI). Applicants shall visit the FGDC Standards Program of Work Web page at: <http://www.fgdc.gov/standards/projects/FGDC-standards-projects/index.html> to view a list of FGDC-endorsed standards. Applicants shall also consult with *subject matter experts* in the maintenance authority for the selected FGDC-endorsed standard to identify projects that will advance implementation of the standard, thereby advancing development of the NSDI. The FGDC Secretariat will identify appropriate subject matter experts for applicants.

Recipients in this category shall work with the *subject matter experts* within the maintenance authority for the selected FGDC-endorsed standard to verify consistency with the standard, to develop the implementation approach and details, and to answer technical questions. If recipients are developing training materials, they shall also work with FGDC training staff members developing materials under the FGDC training program to coordinate the development of the materials to ensure consistency and reduce duplication of effort.

### **C. Project Results**

Deliverables sought under this activity may include:

- Implementation guides for FGDC-endorsed standards
- Implementation strategies and/or components (e.g., Web sites, databases, operating procedures) that facilitate implementation of FGDC-endorsed standards through dynamic management of items defined in standards.
- Training and/or outreach materials to promote use of FGDC-endorsed standards (hardcopy and Web based)
- Review and evaluation of FGDC-endorsed standards for consistency with voluntary consensus standards, such as those developed through ISO and ANSI
- A case history of the implementation of an FGDC-endorsed standard including topics such as:
  - Implementation plan and approach
  - Challenges
    - Method of identification
    - Method of overcoming
  - Organizational effects
    - Impact on business processes
    - Cost savings
    - Cost of implementation
    - Return on investment
  - Human capital effects
    - New duties
    - Training needs
    - Adaptation to workflow changes

Training modules are required to be supplied in Microsoft PowerPoint to allow serving through the FGDC Web pages and E-learning servers. All modules will be accompanied by SCORM compliant metadata which includes learning goals and objectives.

**D. Applicant Eligibility**

State or local government, academia, private sector, non-profit, and tribal organizations, as well as consortia of organizations, may apply.

Proposals sought under this category are by organizations skilled and resourceful in implementing applicable standards.

**E. Funding Amount and In-Kind Match**

(1) Federal assistance

Up to \$25,000 will be obligated to individual projects under this category.

(2) In-Kind Resource Match

A minimum 50% match is required. Contribution of matching personnel hours or funding, supplied development hardware and software, or other in-kind resources will be considered. The value of data will not be considered as match funding. Other Federal grant funds can not be used for matching. Applicant must document the amount and type of in-kind resource that will be contributed to the fulfillment of the project goals. See Section IV. A. in the Introduction for more details and for in-kind match calculation.

**F. Funded Activities**

(1) Training and outreach (if training is the primary objective of the proposal) to other organizations, including:

- (a) Training sessions (travel, facilities, reproduction costs, equipment, etc)
- (b) Logistics for training standards implementation
- (c) Labor costs to cover training consulting, counseling, recruitment, preparation, and follow-up.
- (d) Development of training materials and/or implementation guides
- (e) Labor costs for the development of training and/or implementation materials.

(2) Project presentations to spread and promote knowledge of the NSDI. CAP recipients are requested to make formal presentations of their activities. Presentation can be at a local, State, regional, national conference or meeting. The applicant is requested, if necessary, to budget sufficient funds to travel to the meeting or conference. A paper or article publication in a professional journal or newsletter is an acceptable alternative.

**G. Partnership and Collaboration Requirement**

**Partnerships with the subject matter experts of the maintenance authority for an FGDC-endorsed standard are required for this category.** Maintenance authorities for FGDC-endorsed standards are listed on page the FGDC standards program of work page, <http://www.fgdc.gov/standards/projects/FGDC-standards-projects/index.html>. Evidence of partnership with a maintenance authority shall be provided by a letter of commitment from the subject matter expert of a maintenance authority.

Partnerships with other organizations to leverage resources are encouraged under this category. Partnerships, both formal and informal among organizations to leverage limited geospatial data resources, are seen as primary building blocks for the NSDI. Proposals that include a mix of partners working interactively together will be scored higher than proposals that are submitted by individual entities. While proposals will be evaluated on their individual merits, the FGDC will give consideration to the variety of standards addressed by the proposals in making the final selections.

Proposals demonstrating support and/or collaboration with State or regional spatial data strategic plans or councils are sought under this announcement.

The FGDC Secretariat will assist the applicant in locating subject matter experts within an FGDC-endorsed standard's maintenance authority.

#### **H. Applicable Standards**

Projects must be in compliance with the selected FGDC-endorsed standard.

If the FGDC-endorsed standard references or is related to other standards endorsed by other standards development organizations, the project must be in compliance with the referenced or related standards.

#### **I. Category Lead technical contact**

Julie Maitra, Standards Coordinator, [jmaitra@fdgc.gov](mailto:jmaitra@fdgc.gov).

#### **J. Project Resources**

The FGDC Standards Web site ([http://www.fgdc.gov/standards/projects/FGDC-standards-projects/index\\_html](http://www.fgdc.gov/standards/projects/FGDC-standards-projects/index_html)) provides links to resources for materials development. The FGDC NSDI Training Program should be used as a guide for materials development to meet FGDC training standards. The FGDC will provide initial tutorial and referral assistance as well as training at the FGDC CAP kick-off workshop or through other means.

The FGDC will assist with matching training requests received by the FGDC with CAP recipients geographically and by type of standard.

FGDC's Training and Education Team's training material development guidance is posted to: <http://www.fgdc.gov/training/nsdi-training-program/workspace/SME>

#### **K. Reporting**

(1) The category technical lead will host quarterly Web conferences to discuss project progress and other issue related to the category 6 projects.

(2) Interim and final project reports are required and will be posted on the FGDC Grants Web site, <http://www.fgdc.gov/grants>.

- (a). See Section IV. B in the Introduction for report submission schedule.
- (b). See Attachment H: FGDC-Endorsed Standards Implementation Assistance Project Report Format (excluding metadata standards) for content.

(3) Financial reports are required; see Section IV.B in the Introduction for further details.

#### **L. Proposal Narrative**

The project narrative is the primary document that will be evaluated and scored by the review panel. A proposal summary for each awarded proposal will be linked from the FGDC Web site. Total point value of 100 points possible. Please limit to no more than 3000 words (about 5 pages using Times New Roman 12 points), not including letters of support, tables, maps, budget, and diagrams:

##### **(0) Proposal Summary:**

Please provide information on the following items, as appropriate:

- (a) Project title
- (b) Applicant organization (name, office/branch, street address, city, State, zip)
- (c) Collaborating organizations (organization, address)
- (d) Name of trainer or trainer's organization, if a training proposal.
- (e) Organization Internet address
- (f) FGDC-endorsed standard selected for the project
- (g) Principal Investigator - name, telephone, fax, email
- (h) Other contact personnel -name, telephone, fax, email



- (i) Geographic scope or area
- (j) Previous CAP participation (awarded or submitted but not awarded).

(1) Project Scope – Project Description (25 points)

Describe project, its steps, and partners/participants. Describe how the project contributes to the NSDI and conforms to appropriate standards. List the FGDC-endorsed standard (excluding metadata standard) selected and all relevant voluntary consensus standards. List organizations or target organizations and communities served in the project.

(2) Technical approach (25 points)

Outline the steps, methodologies and resources to be utilized in implementing the project. This includes facilities type, equipment, and supplies supporting training. Proposal evaluation will be based on the degree to which the applicant comprehends the tasks and procedures necessary to accomplish project objectives. Indicate the approach to the development of the training and/or implementation materials being produced. Indicate the method for utilization of the materials for implementation, training, and outreach.

(3) Project Experience (25 points)

Describe experience, special qualifications and skills possessed necessary for performance of the project. If applicant is a previous NSDI CAP participant, please provide information describing previous effort, accomplishments, and agreement/award number.

(4) Commitment to Effort (25 points)

Describe the extent to which project results will continue or be sustained after the performance period. Applicants who demonstrate the project is participating in or supporting State or regional geospatial infrastructure strategies and plans are sought. Memoranda of Understanding and/or letters of commitment from project partners, including *subject matter experts* from the maintenance authority, shall also be included. State, County, and Local applicants must include a letter of support from the State GIS Coordinator or similar. Notification of application with the USGS Geospatial Liaison (also know as State Liaison) is required. To locate your USGS Geospatial Liaison visit

<http://nmcatalog.usgs.gov/crreps/faces/crreps.jsp>

(5) Documents to attach (if possible appended these to the project narrative):

Required - Budget Breakdown – see section V.D. in the Introduction for further details.

Required - Letter of commitment from the subject matter expert of a maintenance authority

Letters of Support

Memoranda of Understanding

## Terms and Conditions for USGS Cooperative Agreements

### 1. Method of Payment

The U.S. Geological Survey (USGS) is using the Health and Human Services (HHS) Payment Management System (PMS) to provide electronic invoicing and payment for assistance award recipients. The Recipient has established or will establish an account with PMS. With the award of each cooperative agreement, a sub account will be set up from which the Recipient can draw down funds. The sub account number will be shown in block 4 of the face page of each award or modification.

Payments will be made available through the PMS. The PMS is administered by the Department of Health and Human Services (DHHS), Division of Payment Management of the Financial Management Service, Program Support Center. The DHHS will forward instructions for obtaining payments to the recipients. Inquiries regarding payment should be directed to:

Division of Payment Management  
Department of Health and Human Services  
P.O. Box 6021  
Rockville, MD 20852

The Division of Payment Management Web address is [www.dpm.psc.gov](http://www.dpm.psc.gov). Problems or questions with electronic draw down procedures should be directed to Fran Odgers (301) 443-2090 or Tonja Thomas (301) 443-9141.

Payments may be drawn in advance only as needed to meet immediate cash disbursement needs.

### 2. Cooperative Agreement

A cooperative agreement is the legal instrument reflecting a relationship between the Federal Government and a State or local government or other recipient whenever:

- (1) the principal purpose of the relationship is the transfer of money, property, services, or anything of value to the State or local government or other recipient to accomplish a public purpose of support, or stimulation authorized by Federal statute, rather than acquisition, by purchase, lease, or barter, of property or services for the direct benefit or use of the Federal Government; and
- (2) substantial involvement is anticipated between the executive agency, acting for the Federal Government, and State or local government or other recipient during performance of the activity.

### 3. Principal Investigator

Cooperative Agreements are awarded to Institutions, not to the Principal Investigators. The "recipient" is the Institution where the funds will be going to. The Principal Investigator is the individual designated by the Recipient (and approved by the USGS) who is responsible for the technical direction of the research project. The Principal Investigator cannot be changed or become substantially less involved than was indicated in the Recipient's proposal, without the prior written approval of the Administrative Contracting Officer.

### 4. Project Officer/ NSDI CAP Coordinator

The Project Officer is the NSDI CAP Coordinator and will work closely with the recipient to ensure that all technical requirements are being met. The Project Officer does not have the authority to issue any technical direction which constitutes an assignment of additional work

outside the scope of the award; in any manner causes a change in the total cost or the time required for performance of the award; or changes any of the terms, conditions or general provisions of the award. The NSDI CAP Coordinator works with the CAP Category Leads who define the category goals and lead the reviews of the proposals.

**5. Contracting Officer (CO)**

Contracting officers are individuals who have been delegated in writing by the USGS Office of Acquisition and Grants as the sole authority designated to obligate Federal funds and create terms and conditions of awards. They are the only individuals who have authority to negotiate, enter into, and administer awards resulting from this announcement. Contracting officers have responsibility to ensure the effective use of Federal funds.

**6. Rights in Technical Data**

The U.S. Government may publish, reproduce, and use all data obtained from this Cooperative Agreement project in any manner and for any purpose, without limitation, and may authorize others to do the same.

**7. Public Domain**

All data submitted to the U.S. Geological Survey (USGS) under this Cooperative Agreement will become part of the public domain, and will be available in a non-proprietary format, at the cost of reproduction, to any requesting organization or individual.

**8. Dissemination of Results and Reporting Requirements**

The Principal Investigator is strongly encouraged to disseminate research results promptly to the scientific community and appropriate professional organizations; local, State, regional and Federal agencies; and the general public. The U. S. Geological Survey (USGS) encourages the Recipient to publish project reports in scientific and technical journals. The Government may publish, reproduce, and use all technical data developed as a result of this award in any manner and for any purpose, without limitation, and may authorize others to do the same. Interim and final reports generated by the Recipient will be posted on the Federal Geographic Data Committee (FGDC) grants Web site, <http://www.fgdc.gov/grants>.

Data generated as a part of work funded under this program is not subject to proprietary period of exclusive data access. Any data generated must be made available to the USGS as soon as it is available. The USGS reserves a royalty-free, nonexclusive and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use the data for Government purposes. Any project funded in whole or part with funds obtained under this program shall fall under this clause. The USGS Contracting Officer is the sole person to decide which data falls in this category should any question arise.

- A. **Required reports/documents.** The Principal Investigator or Director, Sponsored Research Office is required to submit the following reports or documents:

Report/ Document	No. of Copies and Method of Transmittal	Submit To	When Due
Interim Technical Report	Submitted by email attachment	Project Officer	6 months after project start date
Final Technical Report	Submitted by email attachment	Project Officer	within 90 days after completion of project
SF 272 Federal Cash Transactions Report	Electronic submittal	Contracting Officer	Required quarterly of each PMS sub-account. Quarterly reports are due 45 working days after the end of each fiscal quarter.
Final SF 269 Financial Status Report	Original + 1	Contracting Officer	Submit a final SF 269 no later than 90 calendar days after the cooperative agreement completion date and the Recipient will liquidate all obligations incurred under the award. The Recipient will promptly return any unused Federal advances or will complete a final draw from PMS to obtain any remaining amounts due.

**B. Report preparation instructions.** The Recipient shall prepare the reports/documents in accordance with the following instructions:

- (1) **Interim Technical Project Report.** The Recipient is required to submit an Interim Project Report six months after the start of the project date. Interim report should be submitted as an attachment by email to the NSDI CAP Coordinator (Project Officer). See the CAP Administration Web page for the suggested report content at: <http://www.fgdc.gov/grants/CAPAdministrativeGuidance> ).
- (2) **Annual and/or Final Technical Project Report.** These reports should be submitted as an attachment by email to the NSDI CAP Coordinator. See the CAP Administration Web page for the suggested report content at: <http://www.fgdc.gov/grants/CAPAdministrativeGuidance> ). The final project report is due within 90 days of the end date of the project.
- (3) **SF 272, Federal Cash Transactions Report** is required quarterly for each PMS sub-account (each award) and are submitted electronically. The quarters are based on the performance period of the award. Quarterly reports are due 45 days after the end of each quarter and will be submitted to the contracting officer, unless otherwise instructed. Instructions for submitting SF-272 can be found at the following Web site:  
[http://www.dpm.psc.gov/grant\\_recipient/psc\\_272\\_reports/psc\\_272\\_reports.aspx?explorer.event=true](http://www.dpm.psc.gov/grant_recipient/psc_272_reports/psc_272_reports.aspx?explorer.event=true)  
If after 45 days, the recipient has not submitted a report, the account will be placed in a manual review status. Funds may be withheld for accounts with delinquent reports.

- (4) **Final SF 269, Financial Status Report.** Submit a final SF 269 no later than 90 calendar days after the cooperative agreement completion date and the Recipient will liquidate all obligations incurred under the award. The Recipient will promptly return any unused Federal advances or will complete a final draw from PMS to obtain any remaining amounts due. This report is subject to audit. Once 120 days has passed since the cooperative agreement completion date, the PMS sub-account for the award may be closed by USGS at any time.

Forms may be found at: [http://www.whitehouse.gov/omb/grants/grants\\_forms.html](http://www.whitehouse.gov/omb/grants/grants_forms.html).

- C. **Adherence to reporting requirements.** A Recipient's failure to submit the required reports/documents, in a timely manner, may result in the withholding of payment, in termination of the award, or in delay or non-issuance of a new award.

9. **Adherence to Original Project Objective and Budget Estimate**

- A. Any commitments or expenditures incurred by the Recipient in excess of the funds provided by this award shall be the responsibility of the Recipient. Expenditures incurred prior to the effective date of this award cannot be charged against award funds unless provided for in this award.
- B. **The following requests for change require advance written approval by the Contracting Officer shown on your award. Your request must be submitted directly to the Contracting Officer at least 30 calendar days prior to the requested effective date of the change:**
- (1) Changes in the scope, objective, or key personnel referenced in the Recipient's proposal.
  - (2) Request for supplemental funds.
  - (3) Transfer of funds between direct cost categories when the cumulative amount of transfers during the project period exceeds 10 percent of the total award.
  - (4) Foreign travel not approved at time of award.
  - (5) Acquisition of nonexpendable personal property (equipment) not approved at time of award.
  - (6) **No-cost Extensions to the Project Period.** **No-cost extensions are discouraged.** Applicants should consider their time commitments at the time of application for a cooperative agreement. Requests for no-cost extensions will be considered on a case-by-case basis. The USGS reserves the right to limit the length of time and number of no-cost extensions. Applicants must supply documentation supporting their request for an extension. The Recipient shall include in the request the cause of the needed extension, a description of the remaining work to be completed, the proposed date of completion, the amount of funds remaining, and a revised budget for the remaining funds. If all funds have been disbursed to the Recipient, this must be indicated in the request. A request for an extension that is received by the Administrative Contracting Officer after the expiration date shall not be honored. Only one no-cost extension may be granted.
  - (7) Creation of any direct cost line item not approved at time of award.

(8) Any other significant change to the award.

C. The Contracting Officer will notify the Recipient in writing within 30 calendar days after receipt of the request for revision or adjustment whether the request has been approved.

**10. Nonexpendable Personal Property**

Title to nonexpendable personal property acquired wholly or in part with Federal funds shall be vested in the Recipient unless otherwise specified in the award document. The Recipient shall retain control and maintain a property inventory of such property as long as there is a need for such property to accomplish the purpose of the project, whether or not the project continues to be supported by Federal funds. When there is no longer a need for such property to accomplish the purpose of the project, the Recipient shall use the property in connection with other Federal awards the Recipient has received. Under no circumstances shall title to

such property be vested in a sub-tier recipient. Disposal of nonexpendable personal property shall be in accordance with the applicable OMB circular.

**11. Record Retention Period**

Unless a longer period is requested by the award, a Recipient shall retain all records for 3 years after the end of the project period for which it uses USGS award funds.

**12. Pre-agreement Costs**

Pre-agreement costs are not authorized under this program. Costs must be obligated during the project period.

**13. Metric Conversion Requirements**

All progress and final reports, other reports, or publications produced under this award shall employ the metric system of measurements to the maximum extent practicable. Both metric and inch-pound units dual units may be used if necessary during any transition period(s).

However, the recipient may use non-metric measurements to the extent the recipient has supporting documentation that the use of metric measurements is impracticable or is likely to cause significant inefficiencies or loss of markets to the recipient, such as when foreign competitors are producing competing products in non-metric units.

**14. Violation of Award Terms**

If a Recipient materially fails to comply with the terms of the award, the Contracting Officer may suspend, terminate, or take such other remedies as may be legally available and appropriate in the circumstances.

**15. Award Closeout**

Awards will be closed out once all requirements have been met. Technical and financial reports must be submitted on time as specified in Item 2 of these Special Terms and Conditions. Failure to adhere to the reporting requirements may result in the non-payment of your final award invoice or in other adverse action.

**16. Partnership with Recipients/Cooperators**

The U.S. Geological Survey, through its Federal cooperative agreement awards, will collaborate with universities, Federal State, local and tribal governments, and private organizations and businesses to provide relevant, timely, objective knowledge and information on natural resources, hazards and the environment.

**17. Buy American Act Requirements**

**Notice:** Pursuant to Section 307(b) of the Department of the Interior (DOI) and Related Agencies Appropriations Act, FY 2000, Public Law 106-113, please be advised on the following:

In the case of any equipment or product that may be authorized to be purchased with financial assistance provided using funds made available in FY 2000 and thereafter, it is the sense of the Congress that entities receiving the assistance should, in expending the assistance, purchase only American-made equipment and products.

**18. Anti-Lobbying Requirements**

The Recipient shall not use any part of the Department of Interior provided hereunder for any activity or the publication or distribution of literature that in any way tends to promote public or opposition to any legislative proposal on which Congressional action is not complete.

**19. Seat Belt Provision**

Recipient of cooperative agreements and/or sub-awards are encouraged to adopt and enforce on-the-job seat belt use policies and programs for their employees when operating company-owned, rented, or personally owned vehicles. These measures include, but are not limited to, conducting education, awareness, and other appropriated programs for their employees about the importance of wearing seat belts and the consequences of not wearing them.

**20. Endorsement Provision**

Recipient shall not publicize or otherwise circulate, promotional material (such as advertisements, sales brochures, press releases, speeches, still and motion pictures, articles, manuscripts or other publications) that states or implies governmental, Departmental, bureau, or government employee endorsement of product, services, or position for which the recipient represents. No release of information relating to this award may state or imply that the Government approves of the recipient's work products, or considers the recipient's work product to be superior to other products or services.

--End of Terms and Conditions--

## General Provisions for USGS Cooperative Agreements

The Recipient shall be subject to the following OMB circulars/regulations, as amended, which are incorporated herein by reference:

### 1. Educational Institutions

- A. OMB Circular A-21, Cost Principles for Educational Institutions.
- B. OMB Circular A-110, Uniform Administrative Requirements for Grants and other Agreements with Institutions of Higher Education, Hospitals and Other Non-Profit Organizations (Being replaced by 2 CFR Part 215.)
- C. OMB Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations.

### 2. State and Local Governments

- A. OMB Circular A-87, Cost Principles for State, Local and Indian Tribal Governments.
- B. OMB Circular A-102, Grants and Cooperative Agreements With State and Local Governments.
- C. OMB Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations.

### 3. Nonprofit Organizations

- A. OMB Circular A-110, Uniform Administrative Requirements for Grants and other Agreements with Institutions of Higher Education, Hospitals and Other Non-Profit Organizations.
- B. OMB Circular A-122, Cost Principles for Nonprofit Organizations.
- C. OMB Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations.

### 4. Profit-Making Organizations

- A. General administrative requirements will be in accordance with the OMB Circular A-10 and the Cost Principles in Federal Acquisition Regulation (FAR) Part 31.
- B. Principles for determining the allowability of cost will be in accordance with the FAR, subchapter E, part 31.2.

### 5. Patents--Small Businesses and Nonprofit Organizations

Subject to the provisions set forth in 37 CFR 401 and 35 U.S.C. 203, a Recipient may retain the entire right, title, and interest throughout the world to each subject invention. With respect to any subject invention in which the Recipient retains title, the Federal Government will have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

### 6. Code of Federal Regulations (CFR)

- a. 43 CFR Part 12, Subpart A: Admin, Audit and Cost Principles
- b. 43 CFR Part 12, Subpart D: Government Debarment and Suspension



(nonprocurement) and Government wide requirements for Drug Free Workplace

- c. 43 CFR Part 12, Subpart E: Buy American Requirements for Assistance Programs
- d. 43 CFR Part 12, Subpart F: Admin – Higher Education Hospitals, and Other Non Profit Organizations
- e. 43 CFR Part 17, Subpart A: Nondiscrimination of the Basis of Race, Color, or National Origin
- f. 43 CFR Part 17, Subpart B: Nondiscrimination of the Basis of Handicap
  - . 43 CFR Part 17, Subpart C: Nondiscrimination of the Basis of Age
  - . 43 CFR Part 18, Lobbying
  - . 2 CFR Part 215, (new location for OMB Circular A-110 Uniform Administrative Requirements for Grants and other Agreements with Institutions of Higher Education, Hospitals, and other Non-Profit Organizations.)

--End of General Provisions--

**NSDI Cooperative Agreements Program**  
**Category 1: Metadata Trainer and Outreach Assistance**  
**Interim and Final Project Report Format**

In writing the report, keep in mind the objective of this category for assistance in the implementation of FGDC-endorsed standards through the development of implementation guides, training materials, and outreach. Keep the report short and to the point. All reports will be posted to the FGDC grants Web site.

**Date**

Indicate **Agreement Number**

Indicate **Project title:**

Indicate whether **Interim** or **Final report**

**Organization:** Name, address, Web address

**Project Leader:** Name, telephone, email

**Executive Summary**

Write a short paragraph (under 200 words) describing the key successes or outcomes of the project. Interim Report shall highlight anticipated outcomes and actual milestones, whereas the Final report summary should describe the project as completed.

**Project Narrative**

Summarize the project activities. Include its accomplishments, successes, challenges, and collaboration activities, as appropriate. How were challenges identified and what steps were taken to overcome these challenges?

**Training and outreach assistance:**

- Indicate the number, duration, and venue of workshops conducted, as appropriate.
- List organizations and organizational type (Federal, State, local, Tribal, academic, NGO, etc) for workshop participants. Names and email addresses for participants are optional, but desirable.
- List number of individuals receiving metadata training, and outreach assistance.
- Identify the level of proficiency or competency of the trainees or training: creators, administrators, managers/program implementers or introduction, advanced concepts, program implementation/business case.
- Describe the means of instruction: lecture only, lecture and exercises, or lecture and computer assisted.
- List new organizations engaged in this project.

**Status of Metadata Service**

- Indicate how and where metadata is served: NSDI registered clearinghouse node, Geospatial One-Stop registered and harvested.
- Approximately how many metadata files have resulted from this project, if any?

**Next Steps:**

- Will this project's activities continue after this?
- What formal or informal organizational relationships established to sustain activities beyond performance period?
- Describe the next phase in your project.
- Are there issues in metadata management and service? Do you need FGDC assistance?
- Requirements (more technical assistance, software, other?)
- What other areas need work?

## Attachment C – Category 1

- What do you anticipate future metadata training, outreach, creation and posting (to clearinghouse or other locations) after the project performance period ends?

### **Feedback on Cooperative Agreements Program**

- What are the program strengths and weaknesses?
- Where does the program make a difference?
- Was the assistance you received sufficient or effective?
- What would you recommend doing differently?
- Are there factors that are missing or need to consider that were missed?
- Are there program management concerns that need to be addressed? Time frame?
- If you were to do this again, what would you do differently?

**NSDI Cooperative Agreements Program**  
**Category 2: Best Practices in Geospatial Service Oriented Architecture (SOA)**  
**Interim and Final Project Report Format**

Brief documentation of the data and server configuration approach taken is required in a form, with graphics, that can be followed by others for adoption. The Interim report should be brief and follow the outline below. The Final Report shall include the documentation of Best Practices in SOA and the processes applied in the design, deployment, and evaluation of the established services.

**Date**

Indicate **Agreement Number**

Indicate **Project title:**

Indicate whether **Interim** or **Final report**

**Organization:** Name, address, Web address

**Project Leader:** Name, telephone, email

**Collaborating Organizations:** Name, point of contact, address, Web address

In writing the report keep in mind the goals of your project under this category: to establish, register, and maintain an operational Web Service for data access by clients external to the organization.

**Executive Summary**

Write a short paragraph (under 200 words) describing the key successes or outcomes of the project. Interim Report shall highlight anticipated outcomes and actual milestones, whereas the Final report summary should describe the project as completed.

**Project Narrative**

Summarize the project activities. Include its accomplishments, successes strengths and weaknesses, further challenges, and collaboration activities, as appropriate. The following headings are provided to structure the content of the Interim and Final Report Sections. The Final report should include both Interim and Final sections.

**SOA Definitions and Approach (Interim Report)**

Describe the process used and the outcomes of the development of common definitions and criteria for the selection of the appropriate SOA modeling environment for the project, in concert with the other awards in this category.

Include (within report or as separate document) the agreed definitions and selected modeling environment.

**Requirements and Process Definition (Interim Report)**

Describe the requirements gathering and engagement of providers and users in support of the business process(es) being addressed.

Describe the constituent user base and the business process design.

Identify issues and encountered in the process modeling and documentation.

Summarize the data requirements to satisfy this business process.

**SOA Deployment and Acceptance (Final Report)**

Describe what process or tools were used to convert the design phase into running service interfaces, and what issues arose or what choices were made.

Describe the operating environment and all quality-of-service requirements.

**Best Practices (Final Report)**

Summarize applied standards and specifications.

Document all monitoring or testing performed on the service to measure the quality and availability of the service.  
Identify any optimization applied to improve quality of service.  
Identify changes in approach taken in the deployment and acceptance phase that differed from the original design.  
Identify any service patterns that might be applicable to other services.  
Describe the selection and performance of service binding patterns (GET, POST, SOAP, other) used in the solution.  
Describe how common vocabularies, ontologies, and data structures were supported by this project.  
Identify measures that could be/were taken to improve the scalability and extensibility of this service.  
Document the results of applications using this service, including any current project experience with service chaining, composition, or orchestration.  
Identify any emergent technical requirements that should be considered in future deployments based on the experience of this project.  
Describe the ease and issues of re-deployment of this service to other host sites (government, commercial, ISP).  
Identify preferred measures to assure service availability and reliability (redundancy, failover approach, hosting requirements, synchronization approach, service recovery time).  
Identify any prospective service level agreements emerging from the deployment of this SOA.

**Project management (Final Report)**

Will this project's activities continue in the future?  
What are the recommendations for a follow-on phase, if any?  
Requirements (more technical assistance, software, other?)

**Feedback on Cooperative Agreements Program**

What are the program strengths and weaknesses?  
Where does the program make a difference?  
Was the assistance you received sufficient or effective?  
What would you recommend doing differently?  
Are there factors that are missing or need to consider that were missed?  
Are there program management concerns that need to be addressed? Time frame?  
If you were to do this again, what would you do differently?

**NSDI Cooperative Agreements Program**  
**Category 3: Fifty States Initiative**  
**Interim and Final Project Report Format**

**1. Interim Project Report Format**

Date:

Indicate Agreement Number:

Indicate Project Title:

Organization: Name, address, Web address

Principal Investigator: Name, telephone, email

**Project Narrative**

In writing the report keep in mind the goals of your project which can be realized through the development and implementation of statewide strategic and business plans.

Please include

- Summary of project activities
- Key accomplishments to date
- How inclusive is your effort? What have you done to bring new stakeholder groups or organizations into statewide coordination?
- What practices or activities led to success? What practices or activities have not?

**Next Steps**

- Describe the next steps in your project
- Where do you need assistance?
- What type of assistance do you need?

**Revised Timeline**

- Is your project proceeding on its original timeline?
- Do you expect to complete your project on the scheduled completion date?
- If not, request a time extension by providing a justification for previous and expected delays, and then identify a new completion date.

**Attachments**

- As required
- Draft strategic and/or business Plans

## **2. Final Project Report Format**

Date:

Indicate Agreement Number:

Indicate Project Title:

Organization: Name, address, Web address

Principal Investigator: Name, telephone, email

### **Executive Summary**

Write a short paragraph (under 200 words) describing the key successes or outcomes of the project.

### **Project Narrative**

In writing the report keep in mind the goals of your project which can be realized through the development and implementation of statewide strategic and business plans.

Please include

- Summary of project activities
- Key accomplishments to date
- How inclusive is your effort? What have you done to bring new stakeholder groups or organizations into statewide coordination?
- Explain how statewide coordination has (or will) change as a result of this project.
- What practices or activities led to success? What practices or activities have not?

### **Next Steps**

- Describe the next steps in your project
- How will this project continue into the future and remain viable?
- Where do you need assistance?
- What type of assistance do you need?

### **Attachments**

- As required
- Completed materials
- Completed strategic and/or business plans

### **Provide Feedback on the Cooperative Agreements Program**

- What are the CAP Program strengths and weaknesses?
- Where did this cooperative agreement “make a difference” to your state?
- Was the assistance you received sufficient or effective?
- What would you recommend that the FGDC do differently?
- Are there factors that are missing or additional needs that should be considered?
- Are there program management concerns that need to be addressed, such as the time frame?
- If you were to do this again, what would you do differently?

**NSDI Cooperative Agreements Program**  
**Joint Canadian and United States Spatial Data Infrastructure Project**  
**Interim and Final Project Report Format**

**Date**

Indicate **Agreement Number**

Indicate whether **Interim** or **Final report**

List:

**US Lead Organization:** Name, address, Web address

**US Project Leader:** Name, telephone, email

**Canadian Lead Organization:** Name, address, Web address

**Canadian Project Leader:** Name, telephone, email

**Collaborating Organizations:** Name, point of contact, address, Web address

**Executive Summary** (To be completed for the final report only)

Write a short paragraph (under 200 words) describing the key successes or outcomes of the project.

**Project Narrative**

(a) Project summary;

(b) Project outcome;

(c) Recommendations for distributed thematic and framework development;

(d) Assessment of project success;

(e) Plans for follow-on activities including outreach;

(f) Discussion about user-demand requirements for geospatial data in a national level spatial data infrastructure; and,

(g) Discussion about commonalities, issues, difficulties, and challenges (both technical and policy) that were encountered.

(h) Other mandatory deliverables related to technical and financial reporting will be requested upon agreement development with the winning applicants.

**Feedback on Cooperative Agreements Program**

What are the program strengths and weaknesses?

Where does the program make a difference?

Was the assistance you received sufficient or effective?

What would you recommend doing differently?

Are there factors that are missing or need to consider that were missed?

Are there program management concerns that need to be addressed? Time frame?

If you were to do this again, what would you do differently?



**NSDI Cooperative Agreements Program**  
**Category 5: Building Structures Data Stewardship for The National Map and the NSDI**  
**Interim and Final Project Report Format**

The goal of this category is to assist organizations and consortia to work with the USGS to make base geospatial information widely available to meet government, business and citizen needs. Please use this format to develop a brief and succinct interim or final project report, as appropriate. Keep the report short and to the point. All reports will be posted to the FGDC grants Web site.

**Date**

Indicate **Agreement Number**

Indicate **Project title:**

Indicate whether **Interim** or **Final report**

**Organization:** Name, address, Web address

**Project Leader:** Name, telephone, email

**Collaborating Organizations:** Name, point of contact, address, Web address

USGS Geospatial (State) Liaison: Name, telephone, email

**Data themes:** (list)

**Executive Summary** (To be completed for the final report only)

Write a short paragraph (under 200 words) describing the key successes or outcomes of the project.

**Project Narrative** (Interim and Final Report requirement)

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)?

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.

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

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

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.

**Feedback on Cooperative Agreements Program** (To be completed for the final report)

What are the program strengths and weaknesses?

Where does the program make a difference?

Was the assistance you received sufficient or effective?

What would you recommend doing differently?

Are there factors that are missing or need to consider that were missed?

Are there program management concerns that need to be addressed? Time frame?

If you were to do this again, what would you do differently?

**NSDI Cooperative Agreements Program**  
**Category 6: FGDC-Endorsed Standards Implementation Assistance**  
**and Outreach Project**  
**(excluding Metadata Standards)**  
**Interim and Final Report Format**

In writing the report, keep in mind the objective of this category for assistance in the implementation of FGDC-endorsed standards (excluding metadata standards) through the development of implementation guides, training materials, and outreach. Keep the report short and to the point. All reports will be posted to the FGDC grants Web site.

**Date**

Indicate **Agreement Number**

Indicate **Project title:**

Indicate whether **Interim** or **Final report**

**Organization:** Name, address, Web address

**Principal Investigator:** Name, telephone, email

**Executive Summary**

Write a short paragraph (under 200 words) describing the key successes or outcomes of the project.

**Project Narrative**

Summarize the project activities. Include its accomplishments, successes, challenges, and collaboration activities, as appropriate. How were challenges identified and what steps were taken to overcome these challenges?

Complete the following, as appropriate to your project:

**For FGDC-endorsed standards implementation:**

- Describe the development approach for structuring and organizing implementation resources.
- List the reviewers for the development of resources. Were subject matter experts from the maintenance authority involved in review? If testing is involved, list the audiences used for testing.
- List major deviations from the original proposal and explain rationale.
- For the final report, identify the delivery point for the guide to the public.
- For the final report, identify completed activities and activities planned after the performance and inform the community of the guidance resources.

**Feedback on Cooperative Agreements Program**

- What are the program strengths and weaknesses?
- Where does the program make a difference?
- Was the assistance you received sufficient or effective?
- What would you recommend doing differently?
- Are there factors that are missing or need to consider that were missed?
- Are there program management concerns that need to be addressed? Time frame?
- If you were to do this again, what would you do differently?

**NSDI Cooperative Agreements Program**  
**Joint Canadian and United States Spatial Data Infrastructure Project**

**AGREEMENT OF PARTICIPATION**

**IMPORTANT NOTICE:** The project's proposal MUST include this annex completed and signed by EACH proposed project participant in order to be considered responsive. Project participants include all those participants that propose to contribute cash or in-kind to the estimated proposed project cost.

Name and full address of Project Participant:

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Agrees to participate in undertaking the Joint Canadian and United States Spatial Data Infrastructure Project described in the proposal submitted by:

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which proposal is entitled:

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and dated \_\_\_\_\_ if it is successful in being selected for funding.

x \_\_\_\_\_  
(Preferably a senior level Signature)

Name: \_\_\_\_\_

Job Title: \_\_\_\_\_

Address: \_\_\_\_\_

EmailAddress: \_\_\_\_\_

Telephone/FaxNumber: \_\_\_\_\_