



National Spatial Data Infrastructure

# National Spatial Data Infrastructure 1996 Competitive Cooperative Agreements Program

*The National Spatial Data Infrastructure (NSDI) Competitive Cooperative Agreements Program was established by the Federal Geographic Data Committee (FGDC) to help form partnerships with the non-Federal sector that will assist in the evolution of the NSDI. This program provides funding for cooperative agreements to State and local government agencies, institutions of higher education, and private organizations. The goal is to encourage resource-sharing projects through the use of technology, networking, and more efficient interagency coordination.*

*For further information, contact the FGDC Secretariat, c/o U.S. Geological Survey, 590 National Center, Reston, Virginia 20192; telephone 703-648-5514; facsimile 703-648-5755; or Internet gdc@usgs.gov.*

## The 1996 Program

In July 1996, the FGDC completed issuing awards for the third year of the program. The thirty-one cooperative agreements totaled \$1,085,000. These awards support the development and implementation of the National Geospatial Data Clearinghouse (NGDC) for finding and accessing geospatial data, the development and promulgation of FGDC-endorsed standards in data collection, documentation, transfer, search and query, the development and creation of a National Geospatial Data Framework, and the development and implementation of educational outreach programs to increase awareness and understanding of the NSDI. A brief program summary follows which includes the list of participating agencies and contact information for the project director.

### Clearinghouse Biological Resource Emphasis

## Virgin Islands Biological Information Node

This project will establish a searchable National Geospatial Data Clearinghouse node for accessing FGDC-compliant metadata of biological geospatial information for marine, coastal, and terrestrial resources of the U.S. Virgin Islands.

**Collaborating Organizations:** Island Resources Foundation, Virgin Islands Conservation Data Center and Eastern Caribbean Center at the University of the Virgin Islands, The Nature Conservancy, V.I. National Park and Biosphere Reserve, Dept of Planning and Natural Resources, Department of Housing, Parks, and Recreation, Division of Libraries, Archives and Museums, Department of Public Works, Water and Power Authority

**Principal Contact:** Bruce Potter, Island Resources Foundation, 6296 Estate Nazareth, #11, St. Thomas, Virgin Islands 00802-1104; telephone: 202-265-9712; facsimile 202-232-0748; Internet bpotter@irf.org



### Establishment of a National Geospatial Data Clearinghouse Node for Biological Resource Geospatial Data

This project will result in the establishment of a fully functioning National Geospatial Data Clearinghouse node at Kansas University for biological resource geospatial data; development of FGDC-compliant metadata for the Brunca Region (Costa Rica) GIS database; and, provide assistance and clearinghouse services to the Inter-American Geospatial Data Network and Organization for Tropical Studies consortium of more than 50 universities and research institutions throughout North and Central America.

**Collaborating Organizations:** University of Kansas Center for Research, Inc., Kansas Biological Survey and Department of Systematics and Ecology, U.S. Geological Survey, Organization for Tropical Studies

**Principal Contact:** Paul M. Rich, Kansas Biological Survey and Department of Systematics and Ecology, University of Kansas Center for Research, Inc., Nichols Hall, 2291 Irving Hill Road, Lawrence, Kansas 66045; telephone 913-864-7769; facsimile 913-864-7789; Internet prich@oz.kbs.ukans.edu



### Establishing a NSDI Clearinghouse Node for Coastal Resource GIS Data

Research Planning, Inc. (RPI) will collaborate with the South Carolina Department of Natural Resources to implement an NSDI clearing-

house node (WAIS server) to disseminate FGDC-compliant metadata on sensitivity classified shorelines, biological resources, and human-use resources data from Environmental Sensitivity Index (ESI) digital atlases that are used in oil spill emergencies.

**Collaborating Organizations:** Research Planning, Inc., SC Department of Natural Resources, Marine Resources Commission

**Principal Contact:** Joanne Halls, Research Planning, Inc., 1200 Park Street, Columbia, South Carolina 29201; telephone 803-762-5068; facsimile 803-254-6445; Internet joanne@rpi.columbia.sc.us

### Clearinghouse Regional/Local Emphasis



### Developing Nodes for National Geospatial Data Clearinghouse in New Mexico

This project will establish three NSDI compliant nodes to network geospatial databases in New Mexico and to make these data available on-line. This effort will serve as a testbed for continuation of networking other sites in the state, with the long-term goal to establish a series of NSDI-compliant nodes to network all geospatial databases in New Mexico and to make these data available on-line.

**Collaborating Organizations:** Earth Data Analysis Center/University of New Mexico City of Santa Fe, McKinley County

**Principal Contact:** Amelia M. Budge, Earth Data Analysis Center, University of New Mexico, 2500 Yale SE, Suite 100, Albuquerque, New Mexico 87131-6031; telephone 505-277-3622; facsimile 505-277-3614; Internet abudge@spock.unm.edu



### San Francisco Bay Geospatial Data Clearinghouse

This project will augment a geographic information system currently under development for the San Francisco Bay region

to bring it into conformance with NSDI clearinghouse standards and protocols, and to make the information publicly accessible via the Internet. Also, this project will suggest improved means for using coastal information at other locations and provide a testbed for new technologies that will create integrated data sets in addition to individual data products.

**Collaborating Organizations:** San Francisco Bay Conservation and Development Commission, Univ of CA-Berkeley, NOAA National Ocean Service

**Principal Contact:** Jeffrey Blanchfield, San Francisco Bay Conservation and Development Commission, 30 Van Ness Avenue, Suite 2011, San Francisco, California 94102; telephone 415-557-8773; facsimile 415-557-3767; Internet jeff@bcdc.ca.gov



### Southwest Washington Geospatial Data Standards and Data Sharing Project

The Cowlitz-Wahkiakum Council of Government and its members and collaborating organizations will create a regional Geographic Information System which will be compatible with existing GIS within the region by adopting and using FGDC endorsed standards. A National Geospatial Data Clearinghouse node will be established, geospatial data will be catalogued using the Metadata Standard, and workshops will be held to facilitate use of the system.

**Collaborating Organizations:** Cowlitz-Wahkiakum Council of Governments, Cowlitz County GIS Department, City of Longview Information Services, City of Kelso Public Works Department

**Principal Contact:** Cecil Chen, Cowlitz-Wahkiakum Council of Governments, Administration Annex, 207 4th Avenue North, Keslo, Washington 98626; telephone 360-577-3041; facsimile 360-25-7760



### Creating the Mount Desert Island, Maine Regional NSDI Clearinghouse Node on the Internet

The focus of the project is to create a searchable Metadata database and establish a National Geospatial Data Clearinghouse node complying with FGDC-endorsed standards and protocols. This node will disseminate geographic information developed by the collaborating organizations over the past nine years for the Mount Desert Island, Maine region. Approximately 150 ecological and cultural data themes will be available in Arc/Info

“EXPORT” format with links to metadata prepared in accordance with the Content Standards for Digital Geospatial Metadata.

**Collaborating Organizations:** College of the Atlantic, National Park Service, Penobscot Nation, Maine Department of Environmental Protection, Maine State Planning Office, Hancock County Planning Commission, Town of Bar Harbor, Town of Tremont, Town of Mount Desert, Town of Southwest Harbor, Maine Coast Heritage Trust, Island Institute, ESRI, Acadianet, Inc.

**Principal Contact:** Gordon Longworth, College of the Atlantic, Geographic Information Systems Laboratory, 105 Eden Street, Bar Harbor, Maine 046409; telephone 207-288-2271; facsimile 207-288-4126; Internet gordonl@ecology.coa.edu



### Montana National Geospatial Data Clearinghouse Initiative

This project builds on the success of establishing the initial National Geospatial Data Clearinghouse node in Montana. Four more GIS data producing organizations will implement NGDC nodes based on the experiences of the Natural Resources Information System (NRIS). NRIS will provide technical assistance in the installation, use, and maintenance for the software required for setting up, configuring, and populating a clearinghouse node with FGDC-compliant metadata. Node components will include a Z39.50 compliant server, World Wide Web server, scripts, and metadata tools. Documentation of data holdings by the collaborating organizations will be compliant with the Content Standards for Digital Geospatial Metadata.

**Collaborating Organizations:** Natural Resource Information System, Montana State Library, University of Montana School of Forestry, Montana Department of Environmental Quality, Desktop Assistance, Inc., Helena National Forest

**Principal Contact:** Fred Gifford, Natural Resource Information System, 1515 East Sixth Avenue, Missoula, Montana 59620-1800; telephone 406-444-5357; facsimile 406-444-0581; Internet fgifford@nrms.msl.mt.gov



### Vermont Metadata Clearinghouse Project

This project will enhance Vermont's established non-Internet based system for distributing metadata and spatial data by implementing an Internet-based spatial data clearinghouse node. Also developed, will be a utility for exploring the metadata off-line with a PC for those who cannot make use of the Internet, and instruction will be provided to Vermont GIS users on the utility of the Internet site and the metadata exploration tool.

**Collaborating Organizations:** Vermont Center for Geographic Information, Inc. University of Vermont/School of Natural Resources, Vermont's 12 Regional Planning Commissions

**Principal Contact:** Bruce Westcott, Vermont Center for Geographic Information, Inc., 206 Morrill Hall, Burlington, Vermont 05405-0106; telephone 802-656-4277; facsimile 802-656-0776; Internet brucew@vcgi.uvm.edu



### Establishing a National Spatial Data Clearinghouse Node in Georgia

This project will create a National Geospatial Data Clearinghouse node within the state of Georgia. The clearinghouse will include creating and maintaining a directory of existing Georgia geospatial data sources; a central, shared GIS data repository that links the servers at Georgia Institute of Technology and the University of Georgia; an interface support system that can provide metadata search, field search and spatial search; and provide for data dissemination via Internet and/or CD-ROM.

**Collaborating Organizations:** Georgia Institute of Technology, Dept of Community Affairs, Department of Transportation

**Principal Contact:** Dr. William J. Drummond, Georgia Institute of Technology, City Planning Program, College of Architecture, Atlanta, Georgia 30332-0155; telephone 404-894-9840; facsimile 404-894-1628; Internet bill.drummond@arch.gatech.edu



### Kansas NSDI Clearinghouse Node

The Kansas GIS Policy Board and the Kansas Geological Survey - Data Access and Support Center (DASC) will jointly develop and maintain a NSDI Clearinghouse Node on the Internet. This node will contain FGDC compliant metadata, ftp access to databases, textual and graphical spatial searches, and also develop and maintain a metadata forms interface to facilitate input of FGDC compliant metadata to the DASC.

**Collaborating Organizations:** University of Kansas/Kansas Geological Survey, State of Kansas GIS Policy Board member agencies

**Principal Contact:** Thomas D. Mettille, University of Kansas, Kansas Geological Survey, 1930 Constant Avenue Campus West, Lawrence, Kansas 66047; telephone 913-864-3965; facsimile 913-864-5317; Internet mettille@gisdasc.ks.ukans.edu



### **Wyoming Geographic Information Advisory Council NSDI Clearinghouse**

This project will create an National Geospatial Data Clearinghouse node on the Internet to access and deliver GIS data to public and private sectors, including all Wyoming State agencies, 23 Wyoming Counties, Wyoming Municipalities and the University of Wyoming. The node will post metadata in accordance with the FGDC Content Standards for Digital Geospatial Metadata. Training and documentation will be provided to state, federal, and local agencies as well as other public and private sectors on the use of the node.

**Collaborating Organizations:** State of Wyoming Department of Administration and Information, Wyoming Geographic Information Advisory Council, State Land & Farm Loan Office, Wyoming Game and Fish Department, University of Wyoming, Wyoming Department of Transportation, Department of Commerce State Historic Preservation Office, WY GIS User's Group, Bureau of Land Management, Bureau of the Census, U.S. Geological Survey

**Principal Contact:** Richard C. Memmel, Wyoming State, Dept of Administration and Information, Information Technology Division, Emerson Building, 2001 Capitol Avenue, Cheyenne, Wyoming 82002; telephone 307-777-5103; facsimile 307-777-5120; Internet rick@ctprol.state.wy.us



### **Establishment of an Alabama NSDI National Geospatial Data Clearinghouse Node**

This project will establish and maintain an Alabama node of the National Geospatial Data Clearinghouse providing access to metadata and geospatial data archived by the collaborating organizations. Metadata will be searchable through a HTML forms/freeWAIS-sf interface and geospatial data will be made available on-line.

**Collaborating Organizations:** Geological Survey of Alabama, State Oil & Gas Board of Alabama

**Principal Contact:** Berry H. Tew, Jr., Geological Survey of Alabama, 420 Hackberry Ave, P.O. Box O, Tuscaloosa, AL 35486-9780; telephone 205-349-2852; facsimile 205-349-2861; Internet nick@sand.gsa.tuscaloosa.al.us



### **Access and Development of a National Geospatial Data Clearinghouse Node for Delaware**

This project will establish a clearinghouse node at the University of Delaware and develop a strategy for implementing complementary clearinghouse nodes within the cooperating government agencies. In cooperation with the public sector partners, the University of Delaware will also develop a strategic and management plan for the future development of nodes with other information facilities in the region. Documentation of all data holdings on the nodes will conform to the Content Standards for Digital Geospatial Metadata.

**Collaborating Organizations:** University of Delaware College of Urban Affairs and Public Policy, Delaware Department of Natural Resources and Environmental Control, Department of Transportation, Department of Planning and Data Administration, Office of State Planning Coordination, Delaware Geological Survey, New Castle County Planning Department, University of Delaware Research Data Management Services

**Principal Contact:** David P. Racca and Richard S. Sacher, University of Delaware, College of Urban Affairs and Public Policy, Graham Hall, Academy Street, Newark, Delaware 19716-7330; telephone 302-831-1698 or 302-831-1466; facsimile 302-831-3587; Internet dracca@udel.edu or dsacher@udel.edu



### **Establishing a National Geospatial Data Clearinghouse Node for South Dakota**

This project will establish a National Geospatial Data Clearinghouse node on the Internet; conduct a pilot project that will demonstrate to state agencies how adherence to FGDC metadata standards can be achieved; and, conduct a series of workshops to provide information on FGDC metadata standards and the use of the clearinghouse.

**Collaborating Organizations:** SD Bureau of Information and Telecommunications, Engineering and Environmental Research Center at the South Dakota State University, South Dakota Department of Game, Fish, and Parks, Department of Environment and Natural Resources, North Central Resource Conservation and Development District

**Principal Contact:** Ron Woodburn, South Dakota Bureau of Information and Telecommunications, Information Services, 700 Governors Drive, Pierre, South Dakota 57501-2291; telephone 605-773-4750; facsimile 605-773-4068; Internet ronw@denr.state.sd.us

## **Educational Outreach**



### **The Personal Interface in GIS: Training the Trainers**

This project will extend the use of geographic information systems to citizens and organizations across the state through the in-depth training of Madison-campus librarians, the development of online training materials, the development of a GIS web page, and the broad training of academic and public librarians.

**Collaborating Organizations:** University of Wisconsin/Board of Regents, University of Wisconsin-Madison General Library System, University of Wisconsin-Madison State Cartographer, University of WI-Madison Spatial Information and Analysis Consortium, Council of Wisconsin Libraries

**Principal Contact:** Nolan Pope, Board of Regents, University of Wisconsin, 750 University Avenue, Madison, Wisconsin 53706; telephone 608-262-6141; facsimile 608-265-2754; Internet pope@doit.wisc.edu



### **A Multimedia Tour of the NSDI**

This project will entail development, production and distribution of an interactive, media intensive education and awareness program that introduces prospective users and providers to the possibilities and potential of the NSDI. The primary delivery medium will be CD-ROM (PC and Mac) but it will be adaptable for access via the Internet. The primary target audience will be local government officials (e.g. planning departments, engineering departments, traffic/transportation engineers). Secondary audiences include private sector civil engineers engaged in public projects requiring them to access and/or develop data. The audience will be assumed to have little or no information about the NSDI.

**Collaborating Organizations:** Pietrodangelo Production Group, Inc., FL State University

**Principal Contact:** Donato Pietrodangelo, Pietrodangelo Production Group, Inc., 216 East

Oakland Avenue, Tallahassee, Florida 32301; telephone 904-681-2392; fax 904-561-5408



### **Citizen Access to the NSDI via the Mountain Area Information Network of Western North Carolina**

This is an outreach and education project designed to train public librarians, high school and community college teachers, and Mountain Area Information Network (MAIN) technical volunteers, who in turn will provide ongoing public outreach and assistance for citizen-access to the North Carolina Geographic Data Clearinghouse. The project will also create a special interactive website and publish a "Citizens Guide to Spatial Data -- An introduction to the NSDI" as models for public education and outreach nationwide.

**Collaborating Organizations:** Mountain Area Information Network, North Carolina Center for Geographic Information & Analysis, Resource Data, Inc.

**Principal Contact:** Wally Bowen, Mountain Area Information Network, 34 Wall Street, Asheville, North Carolina 28801; telephone 704-255-0182; facsimile 704-254-2286; Internet wallyb@main.nc.us



### **Establishing an NSDI Clearinghouse Node for West Virginia and Advancing Metadata Standards through Educational Seminars**

This project will result in the establishment of a central NSDI Clearinghouse node for the state of West Virginia, and the development of seminars aimed at potential metadata nodes (state agencies and private firms active in the state). The seminars will provide an overview of the FGDC and the NSDI, and provide an in-depth review of the Content Standards for Digital Geospatial Metadata, recommended techniques for creating and

managing metadata, integrating metadata collection into GIS operations and other associated metadata issues.

**Collaborating Organizations:** West Virginia University Statewide GIS Technical Support Center, Office of State GIS Coordinator



**Principal Contact:** Dr. Trevor Harris, Department of Geology and Geography, West Virginia Statewide GIS Technical Support Center, West Virginia University, 425 White Hall, POI 6300, Morgantown, West Virginia 26506; telephone 304-293-5603; facsimile 304-293-6522; Internet tmh@wvugeo.wvnet.edu

## **Framework**

### **The Ohio Geographically Referenced Information Program (OGRIP) - Large Scale Features Classification Project**

This project will extend the USGS 1:24,000 Feature Classification and DLG-E Feature Template methodology to large-scale (larger than 1:24,000) feature data. An extensive list of large scale feature data and definitions will be collected from producers of large-scale data, merged into the ORACLE database and assigned unique feature ID's. The USGS Feature Classification methodology and Feature Templates will be evaluated, modified and used to reconcile a pilot set of data. The modifications will be documented and presented for review. The outcome will be the Proof-of-Concept of a method to help integrate large scale feature data into smaller scale regional, state and federal spatial datasets.

**Collaborating Organizations:** Ohio Dept of Administrative Services, Ohio Department of Natural Resources, The Ohio State University, The Corporation for Public Information

**Principal Contact:** Jean Field, Ohio Dept of Administrative Services, Ohio Geographically Referenced Information Program, 2151 Carmack Road, Columbus, Ohio 43221-3595; telephone 614-646-7474; facsimile 614-752-6108; Internet ogrip\_field@ohio.gov



### **Florida Hydrography and the Framework**

This project tests the integration of the 1:24,000-scale hydrography data into the USEPA River Reach File. The project will test the ability of the reach code to telescope across different resolutions of data. A

goal of the project is to provide guidelines that can be used by others to enhance the existing national hydrography data set using more detailed, higher resolution local data, while maintaining the link to the lower resolution national data. It also tests methods which link specific attributes about other points of interest (such as monitoring stations, and discharge points) using the reach code as the permanent feature identifier. The project will also investigate techniques for adding attributes to the new, higher resolution data. The project will also identify methods that can be used to update existing geometry using higher resolution geometry while still providing lower resolution, generalized data.

**Collaborating Organizations:** Florida Department of Environmental Protection, St. Johns River Water Management District, University of FL, U.S. Geological Survey, U.S. Environmental Protection Agency

**Principal Contact:** Ruth Montgomery Roaza, Florida Dept of Environmental Protection, Bureau of Information Systems, 2600 Blair Stone Road, Mail Station 6520, Tallahassee, Florida 32399-2400; telephone 904-488-0892; facsimile 904-922-6041; Internet roaza\_r@dep.state.fl.us



### **Transportation Framework Data Development in North Carolina**

A prototype transportation data set will be created for Moore County which will be documented using the Content Standards for Digital Geospatial Metadata and served through the North Carolina Geographic Data Clearinghouse. Concepts introduced by the FGDC in "Development of a Geospatial Data Framework for the NSDI" will be tested for their technical, operational and business feasibility. The institutional and programmatic requirements for the long term management of a transportation framework data set for the NSDI will be assessed and documented.

**Collaborating Organizations:** Center for Geographic Information and Analysis, North Carolina Geographic Information Coordinating Council, Moore County, Dept of Transportation, Dept of Public Instruction, U.S. Geological Survey, U.S. Bureau of the Census

**Principal Contact:** Zsolt Nagy, Center for Geographic Information and Analysis, North Carolina Office of State Planning, 115 Hillsborough Street, Raleigh, North Carolina 27603-1721; telephone 919-733-2090; facsimile 919-715-0725; Internet

zsolt@cgia.state.nc.us



### Michigan Geographic Framework Project

This is a Federal, state, regional, and county collaborative pilot project that seeks to identify and evaluate technical methodologies and institutional arrangements that will facilitate the creation and maintenance of a geographic framework in Michigan. Technically, the project seeks to evaluate the usefulness of conflation tools in integrating geographic base maps, establishment of unique ID's and generalization of geography across institutional lines. Institutionally, the project identifies how the area integrator and framework management concepts may work in the context of Michigan.

**Collaborating Organizations:** Michigan Department of Management and Budget/ Michigan Information Center, Michigan Department of Environmental Resources/ Real Estate Division/MIRIS, Michigan Department of Transportation/Planning Division, Southeast Michigan Council of Governments, Tri-County Regional Planning Commission, Barry County Mapping Department, Manistee County Planning Department.

**Principal Contact:** Rob Surber, Michigan Department of Management and Budget, Michigan Information Center, 320 South Walnut Street/Lewis Cass Building, Lansing, Michigan 49833; telephone 517-373-7910; facsimile 517-373-2939; Internet rob\_surber@state.mi.us



### Wasatch Front Transportation Data Integration and Generalization Project

This project encompasses the integration and generalization of transportation data within a four county area. Integration will involve gathering the best data available from various sources, and edge matching these data both spatially and logically. Generalization will involve following the USGS rules for transitioning data from 1:24,000 scale (or even higher resolution) to a 1:100,000 scale to create a pilot quadrangle, which will also accommodate the needs of the contributors. Results of this project will be the development of documentation and procedures necessary to achieve the integration and generalization of transportation data for the NSDI Framework.

**Collaborating Organizations:** State of Utah, Division of Information Technology Services, Automated Geographic Reference Center, Federal Highway Administration, U.S. Geological Survey, Utah Dept of Transportation, Mountain Lands Assoc of Governments, Utah County Public Works,

Wasatch County, Salk Lake County, Tooele County, State GIS Advisory Committee

**Principal Contact:** Dennis Goreham, State of Utah, Div of Information Technology Services, Automated Geographic Reference Center, 5130 State Office Bldg., Salt Lake City, Utah 84114; telephone 801-538-3163; facsimile 801-538-3550; Internet grdbg@itshp1.it.as.ex.state.ut.us



### Public Access to the Alaska Public Land Survey System: An Integrated Software-Data Approach for the NSDI Framework

Alaska's PLSS data provides the foundation for ownership records, legal boundaries described in statutes and conveyance documents, parcel based platting systems for land records within state and municipal jurisdictions, and the georeferencing of many government permitting systems. This project will solve the long term Alaskan problem related to uniformity and availability of the PLSS data. Software will be developed to facilitate data use on multi-platform environments and dissemination of data via Internet and CD-ROM. A training program will be implemented to ensure the user community is aware of and be able to use the PLSS data and derivative products.

**Collaborating Organizations:** Alaska Dept of Natural Resources, AK Dept of Fish and Game, Alaska Dept of Environmental Conservation, Alaska Dept of Community and Regional Affairs, Bureau of Land Management, Bureau of Indian Affairs, National Park Service, U.S. Geological Survey, U.S. Forest Service, U.S. Fish and Wildlife Service

**Principal Contact:** Richard McMahon, Alaska Department of Natural Resources, Land Records Information Section, 3601 C Street, Suite 916, Anchorage, Alaska 99503; telephone 907-269-8836; facsimile 907-563-1497; Internet richm@dnr.state.ak.us



### Scale and Accuracy Issues in the Use of Orthoimagery within NSDI

This project will develop methods to extend the use of orthoimagery within NSDI in four ways: 1) outlining a methodology to generalize orthoimagery to coarser scales, 2) characterizing variation in accuracy, scale and resolution across orthoimages, 3) structuring metadata to compare and select orthoimagery from a collection of orthoimagery of various scales and resolutions, and 4) structuring metadata to better integrate orthoimagery and vector overlays.

**Collaborating Organizations:** University of Maine, City of Portland, Natural Resource Conservation Service, Central Maine Power, Maine State Office of GIS, Maine Department of Transportation

**Principal Contact:** Dr. Peggy Agouris, Department of Spatial Information Science and Engineering, University of Maine, Orono, Maine 04469; telephone 207-581-2180; facsimile 207-581-2206; Internet peggy@spatial.maine.edu



### Oregon Framework

This is a cooperative venture with all jurisdictions of government in Oregon to begin building framework like data for the state. This project will examine organizational barriers, data stewardship issues, core standards, database structures, and provide administrative and technical support to pilot projects that are attempting to implement framework concepts. Successful pilot studies strategies will be implemented statewide.

**Collaborating Organizations:** State Service Center for GIS, Oregon Department of Administrative Services, Oregon Geographic Information Council, Interorganization Resource Information Coordinating Committee, Oregon GIS Association

**Principal Contact:** Theresa J. Valentine, State Service Center for GIS, Oregon Dept of Administrative Services, 155 Cottage Street, Salem, Oregon 97310; telephone 503-378-4163; facsimile 503-986-3242; Internet theresa.j.valentine@state.or.us

## Metadata Implementation



### California's Geospatial Metadata Repository Project

This project will develop World Wide Web tools that support the input and continued maintenance of geospatial metadata compliant with FGDC Content Standards for Geospatial Metadata. The metadata will be accessible through the National Geospatial Data Clearinghouse. The collaborative project will include the development and implementation of an extensive outreach program aimed at 130 cities, 50 counties, and many special district agencies throughout California. The outreach efforts will include detailed training and education to increase awareness of the major NSDI components, the purpose and value of

metadata, and the use of the Internet for metadata documentation and query.

**Collaborating Organizations:** California Geographic Information Association, Alexandria Digital Library/UC Santa Barbara, Bay Area Automated Mapping Association (BAAMA), City of Oakland, Gatekeeper Systems, Modesto Irrigation District, Psomas and Associates, San Diego Association of Governments (SANDAG), Southern California Association of Governments (SCAG), State of California Teale Data Center

**Principal Contact:** Craig H. Gooch, California Geographic Information Association, P.O. Box 15424, Sacramento, California 95851-0424; telephone 909-787-8421; facsimile 909-623-3813; Internet cgooch@psomas.com



### Implementing a Graphical Metadata Viewer on a National Geospatial Data Clearinghouse Node in Illinois

This project will result in the creation of an innovative HTML-based graphical metadata viewer for implementation on a new National Geospatial Data Clearinghouse node at the Illinois State Geological Survey. The viewer will be based on the ImageMap Version of the FGDC Metadata Standard, with enhancements added for the display of ASCII metadata files by element, section and full file. To support future expanded inter-agency clearinghouse efforts in Illinois, a standardized approach for the format of metadata will be developed and adopted by the participating agencies.

**Collaborating Organizations:** Illinois State Geological Survey, Hazardous Waste Research Information Center, Illinois Natural History Survey, Illinois State Water Survey, Illinois State Museum, Illinois Office of Mines and Minerals, Illinois Office of Realty and Environmental Planning

**Principal Contact:** Dan Nelson, IL State Geological Survey, Geospatial Analysis and Modeling Section, 615 East Peabody Drive, Champaign, Illinois 61820; telephone 217-244-2513; facsimile 217-333-2830; Internet nelson@muck.isgs.uiuc.edu



### Software to Support Indexing and Accessing Geospatial Data

This project will extend the National Science Foundation-sponsored Ecosystem Information System to meet FGDC guidelines for dataset indexing, metadata specification and indexing, and access to both datasets and metadata through standard Internet access tools.

**Collaborating Organizations:** The University of Montana, Montana State Library, USDA U.S. Forest Service

**Principal Contact:** Dr. Ray Ford, The University of Montana, Department of Computer Science, Missoula, Montana 59812-1008; telephone 406-243-2964; facsimile 406-243-4076; Internet ford@cs.umt.edu

## Standards Development



### Development and Dissemination of Standards and Tools for Collecting and Managing Cave

#### Survey Data

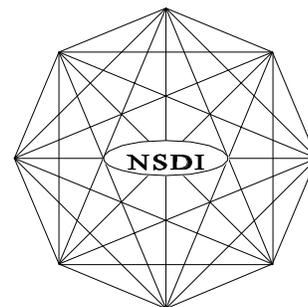
The collaborators will develop standards for the collection, documentation, evaluation, archiving, cataloging, report generation and transfer of cave survey data. Also, they will evaluate biological data from the same cave, and biological thematic data sets for correlation with the geospatial cave data for presentation in a GIS format, the final interface of which will also be developed.

**Collaborating Organizations:** Cave Research Foundation, American Cave Conservation Association, Mammoth Cave National Park, Barren River Area Development District

**Principal Contact:** Philip J. DiBlasi, Cave Research Foundation, 1244 South Brook Street, Louisville, Kentucky 40203-2718; telephone 502-852-6724; Internet pjdbl01@ulkyvm.louisville.edu

### The 1997 Program

An explanation of the 1997 NSDI Competitive Cooperative Agreements program and application materials will be available this fall. The open period for proposals will be 90 days. As with the previous programs, proposals must involve two or more organizations with participants providing matching funds or resources. Formal announcement of the program will be published in the Commerce Business Daily and the Federal Register, and also will be available through the FGDC homepage at <http://www.fgdc.gov>.



National Spatial Data Infrastructure