State Geospatial Data Coordination Procedure

INDIANA

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FEMA

State Geospatial Data Coordination Procedure

Indiana

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State Geospatial Data Coordination Procedure

Purpose of the Procedure

Flood insurance search for geospatial data during pre-scoping and scoping tasks. If needed data are not available, might fund the collection of new data and would like to know about other organizations that might share in these costs. Detailed information about the role geospatial data coordination plays in studies is in the *Geospatial Data Coordination Implementation Guide*, which is available at <https://hazards.fema.gov/femaportal/docs/GeoDataImplem_V3.pdf>, and in *Scoping Guidelines: Pre-scoping and the Scoping Meeting*, which is available through the Regional Support Center (RSC).

Resources developed through FEMA's geospatial data coordination activities provide information about data and contacts for organizations that have geospatial data that cover large areas (like states) in which many studies are interested. Studies can avoid wasting time with dead-end searches and cold calls by starting with these proven sources of information.

One resource is this Geospatial Data Coordination Procedure. It outlines sources of geospatial data and contact information, preferences for base map data and state geospatial participation in studies, and other useful information for the State.

If you have questions about this procedure or other geospatial data coordination resources, contact the geospatial data coordination lead in your Regional Support Center:

Brian Killen, Geospatial Data Coordination Lead
Region V Service Center
(312) 262-2283
brian.killen@starr-team.com

Default Flood Hazard Base Map for the State

The default base map for flood hazard maps for the State is an image base map (orthophoto).

Geospatial Data Coverage

Find below information about and links to statewide (and Federal agencies' national) geospatial datasets. The list is provided to save time during pre-scoping and scoping activities when building a list of candidate geospatial datasets available for the study; it is not a prescription of datasets that must be used in a flood insurance study.

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Datasets for DFIRM Production

Orthophotos

Dataset name: 2005 Statewide Orthophotography Project
Data currentness: 2005 (and limited 2006 data)
Accuracy/Scale: The high-resolution orthophotos were compiled to meet 2.5 feet horizontal accuracy at 95% confidence level. The low-resolution orthophotos were compiled to meet 5.0 feet horizontal accuracy at 95% confidence level.
Ground sample resolution: minimum 1-foot (13 counties at 6-inch)
Horizontal datum: NAD 83
Fee associated? No; but DVDs in Multi Resolution Seamless Image Database (MrSID) format is priced.
Available for redistribution? Yes
Dataset source: Indiana Spatial Data Portal (ISDP) by Indiana Geographic Information Council at http://www.indiana.edu/~gisdata/statewide.html
Dataset contact: Indiana Geographic Information Council, Indiana State Library, GIS; (317) 234-2924, info@igic.org
Notes: The datasets available are Natural Color and 1-meter Color Infrared Orthophotography.

Transportation (roads, railroads, and airports)

Dataset name: Roads 2005 INDOT (Indiana Department of Transportation); Railroad Network 2003; Public-use Airports.
Data currentness: Roads --1998-2003; Railroads – 2003; Airports – 1998.
Accuracy/Scale: 1:100,000 for roads and railroads; airports source scale unknown.
Horizontal datum: Roads --NAD 83
Fee associated? No
Available for redistribution? Yes for Distribution, but redistribution policy not available
Are road names part of the dataset? Yes
Dataset source: Roads—at Indiana Department of Transportation http://www.indianamap.org/;
Railroads, airports – National Transportation Atlas Database (NTAD), Bureau of Transportation Statistics.
Dataset contact: Indiana Department of Transportation, Joel Bump 317-234-3106; Indiana Geographic Information Council, Indiana State Library, GIS; (317) 234-2924, info@igic.org
Notes: Data for roads were derived from pre-existing INDOT basemaps and databases as well as other external data sources such as Topologically Integrated Geographic Encoding and Referencing system (TIGER) files, county and/or city source data. Data were aligned to digital orthoquarterquads (DOQQ's) of the U.S. Geological Survey. Some roads data were also derived from color orthophotography of the U.S. Department of Agriculture.

Hydrography (rivers, streams, lakes, and shorelines)

Dataset name: Stream Features, 2002
Data currentness: various years.

Accuracy/Scale: 1:100,000 (with some 1:24,000)

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes for Distribution, but redistribution policy not available.

Are hydrography names part of the dataset? Yes

Dataset source: Multiple hydrography datasets available for download from the Indiana Geological Survey Atlas of Indiana

http://www.indianamap.org/

Dataset contact: Indiana Geographic Information Council, Indiana State Library, GIS; (317) 234-2924, info@igic.org

Notes: Hydrography lines – Streams, rivers, canals, and ditches, 2000 (1:100,000). This layer is derived from the National Hydrography Dataset (NHD). The NHD interconnects and uniquely identifies the stream segments or reaches that comprise the nation's surface-water drainage system. It is based initially on the content of the U.S. Geological Survey 1:100,000-scale Digital Line Graph (DLG) hydrography data, integrated with reach-related information from the U.S. Environmental Protection Agency Reach File Version 3.0 (RF3). For portions of the southwestern 26 counties, some features were added from 1:24,000 quadrangles by Bernardin, Lochmueller and Associates, Inc.

Notes: The National Hydrography Dataset at "high" (1:24,000-scale) resolution also is available for much of the State; see http://nhd.usgs.gov.

Political boundaries (county, municipal)

Dataset name: County Census Data 2005 (TIGER files); Indiana county boundary lines shapefile and Indiana county boundary polygons shapefile derived from the Indiana Geological Survey PLSS dataset

http://www.indianamap.org/ are "Indiana Map Official Framework Data" and should be used for Indiana statewide county boundaries

Data currentness: 5-10 years cycle; irregular for PLSS

Accuracy/Scale: 1:24,000

Horizontal datum: NAD 83

Fee associated? No; but CDs of Indiana county boundary lines/polygons digital data sets are priced and can be purchased from the Indiana Geological Survey website shown below.

Available for redistribution? Yes for Distribution, but redistribution policy not available.

Dataset source: Indiana Geographic Information Council and Indiana Geological Survey via IndianaMap at http://www.indianamap.org/

Dataset contact: Indiana Geographic Information Council, Indiana State Library, GIS; (317) 234-2924, info@igic.org; Indiana Geological Survey, A research institute of Indiana University; (812) 855-7636, IGSInfo@indiana.edu

Publicly owned lands (national, state, and local parks, forests, etc)

Dataset name: IDNR Outdoor Recreational Facilities

Data currentness: Updated June 28, 2006

Accuracy/Scale: 1:24,000

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes for Distribution, but redistribution policy not available.
Dataset source: Indiana Department of Natural Resources – dataset downloadable through the Indiana Geological Survey Atlas of Indiana http://www.indianamap.org/
Dataset contact: Michael P. Martin, GIS Coordinator, Indiana Department of Natural Resources, Division of Outdoor Recreation
Notes: Shows outdoor recreation facilities, including facilities managed by federal, state, and local governments, as well as non-government organizations, private and commercial entities, and schools. It does not include sites that are private and not open to the public. Provided by personnel of the Indiana Department of Natural Resources, Division of Outdoor Recreation.

Public land survey system (PLSS) (township and section lines)

Dataset name: Indiana land survey lines shapefile; Indiana land survey polygons shapefile; Indiana township and range lines shapefile; Indiana township and range polygons shapefile; and Indiana complete land survey coverage.
Data currentness: 5-10 years.
Accuracy/Scale: 1:24,000
Horizontal datum: NAD 83
Fee associated? No; but CDs of Indiana land survey lines/polygons digital data sets are priced and can be purchased from the Indiana Geological Survey website shown below.
Available for redistribution? Yes for Distribution, but redistribution policy not available.
Dataset source: IndianaMap at http://www.indianamap.org/
Dataset contact: Indiana Geological Survey, A research institute of Indiana University; (812) 855-7636, IGSInfo@indiana.edu

Cadastral (parcels)

No statewide cadastral coverage is currently available.
Notes: Information on local cadastral coverage can be obtained through the Indiana Ramona GIS Inventory www.in.gisinventory.net.

Terrain (elevation)

Dataset name: 2005 Digital Elevation Model (DEM)
Data currentness: 2005
Accuracy/Scale: Minimum resolution of 1-foot statewide since the DEM was created from the 2005 Orthophotography (color 1-ft and 6-in resolution) imagery. Consistent with procedures in the NSSDA, the DEMs for each Indiana county were compiled to meet 6-foot vertical accuracy at 95% confidence level. This is suitable for rectification of digital orthophotos and for automated compilation of 10-foot contours. Higher accuracy contours can be produced but only with additional ground control points, re-triangulation of the datasets, and stereo-compilation of breaklines as required.
Vertical datum: NAVD 88, CONTUS,GEOID99
Fee associated? No
Available for redistribution? Yes
Dataset source: Indiana Spatial Data Portal (ISDP), by Indiana Geographic Information Council at http://www.indiana.edu/~gisdata/statewide.html

Dataset contact: Indiana Geographic Information Council, Indiana State Library, GIS; (317) 234-2924, info@igic.org

Notes: Digital surface model is also available; USGS in working to incorporate the IndianaMap DEM into the NED coverage.

Useful Risk MAP Discovery Data Sources

Preliminary information on Discovery data sources is provided in this document to reduce the level of effort needed on each subsequent Discovery data collection effort. Coordination with local community sponsors for additional local data still remains an integral part of Discovery and local data should be used where appropriate.

The National Geospatial Data Coordination Procedure document contains information on data resources available from other Federal agencies (OFAs), including those that FEMA maintains at the national level, and should be used in conjunction with this State Geospatial Data Coordination Procedure document. In addition, FEMA and its contractors have created a geospatial Discovery Data Repository to host data that are not readily accessible through direct sources such as Web sites or subscription services and/or are not updated on a frequent basis. Instructions on accessing the Discovery Data Repository are given in the national Geospatial Data Coordination Procedure document.

Table 1 identifies data resources that are available at the regional and State levels, and also if there are no data available other than the national datasets. Resources in this table have been identified as appropriate for Discovery projects and may not represent the best data sources for FIRM production (please see the Preferred Base Map Sources section of this document for geospatial data that meets FIRM production requirements).

Table 1. Discovery Data Resources

Data	Data Source	Location
Watershed boundaries	National	Discovery Data Repository
Jurisdictional boundaries	National	Discovery Data Repository
Tribal land boundaries	National	Discovery Data Repository
State lands	Regional/State/Local	
Federal lands	National	Discovery Data Repository
Major roads	Regional/State/Local National	Discovery Data Repository
Streams	Regional/State/Local National	Discovery Data Repository
Coastal Barrier Resource Areas	National	Discovery Data Repository
Coordinated Needs Management Strategy	National	See National Operating Procedure

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Data	Data Source	Location
Topographic/ bathymetric data	National	See National Operating Procedure
AAL data from HAZUS	State	https://starrtrac.pbsjteamaccess.com/library/AAL/Forms/AllItems.aspx Contact the RSC if help is needed retrieving the data.
Coverage areas for known community and Tribal risk assessment data	Regional/State/Local	
Status of Hazard Mitigation Plans	Regional	Richard.Foody@fema.dhs.gov
Flood control structure data	National	See National Operating Procedure
Locations of stream gages	National	Discovery Data Repository
Locations of past flood claims and repetitive loss properties	CIS Report	Contact the geospatial data coordination lead at your RSC referenced earlier in this document.
Locations of clusters of Letters of Map Change	National	See National Operating Procedure
Known flooding issues not represented on effective FIRMs or listed in Coordinated Needs Management Strategy database	Regional/State/Local	
Areas of planned development	Regional/State/Local	
Areas of land use change datasets	National Regional/State/Local	
Locations of ongoing projects or updated stream studies (e.g. highway improvements)	Regional/State/Local	
Locations of wave and tide gauges	N/A	
Locations of wind gauges	N/A	
Proposed inland limit of the Primary Frontal Dune, if present	N/A	
Locations of any beach nourishment or dune restoration projects	N/A	
Comparison of preliminary stillwater elevations with effective stillwater elevations	Regional/State/Local	

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Data	Data Source	Location
Available effective study data	National	See National Operating Procedure
Orthophotography	National	See National Operating Procedure
Proposed discussion areas, problem areas, areas of proposed mitigation projects	Regional/State/Local	
Land use and soil information	Land Use Soils	See National Operating Procedure
Reference points to locate areas with flooding issues	Regional/State/Local	
Hydraulic structures	Culverts Levees, Dams, Bridges	Regional/State/or Local See National Operating Procedure
Coastal structures, including flood protection structures, shoreline structures, manmade embankments, surge conveyance pathways, and shoreline change data	Regional/State/Local	N/A
Local structure and topographic data from the existing hazard mitigation plans	Regional/State/Local	
Historic inundation areas and high water marks	Historic Riverine Inundation Areas Storm Surge Inundation Areas High Water Marks	See National Operating Procedure See National Operating Procedure Regional/State/ or Local
Clusters or locations of Individual Assistance/Public Assistance grants and locations of grant projects completed, planned, or underway	National	See National Operating Procedure
Locations of projects and structures completed or planned for FEMA Hazard Mitigation Assistance grant programs or mitigation funds from other agencies or entities, such as the Small Business Administration	National	See National Operating Procedure
Other information on FEMA grants, as described in G&S Appendix I	Regional/State/Local	HMA Tracking Tool

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Data	Data Source	Location
Any data deficiencies identified in hazard mitigation plans	Regional/State/Local	
Information from FloodSmart on market penetration	FEMA	http://www.floodsmart.gov/floodsmart/
Community Assistance Visits / Community Assistance Contacts	National	Discovery Data Repository
Community Rating System class information	National	See National Operating Procedure
Information from other Federal agencies	National Only	See National Operating Procedure
Information from State agencies, non-profit organizations, universities, etc.	Regional/State/Local	
Current community plans, ordinances, or programs to alleviate flooding or manage stormwater	Regional/State/Local	
Other known hazards with geographical boundaries (e.g. earthquake faults)	Tsunami Landslide Volcanic Eruptions Wildfire	Discovery Data Repository Discovery Data Repository Discovery Data Repository Discovery Data Repository
Information on active disasters	Regional/State/Local	Rusty.Rickart@fema.dhs.gov
Campgrounds, recreational areas, emergency access routes, etc.	National	Discovery Data Repository
Federal Grants Pre /Post Disaster	Regional	Greg.Tatara@fema.dhs.gov
Critical Facilities	State/Regional	Philip Worrall pworrall@igic.org http://www.IndianaMap.org / Lee.Traeger@fema.dhs.gov

Data Distribution Process for State Data

The state of Indiana does not have a formal data distribution policy in place; however, several state datasets are provided for public access and download through the Indiana Geological Survey "Atlas of Indiana". For additional information regarding digital data availability and distribution, please refer to http://www.igic.org/projects/datashare.html or contact the Indiana Geographic Information Council, Indiana State Library, GIS; (317) 234-2924, info@igic.org.

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Federal Nationwide Geospatial Data Holdings

Information about nationwide holdings and programs of Federal agencies is available from the Mapping Information Platform web site at https://hazards.fema.gov/femaportal/docs/ProgFacts.pdf.

Finding and Accessing Other Existing Geospatial Data

Find below information about and links to ways of searching for additional geospatial data available for the State. These capabilities can be useful for finding geospatial data other than the statewide and Federal data listed above, including those of special governments, counties and parishes, municipalities, tribes, universities, and other organizations.

Clearinghouses and Inventories for the State

Indiana participates in a nation-wide, self-reporting, on-line GIS data inventory, Ramona GIS Inventory version 2.0, for inventory of people, policies, systems, and data at http://in.gisinventory.net. It is designed to work with Geospatial One-Stop (GOS), National Digital Orthophoto Program (NDOP), National Digital Elevation Program (NDEP) Tracking Systems, and state metadata clearinghouses. Any inventory efforts should be coordinated with the Indiana Geographic Information Council and leverage the Ramona GIS Inventory.

National Digital Orthophoto Program (NDOP) and National Digital Elevation Program (NDEP) Tracking Systems

These systems allow the search of orthophoto and elevation project information entered by federal and other organizations. To access the NDOP system, go to the NDOP web site at http://www.ndop.gov and follow the link "Project Tracking." For the NDEP system, go to the NDEP web site at http://www.ndep.gov and follow the link "Project Tracking."

TED Query Tool

This tool provides access to information about Federal, state, and local government agency and private sector data holdings gathered by the Census Bureau. It is available through the geospatial data coordination lead at the Regional Support Center.

Geospatial One-Stop

Geospatial One-Stop, available at http://www.geodata.gov, provides access to geospatial data from many sources. Two parts of the site that should be investigated are the "data categories" for existing data and the "marketplace" for data that are planned or in-work and for potential partners for new data collection activities.

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Working with People

Useful State and Federal Contacts

The main contacts for the State's geospatial activities and Federal agencies' representatives in State are available on the Mapping Information Platform web site at https://hazards.fema.gov/contacts/statecontacts/contacts.asp?page=IN

Additional useful contacts for the State can be found at www.in.gisinventory.net/directory.html, and http://www.igic.org/activities/board.html.

Involving the State's Geospatial Coordinator in Flood Studies

Indiana has a consortium of State agency GIS personnel operating under agreement for a State "GIS Center of Excellence" under the Chief Information Officer in the Indiana Office of Information Technology, 100 North Senate, Room N551, Indianapolis, IN 46204; Phone: (317) 234-3843, http://www.in.gov/iot/2395.htm

State Coordination Process for Building Geospatial Partnerships

The Indiana Geographic Information Council (see http://www.igic.org/) builds geospatial partnerships through a framework data planning process (I-Team Process). IGIC should be consulted and included in correspondence regarding building geospatial partnerships to ensure new efforts are leveraged with existing plans.

Finding Local Geospatial Contacts

Local contacts, including those from special government districts (for example, a regional planning commission); counties, parishes, or equivalent governments; tribes, municipal governments; and other organizations (for example, local universities) also have geospatial data that can help a flood insurance study. Contact information is available from the FEMA archive and web searches at government link portals such as http://www.statelocalgov.net.

The State also maintains information about local geospatial contacts: IGIC maintains a statewide GIS Contacts List through the Indiana Ramona GIS Inventory Directory found at www.in.gisinventory.net/directory.html.

Provide Feedback on This Procedure

When you find information in this Procedure or in other FEMA or State resources that are outdated, please tell the geospatial data coordination lead in the Regional Support Center

what was wrong and the correct information (if you know it). Use the contact information for the lead listed in the section Purpose of the Procedure.

The lead will use your feedback to update this Procedure and will contact the Indiana Geographic Information Council for verification and update of the Ramona GIS Inventory for contacts and datasets.