

State Geospatial Data Coordination Procedure

West Virginia

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FEMA

State Geospatial Data Coordination Procedure

West Virginia

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State Geospatial Data Coordination Procedure

Purpose of the Procedure

Flood Insurance Studies search for geospatial data during Discovery tasks. If needed data are not available, studies 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 in studies is in the Geospatial Data Coordination portal, which is available at

http://pm.riskmapcds.com/riskmap_usergroups/GeoCoord/default.aspx (password required).

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 flood insurance studies, information for the project Discovery stage, 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 (RSC):

Cody Gierhart, Geospatial Data Coordination Lead
Compass Regional Support Center 3
(614) 408-1555
cgierhart@tandmassociates.com

We appreciate the help of those who reviewed this document, in particular

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Date Procedure last discussed: March 2007

Default Flood Hazard Base Map for the State

The default base map for flood hazard maps for the State is an image base map. Orthophotography is the preferred base map.

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 Discovery activities when

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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.

Major State Holdings

Orthophotos

Dataset name: WV Statewide Addressing and Mapping Board (SAMB) Orthophotos (2003) and 2011 NAIP Color Orthophotos

Data currentness: 2003 and 2011

Accuracy/Scale: 1:4,800

Ground sample resolution: 2 foot (SAMB), 1-meter (NAIP).

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Dataset source: West Virginia SAMB

Dataset contact: Tony Simental, WV State GIS Coordinator, The Greenbrooke Building, 1124 Smith Street, Room LM-10, Charleston, WV 25301, Phone: 304-558-4218, tony.a.simental@wv.gov. Both orthophoto datasets can be downloaded at <http://wvgis.wvu.edu/data/data.php>.

Notes: Orthophotos are the default base maps for FIRMs in the State of WV.

Transportation (roads, railroads, and airports)

Dataset Name: Major Roads, WV DOT (2008) and Census Tiger/Line (2011)

Data currentness: 2008 and 2011

Horizontal Datum: NAD 83

Accuracy/Scale: 1:4,800. Statewide coverage derived from 2003 SAMB aerial photography

Fee Associated: No

Available for distribution: Yes

Are road names part of the dataset: Yes

Are road names in TIGER format? Yes

Dataset source: West Virginia SAMB and West Virginia Department of Transportation

Dataset Contact: Tony Simental, WV State GIS Coordinator, The Greenbrooke Building, 1124 Smith Street, Room LM-10, Charleston, WV 25301, Phone: (304) 558-4218, tony.a.simental@wv.gov.

Hussein Elkhansa, WV DOT, 304-558-9657, helkhansa@dot.state.wv.us.

Datasets can be downloaded at <http://wvgis.wvu.edu/data/data.php>.

Notes: Separate file for Interstates, US Highways, State Highways, and County routes with attributes with route number, label, direction, and local name.

Hydrography (rivers, streams, lakes, and shorelines)

Dataset name: SAMB Streams

Data currentness: 2003

Accuracy/Scale: 1:4,800

Horizontal datum: NAD 83

Fee associated? No

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Available for redistribution? Yes

Are hydrography names part of the dataset? Yes

Dataset source: West Virginia GIS Technical Center, WV SAMB

<http://wvgis.wvu.edu/data/data.php>

Dataset contact: WVU Department of Geology & Geography, 425 White Hall,
P.O. Box 6300, Morgantown, 26506, wvgis@wvu.edu

Notes: The local resolution basic hydrography dataset is a hybrid dataset developed by the West Virginia GIS Technical Center as part of the effort to create local resolution NHD data for West Virginia. It primarily consists of lines and polygons collected as part of the WV State Addressing and Mapping (WVSAMB) project. As such, most of the data are current as of the year 2003. This dataset also contains features from the high resolution (24,000 Scale) NHD dataset.

Political boundaries (county, municipal)

Dataset name: West Virginia County Boundaries

Data currentness: March 2005

Accuracy/Scale: 1:24,000

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Dataset source: U.S. Geological Survey (USGS) and West Virginia GIS Technical Center

Dataset contact: WVU Department of Geology & Geography, 425 White Hall,
P.O. Box 6300, Morgantown, WV, 26506, wvgis@wvu.edu. Download available at
<http://wvgis.wvu.edu/data/data.php>.

Notes: Digitized from USGS 1:24,000-scale Digital Raster Graphics (scanned topographic maps) by the West Virginia Department of Environmental Protection. First published January 2002, updated with Census 2000 data and re-published March 2005. Other higher resolution sources may be available on a county by county basis and should be used when available. There is no definitive county boundary file for the State of West Virginia that is acceptable to all stakeholders. Political boundaries will be obtained on a case by case basis from the best available source, usually the counties or from the WVDEP West Virginia County Boundaries, 2005 edition.

Dataset name: Incorporated Places/Census Designated Places

Data currentness: 2011

Accuracy/Scale: 1:100,000

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Dataset source: West Virginia GIS Technical Center

Dataset contact: WVU Department of Geology & Geography, 425 White Hall,
P.O. Box 6300, Morgantown, WV, 26506, wvgis@wvu.edu. Available for download at
<http://wvgis.wvu.edu/data/data.php>.

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Notes: Derived from the Department of Commerce, Census Bureau, Geography Division Census 2000 TIGER/Line® data. The 1:100,000 scale file was prepared by the Natural Resource Analysis Center (NRAC) at West Virginia University; NRAC downloaded and manipulated the file from Esri. This dataset was posted on the WV GISTC website in September 2003. Other higher resolution sources may be available on a county by county basis and should be used when available.

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

Dataset name: Public Lands / Land Stewardship (WV GAP)

Data currentness: April 2002

Accuracy/Scale: 1:100,000

Horizontal datum: NAD 27

Fee associated? No

Available for redistribution? Yes

Dataset source: WV Natural Resource Analysis Center.

Dataset contact: Jacquelyn Strager, Research Coordinator, Natural Resource Analysis Center, WVU, Morgantown, WV, 26506, (304) 293-4832 ext. 4455, jmstrager@mail.wvu.edu;

Notes: The WV-GAP project was completed around the year 2002, so many of the datasets used in this project are out of date. The WV-GAP data are also incorporated into this database: Conservation Biology Institute CBI-PAD

<http://consbio.org/products/projects/pad-us-cbi-edition>

Dataset: Public lands – State Forests, National Forests, State Parks, and National Parks

Data currentness: Varies (2004-2015)

Accuracy/scale: Varies (1:24,000 and 1:100,000)

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Dataset source: West Virginia Division of Forestry

Dataset contact: Steve Harouff, GIS Analyst, WV Division of Forestry, (304) 293-0056, steven.e.harouff@wv.gov. Data available for download at

<http://wvgis.wvu.edu/data/data.php>.

Cadastral (parcels)

Dataset name: Tax Maps – Surface and Mineral Parcels

Surface parcel shapefiles are available for select counties. Contact individual county assessor offices for availability of digital parcel mapping files.

Terrain (elevation)

Dataset name: USGS and SAMB 3-Meter Digital Elevation Models (1/9th arc sec NED); 1-meter LiDAR data collected between 2002-2009 is also available for several WV counties.

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Data currentness: Varies

Accuracy/Scale: Varies

Vertical datum: NAVD 88

Fee associated? No

Available for redistribution? Yes

Dataset source: USGS and West Virginia SAMB

Dataset contact: USGS Center for Earth Resources Observation & Science, 47914 252nd Street, Sioux Falls SD, 57198-0001, (800) 252-4547, custserv@usgs.gov. Files available for download at <http://tagis.dep.wv.gov/lidar/>.

Notes: See figure at end of document for status of high resolution topographic data acquisition in FEMA Region III.

The USGS and SAMB DEMs consist of an array of elevations for ground positions at regularly spaced 3-meter intervals. They were created from mass points and breaklines collected as part of the WV SAMB's mission. However, caution should be used when considering their use in FEMA mapping efforts. The DEMs may be suitable for developing new approximate Zone A delineations in rural areas, but most if not all detailed Zone AE studies will have been developed on better data and should not be redelineated using a lower resolution dataset.

Data Distribution Process for State Data

As mentioned above, West Virginia has a centralized data distribution process for GIS data through West Virginia GIS Technical Center (WVGISTC). Data are available via FTP or via HTTP at <http://wvgis.wvu.edu/data/data.php>.

WVGISTC services are provided free of charge to all users. The data on WVGISTC is provided by Federal, State, local and regional government agencies, non-profit organizations, and academic institutions throughout the region.

Data licensing is dealt with on a dataset by dataset basis. Use is permitted only after agreeing to a terms of use and warranty disclaimer.

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 Discovery 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 Discovery Data Coordination Procedure* document.

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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 meet FIRM production requirements).

Table 1. Discovery Data Resources

Data	Data Source	Location
Watershed boundaries	West Virginia GIS Technical Center	http://wvgis.wvu.edu/index.php
	National	See <i>National Discovery Data Coordination Procedure</i>
Jurisdictional boundaries	West Virginia GIS Technical Center	http://wvgis.wvu.edu/index.php
	National	See <i>National Discovery Data Coordination Procedure</i>
State lands	West Virginia GIS Technical Center WV Natural Resource Analysis Center	http://wvgis.wvu.edu/index.php Jacquelyn Strager, Research Coordinator, Natural Resource Analysis Center, WVU, Morgantown, WV, 26506, (304) 293-4832 ext. 4455, jmstrager@mail.wvu.edu ; http://www.nrac.wvu.edu/projects/gap/
Federal lands	West Virginia GIS Technical Center	http://wvgis.wvu.edu/index.php
	WV Natural Resource Analysis Center	Jacquelyn Strager, Research Coordinator, Natural Resource Analysis Center, WVU, Morgantown, WV, 26506, (304) 293-5410, jmstrager@mail.wvu.edu ; http://www.nrac.wvu.edu/projects/gap/
	National	See <i>National Discovery Data Coordination Procedure</i>
Major roads	West Virginia GIS Technical Center	http://wvgis.wvu.edu/index.php
	West Virginia Department of Transportation	http://www.transportation.wv.gov/highways/programplanning/gti/GIS/Pages/DataCatalog.aspx
	West Virginia Statewide Addressing and Mapping Board	Tony Simental, WV State GIS Coordinator The Greenbrooke Building, 1124 Smith Street, Room LM-10, Charleston, WV 25301, Phone: (304) 558-4218, tony.a.simental@wv.gov
	National	See <i>National Discovery Data Coordination Procedure</i>

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Data	Data Source	Location
Streams	West Virginia GIS Technical Center National	http://wvgis.wvu.edu/index.php <i>See National Discovery Data Coordination Procedure</i>
Coastal Barrier Resource Areas	N/A	N/A
Coordinated Needs Management Strategy	National	<i>See National Discovery Data Coordination Procedure</i>
Topographic/ bathymetric data	West Virginia GIS Technical Center National	http://wvgis.wvu.edu/index.php <i>See National Discovery Data Coordination Procedure</i>
AAL data from HAZUS	RSC National	Use of AAL data from Hazus should be coordinated with RSC 3. <i>See National Discovery Data Coordination Procedure</i>
Coverage areas for known community and Tribal risk assessment data	West Virginia GIS Technical Center	http://wvgis.wvu.edu/index.php
Status of Hazard Mitigation Plans	West Virginia Division of Homeland Security and Emergency Management National	http://www.dhsem.wv.gov/Pages/default.aspx <i>See National Discovery Data Coordination Procedure</i>
Flood control structure data	West Virginia GIS Technical Center National	http://wvgis.wvu.edu/index.php <i>See National Discovery Data Coordination Procedure</i>
Locations of stream gages	West Virginia GIS Technical Center National	http://wvgis.wvu.edu/index.php <i>See National Discovery Data Coordination Procedure</i>
Locations of past flood claims and repetitive loss properties	National	<i>See National Discovery Data Coordination Procedure</i>
Locations of clusters of Letters of Map Change	National	<i>See National Discovery Data Coordination Procedure</i>
Known flooding issues not represented on effective FIRMs or listed in Coordinated Needs Management Strategy database	West Virginia GIS Technical Center	http://wvgis.wvu.edu/index.php (Local / Advisory Flood Height Data) http://wvgis.wvu.edu/data/dataset.php?ID=414
Areas of planned development	Local	Local
Areas of land use change datasets	West Virginia GIS Technical Center	http://wvgis.wvu.edu/index.php

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Data	Data Source	Location
Locations of ongoing projects or updated stream studies (e.g., highway improvements)	Local	Local
Locations of wave and tide gages	N/A	N/A
Locations of wind gages	N/A	N/A
Proposed inland limit of the Primary Frontal Dune, if present	N/A	N/A
Locations of any beach nourishment or dune restoration projects	N/A	N/A
Comparison of preliminary stillwater elevations with effective stillwater elevations	N/A	N/A
Available effective study data	National	See <i>National Discovery Data Coordination Procedure</i>
Orthophotography	<p>West Virginia GIS Technical Center</p> <p>West Virginia Statewide Addressing and Mapping Board</p> <p>National</p>	<p>http://wvgis.wvu.edu/index.php</p> <p>Tony Simental, WV State GIS Coordinator The Greenbrooke Building, 1124 Smith Street, Room LM-10, Charleston, WV 25301, Phone: (304) 558-4218, tony.a.simental@wv.gov</p> <p>See <i>National Discovery Data Coordination Procedure</i></p>
Proposed discussion areas, problem areas, areas of proposed mitigation projects	West Virginia Division of Homeland Security and Emergency Management	http://www.dhsem.wv.gov/Pages/default.aspx
Land use and soil information	National	See <i>National Discovery Data Coordination Procedure</i>
Reference points to locate areas with flooding issues	West Virginia GIS Technical Center	http://wvgis.wvu.edu/index.php
Hydraulic structures	<p>West Virginia GIS Technical Center</p> <p>National</p>	<p>http://wvgis.wvu.edu/index.php</p> <p>See <i>National Discovery Data Coordination Procedure</i></p>
Coastal structures, including flood protection structures, shoreline structures, manmade embankments, surge conveyance pathways, and shoreline change data	N/A	N/A

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Data	Data Source	Location
Local structure and topographic data from the existing hazard mitigation plans	Local	Local
Historic inundation areas and high water marks	Regional	Discovery Data Repository
Clusters or locations of Individual Assistance/Public Assistance grants and locations of grant projects completed, planned, or underway	National	See <i>National Discovery Data Coordination Procedure</i>
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 <i>National Discovery Data Coordination Procedure</i>
Other information on FEMA grants	Local	Local
Any data deficiencies identified in hazard mitigation plans	Local	Local
Information from FloodSmart on market penetration	National	See <i>National Discovery Data Coordination Procedure</i>
Community Assistance Visits / Community Assistance Contacts	National	See <i>National Discovery Data Coordination Procedure</i>
Community Rating System class information	National	See <i>National Discovery Data Coordination Procedure</i>
Information from other Federal agencies	National	See <i>National Discovery Data Coordination Procedure</i>
Information from State agencies, non-profit organizations, universities, etc.	West Virginia Division of Homeland Security and Emergency Management West Virginia GIS Technical Center	http://www.dhsem.wv.gov/Pages/default.aspx http://wvgis.wvu.edu/index.php
Current community plans, ordinances, or programs to alleviate flooding or manage stormwater	West Virginia Division of Homeland Security and Emergency Management National	http://www.dhsem.wv.gov/Pages/default.aspx See <i>National Discovery Data Coordination Procedure</i>

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Data	Data Source	Location
Other known hazards with geographical boundaries (e.g., earthquake faults)	West Virginia GIS Technical Center National	http://wvgis.wvu.edu/index.php <i>See National Discovery Data Coordination Procedure</i>
Information on active disasters	West Virginia GIS Technical Center National	http://wvgis.wvu.edu/index.php <i>See National Discovery Data Coordination Procedure</i>
Campgrounds, recreational areas, emergency access routes, etc.	West Virginia GIS Technical Center National	http://wvgis.wvu.edu/index.php <i>See National Discovery Data Coordination Procedure</i>
Any other data that might be appropriate	Local	Local

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/ProgFacts1.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

There is a statewide repository of West Virginia base layers which is hosted by West Virginia GIS Technical Center (WVGISTC). WVGISTC is known as the official geospatial data clearinghouse for the State of West Virginia and serves as West Virginia's node on the National Spatial Data Infrastructure (NSDI), and Geospatial One-Stop. WVGISTC is a publicly accessible web site (<http://wvgis.wvu.edu/data/data.php>).

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."

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Geospatial One-Stop

Geospatial One-Stop, available at <http://www.data.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.

Working with People

Useful State and Federal Contacts

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

Involving State’s Geospatial Coordinator in Flood Studies

The contact prefers periodic conference calls between all stakeholders to address FEMA Risk MAP data issues.

State Coordination Process for Building Geospatial Partnerships

Coordination occurs through periodic conference calls between all stakeholders, including the State geospatial coordinator, WV SAMB, FEMA, FEMA Mapping Partners and contractors, RAMPP RSC 3, and other State Agencies. These have been occurring approximately quarterly and in the future will occur on an as needed basis.

The West Virginia Office of GIS Coordinator is the agency tasked with forming the state’s GIS policy. Every two years, this agency hosts the WV GIS Conference, which brings together partners from government, academia, and the business communities.

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 contact prefers periodic conference calls between all necessary partners including FEMA, the CTPs, OFAs, the RAMPP RSC, and other State agencies.

These have been occurring approximately quarterly and in the future will occur on an as needed basis.

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Coordinate with Local Contacts

The State maintains a statewide GIS contacts list in the following formats:

Web Accessible Form (<http://wvgis.wvu.edu/directory/directory.php>)

Contact or URL information for list (if able to be obtained):

<http://wvgis.wvu.edu>

The levels of government in the list are:

- a. Municipal
- b. County
- c. State
- d. Regional Planning Commissions
- e. State Agencies
- f. Private sector
- g. Non-Profit
- h. Federal Agencies with offices in WV.

Document procedures or information about specific State characteristics:

The State has relatively strong county governments. Most land use authority is in the hands of counties in unincorporated areas or local municipalities. The state has numerous water boards, river authorities, regional planning councils, councils of government, and major universities that have GIS data holdings. Examples include the Canaan Valley Institute, West Virginia University GIS Technical Center, Regions 1 through 10 Planning & Development Councils, WVDEP, and others.

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 RSC 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 on a periodic basis.

Other Useful Information

FEMA Region III Elevation Data Updates

The RSC maintains an inventory of best available topographic datasets throughout FEMA Region III. These datasets may be of significantly higher resolution than the aforementioned statewide elevation datasets that are available.