

State Geospatial Data Coordination Procedure

West Virginia

Table of Contents

Table of Contents	1
Purpose of the Procedure.....	1
Default Flood Hazard Base Map for the State.....	2
Geospatial Data Coverage	2
Major State Holdings	2
Orthophotos	2
Transportation (roads, railroads, and airports)	3
Hydrography (rivers, streams, lakes, and shorelines).....	3
Political boundaries (county, municipal).....	4
Publicly owned lands (national, state, and local parks, forests, etc).....	4
Cadastral (parcels)	5
Terrain (elevation).....	5
Data Distribution Process for State Data.....	5
Useful Risk MAP Discovery Data Sources	5
Federal Nationwide Geospatial Data Holdings.....	11
Finding and Accessing Other Existing Geospatial Data	11
Clearinghouses and Inventories for the State.....	11
National Digital Orthophoto Program (NDOP) and National Digital Elevation Program (NDEP) Tracking Systems	11
TED Query Tool	11
Geospatial One-Stop	11
Working with People.....	12
Useful State and Federal Contacts	12
Involving State’s Geospatial Coordinator in Flood Studies.....	12
State Coordination Process for Building Geospatial Partnerships.....	12
Finding Local Geospatial Contacts	12
Coordinate with Local Contacts.....	12
Provide Feedback on This Procedure	13

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 Implementation Guide*, which is available at <https://hazards.fema.gov/femaportal/docs/GeoDataImplem.pdf>.

State Geospatial Data Coordination Procedure

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):

Anthony Scardino, Geospatial Data Coordination Lead
RAMPP Regional Support Center 3
(215) 940-9220
ascardino@dewberry.com

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

Craig Neidig
WVGIS
(304) 558-4218
cneidig@gis.state.wv.us

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 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: SAMB Orthophotos (2003) and 2011 NAIP Color Orthophotos
Data currentness: 2003 and 2011.

State Geospatial Data Coordination Procedure

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 Statewide Addressing and Mapping Board

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

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

Dataset source: West Virginia Statewide Addressing and Mapping Board

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

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: Local Resolution Hydrologic Feature Dataset

Data currentness: 2003

Accuracy/Scale: 1:4,800

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Are hydrography names part of the dataset? No

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

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 is current as of the year 2003. This dataset also contains features from the high resolution (24,000 Scale) NHD dataset.

State Geospatial Data Coordination Procedure

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: 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.

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 (2010 Census)

Data currentness: 2010

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.

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; <http://www.nrac.wvu.edu/projects/gap/>

State Geospatial Data Coordination Procedure

Notes: The land stewardship data set includes Federal lands (National Wildlife Refuges, National Forests, National Forest Recreation Areas, National Forest Scenic Areas, National Forest Wilderness Areas, Department of Defense Sites, National Park Service National Historic Parks, National Park Service National Recreation Areas, National Park Service National River and Wild and Scenic Riverways); State lands (State Parks and Recreation Areas, State School Lands, WVDNR Wildlife Management Areas); Local Government lands (Wheeling Park), and Non-Governmental organization lands.

Cadastral (parcels)

Dataset name: No coverage available.

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.

Data currentness: Varies

Accuracy/Scale: Varies

Horizontal datum: NAD 83

Vertical datum: NAVD 88

Fee associated? No

Available for redistribution? Yes

Dataset source: U.S. Geological Survey (USGS) and West Virginia Statewide Addressing and Mapping Board (SAMB)

Dataset contact: USGS Center for Earth Resources Observation & Science, 47914 252nd Street, Sioux Falls SD, 57198-0001, 1-800-252-4547, custserv@usgs.gov Notes: 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 Statewide and Addressing and Mapping Board'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 is 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.

State Geospatial Data Coordination Procedure

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.

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	West Virginia GIS Technical Center	http://wvgis.wvu.edu/index.php
	National	<i>See National Discovery Data Coordination Procedure</i>
Jurisdictional boundaries	West Virginia GIS Technical Center	http://wvgis.wvu.edu/index.php
	National	<i>See National Discovery Data Coordination Procedure</i>
Tribal land boundaries	West Virginia Department of Environmental Protection	http://tagis.dep.wv.gov/
	National	<i>See National Discovery Data Coordination Procedure</i>
State 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, 304-293-4832 ext. 4455, jmstrager@mail.wvu.edu ; http://www.nrac.wvu.edu/projects/gap/

State Geospatial Data Coordination Procedure

Data	Data Source	Location
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, 304-293-4832 ext. 4455, 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://gis.wvdot.com/gti/
	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>	
Streams	West Virginia GIS Technical Center	http://wvgis.wvu.edu/index.php
	National	See <i>National Discovery Data Coordination Procedure</i>
Coastal Barrier Resource Areas	N/A	N/A
Coordinated Needs Management Strategy	National	See <i>National Discovery Data Coordination Procedure</i>
Topographic/ bathymetric data	West Virginia GIS Technical Center	http://wvgis.wvu.edu/index.php
	National	See <i>National Discovery Data Coordination Procedure</i>
AAL data from HAZUS	West Virginia GIS Technical Center	http://wvgis.wvu.edu/index.php
	National	See <i>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

State Geospatial Data Coordination Procedure

Data	Data Source	Location
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
Areas of planned development	Local	Local
Areas of land use change datasets	West Virginia GIS Technical Center	http://wvgis.wvu.edu/index.php
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	Local	Local
Available effective study data	National	<i>See National Discovery Data Coordination Procedure</i>

State Geospatial Data Coordination Procedure

Data	Data Source	Location
Orthophotography	West Virginia GIS Technical Center West Virginia Statewide Addressing and Mapping Board National	http://wvgis.wvu.edu/index.php 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 See <i>National Discovery Data Coordination Procedure</i>
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	West Virginia GIS Technical Center National	http://wvgis.wvu.edu/index.php See <i>National Discovery Data Coordination Procedure</i>
Coastal structures, including flood protection structures, shoreline structures, manmade embankments, surge conveyance pathways, and shoreline change data	N/A	N/A
Local structure and topographic data from the existing hazard mitigation plans	West Virginia GIS Technical Center	http://wvgis.wvu.edu/index.php
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>

State Geospatial Data Coordination Procedure

Data	Data Source	Location
Other information on FEMA grants, as described in G&S Appendix I	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 West Virginia Statewide Flood Plan	http://www.dhsem.wv.gov/Pages/default.aspx http://wvgis.wvu.edu/index.php http://www.wvca.us/flood/
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>
Other known hazards with geographical boundaries (e.g. earthquake faults)	West Virginia GIS Technical Center National	http://wvgis.wvu.edu/index.php See <i>National Discovery Data Coordination Procedure</i>
Information on active disasters	West Virginia GIS Technical Center National	http://wvgis.wvu.edu/index.php See <i>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 See <i>National Discovery Data Coordination Procedure</i>
Any other data that might be appropriate	Local	Red Circle Data

State Geospatial Data Coordination Procedure

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

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."

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.

Geospatial One-Stop

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

State Geospatial Data Coordination Procedure

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=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, WVSAMB, 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.

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.

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

State Geospatial Data Coordination Procedure

- 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 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 on a periodic basis.