

State Geospatial Data Coordination Procedure

Virginia

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Purpose of the Procedure

Flood insurance studies search for geospatial data during pre-scoping and scoping 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 plays in studies is in the *Geospatial Data Coordination Implementation Guide*, which is available at <https://hazards.fema.gov/femaportal/docs/GeoDataImplem.pdf>, and in *Scoping Guidelines: Pre-scoping and the Scoping Meeting*, which is available through the Regional Management Center (RMC).

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 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 Management Center:

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Date Procedure discussed: March 1, 2007

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Default Flood Hazard Base Map for the State

The default base map for flood hazard maps for the State is either an image (orthophoto) or vector (road centerline) base map. Orthophotography is the preferred base map. The choice of orthophotography depends on the individual county being studied, and is selected on a case-by-case basis. VGIN 2002 orthophotography recently became available for use in DFIRM products through the coordination efforts of Dan Widner at VGIN, Diane Eldridge at USGS, Nikki Roberts at FEMA Region III, and Mapping on Demand Regional Management Center 3 personnel. At the preference of specific county or communities, vector base map layers are used.

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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.

Major State Holdings

Orthophotos

Dataset name: Virginia Geographic Information Network (VGIN), 2002 Virginia Base Mapping Program Digital Orthophotography

Data currentness: Last updated in 2002, 5-year maintenance cycle as funding allows.

Accuracy/Scale: One of three resolutions is available for an area in the State (varies by area):

- 2 ft pixel resolution (1" = 400' scale); 10,000 x 10,000 ft tiles
- 1 ft pixel resolution (1" = 200' scale); 5,000 x 5,000 ft tiles
- 0.5 ft pixel resolution (1" = 100' scale); 2,500 x 2,500 ft tiles (optional)

Ground sample resolution: 2.0, 1.0, or 0.5 US Survey Feet depending on scale.

Horizontal datum: NAD 83/93 (HARN)

Coordinate System: Virginia State Plane North and South zones, US Survey Feet

Fee associated? Yes. No fee for FEMA and FEMA contractor use on FEMA projects. A fee is associated for the private sector on non-FEMA projects.

Available for redistribution? VGIN prefers to be the distributor for the 2002 orthophotography, although the data also will be available through USGS.

Dataset source: VGIN at <http://www.vgin.vipnet.org/>. FEMA Flood Map Modernization mapping partners should access the copy provided to the FEMA regional office. In the spring of 2007 the data also will be available from the USGS through <http://seamless.usgs.gov>.

Dataset contact: Dan Widner, VGIN Coordinator, VITA.

Notes: New coverage is being flown in 2006/2007.

Transportation (roads, railroads, and airports)

No coverage currently available.

Notes: The Virginia Base Map Program (VBMP) Road Centerline (RCL) dataset is under development. This statewide road centerline dataset includes street names, address ranges and Virginia Department of Transportation (VDOT) route numbers. The sources for the RCL data came from local government, VDOT and digitization from the 2002 VBMP orthos. It will be available in May 2007.

Hydrography (rivers, streams, lakes, and shorelines)

Dataset name: Virginia Geographic Information Network (VGIN), 2002 Virginia Base Mapping Program Hydrography

Data currentness: March 2001.

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Accuracy/Scale: One of three resolutions is available for an area in the State (varies by area):

- 2 ft pixel resolution (1" = 400' scale); 10,000 x 10,000 ft tiles
- 1 ft pixel resolution (1" = 200' scale); 5,000 x 5,000 ft tiles
- 0.5 ft pixel resolution (1" = 100' scale); 2,500 x 2,500 ft tiles (optional)

Horizontal datum: NAD 83/93 (HARN)

Coordinate System: Virginia State Plane North and South zones, US Survey Feet

Fee associated? Yes.

Available for redistribution? VGIN prefers to be the distributor

Dataset source: VGIN at <http://www.vgin.vipnet.org/>

Dataset contact: Dan Widner, VGIN Coordinator, VITA. FEMA Flood Map

Modernization mapping partners should request the data through the FEMA regional office.

Are hydrography names part of the dataset? No

Notes: VBMP Hydrography data were collected as part of the Digital Terrain Model (see Terrain (elevation) below). The data are available as a web service or as a physical dataset.

Political boundaries (county, municipal)

Dataset name: Virginia's jurisdiction boundaries

Data currentness: 2004

Accuracy/Scale: 1:24,000

Horizontal datum: NAD83

Coordinate System: Geographic and Lambert Conformal Conic

Fee associated? No

Available for redistribution? Unknown; check with contact.

Dataset source: VA Department of Conservation and Recreation (DCR)

Dataset contact: For access contact Karl Hubert, Department of Conservation and Recreation, karl.huber@dcr.virginia.gov

Notes: In general, political boundaries will be obtained on a case by case basis from the best available source, usually the counties or regional planning agencies.

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

Dataset name: DCR Conservation Lands Database

Dataset currentness: Biannual review

Accuracy/Scale: varies; see metadata

Horizontal datum: NAD83

Fee associated? No

Available for redistribution? Redistribution for profit is prohibited

Dataset source: Conservation lands database at

http://www.dcr.virginia.gov/natural_heritage/conslandmap.shtml

Dataset contact: David Boyd, Department of Conservation and Recreation, (804) 371-4801; david.boyd@dcr.virginia.gov

Notes: Provides access to a composite set of boundaries and boundaries maintained by different agencies.

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Cadastral (parcels)

No statewide coverage available.

Notes: Local parcel data may be available from the individual jurisdictions.

Terrain (elevation)

Dataset name: Virginia Geographic Information Network (VGIN), 2002 Virginia Base Mapping Program Digital Terrain Model

Data currentness: March 2001

Accuracy/Scale: One of three resolutions is available for an area in the State (varies by area):

- 2 ft pixel resolution (1" = 400' scale); 10,000 x 10,000 ft tiles; would support 10 foot contours (see notes)
- 1 ft pixel resolution (1" = 200' scale); 5,000 x 5,000 ft tiles; would support 5 foot contours (see notes)
- 0.5 ft pixel resolution (1" = 100' scale); 2,500 x 2,500 ft tiles (optional); would support 2 foot contours (see notes)

Vertical datum: NAVD 88

Fee associated? Yes

Available for redistribution? VGIN prefers to be the distributor

Dataset source: VGIN at <http://www.vgin.vipnet.org/>

Dataset contact: Dan Widner, VGIN Coordinator, VITA. FEMA Flood Map Modernization mapping partners should request the data through the FEMA regional office.

Notes: Orthoimagery for the Virginia Base Mapping Program (VBMP) was developed using a flying height that would support the development of NSSDA standard contours. However, the DTM delivered as part of this project was developed for ortho-rectification only. Additional work will be required before the DTM can be used to produce contours to national standards. Provided this additional work is performed, the imagery will support development of NSSDA contours at the following intervals: 1"=100' - 2 ft contours, 1"=200' - 5 ft contours, 1"=400' - 10 ft contours.

Data Distribution Process for State Data

VGIN hosts enterprise base map data through the Geospatial Enterprise Platform (GEP). The GEP is a combination of data storage, application hosting and web services.

Information about accessing the GEP data can be obtained via email to vbmp@vgin.virginia.gov. In addition, VGIN will establish in the summer of 2007 a metadata portal for browsing and accessing geospatial data for the Commonwealth of Virginia.

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>.

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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

VGIN will establish in the summer of 2007 a metadata portal for browsing and accessing geospatial data for the Commonwealth of Virginia.

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 Management 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.

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=VA>

Additional useful contacts for the State can be found at <http://www.vgin.virginia.gov/about.html>.

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Involving the State's Geospatial Coordinator in Flood Studies

The State Contact prefers to be contacted by FEMA Region III or MOD RMC3 when questions about VGIN or other statewide datasets arise.

State Coordination Process for Building Geospatial Partnerships

VGIN and the USGS have entered into an agreement to provide federal access to the VBMP orthophotography. Other base map data is available for free. However, regular access to data using web services, etc. does require a support fee. Thanks to coordination between FEMA and VGIN, approval to use the 2002 VGIN Orthophotography in FEMA DFIRMs has recently been granted.

VGIN is preparing for a new round of orthophotography flights and derived elevation data sets in 2007, which may be available for FEMA DFIRM use in 2008 and beyond. FEMA, VGIN, and VA DCR are considering partnering under FEMA's Cooperating Technical Partner (CTP) program to provide elevation data upgrades to some Virginia communities that are getting new orthophotography.

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 provides a list of local, county, and regional GIS contacts through <http://www.vgin.virginia.gov/resources.html>.

The levels of government in the list are:

- a. Universities and Colleges
- b. Cities and Counties
- c. Private Sector
- d. State Agencies
- e. Planning districts

The state has very strong county governments and very strong independent city governments which exist outside of counties and function much like them. Most land use authority is in the hands of counties and independent cities.

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The state has numerous water boards, river authorities, regional planning councils, councils of government, and major universities that have GIS data holdings. Examples include:

- Virginia Association of Planning District Commissions (<http://www.vapdc.org/gis.htm>)
- Radford University (<http://geoserve.asp.radford.edu/>)
- Virginia Department of Forestry (<http://www.dof.virginia.gov/gis/index.shtml>)
- Department of Transportation (<http://gis.virginiadot.org>)
- Department of Game and Inland Fisheries GIS (http://www.dgif.state.va.us/gis/gis_data.html)
- Department of Conservation and Recreation conservation lands database (http://www.dcr.virginia.gov/natural_heritage/conslandmap.shtml)
- Department of Economic Development Partnership (<http://gis.vedp.org/>)
- University of Virginia (http://fisher.lib.virginia.edu/collections/gis/virginia_gis_data.html)

In general, GIS layers available to FEMA are developed and maintained at both the State and local level.

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 Management 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.