State Geospatial Data Coordination Procedure

Maryland

FINAL

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Purpose of the Procedure

The Department of Homeland Security's (DHS) Federal Emergency Management Agency (FEMA) prepared the Geospatial Data Coordination Procedures to outline sources of geospatial data and contact information, preferences for base map data and state geospatial participation in flood insurance studies, and other useful information. The Procedures provide information of common interest to the multiple flood insurance studies that occur in a State, and save the studies the effort required to repeatedly discover this information independently.

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):

Victoria Arthur, Geospatial Data Coordination Lead
Compass Regional Support Center 3
(215) 486-4366
varthur@tandmassociates.com

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.

Geospatial Data Coverage

Below, you will find links to statewide and federal agencies' national geospatial datasets and information about them. 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.

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Major State Holdings

Orthophotos

Dataset name: 6 Inch and 3 Inch Resolution Aerial Imagery for the State of Maryland Data currentness: 2017 and 2019

Accuracy/Scale: varies

Horizontal datum: NAD 83 (2011)

Fee associated? No

Available for redistribution? Yes

Dataset source: Maryland Geographic Information Office, MD GIO

Dataset contact: Julia Fischer, GIO, (410) 697-9430, julia.fischer@maryland.gov

Available for download at http://imap.maryland.gov/Pages/imagery-download.aspx MD GIO.

Hosted service is found at this URL:

http://geodata.md.gov/imap/rest/services/Imagery/MD_SixInchImagery/MapServer/0

Transportation (roads, railroads, and airports)

Dataset name: Maryland Road Centerlines – Comprehensive

Data currentness: 2018

Accuracy/Scale: Unknown

Horizontal datum: WGS

1984 Fee associated? No

Available for redistribution? Yes

Are road names part of the dataset? Yes

Are road names in TIGER format? No, this dataset cannot be used for FIRMs that are using the 2013 FIRM Database schema without authorization by the FEMA Project Officer and conversion of its attributes to the 2013 FEMA schema.

Dataset source: Maryland Department of Transportation State Highway Administration (SHA). Data are in line shapefile format.

Dataset contact: MDOT SHA Geospatial Technologies Team GIS@mdot.state.md.us

Available for download at https://data.imap.maryland.gov/datasets/maryland-road-centerlines-comprehensive or mapping service at

http://geodata.md.gov/imap/rest/services/Transportation/MD_RoadCenterlines/MapServer

Hydrography (rivers, streams, lakes, and shorelines)

Dataset name: National Hydrography Dataset (NHD)

Data currentness: Varies

Accuracy/Scale: Unknown

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Dataset source: U.S. Geological Survey online at http://nhd.usgs.gov

Dataset contact: Dave Arnold, USGS, (573) 308-3533, darnold@usgs.gov or

Roger Barlow, Maryland Geospatial Liaison, (703) 648-5189, rbarlow@usgs.gov

Dataset name: Maryland Waterbodies – Rivers and Streams (Detailed); Maryland Waterbodies – Lakes (Detailed)

Data currentness: rivers: 9/2010; lakes: 5/2005

Accuracy/Scale: Unknown

Horizontal datum: both: NAD 83

Fee associated? No

Available for redistribution? Yes

Dataset source: MD iMAP online at https://imap.maryland.gov/Pages/default.aspx. Available for download at (rivers) https://data.imap.maryland.gov/datasets/maryland-waterbodies-rivers-and-streams-detailed and (lakes) https://data.imap.maryland.gov/datasets/maryland-waterbodies-lakes-detailed

Dataset contact: If you have specific GIS or website content concerns or questions, please contact the GIO Office at service.desk@maryland.gov.

Political boundaries (county, municipal)

Dataset name: Maryland Physical Boundaries – County Boundaries (Detailed); Maryland Political Boundaries – Municipal Boundaries

Data currentness: 1/2012 and 6/2019

Accuracy/Scale: both: unknown

Horizontal datum: both: WGS 1984

Fee associated? No

Available for redistribution? Yes

Dataset source: Maryland State Highway Administration (SHA)

Dataset contact: GIS Coordinator, SHA, GIS@sha.state.md.us.

Available for download at: http://data.imap.maryland.gov/datasets/maryland-physical-boundaries-county-boundaries-detailed

and https://data.imap.maryland.gov/datasets/maryland-political-boundaries-municipal-boundaries?geometry=-78.984%2C38.637%2C-75.160%2C39.384

Notes: Some counties also have municipal boundary shapefiles available through their county website.

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

Dataset name: Maryland Protected Lands – DNR Owned Properties and Conservation Easements

Data currentness: 2017

Accuracy/Scale: unknown

Horizontal datum: WGS 1984

Fee associated? No

Available for redistribution? Yes

Dataset source: Maryland Department of Natural Resources https://dnr.maryland.gov/Pages/default.aspx

Dataset contact: Dave Foreman, Coastal GIS Analyst, DNR, (410) 260-8761, dforeman@dnr.state.md.us; Rodney Vese, GIS Manager/Mapping Specialist, DNR, (410) 260-8478, rodney.vesejr@maryland.gov

Available for download at https://data.imap.maryland.gov/datasets/a5de633b6ebf450b94dcb08b519c3414_0

Cadastral (parcels)

Dataset name: September 2020 Parcel Points and Parcel Polygons Geodatabase

Data currentness: September 2020
Accuracy/Scale: Unknown
Horizontal datum: NAD 83
Fee associated? No
Available for redistribution? Yes
Dataset source: Maryland Department of Planning, Planning Data Services Division.
Available at https://planning.maryland.gov/Pages/OurProducts/DownloadFiles.aspx
Dataset contact: dlmdpvhelpdesk_mdp@maryland.gov; or Virginia Hawkins, Technician
Phone: 410-767-1420 Email: virginia.hawkins@maryland.gov

Terrain (elevation)

Dataset name: LiDAR
Data currentness: Varies by county
Accuracy/Scale: Varies with location
Horizontal datum: NAD 83
Fee associated? No
Available for redistribution? Yes
Dataset source: Graphic Information Office (GIO), Maryland Department of Information
Technology (DoIT), https://imap.maryland.gov/Pages/lidar.aspx; Eastern Shore Regional
GIS Cooperative, https://www.esrgc.org/project/doit-to19
Dataset contact: MD GIO, gio.doit@maryland.gov. Eastern Shore Regional GIS
Cooperative, esrgc@salisbury.edu
The United States Interagency Elevation (USGS and NOAA) Inventory maintains a
website that provides other information related to LiDAR metadata and data availability.
(https://www.coast.noaa.gov/inventory/)

Data Distribution Process for State Data

The Maryland State Geographic Information Committee (MSGIC) acts to promote
coordinated development and efficient use of resources amongst all entities involved in the
collection and/or use of spatial data and GIS technologies in Maryland. Links to State
agencies housing data repositories are identified at
http://msa.maryland.gov/msa/mdmanual/26excom/html/17geo.html.

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.

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 Major State Holdings section of this document for geospatial data that meet FIRM production requirements).

Table 1. Discovery Data Resources

Data	Agency	Location
Watershed boundaries	MD iMap	http://imap.maryland.gov/Pages/default.aspx
	National	See *National Discovery Data Coordination Procedure*
Jurisdictional boundaries	Maryland Department of Planning State Data Center	https://planning.maryland.gov/msdc/Pages/default.aspx
	MD iMap	http://imap.maryland.gov/Pages/default.aspx
	National	See *National Discovery Data Coordination Procedure*
Tribal land boundaries	National	See *National Discovery Data Coordination Procedure*
State lands	Maryland Department of Planning State Data Center	https://planning.maryland.gov/msdc/Pages/default.aspx
	MD iMap	http://imap.maryland.gov/Pages/default.aspx

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Data	Agency	Location
Federal lands	MD DNR MD iMap National	https://dnr.maryland.gov/Pages/default.aspx http://imap.maryland.gov/Pages/default.aspx See *National Discovery Data Coordination Procedure*
Major roads	Maryland State Highway Administration MD iMap National	http://www.sha.maryland.gov/ http://imap.maryland.gov/Pages/default.aspx See *National Discovery Data Coordination Procedure*
Streams	MD DNR MD iMap National	https://dnr.maryland.gov/Pages/default.aspx http://imap.maryland.gov/Pages/default.aspx See *National Discovery Data Coordination Procedure*
Coastal Barrier Resource Areas	National	See *National Discovery Data Coordination Procedure*
Coordinated Needs Management Strategy	National	See *National Discovery Data Coordination Procedure*
Topographic/ bathymetric data	MD DNR Maryland Geological Survey MD iMap National	https://dnr.maryland.gov/Pages/default.aspx http://www.mgs.md.gov/ http://imap.maryland.gov/Pages/default.aspx *See National Discovery Data Coordination Procedure*
AAL data from HAZUS	RSC National	Use of AAL data from Hazus should be coordinated with RSC 3. See *National Discovery Data Coordination Procedure*
Coverage areas for known community and Tribal risk assessment data	Maryland Emergency Management Agency	http://mema.maryland.gov/Pages/defau lt.aspx

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Data	Agency	Location
Status of Hazard Mitigation Plans	Maryland Emergency Management Agency	http://mema.maryland.gov/Pages/defau lt.aspx
	National	See *National Discovery Data Coordination Procedure*
Flood control structure data	National	See *National Discovery Data Coordination Procedure*
Locations of stream gages	National	See *National Discovery Data Coordination Procedure*
Locations of past flood claims and repetitive loss properties	National	See *National Discovery Data Coordination Procedure*
Locations of clusters of Letters of Map Change	National	See *National Discovery Data Coordination Procedure*
Known flooding issues not represented on effective FIRMs or listed in Coordinated Needs Management Strategy database	Local	Local
Areas of planned development	Local	Local
Areas of land use change datasets	Local	Local
Locations of ongoing projects or updated stream studies (e.g., highwayimprovements)	Local	Local
Locations of wave and tide gages	National	See *National Discovery Data Coordination Procedure*
Locations of wind gages	National	See *National Discovery Data Coordination Procedure*
Proposed inland limit of the Primary Frontal Dune, if present	Local	Local
Locations of any beach nourishment or dune restoration projects Required	Local	Local
Comparison of preliminary stillwater elevations with effective stillwater elevations	Local	Local

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Data	Agency	Location
Available effective study data	National	See *National Discovery Data Coordination Procedure*
Orthophotography	MD DNR	https://dnr.maryland.gov/Pages/default.aspx
	MD iMap	http://imap.maryland.gov/Pages/default.aspx
	National	See *National Discovery Data Coordination Procedure*
Proposed discussion areas, problem areas, areas of proposed mitigation projects	Local	Local
Land use and soil information	National	See *National Discovery Data Coordination Procedure*
Reference points to locate areas with flooding issues	Maryland Emergency Management Agency	http://mema.maryland.gov/Pages/defau lt.aspx
Hydraulic structures	National	See *National Discovery Data Coordination Procedure*
Coastal structures, including flood protection structures, shoreline structures, manmade embankments, surge conveyance pathways, and shoreline change data	National	See *National Discovery Data Coordination Procedure*
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 *National Discovery Data Coordination Procedure*

Data	Agency	Location
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 Discovery Data Coordination Procedure*
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 *National Discovery Data Coordination Procedure*
Community Assistance Visits / Community Assistance Contacts	National	See *National Discovery Data Coordination Procedure*
Community Rating System class information	National	See *National Discovery Data Coordination Procedure*
Information from other Federal agencies	National	See *National Discovery Data Coordination Procedure*
Information from State agencies, non-profit organizations, universities, etc.	Local	Local
Current community plans, ordinances, or programs to alleviate flooding or manage stormwater	National	See *National Discovery Data Coordination Procedure*
Other known hazards with geographical boundaries (e.g., earthquake faults)	National	See *National Discovery Data Coordination Procedure*
Information on active disasters	National	See *National Discovery Data Coordination Procedure*
Campgrounds, recreational areas, emergency access routes, etc.	National	See *National Discovery Data Coordination Procedure*
Any other data that might be appropriate	Local	Local

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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/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

Links to data repositories hosted by State agencies, including the state Department of Planning, DNR, and the State Highway Administration, as well as links to county datasets and data available through the iMap Portal are available on the MSGIC's website at http://imap.maryland.gov/Pages/default.aspx.

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

The National Digital Orthophoto Program project tracking system has been retired. The Federal Geospatial Platform maintains a marketplace for planned activities and an imagery community, which can be found at https://www.geoplatform.gov/.

Geospatial One-Stop

The Geospatial One-Stop has been superseded by the Federal Geospatial Platform, which can be found at https://www.geoplatform.gov/.

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=MD

These include representatives from MSGIC, the Maryland State Office of Planning's State Data Center, and the DNR.

Involving the State's Geospatial Coordinator in Flood Studies

FEMA is in contact with partners from the Maryland DNR on a frequent basis regarding flood map studies.

State Coordination Process for Building Geospatial Partnerships

Members of MSGIC represent all levels of government, academia, regional organizations, and private industry. MSGIC's goals are to coordinate GIS activities statewide, support development of datasets that are useful for multiple purposes, and to implement standards and guidelines for GIS in Maryland.

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.

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 Procedure.

The lead will use your feedback to update this Procedure.

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.