

# State Geospatial Data Coordination Procedure

Delaware

FINAL

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**FEMA**

# State Geospatial Data Coordination Procedure

## Delaware

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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 plays in studies is in the Geospatial Data Coordination portal, which is available at [http://pm.riskmapcds.com/riskmap\\_usergroups/GeoCoord/default.aspx](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):

Christine Bell, Geospatial Data Coordination Lead  
Compass Regional Support Center 3  
(73)865-9559  
[cbell@tandmassociates.com](mailto:cbell@tandmassociates.com)

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

Delaware Geographic Data Committee (302) 739-3090  
[mike.mahaffie@state.de.us](mailto:mike.mahaffie@state.de.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 a vector base map (road centerlines).

## 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: USDA NAIP Orthophotography Data currentness: 2013  
Accuracy/Scale: Compiled to meet 6 meters horizontal accuracy at 95 percent confidence level. Horizontal scale is 1:12,000 with a ground pixel resolution of 1 meter.  
Ground sample resolution: 1 m.  
Horizontal datum: UTM Zone 18N NAD83 meters  
Fee associated? No  
Available for redistribution? Yes

Dataset source: University of Delaware's Delaware Environmental Monitoring and Analysis Center (DEMAC), <http://demac.udel.edu/tiles/>

Dataset contact: Constance Holland, Office of State Planning Coordination, (302) 739-3090, [Connie.Holland@state.de.us](mailto:Connie.Holland@state.de.us)

Dataset name: Delaware 2012 Orthophotography Data currentness: 2012  
Accuracy/Scale: The digital orthophotos fully comply with NSSDA standards for production of orthophotos at a horizontal scale of 1:2,400 with a ground pixel resolution of 1 foot.  
Ground sample resolution: 1 ft.  
Horizontal datum: NAD83 HARN Delaware State Plane meters  
Fee associated? No  
Available for redistribution? Yes

Dataset source: University of Delaware's Delaware Environmental Monitoring and Analysis Center (DEMAC), <http://demac.udel.edu/tiles/>

Dataset contact: Constance Holland, Office of State Planning Coordination, 739-3090, [Connie.Holland@state.de.us](mailto:Connie.Holland@state.de.us)

Notes: Delaware's Digital Orthophotography has been made publicly available on-line and via publication in a simplified version (1-meter pixel resolution) to reduce potential security risks.

### *Transportation (roads, railroads, and airports)*

Dataset name: Delaware Dept of Transportation (DeIDOT) Centerline File Data currentness: 06/2014

Accuracy/Scale: 1:2,400

Horizontal datum: NAD 83 meters, Delaware State Plane 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.

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Dataset source: DelDOT at

[http://deldot.gov/information/pubs\\_forms/gis/centerline/index.shtml](http://deldot.gov/information/pubs_forms/gis/centerline/index.shtml)

Dataset contact: Mike Deltufo, DelDOT, P.O. Box 778 800 Bay Road, Dover, DE 19901,  
[Mike.Deltufo@state.de.us](mailto:Mike.Deltufo@state.de.us)

## *Hydrography (rivers, streams, lakes, and shorelines)*

Dataset name: National Hydrography Dataset (NHD) DE Rivers and Streams, National Hydrography Dataset (NHD) DE Lakes, Ponds, and Ocean

Data currentness: November 2009/ October 2015 Accuracy/Scale: 1:24,000/1:12,000

Horizontal datum: NAD 83 HARN meters

Fee associated? No

Available for redistribution? Yes

Dataset source: USGS and EPA; <http://opendata.firstmap.delaware.gov/>

Data is also available via USGS <http://nhd.usgs.gov/data.html>

Dataset contact: Debbie Sullivan, DE Department of Natural Resources and Environmental Control, (302) 739-9021, [deborah.sullivan@state.de.us](mailto:deborah.sullivan@state.de.us)

Notes: This local resolution NHD realigned the original NHD Hydrography features to the DE State 2007 Orthography and LiDAR Derived DEM.

## *Political boundaries (county, municipal) Dataset name: Municipalities*

Data currentness: 1/2013

Accuracy/Scale: unknown

Horizontal datum: NAD 83 meters Fee associated? No

Available for redistribution? Yes

Dataset source: Office of State Planning Coordination / Office of Management and Budget, State of Delaware at <http://opendata.firstmap.delaware.gov/> .

Dataset contact: Miriam Pomilio, Delaware Office of State Planning,  
739-3090, [miriam.pomilio@state.de.us](mailto:miriam.pomilio@state.de.us)

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

Dataset name: Delaware State Parks Data currentness: 20130108

Dataset name: Delaware State Forests Data currentness: 20130301

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Accuracy/Scale: Boundaries are verified by visual comparison to source materials, hard copy check maps and on screen checks per USGS Basemap by Lands Preservation Office

& Parks GIS Lab Staff. Due to variety of source materials used, map scale threshold is 1:20,000 +/- 4,000.

Horizontal datum: NAD 83 Fee associated? No

Available for redistribution? No

Dataset source: Division of Parks & Recreation, DE DNREC. Ask for stpkout.zip file. Dataset contact: Michael Krumrine, 89 Kings Highway, Dover DE, 19901, [Michael.Krumrine@state.de.us](mailto:Michael.Krumrine@state.de.us)

Notes: Not available for redistribution.

## *Cadastral (parcels)*

Dataset name: Delaware Tax Parcels WMS Service; NCC\_Tax Parcels (New Castle County); Sussex County Parcels

Data currentness: Constantly updated; New Castle-6/2012; Sussex-5/2007 Accuracy/Scale: These data are only a visual representation and are not of engineering accuracy.

Horizontal datum: NAD 83, Delaware State Plane feet Fee associated? No

Available for redistribution? Yes

Kent County Dataset source: Kent County Department of Planning Services.

Kent County Dataset contact: Mary Ellen Gray, Division Head, 555 Bay Road, Dover DE, 19901, (302) 744-2471

New Castle County Dataset source: New Castle County Department of Land Use

New Castle County Dataset contact: New Castle County Department of Land Use, 302- 395-5400, [landuse@nccde.org](mailto:landuse@nccde.org)

Sussex County Dataset source: Sussex County Mapping

Sussex County Dataset contact: Buddy Lynch, Sussex County Mapping, #2 The Circle, Georgetown DE, 19947, (302) 855-1176.

<http://www.sussexcountyde.gov/dept/assessment/mapping/>

Notes: Dataset is a compilation of all counties cadastral parcel layers.

## *Terrain (elevation)*

Dataset name: DE Elevation Contours (Kent/Ncc\_MID/NCC\_So/Sussex)

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Data currentness: 2007 New Castle and Kent Counties, 2005 Sussex County, published in November 2008

Accuracy/Scale: For New Castle and Kent Counties, data were acquired at a 1.4/1.0 meter point spacing

Vertical datum: NAD 1983, Delaware State Plane Meters Fee associated? No

Available for redistribution? Yes

Dataset source: Delaware Geological Survey, <http://www.dgs.udel.edu/datasets/elevation-contours-dataset-delaware>

Dataset contact: Delaware Geological Survey, University of Delaware, Newark DE, 19716-7501, 302-831-2833, [delgeosurvey@udel.edu](mailto:delgeosurvey@udel.edu); Delaware Geospatial Data

Exchange, 302-739-9611, [DTL\\_GIS@state.de.us](mailto:DTL_GIS@state.de.us)

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

For Sussex County, data meet or exceeds FEMA accuracy standard for use in flood mapping and remapping work.

## *Data Distribution Process for State Data*

Users can access Delaware Spatial Data Framework layers through the Delaware Geospatial Data Exchange at <http://opendata.firstmap.delaware.gov>

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

## **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	Delaware Geospatial Data Exchange	<a href="https://dataexchange.gis.delaware.gov/">https://dataexchange.gis.delaware.gov/</a>
	National	See <i>National Discovery Data Coordination Procedure</i>
Jurisdictional boundaries	Delaware Geospatial Data Exchange	<a href="https://dataexchange.gis.delaware.gov/">https://dataexchange.gis.delaware.gov/</a>
	National	See <i>National Discovery Data Coordination Procedure</i>
Tribal land boundaries	National	See <i>National Discovery Data Coordination Procedure</i>
State lands	Delaware Geospatial Data Exchange	State Forests at <a href="https://dataexchange.gis.delaware.gov/">https://dataexchange.gis.delaware.gov/</a>
	Division of Parks & Recreation, DE DNREC	Michael Krumrine, 89 Kings Highway, Dover DE, 19901, <a href="mailto:Michael.Krumrine@state.de.us">Michael.Krumrine@state.de.us</a> Ask for: stpkout.zip
Federal lands	National	See <i>National Discovery Data Coordination Procedure</i>
Major roads	Delaware Geospatial Data Exchange	<a href="https://dataexchange.gis.delaware.gov/">https://dataexchange.gis.delaware.gov/</a>
	DelDOT	<a href="http://deldot.gov/information/pubs_forms/gis/centerline/index.shtml">http://deldot.gov/information/pubs_forms/gis/centerline/index.shtml</a>
	National	See <i>National Discovery Data Coordination Procedure</i>
Streams	Delaware Geospatial Data Exchange	<a href="https://dataexchange.gis.delaware.gov/">https://dataexchange.gis.delaware.gov/</a>
	National	See <i>National Discovery Data Coordination Procedure</i>
Coastal Barrier Resource Areas	National	See <i>National Discovery Data Coordination Procedure</i>
Coordinated Needs Management Strategy	National	See <i>National Discovery Data Coordination Procedure</i>

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Data	Data Source	Location
Topographic/ bathymetric data	Delaware Geospatial Data Exchange	<a href="https://dataexchange.gis.delaware.gov/">https://dataexchange.gis.delaware.gov/</a>
	Delaware Geological Survey	<a href="http://www.dgs.udel.edu/datasets/elevation-contours-dataset-delaware">http://www.dgs.udel.edu/datasets/elevation-contours-dataset-delaware</a> Delaware Geological Survey University of Delaware Newark DE 19716-7501 Phone: (302) 831-8262
	National	See <i>National Discovery Data Coordination Procedure</i>
AAL data from HAZUS	RSC	Use of AAL data from Hazus should be coordinated with RSC 3.
	National	See <i>National Discovery Data Coordination Procedure</i>
Coverage areas for known community and Tribal risk assessment data	Local	Local
Status of Hazard Mitigation Plans	Delaware Emergency Management Agency	<a href="http://dema.delaware.gov/">http://dema.delaware.gov/</a>
	National	See <i>National Discovery Data Coordination Procedure</i>
Flood control structure data	Local	Local
	National	See <i>National Discovery Data Coordination Procedure</i>
Locations of stream gages	Delaware Environmental Observing System	<a href="http://www.deos.udel.edu/">http://www.deos.udel.edu/</a>
	National	See <i>National Discovery Data Coordination Procedure</i>
Locations of past flood claims and repetitive loss properties	National	See <i>National Discovery Data Coordination Procedure</i>
Locations of clusters of Letters of Map Change	National	See <i>National Discovery Data Coordination Procedure</i>
Known flooding issues not represented on effective FIRMs or listed in Coordinated Needs Management Strategy database	Local	Local

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Data	Data Source	Location
Areas of planned development	Local	Local
Areas of land use change datasets	Delaware Geospatial Data Exchange	<a href="https://dataexchange.gis.delaware.gov/">https://dataexchange.gis.delaware.gov/</a>
Locations of ongoing projects or updated stream studies (e.g., highway improvements)	Local	Local
Locations of wave and tide gages	Delaware Environmental Observing System	<a href="http://deos.udel.edu/geobrowser.html">http://deos.udel.edu/geobrowser.html</a>
Locations of wind gages	National	See <i>National Discovery Data Coordination Procedure</i>
Proposed inland limit of the Primary Frontal Dune, if present	Local	Local
Locations of any beach nourishment or dune restoration projects	Local	Local
Comparison of preliminary stillwater elevations with effective stillwater elevations	Local	Local
Available effective study data	National	See <i>National Discovery Data Coordination Procedure</i>
Orthophotography	Delaware Geospatial Data Exchange	<a href="https://dataexchange.gis.delaware.gov/">https://dataexchange.gis.delaware.gov/</a>
	Office of State Planning Coordination / Office of Management and Budget, State of Delaware	Constance Holland, Office of State Planning Coordination, (302) 739-3090, <a href="mailto:Connie.Holland@state.de.us">Connie.Holland@state.de.us</a>
Proposed discussion areas, problem areas, areas of proposed mitigation projects	National	See <i>National Discovery Data Coordination Procedure</i>
	Local	Local

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Data	Data Source	Location
Land use and soil information	Delaware Geospatial Data Exchange	<a href="https://dataexchange.gis.delaware.gov/">https://dataexchange.gis.delaware.gov/</a>
Reference points to locate areas with flooding issues	Local	Local
Hydraulic structures	Delaware Geospatial Data Exchange	<a href="https://dataexchange.gis.delaware.gov/">https://dataexchange.gis.delaware.gov/</a>
	National	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	National	See <i>National Discovery Data Coordination Procedure</i>
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>

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Data	Data Source	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 <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.	Delaware Emergency Management Agency  The Delaware Geological Survey	<a href="http://dema.delaware.gov/">http://dema.delaware.gov/</a>  <a href="http://www.dgs.udel.edu/">http://www.dgs.udel.edu/</a>
Current community plans, ordinances, or programs to alleviate flooding or manage stormwater	Delaware Emergency Management Agency  National	<a href="http://dema.delaware.gov/">http://dema.delaware.gov/</a>  See <i>National Discovery Data Coordination Procedure</i>
Other known hazards with geographical boundaries (e.g., earthquake faults)	Delaware Emergency Management Agency  National	<a href="http://dema.delaware.gov/">http://dema.delaware.gov/</a>  See <i>National Discovery Data Coordination Procedure</i>

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Data	Data Source	Location
Information on active disasters	Delaware Emergency Management Agency	<a href="http://dema.delaware.gov/">http://dema.delaware.gov/</a>
	National	See <i>National Discovery Data Coordination Procedure</i>
Campgrounds, recreational areas, emergency access routes, etc.	National	See <i>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

State and county level datasets are available for download on the Delaware Geospatial Data Exchange site. The Data Exchange can be accessed at <http://opendata.firstmap.delaware.gov/>.

The State has an existing inventory of geospatial products in the following format: Delaware Geospatial Data Exchange (<http://opendata.firstmap.delaware.gov/>) The inventory surveys the following levels of government:

County  
State

The contact or URL information for the inventory is as follows: Office of State Planning Coordination, Geographic Data Committee, [DTI\\_GIS@state.de.us](mailto:DTI_GIS@state.de.us)

## 3D Elevation Program

The U.S. Geological Survey (USGS) National Geospatial Program is developing the [3D Elevation Program \(3DEP\)](#) to respond to growing needs for high-quality topographic data and for a wide range of other three-dimensional (3D) representations of the Nation's natural and constructed features. The primary goal of 3DEP is to systematically collect 3D elevation data in the form of light detection and ranging (lidar) data over the conterminous United States, Hawaii, and the U.S. territories, with data acquired over an 8-year period. Interferometric

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synthetic aperture radar (IfSAR) data will be acquired for Alaska, where cloud cover and remote locations preclude the use of lidar in much of the State. The 3DEP initiative is based on the results of the National Enhanced Elevation Assessment that documented more than 600 business uses across 34 Federal agencies, all 50 States, selected local government and Tribal offices, and private and nonprofit organizations.

## 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=DE>

### Involving the State’s Geospatial Coordinator in Flood Studies

Delaware has complete FIRM coverage since 2004. Contact between FEMA, the RSC, and the State Contact is generally limited to phone conversions regarding updated base layers for use in updates to existing FIRMs.

### State Coordination Process for Building Geospatial Partnerships

The Delaware Geographic Data Committee (DGDC) and the Delaware Spatial Data Implementation Team (I-Team) are both the lead GIS Committees in the State. DGDC serves as a forum for technical, operational, and community-wide discussions and the I-Team, which represents the highest levels of State and county governments, serves as a steering committee and oversees the maintenance of the basic data known as the Delaware Spatial Data Framework. Constance Holland is the current director of the DGDC. The DGDC website is located at: <http://stateplanning.delaware.gov/dgdc/>.

### 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 maintains a list server that can be used to forward FEMA program information and production notices to State and county GIS contacts. The contact information for using this

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list server is Constance Holland at [Connie.Holland@state.de.us](mailto:Connie.Holland@state.de.us) or sign up at: <https://udel.edu/mailman/listinfo/>

The levels of government in the list are:

Municipal

County

State

Private and academic sectors

## 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.

## 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 higher resolution than the aforementioned statewide elevation datasets that are available.