

State Geospatial Data Coordination Procedure

New Hampshire

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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 of geospatial data coordination in studies is in the *Geospatial Data Coordination*

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Implementation Guide, which is available at https://hazards.fema.gov/femaportal/docs/GeoDataImplem_V3.pdf and the *Geospatial Data Coordination* Guidance Document, which is available at <http://www.fema.gov/media-library/assets/documents/34953>.

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 Region 1 Service Center:

Diana Rodriguez
Compass Regional Service Center 1
(312) 780-7710
rodriguezad@cdmsmith.com

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Default Flood Hazard Base Map for the State

The default base map for flood hazard maps for the State is an image base map (orthophoto).

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.

Datasets for DFIRM Production

Orthophotos

Dataset Name: 2015 High Resolution Orthoimages for New Hampshire

Data currentness: 2015

Accuracy/Scale: 0.30 meter, horizontal positional accuracy was designed not to exceed 1.52 meters NSSDA 95% confidence.

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Dataset source: U.S. Geological Survey

Dataset contact: GRANIT Database Manager, 603-862-1792, granit@unh.edu

Notes: This data set consists of 0.30-meter, 4-band natural color orthoimages covering approximately 9,329 square miles (including water) over the New Hampshire State Wide area and its offshore islands.

Dataset Name: 2013 1-ft. Resolution Imagery for Coastal New Hampshire - 01_A.sid

Data currentness: August 2013

Accuracy/Scale: Pixel Resolution of 1.0 foot. Horizontal_Positional_Accuracy_Value is 1.53817, Using the National Standard for Spatial Data Accuracy, this data set tested 1.53817 foot horizontal accuracy at the 95% confidence level.

Horizontal datum: NAD 83

Fee associated? No Available for redistribution? Yes

Dataset source: NH GRANIT, Complex Systems Research Center, UNH ([GRANIT website](#))

Dataset contact: GRANIT Database Manager, 603-862-1792, granit@unh.edu

Notes: The orthophotography was generated by contractors for the Piscataqua Region Estuaries Partnership at the University of New Hampshire (Durham, New Hampshire). Richard Crouse & Associates (Frederick, Maryland) acquired the raw aerial photographs. KAPPA Mapping, Inc. (Bangor, Maine) processed the raw imagery to create the orthophotos and verify that quality assurance objectives were met. The file format is

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MrSID or Geotiff. Access is also provided through a Web Mapping Service or FTP Download.

Dataset Name: 2010-2011 1FT Color Aerial Photos

Data currentness: 2011

Accuracy/Scale: 5000ft by 5000ft tile

Horizontal datum: NAD 83

Fee associated? No charge when downloaded through the Internet. \$50 for each CD/DVD ordered to cover the cost of reproduction.

Available for redistribution? Yes

Dataset source: NH GRANIT, Complex Systems Research Center, UNH ([GRANIT website](#))

Dataset contact: GRANIT Database Manager, 603-862-1792, granit@unh.edu

Notes: The file format is MrSID or Geotiff. Access is also provided through a Web Mapping Service.

Dataset Name: 2009 National Agricultural Imagery Program (NAIP)

Data currentness: 2009

Accuracy/Scale: 1:40,000

Ground sample resolution: 1 meter ground sample distance (GSD) ortho imagery rectified to a horizontal accuracy within +/- 3 meters

Horizontal datum: NAD 83

Fee associated? No charge when downloaded through the Internet. \$50 for each CD/DVD ordered to cover the cost of reproduction.

Available for redistribution? Yes

Dataset source: NH GRANIT, New Hampshire Statewide GIS Clearinghouse/Complex Systems Research Center, UNH ([GRANIT website](#))

Dataset contact: GRANIT Database Manager, 603-862-1792, granit@unh.edu

Notes: For display in GIS software environments, it is recommended that users set the image stretch to "none" to achieve seamless coverage across multiple tiles within a county. The file format is MrSID, Generation 3.

Transportation (roads, railroads, and airports)

Dataset name: NH Public Roads

Data currentness: October 2017

Accuracy/Scale: 1:24,000/1:25,000

Horizontal datum: NAD 83

Fee associated? No charge when downloaded through the Internet. \$50 for each CD/DVD ordered to cover the cost of reproduction.

Available for redistribution? Yes

Are road names part of the dataset? Yes

Dataset source: NH GRANIT, New Hampshire Statewide GIS Clearinghouse/Complex Systems Research Center, UNH ([GRANIT website](#))

Dataset contact: GRANIT Database Manager, 603-862-1792, granit@unh.edu

Notes:

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Hydrography (rivers, streams, lakes, and shorelines)

Dataset name: New Hampshire Hydrography Dataset (NHHD)

Data currentness: September 2006

Accuracy/Scale: 1:24,000

Horizontal datum: NAD 83

Fee associated? No charge when downloaded through the Internet. \$50 for each CD/DVD ordered to cover the cost of reproduction.

Available for redistribution? Yes

Are hydrography names part of the dataset? Yes, all names on the 1:24,000-scale reaches were validated against an April 1999 extract from the Geographic Names Information System. The entry and identifier for the names match those in the Geographic Names Information System. The association of each name to reaches has been interactively checked against the April 1999 Geographic Names Information System names extract, however, operator error could in some cases apply a name to a wrong reach.

Dataset source: NH GRANIT, New Hampshire Statewide GIS Clearinghouse/Complex Systems Research Center, UNH ([GRANIT website](#))

Dataset contact: GRANIT Database Manager, 603-862-1792, granit@unh.edu

Notes:

Political boundaries (county, municipal)

Dataset name: New Hampshire Political Boundaries at 1:24,000 Scale

Data currentness: August 2014

Accuracy/Scale: 1:24,000/1:25,000

Horizontal datum: NAD 83

Fee associated? No charge when downloaded through the Internet. \$50 for each CD/DVD ordered to cover the cost of reproduction.

Available for redistribution? Yes / NOT for LEGAL USE

Dataset source: NH GRANIT, New Hampshire Statewide GIS Clearinghouse/Complex Systems Research Center, UNH ([GRANIT website](#))

Dataset contact: GRANIT Database Manager, 603-862-1792, granit@unh.edu

Notes:

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

Dataset name: Conservation/Public Lands

Data currentness: June 2017

Accuracy/Scale: 1:24,000 / 1:25,000

Horizontal datum: NAD 83

Fee associated? No charge when downloaded through the Internet. \$50 for each CD/DVD ordered to cover the cost of reproduction.

Available for redistribution? Yes

Dataset source: NH GRANIT, New Hampshire Statewide GIS Clearinghouse/Complex Systems Research Center, UNH ([GRANIT website](#))

Dataset contact: GRANIT Database Manager, 603-862-1792, granit@unh.edu

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Notes: The development of this data layer relied on several sources, including the USGS Digital Line Graphs (1:24,000 scale), Society for the Protection of NH Forests (SPNHF) records, records from various state agencies, digital records maintained by Cartographic Associates (Littleton, NH) and original deeds and tax maps.

Terrain (elevation)

Dataset name: Elevation-DEM (Digital Elevation Model)

Data currentness: Last Revision: March 1999

Accuracy/Scale: 1:24,000/1:25,000

Vertical datum: NGVD 29

Fee associated? No charge when downloaded through the Internet. \$50 for each CD/DVD ordered to cover the cost of reproduction.

Available for redistribution? Yes

Dataset source: NH GRANIT, New Hampshire Statewide GIS Clearinghouse/Complex Systems Research Center, UNH ([GRANIT website](#))

Dataset contact: GRANIT Database Manager, 603-862-1792, granit@unh.edu

Notes: This is the latest statewide terrain database. For the latest LiDAR collections, please refer to the UNH GRANIT LiDAR Distribution Site at <http://lidar.unh.edu/map/>

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 Geospatial 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 Geospatial 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).

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Table 1. Discovery Data Resources

Data	Data Source	Location
Watershed boundaries	National	Discovery Data Repository
Jurisdictional boundaries	National	Discovery Data Repository
	State	UNH GRANIT Political Boundaries: http://www.granit.unh.edu/data/downloadfr eeedata/category/databycategory.html#Administrative and Political Boundaries
Tribal land boundaries	National	Discovery Data Repository
State lands	State	New Hampshire Conservation/Public Lands at 1:24,000 Scale: http://www.granit.unh.edu/data/downloadfr eeedata/category/databycategory.html#Environment and Conservation
Federal lands	National	Discovery Data Repository
Major roads	State	UNH GRANIT transportation layer: http://www.granit.unh.edu/data/downloadfr eeedata/category/databycategory.html#Transportation Networks
	National	Discovery Data Repository
Streams	State	New Hampshire Hydrography Dataset: http://www.granit.unh.edu/data/downloadfr eeedata/category/databycategory.html#Inland Water Resources
	National	Discovery Data Repository
Coastal Barrier Resource Areas	National	Discovery Data Repository
Coordinated Needs Management Strategy	National	See National Operating Procedure
Topographic/ bathymetric data	National	See National Operating Procedure
AAL data from HAZUS	National	Please contact the RSC if you have problems retrieving the data.
Coverage areas for known community and Tribal risk assessment data	Regional	Risk class deciles by Census Block Group Discovery Data Repository

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Data	Data Source	Location
Status of Hazard Mitigation Plans	Regional	AMPS - Region 1 Mitigation Plan Tracking Contact Region 1 or the CERC Mitigation Champion, Toni Pignatelli (Toni.Pignatelli@mbakerintl.com)
	National	Discovery Data Repository
Flood control structure data	National	See National Operating Procedure
Locations of stream gages	National	Discovery Data Repository
Locations of past flood claims and repetitive loss properties	CIS Report	Contact the geospatial data coordination lead at your RSC referenced earlier in this document.
Locations of clusters of Letters of Map Change	National	See National Operating Procedure
Known flooding issues not represented on effective FIRMs or listed in Coordinated Needs Management Strategy database	Local Only	
Areas of planned development	Local Only	
Areas of land use change datasets	National	See National Operating Procedure
	State	UNH GRANIT Landuse (multiple years) and imperviousness data: http://www.granit.unh.edu/data/downloadfreedata/category/databycategory.html#Environment and Conservation
Locations of ongoing projects or updated stream studies (e.g. highway improvements)	Regional	USACE, New England District maintains a list of ongoing and recent projects: http://www.nae.usace.army.mil/Missions/ProjectsTopics.aspx http://www.nae.usace.army.mil/Media/StateUpdateReports.aspx
	State	NH DOT project statuses (non-geospatial, but includes bridge and highway improvements) http://www.nh.gov/dot/projects/index.htm
Locations of wave and tide gauges	National	See National Operating Procedure
Locations of wind gauges	National	See National Operating Procedure
Proposed inland limit of the Primary Frontal Dune, if present		See Effective or Preliminary DFIRM data. PFD Delineations generally are created during the DFIRM process.

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Data	Data Source	Location
Locations of any beach nourishment or dune restoration projects	SLOSH Zones	See National Operating Procedure
Comparison of preliminary stillwater elevations with effective stillwater elevations	Local Only	
Available effective study data	National	See National Operating Procedure
Orthophotography	National	See National Operating Procedure
	State	UNH GRANIT has multiple datasets by county or region: http://www.granit.unh.edu/data/downloadfr ee data/category/databycategory.html#Image ry and Base Maps
Proposed discussion areas, problem areas, areas of proposed mitigation projects	Local Only	
Land use and soil information	Land Use	UNH GRANIT Landuse (multiple years) and imperviousness data: http://www.granit.unh.edu/data/downloadfr ee data/category/databycategory.html#Envir onment and Conservation
	Soils	See National Operating Procedure
Reference points to locate areas with flooding issues	Local Only	
Hydraulic structures	Culverts	Historic Stone Culverts (Road name and stream crossing, PDF): Discovery Data Repository
	Levees, Dams, Bridges	See National Operating Procedure
Coastal structures, including flood protection structures, shoreline structures, manmade embankments, surge conveyance pathways, and shoreline change data	Regional	The MLI database (See levees and National Operating Procedure, above) may contain coastal levees or structures. FAST Tracker on FEMA SharePoint, please contact RSC1 for further information.
Local structure and topographic data from the existing hazard mitigation plans	Regional	AMPS - Region 1 Mitigation Plan Tracking Contact Region 1 or the CERC Mitigation Champion, Toni Pignatelli (Toni.Pignatelli@mbakerintl.com)

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Data	Data Source	Location
Historic inundation areas and high water marks	Historic Riverine Inundation Areas	See National Operating Procedure
	Storm Surge Inundation Areas	See National Operating Procedure
	High Water Marks	USGS & FEMA HWM as of May 2011: Discovery Data Repository
Clusters or locations of Individual Assistance/Public Assistance grants and locations of grant projects completed, planned, or underway	National	See National Operating Procedure
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 Operating Procedure
Other information on FEMA grants, as described in G&S Appendix I	Local only	
Any data deficiencies identified in hazard mitigation plans	Regional	AMPS - Region 1 Mitigation Plan Tracking Contact Region 1 or the CERC Mitigation Champion, Toni Pignatelli (Toni.Pignatelli@mbakerintl.com)
Information from FloodSmart on market penetration	FEMA	http://www.floodsmart.gov/floodsmart/
Community Assistance Visits / Community Assistance Contacts	National	Discovery Data Repository
Community Rating System class information	National	See National Operating Procedure
Information from other Federal agencies	National Only	See National Operating Procedure
Information from State agencies, non-profit organizations, universities, etc.	Regional	
Current community plans, ordinances, or programs to alleviate flooding or manage stormwater	Local only	

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Data	Data Source	Location
Other known hazards with geographical boundaries (e.g. earthquake faults)	Tsunami Landslide Volcanic Eruptions Wildfire	Discovery Data Repository Discovery Data Repository Discovery Data Repository Discovery Data Repository
Information on active disasters	Regional State	USGS Hurricane Irene information: http://coastal.er.usgs.gov/hurricanes/irene/ NH Department of Safety: http://www.nh.gov/safety/divisions/hsem/
Campgrounds, recreational areas, emergency access routes, etc.	National State	Discovery Data Repository New Hampshire recreation facilities (not-statewide, see metadata): http://www.granit.unh.edu/data/downloadfr ee data/category/databycategory.html#Cultural, Society and Demographic
Wetlands	State	UNH GRANIT wetlands (multiple datasets): http://www.granit.unh.edu/data/downloadfr ee data/category/databycategory.html#Inland Water Resources

Data Distribution Process for State Data

Downloadable Electronic Data is available for download from the [GRANIT website](#).

Hardcopy data can be ordered online at <http://www.granit.unh.edu/data/orderdata/prepackagedproducts.html>.

Digital data in NH GRANIT represent the efforts of the contributing agencies to record information from the cited source materials. Complex Systems Research Center, under contract to the NH Office of Energy and Planning (formerly NH Office of State Planning), and in consultation with cooperating agencies, maintains a continuing program to identify and correct errors in these data. OEP, CSRC, and the cooperating agencies make no claim as to the validity or reliability or to any implied uses of these data.

Federal Nationwide Geospatial Data Holdings

Information about nationwide holdings and programs of Federal agencies is available from the Data.gov geospatial catalog at https://catalog.data.gov/dataset?metadata_type=geospatial.

Elevation, orthophoto, boundary, and transportation data can also be found through the USGS' National Map service: <https://viewer.nationalmap.gov/basic/>.

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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

The New Hampshire Geographic Information System ([NH GRANIT](#)) is a cooperative project to create, maintain and make available a statewide digital geographic data base serving information to state, regional and local government decision-makers.

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 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.

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=NH>.

USGS National Map Liaisons (<https://liaisons.usgs.gov/geospatial/>)– The National Map partnership network cultivates and maintains long-term relationships with partners and develops agreements for The National Map and other initiatives that support USGS science. Dan Walters is the Liaison for New Hampshire (danwalters@usgs.gov).

Of special interest are:

New Hampshire Office of Energy and Planning (NH OEP) – The GIS program of NH-OEP ([NH Office of Energy and Planning](#)) has two main functions. First, the program provides mapping support and geographic analysis to other programs in the office.

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Second, the program develops particular geographic data layers for the statewide GRANIT project and provides guidance to GRANIT through its position as coordinator of the statewide GIS Advisory Committee.

New Hampshire Geographically Referenced Analysis and Information Transfer System (NH GRANIT) – GRANIT is a cooperative project to create, maintain, and make available a statewide geographic data base serving the information needs of state, regional, and local decision-makers. The core GRANIT system includes a geographic database, hardware and software to build, manage, and access the database, and a staff of experts knowledgeable in geographic information systems, image processing, and computer analysis. In addition to database development and maintenance, the GRANIT staff offers a range of application development, training, and related technical services to GIS users in the state and the region.

Involving State's Geospatial Coordinator in Flood Studies

The New Hampshire Geographically Referenced Analysis and Information Transfer System (GRANIT) is a cooperating technical partner (CTP) that is responsible for updating many of the multi-hazard maps. They also have access to their state's flood map modernization business plan.

GRANIT is also the repository for the DFIRMs, which can be downloaded from their website. The RSC is in regular contact with them to discuss any issues related to Risk MAP.

State Coordination Process for Building Geospatial Partnerships

The NH GIS Advisory Committee was established in 1987 as a sub-committee of the Governor's Council on Resources and Economic Development (CORD). The Committee was formed to coordinate mapping and GIS-related activities of the members, and to recommend policies, standards, and related measures to CORD for endorsement and implementation. The Committee meets regularly, and has drawn into its membership representatives of all state agencies actively involved in mapping, as well as representatives of several federal agencies, regional planning agencies, and the University of New Hampshire.

<http://www.granit.unh.edu/resourcelibrary/nhnetworkingresources/usergroups/usergroups.html#advisory>

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

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from the FEMA archive and web searches at government link portals such as <http://www.statelocalgov.net>.

All of the regional planning commissions (RPC) in New Hampshire provide GIS services to their member communities. The RPCs in New Hampshire and their websites are listed below.

- Southern New Hampshire Planning Commission, <http://www.snhpc.org/> , 603-669-4664
- Rockingham Planning Commission, <http://www.rpc-nh.org/>, 603-778-0885
- Central New Hampshire Regional Planning Commission, <http://www.cnhrpc.org/>, 603-226-6020
- Strafford Regional Planning Commission, <http://www.strafford.org/mappinggis/mappinggis.htm>, 603-994-3500
- Southwest Region Planning Commission, <http://www.swrpc.org/data/>, 603-357-0557
- Lakes Region Planning Commission, <http://www.lakesrpc.org/>, 603-279-8171
- Nashua Regional Planning Commission, <http://www.nashuarpc.org/>, 603-424-2240
- North County Council, <http://www.nccouncil.org/>, 603-444-6303
- Upper Valley Lake Sunapee Regional Planning Commission, <http://www.uvlsrc.org/>, 603-448-1680

Provide Feedback on This Procedure

When you find information in this Procedure or in other FEMA or outdated, please tell the geospatial data coordination lead in the what was wrong and the correct information (if you know it). Use for the lead listed in the section

Purpose of the Procedure.

The lead will use your feedback to update this Procedure.