State Geospatial Data Coordination Procedure

North Carolina

FINAL

October 2015

FEMA

State Geospatial Data Coordination Procedure

North Carolina

Table of Contents

Table of Contents 1
Purpose of the Procedure 2
Default Flood Hazard Base Map for the State 2
Geospatial Data Coverage 2
Major State Holdings 3
- Orthophotos 3
- Transportation (roads, railroads, and airports) 3
- Hydrography (rivers, streams, lakes, and shorelines) 3
- Political boundaries (county) 3
- Publicly owned lands (national, state, and local parks, forests, etc) 3
- Cadastral (parcels) 4
- Extraterritorial jurisdiction (ETJ) boundaries 4
- Terrain (elevation) 4

Useful Risk MAP Discovery Data Sources 5
- Table 1. Discovery Data Resources 5

Data Distribution Process for State Data 9
Federal Nationwide Geospatial Data Holdings 9
Finding and Accessing Other Existing Geospatial Data 9
- Clearinghouses and Inventories for the State 9

National Digital Orthophoto Program (NDOP) and National Digital Elevation Program (NDEP) Tracking Systems 9
- TED Query Tool 10
- Geospatial One-Stop 10

Working with People 10
- Useful Local, State and Federal Contacts 10
- Involving the State's Geospatial Coordinator in Flood Studies 10
- State Coordination Process for Building Geospatial Partnerships 10

Provide Feedback on This Procedure 10
Other Useful Information 11
- Lead Regional Organizations in the State 11

State Geospatial Data Coordination Procedure

Purpose of the Procedure

Flood Insurance Studies involve searching for geospatial data during Discovery (formerly pre-scoping and scoping) tasks. If needed data are not available, studies might include funds that allow for the collection of new data and, where applicable, encourage cost sharing among existing organizations. 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_V3.pdf, and in *Scoping Guidelines: Pre-scoping and the Scoping Meeting*, which is available through the Regional Service Center (RSC).

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 agencies are interested. Dead-end searches and cold calls can be avoided 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 RSC:

Mckenzie Houston
COMPASS Regional Support Center 4
1360 Peachtree Street, Suite 500
Atlanta, GA 30309
(404) 965-9710
mckenzie.houston@aecom.com

This document will be shared with the appropriate Regional and State geospatial leads for feedback and comments.

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

Information and links related to Statewide (and Federal agencies' national) geospatial datasets is listed below. The list can allow researchers to save time during Discovery activities. It is not a prescription of datasets that must be used in a Flood Insurance Study.

Major State Holdings

Orthophotos

Dataset name: North Carolina Statewide Orthophotography
Data currentness: 2014 in some areas
Scale: 1:1200
Ground sample resolution: 6 inches
Horizontal datum: NAD 83 (Projection: State Plane; Units: US feet)
Fee associated? No
Available for redistribution? Yes
Dataset source: http://www.nconemap.com
Dataset contact: Tim Johnson, Director, Center for Geographic Information and Analysis, NC CGIA, 20322 Mail Service Center, Raleigh, NC 27699; (919) 754-6588; tim.johnson@nc.gov

Transportation (roads, railroads, and airports)

Dataset name: NC DOT GIS & CAD data products
Data currentness: 2010
Accuracy/Scale: 1:24,000-scale with updates from 1:12,000-scale orthophotos
Horizontal datum: NAD 83
Fee associated? No
Available for redistribution? Yes
Are road names part of the dataset? Route names are provided. Currently NC does not have a road name database that is maintained.
Dataset source: https://connect.ncdot.gov/resources/gis/Pages/GIS-Data-Layers.aspx
Dataset contact: North Carolina Department of Transportation, Geographic Information Systems, 1501 Mail Service Center, Raleigh, NC 27699; (919) 212-6000; gishelp@ncdot.gov

Hydrography (rivers, streams, lakes, and shorelines)

Dataset name: Hydrography - 1:24,000-scale
Data currentness: 2010+
Scale: 1:1200
Horizontal datum: NAD 83 (Projection: State Plane; Units: US Feet)
Fee associated? No
Available for redistribution? Yes
Are hydrography names part of the dataset? Yes
Dataset source: http://floodmaps.nc.gov/fmis/Download.aspx
Dataset contact: Dataset contact: North Carolina Floodplain Mapping, 4218 Mail Service Center, Raleigh, NC 27699; (919) 825-2500; hope.morgan@ncdps.gov

Political boundaries (county)

Dataset name: County Boundaries
Data currentness: 2010
Scale: 1:1200
Horizontal datum: NAD 83 (Projection: State Plane; Units: Feet)
Fee associated? No
Available for redistribution? Yes

Dataset source: https://connect.ncdot.gov/resources/gis/Pages/GIS-Data-Layers.aspx
Dataset contact: Dennis Lee, NC Geodetic Survey, 4218 Mail Service Center, Raleigh, NC 27699; (919) 825-2500; dennis.lee@ncdps.gov
Dataset name: Municipal Boundaries
Data Currentness: 2005
Scale: Varies
Horizontal Datum: NAD83 (Projection: State Plane; Units: Meters)
Fee associated: No
Available for redistribution: Yes
Dataset source: https://connect.ncdot.gov/resources/gis/Pages/GIS-Data-Layers.aspx
Dataset contact: Dennis Lee, NC Geodetic Survey, 4218 Mail Service Center, Raleigh, NC 27699; (919) 825-2500; dennis.lee@ncdps.gov

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

Dataset name: Lands Managed for Conservation and Open Space
Data currentness: 2002
Accuracy/Scale: 1:24000
Horizontal datum: NAD 83
Fee associated? No
Available for redistribution? Yes
Dataset source: http://www.nconemap.com/Default.aspx?tabid=286
Dataset contact: David Giordano, Database Administrator, NC CGIA, , 20322 Mail Service Center, Raleigh, NC 27699; (919) 754-6580; david.giordano@nc.gov

Cadastral (parcels)

No statewide coverage available.
Notes: Cadastral data is created and maintained by counties. Many counties offer their cadastral data as a free download from their website.

Extraterritorial jurisdiction (ETJ) boundaries

Available for redistribution? Yes
Are hydrography names part of the dataset? Yes
Dataset source: http://floodmaps.nc.gov/fmis/Download.aspx
Dataset contact: Dataset contact: North Carolina Floodplain Mapping, 4218 Mail Service Center, Raleigh, NC 27699; (919) 825-2500; hope.morgan@ncdps.gov

Terrain (elevation)

Dataset name: Statewide LiDAR
Data currentness: 2001-2005
Accuracy/Scale: The accuracy LIDAR data is 25cm
Vertical datum: NAVD 88
Fee associated? No
Available for redistribution? Yes
Are hydrography names part of the dataset? Yes
Dataset source: http://floodmaps.nc.gov/fmis/Download.aspx
Dataset contact: Dataset contact: North Carolina Floodplain Mapping, 4218 Mail Service Center, Raleigh, NC 27699; (919) 825-2500; hope.morgan@ncdps.gov

.

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 for accessing the Discovery Data Repository are provided 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).

Table 1. Discovery Data Resources

Data	Data Source	Location
Watershed boundaries	National	See National Operating Procedure
Jurisdictional boundaries	State SOP	https://connect.ncdot.gov/resources/gis/Pages/GIS-Data-Layers.aspx
Tribal land boundaries	National	See National Operating Procedure
State lands	State SOP	http://www.nconemap.com/Default.aspx?tabid=286
Federal lands	National	See National Operating Procedure
Major roads	National; State SOP	See National Operating Procedure https://connect.ncdot.gov/resources/gis/Pages/GIS-Data-Layers.aspx
Streams	State SOP	http://floodmaps.nc.gov/fmis/Download.aspx
Coastal Barrier Resource Areas	National	See National Operating Procedure
Coordinated Needs Management Strategy	National	CNMS data is available by request from each of FEMAs Regional Service Centers (RSC). Contact information for each RSC is available at the following website: https://hazards.fema.gov/femaportal/wps/portal/usercare_guidesAndDocs#Contact List

State Geospatial Data Coordination Procedure

Data	Data Source	Location
Topographic/ bathymetric data	National; State SOP	See National Operating Procedure http://floodmaps.nc.gov/fmis/Download.aspx
AAL data from HAZUS	National; FEMA Regional Office	See National Operating Procedure R4 Contact: eugene.longenecker@fema.dhs.gov
Coverage areas for known community and Tribal risk assessment data	FEMA Regional Office	eugene.longenecker@fema.dhs.gov henrietta.williams@fema.dhs.gov (Tribal)
Status of Hazard Mitigation Plans	FEMA Regional Office	edwardine.marrone@fema.dhs.gov
Flood control structure data	National; FEMA Regional Office	See National Operating Procedure RSC4 contact for MLI Data – mckenzie.houston@aecom.com
Locations of stream gages	National – USGS	See National Operating Procedure
Locations of past flood claims and repetitive loss properties	National	See National Operating Procedure
Locations of clusters of Letters of Map Change	National – FEMA	See National Operating Procedure
Known flooding issues not represented on effective FIRMs or listed in Coordinated Needs Management Strategy database	Local	No statewide coverage
Areas of planned development	Local	No statewide coverage
Areas of land use change datasets	National – USGS	The USGS Land Cover Institute (LCI) provides access to a wide variety of land use change and land cover data sets including the National Land Cover Dataset (NLCD). Data sets can be downloaded from the USGS at http://landcover.usgs.gov/
Locations of ongoing projects or updated stream studies (e.g. highway improvements)	Local	No statewide coverage
Locations of wave and tide gauges	National – NOAA	See National Operating Procedure
Locations of wind gauges	National – NOAA	See National Operating Procedure
Proposed inland limit of the Primary Frontal Dune, if present	For ongoing studies contact the CTP; For completed studies contact the FEMA Map Library	Ongoing: John Dorman – John.Dorman@ncdps.gov Completed: http://msc.fema.gov/

State Geospatial Data Coordination Procedure

Data	Data Source	Location
Locations of any beach nourishment or dune restoration projects	Local	No statewide coverage
Comparison of preliminary stillwater elevations with effective stillwater elevations	Local	No statewide coverage
Available effective study data	National	See National Operating Procedure
Orthophotography	State SOP	http://www.nconemap.com
Proposed discussion areas, problem areas, areas of proposed mitigation projects	Local	No statewide coverage
Land use and soil information	National – NRCS	The USDA Natural Resources Conservation Service (NRCS) maintains national soil data in a GIS format. Data can be downloaded from their Data Mart at this address http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm or from the NRCS Data Gateway listed in the Other Resources section of this document.
Reference points to locate areas with flooding issues	Local	No statewide coverage
Hydraulic structures	National	See National Operating Procedure
Coastal structures, including flood protection structures, shoreline structures, manmade embankments, surge conveyance pathways, and shoreline change data	For ongoing studies contact the CTP; For completed studies contact the FEMA Map Library	Ongoing: John Dorman – John.Dorman@ncdps.gov Completed: http://msc.fema.gov/
Local structure and topographic data from the existing hazard mitigation plans	State Hazard Mitigation Officer (SHMO) Local Community Mitigation Planning Lead	Chris Crew (SHMO) john.crew@ncem.org
Historic inundation areas and high water marks	FEMA Regional Office	eugene.longenecker@fema.dhs.gov
Clusters or locations of Individual Assistance/Public Assistance grants and locations of grant projects completed, planned, or underway	National; FEMA Region IV	See National Operating Procedure R4 Contact: victor.geer@fema.dhs.gov

State Geospatial Data Coordination Procedure

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; FEMA Regional Office	See National Operating Procedure R4 Contact: linda.byers@fema.dhs.gov
Other information on FEMA grants, as described in G&S Appendix I	National	See National Operating Procedure
Any data deficiencies identified in hazard mitigation plans	FEMA Regional Office	edwardine.marrone@fema.dhs.gov
Information from FloodSmart on market penetration	National	See National Operating Procedure
Community Assistance Visits / Community Assistance Contacts	National; FEMA Regional Office	See National Operating Procedure R4 Contact: tim.russo@fema.dhs.gov
Community Rating System class information	National; FEMA Regional Office	See National Operating Procedure R4 Contact: janice.mitchell@fema.dhs.gov
Information from other Federal agencies	National	See National Operating Procedure
Information from State agencies, non-profit organizations, universities, etc.	Local	No statewide coverage
Current community plans, ordinances, or programs to alleviate flooding or manage stormwater	Local	No statewide coverage
Other known hazards with geographical boundaries (e.g. earthquake faults)	Local	No statewide coverage
Information on active disasters	FEMA Region IV	harlie.clark@fema.dhs.gov
Campgrounds, recreational areas, emergency access routes, etc.	National	See National Operating Procedure
Any other data that might be appropriate	Local	No statewide coverage

Data Distribution Process for State Data

• NC Floodplain Mapping Program: Hope Morgan, hope.morgan@ncdps.gov , (919) 825-2336
• NC Department of Transportation: John Farley, jcfarley@ncdot.gov, (919) 212-6000
• NC Center for Geographic Information and Analysis: David Giordano, david.giordano@nc.gov, (919) 754-6580

There are no licensing policies; the public records policy requires open public use of the data without licenses. Currently there is not a single source but for all county data, some counties have to be contacted directly.

Federal Nationwide Geospatial Data Holdings

Information about nationwide holdings and programs of Federal agencies is available from the Mapping Information Platform website at https://hazards.fema.gov/femaportal/docs/ProgFacts.pdf.

Finding and Accessing Other Existing Geospatial Data

Links to methods of obtaining additional geospatial data available for the State are provided below. 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

All Data used for Fema Maps is held by the north Carolina Floodplain Mapping program. All data can be downloaded free of charge at http://floodmaps.nc.gov/fmis/Download.aspx

The inventory is available to FEMA at no charge for use in state maps. Other inventories for the data in the State include:
• NC State Libraries Geospatial Data Services (http://www.lib.ncsu.edu/gis/): Links to mapping sites, city and county produced data, and web mapping and feature services. Contact http://www.lib.ncsu.edu/gis/gisform.html
• NC DOT Data Distribution (https://connect.ncdot.gov/resources/gis/Pages/GIS-Data-Layers.aspx): Data: streets, imagery, elevation, State Travel Map, Coastal Boating Guide. Contact gishelp@ncdot.gov
• NC OneMap Data Inventory (http://www.nconemap.com)

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 website at http://www.ndop.gov and follow the link entitled “Project Tracking.” For the NDEP system, go to the NDEP website at http://www.ndep.gov and follow the link entitled “Project Tracking.”

All of the topographic data and/or orthophoto data used in a FEMA flood study project(s) is required to be entered into the NDEP and NDOP tracking systems. Contact

RiskMAP.GDC.Support@bah.comfor more information

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 RSC.

Geospatial One-Stop

Geospatial One-Stop, available at http://geo.data.gov/geoportal/, 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 progress.

Working with People

Useful Local, 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 website at https://hazards.fema.gov/contacts/statecontacts/contacts.asp?page=NC

Local contacts in NC for geospatial activities are available at: http://www.ncgicc.org/Default.aspx?tabid=170. This list is the Executive Committee of the Local Government Committee (a subcommittee of the NC Geographic Information Coordinating Council). Additional useful contacts for the State can be found in the Statewide Mapping Advisory Committee membership list available through http://www.ncgicc.org/Default.aspx?tabid=163.

The UNC School of Government also maintains list server that can be used to forward FEMA program information and production notices to state and county GIS contacts. The NC PMA (Property Mappers Association) list is available through http://lists.unc.edu/read/?forum=ncpma

State Coordination Process for Building Geospatial Partnerships

The website www.ncgicc.org is the home to the NC Geographic Information Coordinating Council. The Council was formed in 1991 to develop policies regarding the use of geographic information, GIS, and other related technologies. The GICC conducts strategic planning, resolves policy and technology issues, and provides coordination of State, local and other GIS efforts.

The Council has 35 members, representing local, state, and federal governments. Council subcommittees routinely work on multiple issues that improve the quality, access, cost-effectiveness and usefulness of North Carolina's geographic information.

Provide Feedback on This Procedure

If you find information in this Procedure or in other FEMA or State resources that is outdated, please tell the geospatial data coordination lead in the RSC. When contacting the lead, describe what was wrong and include information on how it can be corrected, if that information is available. Use the contact information for the lead listed in the section entitled *Purpose of the Procedure*. The lead will use your feedback to update this Procedure.

Other Useful Information

Lead Regional Organizations in the State

As of February 2011:

- Albemarle Commission
- Cape Fear Council of Governments
- Centralina Council of Governments
- Eastern Carolina Council of Governments
- Isothermal Planning and Development Commission
- Kerr-Tar Regional Council of Governments
- Land of Sky Regional Council
- Lumber River Council of Governments
- Mid-Carolina Council of Governments
- Mid-East Commission
- Northwest Piedmont Council of Governments
- Piedmont Triad Council of Governments
- Region D Council of Governments
- Southwestern Commission
- Triangle J Council of Governments
- Upper Coastal Plain Council of Governments
- Western Piedmont Council of Governments
- Charlotte-Mecklenburg Storm Water Services