

State Geospatial Data Coordination Procedure

Alabama

FINAL

October 2017



FEMA

State Geospatial Data Coordination Procedure

Alabama

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
Political boundaries (county, municipal).....	3
Publicly owned lands (national, State, and local parks, forests, etc).....	3
Terrain (elevation).....	3
Major National Holdings	4
Orthophotos	4
Transportation (roads, railroads, and airports)	4
Hydrography (rivers, streams, lakes, and shorelines).....	4
Political boundaries (county, municipal).....	5
Publicly owned lands (national, State, and local parks, forests, etc).....	5
Terrain (elevation).....	5
Useful Risk MAP Discovery Data Sources.....	5
Table 1. Discovery Data Resources	6
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.....	10
National Digital Orthophoto Program (NDOP) and National Digital Elevation Program (NDEP) Tracking Systems	Error! Bookmark not defined.
Geospatial One-Stop	10
Working with People.....	10
Useful State and Federal Contacts	10
Involving the State’s Geospatial Coordinator in Flood Studies.....	10
State Coordination Process for Building Geospatial Partnerships.....	11
Finding Local Geospatial Contacts	11
Provide Feedback on This Procedure	12

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:

Mary Wise
COMPASS Regional Support Center 4
1360 Peachtree Street, Suite 500
Atlanta, GA 30309
(404) 965-9681
mary.wise@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 in the State of Alabama is the USDA's National Agriculture Imagery Program (NAIP). If during Risk MAP Discovery Meeting it is determined that the community has local imagery, this data is typically used as base map data.

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 when building a list of potential candidate geospatial datasets available for the study during Discovery activities; it is not a prescription of datasets that must be used in a Flood Insurance Study.

State Geospatial Data Coordination Procedure

Major State Holdings

Orthophotos

Dataset name: Varies Aerial Imagery for all 67 counties
Data currentness: Varies
Accuracy/Scale: N/A
Ground sample resolution: Varies from 6 inches to 2 feet
Horizontal datum: Varies
Fee associated? No
Available for redistribution? Yes
Dataset source: N/A
Dataset contact: Local county tax assessor's office
Imagery Program: Varies

Transportation (roads, railroads, and airports)

Dataset name: Countywide Transportation Lines
Data currentness: Varies
Accuracy/Scale: Varies
Horizontal datum: Varies
Fee associated? Fees may apply
Available for redistribution? Yes
Dataset source: N/A
Dataset contact: Local county tax assessor's office or regional planning commission

Political boundaries (county, municipal)

Dataset name: Community Boundaries
Data currentness: Varies
Accuracy/Scale: N/A
Horizontal datum: Varies
Fee associated? Fees may apply
Available for redistribution? N/A
Dataset source: N/A
Dataset contact: Local county tax assessor's office

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

Dataset name: Federal Lands and Indian Reservations of Alabama
Data currentness: N/A
Accuracy/Scale: N/A
Horizontal datum: Varies
Fee associated? N/A
Available for redistribution? Yes
Dataset source: N/A
Dataset contact: Local county tax assessor's office or Poarch Creek Band of Indians at 5811 Jack Springs Road, Atmore, AL

Terrain (elevation)

Dataset name: Alabama LiDAR datasets
Counties: Autauga, Baldwin, Blount, Calhoun, Cherokee, Clay, Cleburne, Coffee, Colbert,

State Geospatial Data Coordination Procedure

Dale, Elmore, Etowah, Franklin, Geneva, Houston, Jefferson, Lamar, Lauderdale, Lawrence, Lee, Limestone, Lowndes, Madison, Marengo, Marshall, Mobile, Montgomery, Morgan, Talladega, Tuscaloosa, Shelby, St. Clair, Russell, Wilcox, and Winston

Other Datasets: Alabama Power Reservoirs (Harris, Lay, Martin, Thurlow-Yates, Smith, Weiss, Logan-Martin, Neely-Henry, Jordan-Bouldin); USACE (Alabama River Basin and Coastal Mobile); USGS (Baldwin County)

Data currentness: Varies

Accuracy/Scale: N/A

Vertical datum: N/A

Fee associated? Fees may apply

Available for redistribution? N/A

Dataset source: Varies

Dataset contact: Local county tax assessor's office or individual agency responsible for producing dataset

Major National Holdings

Orthophotos

Dataset name: NAIP Imagery

Data currentness: Published, 2015

Accuracy/Scale: +/- 10 meter

Ground sample resolution: 21 meter

Horizontal datum: North American Datum 1983 (NAD83)

Fee associated? No

Available for redistribution? Yes

Dataset source: <https://gdg.sc.egov.usda.gov/GDGOrder.aspx>

Dataset contact: USDA-FSA Aerial Photography Field Office (APFO), National Agriculture Imagery Program (NAIP)

Transportation (roads, railroads, and airports)

Dataset name: Tiger

Data currentness: 2016

Accuracy/Scale: Varies

Horizontal datum: Varies

Fee associated? No

Available for redistribution? Yes

Dataset source: <http://www.census.gov/geo/maps-data/data/tiger-line.html>

Dataset contact: U.S. Census Bureau, 4600 Silver Hill Road, Washington, DC 20233

Hydrography (rivers, streams, lakes, and shorelines)

Dataset name: National Hydrography Dataset

Data currentness: Varies

Accuracy/Scale: 1:24,000

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Are hydrography names part of the dataset? Yes

Dataset source: NHD

Dataset contact: available from the USGS at <http://nhd.usgs.gov> and/or

State Geospatial Data Coordination Procedure

<http://datagateway.nrcs.usda.gov/>

Political boundaries (county, municipal)

Dataset name: County Boundaries

Data currentness: 2015

Accuracy/Scale: 1:24,000

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution?

Dataset source: <http://www.census.gov/geo//maps-data/data/tiger-line.html>

Dataset contact: Census Bureau

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

Dataset name: Federal Lands and Indian Reservations of the United States

Data currentness: 2014

Accuracy/Scale: 1:2,000,000

Horizontal datum: NAD83

Fee associated? No

Available for redistribution? Yes

Dataset source: USGS

Dataset contact: USGS

Terrain (elevation)

Dataset name: The National Map (TNM)

Data currentness: 2013-2014

Accuracy/Scale: 1:24,000

Vertical datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Dataset source: USGS

Dataset contact: Available from the USGS through <http://nationalmap.gov/elevation.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 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

State Geospatial Data Coordination Procedure

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	Local Tax Assessor's Office and https://www.census.gov/geo/maps-data/data/tiger-line.html
Tribal land boundaries	National	See National Operating Procedure
State lands	State SOP	Local county tax assessor's office and Poarch Creek Band of Indians 5811 Jack Springs Road, Atmore, AL
Federal lands	National	See National Operating Procedure
Major roads	National; State SOP	See National Operating Procedure Local Tax Assessor's Office and State Highway Department and https://www.census.gov/geo/maps-data/data/tiger-line.html
Streams	National	See National Operating Procedure
Coastal Barrier Resource Areas	National	See National Operating Procedure
Coordinated Needs Management Strategy	National	CNMS data is available by request from each of FEMA's Regional Service Centers (RSC). Contact information for each RSC is available at the following website: https://hazards.fema.gov/femportal/wps/portal/usercare_guidesAndDocs#ContactList
Topographic/ bathymetric data	National; State SOP	See National Operating Procedure Local County Tax Assessor's office and http://nationalmap.gov/elevation.html and http://ned.usgs.gov
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	larry.brelandii@fema.dhs.gov
Flood control structure data	National; FEMA Regional Office	See National Operating Procedure RSC4 contact for Midterm Levee Inventory Data – mary.wise@acem.com
Locations of stream gages	National – USGS	See National Operating Procedure

State Geospatial Data Coordination Procedure

Data	Data Source	Location
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: Jerrick Saquibal – Jerrick.Saquibal@nfwwater.com & Wanda Ervin wanda.ervin@adeca.alabama.gov Completed: http://msc.fema.gov/
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.alabamaview.org/ and http://datagateway.nrcs.usda.gov/
Proposed discussion areas, problem areas, areas of proposed mitigation projects	Local	No statewide coverage

State Geospatial Data Coordination Procedure

Data	Data Source	Location
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: Jerrick Saquibal – Jerrick.Saquibal@nwfwater.com & Wanda Ervin wanda.ervin@adeca.alabama.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	Kelli Alexander (SHMO) kelli.alexander@ema.alabama.gov
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 Regional Office	See National Operating Procedure R4 Contact: jerry.gereaux@fema.dhs.gov ; carl.mickaloni@fema.dhs.gov
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	larry.brelandii@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: roy.mcClure@fema.dhs.gov Lynne.Keating@fema.dhs.gov janice.mitchell@fema.dhs.gov

State Geospatial Data Coordination Procedure

Data	Data Source	Location
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 Regional Office	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

For the purposes of this Geospatial Data Coordination Procedure, the Alabama Office of Water Resources should be considered the Data Distribution Center, since this office is the main point of contact between communities and other agencies for data used in flood mapping. In the State of Alabama, the Alabama GIS Office has created a GeoHub for all things geospatial. It has both internal and external sites for data distribution and discovery. The location of the internal site is <https://algeohub.maps.arcgis.com/home/index.html> and the public facing site is <http://data-algeohub.opendata.arcgis.com/>

Federal Nationwide Geospatial Data Holdings

Information on nationwide holdings and Federal agencies' programs is available on the Mapping Information Platform website at <https://hazards.fema.gov/femaportal/docs/ProgFacts.pdf>.

Finding and Accessing Other Existing Geospatial Data

Listed below is 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, municipalities, tribes, universities, and other organizations. Of course, local community data should be sought as a primary source, as it is likely to be the best available.

State Geospatial Data Coordination Procedure

Clearinghouses and Inventories for the State

The State of Alabama maintains a clearinghouse of data at this internal site; <https://algeohub.maps.arcgis.com/home/index.html> and the public facing site; <http://data-algeohub.opendata.arcgis.com/>. An inventory of statewide data is located here.

Other Websites:

Alabama Topographic Maps - <http://www.gsa.state.al.us/inter/topos24k>

AlabamaView (satellite imagery) - <http://www.alabamaview.org/>

Alabama Map Library - <http://alabamamaps.ua.edu/>

Alabama Hydrologic spatial data - http://www.aces.edu/waterquality/gis_data/index.php

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.

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, 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=AL>

Involving the State’s Geospatial Coordinator in Flood Studies

The State Flood Mapping contact in the Office of Water Resources (OWR) is the primary source for data used in all flood mapping projects. For geospatial inquiries relating to flood mapping, contact the Office of Water Resources at floods@adeca.alabama.gov or at (334) 353-1955.

State Geospatial Data Coordination Procedure

State Coordination Process for Building Geospatial Partnerships

The State of Alabama has a GIS Executive Council, comprised of various departmental heads or commissioners of agencies that either generate or use geospatial data to help support the development of the State's geospatial capability, and to support geospatial initiatives for the State. The Alabama Geographic Information Office (AGIO) is the sole entity within the state for coordination of geographic information, geographic information systems, and other geospatial-related technologies by all state agencies and state-funded entities. AGIO identifies, plans, and implements the efficient and effective way to utilize and integrate geographic information as a strategic management resource for Alabama. AGIO act as the operational arm of the Alabama Geographic Information Executive Council, and will provide administrative, as well as technical, support to the Council. There is a state GIS Advisory Committee which is desginted to ensure that state and local interests are considered by the Council. The Advisory Committee's purpose is to foster communication and cooperation among stakeholders throughout state, local, and federal agencies, education institutions, private industry, and others in the field of GIS. It provides guidance for the Council in fulfilling the objectives of the Strategic Plan and promote discussions of relevant GIS issues within the state. This Committee also provides advice to the Council and the GIS community of GIS related issues.

The Alabama Geographic Information Office has created an environment for statewide collobration and information sharing called the Alabama GeoHub. The Alabama GeoHub creates an ecosystem to collaborate and share information with all levels of government. It empowers agencies and jurisdictions with ready-to-use maps and toolsets by creating a framework for repeatable solutions that are open and interoperable. This public facing open data site allows access to authoritative data so it can easily be identified and downloaded in a variety of open formats. The data is grouped into logical categories (regardless of source) and provides tools to explore, visualize and analyze, build, and share. The site is located at <http://data-algeohub.opendata.arcgis.com/>. The internal landing page for the GeoHub provides a robust geospatial information capability developed through a collaborative effort among the statewide geospatial community. This collaborative environment provides for effective operational, strategic, and executive decision-making to optimize the health and resilience of communities, provides access to public information, and enhances the safety, economy, environment, and quality of life in Alabama. This internal site is located at <https://algeohub.maps.arcgis.com/home/index.html>

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 archives and government link portals such as <http://www.statelocalgov.net>. The State also maintains information about local geospatial contacts. Of course, local community data should be sought as a primary source, as it is likely to be the best available data.

State Geospatial Data Coordination Procedure

Provide Feedback on This Procedure

If you find information in this Procedure or in other FEMA or State resources that are outdated, please contact the geospatial data coordination lead in the RSC. Please provide 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 and redistribute this Procedure.