

State Geospatial Data Coordination Procedure

Florida

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FEMA

State Geospatial Data Coordination Procedure

Florida

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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 for the State is an image base map of 1 meter resolution 2004 DOQQ from The Land Boundary Information System (LABINS), available both as infra-red and true-color. The statewide imagery consists of a mosaic of aerial photography. One third of the state is flown annually, resulting in new imagery for any given place every three years. See linked document for the years of photography available through the FDOT surveying and mapping office: <http://www.fdot.gov/geospatial/documentsandpubs/aerialyears/pdf>

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

Notes: Please note that water management districts often have much more recent imagery than is

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available on the statewide sites.

Dataset name: County Aerial Photography

Data currentness: 2017

Accuracy/Scale: varies

Ground sample resolution: varies

Horizontal datum: NAD 83, State Plane Feet coordinate system for most

Fee associated? No

Available for redistribution? Yes

Dataset source: <http://www.fdot.gov/geospatial/aerialmain.shtm>

Dataset contact: Surveying & Mapping Office, 605 Suwannee Street, MS 5-L, Tallahassee, FL 32399; Tel: 850-414-4111; Fax: 850-414-4112

Dataset name: Digital Orthographic High-Resolution Images

Data currentness: varies

Accuracy/Scale: varies

Ground sample resolution: varies

Horizontal datum: State Plane

Fee associated? No

Available for redistribution? Yes

Dataset source: Aerial Photo Look Up System (APLUS) -

<http://fdotewp1.dot.state.fl.us/AerialPhotoLookUpSystem/>

Dataset contact: Florida Department of Transportation; 605 Suwannee St., MS-5L; Tallahassee, FL 32399; Tele: 850-414-4111; Fax: 850-414-4112.

Note: aerials are in appropriate State Plane projection and available in uncompressed GeoTiff and compressed JPG and MrSID formats.

Dataset name: USDA-FSA-APFO NAIP County Mosaic

Data currentness: 2003-2016

Accuracy/Scale: varies

Ground sample resolution: varies

Horizontal datum: Universal Transverse Mercator, North American Datum of 1983

Fee associated? No

Available for redistribution? Yes

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

Dataset contact: Customer Service Section, USDA Farm Service Agency, Aerial Photography Field Office, 2222 West 2300 South, Salt Lake City UT 84119-2020, Telephone: (801) 844-2922 or Fax: (801) 956-3653

Transportation (roads, railroads, and airports)

Dataset name: Basemap

Data currentness: 2017

Accuracy/Scale: 1:24,000 (approx)

Horizontal datum: NAD 1983 UTM Zone 17N

Fee associated? No

Available for redistribution? Yes

Are road names part of the dataset? Yes

Dataset source: Florida Department of Transportation at

<http://www.dot.state.fl.us/planning/statistics/gis/>

Dataset contact: GIS Section Manager, Florida Department of Transportation, Transportation

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Statistics Office, Mail Station 27, 605 Suwannee Street, Tallahassee, Florida 32399-0450; Telephone: (850) 414-4848

Hydrography (rivers, streams, lakes, and shorelines)

Dataset name: National Hydrography Dataset

Data currentness: varies

Accuracy/Scale: 1:24,000/1:12,000

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Are hydrography names part of the dataset? Yes

Dataset source: <http://nhd.usgs.gov>

Dataset contact: Edwin Abbey (Edwin.Abbey@dep.state.fl.us, (850) 245-8550), Data Services Environmental Manager

Notes: While the data is available from the USGS site, the FDEP is the data steward. See <http://www.dep.state.fl.us/water/watersheds/nhd-about.htm>

Political boundaries (county, municipal)

Dataset name: Florida County Boundaries with generalized shoreline

Data currentness: 2014

Accuracy/Scale: 1:100,000

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Dataset source: <http://www.fgdl.org/>

Dataset contact: Florida Geographic Data Library, 431 Architecture PO Box 115706, Gainesville Florida 32611-5706, (352) 392-0997

Notes: FLORIDA COUNTY BOUNDARIES WITH DETAILED SHORELINE – SEPTEMBER 2015, (1:40,000) This dataset represents Florida's County Boundaries with a detailed shoreline. This layer was created using the 2015 TIGER/Line Files from the US Census Bureau and FMRI's detailed shoreline polygon. The Census boundaries for counties and equivalent entities are as of January 1, 2014, primarily as reported through the Census Bureau's Boundary and Annexation Survey (BAS).

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

Dataset name: Florida Conservation Lands (FLMA)

Data currentness: 2017 (updated quarterly)

Accuracy/Scale: 1:24,000

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Dataset source: <http://fnai.org/gisdata.cfm>

Dataset contact: Nathan Pasco, Florida Natural Areas Inventory POC (Conservation Data Analyst), Florida Natural Areas Inventory; napasco@fnai.fsc.edu, Phone: (850) 224-8207x216

Public land survey system (PLSS) (township and section lines)

Dataset name: Florida Public Land Survey System - Section Level - by County

Data currentness: 2005

Accuracy/Scale: 1:24,000; this data is provided 'as is' and its horizontal positional accuracy has not been verified by GeoPlan

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Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Dataset source: <http://www.fgdl.org>

Dataset contact: Florida Geographic Data Library, 431 Architecture PO Box 115706, Gainesville, FL 32611-5706, (352) 392-0997

Dataset name: Florida Public Land Survey System

Data currentness: 2012

Accuracy/Scale: 1:12,000

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Dataset source: The Land Boundary Information System - <http://data.labins.org>

Dataset contact: Stephen W. Hodge, Florida Resource and Environmental Analysis Center, Technical Assistance Program, C2200 University Center, Florida State University, Tallahassee, FL 32306-2641; (850) 644-2882 (voice) (850) 644-7360 (FAX); shodge@admin.fsu.edu

Note: Version available from FGDL best for cartography, version available from LABIN/FREAC best for analysis. Note: This data is not available online, but may be requested by contacting FREAC. This data is from the Department of Revenue and may not be available for all Florida counties.

Terrain (elevation)

Dataset name: Elevation (LIDAR, contours, DEMs)

Data currentness: Varies

Accuracy/Scale: Varies

Horizontal datum: Varies

Fee associated? Fees may apply

Available for redistribution? Yes

Dataset source: <https://coast.noaa.gov/dataviewer/?redirect=301ocm&keyword=lidar#/lidar/search/>, <https://viewer.nationalmap.gov/basic/?basemap=b1&category=ned,nedsrc&title=3DEP%20ViewNW>

SWFWMD: terrain datasets are available on deposit at the USGS and from the NOAA Coastal Services Center, and are available from the SWFWMD. Dataset contact:

Jessica.Hendrix@SWFWMD.State.FL.US

Local Contacts (See the Water Management District for most up to date information)

Survey Control Data

Dataset name: Horizontal and Vertical Control, Land Records, Water Boundary Data

Data currentness: Varies

Accuracy/Scale: 1:24,000

Vertical datum: NAVD 88

Fee associated? No

Available for redistribution? Yes

Dataset source: The Land Boundary Information System - <http://data.labins.org>

Dataset contact: Stephen W. Hodge, Florida Resource and Environmental Analysis Center, Technical Assistance Program, C2200 University Center, Florida State University, Tallahassee, FL 32306-2641; (850) 644-2882 (voice) (850) 644-7360 (FAX); shodge@admin.fsu.edu

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

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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	http://www.fgdl.org/
Tribal land boundaries	National	See National Operating Procedure
State lands	State SOP	http://fnai.org/gisdata.cfm
Federal lands	National	See National Operating Procedure
Major roads	National; State SOP	See National Operating Procedure http://www.dot.state.fl.us/planning/statistics/gis/
Streams	National; State SOP	See National Operating Procedure http://www.dep.state.fl.us/water/watersheds/nhd-about.htm
Coastal Barrier Resource Areas	National Only	See National Operating Procedure
Coordinated Needs Management Strategy	National Only	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/femaportal/wps/portal/usercare_guidesAndDocs#ContactList
Topographic/ bathymetric data	National; State SOP	See National Operating Procedure http://floridadisaster.org/gis/LiDAR/index.htm (contact water management districts for most current information)

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Data	Data Source	Location
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
Status of Hazard Mitigation Plans	FEMA Regional Office	Linda.Byers@fema.dhs.gov
Flood control structure data	National; FEMA Regional Office	See National Operating Procedure RSC4 contact for MLI Data – Mary.Wise@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 Only	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 Only	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

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Data	Data Source	Location
Proposed inland limit of the Primary Frontal Dune, if present	<p>For ongoing studies contact the PTS/CTP;</p> <p>For completed studies contact the FEMA Map Library</p>	<p>Ongoing: Jerrick Saquibal – Jerrick.Saquibal@nfwwater.com (for Northwest Florida)</p> <p>Michael DelCharco – mdelcharco@taylorengeering.com (for East Florida)</p> <p>Jeff Gangai – JGangai@Dewberry.com (for West Florida)</p> <p>Completed: http://msc.fema.gov/</p>
Locations of any beach nourishment or dune restoration projects	Local Only	No statewide coverage
Comparison of preliminary stillwater elevations with effective stillwater elevations	Local Only	No statewide coverage
Available effective study data	National Only	See National Operating Procedure
Orthophotography	State SOP	http://www.dot.state.fl.us/surveyingandmapping/aerial_main.shtm and http://data.labins.org and http://datagateway.nrcs.usda.gov/
Proposed discussion areas, problem areas, areas of proposed mitigation projects	Local Only	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 Only	No statewide coverage
Hydraulic structures	National	See National Operating Procedure

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Data	Data Source	Location
Coastal structures, including flood protection structures, shoreline structures, manmade embankments, surge conveyance pathways, and shoreline change data	<p>For ongoing studies contact the PTS/CTP;</p> <p>For completed studies contact the FEMA Map Library</p>	<p>Ongoing: Jerrick Saquibal – Jerrick.Saquibal@nfwfwater.com (for Northwest Florida)</p> <p>Michael DelCharco – mdelcharco@taylorengeering.com (for East Florida)</p> <p>Jeff Gangai – JGangai@Dewberry.com (for West Florida)</p> <p>Completed: http://msc.fema.gov/</p>
Local structure and topographic data from the existing hazard mitigation plans	FEMA Regional Office	Linda.Byers@dhs.gov
Historic inundation areas and high water marks	FEMA Regional Office	Kristen.Martinez@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: Jason.Hunter@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	Linda.Byers@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: Jason.hunter@fema.dhs.gov Henrietta.Williams@fema.dhs.gov Prasad.Inmula@fema.gov janice.mitchell@fema.dhs.gov

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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	Kristen.Martinenza@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

As Florida has no centralized GIS clearinghouse, there is no defined data distribution process for State data.

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

Sources for additional geospatial data for the State are listed 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. Of course, local community data should be sought as a primary source as it is likely to be the best available.

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Clearinghouses and Inventories for the State

- Florida Geographic Data Library (FGDL): <http://www.fgdl.org/>
- Land Boundary Information System: <http://www.labins.org/>
- South Florida Water Management District GIS: www.sfwmd.gov/portal/page/portal/levelthree/GIS
- Southwest Florida Water Management District GIS: <http://www.swfwmd.state.fl.us/data/gis/>
- St. John's River Water Management District GIS:
<http://floridaswater.com/gisdevelopment/docs/themes.html>
- Central Florida Geographic Information Systems Clearinghouse: <http://www.cfgis.org/>
- Florida Department of Environmental Protection Beaches & Coastal Systems:
<http://www.dep.state.fl.us/beaches/data/gis-data.htm>
- Florida Department of Environmental Protection Geographic Information Systems:
<http://www.dep.state.fl.us/gis/>
- Florida Department of Transportation Geographic Information Systems:
<http://www.dot.state.fl.us/planning/statistics/gis/>
- Florida Division of Emergency Management Coastal LIDAR:
<http://mapping.ihr.c.fiu.edu/fldemlidar20100504/Default.aspx>

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.

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://www.geodata.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 progress.

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 website at <https://hazards.fema.gov/contacts/statecontacts/contacts.asp?page=FL>

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Involving the State's Geospatial Coordinator in Flood Studies

Water Management Districts have GIS coordinators:

- St. Johns River –
Christine Mundy
GIS Program Coordinator
Information Resources Department
St. Johns River Water Management District
4049 Reid Street
Palatka, FL 32177
(386) 329-4276
cmundy@sjrwmd.com
- Northwest Florida –
Karen Kebart
Water Resource Planner IV
Northwest Florida Water Management District
81 Water Management Drive
Havana, FL 32333
(850) 539-5999 ext. 211 (Switchboard)
(850) 539-2637 (Direct)
(850) 539-2778 (Fax)
Karen.Kebart@nwfwater.com
- Southwest Florida –
Al Karlin, Ph.D., GISP
Senior GIS Analyst
Mapping & GIS
Southwest Florida Water Management District
2379 Broad Street (Mail Code GIS)
Brooksville, FL 34604-6899
(352) 796-7211 ext. 4204
al.karlin@swfwmd.state.fl.us
- South Florida -
Tim Minter
GIS Enterprise Architect
South Florida Water Management District
3301 Gun Club Road, MSC 6320
West Palm Beach, FL 33406
(561) 682-2782
tminter@sfwmd.gov
- Suwannee River -
Paul Buchanan
GIS Analyst

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Suwannee River Water Management District
9225 CR 49
Live Oak, FL 32060
(386) 362-1001
PJB@srwmd.org

In order to participate in the FEMA flood hazard mapping effort. It is important to coordinate with the GIS contacts for each water management district in the following ways:

- a. Send project list at the start of each year;
- b. Conference call at the start of data discovery for each individual project; and
- c. Attend each kickoff/discovery meeting.

The names of people who can provide additional information are listed below:

Stephen Hodge
Florida State University
(850) 644-2882
shodge@admin.fsu.edu

Louis J. Driber
Physical Scientist
USGS Liaison
Florida Integrated Science Center
(850) 553-3645
ldriber@usgs.gov

Richard Butgereit
GIS Administrator
Florida Department of Emergency Management
(850) 413-9907
richard.butgereit@em.myflorida.com

State Coordination Process for Building Geospatial Partnerships

There is no state GIS council.

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 supplement a Flood Insurance Study. Contact information is available from the FEMA archive and web searches at government portals such as <http://www.statelocalgov.net>. Of course, local community data should be the primary data sought as it is likely to be the best available.

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

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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