

State Geospatial Data Coordination Procedure

Texas

FINAL

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FEMA

State Geospatial Data Coordination Procedure

Texas

Table of Contents

Purpose of the Procedure	2
Default Flood Hazard Base Map for the State.....	2
Geospatial Data Coverage	3
Major State Holdings	3
Orthophotos	3
Transportation (roads, railroads, and airports).....	3
Hydrography (rivers, streams, lakes, and shorelines)	4
Political boundaries (county, municipal)	4
Publicly owned lands (national, state, and local parks, forests, etc).....	5
Cadastral (parcels)	5
Extraterritorial jurisdiction (ETJ) boundaries	5
Terrain (elevation)	5
Data Distribution Process for State Data	5
Useful Risk MAP Discovery Data Sources.....	5
Federal Nationwide Geospatial Data Holdings	11
Finding and Accessing Other Existing Geospatial Data	11
Clearinghouses and Inventories for the State	11
3D Elevation Program.....	11
Geospatial One-Stop	11
Working with People	12
Useful State and Federal Contacts.....	12
Involving the State’s Geospatial Coordinator in Flood Studies	12
State Coordination Process for Building Geospatial Partnerships.....	12
Finding Local Geospatial Contacts	12
Provide Feedback on This Procedure	12

State Geospatial Data Coordination Procedure

Purpose of the Procedure

Flood Insurance Studies search for geospatial data during Discovery tasks. If needed data are not available, studies might fund the collection of new data and would like to know about other organizations that might share in these costs. Detailed information about the role geospatial data coordination plays in studies is in the Geospatial Data Coordination portal, which is available at

https://riskmapportal.msc.fema.gov/riskmap_usergroups/GeoCoord/default.aspx
(password required).

Resources developed through FEMA's geospatial data coordination activities provide information about data and contacts for organizations that have geospatial data that cover large areas (like states) in which many studies are interested. Studies can avoid wasting time with dead-end searches and cold calls by starting with these proven sources of information.

One resource is this Geospatial Data Coordination Procedure. It outlines sources of geospatial data and contact information, preferences for base map data and state geospatial participation in flood insurance studies, information for the project Discovery stage, and other useful information for the State.

If you have questions about this procedure or other geospatial data coordination resources, contact the geospatial data coordination lead in your Regional Support Center (RSC):

Michael Johnson, Geospatial Data Coordination Lead
Compass Regional Support Center (RSC) 6
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We appreciate the help of those who reviewed this document, in particular:

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Date Procedure last discussed: February 2007

Default Flood Hazard Base Map for the State

The default base map for flood hazard maps for the State is either an image (orthophoto) or vector (road centerline) base map.

State Geospatial Data Coordination Procedure

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.

Major State Holdings

Orthophotos

Dataset name: National Agriculture Imagery Program

Data currentness: 5/1/2018 – 4/1/2019

Accuracy/Scale: Horizontal accuracy matches within six meters to ground specification

Ground sample resolution: 60-cm (2-foot)

Horizontal datum: UTM, NAD 83

Fee associated? Media duplication costs only

Available for redistribution? Yes

Dataset source: USDA NAIP, available at <https://data.tnris.org>

Dataset contact: Farm Services Agency or Texas Natural Resources Information System (TNRIS) (512) 463-8337

Notes: Full coverage is available for state

Transportation (roads, railroads, and airports)

Dataset name: TxDOT Roadways

Data currentness: 10/8/2020

Accuracy/Scale: Accuracy is limited to the validity of available data as of the date published. This data was created for linear referencing, analysis, and general mapping. It was not created for address matching or networking.

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Are road names part of the dataset? Yes

Are road names in TIGER format? No. No, this dataset cannot be used for FIRMs that are using the 2013 FIRM Database schema without authorization by the FEMA Project Officer and conversion of its attributes to the 2013 FEMA schema.

Dataset source: TxDOT, available at <https://gis-txdot.opendata.arcgis.com/>

Notes: This dataset covers the state of Texas and includes on-systems routes (those that TxDOT maintains), such as interstate highways, U.S. highways, state highways, and farm and ranch roads, as well as off-system routes, such as county roads and local streets.

State Geospatial Data Coordination Procedure

Dataset name: TxDOT Railroads

Data currentness: 7/6/2016

Accuracy/Scale: Accuracy is limited to the validity of available data as of the date published. The data was created for analysis and general mapping. The data was not created for networking.

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Are road names part of the dataset? Yes

Dataset source: TxDOT, available at <https://gis-txdot.opendata.arcgis.com/>

Notes: TXDOT's GIS linework for Active, Inactive, and Pulled railroads.

Hydrography (rivers, streams, lakes, and shorelines)

Dataset name: Texas Rivers, Streams, and Waterbodies 2014

Data currentness: 2014

Accuracy/Scale: 1:24,000

Horizontal datum: EPSG 4269

Fee associated? No

Available for redistribution? Yes

Are hydrography names part of the dataset? Yes

Dataset source: <https://data.tnris.org>

Notes: Map produced for use as policy decisions. Map attribute fields derived from NHD shapefiles.

Political boundaries (county, municipal)

Dataset name: Texas County Boundaries / TxDOT

Data currentness: 9/16/2019

Accuracy/Scale: Variable

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Dataset source: <https://gis-txdot.opendata.arcgis.com/>

Dataset Contact: TxDOT (512) 463-8588

State Geospatial Data Coordination Procedure

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

Dataset name: LWRCRP Statewide Inventory
Data currentness: 2015
Accuracy/Scale: Variable
Horizontal datum: NAD 83
Fee associated? No
Available for redistribution? Yes
Dataset source: TPWD, available at <https://tpwd.texas.gov/gis/>
Contact: TNRIS (512) 463-8337

Cadastral (parcels)

Texas does not have a statewide dataset for parcels. Parcel datasets must be obtained from county appraisal districts.

Extraterritorial jurisdiction (ETJ) boundaries

Texas does not have a statewide dataset for ETJs. ETJ datasets must be obtained from cities.

Terrain (elevation)

Dataset name: National Elevation Dataset
Data currentness: 2013
Accuracy/Scale: Variable
Vertical datum: NAVD 88
Fee associated? No
Available for redistribution? Yes
Dataset source: USGS, available at <https://data.tnris.org>
Contact: TNRIS (512) 463-8337
Notes: (1) Same as National Dataset. Currentness and accuracy vary.
(2) State has 5ft Contours (TNRIS) generated from DEMs for each corresponding LIDAR datasets at <https://data.tnris.org> .

Data Distribution Process for State Data

Data are available through

1. <https://data.tnris.org>
2. <http://www.glo.texas.gov/land/land-management/gis/>
3. <https://www.tceq.texas.gov/agency/data/lookup-data/download-data.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.

State Geospatial Data Coordination Procedure

The *National Discovery Data Coordination Procedure* document contains information on data resources available from other Federal agencies (OFAs), including those that FEMA maintains at the national level, and should be used in conjunction with this *State Geospatial Data Coordination Procedure* document. In addition, FEMA and its contractors have created a geospatial Discovery Data Repository to host data that are not readily accessible through direct sources such as Web sites or subscription services and/or are not updated on a frequent basis. Instructions on accessing the Discovery Data Repository are given in the *National Discovery Data Coordination Procedure* document.

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 Major State Holdings section of this document for geospatial data that meet FIRM production requirements).

Table 1. Discovery Data Sources

Data	Data Source	Location
Watershed boundaries	National	See <i>National Discovery Data Coordination Procedure</i>
Jurisdictional boundaries	TNRIS	https://data.tnris.org (512) 463-8337
	National	See <i>National Discovery Data Coordination Procedure</i>
Tribal land boundaries	National	See <i>National Discovery Data Coordination Procedure</i>
State lands	TPWD	https://tpwd.texas.gov/gis/ (512) 389-4800
Federal lands	National	See <i>National Discovery Data Coordination Procedure</i>
Major roads	TxDOT	https://gis.txdot.opendata.arcgis.com/ (512) 463-8588
	National	See <i>National Discovery Data Coordination Procedure</i>
Streams	TNRIS	https://data.tnris.org (512) 463-8337
	National	See <i>National Discovery Data Coordination Procedure</i>
Coastal Barrier Resource Areas	National	See <i>National Discovery Data Coordination Procedure</i>

State Geospatial Data Coordination Procedure

Data	Data Source	Location
Coordinated Needs Management Strategy	National	See <i>National Discovery Data Coordination Procedure</i>
Topographic/bathymetric data	TNRIS	https://data.tnris.org (512) 463-8337
	National	See <i>National Discovery Data Coordination Procedure</i>
AAL data from Hazus	National	See <i>National Discovery Data Coordination Procedure</i>
Coverage areas for known community and Tribal risk assessment data	Local	Local
Status of Hazard Mitigation Plans	National	See <i>National Discovery Data Coordination Procedure</i>
Flood control structure data	Texas State Soil and Water Conservation Board	http://www.tsswcb.texas.gov/programs/flood-control-program John Foster Statewide Programs Officer (254) 733-2250
	National	See <i>National Discovery Data Coordination Procedure</i>
Locations of stream gages	National	See <i>National Discovery Data Coordination Procedure</i>
Locations of past flood claims and repetitive loss properties	Region	Available through coordination with Region 6 RSC: Rachel Mollenhoff 13355 Noel Road Dallas, TX 75240 rachel.mollenhoff@aecom.com
	National	See <i>National Discovery Data Coordination Procedure</i>
Locations of clusters of Letters of Map Change	National	See <i>National Discovery Data Coordination Procedure</i>
Known flooding issues not represented on effective FIRMs or listed in Coordinated Needs Management Strategy	Local	Local
Areas of planned development	Local	Local
Areas of land use change datasets	Local	Local

State Geospatial Data Coordination Procedure

Data	Data Source	Location
Locations of ongoing projects or updated stream studies (e.g., highway improvements)	Local	Local
Locations of wave and tide gages	National	See <i>National Discovery Data Coordination Procedure</i>
Locations of wind gages	National	See <i>National Discovery Data Coordination Procedure</i>
Proposed inland limit of the Primary Frontal Dune, if present	Local	Local
Locations of any beach nourishment or dune restoration projects	Local	Local
Comparison of preliminary stillwater elevations with effective stillwater elevations	Local	Local
Available effective study data	National	See <i>National Discovery Data Coordination Procedure</i>
Orthophotography	TNRIS	https://data.tnris.org (512) 463-8337
	National	See <i>National Discovery Data Coordination Procedure</i>
Proposed discussion areas, problem areas, areas of proposed mitigation projects	Local	Local
Land use and soil information	Texas Commission on Environmental Quality	https://www.tceq.texas.gov/agency/data/lookup-data/download-data.html (512) 239-1000
	National	See <i>National Discovery Data Coordination Procedure</i>
Reference points to locate areas with flooding issues	Local	Local
Hydraulic structures	National	See <i>National Discovery Data Coordination Procedure</i>

State Geospatial Data Coordination Procedure

Data	Data Source	Location
Coastal structures, including flood protection structures, shoreline structures, manmade embankments, surge conveyance pathways, and shoreline change data	National	See <i>National Discovery Data Coordination Procedure</i>
Local structure and topographic data from the existing hazard mitigation plans	Local	Local
Historic inundation areas and high water marks	TNRIS	https://data.tnris.org
	Regional	Discovery Data Repository
Clusters or locations of Individual Assistance/Public Assistance grants and locations of grant projects completed, planned, or underway	National	See <i>National Discovery Data Coordination Procedure</i>
Locations of projects and structures completed or planned for FEMA Hazard Mitigation Assistance grant programs or mitigation funds from other agencies or entities, such as the Small Business Administration	National	See <i>National Discovery Data Coordination Procedure</i>
Other information on FEMA grants	Local	Local
Any data deficiencies identified in hazard mitigation plans	Local	Local
Information from FloodSmart on market penetration	National	See <i>National Discovery Data Coordination Procedure</i>
Community Assistance Visits / Community Assistance Contacts	National	See <i>National Discovery Data Coordination Procedure</i>
Community Rating System class information	National	See <i>National Discovery Data Coordination Procedure</i>
Information from other Federal agencies	National	See <i>National Discovery Data Coordination Procedure</i>

State Geospatial Data Coordination Procedure

Data	Data Source	Location
Information from State agencies, non-profit organizations, universities, etc.	Texas Association of Regional Councils	http://txregionalcouncil.org/regional-councils/ <i>Note: Texas has 24 regional Councils of Government (COGs). The above URL links to each council's website. The COGs maintain a variety of local datasets.</i>
Current community plans, ordinances, or programs to alleviate flooding or manage stormwater	National	See <i>National Discovery Data Coordination Procedure</i>
Other known hazards with geographical boundaries (e.g., earthquake faults)	National	See <i>National Discovery Data Coordination Procedure</i>
Information on active disasters	National	See <i>National Discovery Data Coordination Procedure</i>
Campgrounds, recreational areas, emergency access routes, etc.	Local	Local
Any other data that might be appropriate	Local	Local

State Geospatial Data Coordination Procedure

Federal Nationwide Geospatial Data Holdings

Information about nationwide holdings and programs of Federal agencies is available from the Mapping Information Platform web site at

<https://hazards.fema.gov/femportal/docs/ProgFacts1.pdf>.

Finding and Accessing Other Existing Geospatial Data

Find below information about and links to ways of searching for additional geospatial data available for the State. These capabilities can be useful for finding geospatial data other than the statewide and Federal data listed above, including those of special governments, counties and parishes, municipalities, tribes, universities, and other organizations.

Clearinghouses and Inventories for the State

TNRIS: <https://data.tnris.org>

Texas General Land Office: <http://www.glo.texas.gov/land/land-management/gis/>

Texas Geographic Information Council: <http://dir.texas.gov/>

Texas Commission on Environmental Quality:

<https://www.tceq.texas.gov/agency/data/lookup-data/download-data.html>

Texas Colorado River Floodplain Coalition: <http://www.tcrfc.org>

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://www.data.gov>, provides access to geospatial data from many sources. Two parts of the site that should be investigated are the “data categories” for existing data and the “marketplace” for data that are planned or in-work and for potential partners for new data collection activities.

State Geospatial Data Coordination Procedure

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=TX>.

Involving the State's Geospatial Coordinator in Flood Studies

The coordinator participated in the development of this Procedure. The State has a strong Flood Plain Managers Association that coordinates on many issues concerning FEMA. Personnel from the TNRIS StratMap program actively coordinate data collection and identification efforts with FEMA

State Coordination Process for Building Geospatial Partnerships

The State has a GIS Coordination Council – Texas Geographic Information Council (TGIC) <http://dir.texas.gov/>

Finding Local Geospatial Contacts

Local contacts, including those from special government districts (for example, a regional planning commission); counties, parishes, or equivalent governments; tribes, municipal governments; and other organizations (for example, local universities) also have geospatial data that can help a Flood Insurance Study. Contact information is available from the FEMA archive and web searches at government link portals such as <http://www.statelocalgov.net>.

The State maintains a statewide GIS contacts list in the following formats:

- a. Spreadsheet
- b. Word Document

The information is available from the State GIS Coordinator listed at the beginning of this Procedure.

The levels of government in the list are:

- a. State
- b. Regional

The State has strong regional planning commissions/councils of government.

Provide Feedback on This Procedure

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

The lead will use your feedback to update this Procedure.