State Geospatial Data Coordination Procedure

MINNESOTA

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Minnesota

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Purpose of the Procedure

Flood insurance studies search for geospatial data during pre-scoping and scoping tasks. If needed data are not available, studies might fund the collection of new data and would like to know about other organizations that might share in these costs. Detailed information about the role of geospatial data coordination 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 Support 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 studies are initiated. Studies can avoid wasting time with dead-end searches and cold calls by starting with these proven sources of information.

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

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

Greg Arther, Geospatial Data Coordination Lead
Region V Service Center
(312) 831-3128
Greg.Arther@stantec.com

Default Flood Hazard Base Map for the State

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

Geospatial Data Coverage

Find below the information about and links to statewide (and Federal agencies' national) geospatial datasets. The list is provided to save time during pre-scoping and scoping 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.

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Datasets for DFIRM Production

Orthophotos

Dataset name: 2019 National Agriculture Imagery Program (NAIP) Imagery, Minnesota

Data currentness: 2019
Accuracy/Scale: 1-meter resolution
Horizontal datum: NAD 83
Fee associated? No.
Available for redistribution? Yes
Dataset source: https://gisdata.mn.gov/dataset/base-2019-naip-orthophotos
Dataset contact: Zeb Thomas, GIS Data Systems Coordinator, Minnesota DNR – GIS 500 Lafayette Rd, Saint Paul, MN 55155; (651) 259-5637, zeb.thomas@state.mn.us

Transportation (roads, railroads, and airports)

Dataset name: Roads, Minnesota
Data currentness: 2012
Accuracy/Scale: 1:24,000
Horizontal datum: NAD 83
Fee associated? No
Available for redistribution? Yes
Are road names part of the dataset? Yes
Dataset source: Minnesota Dept of Transportation:
Data download: http://www.dot.state.mn.us/maps/gisbase/html/county_text.html
Dataset contact: Kyle House, Minnesota Department of Transportation, 395 John, Ireland Blvd., Saint Paul, MN 55155; (651) 366-3873; linearreferencingsystem.admin.dot@state.mn.us

Hydrography (rivers, streams, lakes, and shorelines)

Dataset name: DNR Hydrography Dataset
Data currentness: 2019
Accuracy/Scale:
Horizontal datum: NAD 83.
Fee associated? No.
Available for redistribution? Yes
Data Download : https://gisdata.mn.gov/dataset/water-dnr-hydrography
Dataset contact: Lyn Bergquist, GIS Data Contact, Minnesota DNR – Fisheries Unit; 500 Lafayette Rd, St. Paul, MN 55155; (651) 295-5189

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

Dataset name: State Administered Lands - DNR Management Units, Minnesota
Data currentness: 2020
Accuracy/Scale: 1:24,000-scale
Horizontal datum: NAD 83.
Fee associated? No.
Available for redistribution? Yes.
Dataset source: https://gisdata.mn.gov/dataset/bdry-dnr-managed-areas
Dataset contact: Lyn Bergquist, GIS Data Contact, Minnesota DNR – Fisheries Unit;
500 Lafayette Rd, St. Paul, MN 55155; (651) 295-5189 hal.watson@dnr.state.mn.us

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

Dataset name: Control Point Generated PLS – polygons.
Data currentness: 2013
Accuracy/Scale: 1:24,000-scale; The positional accuracy of the data varies greatly,
ranging from 40 feet to sub-meter accuracy in some areas.
Horizontal datum: NAD 83.
Fee associated? No.
Available for redistribution? Yes.
Dataset source: https://gisdata.mn.gov/dataset/plan-mndnr-public-land-survey
Dataset contact: Renee Johnson, ITS 3, DNR-Lands and Minerals, 500 Lafayette Road -
Box 45, St. Paul, MN 55155; (651) 259-5396

Cadastral (parcels)

Dataset name: Metro Regional Parcel Dataset - (Year End 2019) – (7 Metropolitan
Counties: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, Washington)
Data currentness: 2019
Accuracy/Scale: Varies by county; see metadata
Horizontal datum: NAD 83.
Fee associated? Depends on the requestor
Available for redistribution? Yes

Dataset source: https://gisdata.mn.gov/dataset/us-mn-state-metrogis-plan-regional-parcels-2019

Dataset contact: Tanya Mayer, GIS Specialist, Metropolitan Council, 390 Robert Street North, St. Paul, MN 55101; (651) 602-1604; tanya.mayer@metc.state.mn.us

Terrain (elevation)

Dataset name: Lidar Elevation Data for Minnesota
Data currentness: Various
Accuracy/Scale: 1m
Vertical datum: NAVD 88.
Fee associated? No.
Available for redistribution? Yes.
Dataset source:
https://www.mngeo.state.mn.us/chouse/elevation/lidar.html#data
Dataset contact: Tim Loesch, DNR GIS Manager, tim.loesch@state.mn.us (651) 259-5475

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Useful Risk MAP Discovery Data Sources

Preliminary information on Discovery data sources is provided in this document to reduce the level of effort needed on each subsequent Discovery data collection effort. Coordination with local community sponsors for additional local data still remains an integral part of Discovery and local data should be used where appropriate.

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

Table 1 identifies data resources that are available at the regional and State levels, and also if there are no data available other than the national datasets. Resources in this table have been identified as appropriate for Discovery projects and may not represent the best data sources for FIRM production (please see the Preferred Base Map Sources section of this document for geospatial data that meets FIRM production requirements).

Table 1. Discovery Data Resources

Data	Data Source	Location
Watershed boundaries	National	Discovery Data Repository
Jurisdictional boundaries	National	Discovery Data Repository
Tribal land boundaries	National	Discovery Data Repository
State lands	Regional/State/Local	
Federal lands	National	Discovery Data Repository
Major roads	Regional/State/Local National	Discovery Data Repository
Streams	Regional/State/Local National	Discovery Data Repository
Coastal Barrier Resource Areas	National	Discovery Data Repository
Coordinated Needs Management Strategy	National	See National Operating Procedure

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Data	Data Source	Location
Topographic/ bathymetric data	National	See National Operating Procedure
AAL data from HAZUS	State	https://starrtrac.pbsjteamaccess.com/library/ AAL/Forms/AllItems.aspx Contact the RSC if help is needed retrieving the data.
Coverage areas for known community and Tribal risk assessment data	Regional/State/Local	
Status of Hazard Mitigation Plans	Regional	valeria.nieves@fema.dhs.gov
Flood control structure data	National	See National Operating Procedure
Locations of stream gages	National	Discovery Data Repository
Locations of past flood claims and repetitive loss properties	CIS Report	Contact the geospatial data coordination lead at your RSC referenced earlier in this document.
Locations of clusters of Letters of Map Change	National	See National Operating Procedure
Known flooding issues not represented on effective FIRMs or listed in Coordinated Needs Management Strategy database	Regional/State/Local	
Areas of planned development	Regional/State/Local	
Areas of land use change datasets	National Regional/State/Local	
Locations of ongoing projects or updated stream studies (e.g. highway improvements)	Regional/State/Local	
Locations of wave and tide gauges	National	N/A
Locations of wind gauges	National	N/A
Proposed inland limit of the Primary Frontal Dune, if present	Regional/State/Local	N/A
Locations of any beach nourishment or dune restoration projects	SLOSH Zones	N/A
Comparison of preliminary stillwater elevations with effective stillwater elevations	Regional/State/Local	

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Data	Data Source	Location
Available effective study data	National	See National Operating Procedure
Orthophotography	National	See National Operating Procedure
Proposed discussion areas, problem areas, areas of proposed mitigation projects	Regional/State/Local	
Land use and soil information	Land Use Soils	See National Operating Procedure
Reference points to locate areas with flooding issues	Regional/State/Local	
Hydraulic structures	Culverts Levees, Dams, Bridges	Regional/State/or Local See National Operating Procedure
Coastal structures, including flood protection structures, shoreline structures, manmade embankments, surge conveyance pathways, and shoreline change data	Regional/State/Local	N/A
Local structure and topographic data from the existing hazard mitigation plans	Regional/State/Local	
Historic inundation areas and high water marks	Historic Riverine Inundation Areas Storm Surge Inundation Areas High Water Marks	See National Operating Procedure See National Operating Procedure Regional/State/ or Local
Clusters or locations of Individual Assistance/Public Assistance grants and locations of grant projects completed, planned, or underway	National	See National Operating Procedure
Locations of projects and structures completed or planned for FEMA Hazard Mitigation Assistance grant programs or mitigation funds from other agencies or entities, such as the Small Business Administration	National	See National Operating Procedure
Other information on FEMA grants, as described in G&S Appendix I	Regional/State/Local	HMA Tracking Tool

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Data	Data Source	Location
Any data deficiencies identified in hazard mitigation plans	Regional/State/Local	
Information from FloodSmart on market penetration	FEMA	http://www.floodsmart.gov/floodsmart/
Community Assistance Visits / Community Assistance Contacts	National	Discovery Data Repository
Community Rating System class information	National	See National Operating Procedure
Information from other Federal agencies	National Only	See National Operating Procedure
Information from State agencies, non-profit organizations, universities, etc.	Regional/State/Local	
Current community plans, ordinances, or programs to alleviate flooding or manage stormwater	Regional/State/Local	
Other known hazards with geographical boundaries (e.g. earthquake faults)	Tsunami	Discovery Data Repository
	Landslide	Discovery Data Repository
	Volcanic Eruptions	Discovery Data Repository
	Wildfire	Discovery Data Repository
Information on active disasters	Regional/State/Local	valeria.nieves@fema.dhs.gov
Campgrounds, recreational areas, emergency access routes, etc.	National	Discovery Data Repository
Federal Grants Pre /Post Disaster	Regional	Greg.Tatara@fema.dhs.gov
Critical Facilities	Regional	cadence.peterson@fema.dhs.gov

Data Distribution Process for State Data

Almost all state government data is considered public data under the provisions of the Minnesota Data Practices Act and is, therefore, available at little or no cost.

The primary mechanism for redistribution of state-generated geospatial data is through browser-based web services, the most important of which can be accessed through the Minnesota Geographic Data Clearinghouse (MGDC). Redistribution policy, use limitations and warrantee information is provided in metadata.

- Access the clearinghouse at: http://www.mngeo.state.mn.us/chouse/
- Questions or comments should be sent to: clearing.house@state.mn.us

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The MetroGIS program, representing the Twin Cities Metropolitan Region, provides many data sets at no cost through the Clearinghouse, but does distribute a selection of shared data under license to members of the cooperative. County Governments establish their own data distribution policies and those vary across the state.

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://www.usgs.gov/core-science-systems/national-geospatial-program/national-map.

Finding and Accessing Other Existing Geospatial Data

Find below the 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 government districts, counties and parishes, municipalities, tribes, universities, and other organizations.

Clearinghouses and Inventories for the State

The Minnesota Geographic Data Clearinghouse (MGDC) serves as a convenient source for geographic data, ranging from simple state maps to complex geospatial data needed to power Geographic Information Systems.

Coordinated by the Minnesota Geospatial Information Office, the MGDC provides access to a wide variety of sources making it your "First Stop" for geographic data for Minnesota. MGDC partners include the USGS, Bureau of the Census, Minnesota's DNR, DOT and PCA, the MetroGIS program and many others.

Access Minnesota's Clearinghouse at http://www.mngeo.state.mn.us/chouse/

Important features of the Clearinghouse include:
- Metropolitan Council of the Twin Cities DataFinder: http://www.datafinder.org/catalog/
- Legislative Coordinating Commission Geographic Information Services: http://www.gis.leg.mn/

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National Elevation Dataset (NED) and 3D Elevation Program (3DEP)

These systems allow the search of orthophoto and elevation project information entered by Federal and other organizations. The NEP system can be accessed at https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/ngce/elevation/. The 3DEP system can be accessed at https://www.usgs.gov/core-science-systems/ngp/3dep.

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-work and for potential partners for new data collection activities.

Notes: Because of Geospatial One-Stop (GOS) metadata publishing requirements that were not part of the original FGDC geospatial metadata content standard, the GOS search results mischaracterize many Minnesota GIS datasets that are freely downloadable as 'offline data' or 'documents'. When using GOS to find data produced in Minnesota, search on 'All Formats' and read the FULL metadata very carefully to determine its availability.

As an alternative, Minnesota recommends searching for the data using the FGDC Metadata Clearinghouse Search or the Minnesota GeoGateway Search tool at http://geogateway.state.mn.us/index.html. See also the data catalog list outlined under 'Clearinghouses and Inventories'. GOS can be used to supplement these searches to find data produced by the federal government or by neighboring states.

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Working with People

Useful State and Federal Contacts

The main contacts for the State's geospatial activities and Federal agencies' representatives in State are available on the Mapping Information Platform web site at https://hazards.fema.gov/contacts/statecontacts/contacts.asp?page=MN

Additional useful contacts for the State can be found at Minnesota Governor's Council on Geographic Information http://www.gis.state.mn.us/Members/index.htm.

Involving the State's Geospatial Coordinator in Flood Studies

In order to participate in the FEMA flood hazard mapping effort, please contact:

State National Floodplain Insurance Program (NFIP) Coordinator
Ceil Strauss, CFM
Minnesota Dept Natural Res. - Waters
500 Lafayette Road
St. Paul, MN 55155-4032
651-259-5713 FAX 651-296-0445
ceil.strauss@dnr.state.mn.us
or
State Flood Mapping Coordinator
Suzanne Jiwani
651-259-5681 FAX 651-296-0445
suzanne.jiwani@dnr.state.mn.us

State Coordination Process for Building Geospatial Partnerships

Minnesota Governor's Council on Geographic Information http://www.gis.state.mn.us (651) 201-2491: The mission of the council is to promote efficient and effective use of geographic information in Minnesota. The council makes recommendations in areas including, but not limited to: policies, institutional arrangements, standards, education, and stewardship. Administrative support for the council is provided by the Land Management Information Center. Much of the council's work is accomplished through its committees: Digital Elevation; Emergency Preparedness; Geospatial Architecture (Standards); Hydrography; Land Records Modernization; Outreach; Strategic Plan.

Minnesota GIS/LIS Consortium: http://www.mngislis.org/: The Minnesota GIS/LIS Consortium is a forum for communicating information to, and improving cooperation among, those interested in Geographic Information Systems (GIS) and Land Information Systems (LIS) in the State of Minnesota. Members include GIS users in local, state and federal government agencies; business and industry; and educational institutions. The

Consortium hosts an annual statewide conference, establishes committees that deal with specific GIS/LIS-related issues, and publishes a quarterly newsletter.

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 https://hazards.fema.gov/contacts/statecontacts.

The State also maintains information about local geospatial contacts:

- County GIS Contacts: http://www.mngeo.state.mn.us/cty_contacts.html
- Local government websites, including city, county, township, associations, local government programs, special districts and regional government : http://www.state.mn.us/portal/mn/jsp/content.do?subchannel=-536879913&id=-8494&agency=NorthStar
- Tribal websites: http://www.state.mn.us/portal/mn/jsp/content.do?subchannel=-536888182&id=-8494&agency=NorthStar
- Minnesota Regional Development Organizations: http://www.mrdo.org/
- MetroGIS – is a collaborative organization representing over 250 local governments and other organizations established to foster sharing of geospatial data in the seven-county Twin City Metropolitan Area of Minnesota. http://www.metrogis.org
- University of Minnesota Remote Sensing and Geospatial Analysis Lab: http://rsgl.gis.umn.edu/
- Regional GIS users groups:
- Southeast Minnesota GIS Users Group: http://www.co.goodhue.mn.us/ (click on Departments, Land Use Management, GIS)
- Southwest Minnesota GIS Users Group: http://www.smsu.edu/swmngis/

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 Regional Support Center 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 and redistribute this Procedure.