

State Geospatial Data Coordination Procedure

MICHIGAN

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FEMA

State Geospatial Data Coordination Procedure

Michigan

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State Geospatial Data Coordination Procedure

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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 geospatial data coordination plays in studies is in the *Geospatial Data Coordination Implementation Guide*, which is available at https://hazards.fema.gov/femportal/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 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 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:

Rob Truelsen, Geospatial Data Coordination Lead
Region V Service Center
(312) 262-2283
rob.truelsen@starr-team.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 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: Michigan Georef NAIP Digital Ortho

Data currentness: 2005

Accuracy/Scale: Map scale meets national map accuracy standards for the scale of 1:12,000; accuracy +/-33.3 feet

Ground sample resolution: 1 meter

Horizontal datum: NAD 83.

Fee associated? No.

Available for redistribution? Yes for distribution, but redistribution policy not available.

Dataset source: Michigan Department of Natural Resources (MDNR), Forestry, Mineral and Fire and Mineral Management; <http://www.mcgi.state.mi.us/doqqviewer/mcgi.aspx>

Dataset contact: Michigan Department of Natural Resources (MDNR), Forestry, Mineral and Fire and Mineral Management; Sherman Hollander, (517) 373-9123;

hollands@state.mi.us or Sally Huston, Geographic Technician, Michigan Center for Geographic Information, 111 S. Capitol Avenue, 10th floor, Lansing, MI 48913; (517) 373-7910; hustons@michigan.gov

Notes: (1) The aerial image files in this archive are copies of standard DOQs from the National Digital Cartographic Data Base that have been repositioned to the Michigan GeoRef coordinate system. Currently, DOQs in Michigan have been produced from two statewide flights that were initiated in 1992 and 1998 under the National Aerial Photography Program (NAPP) administrated by USGS.

(2) Additional high resolution imagery maybe available for counties or regional planning commissions.

Transportation (roads, railroads, and airports)

Dataset name: Michigan Geographic Framework

Data currentness: 2000

Accuracy/Scale: 1:24,000.

Horizontal datum: NAD 83.

Fee associated? No.

Available for redistribution? Yes for distribution, but redistribution policy not available.

Are road names part of the dataset? Yes.

Dataset source: Michigan Center for Geographic Information at

<http://www.mcgi.state.mi.us/mgdl>

Dataset contact: Laura Blastic, Geographic Specialist, Michigan Center for Geographic Information, 111 S. Capitol Avenue, 10th floor, Lansing, MI 48913; (517) 373-7910;

Blasticl@michigan.gov

Hydrography (rivers, streams, lakes, and shorelines)

Dataset name: National Hydrography Dataset (NHD)

Data currentness: varies based on date of USGS topographic map used as the source

Accuracy/Scale: 1:24,000

Horizontal datum: NAD 83

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Fee associated? No
Available for redistribution? Yes
Are hydrography names part of the dataset? Yes
Dataset source: USGS at <http://nhd.usgs.gov>
Dataset contact: NHD@usgs.gov

Political boundaries (county, municipal)

Dataset name: Michigan Geographic Framework
Data currentness: 2006
Accuracy/Scale: 1:24,000
Horizontal datum: NAD 83
Fee associated? No.
Available for redistribution? Yes for distribution, but redistribution policy not available.
Dataset source: Michigan Center for Geographic Information at <http://www.mcgi.state.mi.us/mgdl/>
Dataset contact: Laura Blastic, Geographic Specialist, Michigan Center for Geographic Information, 111 S. Capitol Avenue, 10th floor, Lansing, MI 48913; (517) 373-7910; Blasticl@michigan.gov

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

Dataset name: DNR Land and Mineral Ownership
Data currentness: Maintained weekly
Accuracy/Scale: 1:24,000
Horizontal datum: NAD 83
Fee associated? No.
Available for redistribution? Yes for distribution, but redistribution policy not available.
Dataset source: Michigan Center for Geographic Information at <http://www.mcgi.state.mi.us/mgdl/>
Dataset contact: Laura Blastic, Geographic Specialist, Michigan Center for Geographic Information, 111 S. Capitol Avenue, 10th floor, Lansing, MI 48913; (517) 373-7910; Blasticl@michigan.gov
Notes: (1) Ownership is mapped to the quarter-quarter section level.
(2) The State is preparing to release a dataset containing the proclaimed boundaries of state lands. Contact the Michigan Center for Geographic Information at (517) 373-7910 for information about the availability of these data.

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

Dataset name: Public Land Survey Sections
Data currentness: 1998
Accuracy/Scale: 1:24,000
Horizontal datum: NAD 83
Fee associated? No
Available for redistribution? Yes for Distribution, but redistribution policy not available.
Dataset source: Michigan Center for Geographic Information at <http://www.mcgi.state.mi.us/mgdl/>

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Dataset contact: Shirley Businski, Geographic Analyst, Michigan Center for Geographic Information, 111 S. Capitol Avenue, 10th floor, Lansing, MI 48913; (517) 373-7910; businskis@michigan.gov

Cadastral (parcels)

No coverage available.

Terrain (elevation)

Dataset name: Digital Raster Graphics (Topographic Map) (contours on scanned USGS topographic maps)

Data currentness: Currentness of map features varies depending on the date of the printed USGS 7.5 minute quadrangles.

Accuracy/Scale: 1:24,000

Vertical datum: NAD 83

Fee associated? No.

Available for redistribution? Yes for distribution, but redistribution policy not available.

Dataset source: MDNR, Land and Mineral Services Division, Resource Mapping and Aerial Photography <http://www.mcgi.state.mi.us/mgdl/>

Dataset contact: Gary Taylor, Geographic Specialist, Michigan Center for Geographic Information, 111 S. Capitol Avenue, 10th floor, Lansing, MI 48913; (517) 373-7910; taylorgl@michigan.gov

Notes: Michigan DRG 24k data is georectified TIFF (5.0) files that have been saved as 8-bit color images. The pixel resolution of each TIFF image has been set to 2.5 meters+0.1meter (approximately 250 dpi). The horizontal accuracy of the original scanned paper quadrangles meets National Map Accuracy Standards for 1:24,000-scale maps.

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

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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 |
| 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 | Richard.Foody@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 | |

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| Data | Data Source | Location |
|--|-----------------------|----------------------------------|
| 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 | |
| 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 | Regional/State/or Local |
| | Levees, Dams, Bridges | 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 | |

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| Data | Data Source | Location |
|---|------------------------------------|---|
| Historic inundation areas and high water marks | Historic Riverine Inundation Areas | See National Operating Procedure |
| | Storm Surge Inundation Areas | See National Operating Procedure |
| | High Water Marks | 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 |
| 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 |

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| Data | Data Source | Location |
|--|----------------------|--|
| Information on active disasters | Regional/State/Local | Rusty.Rickart@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 | Lee.Traeger@fema.dhs.gov |

Data Distribution Process for State Data

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Some of the materials on the web portal, for example the major highway constructions maps, may be saved on any single personal computer for personal, non-commercial use only. All copyrighted material and other means of proprietary or copyright identification must be kept intact and unmodified. Modification of the materials or use of the materials for purposes not granted by the State of Michigan is a violation of Michigan's copyright and other proprietary rights.

Michigan.gov and Other State Links

Michigan provides links to other organizations through this website. These links are provided for additional information as a service to our customers. In providing these links, Michigan does not endorse the content, products, services or viewpoints expressed by these external sites. Once you leave Michigan's website and link to an external site, the Michigan Internet policies no longer apply and you will be subject to the new site's policies.

Michigan provides links to the following types of organizations:

- Links to Other Governmental Units & Educational Institutions - Michigan provides links to other federal, state, and local governmental units that provide additional services and information that users of Michigan's site may find of interest. Links are also provided to educational institutions including K-12 school districts, intermediate school districts (ISDs), community colleges, and universities.

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- Links to Private Organizations - Michigan provides links to private organizations if these organizations offer services that complement the information or services offered by Michigan. The determination of whether to establish links to a private organization's website is made on a case-by-case basis.
- Links to Non-Profit Organizations - Michigan provides links to non-profit organizations that users of Michigan's site may find of interest. The determination of whether to establish links to non-profit organizations is made on a case-by-case basis.

Linking to Michigan.gov

Linking to the Michigan.gov portal is permitted under limited conditions. If you link to this site, you may not portray any person or subject in a false or misleading light. You must also refrain from creating frames, or using other visual altering tools, around the Michigan.gov pages. Lastly, you may not imply that the state of Michigan is endorsing your product or services.

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/femaportal/docs/ProgFacts.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

Michigan CGI (Center for Geographic Information) Geographic Data Library Catalog at <http://www.mcgi.state.mi.us/mgdl/> serves as the state's repository of digital geographic information. This site currently contains over 60 unique statewide datasets including the state's base map (MI Geographic Framework), aerial imagery, geology, hydrography, land ownership, topography, and much more.

Michigan State University Map Library at <http://www2.lib.msu.edu/branches/map/index.jsp> provides coverage of state boundary data, historical county boundary data, elevation data, and environmental data.

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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 web site at <http://www.ndop.gov> and follow the link “Project Tracking.” For the NDEP system, go to the NDEP web site at <http://www.ndep.gov> and follow the link “Project Tracking.”

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 Regional Support Center.

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.

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=MI>

Additional useful contacts for the State can be found at Michigan Center for Geographic Information (CGI), Michigan Department of Information Technology, Romney Building, 10th Floor, 111 South Capitol Avenue, Lansing, MI 48913; (517) 373-7910; see <http://www.michigan.gov/cgi> for more information.

Involving the State’s Geospatial Coordinator in Flood Studies

Contact Everett Root, Geo-Data Services Section Manager at roote@michigan.gov to involve State’s Geospatial Coordinator in Flood Studies.

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State Coordination Process for Building Geospatial Partnerships

The Michigan Center for Geographic Information provides several of outreach and partnership opportunities. See <http://www.michigan.gov/cgi> for more information.

SEMCOG (Southeast Michigan Council of Governments) GIS:

<http://www.semcog.org/>

SEMCOG's GIS capabilities are widely used throughout the region as communities with and without their own GIS technologies identify needs for effective planning tools. Communities without GIS benefit from the SEMCOG partnership by using its data in their planning processes. Communities with their own detailed, parcel-based systems take advantage of SEMCOG's wider vision, determining where and how they fit into the regional context. The idea of sharing data in partnership with one another is the future of GIS within the region. SEMCOG facilitates communication among GIS professionals throughout Southeast Michigan by hosting quarterly meetings of the Southeast Michigan GIS User Group.

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 Michigan Center for Geographic Information provides a listserv. See the Outreach and Promotion link at <http://www.michigan.gov/cgi>.

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 this Procedure.