

# State Geospatial Data Coordination Procedure

## Massachusetts

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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/femaportal/docs/GeoDataImplem.pdf>, and in *Scoping Guidelines: Pre-scoping and the Scoping Meeting*, which is available through the Regional Management Center (RMC).

# State Geospatial Data Coordination Procedure

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 Management Center:

Jeff Burm, Geospatial Data Coordination Lead  
Regional Management Center 1  
(617) 482-4930 x4752  
[Jeff.Burm@mapmodteam.com](mailto:Jeff.Burm@mapmodteam.com)

We appreciate the help of those who reviewed this document, in particular

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## 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.

### Major State Holdings

#### *Orthophotos*

Dataset name: 1:5,000 Color Ortho Imagery – Published February 2005

Data currentness: The photography for the mainland was captured from April 9 through April 17, 2005

Accuracy/Scale: 0.5 meter

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Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Dataset source: MassGIS <http://www.mass.gov/mgis/>. Also see the Notes section.

Dataset contact: Michael Trust, Sr. Database Administrator, 617-626-1195,  
[michael.trust@state.ma.us](mailto:michael.trust@state.ma.us)

Notes:

*Free Download:* Images in the following formats are available for [download](#) as 4 km. × 4 km. tiles (based on the [Ortho Index](#) tiling scheme):

- MrSID, lossy, at 20:1 compression ratio, 3 bands (RGB). 10 MB each. Two sets:
  - From original GeoTIFFs
  - From contrast stretched GeoTIFFs
- JPEG 2000, lossy, at 16:1 compression ratio, 4 bands (RGB and IR).15 MB each. Two sets:
  - From original GeoTIFFs
  - From contrast stretched GeoTIFFs

*Order (on CD and DVD):* Available by order only are:

- The original uncompressed, unstretched 4-band 4 km. × 4 km. GeoTIFF tiles (based on the [Ortho Index](#) tiling scheme). 250 MB each.
- 4 km. × 4 km. tiles in lossless JPEG 2000 format (compressed to 125 MB each but without any loss in image quality from the original GeoTIFFs)
- Large regional mosaics in the MrSID format (based on the [2005 Ortho Mosaic tiling scheme](#)). Two sets:
  - From original GeoTIFFs
  - From contrast stretched GeoTIFFs
- Large regional mosaics in the JPEG 2000 format (coming soon)
  - From original GeoTIFFs

## *Transportation (roads, railroads, and airports)*

Dataset name: Executive Office of Transportation - Office of Transportation Planning Roads (EOTROADS\_ARC)

Data currentness: Roads Publication date December 2005

Accuracy/Scale: 1:5,000

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Are road names part of the dataset? Yes

Dataset source: Executive Office of Transportation; available through  
<http://www.mass.gov/mgis/massgis.htm>

Dataset contact: Michael Trust, Sr. Database Administrator, 617-626-1195,  
[michael.trust@state.ma.us](mailto:michael.trust@state.ma.us)

Notes: This will be the only road layer updated in the future

Dataset name: 1:5,000 Rail Centerlines (ROADS5K\_ARC)

Data currentness: Roads Publication date October 2002, Accuracy/Scale: 1:5000

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

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Are names part of the dataset? Yes; names of Line Branch for RR

Dataset source: EOE/MassGIS; available through

<http://www.mass.gov/mgis/massgis.htm>

Dataset contact: Michael Trust, Sr. Database Administrator, 617-626-1195,

[michael.trust@state.ma.us](mailto:michael.trust@state.ma.us)

Notes:

Dataset name: Airports (AIRPORTS\_PT)

Data currentness: June 2006

Accuracy/Scale: 1:5,000

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Are road names part of the dataset? N/A

Dataset source: Executive Office of Transportation; available through

<http://www.mass.gov/mgis/massgis.htm>

Dataset contact: Michael Trust, Sr. Database Administrator, 617-626-1195,

[michael.trust@state.ma.us](mailto:michael.trust@state.ma.us)

Notes:

### *Hydrography (rivers, streams, lakes, and shorelines)*

Dataset name: Hydrography (HYDRO25K\_ARC; HYDRO25K\_POLY)

Data currentness: Dates created: 20041103; 20041026; Dates modified: 20050210; 20050301

Dataset name: COAST25K\_ARC; COAST25K\_POLY

Data currentness: Date created 20040622; Dates modified: 20040727; 20040712

Accuracy/Scale: 1:25,000 Hydrography datalayer(S) (arc and polygon feature classes) is stored in ArcSDE as HYDRO25K\_POLY and HYDRO25K\_ARC

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Are hydrography names part of the dataset? No, but feature names are stored in the "Hydro" subclass of the [Geographic Place Names](#) layer

Dataset source: EOE/MassGIS and DEP; available through

<http://www.mass.gov/mgis/massgis.htm>

Dataset contact: Michael Trust, Sr. Database Administrator, 617-626-1195,

[michael.trust@state.ma.us](mailto:michael.trust@state.ma.us)

Notes:

Dataset name: DEP Wetlands

Data currentness: Date created: 20070301

Accuracy/Scale: 1:12,000

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Are hydrography names part of the dataset? No, but to label the features in these layers, use the annotation in the HYDRO subclass of the [Geographic Place Names](#) layer.

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Dataset source: EOEA/MassGIS and DEP; available through

<http://www.mass.gov/mgis/massgis.htm>

Dataset contact: Michael Trust, Sr. Database Administrator, 617-626-1195,

[michael.trust@state.ma.us](mailto:michael.trust@state.ma.us)

Notes: These layers enhance and replace the layers formerly known as 1:5,000 Wetlands and Streams.

## *Political boundaries (county, municipal)*

Dataset name: Community Boundaries (Towns) (TOWNS\_ARC and TOWNS\_POLY)

Data currentness: Ground condition: 20021001

Accuracy/Scale: 1:25,000 scale datalayer containing the boundaries of the 351 communities (cities and towns) in Massachusetts

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Dataset source: EOEA/MassGIS; available through

<http://www.mass.gov/mgis/massgis.htm>

Dataset contact: Michael Trust, Sr. Database Administrator, 617-626-1195,

[michael.trust@state.ma.us](mailto:michael.trust@state.ma.us)

Notes: The seaward boundary of coastal communities has been defined at mean high water in this datalayer. The datalayer is named TOWNS, and it is stored as a single statewide coverage. Note that the 351 communities are the official municipal names, not including "villages"

Dataset name: Community Boundaries (Towns) from Survey Points

Data currentness: Ground condition: 20040601

Accuracy/Scale: Boundaries for each community were created by adjusting the existing [1:25,000 scale boundaries](#) to connect the survey points (TOWNSSURVEY\_PT) of a community. The source for the coastal boundary was the [DEP Wetlands \(1:12,000\)](#) data layer, with the boundary being the upland-side boundaries of tidal flats and rocky intertidal zones. The coastline boundary was then appended to the town boundary (TOWNSSURVEY\_ARC).

Horizontal datum: NAD 83

Fee associated? No

Available for redistribution? Yes

Dataset source: EOEA/MassGIS; available through

<http://www.mass.gov/mgis/massgis.htm>

Dataset contact: Michael Trust, Sr. Database Administrator, 617-626-1195,

[michael.trust@state.ma.us](mailto:michael.trust@state.ma.us)

Notes: Note that the 351 communities are the official municipal names, not including "villages" or other sections of towns. The Secretary of State's office has prepared a web page listing the Unincorporated and Unofficial Names of Massachusetts Communities. Also see the List of Town Numbers and Names and Towns Index Map.

## *Terrain (elevation)*

Dataset name: Elevation Contours 5K

Data currentness: Creation date: 20040622; Modified date: 20040819

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Accuracy/Scale: 1:5,000 datalayer represents contours at 3-meter intervals created from Digital Terrain Model (DTM) data points

Vertical datum: NAVD 88

Fee associated? No

Available for redistribution? Yes

Dataset source: EOEA/MassGIS; available through

<http://www.mass.gov/mgis/massgis.htm>

Dataset contact: Michael Trust; Sr. Database Administrator, 617-626-1195,

[michael.trust@state.ma.us](mailto:michael.trust@state.ma.us)

Notes:

## *Other Relevant Datasets*

The Impervious Surface layer, another data product that is relevant to watershed modeling, is available at [http://www.mass.gov/mgis/impervious\\_surface.htm](http://www.mass.gov/mgis/impervious_surface.htm).

## *Data Distribution Process for State Data*

MassGIS is the Commonwealth's Office of Geographic and Environmental Information, within the Massachusetts Executive Office of Environmental Affairs (EOEA) Through MassGIS, the Commonwealth has created a comprehensive, statewide database of spatial information for environmental planning and management. The state legislature has established MassGIS as the official state agency assigned to the collection, storage and dissemination of geographic data. In addition, the legislative mandate includes coordinating GIS activity within the Commonwealth and setting standards for geographic data to ensure universal compatibility.

MassGIS acts as the centralized distribution for GIS data. Data is available for download or ordering at <http://www.mass.gov/mgis/massgis.htm>. The contact for ordering data is:

Michael Trust

MassGIS

(617) 626-1195

[michael.trust@state.ma.us](mailto:michael.trust@state.ma.us)

There are no licensing policies.

## *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>>.

# State Geospatial Data Coordination Procedure

## 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

Data is available for download or ordering at <http://www.mass.gov/mgis/massgis.htm>

### 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 Management 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=MA>

Of special interest is the USGS New England Mapping Partnership Office, which provides for the geospatial liason between the USGS and the New England States. The office is responsible for Massachusetts and other New England states.

# State Geospatial Data Coordination Procedure

## Involving the State's Geospatial Coordinator in Flood Studies

In order to participate in the FEMA flood hazard mapping effort, MassGIS would like to attend each kickoff/scoping meeting. MassGIS has a working relationship with the office in the state that is responsible for updating the multi-hazard maps, and they have access to their state's flood map modernization business plan. MassGIS will act as a repository and distributor for all data related to this project.

The RMC and MassGIS are in periodic contact. MassGIS provides the RMC with best available data. Issues regarding map modernization are also discussed. MassGIS attends the kick-off meetings at the start of each study.

## State Coordination Process for Building Geospatial Partnerships

The Massachusetts Geographic Information Council (MGIC) is an advisory body to MassGIS. In keeping with provision's of MassGIS' legislative mandate, this advisory function was officially established in its current form in 2001; at that time it was called the "Statewide Geographic Information Advisory Committee". Thus, MGIC now refers to MassGIS' advisory group. MGIC meetings are an opportunity for a) the Massachusetts' geospatial community to express their views and concerns and b) for MassGIS staff to seek advice from individuals representing MassGIS' many constituencies. More information is available at <http://www.mass.gov/mgis/mgic.htm>.

## 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>.

All of the regional planning commissions (RPC) in Massachusetts provide GIS services to their member communities. The RPCs in Massachusetts and their websites are listed below.

- Berkshire Regional Planning Commission: <http://www.berkshireplanning.org/> 413-442-1521
- Cape Cod Commission: <http://www.vsa.cape.com/~cccom/> 508-362-3828
- Central Massachusetts Regional Planning Commission: <http://www.cmrpc.org/> 508-756-7717
- Franklin Regional Council of Governments: <http://www.frcog.org/> 413-774-1194
- Martha's Vineyard Commission: [http://almanac.vcsmv.org/mvc/mvc\\_mainpage.shtml](http://almanac.vcsmv.org/mvc/mvc_mainpage.shtml) 508-693-3452
- Merrimack Valley Planning Commission: <http://www.mvpc.org/> 978-374-0519



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- Metropolitan Area Planning Council: <http://www.mapc.org/> 617-451-2770
- Montachusett Regional Planning Commission: <http://www.mrpc.org/> 978-345-7376
- Nantucket Planning and Economic Development Commission: <http://www.nantucket-ma.gov/departments/npedc/npedc.html> 508-228-7237
- Northern Middlesex Council of Governments: <http://www.nmcog.org/> 508-454-8021
- Old Colony Planning Council: <http://www.ocpcrpa.org/> 508-583-1833
- Pioneer Valley Planning Commission: <http://www.srpedd.org/> 413-781-6045
- Southeastern Regional Planning and Economic Development District: <http://www.srpedd.org/> 508-824-1367

## 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 Management 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.