

Data Formatting

DATA FORMATTING FOR MBDC

Tables received for the MBDC are received preferably in Excel, Access or dBase 4 file formats. We can receive tables in tab or comma delimited files, however it takes longer to transfer them into a useful GIS format.

GEOGRAPHIC FORMAT

Tables are usually linked through a geographic format (i.e. town name, FIPS code, etc.). The table needs to have a field that will link to one of our current shapefiles. The following are acceptable formats:

TOWN/MUNICIPALITY – The town name must be spelled out correctly and in full (i.e. West Bridgewater, Foxborough, etc. – the only exception is Manchester-By-The-Sea which is Manchester). Attached is a list of town names. The field cannot include asterisks or underscores. Please note that when using municipal names Aquinnah is no longer Gay Head.

PREDEFINED REGIONS – The only time that region names are acceptable is if they fall into one of the states predefined regions (i.e. County, Regional Planning Agency, Homeland Security, Public Health, School Districts etc.). We do have a geographic layer for Boston Neighborhood as defined by the Boston Redevelopment Authority. If you have a defined set of regions that you commonly use you can provide us with an ESRI shapefile or we can create a geographic layer for you based off of the current geographic layers that we have available (i.e. towns, census group, etc).

CENSUS FIPS CODE ID – Census IDs are preferred in full number format (i.e. census tract = state, county, tract number etc.). This requires 11 digits for tracts, 12 digits for block groups, 16 digits for blocks. All numbers should begin with 25 which is the census FIPS code for Massachusetts. This field's attributes must have a number format definition in Excel, Access or dBase files.

LATITUDE/LONGITUDE DATA – Although data can be mapped in latitude/longitude format, you must be able to provide detailed information pertaining to the geographic projection in which the data coordinates are defined. The Commonwealth of Massachusetts standard projection format is in NAD 1983 Massachusetts State Mainland Meters. If your latitude/longitude data is not in this format a specific description of the format is required in order for the data to be displayed properly.

FIELD STRUCTURE

PLAIN TABLES – Field definition names can be no longer than 10 characters long, cannot include spaces and cannot begin with a numeric value. They can, however, include underscores and the “#” character in their name. Text fields cannot contain attributes that are longer than 250 characters. It is best that all field names be in capital letters.

DYNAMIC THEMATIC MAPPED TABLES – Dynamic thematic maps have a table associated with them that require user interaction; the user selects a specific field in the table to view the data, assigns quantitative values, and selects a color to represent each value. In tables that will be dynamic thematic mapped, the field definitions can be structured to appear differently in the thematic dropdown tool (i.e. Pop2000 => Population in the Year 2000). The table still requires the same 10 character structure; however, a full name can be substituted in the drop down menu. A separate file will need to be sent that lists the field names with the field name that you would like to appear. The fields that will be dynamic thematic mapped will be in numeric format.

FIELD ATTRIBUTES

Fields are best defined for the attribute that they contain (i.e. number format for number fields, text format for text fields). Text attributes are often used to give more detail about an area or location when using the various identification tools functions. Field attributes are often displayed in inquiries and are used in queries. Therefore it is important that your data has proper formatting and is clean. The map user will be viewing this information so it is best to have all your data in proper case, with correct spelling, and consistent formatting (i.e. spell out Street or use the abbreviated St., phone numbers should all be ###-###-#### or (###) ###-####).

TEXT FIELDS – Text field attributes cannot be set to contain anything longer than 250 characters. Unlike the field title, the field attributes themselves can contain spaces. See note below concerning dates, phone numbers, and zip codes.

NUMBER FIELDS – Number fields should be set to a number format to eliminate any possibility of text characters (i.e. \$, %, etc.). Please note that dates, phone numbers, and zip codes are best formatted as text fields.

NULL VALUES – Null values have different table definitions than zeros. However, the software that we use does not differentiate between the two. Therefore if you are working with a table that contains both zeros and null values please populate the null value field with -.9999. This will prevent any confusion between an area that may have no events and an area that may have no data. If you have any questions about this please feel free to contact one of our staff and we can further explain this issue to you.

GEOCODED DATA

Data that will produce a series of specific points to be mapped are geocoded from the addresses provided. These addresses can be left in the table for the various identification tools functions. In order to get the most accurate geocoded location the following fields and formats will be needed for an appropriate address.

ADDRESS – This field will need the following attributes in one field. Street Number, Street Name and Street Type (i.e. 123 Main Street) all need to be in the same field. Street numbers are necessary to provide the most precise location in geocoding. Please do not use addresses such as: 123A Main Street or 123 Main St Rear. They will not match up with the standard address format required for geocoding. If some of the addresses are in this format you will need to glean them of any superfluous information. Remember 123A Main St **MUST** appear as 123 Main St.

TOWN/MUNICIPALITY – This field can be substituted with zip code for geocoding, but town/municipal names provide more accurate geocoding. See information above concerning the attribute requirements for town/municipality names in the section Geographic Format.

ZIP CODES – Zip codes are not required for geocoding; however, the geocoding comes out more accurate if zip codes are included. Zip codes can be supplied in a five digit format or a hyphenated 9 digit format. Zip codes are especially useful when geocoding data within larger municipalities.

METADATA AND KEYCODES

It is important that if you provide a dataset for the webmapper that you include a URL to your website, if one is available, so we can properly credit your data. For all datasets that you provide, you should alternatively supply a list of field attributes and their definitions. Also if there is a field that has an abbreviation or keycode that supports a type of attribute it will be useful for us to know the keycode definition as well so that we can accurately display your data.

If you have any questions or inquiries concerning your dataset and formatting please do not hesitate to contact:

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