

Customer and Data Services (CDS)
Hazus Release 2.2 SP01
User Release Notes

Version 1.0

May 18, 2015

Document Management History

Revision History

Version Number	Date	Summary of Changes	Team/Author
1.0	05/18/15	Initial version	Risk MAP CDS

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1. Introduction

Hazus Release 2.2 SP1 is a service pack release of the software. The new release contains one functional update to the Flood Model, detailed below. Operating system and ArcGIS version compatibility is identical to that of Hazus 2.2, and no other functional changes are included for the Hurricane or Earthquake models.

In addition to the software release, an updated version of the Hazus default data is also released concurrently with Hazus 2.2 SP1. The new default data includes defect fixes to the current state data available for public download, and the addition of a dasymetric dataset for use in the Flood model. The new dasymetric state datasets will be available as a separate download on the MSC Hazus data download page; the non-dasymetric state datasets will henceforth be referred to as the homogenous state data.

Hazus 2.2 SP1 will be deployed as a service pack through the auto-update tool built into Hazus. Users need only launch Hazus while connected to the internet and accept the automated patch installation to receive SP1. The updated homogeneous state data and the new dasymetric state data will be released via the [MSC Hazus download webpage](#) for free, public download. The scheduled release date for all items is May 11, 2015.

The purpose of this document is to describe the functional changes and known issues found in the Hazus 2.2 SP1 release and associated data updates.

2. Contents of the Release

Flood Model:

- Study region aggregation enabled at the community level – users may choose community types of jurisdiction, tribal, or special use (such as townships) for study region aggregation in the flood model

Earthquake Model:

- No changes to the earthquake model are included in this release

Hurricane Model:

- No changes to the hurricane model are included in this release

Shell and Utility Items:

- There are no specific changes to the shell or additional Hazus utilities (such as CDMS) however, users may notice a difference application behavior if working with the new community aggregation features or the new dasymetric datasets

Data Changes:

- Resolution and tolerance values of the spatial data updated to reflect Esri recommended values
- Previous estimates of non-residential building counts updated according to more accurate methodology consistent with previous releases
- NFIP entry dates for each census block were updated
- Updated two syHazus.mdb data tables to align with 2010 tract wind data: huTractInlandDistance and huStudyRegionOptionTracts
- Dasymetric state data made available for download and use in the flood model. Currently Hazus assumed a uniform distribution of the built environment across a Census Block when performing damage analysis and loss estimation. Dasymetric data employs geospatial methods and the USGS 2014 National Land Use-Land Cover (LULC) data to remove undeveloped areas from census block analysis, focusing Hazus structural loss estimations only on areas where structures exist

3. Known Issues

- During testing of this service pack discrepancies between expected and observed loss values were noted when changing foundation types. The details and specific cause are being investigated and will be addressed with the next (Hazus 3.0) release later this year.
- A latent defect exists in the Hazus flood model which prevents Hazus from appropriately determining whether a riverine or coastal damage function should be used for a user-defined facility (UDF) in a combined riverine-coastal scenario. In some instances when working with UDFs, an incorrect default function may be applied to an individual facility. Two workarounds are available:
 - Determine the correct function ID (3-digit unique identifier) from the damage function library according to the UDF characteristics, and whether a riverine or coastal hazard is being applied. Specify the function ID in the provided column within the UDF data entry window. Confirm the specific occupancy of the function matches that of the UDF
 - In the damage function library, search for the desired depth damage function. Select this function (selected function will display in green in the preview window above the list of functions). Selected functions will also appear highlighted in yellow on the Structure/Contents/Inventory summary tabs. Hazus will apply the selected functions to the UDF list. Confirm the specific occupancy of the function matches those of the UDFs

- Dasymetric data are available only at the block level for use in the flood model only. Since the hurricane wind and earthquake model operate at the tract level, either data set may be used.
- To switch between homogeneous and dasymetric data, the Hazus registry must be updated to indicate the preferred dataset for aggregation. To change the default data type, open the Regedit program in Windows:
 - Navigate to: HKEY_LOCAL_MACHINE → SOFTWARE → Wow6423Node (if using a 64-bit machine) → FEMA → HAZUS-MH → General
 - Highlight the entry named DataPath1 and go to Edit → Modify
 - In the Value Data window, type C:\HanusData\Inventory\ for homogeneous data, or C:\HanusData\Inventory\Dasymetric\ for dasymetric data
 - **NOTE: The final backslash must be included for the data path name. Failing to include it will result in aggregation errors!**
- When aggregating study regions at the block level using dasymetric data, an increase in aggregation time may be experienced. This includes only applies to study regions aggregated at the Community, or Watershed levels. Some of these study regions may require several hours to complete.
- When using dasymetric data, some essential facilities may fall outside the dasymetric block/analysis area due to geocoding errors in the source database for these facilities. Locations of individual facilities may be manually adjusted to correct this if desired. For assistance, please contact the Hazus Help Desk: helpdesk@support.hazus.us
- Census blocks containing large percentages of water, which were removed from previous default Hazus data, will be included in this release.