

Disclosures

1. List the current ZIP Code databases used by the hurricane model and the hurricane model components to which they relate. Provide the effective (official United States Postal Service) dates corresponding to the ZIP Code databases.

The FPHLM uses 5-digit ZIP Codes distributed by zip-codes.com. The 5-digit ZIP Codes product constitutes a geographic data set that contains the boundaries for each 5-digit ZIP Code in the United States assigned by the U.S. Postal Service.

The ZIP Code data are updated monthly. The release we used in this submission has a vintage of 2017.04 (April 2017).

The ZIP Code data are used in the Wind Speed Correction and Insured Loss modules of the model.

2. Describe in detail how invalid ZIP Codes are handled.

For historical loss costs where street addresses are not available, we use contemporaneous ZIP Codes and associated population-based centroids to locate the exposure. The Wind Speed Correction module subsequently determines the current (2017) ZIP Code that contains the historical centroid, and the exposure is then modeled on the basis of the 2017 ZIP code centroid location. If a policy has a ZIP Code that cannot be found in the contemporaneous database of ZIP Codes, it is not modeled.

3. Describe the data, methods, and process used in the hurricane model to convert among street addresses, geocode locations (latitude-longitude), and ZIP Codes.

The FPHLM uses Street Map Premium for ArcGIS vintage 2018.R1 to geocode street addresses.

4. List and provide a brief description of each hurricane model ZIP Code-based database (e.g., ZIP Code centroids).

Population-based ZIP Code centroids and roughness. This database provides the ZIP Code centroid location and corresponding population-weighted roughness and distance to coast for each incoming wind direction octant.

Wind-borne Debris Region (WBDR) ZIP Codes. This database provides the lists of Florida ZIP Codes that fall within the WBDR specified by the Florida Building Code.

5. Describe the process for updating hurricane model ZIP Code-based databases.

~~The ZIP Code boundaries received from the vendor are checked and then the boundaries are used in the recalculation of the ZIP Code centroids, roughness, and distance to coast.~~