# Statewide Flood Risk Assessment Model

| Flood Model | Description |
|---|---|
| Software | **Hazus** (FEMA's GIS-based natural hazard software) |
| Utilities | FEMA's **Open Hazus Flood Loss Utility,** customized scripts, property search tools |
| Flood Event | Riverine Hazus Level-2 Detailed Analysis for **1% annual chance (100-YR) flood** |
| Depth Grids | Model-backed, 1% annual chance **depth grids** supplemented with Hazus depth grid |
| Building Stock | Enhanced **building stock** (User Defined Facilities) for estimated 98,315 primary structures |
| Building Attributes:<br><br>Tax Assessment Records | • 1.4 million **property tax parcels** (Tax Year 2025)<br><br>• 186 Assessment Land Use Codes classified to **33 Hazus Specific Occupancy Classes** and further generalized to Residential / Non-Residential categories<br><br>• 8 Assessment Basement categories classified to **7 Hazus Foundation Types** and First Floor Height values<br><br>• **User-Defined Modified Values** override Assessment Default Values (occupancy, foundation, first floor height, building year, building value, area) for (1) blank attribute values, (2) one-to-many, parcel-structure relationships, and (3) tax map identifier issues such as parcel geometry misalignments or assessment attributed in different parcel |
| Key Reference Layers | Key reference layers for building inventory: **E-911 addresses,** leaf-off **aerial imagery** |
| Building ID | Unique **Building Identifier** (GIS parcel ID + Address No.) assigned to each structure |
| Geographic Scales | Statewide, 11 Regions, 55 counties, 284 communities (229 incorporated places and 55 unincorporated areas), 33 watersheds, 463 named streams, and 298K parcels and 98K primary structures in high-risk flood zones |
| Risk Outputs | • **Property-Level Assessment Tools**:  WV Flood Tool's RiskMAP View, WV Risk Explorer's Building-Level Assessment Tools<br><br>• **Aggregate-Level Assessment Tools**:  WV Risk Explorer's Maps and Reports<br><br>• **Other Tools**:  Flood Visualizations, Dashboards, Hazard Library, Data Download |