**DATA INPUTS**

(1) Flood Studies

* Floodplain Boundaries
	+ Regulatory
	+ Non-Regulatory
* Depth Grids
	+ HEC-RAS (Model-Backed)
	+ Hazus Level 1
	+ Other

(2) Building Inventory for Physical Damage Estimates (Enhanced UDF)

* Building Value
* Occupancy Class / Land Use Code
* Foundation Type / First Floor Height
* Stories

(3) Other Data Tables: Community, Watershed/Stream, Building Inventory, Building Damage Reports, Historical, etc.

Various data tables are stored in a relational database and geographic information system called the Flood Risk Assessment GIS (FRAGIS).

Community-level information is linked by FEMA CID; building-level information linked by Building ID (GIS Parcel ID + Address No.)

**BUILDING ACCURACY IMPROVEMENT**

* (1) GIS Specialists use desktop GIS software to (1) pinpoint building location to most restrictive flood zone, (2) match building points to correct assessment records, (3) identify insurable primary structures, (4) identify critical facilities, historical structures, government buildings, (5) complete missing building attributes, and (6) modify default assessment building values with user-supplied values (Cost, Area, Occupancy Class, etc.)
* Building Location: Move building points within structure footprint to most restrictive flood zone and highest water depth
* Initial Building Identifiers: Full E-911 Address, GIS Parcel ID, Owner Name
* Key Building Attributes:
	+ Type: primary, accessory, other
	+ Cost: primarily market appraisal value
	+ Building Area
	+ Building Occupancy Class
	+ Foundation Type / First Floor Height
	+ Number of Stories
	+ Property Class (R, F, C, I, A, U, X)
	+ Special Building Types (essential facilities, historical, government owned or leased, etc.)
* GIS Reference Layers: The following GIS Reference Layers are used to improve the location accuracy and building attributes: E-911 Addresses, Parcels/Attributes, Imagery, Elevation Certificates, Building Footprints, and other building reference databases.

**DATA OUTPUTS**

* Community-Level Data and Reports
* Building-Level Data and Reports
* Flood Analysis
	+ Physical Building Damage
	+ People Displacement
	+ Building-level debris
* Incorporate into local and state hazard mitigation plans
* Incorporate into flood regulation management activities
* 3D flood visualizations
* Community profiles (web dashboards)
* Published to WV Flood Tool’s RiskMAP View

**FIELD ACCURACY VERIFICATION AND IMPROVEMENTS**

Verify building-level assessments and provide modifications and edits to master GIS database known as Flood Risk Assessment GIS (FRAGIS).

The target audience for verification is the community floodplain managers but coordination with local planners, emergency management officials, community leaders, etc. is encouraged

Reports and data are provided in GIS or interactive web application formats for editing in either desktop or mobile environments