Island Creek winds its way through Logan County, from Horsepen Mountain to the Guyandotte River

Top Rivers with highest building counts are Island Creek (1,112), Buffalo Creek (944), and Guyandotte River (322)

Island Creek ranks 1st for the number of buildings in the floodway, with 632 structures, and holds a cumulative Flood Index Score of 98% for 8 risk factors.

It is ranked 4th among 156 streams in West Virginia with 100 or more structures.

There are 1,112 buildings located in the Island Creek area, with a total value of $53.839 million.

In addition to the residential buildings, numerous infrastructures, including community assets and roads, will be inundated during flooding.

For example, the Word of Life Church, which has a high value of $1.4 million, is expected to experience water rise up to 8.1 feet, approximately the height of a one-story building.

During a 100-year flood event, a section of the railroad bridge crossing over Copperas Mine Fork will be inundated, with water depths reaching approximately 13.9 feet

Additionally, a section of Holden Road, where another bridge crosses over Copperas Mine Fork, will experience water depths of up to 11.4 feet during a flood event.

Commercial buildings situated on the north side of Holden Road are expected to experience an average water depth of 12 feet. This significant water depth is due to their vulnerable location along Copperas Mine Fork and within the Floodway.

In the Copperas Mine Fork area, there are 158 buildings located in the floodway, with a building density of 51.1. The cumulative Flood Index Score, based on 8 risk factors, is 81.2%.

A section of West Virginia Route 44 (Jerry Highway), specifically the bridge over Island Creek, faces the potential for water levels to rise up to 19.8 feet during a flood event.

In general, Logan County ranks in the top 10% of the 55 counties in terms of the extent and ratio of flooded roads, with 14.6% of its road mileage affected.

Additionally, approximately 42% of public bridges in the county are expected to be inundated.

Due to narrow river valleys, development is confined to high-risk floodplains.

Logan County has a high ratio of mobile homes in the floodplain, with 35.5% of its mobile homes affected. Out of 4,871 single-family dwellings in the floodplain, 1,729 are mobile homes

This mobile home park, located along Island Creek on West Jerry Highway in the unincorporated area of Logan County, is acutely vulnerable.

All 38 mobile homes in this park are situated entirely within the Floodway, placing them at significant risk during flood events.

Nearly all of the structures have been elevated by at least 3 feet. However, not all of them are equipped with flood vents.

Logan County ranks first among the 55 counties in West Virginia for the Building Exposure Category, making it crucial to implement effective flood mitigation policies for this area.

Given its high vulnerability, these measures are essential to reduce potential flood damage and enhance community resilience.