Defining Flooding Probability Risk for Structures

The objective of this analysis is to identify structures that are at the greatest risk of flooding from any type of event during a 30-year time period. The Flood Risk Products include a 30-year-percent-chance grid to identify the risk of flooding during a 30-year period, which is the common term of a mortgage.

The outcomes of this analysis can help local officials communicate with homeowners about their flood risk and encourage participation in the National Flood Insurance Program. If the analysis is presented visually through maps, homeowners and flood risk reduction partners will be able to see the probability of flooding to better identify the areas of higher risk.

A similar analysis can also be performed using the 1%-annual-chance grid. The instructions for the analysis is similar, but the output using the 1%-annual-chance grid will better illustrate the impact of this type of flooding event, which aligns with the Special Flood Hazard Area, on all structures in the community.

INSTRUCTIONS

1. ***Identify GIS data***, including building footprints of structures and parcel owner and attribute information in the community and FEMA Depth and Analysis Grids.

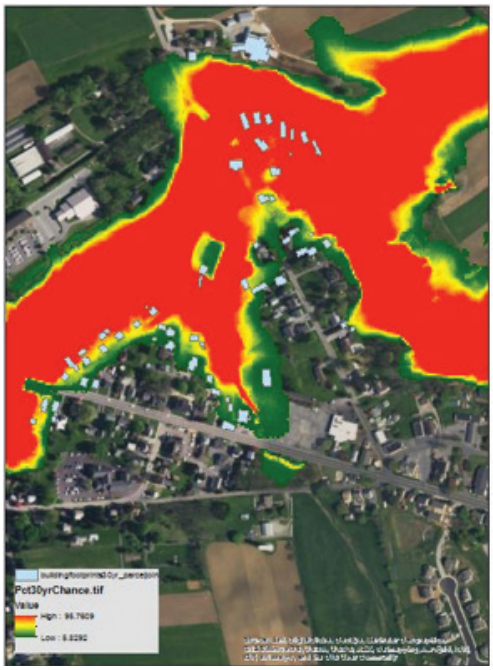
2. Use ArcMap "Zonal Statistics as Table" tool to ***calculate the*** maximum, minimum, average, or range of the ***amount or probability of flooding*** for each building.

3. ***Join the output table to the spatial building footprint layer*** by using the "Join attributes from a table" function and selecting the FID as the field the join is based on.

4. ***Export*** the joined layer as a "File and Personal Geodatabase feature classes" ***to the geodatabase***. Allow for this new layer to remain in your working map.

5. ***Perform a spatial join*** to attach the building footprints to the existing owner information in the parcel layer. By doing so, all this information will become visible in one attribute table.

6. Analyze the findings to ***determine the structures at greatest risk for frequent or damaging floods*** and develop a communication plan for ensuring the owners of these structures are aware of their full risk.



Note: *The outcomes of this analysis can be used to communicate the risk of damage from flooding through visual or written means during meetings, in public awareness campaigns, or through direct mail or contact.*

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