

Supplementary information

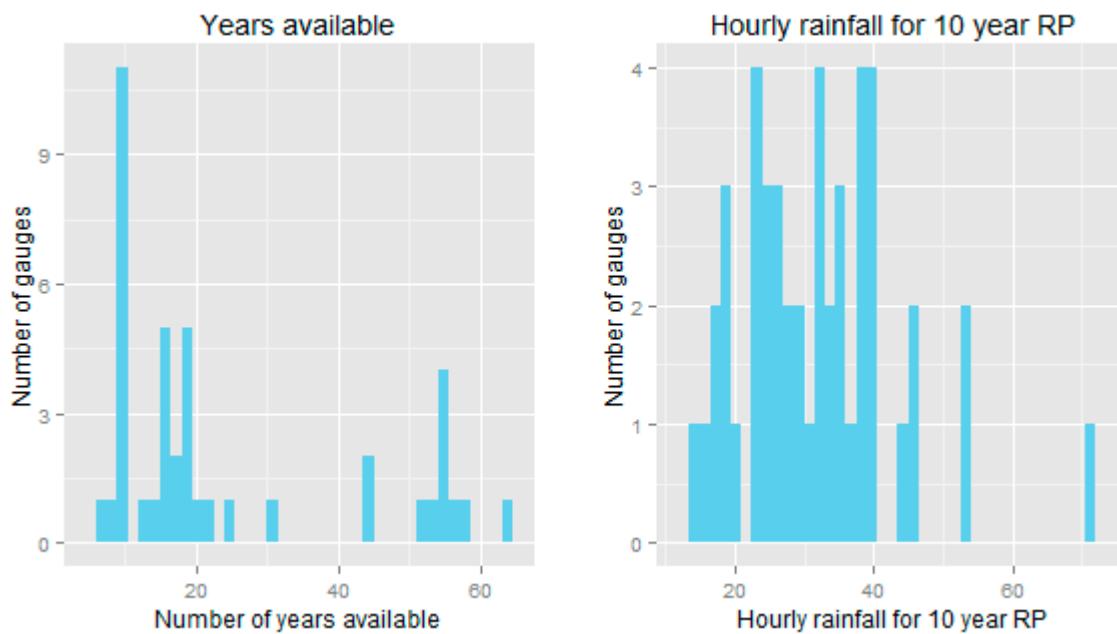


Figure S1. Number of years available for each gauge (left) and distribution of 10 year return period hourly rainfall (right).

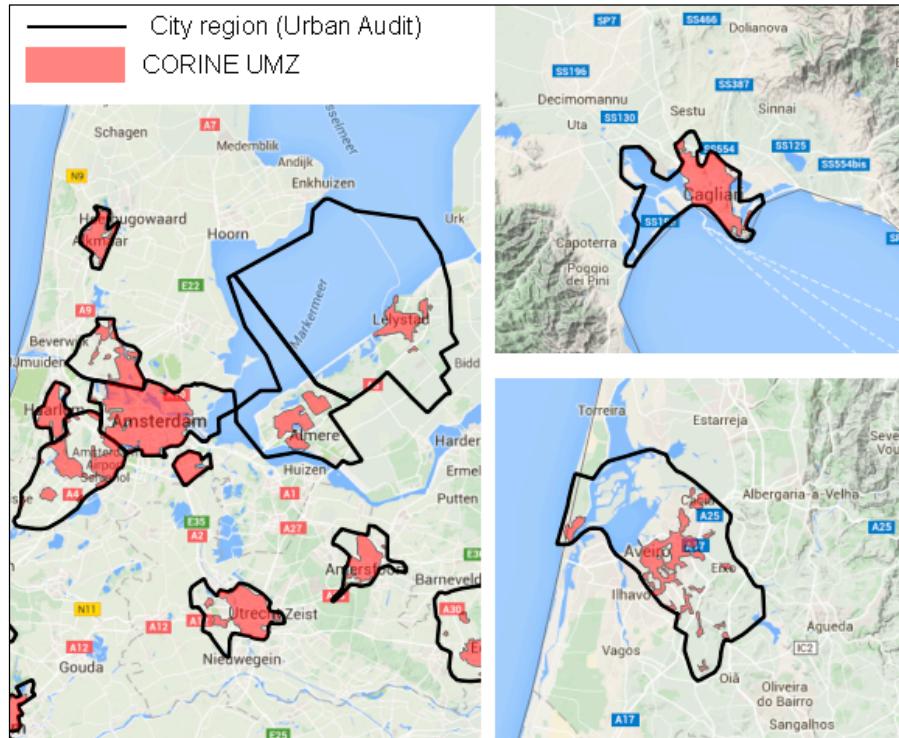


Figure S2. Examples of different definitions of “city”. In black is the “city region” as defined in the Urban Audit dataset, in red the Urban Morphological zones calculated based on CORINE. On the left several cities in the Amsterdam (NL002C)

area are shown, the top-right shows Cagliari (IT027C) and the bottom right map shows Aveiro (PT008C).

Figure S3. [See attached PDF] Cities pluvial flood impact functions – percentage of city flooded (meaning a height of water above 5cm) per rainfall event.

Figure S4. [See attached PDF] Cities pluvial flood impact functions – percentage of city flooded (meaning a height of water above 50cm) per rainfall event.

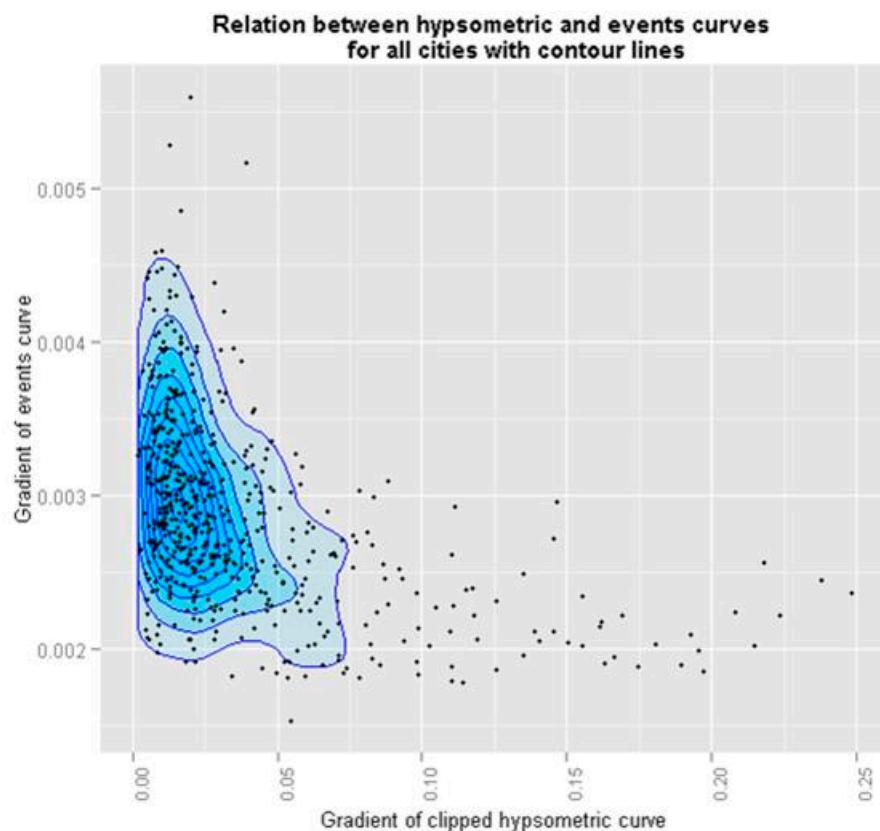


Figure S5. Relationship between the gradients of the clipped hypsometric curves and the gradient of the pluvial flood impact functions for each city. Contour lines were added (in blue) to help the perception of point density which was not clear with the 571 points.