

## ***Interactive comment on “Maximizing the usefulness of flood risk assessment for the River Vistula in Warsaw” by A. Kiczko et al.***

### **Anonymous Referee #2**

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Very important and seldom analyzed problem of flood risk assessment for the River Vistula in Warsaw is presented in the paper. The topic of the study is relevant to NHESS, the paper is brief and well structured. It is also scientifically sounded and the appropriate references to literature are included.

My comments/remarks that should be addressed are as follow: \* Kiczko et al. wrote that the aim of this work is an analysis of the influence of model simplification on flood inundation mapping . . . (p. 2698, row 13-14). It is not clear what kind of model simplification do they mean? \* A citation is required when they wrote that “The roughness is parameterised from available observed historical flood waves (p. 2700; row 4-5). \* Closer explanation is expected for the term “design flood wave” (i.e. p 2703 row 8) as the FFA is conducted only on the base of annual peak discharges. \* Please correct  
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the numbers on p. 2704 row 12 “ $p = 0.1$  or  $p = 0.01$ , equivalent to 100 yr or 1000 yr flood” (for “10 yr or 100 yr flood”). \* The value of river width of 7500 m at 507 km of the Vistula River needs to be checked as it seems to be too large (p. 2706 row 5). \* The expression of “the amplitude of the flood wave” (p. 2707 row 8) is not clear and should be explained. \* The FFA presented on the p. 2707 row 12+ should also specified from which period the annual peak discharges has been taken for the analyse, as well as why discharge data from only 90 years has been considered as it is widely known that period of hydrological observation in Warsaw is over 200 years. \* It is suggested to replace the expression “probability of occurrence” (i.e. p. 2698 row 27-28) by probability of exceedence. \* Please specify closer the institution - Water Resources Council (WRC) p.2708 row 1. \* Please specify the discharge(s) for which validation of the MSS model on 2010 yr flood event (presented on Fig. 4) has been conducted.

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