

Supplementary Materials: Locating Spatial Opportunities for Nature-Based Solutions: A River Landscape Application

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Table S1. Land Use permeability distinction.

Criteria	Land Use
Permeable	Sport and recreation, cemetery, train track, agriculture, vegetation, forest, meadow, wetland, open vegetation-less area.
Impermeable (sealed)	Built-up areas (housing, transport, trade and industry), landfill, construction.

Table S2. Comparison of HLU criteria with other referenced classifications and methods [14,30,34].

Our Criteria	Our Approach	Referenced Approach 1: Rosgen River Classification	Referenced Approach 2: Montgomery and Buffington Stream Classification	Referenced Approach 3: Haase & Gläser 2009
Soil	Organic and alluvial	Gravel to silt-clay (channel material)	Fluvial Sediments* General classification: 0.2–0.001,	Flood loam sediments**
Topography	Relief energy (slope) ≤ 0.03	General classification: >0.1 –0.005, Flatter valley morphology: 0.04–0.005	Flatter valley morphology (Braided to plane-bed rivers): 0.001–0.03	0–0.05
Hydrology	Distance to river ≤ 5 km (includes bankfull discharge, valley morphology and flood risk estimations)	Not specified since classification refers to rivers and not the floodplain.	N/A (Idem)	Urban delimitation
Advantages/Disadvantages	Advantage: Our approach has the advantage of using functional criteria for HLU delineation as a first and rapid assessment of potential sites for NBS. Disadvantage: The method we apply is not detailed enough to support actual implementation, but needs to be amended with additional analyses at later stages of the actual planning process.	Advantage: While the focus is on river, the classification is inclusive of the floodplain and valley morphology which substantiates the three HLU criteria. Disadvantage: No specific indication of river distance.	Idem	Advantage: Includes remnant floodplain criteria. Disadvantage: Urban focus, thus river distance is not specified.

* sediment transported by water. ** fine-grained material, remnants of rivers.

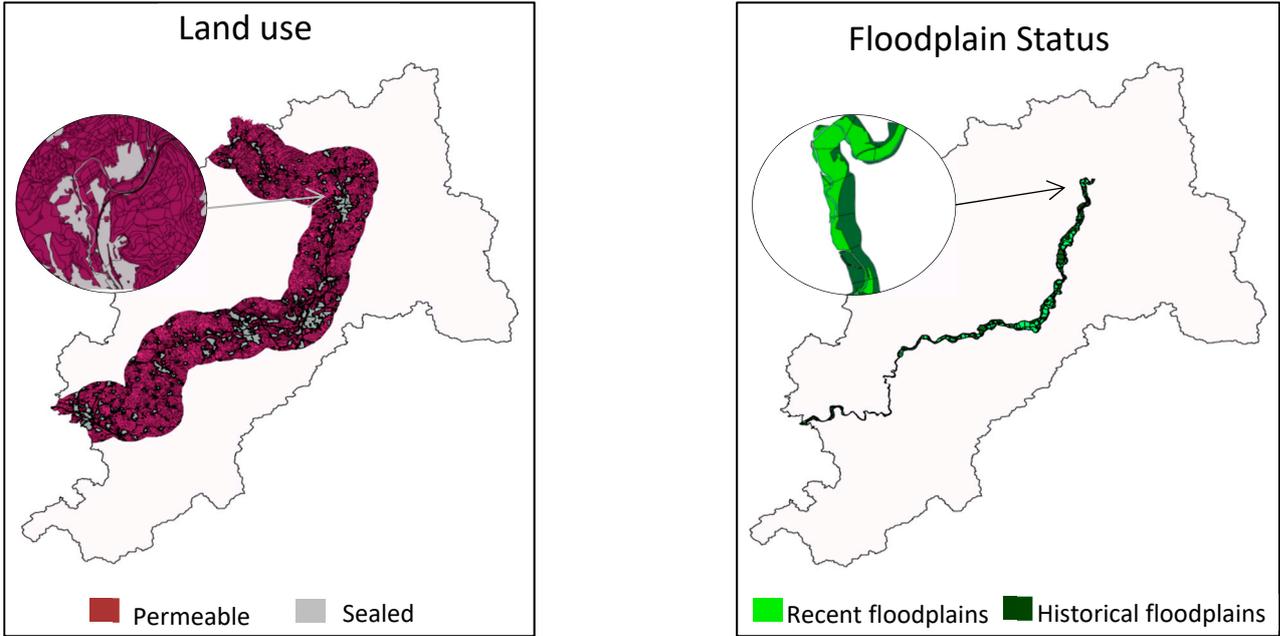


Figure S1. Differentiation of land use and historical floodplain status visualized.