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Reference condition of river reaches for restoration: Oiartzun and Oria basins (Gipuzkoa)

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The development and application of a methodology for the identification of the morphological reference condition and target image for river restoration is presented. The methodology started with the identification of the geomorphological homogeneous river reaches. Two reach-making processes were developed; one based on crossed variables by GIS tools and a second more exhaustive, basin level and based on fieldwork data. Based on data the hydrogeomorphological status of each reach in relation to its "natural" condition has been assessed. This assessment was used to allocate each reach to another with a good or very good hydrogeomorphological condition which it was considered its reference condition. Finally target images were proposed for each reach, as well as feasible geomorphological restoration measures, taking into account the sociodemographical pressure that implies most of the hydromorphological pressures and impacts, and the active channel evolution and land use changes on the basin.