Abstract

The research aims to compose planning scenarios for Master Plan using measures of environmental recovering to control of urban drainage at the scale of an ungauged basin selected. Hydrologic simulations are assessed by the implementation of several measures as: a) indirect impacts of rain water use system in the urban lot, b) urban arborization, c) detention reservoir, d) permeability coefficient and complementary measures at micro and macro drainage. The methodology uses regionally-based nested basins (MENDIONDO e TUCCI, 1997) with a classification of land-use in years: 1962, 1972 and 1998. Results will offer directive to new urban achievements and water policies. Environmental passive situations (diagnosis) at the basin scale justify experimental studies in nested urban micro-basins. The simulations involve retrospective scenarios through 40 years, present state (1998) and prospective scenarios of 15 years with and without Master Plan. Criteria adopted result in best management practices (BMP’s) in water pollution and foresee recovery of hydrologic environmental functions. Analysis of uncertainties of hydrologic estimations to different antecedent moisture conditions through the $CN$ parameter is also presented and discussed. From these results it is recommended to assess new planning scenarios that aim experimental study, thereby looking forward to proposing new concepts of rain water use, i.e. by using micro reservoir at domiciliary lot. These scenarios are to be depicted into the hydrologic uncertainties at basins without data especially addressing the PUB program - Predictions in Ungauged Basins (SIVAPALAN et al, 2003). **Key-words:** Environmental recovery, urban basins, hydrologic simulation, rain water use, planning scenarios, Master Plan.