

Management of Urban Watering: A Study of Appliance of Technologies and Legislation in Goiania, Brazil

Authors : Vinicius Marzall, Jussanã Milograna

Abstract : The urban drainwatering remains a major challenge for most of the Brazilian cities. Not so different of the most part, Goiania, a state capital located in Midwest of the country has few legislations about the subject matter and only one registered solution of compensative techniques for drainwater. This paper clam to show some solutions which are adopted in other Brazilian cities with consolidated legislation, suggesting technics about detention tanks in a building sit. This study analyzed and compared the legislation of Curitiba, Porto Alegre e Sao Paulo, with the actual legislation and politics of Goiania. After this, were created models with adopted data for dimensioning the size of detention tanks using the envelope curve method considering synthetic series for intense precipitations and building sits between 250 m² and 600 m², with an impermeabilization tax of 50%. The results showed great differences between the legislation of Goiania and the documentation of the others cities analyzed, like the number of techniques for drainwatering applied to the reality of the cities, educational actions to awareness the population about care the water courses and political management by having a specified funds for drainwater subjects, for example. Besides, the use of detention tank showed itself practicable, have seen that the occupation of the tank is minor than 3% of the building sit, whatever the size of the terrain, granting the exit flow to pre-occupational taxes in extreme rainfall events. Also, was developed a linear equation to measure the detention tank based in the size of the building sit in Goiania, making simpler the calculation and implementation for non-specialized people.

Keywords : clean technology, legislation, rainwater management, urban drainwater

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