Almacenamiento de agua de lluvia en medios urbanos utilizando techos verdes [

2020

text (article)

Analítica

This article discusses the use of green roofs as rainfall water storage in its soil matrix. The methodology is analytical based on mathematical models, where runoff produced in an urban area is compared with current conditions of ordinary roofs with ceramic or bituminous materials as the original scenario, against another where green roofs are used. The study area is located in the Palavecino municipality of Lara state in Venezuela, in the flood zone of Quebrada Tabure. In this research, a quantitative comparison of the direct runoff hydrographs of the proposed scenarios was used, obtaining as a main result the reduction of runoff between 60% and 80% according to the period of return. An interesting point of this research was the incorporation of the routing of hydrographs on the roofs, reducing even more the peak flow over 90%, and delaying the peak time of the generated hydrographs between 10 and 12 minutes while the total duration of the hydrographs increase more than three times
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Editorial: 2020

Tipo Audiovisual: Green roofs runoff hydrographs peak flow rainwater storage routing hydrographs Techos verdes escorrentía hidrogramas caudal pico almacenamiento de agua de lluvia tránsito de hidrogramas Telhados verdes escoamento hidrográficos pico de fluxo armazenamento de águas pluviais hidrográficos de encaminhamento

Documento fuente: La Granja: Revista de Ciencias de la Vida, ISSN 1390-3799, Vol. 32, Nº. 2, 2020, pags. 54-71

Nota general: application/pdf

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Lengua: Spanish

Enlace a fuente de información: La Granja: Revista de Ciencias de la Vida, ISSN 1390-3799, Vol. 32, Nº. 2, 2020, pags. 54-71

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