



Evaluation of the permeable facilities at hillside area to attenuate peak flow under climate change scenarios

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The report of Intergovernmental Panel on Climate Change, IPCC, expected rainfall would be concentrated into more intense events. In addition, extreme rainfall events result in more flash floods from higher peak flow that could cause significant damage to people's life and property.

Associated with the recurrence intervals of two years, five years, ten years, twenty-five years, fifty years, one hundred years and two hundred years calculated by Modified Triangular Unit Hydrograph Method, this study evaluated the performance of permeable pavement, grassed waterways, and detention ponds to reduce peak flow under varying precipitation at hillside area. To verify the feasibility of permeable facilities at hillside area, the test spot would be Xinguang Residential Community.