

SWMM 모형을 이용한 서암동지구에서의 유출수 저감을 위한  
저영향개발기법 적용

Apply Low Impact Development for the reduction of runoff using  
SWMM model

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**Abstract**

Urbanization increases impervious area and decreases the water quantity infiltrating into soil layers. This leads to lack of ground water, it could be possibly problematic for agricultural water for crop growth in lower basins, reducing not only ground water but also streamflow quantities. One such approach to minimize the impact of urbanization is to apply low impact developments (LIDs). LIDs are to decrease the percentage of impervious area so that infiltration rate is increased, there is a need to simulate the LIDs prior to the construction. LIDs in Storm Water Management Model (SWMM) are limited to be seven types, however it is often required to simulate LIDs more than seven types. Therefore an approach to apply eleven LIDs is provided in the study, updating the model parameters. A scenario containing eleven LIDs was given by the environmental decision makers, the effect of LIDs were simulated with the expected annual costs considering establishment and maintenance costs.

*Key words:* Low Impact Development, Runoff reduction, SWMM, Urbanization  
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