

## Impacts of channel deposition on the risk of flooding in a watershed

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Taiwan is located in East Asian where is always hit by typhoons. Typhoons usually bring huge amounts of rainfall and result in the problems of channel deposition. Deposition influences the functions of channel and increases the risk of flooding. The Luliao Reservoir Watershed is the case area in this study. It is the major water source for agricultural activity and domestic use. The objective of this study is to assess the possible impacts of channel deposition on the watershed environment. This study applies the Storm Water Management Model (SWMM) to predict the hydrologic responses and evaluate the risk of flooding. The results show that the decrease of cross section induced by deposition in a channel may increase the risk of flooding and impact the safety of watershed environment. Therefore, canal desilting is important in channel regulation. The discussion and analysis can be useful references for channel regulation.