

49256 - FLOOD ESTIMATION

ASSIGNMENT 3

In the previous assignment, an at-site flood frequency analysis was undertaken for the Powells Creek catchment located at Strathfield in Sydney's Inner West and the IFD for the centroid of the catchment was determined. For this assignment, you are required to use these results.

SWMM is a catchment modelling system that can be used to determine design flood quantiles in predominately urban areas. For this assignment you are required to determine design flood quantiles for AEPs of 1 in 20 year, and 1 in 100 year using the approach outlined in ARR2016/9.

For this assignment, IFD data can be downloaded from the BoM web site (www.bom.gov.au) while the temporal patterns can be downloaded from the ARR Data hub (<http://data.arr-software.org/>).

A calibrated model is available. In this model, the gauging station is located on "Link 116".

Any assumptions needed to develop the design flood quantiles need to be discussed in the assignment report.