Modelling

Published

In previous assignments, an at-site flood frequency analysis was undertaken for the Powells Creek catchment located at Strathfield in Sydney's Inner West, and the RFFE tool was used to obtain a regional method estimate. For this assignment, you are required to use catchment modelling to generate a third estimate.

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 years, and 1 in 100 years using the approach outlined in ARR2016/9.

For this assignment, IFD data can be downloaded from the BoM website (**www.bom.gov.au (http://www.bom.gov.au)**) while the temporal patterns can be downloaded from the ARR Datahub (**http://data.arr-software.org (http://data.arr-software.org)**).

A calibrated model is available - the model is contained in two files. In this model, the gauging station is located on "Link 116".

971007_SW5.INP (https://canvas.uts.edu.au/courses/30708/files/6357164?wrap=1) (https://canvas.uts.edu.au/courses/30708/files/6357164/download?download_frd=1) and **971007_SW5.ini (https://canvas.uts.edu.au/courses/30708/files/6357166?wrap=1) (https://canvas.uts.edu.au/courses/30708/files/6357166/download?download_frd=1)**

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

49256 Assignment 3 - 2020.pdf (https://canvas.uts.edu.au/courses/30708/files/6357184/download?wrap=1) (https://canvas.uts.edu.au/courses/30708/files/6357184/download?download_frd=1)

Guidance on SWMM is available in the following document

SWMM.pdf (https://canvas.uts.edu.au/courses/30708/files/6357191/download?wrap=1) (https://canvas.uts.edu.au/courses/30708/files/6357191/download?download_frd=1)

The rubric that will be used in the assessment is given in the following file.

Assignment 3 RUBIC.pdf (https://canvas.uts.edu.au/courses/30708/files/6357179/download?wrap=1)
(https://canvas.uts.edu.au/courses/30708/files/6357179/download?download_frd=1)

Points	20
Submitting	a file upload
Allowed Attempts	2

Due	For	Available from	Until
Apr 23	Everyone	-	-