

10 - Automated Flood Frequency Analysis for Ireland

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Abstract

Most applications of extreme flood estimation methodologies in Ireland are for single specific sites. These are usually performed for the purposes of design of structures in or near watercourses such as flood relief schemes, bridges or infrastructural developments. However, there is a recognised need for nationwide estimation of extreme flood magnitudes for other purposes such as estimating stream power along rivers, provision of flood forecasting alert thresholds for ungauged locations, and initial estimates of flood magnitudes for checking design calculations. These require continuous estimates of design flood magnitudes along rivers from source to sea. This paper presents the techniques and approaches that have been applied to produce a Flood Frequency Atlas for Irish Rivers. This Q-T Atlas provides users with an initial estimate of the median annual flood (QMED) and the associated flood growth factors for all locations in Ireland.

Full paper script to follow!