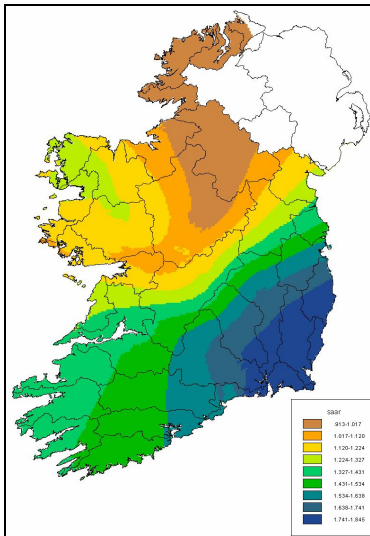


# Flood Studies Update: Work Package 2.3 – Estimation of the Index Flood At Ungauged Sites

**Category:** Flood Risk Management



Geographical distribution of Standard Period Average Annual Rainfall (SAAR)

## **Description:**

Work-Package 2.3 of the Flood Studies Update Programme has the objective of providing a method of estimating the Index Flood at ungauged sites throughout the country. The Index Flood which is the median flood ( $Q_{med}$ ) can then be used as a multiplier to estimate flows for different specified return periods. The core of WP2.3 research is to develop a model to allow estimates of the index flood to be made from physical catchment descriptors. The classical approach to develop a multiplicative formula by linear regression on log-transformed variables is being used in this research.

The outputs from Work Package 2.3 will include the following:

- Evaluation of possible techniques / methodologies for index flood estimation
- Detailed description of recommended approach for estimating the index flood at any site
- Assessment of uncertainty / extent of extrapolation of methodology
- Recommendations for implementation of the methodology in mapping of the index flood, and in the digital dissemination of FSU tools
- Recommendations for updated index flood estimation methodologies.

For further information about this work, please contact: [oliver.nicholson@opw.ie](mailto:oliver.nicholson@opw.ie)



### **Design Team:**

The OPW is responsible for the specification, procurement and direct management of the Flood Studies Update Programme, with technical direction provided by a Technical Steering Group, comprising representatives of the primary state / semi-state organisations involved with hydrology, hydrometric monitoring and associated research in Ireland, viz. OPW, Met Éireann, Environmental Protection Agency, Electricity Supply Board, IHP / ICID National Committee, and has two technical experts.

### **Construction Team:**

Research Contractor: Irish Climate and Analysis Research UnitS (ICARUS)  
National University of Ireland Maynooth.  
<http://geography.nuim.ie/ICARUS/>  
Project supervisor Professor John Sweeney  
Main Researcher: Dr. Conor Murphy

### **Dates:**

Work Package 2.3 of the Flood Studies Update Programme was completed in May 2009.