

**IMPORTANT DISCLAIMER, LICENCE, GUIDANCE NOTES, STATEMENTS,
CONDITIONS OF USE AND USER DECLARATION FOR THE FLOOD STUDIES
UPDATE (FSU) WEB PORTAL
(TERMS AND CONDITIONS)
(Revision 4.3.2 dated 13th May 2014)**

1. INTRODUCTION

Please read the disclaimer, licence, guidance notes, statements, conditions of use and user declaration (henceforth collectively referred to as the terms and conditions) below carefully to avoid incorrect interpretation of the information, methodologies and data provided on the Flood Studies Update (FSU) Web Portal. The FSU Web Portal must be used only in conjunction with these terms and conditions, and must not be used in isolation.

Users should take account of the restrictions and limitations relating to the content and use of the FSU Web Portal that are explained in the following sections of this document. It is a condition of use of the FSU Web Portal that you read carefully and accept these terms and conditions. By clicking on the 'Accept' button below you are confirming your acceptance of the terms and conditions.

The FSU Web Portal has been developed for use by competent hydrologists and meteorologists who are familiar with hydrological and meteorological techniques. Whilst the FSU methodologies are preferred for use in Ireland, the Commissioners of Public Works in Ireland (henceforth referred to as the Commissioners) have not approved any instruction that their use be made mandatory for particular applications.

Whilst every effort has been made to ensure that the FSU Web Portal is functioning to the highest standards and is fit for its intended purpose it is probable that there will be bugs or deficiencies with the Portal that were not detected during the very comprehensive alpha and beta testing stages of development. For this reason the Office of Public Works (OPW) will undertake an evaluation following the first six months after the launch of the Portal to confirm that it is functioning as intended and expected. In this regard if you believe that any information, methodology, tools, document or data available on the FSU Web Portal may be materially inaccurate or misleading in any respect please send full details to the OPW by using the email address provided in the section entitled 'FSU WEB PORTAL CONTACTS' or alternatively by using the 'helpdesk' link on the home page. You should also use this email address if you wish to contribute any flood event data or if you wish to otherwise comment on the general performance of the FSU Web Portal or your experiences of using it which might be helpful in identifying future improvements or upgrades of the Portal.

2. DISCLAIMER

The Commissioners make no representations, warranties or undertakings about any of the information provided on the FSU Web Portal including, without limitation, their accuracy, completeness or quality or fitness for any particular purpose.

To the fullest extent permitted by applicable law, neither the State, the Commissioners nor any of its members, officers, associates, consultants, employees, affiliates, servants, agents or other representatives shall be liable for loss or damage arising out of, or in connection with, the use of, or

the inability to use, the information provided in the FSU Web Portal including, but not limited to, indirect or consequential loss or damages, loss of data, income, profit, or opportunity, loss of, or damage to, property and claims of third parties, even if the Commissioners have been advised of the possibility of such loss or damages, or such loss or damages were reasonably foreseeable.

The Commissioners reserve the right to change the content and/or presentation of any of the information provided on the FSU Web Portal at their sole discretion, including these terms and conditions.

All information, methodologies, tools, documents and data available on the FSU Web Portal is provided on a best efforts basis - the Commissioners will endeavour to maintain data availability, but do not guarantee continuity of services. It is the responsibility of the user to ensure that the information, methodologies, tools, documents and data, if used, are accurate and fit for purpose and are independently verified and quality controlled.

The Commissioners do not accept responsibility for the use of any information, methodologies, tools, documents or data available on the FSU Web Portal either downloaded, read or interpreted or used in any way by the user, or that which is passed to a third party, and do not accept liability for any damage or loss howsoever arising out of the use or interpretation of this information, methodologies, tools or data.

The Commissioners reserve the right to reprocess the information, methodologies, tools, documents and data in the FSU Web Portal as they deem necessary.

The Commissioners do not represent or warrant that the functions contained in the FSU Web Portal will be uninterrupted or error-free, that any defects will be corrected, or that this FSU Web Portal or the server that makes it available are free of viruses or other harmful components. Neither do they make any warranties or representations regarding the correctness, accuracy, adequacy, usefulness, timeliness, reliability or otherwise of the information, methodologies, tools, documents or data on the FSU Web Portal.

The Commissioners shall not be liable or responsible for the performance of a structure, the design of which is based upon the output of the FSU Web Portal nor shall they be liable or responsible for inaccuracies in the output resulting from any use of the methodologies, information, tools, documents or data provided on the FSU Web Portal.

The Commissioners accept no liability whatsoever for any loss or damage suffered by the user of the methodologies, information, tools, documents or data provided on the FSU Web Portal or for any damage suffered by any third parties as a result of errors or inaccuracies in these methodologies, information, tools, documents or data or their respective outputs.

3. LICENCE

The information, methodologies, tools, documents and data available on the FSU Web Portal together with the outputs from downloadable software are made available under PSI General Licence No.: 2005/08/01 or any updated licence, see <http://psi.gov.ie/files/2010/03/PSI-Licence.pdf>

For the avoidance of doubt, downloadable software that is provided in a compiled binary format remains copyright of the Commissioners or that of our licensors (in the case of pre-existing

components of the Portal which were the prior property of our licensors) and is subject to a separate Software Licence Agreement.

4. GUIDANCE NOTES

Note: For a definition of technical terms referred to in these guidance notes refer to the relevant glossary of the TRR Volumes that are downloadable from the Documents page of the FSU Web Portal. Users of the FSU Web Portal should also note that Google Chrome Version 34.0.1847.116m and Mozilla Firefox ESR 10.0.4 are the preferred browsers to be used.

4.1 Brief Description of the FSU Web Portal

The FSU Programme is a research and development, programme undertaken by the OPW, to provide improved methods of extreme rainfall and flood estimation at both gauged and ungauged locations in the Republic of Ireland. It is a substantial update of a prior programme of study called the Flood Studies Report (FSR) (NERC, 1975), which was undertaken in the early 1970s by organisations in Ireland and the United Kingdom (UK) to provide methodologies for flood estimation in Great Britain and Ireland. In the UK, the Flood Estimation Handbook (FEH) (Institute of Hydrology, 1999) has superseded the FSR.

The Joint Irish National Committees of UNESCO's International Hydrological Programme (IHP) and of the International Commission for Irrigation and Drainage (ICID) passed a recommendation that a similar review and update of the FSR methodologies should be undertaken in Ireland. In September 2004, the Irish Government approved the Report of the Flood Policy Review Group, which included a recommendation for an update of the FSR for Ireland.

The FSU is being made available as a free-to-use web-based rainfall and flood estimation tool. Its use will be of practical importance in the areas of flood risk management, flood mapping, and flood relief design work in the Republic of Ireland. It will be used by the OPW, Local Authorities, and private sector practitioners and will be continually applied and referred to by professionals working in the area of flood risk assessment and management in Ireland.

The FSU Web Portal facilitates the estimation of flood flows, extreme rainfall depths, and other hydrological variables, for thousands of river locations in the Republic of Ireland. These locations have been identified by placing node-points at 500m centres along the entire Irish river network (blueline river network). The FSU Web Portal allows users to estimate (a) extreme rainfall depths, (b) peak flood flow rates, and (c) flood flow hydrographs (time-series of flow), using a series of algorithms and node-specific parameters. There are approximately 134,000 such nodes on the blueline river network, and the node-specific parameters for each of these nodes have been prepared (herein referred to as "physical catchment descriptors" or "PCDs"). While almost 30 PCDs, expressed as numerical values, were developed for each node point, the current FSU methodologies use 10 of these.

There is a strong element of geospatial analysis in the work undertaken to develop the PCDs and flood estimation methodologies. The FSU Web Portal provides users with a geospatial/GIS-based search tool to find their location(s) of interest, to view the spatial characteristics of the contributing catchment area and to view background mapping.

The methodologies (computational algorithms, formulae, techniques and processes) required for estimating extreme rainfall depths, peak flood flow rates and flood flow hydrographs have been

fully developed and tested. To undertake a full analysis at any node point, a number of computational algorithms are required.

There are five key areas for which extreme rainfall and flood estimation computational methodologies have been developed, namely:

- Rainfall depth-duration-frequency (DDF) analysis;
- Estimation of the index flood at ungauged locations;
- Flood frequency analysis (and flood growth curve analysis);
- Flood hydrograph width analysis (HWA);
- Interactive Bridge Invoking the Design Event Method (IBIDEM).

The research work to develop the methodologies for such rainfall and flood estimation was broken up into a series of themed Work Groups (WGs) and these were further sub-divided into Work Packages (WPs). Each of these Work Packages included as its output a Research Report. These Research Reports have been edited into a series of Technical Research Reports (TRR) that comprises 6 Volumes. The TRR Volumes are available in pdf format on the FSU Web Portal. In addition to this, and more significantly, the outputs from some of the Research Reports are implemented in the FSU Web Portal in the form of rainfall and flood estimation tools.

4.2 How to use the FSU Web Portal

Guidance on how to use the FSU Web Portal is contained in the FSU Guidance Handbook (FGH) which is downloadable in pdf format from the 'Documents' page of the FSU Web Portal. Further guidance is provided to the user in the form of an On-screen Stepwise Guidance (OSG). The OSG may be accessed by clicking on the help buttons that are provided at each stage of the calculation process to reveal the text of the OSG for that specific step. Further links are also provided within the OSG that bring the user to the relevant sections of the TRR Volumes.

4.3 Data Types

The various types of data that are available on the FSU Web Portal are outlined below, together with particular points that should be noted in relation to potential problems with data reliability.

4.3.1 Annual Maxima Values

These are the highest recorded water levels or estimated flows in each available hydrometric year of record. A hydrometric year runs from 1st October in the given year to the 30th September the following year (e.g. the hydrometric year 2000 runs from 1st October 2000 to 30th September 2001).

There may be gaps in the record due to recorder malfunction, missing charts, etc. It is therefore possible that the water levels (and estimated flows) in any given year may have exceeded the maximum value given for that year, and indeed that the maximum given for the period of record may have been exceeded during that period.

The majority of estimated annual maxima flows have been derived from extrapolated ratings. Where this is the case, the data may be erroneous and should be treated with caution.

4.3.2 Median Annual Maximum (QMED) Values (Summary Statistics)

QMED values are the median values of the Annual Maximum flow series as calculated over a period of full years. It should be noted that the values might be skewed under the following circumstances:

- The period of record was abnormally wet or dry,

- Significant gaps in the records have occurred during low or high flow periods,
- Inappropriate extrapolation of ratings has been used (flow data only).

5. STATEMENTS AND CONDITIONS OF USE

By accessing and using the FSU Web Portal you are agreeing to be bound by these terms and conditions and our privacy policy. If you do not accept these terms and conditions and privacy policy, you should not use this Portal. These terms and conditions may be varied from time to time without notice by posting updated revisions with a new effective date. Your continued use of the FSU Web Portal after such a posted revision constitutes your acceptance of these revised conditions. Users should review these terms and conditions regularly to make sure that they are aware of the current version.

5.1 Statement regarding software available from the fsu web portal

5.1.1 Any software that is made available to download from the FSU Web Portal is copyright of the Commissioners. Use of the Software is governed by the terms of the Software Licence Agreement. An end user will be unable to install any Software that is accompanied by or includes a Software Licence Agreement, unless he or she first agrees to be bound by the Software Licence Agreement. The Software is made available for downloading solely for use by end users according to the Software Licence Agreement. Any reproduction or redistribution of the Software not in accordance with the Software Licence Agreement is expressly prohibited.

5.1.2 Without limiting the foregoing, copying or reproduction of the software to any other server or location for further reproduction or redistribution is expressly prohibited.

5.1.3 The Commissioners hereby disclaim all warranties and conditions with regard to the software, including all implied warranties and conditions of merchantability, fitness for a particular purpose, title and non-infringement.

5.1.4 In no event shall the Commissioners be liable for any damages whatsoever incurred including special, indirect, or consequential damages whether in an action of contract, negligence or other tortious action, arising out of or in connection with the use or performance of software available from the FSU Web Portal.

5.1.5 All relevant Software Licence Agreements relating to software downloaded from the FSU Web Portal are contained in the accompanying software documentation associated with such software.

5.2 Statement regarding third-party links

5.2.1 The FSU Web Portal may link to other websites operated by third parties. Where these linked sites are not under the control of the Commissioners, then the Commissioners are not responsible for the content of any such linked site or any link contained in such a linked site, or any changes or updates to such sites. Those websites may have separate terms and conditions of use and/or privacy and data collection practices. These linked websites are included for your convenience and are therefore accessed by you at your own risk. The inclusion of any such link does not imply endorsement by the Commissioners of the linked site or its contents.

5.3 Statement of copyright

5.3.1 The content of the FSU Web Portal, including but not limited to text, graphics or code, as a collective work is copyright of the Commissioners (save for any pre-existing components of the Portal which were the prior property of our licensors).

All trademarks, service marks and trade names used in the FSU Web Portal are the property of the Commissioners, or that of our licensors (in the case of pre-existing components of the Portal which were the prior property of our licensors).

5.4 Statement regarding collection of personal information - privacy policy

5.4.1 Personal information provided voluntarily

The Commissioners require you to provide personal information (e.g. your name, e-mail address, and other personal information) in order to gain access to and provide feedback concerning the FSU Web Portal.

The Commissioners respect the rights of all users of the FSU Web Portal and does not, as a general rule, collect personal information of any kind. Where a user voluntarily provides personal information in connection with gaining access to or giving feedback on the FSU Web Portal, such information will be used for research or analysis purposes only. For general web browsing no personal information is revealed to us, although certain statistical information is available to us via our Internet service provider. This information may include:

- The address of the server you are using
- The top-level domain name from which you access the Internet (e.g. .ie, .com, .org, etc.)
- The type of browser you are using
- The date and time you access the Portal
- The Internet address used to link to the Portal

Some of the above information is used to create summary statistics that allow us to quantify and assess the number of visitors to the FSU Web Portal, identify what pages are accessed most frequently and generally to help make the Portal more user-friendly.

This FSU Web Portal uses Google Analytics to help analyse how users use the site. This tool uses 'cookies', which are text files placed on your computer, to collect standard internet log information and visitor behaviour information in an anonymous form. The information generated about your use of the Portal (including your IP address) is transmitted to Google. This information is then used to evaluate visitors' use of the website and to compile statistical reports on website activity for the OPW.

The OPW does not use the statistical analytics tool to track or to collect any personally identifiable information of visitors to our site. No data gathered from this site is associated with any personally identifying information from any source as part of our use of the Google Analytics tool. Google does not associate your IP address with any other data held by Google. Neither the OPW nor Google link, or seek to link, an IP address with the identity of a computer user.

The Commissioners have requested your e-mail address for the purposes of registering you as a user. It will only be used for the purpose for which you have provided it and will not be added to any mailing list. The Commissioners may use the email provided to contact you individually or to contact a subset of users about matters directly related to the FSU Web Portal.

5.4.2 Cookies

The FSU Web Portal uses 'cookies' to track usage patterns and calculate system loads. See the OPW Privacy Statement for details at <http://www.opw.ie/privacy/>.

A cookie is a piece of information that an Internet Web Portal may send to your browser when you access information at that site. While the FSU Web Portal may use cookies, they will not be used to store confidential information, or to attempt to identify you.

6. USER DECLARATION

I have read in full, understand and accept all of these terms and conditions concerning the source, reliability and use of the information, methodologies, tools and data available on this FSU Web Portal.

I agree that the Commissioners of Public Works in Ireland ("the Commissioners") have the absolute right to reprocess, revise, add to, or remove any data available on this FSU Web Portal as they deem necessary, and that I will in no way hold them liable for any damage or cost incurred as a result of such acts.

I will use any data available on the FSU Web Portal in an appropriate and responsible manner and in accordance with the above terms and conditions.

I understand that the Commissioners do not guarantee the accuracy of any information, methodology, tools, documents or data available on the FSU Web Portal, or any site to which these pages connect and it is my responsibility to independently verify and quality control any of these information, methodology, tools, documents or data used and ensure that it is fit for use and purpose.

I further understand that the Commissioners shall have no liability to me for any loss or damage arising as a result of my use of or reliance on the FSU Web Portal.

I will not pass on any information, methodology, tools, documents or data used from the FSU Web Portal to any third party without ensuring that said party is fully aware of these terms and conditions.

I accept all responsibility for the use of any information, methodology, tools, documents or data available on the FSU Web Portal that is downloaded, read or interpreted or used in any way by myself, or that which is passed to a third party by myself, and will in no way hold the Commissioners of Public Works, its servants or agents liable for any damage or loss howsoever arising out of the use or interpretation of this information, methodology, tools, documents or data.

Do you accept all of the above terms and conditions?

ACCEPT

REJECT

7. FSU WEB PORTAL CONTACTS

Any user who has reason to believe that this FSU Web Portal may contain an error, or who wishes to contribute additional information, is requested to contact the OPW at the following address:

Flood Studies Update (FSU) Helpdesk,
Engineering Services,
Office of Public Works,
Jonathan Swift Street,
Trim,
Co. Meath,
Ireland.
email: fsuhelpdesk@opw.ie