NERC Centre for Ecology & Hydrology

National Hydrological Monitoring Programme

Provision of National Water Balance Data to Defra 2014

Acknowledgement

All data are provided the <u>National Hydrological Monitoring Programme</u> operated by the <u>Centre for Ecology & Hydrology</u> and the <u>British Geological Survey</u>, in collaboration with the <u>Met Office</u>.

General Description

This publication covers annual and seasonal outflow and rainfall estimates for the United Kingdom and its component countries since 1961.

These data are used by the National Hydrological Monitoring Programme to assess the nation's water balance and conduct regular analyse of the country's water situation. Annual (Water Year Oct – Sep), Winter (Dec – Feb) and Summer (Jun – Aug) estimates of rainfall and outflow are provided for the four component countries of the UK and the country as a whole. Data are provided for the full period of record currently available to the National Hydrological Monitoring Programme which, for England, Scotland and Wales is 1961-2013 and for Northern Ireland (and therefore the UK as a whole) is 1980-2013.

Outflow Data Details

Outflow figures represent estimates of the total runoff of water from the UK land surface to the sea, expressed as an average flow over the period in question.

The annual outflow figures are derived by the Centre for Ecology & Hydrology and are based on a network of index flow measurement stations carefully selected to be representative of the component parts of the UK. For each component country the combined outflows from the index stations are increased by a factor which has been modelled to account for the estimated outflows from the ungauged portion of the country. The use of a stable network of index gauging stations ensures that this methodology is particularly suited to identifying changes in national outflows over time. The river flow data used to calculate the national outflow series were provided by the National River Flow Archive, for further details see: http://www.ceh.ac.uk/data/nrfa

Rainfall Data Details

The annual rainfall figures for the component parts of the UK are computed from monthly totals routinely derived by The Met Office and are based on a dense network of raingauges distributed throughout the country. For further details see: http://www.metoffice.gov.uk/climate/uk/about/Monthly_gridded_datasets_UK.pdf