Manual River Flow Measurements (AfA205)

Dataset Description

Manual River Flow Measurements (also referred to as spot or instantaneous flows) is a dataset of flow measurements carried out by visits to river sites. This output contains the calculated flow for each gauging, rather than the detailed measurements and calculations used to produce it. The most common techniques measure velocities across a river's cross-section either with impellor-based current meters, or using Acoustic Doppler Current Profilers.

Data is held for:

- **Primary sites.** These are gaugings at permanent, continuous monitoring sites. Their main purpose is to check that the permanent site is calculating flows correctly.
- **Secondary sites.** These are gaugings at otherwise ungauged sites. They are intended as a record in themselves, where no other information is available). They may be one-off measurements or part of a planned programme.

Both primary and secondary gaugings provide a valuable spatial and temporal description of river flows across England and Wales

There are approximately 27,000 open sites. A few primary sites will have data from the 1960s to the present day.

High resolution (typically 15-minute) river flow information, from a network of permanent, continuous sites is held separately.

All requests can be difficult to extract, but we will not refuse any requests for fewer than 20 sites. Larger requests will be assessed against our normal procedures for refusals and charging.

Price Category: High

Attribute Name	Attribute Description
Site Name	Name of station from BIBER system
Site Number	Reference based on combination of letters and numbers [unique identifier]
Grid reference	British National Grid reference
River	Name of river on which site is located
Status	Confirmed /Unconfirmed. This is a Boolean field denoting whether data entry has been checked.
Quality	I.e. Good, Fair, Poor . This is an on-site assessment of the conditions during measurement. It is a subjective categorisation of confidence in the result by the gauger. Weed fouling an impellor, complex adjustments, turbulent flow etc would be reflected in a lower category.
Date Time	Time of gauging
Stage Start	Stage in stilling well (if relevant) at start of gauging
Stage End	Stage in stilling well (if relevant) at end of gauging
Mean Stage	Mean Stage in stilling well (if relevant) during gauging
Flow [m3/s]	Calculated flow in m3/sec
Width of River	Width of River at Gauging Point
Gauging Deviation [%]	Difference between manually gauged flow and calculated flow at gauging station for equivalent time. (Primary gaugings only).
Cross section[m2]	Channel cross section at gauging point
Mean Velocity [m/s]	Mean velocity in cross section

Attribute Name	Attribute Description
Wetted Perimeter [m]	Total wetted perimeter at gauging point
Mean Depth	Mean depth of cross section
Measurement Type	Gauging Technique, e.g. multi point or dilution
Calculation Method	Number of depth measurements at which velocity is recorded.
Parameter	Flow